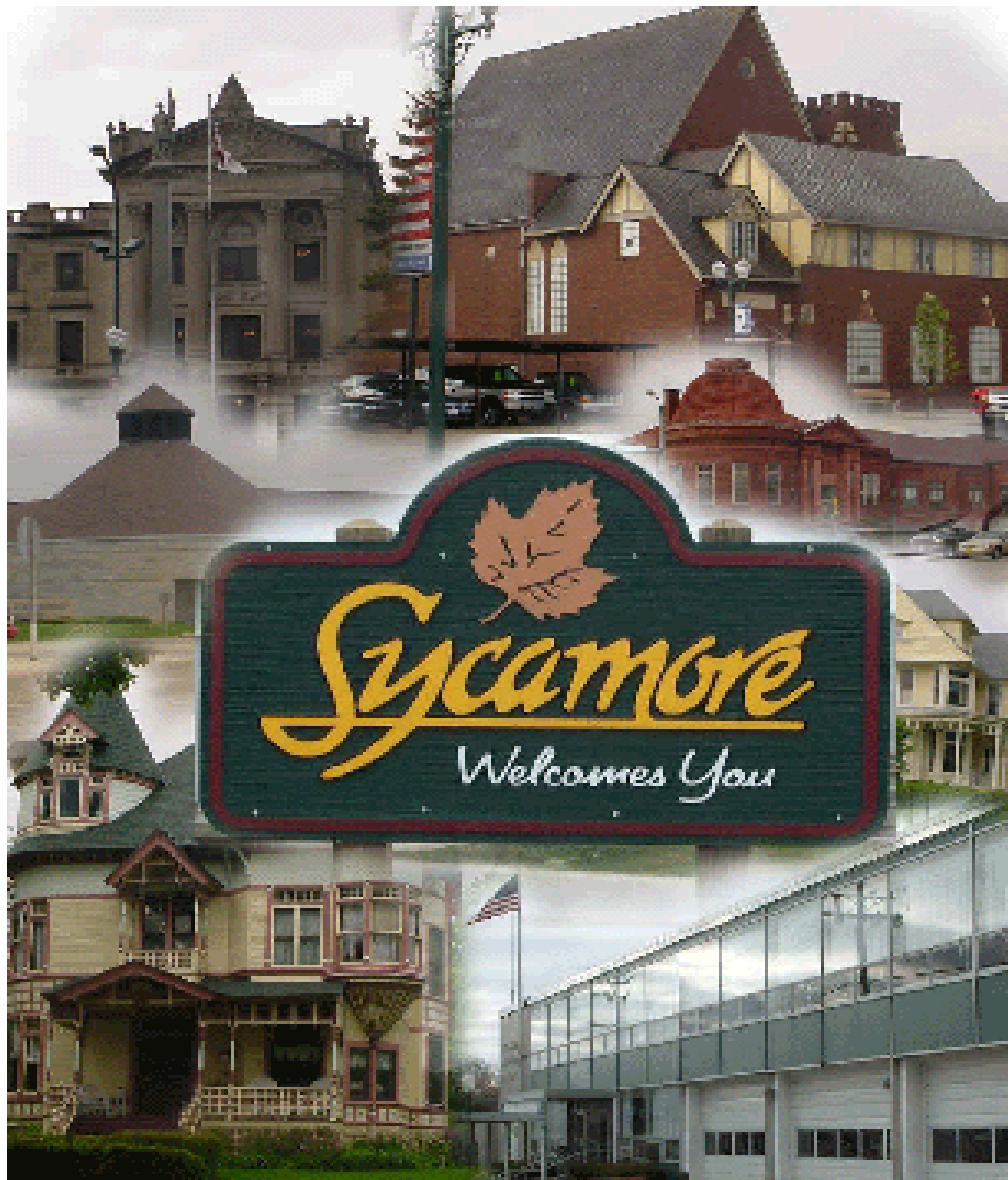


# 2007 Sycamore Housing Impact Analysis



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## **Introduction**

### **Background**

The State of Illinois has created the most fragmented system of local governance in the nation. Because of the sheer number of local governments providing services, the legislature cannot permit all of them the authority to manage the commercial and residential development process. To do so would require the coordination of too many elected boards and their staffs.

So the state has left management of local development to municipalities, which must make residential and commercial growth policy decisions on behalf of all local governmental units.

Most municipalities take this responsibility seriously because they know there are intended and unintended consequences that occur to the other local taxing districts as a result of municipalities' management of the commercial and residential development process.

Sycamore, Illinois is one such Illinois community where the city keenly recognizes its obligation to communicate with the other local governmental units. That is why this study has been initiated. The City of Sycamore must evaluate the current condition of the community and try to determine what will happen in the event of additional residential and commercial development.

This study will begin with an evaluation of the current financial status of each of the four most affected local governmental units in Sycamore; the park district, school district, library district and the city itself.

This study will then consider the subdivision ordinance that provides land or cash donations to the local governmental units. The study will present the residential development projects that have already been approved and project the financial contributions that each will have upon the property tax bases of each of them.

Occupancy levels of new homes, townhouses and condominiums will be determined, based on data the city has collected about occupancy levels of new residences that have come on line since the 2000 Census, the November 2005 Special Census that the city authorized, and a telephone survey of new residents of Sycamore conducted in March 2007 by Strategic Management Alliance (SMA).

In addition, based on a March 2007 SMA mail survey administered to existing housing stock which was sold over the past two years, occupancy levels will be determined to see if the population levels of existing community housing stock have changed due to existing empty-nesters moving to new homes and being replaced by families with children.

Based upon all of these population assessments, this analysis will predict the number of additional children and adults that the four local governmental units will be expected to serve as a result of new home construction in the period 2007-2015, including infill changes to the existing community. The analysis also will assess the costs that can be anticipated to accrue to each governmental unit as a result of this growth.

These additional costs will be calculated from an operating and capital cost perspective. The net effects on the operating and capital budgets of each of the local

governmental units and policy implications will guide the City of Sycamore into acting in the best interests of all concerned.

Throughout this process it should be noted that social science research is an inexact endeavor fraught with assumptions. Since assumptions can change, findings can change along with them.

### **Previous Research**

There are several conventional wisdoms regarding the economics of residential development. One holds that residential development does not pay for itself. Advocates of this general view suggest that for each dollar of tax money that new residences contribute, substantially more than a dollar in expenditures is required to provide local governmental services.

Another conventional wisdom holds that rooftops must come before commercial development. Advocates of this general view hold that any difference between the property taxes that new homes generate and the costs of serving their needs could be compensated for by taxes from additional commercial development.

These and other paradigms need to be tested through research such as this. When they are, their assumptions can be supported with population table estimates for residential housing based upon historical experience, which varies in different localities.

The growth paradigms are based upon the assumptions of occupancy levels of housing units. The tipping points at which new commercial developments occur is another assumption. The level of services that residential and commercial developments require is still another. And the most important, the level of taxes that homes and businesses can be expected to generate, is yet another.

Impact studies take different approaches and use different models. Some limit themselves to generating tables of impact fees that are derived from calculations based upon predicted occupancy levels, taxes that the home or business would be expected to generate and a number of other factors that are not always clear.

Other studies take a more qualitative approach where quality of life issues are identified and the impacts upon quality of life in the communities are evaluated. These studies assert that they are taking a more comprehensive approach because numbers do not always tell the whole story.

This study will take its own approach. Assumptions will be clearly stated, governmental needs will be considered from the view of the elected boards and public administrators, and then calculations will be presented in a transparent format for everyone to question.

This study is not intended to offer policy decisions. It is intended to provide information upon which the Sycamore City Council can make policy decisions.

At the very least, if nothing more comes from this study than information to help the Council and the community understand the effects of residential development on the four local governmental units in question, this study will have accomplished its primary goal.

## **Methodology**

The methodology used in this study will begin with qualitative analysis, utilizing archival data to present the current positions of the four local units of government. That information has been voluntarily provided by the four governmental units which are the subject of this analysis.

This study will also employ quantitative analysis from survey data to identify the occupancy levels of new and existing housing units in Sycamore, using independent samples T-testing to identify occupancy levels of adults and children in one, two, three four, and five bedroom condominiums, townhouses and single family detached homes.

In order to gather the data upon which statistical methods will be employed, the City of Sycamore has provided data from a survey that since June of 2004 it has routinely administered to people moving into new homes. In all, data from 1,009 homes have been made available.

To verify the accuracy of the City data, a telephone survey was administered to as many new homes as telephone numbers could be gathered. This survey was administered by the Northern Illinois Public Opinion Laboratory during late March of 2007 to a total of 161 homes where phone numbers were available. The response rate was 51.6%.

In addition, a mail survey questionnaire was administered as part of this study to people moving into existing homes to test the Transfer Tax model. Of the 222 homes that have paid the Transfer Tax during 2006 and early 2007, 54.5% of the households responded.

With the qualitative and quantitative data, the analysis portion of this study is as transparent as possible, with assumptions clearly stated so that there is no mystery about how conclusions are reached.

## **Community Overview**

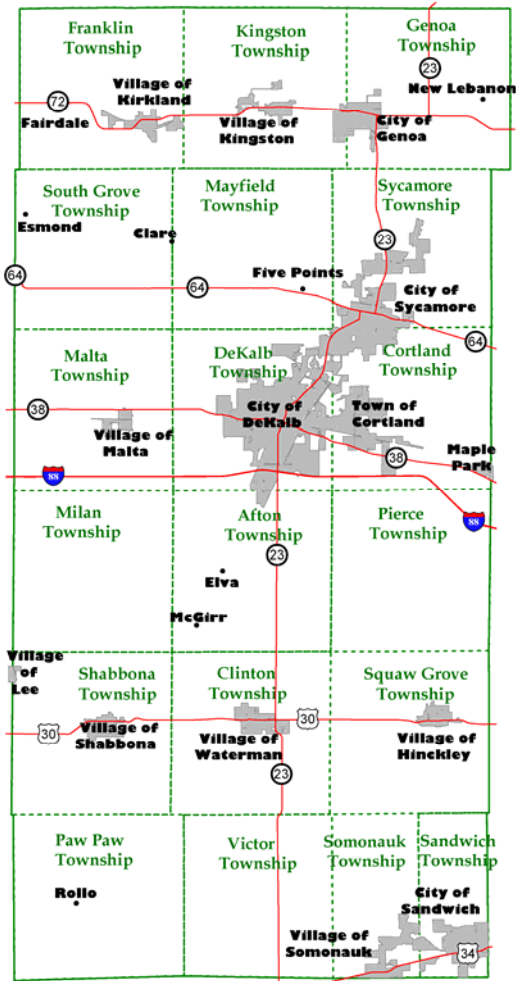
In 1858 Sycamore was incorporated as a village and in 1869 the community was organized as a city ([www.cityofsycamore.com](http://www.cityofsycamore.com), 2007). The City of Sycamore is the general purpose governmental unit providing the residents of Sycamore infrastructural

and other essential services including streets, sanitation, water, sewer, police and fire protection.

The City is also responsible for planning and to control zoning, which involves the management of commercial and residential development.

The City of Sycamore is operated under a council/manager form of governance. Council/manager structures of governance are similar to those of the school district, park district and public library in that the city manager answers to the entire council, including the mayor who is considered the council's presiding officer.

**Figure 1- Location Map of Governmental Units**



The map in *Figure 1* shows that the City of Sycamore is located within three townships. These are DeKalb, Cortland and Sycamore townships. While all of these townships would be affected by the developmental policies of the City of Sycamore, the determination of the effects upon them is outside the scope of this study.

Township government exists in Illinois primarily as a vehicle to provide township roads and bridges and poor relief. As townships become overlaid with municipalities, their tax bases tend to grow and their responsibilities diminish, due to the fact that municipalities convert township roads to city streets. Therefore, none of Sycamore's townships will be the focus of this study.

The School District, Park District, Public Library and City, which lie within the three townships, will be the focus of this study.

The 2000 Census reported the population of the City of Sycamore to be 12,020. According to the Special Census of 2005 contained in the Appendix of this study, the population of the City of Sycamore had grown to 14,866, representing a total growth rate of 23.6% and an annual average growth of 4.8% over the five-year period. The Sycamore Public Library is overseen by a board which is appointed by the mayor and approved by the city council, serving the same population.

The population within the Park District is slightly different because its boundaries are not exactly coterminous with those of the City. Specific population figures for the Park District are not available, however it will be assumed that since the Park District and City boundaries are generally coterminous, the population differences is not meaningful.

The School District is a different case. School District 427 boundaries go well beyond the city limits of Sycamore, westward past Clare and eastward including part of

Cortland. Because school district populations are also not specifically available as part of Census reports, consideration of the School District population is difficult to determine.

Fortunately, data that are more relevant and available are the specific annual enrollment numbers for the different school buildings. Those enrollments will be presented later in this study.

### **The Current Financial Status of Sycamore's Governmental Units**

The importance of considering the current status of the four local governmental units that are the subjects of this study is to understand how their operating budgets have been affected over the past ten years, where residential growth in Sycamore has been unprecedented.

To understand how growth has affected the financial conditions of Sycamore's local governmental units is to understand how future growth will affect Sycamore's local governmental units.

It would be intuitive to assume that some of the local governments may have benefited from growth and others may have been adversely affected. Growth tends to benefit cities and villages in Illinois because they are not as dependent on property taxes as school districts, which it is believed do not benefit from residential growth.

Regardless of how it is assumed that local governments, such as the School District are affected, the following section of this study will see how the local governments in Sycamore actually were affected.

# City of Sycamore

## ILLINOIS



### The Current Financial Condition of the City of Sycamore

A governmental unit's fiscal condition can be represented in two ways. The first is in terms of its operating needs and the second is in terms of its capital needs.

An indicator of the City of Sycamore's overall financial health is the statement of net assets for a given fiscal year, the equivalent of a business's balance sheet.

Since the City's financial report for the 2006-2007 Fiscal Year will not be available for a few months, the previous fiscal year report will be used to provide an understanding of the City's Financial Condition.

According to the Statement of Net Assets of April 30, 2006 Financial Report, the City of Sycamore had net financial assets in the following amounts:

**Table 1- City of Sycamore: Statement of Net Assets  
Fiscal Year Ending April 30, 2006**

	Governmental <u>Activities</u>	Business-Type <u>Activities</u>	Total Primary <u>Government</u>
Current and other assets	\$27,473,093	\$6,619,243	\$34,095,336
Capital assets	<u>18,210,789</u>	<u>4,407,804</u>	<u>22,618,593</u>
Total assets	\$45,686,882	\$11,027,047	\$56,713,929
Long term debt	\$16,247,059	\$185,461	\$16,432,520
Other liabilities	<u>4,603,878</u>	<u>95,779</u>	<u>4,699,657</u>
Total liabilities	\$20,850,937	\$281,240	\$21,132,177
Total net assets	\$24,835,945	\$10,745,807	\$35,581,752

The 2005-2006 Statement of Net Assets shows that the City of Sycamore is in a healthy financial condition, with net assets in government-type accounts of \$24.8 million and net assets in business-type accounts of \$10.7 million.

The 2005-2006 Statement of Net Assets also shows that the City is relatively liquid, with current assets valued at \$34 million, most of which are attributable to governmental activities which fund police, fire, public works, administrative and planning services. Business-type activities such as water and sanitary sewer services maintain lower assets in general.

Since part of the purpose of this study is to predict how the financial condition of the City of Sycamore will be affected by the additional residential growth that has been approved, a higher level of understanding of the City's financial condition is important.

In terms of its operating finances during the 2005-2006 Fiscal Year, the following table shows the changes in net assets during the May 1, 2005 to April 30, 2006 Fiscal Year as a means of portraying what led to the changes in the City's financial condition between the May 1, 2004-April 30, 2005 and May 1, 2005-April 30, 2006 fiscal years.

**Table 2- City of Sycamore: Changes in Net Assets  
Fiscal Year Ending April 30, 2006**

	<u>Governmental Activities</u>	<u>Business-Type Activities</u>	<u>Total Primary Government</u>
Revenues			
Charges for services	\$4,884,575	\$4,079,893	\$8,964,468
Operating grants and contributions	29,583	-	29,583
Property taxes	2,461,003	-	2,461,003
Other taxes	1,857,999	-	1,857,999
Intergovernmental	22,603,892	-	22,603,892
<u>Other general revenues</u>	<u>1,206,613</u>	<u>234,403</u>	<u>1,441,016</u>
Total revenues	\$33,043,665	\$4,314,296	\$37,357,961

Expenses			
General government	\$19,817,296	-	\$19,817,296
Public safety	4,841,964	-	4,841,964
Highways and streets	2,073,344	-	2,073,344
Development	405,376	-	405,376
Garbage	863,755	-	863,755
Interest on long-term debt	629,903	-	629,903
Unallocated depreciation	241,197	-	241,197
Water	-	1,021,893	1,021,893
Sewer	-	882,564	882,564
<b>Total expenses</b>	<b>28,872,835</b>	<b>1,904,457</b>	<b>30,777,292</b>
Excess before transfers	\$4,170,830	\$2,409,839	\$6,580,669

The changes in the net assets financial statement shows that the City of Sycamore improved its financial position during the fiscal year, with overall budget surpluses and growing net assets for the fiscal year ending April 30, 2006.

As mentioned, for the fiscal year beginning May 1, 2006 and ending April 30, 2007, the annual financial report will not be audited until well after the publication of this study. In the meantime, the City's most recent changes in its financial condition can be found in the monthly financial reports. One such report, made available for this study by the City, is the predicted final expenditures for the 2006-2007 Fiscal Year by department for the General Fund.

**Table 3- City of Sycamore: Predicted Expenditures by Department**

Dept.	05-06 Budget	06-07 Budget	07-08 Budget
Mayor/ Council	179,521	188,000	194,521
Admin.	411,838	464,443	505,828
Clerk	104,000	107,225	108,390
Police	2,338,173	2,588,487	2,789,985
Fire	1,784,492	1,953,182	2,171,788
Public Works	1,037,017	1,151,182	1,279,147
Engin.	225,926	234,180	240,400
Bldg/Zn	247,000	254,305	270,198
GenFd Support	3,487,606	3,403,200	4,002,441
Total	9,815,573	10,344,204	11,562,298
Estimated Revenue	9,846,808	10,586,213	11,58,972

The table shows that the City of Sycamore intends to increase spending by 11.8% in Fiscal Year 2007-8 over expenditures from the previous fiscal year, with estimated revenues projected as available to support those expenditures. This suggests the City is in a growing revenue position, with revenues growing faster than the rate of inflation.

In terms of sources of funds to support these services, the budget for the 2007-8 Fiscal Year shows the sources of these predicted revenues.

**Table 4- City of Sycamore: Sources of Predicted Revenues**

Property Taxes	\$1,859,148
Sales and Use Taxes	5,430,269
Licenses	71,466
Intergovernmental Revenue	1,527,510
Other Income	1,395,079
Transfers In	185,000
Service Charges	993,500
Fines	127,000
<b>Total revenues</b>	<b>\$11,588,972</b>

Considering general fund budget expenditures by categories, the following table compares the 2006-7 Fiscal Year expenditures to the predicted 2007-8 fiscal year.

**Table 5- City of Sycamore: Revenues Compared to Expenditures**

Category	FY06-07 Budget	FY07-08 Budget
Personnel	\$5,484,600	\$5,997,982
Commodities	\$371,075	\$381,075
Contractual Services	\$1,363,084	\$1,460,950
Other Services	\$2,736,990	\$3,134,941
Equipment	\$33,455	\$32,750
Permanent Improvement	\$0	\$0
Transfers Out	\$355,000	\$555,000
<b>Total</b>	<b>\$10,344,204</b>	<b>\$11,562,698</b>

The financial reports show that the City of Sycamore intends to increase expenditures on personnel by 9.4% in FY 2007-2008. By comparison, contractual services will increase by 7.2% and other services by 14.5%.

Analysis of the previous fiscal year revenues and expenditures provided in the previous tables, combined with the City's estimates of revenues and expenditures for the 2007-2008 Fiscal Year suggests that the City's current financial position is solid and that it expects its financial position to continue to improve.

This suggests that residential development that has occurred thus far has not adversely affected the City of Sycamore. Its statement of net assets appears to be healthy and its budget is balanced.

Part of the explanation for this lies in the sources of revenues available to the City. Dependence on property taxes is relatively low at 16% of the total revenues the City expects to generate in the 2007-2008 Fiscal Year. Sales and use taxes account for nearly half of the budget's revenues.

Population growth generates more revenues for the City. Economies of scale are created as the City grows in population. Municipal departments that provide public services are not as capital intensive. Tipping points to build new public facilities such as fire or police stations can be changed.

## The Sycamore Public Library

### **The Current Financial Status of the Public Library**

The Sycamore Public Library is an important entity of the City of Sycamore and, because it has shown a substantial increase in usage, it has been included in this study.

Like the City, the financial condition of the Public Library can be best described in terms of its financial statements. Again, because the Annual Financial Report for the 2006-2007 Fiscal Year will not be available for a few months, the balance sheet for the

Fiscal Year ending April 30, 2006 will be utilized to assess the Library's financial condition.

**Table 6- Public Library: Balance Sheet  
April 30, 2006**

Current Assets	
Cash	\$489,417.84
Investments	84,747.39
Total	\$574,565.23
Liabilities	
Restricted Funds	\$398,795.42
Mortgage Debt	253,437.97
Total	\$652,233.39
Fund Balance	(\$77,668.16)

The balance sheet for the Library suggests that the Sycamore Public Library has a fund deficit placing it in a relatively sensitive financial position. With \$574,565 in cash and investments, of which \$398,795 are restricted funds which are typically dedicated for specific purposes, the remaining \$175,799.81 is more than offset by the mortgage debt, leaving a fund balance of a negative \$77,688.

Another tool for assessing the financial condition of the Library is its budget comparison report, with revenues and expenditures from the 2005-2006 Fiscal Year, the budget and actual numbers for the 2006-2007 Fiscal Year and the predicted revenues and expenditures for the 2007-2008 Fiscal Year.

The budget and actual reports are presented on the following page, including the equalized assessed valuation for the Library and its levy rates.

**Table 7- Public Library Budget Comparisons**

Description	05-06 Actual	06-07 Budget	06-07 Estimate	FY 07-08 Estimate
Total Property Tax	612,633.24	661,180	661,180	714,074
Personal Property Replacement Tax	55,066.50	54,000	61,000	65,000
Restricted Funds Income	37,131.38	21,500	25,575	23,500
Per Capita Grant	29,815.61	16,800	16,800	18,189
Miscellaneous	10,326.20	7,641	7,641	8,685
Operations Income	34,004.92	32,700	37,900	36,900
Account Earnings (Interest)	12,909.75	13,000	16,553	16,000
Excess Funds Carryover	11,534.94	8,000	8,000	8,000
<b>Income Total</b>	<b>803,422.54</b>	<b>814,821</b>	<b>834,649</b>	<b>890,348</b>
PAYROLL	425,383.82	456,943	466,934	530,168
ADMINISTRATION	30,252.52	35,500	30,900	36,950
CONTRACTUAL FEES	29,151.13	38,081	31,806	29,805
TECHNOLOGY	39,607.12	50,095	35,706	25,450
ADULT MATERIALS	49,620.24	54,264	54,264	64,073
YOUTH MATERIALS	25,070.74	28,808	28,808	34,872
PERIODICALS	5,735.34	6,000	6,000	6,000
PROGRAMS	3,996.39	4,800	4,800	7,500
SUPPLIES	10,696.35	12,500	12,500	15,000
FURNISHINGS	29,580.08	29,800	29,800	30,630
MAINTENANCE	17,997.60	27,200	30,200	31,600
UTILITIES	13,374.45	15,500	15,500	20,600
MISCELLANEOUS	3,945.43	11,200	11,785	20,200
Mortgage Payment	37,463.52	37,500	37,500	37,500
<b>Total Expenditures</b>	<b>721,874.73</b>	<b>814,821</b>	<b>796,503</b>	<b>890,348</b>
IMPACT FEES INCOME	121,152.23	70,000	34,236	30,000
IMPACT FEES EXPENSE	0.00			
TOTAL IMPACT FEES AVAILABLE	135,287.52	205,468	169,524	199,524
CAPITAL IMPROVEMENT FUND		15,000	29,000	25,561
CAPITAL IMPROVEMENT EXPENSE	30,000	30,000	20,000	
TOTAL AVAILABLE IN FUND	62,164.32	47,164	65,164	72,725
Equalized Assesses Valuation	261,496,432	309,324,156	309,324,156	Actual: 359,225,508

LEVY RATES	05-06 Levy Rate	06-07 Levy Rate	07-08 Levy Rate
	Actual	Actual	Actual
OPERATING LEVY--	0.213280	0.19741	0.183674
IMRF LEVY --	0.010040	0.00699	0.006478
FICA/MEDICARE --	0.010330	0.00896	1.008129
AUDIT --	0.000480	0.00041	0.000501
Total Property Tax	0.234130	0.21377	0.198782

The report shows that the Sycamore Public Library expects to increase operating revenues during the 2006-2007 Fiscal Year by \$31,226 over the 2005-2006 Fiscal year. The report also shows that the Library expects to increase its operating expenses by \$74,628 between the same two periods.

The Library's budget comparison reports shows that the Library uses a conservative budget model, where it expects to break even on an annual basis, even though the report shows that the Library is generating modest surplus revenues.

Based on its budget model, the report shows that the Library will increase its revenue and expenditure estimates for the 2007-2008 Fiscal Year by 9.2%, based upon its expected 2006-2006 Fiscal Year performance, where it exceeded revenues and spent less than it budgeted.

The Library's budget comparison report also shows its estimates of impact fee income and property tax levies. These provide a glimpse at the anticipated tax rates that will support Library operations. Considering the growth in the tax base to support additional capital expansion and growth in that base to support operating expenditures, the Library's financial future is a question that needs to be considered through usage analysis.



### **The Current Financial Status of the Park District**

The Sycamore Park District is a special purpose governmental unit with boundaries more or less coterminous with the City of Sycamore. The District was organized in 1923 in an effort to build a community golf course and provide a community park to serve the outdoor recreation needs of Sycamore residents after receiving its first park donation of 113 acres from William McAllister in 1925.

Since 1925, the Park District has grown to include 15 park locations totaling over 500 acres. In addition to the parks, the District has constructed a community swimming pool, operates a community center and provides a full array of recreation programs, contributing substantially to the quality of life in Sycamore.

The Sycamore Park District recently adopted a new comprehensive plan visioning growth over the next five years and suggesting ways in which the district can meet the parks and recreation needs of the community during that period.

Among the plan's recommendations is the financial restructuring of the District. Since the adoption of the plan in January 2007, the Park District has adopted a new operating budget format that amends the fund structure and balances revenues against expenditures for each fund. Therefore, the 2007-2008 will serve as the basis for estimating the effects of residential growth upon the operations of the Park District.

The budget summary below presents a comparison of revenues to expenditures by fund for the Fiscal Year beginning January 1 through December 31, 2007. Since park districts have multiple tax levies and sources of revenues derived from various facility based operations, there are several funds to consider.

The first is the general fund, which supports administrative and park maintenance services. This fund is supported almost entirely by tax receipts, with a few additional sources of revenue available. All sources of revenue are presented on the following pages along with the expenditures associated with each fund's functions.

**Table 8- Sycamore Park District: General Fund**

**General Fund Revenues**

Property taxes	\$380,000
PP replacement taxes	42,000
Interest	500
Transfers from FICA/IMRF	41,796
Farm rentals	15,000
Shelter rentals	6,500
Misc.	1,000
<b>Total Revenues</b>	<b>\$486,796</b>

**Administrative Dept. Expenditures**

Salaries	\$176,642
Administrative expenditures	38,700
Support services	8,900
Maintenance equipment	250
Materials and supplies	1,600
Utilities	11,700
Insurance	48,350
FICA/IMRF	31,301

**Total Administrative Expenditures \$328,443**

<b>Park Dept. Expenditures</b>	
Salaries	\$59,228
Administrative support	1,900
Services	8,900
Maintenance and equipment	17,500
Materials and supplies	29,800
Utilities	7,600
Insurance	20,820
Tax on leased land	2,000
FICA/IMPRF	10,495
<b>Total Park Expenditures</b>	<b>\$158,243</b>

**Total General Fund Expenditures \$486,686**

Analysis of the general fund budget summary in Table 8 suggests that it is in balance for the fiscal year, but without substantial surpluses. As a property tax dependent fund, growth in the equalized assessed valuation is of concern to the Park District's recreation fund as it is to its recreation fund.

The recreation fund is supported by substantial property tax receipts but has other sources of revenue, including user fees for its sports complex service and program registration fees.

The recreation fund supports some administrative overhead, while providing services of sports complex usage to soccer, baseball and softball programs operated by non-profit organizations within the community.

The recreation fund also supports operations at its community center, which is a leased property in a commercial setting. The community center houses a fitness center and some of the instructional programs operated by the District. Since the community center does not have a gymnasium, indoor sports programs are operated at school sites.

The following is a summary of recreation fund sources and uses of money.

**Table 9- Sycamore Park District: Recreation Fund**

**Recreation Fund Revenues**

Property Taxes	\$450,000
Sports complex rentals	37,900
Community center memberships	29,000
Advertisement revenues	5,000
Program fees	102,000
Vending revenues	1,000
Interest	200
Transfers from FICA/IMRF	53,516
<b>Total Revenues</b>	<b>\$678,616</b>

**Administrative Department Expenditures**

Salaries	\$101,752
Administration	3,550
Utilities	2,550
Insurance	29,100
FICA/IMRF	18,030
<b>Total Admin. Expenditures</b>	<b>\$154,982</b>

**Sports Complex Expenditures**

Salaries	\$160,278
Services	5,800
Maintenance and equipment	7,600
Materials and supplies	37,050
Utilities	8,100
Insurance	37,850
FICA/IMRF	28,401
<b>Total Expenditures</b>	<b>\$285,079</b>

**Community Center Expenditures**

Salaries	\$92,600
Program services	28,000
Program supplies	21,700
Cleaning services	1,200
Maintenance and equipment	2,200
Maintenance supplies	5,800
Utilities	7,800
Rent	72,000
FICA	7,084
<b>Total Expenditures</b>	<b>\$238,384</b>

<b>Total Rec Fund Expenditures</b>	<b>\$678,446</b>
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Analysis of the recreation fund suggests that this fund is also budgeted with no surpluses that would allow the building of a fund balance. Residential growth would conceivably affect the Park District's recreation fund in two ways. Growth in the tax base should increase the level of tax receipts. Growth in the population should increase the number of participants in recreation programs, increasing program fees.

The Sycamore Golf Course is funded entirely through user fees without tax support. While the golf course fund is not a true enterprise fund, where depreciation and debt service would be departmental expenses, revenues are sufficient to cover nearly all of its expenditures.

**Table 10- Sycamore Park District: Golf Course Fund**

**Golf Course Fund Revenues**

Daily fees	\$183,000
League/permanent tee time fees	7,600
Lessons	13,200
Season passes	200,000
Cart rentals	123,000
Locker rental	950
Pro shop sales	92,000
Transfers from FICA/IMRF	54,063

**Total Revenues** **\$673,813**

**Golf Course Expenditures**

Salaries	\$321,720
Services	16,000
Supplies	12,150
Pro shop inventory	74,500
Maintenance services	5,700
Maintenance equipment	19,500
Maintenance supplies	74,500
Utilities	25,500
Insurance	60,400
FICA/IMRF	54,063
Misc.	12,700

**Total Golf Course Fund Expen.** **\$673,733**

Analysis of the golf course fund suggests that this fund is also marginally balanced, and not in a position to contribute to its fund balance.

Like the recreation fund, the golf course fund is sensitive to population growth. But it is also sensitive to demographic shifts in the percentages of people playing golf as well as the weather.

The swimming pool fund is also sensitive to demographic shifts and the weather. For the 2007 fiscal year, its revenues and expenditures are budgeted as follows.

**Table 11- Sycamore Park District: Swimming Pool Fund**

<b>Swimming Pool Revenues</b>	
Daily fees	\$25,200
Season passes	40,300
Rentals	2,100
Swimming lessons	14,000
Transfers from FICA/IMRF	4,437
<b>Total Revenues</b>	<b>\$86,037</b>
<b>Swimming Pool Expenditures</b>	
Wages	\$58,000
Supplies	4,200
Maintenance services	12,200
Utilities	17,800
FICA	4,437
<b>Total Swimming Pool Expen.</b>	<b>\$96,637</b>

Analysis of the swimming pool fund shows that it is currently budgeted to create a fund deficit of \$10,600. This suggests that, as a fee supported fund, additional swimming pool patrons would be welcomed as contributors to the daily fee and season pass revenues.

The last fund operated by the Park District is an internal service fund for the provision of concessions services throughout the District's three major facilities, the golf course, swimming pool and sports complex. This fund is entirely fee supported.

**Table 12- Sycamore Park District: Concession Fund**

**Concession Fund Revenues**

Sports Complex	\$36,000
Golf course	86,000
Swimming pool	16,000
Sponsorships	4,000
Transfers from FICA/IMRF	5,766

**Total Revenue \$146,766**

**Concession Fund Expenditures**

Salaries and wages	\$47,938
Supplies and inventory	63,100
Sales tax	10,450
Maintenance services	4,800
Utilities	5,500
Insurance	13,360
FICA/IMRF	5,766

**Total Concessions Expenditures \$150,914**

Analysis of the concessions fund suggests that it is anticipated to operate in a deficit of \$4,148 for the 2007 fiscal year. With golf course and swimming pool fees sensitive to demographics and the weather, it is probable that the concessions revenues from those facilities would fare accordingly.

Preliminary analysis of the Sycamore Park District's current financial position suggests that, if additional property tax revenues from residential growth would be able to support the additional park maintenance and administration needed to serve the needs of new residents, the additional population could prove to benefit fee-based operations. But

all this depends on the ability of the Park District to keep up with its capital needs to provide new parks for new subdivisions.

However, fee supported facilities such as the Sycamore Golf Course or Sycamore Swimming Pool would benefit from additional population growth. This determination is based upon the number of users that each facility has on an annual basis.

The Sycamore Golf Course accommodates about 24,000 rounds of golf per year. Its capacity could easily increase to 40,000 rounds, suggesting that there exists unused capacity.

The same is the case with the swimming pool, which accommodates about 22,000 visits per year and could accommodate at least 10,000 more, suggesting that there exists unused capacity in that facility as well.

Currently, the Sycamore Park District rents a commercial site as its community center site to house recreational activities. The community center could be described as modest at best. A new community center might be viable when the Park District population increases from its current 15,000 to a future population of 20,000.

However, a decision to construct a community center or make substantial improvements on it or other existing facilities would require approval by the taxpayers, which is itself a negotiated process.



**S**YCAMORE COMMUNITY SCHOOLS  
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## **The Enrollments of District 427 Schools**

Understanding the current condition of Sycamore School District 427 is more complicated than understanding the financial position of the City, Public Library, or Park District. To understand the School District there are operating and capital issues related to enrollment, as well as property tax, state and federal aid sources of revenues to consider, all of which complicate that understanding.

And since the boundaries of the School District go beyond the boundaries of the City of Sycamore, encompassing rural areas around Sycamore as well as incorporated areas within the Town of Cortland, calculations for enrollment of the entire district need to consider residential growth outside the City of Sycamore.

Considering residential growth outside the boundaries of Sycamore is beyond the scope of this study, which will consider only residential growth within the city, including its contributions to the tax base and the number of new children it will send to the School District. Therefore, impacts on the School District will be limited to analysis of residential growth within the city limits.

Considering demands upon facilities within Sycamore Schools, the following table provides the total number of children housed at each school as submitted to the Illinois Board of Education in the fall housing reports by District 427 over the past seven years. The seven-year period was selected because it represents the change that has occurred since the last Census.

**Table 13- District 427 Individual School Enrollments**

<b>Sycamore High School</b>	
2006-2007 School Year	1,176
2005-2006 School Year	1,150
2004-2005 School Year	1,101
2003-2004 School Year	1,075
2002-2003 School Year	1,049
2001-2002 School Year	1,008
2000-2001 School Year	1,005

<b>Sycamore Middle School</b>	
2006-2007 School Year	775
2005-2006 School Year	789
2004-2005 School Year	757
2003-2004 School Year	769
2002-2003 School Year	758
2001-2002 School Year	752
2000-2001 School Year	745

<b>North Elementary School</b>	
2006-2007 School Year	423
2005-2006 School Year	397
2004-2005 School Year	379
2003-2004 School Year	362
2002-2003 School Year	379
2001-2002 School Year	361
2000-2001 School Year	349

<b>Southeast Elementary School</b>	
2006-2007 School Year	438
2005-2006 School Year	410
2004-2005 School Year	393
2003-2004 School Year	373
2002-2003 School Year	330
2001-2002 School Year	321
2000-2001 School Year	317

<b>West Elementary School</b>	
2006-2007 School Year	324
2005-2006 School Year	293
2004-2005 School Year	290
2003-2004 School Year	258
2002-2003 School Year	252
2001-2002 School Year	270
2000-2001 School Year	297

**South Prairie Elementary School**

2006-2007 School Year	408
2005-2006 School Year	402
2004-2005 School Year	338
2003-2004 School Year	301
2002-2003 School Year	272
2001-2002 School Year	274
2000-2001 School Year	274

The total number of children housed at the six school facilities is presented in the following table. The percentage increase over the previous school year is also shown.

**Table 14- District 427 Total Enrollments**

<b>School Year</b>	<b>Total</b>	<b>Increase</b>
2006-2007 School Year	3,544	2.9%
2005-2006 School Year	3,441	5.6%
2004-2005 School Year	3,258	3.8%
2003-2004 School Year	3,138	3.2%
2002-2003 School Year	3,040	1.8%
2001-2002 School Year	2,986	0%
2000-2000 School Year	2,987	2.3%

Table 14 shows that the total enrollment numbers increased by an average of 2.8% per year. This average takes into consideration the 2001-2002 school year, where no growth occurred over the previous year and the 2005-2006 school year where 5.6% growth occurred over the previous year.

The enrollments show that school enrollment growth is not a smooth process. Some years a significant number of new students may arrive and other years no additional children may come.

To accommodate large influxes of students, the implication is that District 427 would need to have some slack in its facilities in order to accommodate large enrollment gains.

## The Current Financial Status of District 427

As discussed earlier in this study, there are two ways of viewing the financial conditions of governmental units. One way is in terms of its capital needs. The other is in terms of its operational needs.

Considering District 427's operational needs, the statement of net assets in the most recent annual financial reports provides a picture of the financial condition of the District at the end of June 2006. Because School District fiscal years typically beginning on July 1 and ending on June 30, this is the best perspective for this study to view the District's current financial condition, a condition that resulted from ten years of growth.

A summary of the statement of net assets is presented in Table 15.

**Table 15- District 427: Statement of Net Assets  
June 30, 2006**

<b>Assets</b>	<b>Governmental Activities</b>
Cash and investments	\$20,525,474
Restricted cash and investments	6,071,248
Receivables:	
Property taxes	9,795,203
Due from other governments	2,574,044
Accrued interest	154,697
Prepaid Items	1,413,125
Inventory	12,548
Capital Assets:	
Land	447,985
Construction in progress	117,118
Other assets, net of depreciation	<u>35,343,402</u>
Total Assets	\$76,454,844

<b>Liabilities</b>	<b>Governmental Activities</b>
Accounts payable	\$128,283
Accrued salaries	2,058,676
Accrued insurance claims	271,190
Non-current liabilities:	
Due within one year	2,717,440
Due in more than one year	<u>32,779,849</u>
 Total Liabilities	 \$37,955,438
 <b>Net Assets</b>	
Invested in capital assets, net of related debt	\$2,996,216
Restricted	2,994,476
Unrestricted	<u>32,508,714</u>
 Total Net Assets	 \$38,499,406

Analysis of the School District statement of net assets suggests that School District 427 has substantial net assets and is, therefore, in a relatively solid financial position overall.

With \$20.5 million in cash reserves, the District is in a position to cover its expenditures during the first half of the calendar year until it receives its property tax receipts in mid-June without requiring tax anticipation warrants to support expenditures. And with unrestricted net assets of \$32.5 million, the School District's debt to equity ratio is about 1, which in business would be considered strong.

A summary of the changes in FY06 net assets statement is provided in the next table. The complete report is contained in the Appendix of this study.

In the following table, comparisons are made between the 2005-2006 fiscal year and the fiscal year prior to that in order to provide a context to understand the changes.

**Table 16- District 427: Changes in Net Assets  
July 1, 2005- June 30, 2006**

<b>Revenues</b>	<b>2005</b>	<b>2006</b>	<b>% Change</b>
Program revenues	\$5,488,672	\$7,193,885	31.07%
General revenues	<u>27,096,883</u>	<u>28,169,125</u>	<u>3.96%</u>
<b>Total revenues</b>	<b>\$32,585,555</b>	<b>\$35,363,010</b>	<b>8.52%</b>
<b>Expenses</b>			
Program expenses	\$17,527,278	\$17,847,782	.34%
Support services	6,081,710	6,624,554	8.93%
Operations and Maintenance	5,715,549	5,835,730	2.10%
Interest and Finance Charges	<u>1,996,732</u>	<u>1,545,761</u>	<u>-22.59%</u>
<b>Total expenses</b>	<b>\$31,321,269</b>	<b>\$31,853,827</b>	<b>1.70%</b>
<b>Increase in Net Assets</b>	<b>\$1,264,286</b>	<b>\$3,509,183</b>	

Analysis of the changes in the net assets report suggests that School District 427 has been increasing its net assets over the past two fiscal years. Again, were the District a private corporation, increasing net assets would be tantamount to building corporate equity (net worth). However, since equity does not exist in the public sector, increasing net assets represents an overall strengthening of the balance sheet of the District, which is desirable.

How School District 427 is performing within each of its funds can best be illustrated by the fund budgets that its website provides. On this site, the District's direct revenues and direct expenditures for the 2006-2007 Fiscal Year are provided in summary format.

A summary of the total revenues and expenditures of major funds is presented in the following table taken from the District's website.

**Table 17- District 427: Operating Budget Summary  
2006-2007**

	<b>Education</b>	<b>Operations &amp; Maint.</b>	<b>Transportation</b>	<b>Working Cash</b>	<b>Total</b>
Direct Revenues	24,716,152	3,665,848	1,947,149	118,276	30,447,425
Direct Expenditures	25,415,169	3,375,001	2,328,842	0	31,119,012
Difference	(699,017)	290,847	(381,693)	118,276	(371,587)

The table shows that School District 428 expects to reduce the Education Fund balance by \$699,017 and the Transportation Fund balance by \$391,693 while increasing the Operations and Maintenance Fund balance by \$290,847 and the Working Cash Fund balance by \$118,276.

Analysis of School District 427’s budget suggests that during this current fiscal year the district is in a slight deficit mode. Considering growth in the number of students in the district over the past seven years, the current fiscal year budget may or may not be cause for concern. The issue would be the amount of revenues that the district would anticipate receiving to support its projected expenditures.

As shown in the changes in net assets report in the Appendix, School District revenues are derived primarily from two sources: local property taxes and state and federal aid provided on a per student basis. Property tax revenues are a function of the commercial, industrial and residential properties within its jurisdiction. Per capita state and federal aid is a function of the number of children attending the district’s schools and the formula that applies to that district.

This study will not attempt to forecast state and federal aid over the next decade. It will attempt to forecast growth in the equalized assessed valuation of District 427 as it relates to growth in the residential, commercial and industrial tax base.

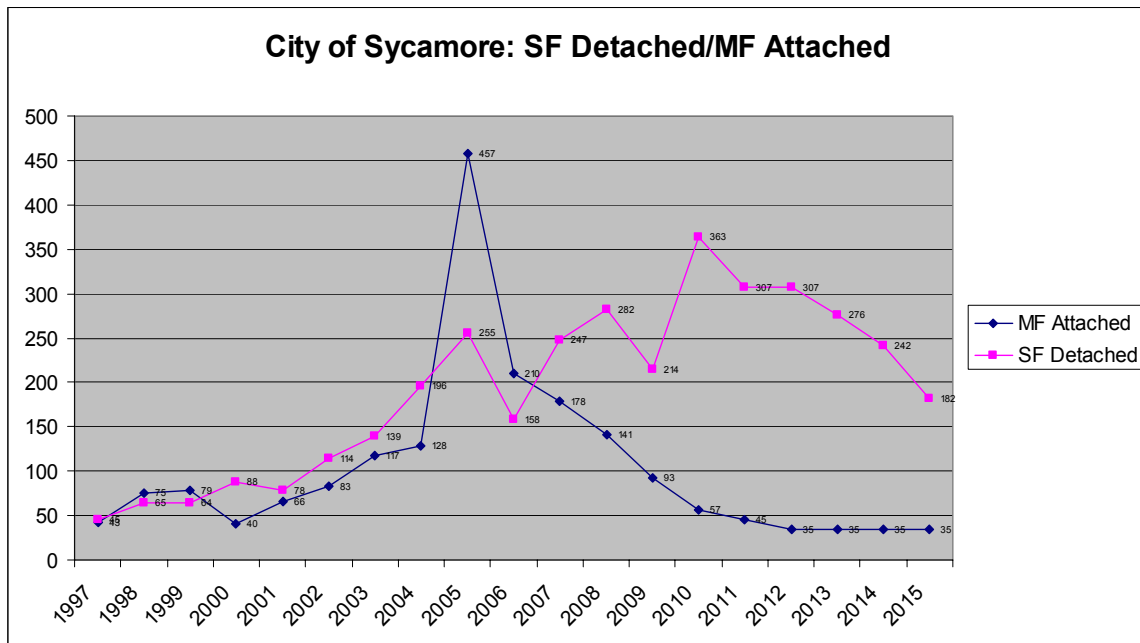
## The Affects of Recent Residential Growth upon the Local Government Tax Bases

In order to assess the future impacts of residential growth on the operating budgets of the four local governments which are the subject of this study, this study will review the impacts upon the local governments over the past three years.

Each of the four governmental units has had a slightly different experience as a result of residential growth; but all have been somewhat similar. Part of the difference can be attributed to the fact that the School District and Park District have different boundaries than the City of Sycamore. As such, their percentages of residential compared to commercial and industrial will vary.

To understand the affects of the buildout of approved subdivision, it is important to understand what that buildout has been over the past ten years and what it is predicted to be over the next ten. Figure 2 compares the number of units by housing type. .

**Figure 2- Number of Units built by Year**



*Figure 2* shows a spike in the number of homes built in 2005 and 2006, suggesting that there should be a fairly dramatic effect upon the property tax base.

The tax computation reports for the past three years for each of the four governmental units that are the subject of this study are contained in the Appendix of this study. For the City, the following table summarizes the past three years according to three key indicators: residential, commercial and industrial tax base.

**Table 18- City of Sycamore Tax Computation Comparison**

<u>Tax Base</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Residential	195,485,056	234,130,991	273,252,018
Commercial	54,127,143	61,664,224	70,603,262
Industrial	11,750,351	13,515,962	15,254,713
Total EAV	261,954,099	309,847,236	359,797,934
Tax Rate	\$.86584	\$.753900	\$.66868

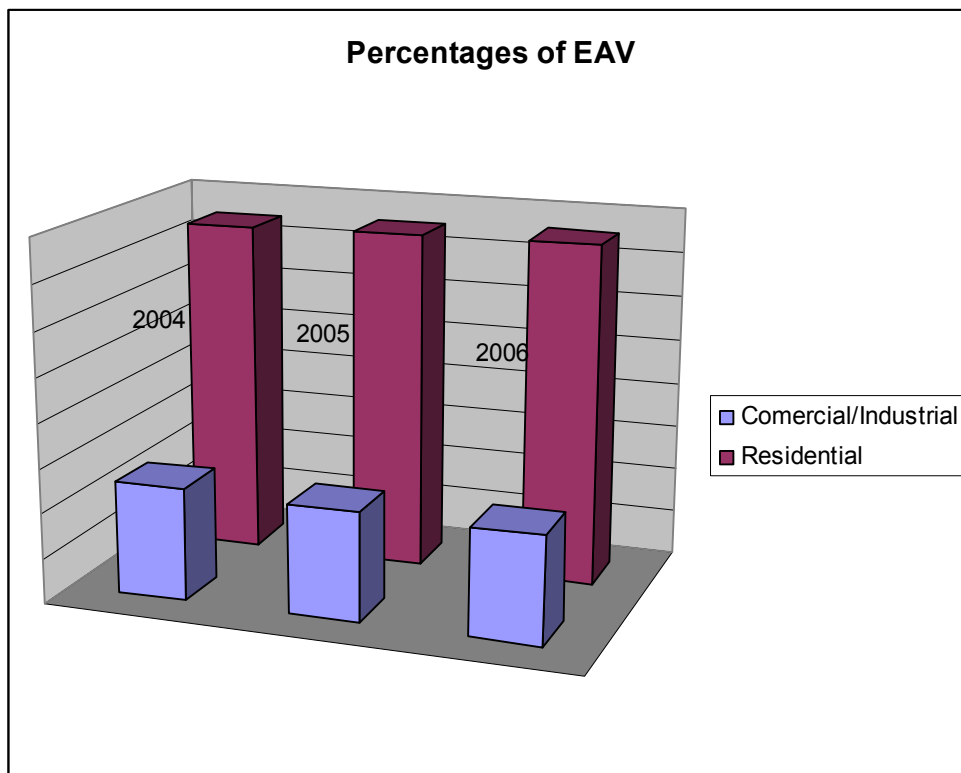
The table shows that the total EAV for the City of Sycamore grew by \$47,893,137 (18.28%) between 2004 and 2005. The total EAV also grew \$49,950,698 (16.12%) between 2005 and 2006. During that three-year period, the City’s tax rate has fallen from \$.86584 per \$100 EAV to \$.668650 per \$100 EAV, or 22.77%.

Tax rates do tend to decline as the value of existing properties grow under the Property Tax Extension Limitation Law of 1997. Since the value of existing taxable real estate can grow by more than the Consumer Price Index, but the dollar amounts that taxpayers pay can only increase by the CPI or 5%, whichever is less, tax rates fall during years when property values grow more than the CPI. But taxpayers may still end up paying more if their assessed valuation increases.

Considering the fact that residential property requires more City services than commercial and industrial property, most communities find it desirable to grow their commercial and industrial property at the same rate as they grow their residential property.

As a percentage of the total equalized assessed valuation, the following graph compares how the percentages have changed between 2004 and 2006. The graph in *Figure 3* combines commercial and industrial into one category and compares it to residential over the three year periods presented in the previous table.

***Figure 3-Combined Commercial and Industrial EAV***



*Figure 3* shows that, as a percentage of EAV, residential property increased from 74.63% in 2004, 75.56% in 2005 and 75.95% in 2006. In comparison, commercial and

industrial property decreased as a percentage of EAV from 25.15% in 2004, to 24.26% in 2005 to 23.86% in 2006.

This suggests that, while generally stable, there is a slight erosion of the commercial/industrial portion of the property tax base, which shifts more of the property tax burden to homeowners. On the other hand, since the property tax rate decreased by nearly 23% over that period, the reality is that the property tax burden is declining for everyone.

The Sycamore Library has exactly the same tax base as the City. As mentioned earlier, the Sycamore Park District has slightly different boundaries than the City, but nearly the same overall. The following table illustrates the growth of the Park District tax base over the past three years.

**Table 19- Sycamore Park District Tax Computation Comparison**

<u>Tax Base</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Residential	218,996,717	260,363,265	300,049,691
Commercial	55,012,969	62,201,734	70,808,799
Industrial	11,491,164	13,028,663	14,573,142
Total EAV	287,011,086	336,884,055	386,837,630
Tax Rate	\$.51636	\$.460511	\$.45553

The table shows that the Park District tax rate has also fallen, but by a lesser percentage than the City, 11.78% between 2004 and 2006.

The table also shows that the Park District tax base is larger than the City's, \$386,837,630 compared to \$359,797,934, largely because the Park District jurisdiction takes in more residential areas than the City does.

But since both the City and Park District share nearly the same commercial/industrial base, as a percentage of its total EAV, the Park District's commercial/industrial base was 22.07% compared to 23.86% for the City in 2006.

Since the School District's boundaries go well beyond those of the City or Park District, its commercial property as a portion of the tax base is smaller than that of the City or Park District.

The following School District comparison table represents a summary of the three tax computation reports from 2004, 2005 and 2006.

**Table 20- District 427 Tax Computation Comparison**

<u>Tax Base</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Residential	267,179,614	309,168,703	353,809,347
Commercial	42,750,975	48,490,135	56,524,931
Industrial	12,843,674	14,648,601	16,783,516
Total EAV	345,650,594	394,472,601	450,147,537
Tax Rate	\$5.17092	\$5.07079	\$4.94066

The School District tax computation summary shows that the School District tax rate has declined since 2006, but only by 4.45%. The table shows that the District's tax base grew by a smaller percentage than the City, Library or Park District between 2004 and 2006. Between 2005 and 2005, the School District property tax base grew by \$48.8 million (14.12%), and by \$55,674,936 (14.11%) between 2005 and 2006.

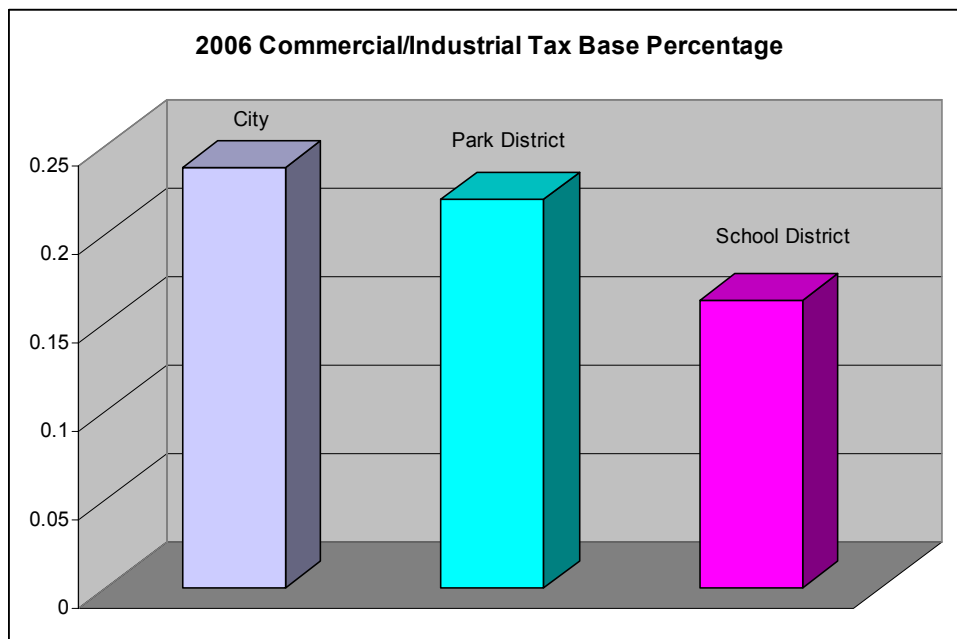
This shows that one financial challenge the School District faces is that its commercial and industrial tax base is relatively low. As a percentage of its budget, the School District's commercial and industrial property is a much smaller percentage than

the City or Park District, placing more of a tax burden on residential taxpayers than the commercial sector.

It should be pointed out that this is no one's fault. The boundaries for District 427 and surrounding districts were determined many years ago. Except for consolidation of school districts, boundaries rarely change, and it is unlikely that District 427 will be able to capture the Sycamore Road commercial area that is within the City of Sycamore but in the DeKalb School District.

The following graph shows the differences of commercial and industrial percentages on the three governmental units.

**Figure 4- Commercial/Industrial Comparison by Governmental Unit**



The graph shows that the City has a commercial/industrial tax base of 23.86% of its total base, compared to 22.07% for the Park District and 16.29% for the School

District, suggesting that the School District is most dependent upon residential and farm land taxes.

All three governmental units received about \$33.5 million increases in their EAV's from new property. But, as the graph shows, since the School District had the smallest commercial/industrial tax base in the first place, as a percentage of its total tax base, commercial/industrial percentages will likely continue to decline in the short run.

### **Growth Estimates for the Commercial and Industrial Tax Base**

In order to support the assumption that the proportion of property tax supported by the commercial and industrial base will remain relatively stable through 2015, City staff was asked to forecast the expected short-term commercial and industrial growth for the four governmental units.

According to City staff, a large area for commercial and industrial development exists within the current city limits and within the city's planning area. This property is available for development over the next 10 years, and is expected to buildout during that period.

Based on the City staff's recent calculation of the acreage devoted to commercial and industrial development within the future planning area, and what the City shows to be platted but unbuilt commercial and industrial zoned land within the city limits, the gross land area that could generate new property taxes to local taxing bodies is represented in the following table:

**Table 21- Land Available for Commercial/Industrial Development**

Land Use	Undeveloped Area Within Current City Limits	Outside Current City Limits but Within City Planning Area	Total Acres: Incorporated and Unincorporated
Commercial	490	242	732
Industrial	160	466	626
Office Research	0	392	392
Mixed Use	15	140	155
Total	665	1240	1905

Each of these areas will generate differing tax revenues, based on the ultimate use and the intensity of the use. To estimate the new taxes generated, the following conservative assumptions are made:

1. The allowable lot coverage for highway commercial, industrial and “ORI” (office/research) uses is about 70%, meaning that 70% of the land area can be occupied building space. However, the actual lot coverage is often much less, owing in part to sizeable setback requirements. In the case of industrial uses, it should also be assumed that the initial lot layout will often leave room for future expansion, so a safe allocation for industrial building space is about 1/3 of the gross lot area, with 2/3 of the gross acreage allocated to retention, parking, and future expansion. In the case of the various commercial uses, future expansion is seldom a consideration because the developer will look to maximize the leasable space under roof to cover upfront and ongoing costs. In addition, the parking requirement for commercial uses is substantially greater. So, an allocation of 25% of the overall land area for building space is probably reasonable. Finally, it

will be assumed that only 50% of the overall acreage in the current and future corporate limits that can be occupied will be occupied in the period 2007-2015.

2. The commercial building space in mixed uses is harder to predict, but it will be assumed that only 25% of the land area will be devoted to commercial building space. Further, it will be assumed that about 50% of the area devoted to mixed use development will be developed in the period 2007-2015. Specifically, it is assumed that the mixed use area northeast of the intersection of IL Rt. 64 and Airport Road will not be developed in this period.
3. Land dedicated for commercial purposes may develop as office or retail space. In addition, some office space—notably medical office space—will develop at a higher per square foot cost.
4. The tax generation from the various commercial and industrial uses is calculated as follows:

**Table 22- Taxes Generated by Use Type**

Type of Use	Taxes Generated Per Square Foot Upon Full Assessment
Industrial	\$1.00
Commercial Retail	\$1.90
Commercial Office	\$2.50
Medical Office	\$3.25

Based on the foregoing assumptions, here are the tax projections for future commercial and industrial development in Sycamore in the period 2007-2015:

**Table 23- Potential New Taxes Generated Annually**

Land Use	Potential Development Area (acres)	Potential Development: 2007-2015 (acres)	Potential Building Area by 2015 (acres)	Taxes Per Square Foot*	Total New Taxes Annually Generated By 2015**
Commercial	732	366	92	\$2.20*	\$8,816,544
Industrial	626	313	103	\$1.00	\$4,486,680
Office Research	392	196	65	\$1.00	\$2,831,400
Mixed Use	155	78	20	\$2.20	\$1,916,640
Total	1,905	953	280		\$18,051,264

The previous table assumes commercial property would be ½ retail space and ½ office space. Medical office space has been discounted at the general office rate.

The table suggests that there is a substantial amount of commercial and industrial property that could be developed between 2007 and 2015. Based upon Sycamore’s recent pattern of commercial and industrial growth, it would be fair to assume that this property will be developed.

The implications of the potential growth in the commercial and industrial tax base suggest that the resources available to the operating budgets of the four local governmental units should remain stable over time.

**Observations about the Affects of Residential Growth on Operating Budgets**

The previous analysis suggests that, based on the statements of net assets and operating budgets of all four governmental units, they have adjusted well to the residential growth that has occurred over the past 10 years. In spite of theories to the contrary, residential growth has not had a major adverse effect on their operating budgets or balance sheets.

In fact, the City of Sycamore is in a financial position where it can finance most of its major capital improvements through operating surpluses that it sets aside, precluding the City from charging impact fees for police or fire services or road improvements.

That the property tax bases alone would continue to support future growth is a cause of concern to the School District and Public Library. These two governments are the most dependent on property taxes to support their operating budgets and, while both have strong balance sheets, both are beginning to show early signs of pressure on their operating budgets.

Potential relief on that pressure is for the commercial and industrial portions of the property tax bases to grow, both in real terms and in terms of their percentages of the total property tax base.

Toward the policy of growing the commercial and industrial portions of the property tax base, the City of Sycamore would be the governmental unit that is required to promote this economic development, upon which all other local governmental units depend.

On the other hand, the other governmental units need to focus on maintaining their services in order that the City can market the community as a good place to do business.

If the current percentages of commercial and industrial tax base can be maintained during the residential development build out, it appears that the four local governmental units that are the subjects of this study should be able to maintain their current operating budgets in order to sustain their balance sheets.

## **The Capital Effects of Residential Growth in Sycamore**

### **The Current Subdivision Ordinance**

In order to address the capital impacts of residential growth on local governmental units, it is necessary to understand the City of Sycamore's subdivision ordinance.

Included within that ordinance is the land/cash formula requiring residential developers to donate either land or cash on behalf of the school and park districts.

The amount of land or cash required of residential developers is based upon the 1996 Estimated Table of Ultimate Population per Dwelling Unit developed for the Naperville school districts and estimated values of an acre of land.

Sycamore's subdivision ordinance formula is modeled after the Naperville model developed nearly 30 years ago. That formula establishes acreages necessary to build high schools, junior high schools and grade schools.

Included in the model is a table that estimates the number of children that could be expected to be derived from single-family and multi-family housing, based on the number of bedrooms the unit has.

The formula multiplies the fractions of children from any one of those housing categories times the number of homes to be built in each category. From that total, the percentage of land that would be needed to accommodate that number of children is multiplied times that value of the land at the time, currently listed as \$122,000 per acre in the ordinance.

The following table taken directly from the subdivision ordinance shows how the process works.

**Table 24- School District Land/Cash Fee Schedule**

<b>School Land/Cash Fees, September 2005</b>					
	ISBE #	Acreage	Land Value	Max. Enroll.	Total
<b>Two Bedroom--Detached</b>					
Grades K-5	0.136	15	\$122,000	550	\$453
Grades 6-8	0.048	30	\$122,000	750	\$234
Grades 9-12	0.02	80	\$122,000	1500	\$130
					<b>\$817</b>
<b>Three Bedroom--Detached</b>					
Grades K-5	0.369	15	\$122,000	550	\$1,228
Grades 6-8	0.173	30	\$122,000	750	\$844
Grades 9-12	0.184	80	\$122,000	1500	\$1,197
					<b>\$3,269</b>
<b>Four Bedroom--Detached</b>					
Grades K-5	0.53	15	\$122,000	550	\$1,763
Grades 6-8	0.298	30	\$122,000	750	\$1,454
Grades 9-12	0.36	80	\$122,000	1500	\$2,342
					<b>\$5,560</b>
<b>Five Bedroom--Detached</b>					
Grades K-5	0.345	15	\$122,000	550	\$1,148
Grades 6-8	0.248	30	\$122,000	750	\$1,210
Grades 9-12	0.3	80	\$122,000	1500	\$1,952
					<b>\$4,310</b>
<b>Two Bedroom--Attached</b>					
Grades K-5	0.088	15	\$122,000	550	\$293
Grades 6-8	0.048	30	\$122,000	750	\$234
Grades 9-12	0.038	80	\$122,000	1500	\$247
					<b>\$774</b>
<b>Three Bedroom Attached</b>					
Grades K-5	0.234	15	\$122,000	550	\$779
Grades 6-8	0.058	30	\$122,000	750	\$283
Grades 9-12	0.059	80	\$122,000	1500	\$384
					<b>\$1,446</b>
<b>Four Bedroom--Attached</b>					
Grades K-5	0.322	15	\$122,000	550	\$1,071
Grades 6-8	0.154	30	\$122,000	750	\$752
Grades 9-12	0.173	80	\$122,000	1500	\$1,126
					<b>\$2,949</b>
<b>Two Bedroom Apartment</b>					
Grades K-5	0.086	15	\$122,000	550	\$286
Grades 6-8	0.042	30	\$122,000	750	\$205
Grades 9-12	0.046	80	\$122,000	1500	\$299
					<b>\$790</b>
<b>Three Bedroom Apartment</b>					
Grades K-5	0.234	15	\$122,000	550	\$779
Grades 6-8	0.123	30	\$122,000	750	\$600
Grades 9-12	0.118	80	\$122,000	1500	\$768
					<b>\$2,147</b>

In the previous Table 24, two limitations of the formula are important to consider. The first is the table's estimate of population per dwelling unit is unsubstantiated, other than as being a copy of the Naperville table. The Naperville table was last updated in 1996, with no data drawn from Sycamore.

The main concern related to this limitation is that the City of Sycamore would have no assurance if its forecasts are reasonable. The consulting firm that developed the table acknowledges that child populations are unique to each community and that birth rate demographics have been on the decline for the past 50 years.

The second limitation with Sycamore's land/cash exactment formula is that land for schools is not the only cost to the School District to accommodate additional children. There are the school buildings themselves, which are substantially more costly than the land. Therefore, the actual impacts to the School District would be much higher.

The Sycamore Park District table faces similar concerns. The Park District's portion of the subdivision ordinance was also designed only to exact land from developers without taking into consideration the costs of converting raw land into parks or the impact of additional residents upon the other facilities the District offers.

However, the Park District portion of the ordinance is based not on the number of children who arrive from new subdivisions, but from the total number of people.

That is because the standards for parks are based on acres per 1,000 people, with the goal of the table to maintain the current acres per thousand ratio during the addition of new population.

The following table shows how the process starts.

**Table 25- Park District Land/Cash Fee Schedule**

<b>Type of Residence</b>	<b>Persons Per Unit*</b>	<b>Impact Fee Per Unit @ \$350/Person (Rounded)</b>
<b>SINGLE FAMILY DETACHED</b>		
One and Two Bedroom	2.017	\$706 (\$635)
Three Bedroom or More	2.899	\$1,015 (\$913)
<b>SINGLE FAMILY ATTACHED</b>		
1 Bedroom	1.193	\$418 (\$376)
2 Bedroom	1.990	\$697 (\$627)
3 Bedroom or More	2.392	\$837 (\$753)
<b>MULTIFAMILY</b>		
Efficiency	1.294	\$453 (\$408)
1 Bedroom	1.758	\$615 (\$554)
2 Bedroom	1.914	\$670 (\$603)
3 Bedroom or More	3.053	\$1,069 (962)
<b>MOBILE HOME</b>		
1 and 2 Bedroom	2	\$700 (\$630)
3 Bedroom or More	3.2	\$1,120 (\$1,008)

The Park District impact fee table also uses the Naperville table as its basis for predicting population in new housing units. Just as the School District has no assurance that the number of children predicted by the Naperville model is realistic, the Park District also has no assurance that the predictions of total population in the ordinance is realistic.

One of the benefits of this study is the ability to test the Naperville table adopted within Sycamore's subdivision ordinance. The importance of doing so is twofold. The first is a legal reason developers have the right to challenge the ordinance. In fact, developers are challenging the legality of how the Park District spends its impact fees and the legality of the City collecting the Transfer Tax. Without data to support its position, the City could be vulnerable.

The other reason to study the actual numbers of children and adults that originate from new and existing housing units is so the affected local governmental units can make plans to accommodate the new residents. Without being able to predict the number of additional children which come from housing units, it is difficult for the School District to plan to accommodate that growth, just as it is for the Park District to know how many acres of parks it needs.

## **Residential Growth Demographics in Sycamore**

### **New Housing Demographic Data**

There are a number of ways of assessing the impact of recent residential growth in Sycamore. One method is to identify the demographic changes that have resulted from recent residential construction.

Another is to identify the changes that have occurred to the tax bases of the four governmental units upon which this study focuses. Still another is to address the impacts on infrastructure, including schools.

Beginning with the changes in population characteristics, over the past three years, the City of Sycamore has been collecting data about occupancy levels in new

homes by requesting that occupants complete a brief demographic survey at the point of occupancy permit.

Since June of 2004, 1009 occupancy permits have been issued to residents purchasing new homes and that all of them have returned surveys.

In the Sycamore survey, residents are asked seven questions, including where they lived before purchasing their new home in Sycamore, in addition to how many people of various age categories will occupy the home.

This data provides valuable information about the immediate effect of new home construction upon the community's population. It is that immediate impact that is permitted by statute and court precedent, in a concept called Rational Nexus, which allows impacts to be recaptured from developers as long as municipalities can reasonably determine what they are.

The occupancy permit survey findings provide several levels of understanding about the demographic phenomenon which has been occurring in Sycamore. One such preliminary understanding is where people moving into the community originate.

The following table presents the last location in which new residents lived by state. The table shows that only 12.8% of new residents are from other states, with California the leader. Eight household moved into new Sycamore homes from California.

Of those respondents who said they lived in other Illinois communities before they moved to Sycamore, 87.2% of reported they had resided in Illinois before they purchased their new home in Sycamore.

**Table 26- Previous State of Residence for New Homeowners**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	55	5.5	5.5	5.5
AZ	7	.7	.7	6.3
CA	8	.8	.8	7.1
CO	2	.2	.2	7.3
FL	6	.6	.6	7.9
GA	2	.2	.2	8.1
IA	3	.3	.3	8.4
IL	864	87.2	87.2	95.6
IN	4	.4	.4	96.0
KS	2	.2	.2	96.2
MI	6	.6	.6	96.8
MN	6	.6	.6	97.4
MO	2	.2	.2	97.6
NC	1	.1	.1	97.7
NM	1	.1	.1	97.8
OH	1	.1	.1	97.9
PA	4	.4	.4	98.3
TN	1	.1	.1	98.4
TX	6	.6	.6	99.0
VA	4	.4	.4	99.4
WI	5	.5	.5	99.9
WV	1	.1	.1	100.0
Total	991	100.0	100.0	

In order to identify which Illinois communities from which new residents originate, the following table shows the communities which represented the previous homes of new Sycamore residents before they purchased their new home in Sycamore.

**Table 27- Previous City of Residence in Illinois for New Homeowners**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Addison	3	.3	.3	.3
Algonquin	12	1.4	1.4	1.7
Allen	1	.1	.1	1.9
Arlington Heights	2	.2	.2	2.1
Aurora	20	2.3	2.3	4.4
Barrington	1	.1	.1	4.5

Bartlett	18	2.1	2.1	6.6
Batavia	11	1.3	1.3	7.9
Belvidere	8	.9	.9	8.8
Bensenville	2	.2	.2	9.0
Berkeley	1	.1	.1	9.1
Berwyn	2	.2	.2	9.4
Big Rock	1	.1	.1	9.5
Bloomington	7	.8	.8	10.3
Bolingbrook	1	.1	.1	10.4
Burlington	2	.2	.2	10.6
Burr Ridge	1	.1	.1	10.8
Byron	2	.2	.2	11.0
Carol Stream	14	1.6	1.6	12.6
Carpentersville	5	.6	.6	13.2
Carrollton, TX	1	.1	.1	13.3
Cary	1	.1	.1	13.4
Cherry Valley	1	.1	.1	13.5
Chicago	9	1.0	1.0	14.6
Clare	2	.2	.2	14.8
Cordova	1	.1	.1	14.9
Cortland	11	1.3	1.3	16.2
Crystal Lake	2	.2	.2	16.4
Davis	1	.1	.1	16.6
Deerfield	1	.1	.1	16.7
DeKalb	78	9.0	9.0	25.7
Dixon	1	.1	.1	25.8
Downers Grove	2	.2	.2	26.0
Dundee	3	.3	.3	26.4
Edwardsville	1	.1	.1	26.5
Elburn	10	1.2	1.2	27.7
Elgin	70	8.1	8.1	35.8
Elk Grove Village	1	.1	.1	35.9
Elmhurst	1	.1	.1	36.0
Elmwood Park	1	.1	.1	36.1
Forreston	1	.1	.1	36.2
Fox Lake	1	.1	.1	36.3
Fox Lake Hills	1	.1	.1	36.5
Geneva	17	2.0	2.0	38.4
Genoa	12	1.4	1.4	39.8
Gilberts	1	.1	.1	39.9
Glen Ellyn	4	.5	.5	40.4
Glendale Heights	9	1.0	1.0	41.4
Gurnee	2	.2	.2	41.7
Hampshire	11	1.3	1.3	42.9
Hanover Park	2	.2	.2	43.2
Highland Park	1	.1	.1	43.3
Huntley	8	.9	.9	44.2

Ingleside	1	.1	.1	44.3
Island Lake	2	.2	.2	44.6
Kaneville	1	.1	.1	44.7
Kincaid	1	.1	.1	44.8
Kingston	5	.6	.6	45.4
La Grange	3	.3	.3	45.7
La Grange Park	1	.1	.1	45.8
La Salle	1	.1	.1	45.9
Lake in the Hills	1	.1	.1	46.1
Lanark	1	.1	.1	46.2
Lena	1	.1	.1	46.3
Lockport	1	.1	.1	46.4
Lombard	3	.3	.3	46.8
Loves Park	6	.7	.7	47.5
Machesney Park	1	.1	.1	47.6
Macomb	1	.1	.1	47.7
Malta	2	.2	.2	47.9
Maple Park	7	.8	.8	48.7
Marengo	10	1.2	1.2	49.9
Maywood	1	.1	.1	50.0
McHenry	3	.3	.3	50.3
Melrose Park	1	.1	.1	50.5
Marengo	1	.1	.1	50.6
Moline	1	.1	.1	50.7
Morristown	1	.1	.1	50.8
Mundelein	1	.1	.1	50.9
Naperville	13	1.5	1.5	52.4
New Lenox	1	.1	.1	52.5
North Aurora	5	.6	.6	53.1
Oak Brook	1	.1	.1	53.2
Oak Park	2	.2	.2	53.5
Oregon	2	.2	.2	53.7
Palatine	3	.3	.3	54.1
Park Ridge	1	.1	.1	54.2
Plainfield	5	.6	.6	54.7
Plano	1	.1	.1	54.9
Poplar Grove	2	.2	.2	55.1
Princeton	1	.1	.1	55.2
Rochelle	3	.3	.3	55.6
Rockford	16	1.9	1.9	57.4
Rockton	1	.1	.1	57.5
Rolling Meadows	1	.1	.1	57.6
Romeoville	2	.2	.2	57.9
Roscoe	5	.6	.6	58.4
Roselle	3	.3	.3	58.8
Round Lake	1	.1	.1	58.9
Sandwich	1	.1	.1	59.0

Savoy	1	.1	.1	59.1
Schaumburg	8	.9	.9	60.1
Shabbona	1	.1	.1	60.2
Shannon	14	1.6	1.6	61.8
Somonauk	1	.1	.1	61.9
South Beloit	1	.1	.1	62.0
South Elgin	24	2.8	2.8	64.8
Spring Grove	3	.3	.3	65.2
Springfield	1	.1	.1	65.3
St. Charles	65	7.5	7.5	72.8
Stickney	1	.1	.1	72.9
Streamwood	6	.7	.7	73.6
Sugar Grove	7	.8	.8	74.4
Sycamore	193	22.3	22.3	96.8
Techny	1	.1	.1	96.9
Vernon Hills	1	.1	.1	97.0
Warrenville	2	.2	.2	97.2
Waterman	2	.2	.2	97.5
West Chicago	6	.7	.7	98.1
Westchester	1	.1	.1	98.3
Wheaton	8	.9	.9	99.2
Winfield	1	.1	.1	99.3
Winnetka	1	.1	.1	99.4
Wonder Lake	1	.1	.1	99.5
Woodstock	2	.2	.2	99.8
Yorkville	1	.1	.1	99.9
Zion	1	.1	.1	100.0
Total	864	100.0	100.0	

Table 27 shows that 22.3% of new home buyers were from Sycamore and 9% were from DeKalb. The table also shows that only 4.3% of new homes were sold to people from other communities within DeKalb County. Over 55%.of new homes were sold to families moving into Sycamore from suburban communities in the Chicago metropolitan area.

Considering the new construction household surveys, the City of Sycamore's data shows that there is an important difference in the number of single family attached and detached homes built over the past few years. Of the 989 households responding to the

survey, 559 were detached homes and 425 were townhouses or condominiums, as Table 28 shows.

**Table 28- Detached Compared to Attached New Housing Units**

	Attached/Detached	N	Mean	Std. Deviation	Std. Error Mean
No children in the home	Detached	559	.49	.500	.021
	Attached	425	.91	.289	.014

Another important finding in the data is that, comparing new detached to attached housing units, 49% of new detached homes built since June of 2004 had no children at all living in them at the point of initial occupancy. Even more significant was that 91% of townhouses and condominiums built during that time period had no children at all at the time of occupancy.

Considering the data regarding the ages of occupants of new housing units, the following table shows the total number of children and adults that the data predicts would be generated for each of the dwelling unit categories.

**Table 29- Estimates of Ultimate Population Per Dwelling Unit for New Housing**

Type	0-4 yrs	5-10 yrs.	11-13 yrs.	14-17 yrs.	adults	total
1 bedroom attached	.00	.00	.00	.00	1.00	1.00
2 bedroom attached	.03	.02	.02	.01	1.67	1.75
3 bedroom attached	.04	.39	.39	.09	2.00	2.56
4 bedroom attached	.00	.00	.14	.14	na	na
3 bedroom detached	.19	.22	.12	.08	2.06	2.67
4 bedroom detached	.38	.51	.18	.14	2.03	3.24
5 bedroom detached	.26	.91	.41	.38	2.00	3.96

The findings in the previous table do not have a great deal of meaning unless they are placed in context. One such context would be to compare the above findings to the

Naperville Table contained within the City’s own subdivision ordinance. Doing so would illustrate how accurate the table in Sycamore’s subdivision ordinance has been in predicting the level of occupancy of residents in new housing units.

The following table shows the level of population that new housing has generated compared to the levels the City’s subdivision ordinance has predicted. Because the school district table in Sycamore’s subdivision ordinance does not provide the number of adults or pre-school children, comparisons for these categories were extrapolated by subtracting number of children in the school district portion of the ordinance from the total number of people predicted in the park district portion of the ordinance.

**Table 30- Comparison of the Ultimate Population Per Dwelling Unit for New Housing/Subdivision Ordinance**

Type	0-4 yrs	5-10 yrs.	11-13 yrs.	14-17 yrs.	adults	total
1 bedroom attached	.00/.00	.00/.00	.00/.00	.00/.00	1.00/1.193	1.00/1.193
2 bedroom attached	.03/.064	.02/.088	.02/.048	.01/.038	1.67/1.752	1.75/1.990
3 bedroom attached	.04/.212	.39/.234	.39/.358	.09/.059	2.00/1.829	2.56/2.392
4 bedroom attached	.00/.323	.00/.322	.14/.154	.14/.173	na/2.173	na/3.145
3 bedroom detached	.19/.292	.22/.136	.12/.173	.08/.020	2.06/1.881	2.67/2.899
4 bedroom detached	.38/.418	.51/.530	.18/.298	.14/.360	2.03/2.158	3.24/3.764
5 bedroom detached	.26/.283	.91/.345	.41/.248	.38/.300	2.00/2.594	3.96/3.770

The previous table shows that, in some categories, the City’s subdivision ordinance predicts more children from new housing units than have actually been generated. In others, Sycamore’s subdivision ordinance table predicts less.

For instance, in the category of attached housing, two and four bedroom condominiums and townhouses have been generating less children at every age group, whereas three bedroom detached homes have been generating more.

Similarly, three and four bedroom detached homes have been generating less children in most categories than the subdivision ordinances predicts, whereas five bedroom homes have been generating more.

The following table compares the total number of school-aged children predicted in each housing unit category to the actual experience presented in the number predicted in the Naperville table as presented in the City subdivision ordinance.

**Table 31- School Children Comparison**

<b>Category</b>	<b>Sycamore Data</b>	<b>Ordinance</b>
1 Bedroom attached	.00	.000
2 Bedroom attached	.05	.174
3 Bedroom attached	.87	.651
4 Bedroom attached	.28	.649
3 Bedroom detached	.42	.329
4 Bedroom detached	.83	.658
5 Bedroom detached	1.70	.893

The table shows that two bedroom condominiums produce one-third of the number of children that the ordinance predicts, .05 children per unit in actuality compared to .174 in the ordinance. Three bedroom condominiums produce more children than the ordinance predicts, .87 children per unit compared to .651 in the ordinance. For detached single family homes, all categories were higher in reality than in the ordinance.

There are a number of explanations for why Sycamore is receiving less children in some categories of new housing units and more children in other categories than the ordinance predicts.

In the case of townhouses and condominiums, empty-nesters could be moving out of the suburbs into Sycamore because college towns are desirable places to live and

retire. This phenomenon could cause the number of children in two- bedroom attached units to be lower than the subdivision ordinance model predicts.

In the case of detached single-family homes, the desirability of Sycamore’s schools could cause the number of children moving into this housing category type to be slightly higher than the model in the ordinance predicts.

Another important finding to be considered is that the ordinance predicts more pre-school children in housing units than actually have been arriving over the past three years. Table 32 makes that comparison.

**Table 32- Pre-school Children Comparison**

<b>Category</b>	<b>Sycamore Data</b>	<b>Ordinance</b>
1 Bedroom attached	.00	.000
2 Bedroom attached	.03	.064
3 Bedroom attached	.04	.212
4 Bedroom attached	.00	.323
3 Bedroom detached	.19	.292
4 Bedroom detached	.38	.418
5 Bedroom detached	.26	.283

The findings in the table suggest that there is a reduction in the birth rate that is reflected over the past three years. As stated earlier, there has been a national trend of lower birth rates in all non-Hispanic ethnic categories. Since the data that built the Naperville table is over 10 years old, this could be an explanation of why Sycamore’s experience with pre-school populations is lower than the subdivision ordinance table.

The comparison between the actual occupancy levels and the park district table is somewhat simpler to understand. The park district table in the ordinance focuses on total population because maintaining a rational nexus of the current level of acres per thousand

is the goal. Therefore, only total occupancy needs to be considered. The following table compares Sycamore’s actual data to its subdivision ordinance prediction.

**Table 33- Park District Total Population Comparison**

<b>Category</b>	<b>Sycamore Data</b>	<b>Ordinance</b>
1 Bedroom attached	1.00	1.193
2 Bedroom attached	1.75	1.990
3 Bedroom attached	2.56	2.392
4 Bedroom attached	na	3.145
3 Bedroom detached	2.67	2.899
4 Bedroom detached	3.24	3.764
4 Bedroom detached	3.96	3.770

In all but two categories, the data predicts less people than the table in the subdivision ordinance. As has been shown, this is a function of the declining birth rate as reflected by the lower number of pre-school age children being generated from new homes.

The differences between the subdivision ordinance and actual occupancy levels might be a concern to the City for a number of reasons. The first is that, in order to maintain a rational nexus, having data that shows the actual level of occupancies places the City in a position of justifying its ordinance, assuming that the City uses its actual data as a basis for exactments.

Another important concern is that the School District, Public Library and Park District need some basis by which to predict population growth in order to perform their comprehensive planning. Using the subdivision ordinance which predicts different populations than the actual data puts these governmental units in a position of identifying different capital needs than they might actually have.

The number of new adults predicted to arrive from new housing is important to the Park District to predict golf course usage. The number of new children is important to the School District and Public Library to predict their capital needs. Understanding the phenomena is important also.

Whether children are new to the School District is an important consideration. That can be tested by separating the nearly 23% of new home inhabitants that already lived in Sycamore before they moved into their new homes. Table 34 shows the differences in children populations for them compared to people moving in from other communities.

**Table 34- Residents Moving within Sycamore Compared to Other Communities**

	Original Residence	N	Mean	Std. Deviation	Std. Error Mean
Grade School	Sycamore	181	.28	.617	.046
	Other	751	.24	.577	.021
Jr. High Schools	Sycamore	181	.14	.391	.029
	Other	751	.10	.345	.013
High School	Sycamore	181	.09	.345	.026
	Other	751	.08	.338	.012

The table shows that people moving from an existing residence in Sycamore to one of the new housing units constructed between June 2004 and February 2007 had somewhat higher numbers of children than did people moving in from other communities. In the case of grade school children, .28 children were calculated for Sycamore residents moving into new homes compared to .24 grade school children for families moving into new homes from other communities, a 16.7% higher rate.

For junior high students, Sycamore residents moving into new homes had 40% more junior high school children on average, or .14 compared to .10 per household, than did families moving in from other communities.

This would lead this study to hypothesize that Sycamore families tend to stay in Sycamore because they like their School District. The findings also suggest that there might be a dampening effect upon the ultimate enrollment generated from new housing from residents arriving from outside the community.

Also important to remember is that the data suggests that 25% of the new children originating from new homes were already in Sycamore schools before their families bought their new homes; and new residents from outside the community have less children than existing residents moving within the community, as will be considered momentarily.

### **Testing the Data**

Whenever data has been presented that shows the Naperville table to predict higher numbers of children than local demographic studies can determine, there are those who hypothesize that there is some type of flaw in the data collection or some phenomenon that the data did not identify.

One such rival hypothesis is that the reason townhouses and condominiums have been shown to generate so few children is that people buy them for investment properties that are subsequently rented out. The hypothesis further assumes that owners (with few children) rent these to people with more children, so there is an unmeasured impact upon the school district which occurs.

In order to verify the City’s new housing occupancy level data collected at the point of occupancy permitting, a telephone survey was conducted. The telephone numbers for the survey were assembled from the available addresses of new housing units, 553 in total, and these addresses were cross referenced with known phone numbers by Northern Illinois University’s Public Opinion Laboratory. POL also made the calls and collected the data.

Because most of the residences were less than three years old, the POL was able to identify a limited database from which to test the rival hypothesis. Of the 750 new homes where the City staff had collected the home’s addresses, the POL could only match them with 152 telephone numbers. Of those 152 telephone numbers, 83 households (54.36%) responded to the telephone survey.

One of the first questions asked was whether the unit was a single-family detached home, a townhouse or a condominium. Although the City’s survey only identified units as attached or detached, the phone survey asked residents to differentiate between whether their homes were townhouses or condominiums. The following table compares the findings between the three categories:

**Table 35- Type of Structure**

What kind of structure is your residence?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single-family house	65	78.3	78.3	78.3
	Townhouse	7	8.4	8.4	86.7
	Condominium	11	13.3	13.3	100.0
	Total	83	100.0	100.0	

The findings show that 78.3% of telephone survey respondents lived in detached homes, 8.4% in townhouses and 13.3% in condos. Considering condos and townhouses as attached housing units, the telephone survey identified 21.7% of respondents as residents of new attached housing units.

The City survey had showed that 43.2% of new homes were attached units, suggesting that the telephone survey could identify a lower number of attached homes than the City staff data.

An explanation for this difference could be due to a sampling error that occurred because attached unit dwellers' telephone numbers were not as readily available. Another could be the possibility that residents of attached units were less willing to respond to the survey when the POL called them. Still another is that, since there is not a database for cell phone numbers that can be referenced against addresses, creating databases for telephone surveys is becoming more difficult.

Because of the sampling error in this low response group, City data will be used to develop the occupancy tables used for predicting impacts. But even with the small sample, there is value to be derived from the findings.

For instance, the hypothesis that was tested from the telephone survey was that some of the townhouses and condos were purchased as investments rather than residences. One criticism of the City's survey was that it didn't identify tenants versus landlords.

This question of whether respondents were renters or owners was asked in the telephone survey. The results are presented in Table 36.

**Table 36- Own or Rent**

Do you own or rent your home?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Own	79	95.2	96.3	96.3
	Rent	3	3.6	3.7	100.0
	Total	82	98.8	100.0	
Missing	Declined to Respond	1	1.2		
Total		83	100.0		

The findings overwhelmingly suggest that respondents were owners of their domicile. Of the 82 households who responded to that question on the survey, only three indicated they were renters. Analysis of the data set shows that, of the three renters, all were tenants in condominiums, none lived in townhouses and none lived in detached homes.

The data also shows that two of the three rental condominiums had only one adult and no children in the household. The other condominium had one adult and one pre-school age child in the household, for a net contribution of no children to the school district.

This is far from a statistically significant finding upon which inferences can be drawn. But it does provide preliminary evidence that only a few new condominiums and townhouses were occupied by tenants, whether that occurred at the beginning of the occupancy of the new unit or as a result of owners moving away who might not have been able to find a buyer and decided to rent the unit.

Another important question that was asked in the telephone survey, not asked by the City, was why new occupants moved to Sycamore. This question is important because it provides an understanding of whether there are other hypotheses that should be

tested, particularly related to moving into the community to take advantage of the schools.

Since some residents already lived in the community, their answers reflect why they would remain in Sycamore. The following table provides all of the responses to that question.

**Table 37- Why Did New Residents Choose Sycamore**

Why did you choose to live in Sycamore?	
1	no response
2	we had looked for many years and the housing best fit us for size, and my husband
3	i found an affordable condominium.
4	my husband's job was out here.
5	we had already lived in sycamore and just moved a couple blocks
6	i moved back to sycamore. i was originally from here.
7	affordable housing and the schools are better than Elgin, it's more affordable tha
8	i really didn't feel like living near NIU campus.
9	for our church.
10	lived here my whole life.
11	good schools, familiar with the community and a good community in general
12	b/c we like the heron creek area and we were encouraged by a friend.
13	we liked that it wasn't that big of a town and we thought it was a good place to s
14	this is where they were building a new senior complex and decided to move in. we h
15	because we came from St. Charles where everything was busy and traffic. we have 5
16	get a lot more house for the money and my family and friends live here too. it's a
17	that's where i was living and we decided to stay in sycamore.
18	it's my home town. I've lived here all my life.
19	because of the school district
20	good schools. close to the university and we liked the builder.
21	Because it's a lot better than South Elgin, I've always liked sycamore, I've been coming through
22	the low cost of housing compared to where we were.
23	we transferred from another state and we were looking for affordable housing and a
24	it seemed like a very nice town. a lot less crowded from where we came from and a
25	a bigger house at a lower cost.

26 it was affordable. i also grew up in a neighboring town so i was familiar with it.  
27 i just live w/ my daughter and she chose for me.  
28 smaller population, better schools than where we came from.  
29 my husband's company relocated into sycamore.  
30 i liked the area and we got a decent house for an affordable price.  
31 i lived in sycamore before and i just moved into a new condominium.  
32 i went to school in DeKalb, so i had a lot of friends out here.  
33 i liked the area.  
34 the main reason is that i think it's a good place to raise a family.  
35 I've lived in sycamore for 25 years. i just recently purchased a home and had rent  
36 better schools  
37 i was looking at a lot of model homes and i found one in this area. i was looking  
38 better schools.  
39 we needed a larger home and this was one the places we could afford and good school  
40 we liked the downtown area very much.  
41 there's family in the area, but secondly because of the schools, how well-ranked t  
42 family  
43 b/c we could not find a wooded lot to build on in DeKalb.  
44 because i lived in St. Charles and my house was too big after my husband passed. i  
45 I've lived in sycamore for over 20 years.  
46 got more for our money  
47 we lived here before. we lived in another condo in sycamore for 4 years before we  
48 my husband got transferred here f/ St. Louis and we chose sycamore for the school d  
49 my husband got transferred to Naperville and that area was a little too busy for ou  
50 small town and the schools were good.  
51 good schools  
52 no real particular reason.  
53 we liked the feel of sycamore and we think they are doing a good job with their p  
54 we've been in sycamore 20 years, we just moved into a new house.  
55 b/c we heard that the schools were good.  
56 i work at NIU  
57 it was cheaper than living in St. Charles.  
58 b/c that's where i lived before.  
59 schools  
60 i wanted to build a new house and i found a location in sycamore that i liked the  
61 my husband was transferred out here.  
62 cheaper housing  
63 schools

64 like the community's size  
65 it offers more. it's a more stable community than DeKalb.  
66 my daughter lives here  
67 i work at NIU and i felt the real estate was a better investment.  
68 we already lived in sycamore, we just moved into a new home.  
69 friends recommended  
70 the schools  
71 to be near my daughter  
72 i liked the town  
73 b/c I've lived here for 20 years and i like it.  
74 cost of land  
75 i was born in sycamore.  
76 affordable housing  
77 we liked the country setting and wanted to move farther away from the suburbs.  
78 good location for jobs  
79 nearness to the schools.  
80 i liked the area  
81 wonderful school system  
82 proximity to my husband's job  
83 i was already living there

Preliminary analysis of the responses also shows that the three condominium renters were respondent numbers 6, 8 and 58. Based on their responses, the two renters without children (respondents 6 and 58) both indicated their reasons for living there were that they had lived in Sycamore before and, presumably, they liked the community. The renter with a child indicated that he or she lived in Sycamore to avoid living so close to NIU, raising the possibility he or she was a student or NIU employee.

Another interesting finding was that several respondents indicated they moved to Sycamore for the good schools, while others cited the affordability of the housing.

Of those who responded that they moved to Sycamore for the schools, nearly all lived in detached housing and had children in the schools. Of those who said they moved to Sycamore because the housing was affordable, nearly all had no children and lived in attached housing units.

Even though the sample of 83 respondents is smaller than the 1,009 households who responded to the City’s point of occupancy permit survey, a comparison between the two data sets can be made. This can be done as long as it is noted that the sample size may be small for the telephone survey and, therefore, is less than statistically significant.

The following table compares the City staff data to the telephone survey data.

**Table 38- Estimation of the Ultimate Population Per Dwelling Unit for City Survey/Telephone Survey**

Type	0-4 yrs	5-10 yrs.	11-13 yrs.	14-17 yrs.	adults	total
1 bedroom attached	.00/na	.00/na	.00/na	.00/na	1.00/na	1.00/na
2 bedroom attached	.03/.09	.02/.09	.02/.00	.01/.00	1.67/164	1.75/1.73
3 bedroom attached	.04/.00	.39/.00	.39/.00	.09/.00	2.00/2.00	2.56/2.00
4 bedroom attached	.00/na	.00/na	.14/na	.14/na	2.00/na	2.28/na
3 bedroom detached	19/.09	.22/.39	.12/.17	.08/.09	2.06/2.22	2.67/2.96
4 bedroom detached	.38/.44	.51/.72	.18/.22	.14/.22	2.03/2.13	3.24/3.73
5 bedroom detached	.26/.50	.91/.88	.41/.38	.38/.38	2.00/2.00	3.96/4.14

The comparisons between the data collected by the City staff, on the left, and the telephone survey data, on the right, suggest that there is a modest level of comparability. In the category of five bedroom homes, the findings are nearly the same for the total number of people living there, but different for each of the child age group categories. For three, four and five bedroom detached homes, the data is similar.

For three bedroom condominiums, the telephone survey shows even lower occupancy levels than the City staff data, but as predicted, this is probably due to a smaller sample, where there were only two respondents.

One of the questions asked on the telephone survey that was not asked on the occupancy permit survey was whether families with children sent them to Sycamore schools as opposed to sending them to private schools or home schooling them. In

response to this question, 11% of respondents reported that they did not send their children to Sycamore schools.. The finding was statistically significant.

The finding that 11% of new families did not send their children to Sycamore schools is important because not sending their children to Sycamore schools has a dampening affect on actual school attendance.

If 11% of new resident children will not attend Sycamore schools, this variable should be factored into projections of the need for new schools and ultimately into the impact fees.

### **The Rival Hypothesis of the Demographics of Existing Housing**

There is another rival hypothesis offered by people who believe that new residential development has other unintended consequences. This one suggests that when Sycamore residents relocate from existing housing stock to new homes, their existing homes are occupied by families with more children than the new homes.

To determine the level of occupancy of existing homes, the City of Sycamore conducted a Special Census in November 2005, with the findings reported in May 2006. The findings have been presented in the Appendix of this study.

The Special Census findings showed that the average occupancy level of a home in Sycamore in 2005 was 2.50, including apartments, condominiums, townhouses and single-family detached homes. In owner occupied units, the average household size was 2.68 people.

Using 2.68 people per household as the basis for comparison, to test the hypothesis that existing homes, which are more affordable than new homes, and therefore attract families with larger numbers of children, additional data was collected by SMA.

The data collected for this supplemental study included a mail survey sent to residents who moved into existing Sycamore residences who paid the transfer tax that has been implemented within the past year.

The transfer tax was initiated, in part, because the City believed there might be some merit to the hypothesis that housing vacated by Sycamore residents moving to new homes was occupied by families with more children than had lived in the existing homes before them. To compensate the School District for this possible effect, the City adopted a tax that affected all property transfers, including new and existing housing, with an exemption to buyers who had previously resided in Sycamore for the last 12 consecutive months.

A total of 222 homes have been sold and occupied since the transfer tax went into effect in June 2006. At that time, the City of Sycamore began collecting data from purchasers of existing housing, similar to the survey of new home buyers, by asking them a few basic questions.

One question of importance was where the new occupants lived before. Since the number of occupants of various ages residing within the home was not collected, the SMA study asked that demographic question.

From the City's survey, the following table presents the findings of the 152 new families who answered the question of what community new residents of existing homes lived in prior to moving to Sycamore.

**Table 39- Transfer Tax Payer Previous Residences**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Algonquin, IL	1	.7	.7	.7
	Barrington Hills, IL	1	.7	.7	1.3
	Batavia, IL	3	2.0	2.0	3.3
	Berwyn, IL	1	.7	.7	3.9
	Bloomington, IL	1	.7	.7	4.6
	Bollingbrook, IL	1	.7	.7	5.3
	Carlstad, CA	1	.7	.7	5.9
	Carol Stream, IL	1	.7	.7	6.6
	Chicago, IL	2	1.3	1.3	7.9
	Cortland, IL	2	1.3	1.3	9.2
	Crystal Lake, IL	1	.7	.7	9.9
	DeKalb, IL	17	11.2	11.2	21.1
	Downers Grove, IL	2	1.3	1.3	22.4
	Dubuque, IA	1	.7	.7	23.0
	East Moline, IL	1	.7	.7	23.7
	Elburn, IL	3	2.0	2.0	25.7
	Elgin, IL	5	3.3	3.3	28.9
	Frisco, TX	1	.7	.7	29.6
	Geneva, IL	1	.7	.7	30.3
	Genoa, IL	1	.7	.7	30.9
	Glen Ellyn, IL	2	1.3	1.3	32.2
	Hampshire, IL	2	1.3	1.3	33.6
	Harvard, IL	1	.7	.7	34.2
	Hinkley, IL	1	.7	.7	34.9
	Itasca, IL	1	.7	.7	35.5
	Joliet, IL	1	.7	.7	36.2
	Kingston, IL	1	.7	.7	36.8
	Lauderhill, FL	1	.7	.7	37.5
	Lindenwood, IL	1	.7	.7	38.2
	Lisle, IL	1	.7	.7	38.8
	Lockport, IL	1	.7	.7	39.5
	Maple Park, IL	2	1.3	1.3	40.8
	McHenry, IL	1	.7	.7	41.4
	Naperville, IL	2	1.3	1.3	42.8
	Northbrook, IL	1	.7	.7	43.4
	Oak Park, IL	1	.7	.7	44.1
	Orem, UT	1	.7	.7	44.7
	Oswego, IL	2	1.3	1.3	46.1
	Palatine, IL	1	.7	.7	46.7
	Rochelle, IL	1	.7	.7	47.4
	Rockford, IL	1	.7	.7	48.0
	Rockton, IL	1	.7	.7	48.7
	Sandwich, IL	1	.7	.7	49.3

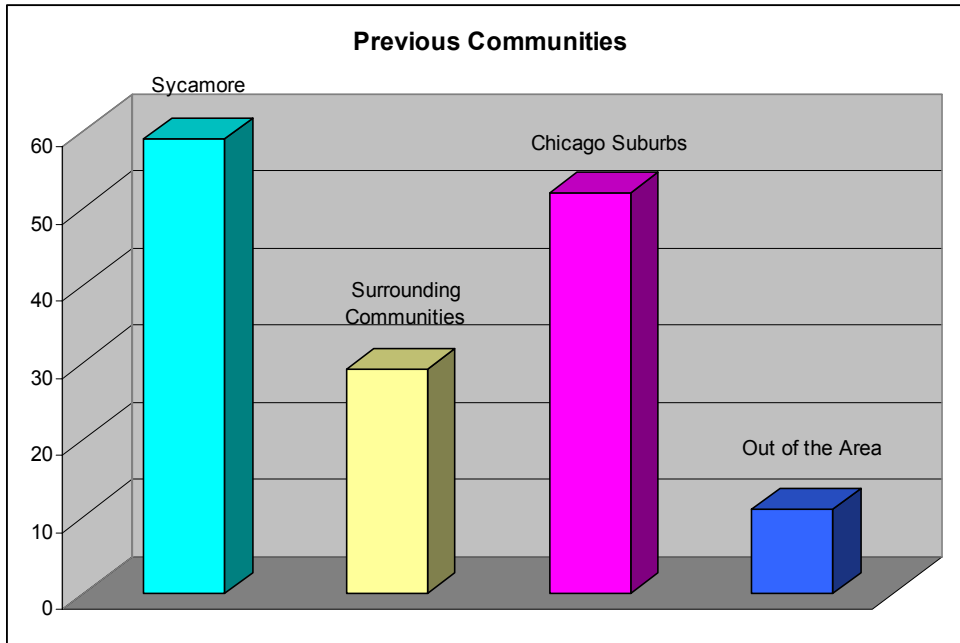
Schaumburg, IL	1	.7	.7	50.0
Shabbona, IL	1	.7	.7	50.7
St. Charles, IL	4	2.6	2.6	53.3
Streamwood, IL	1	.7	.7	53.9
Sugar Grove, IL	2	1.3	1.3	55.3
Sycamore, IL	59	38.8	38.8	94.1
Villapark, IL	1	.7	.7	94.7
Warrenville, IL	1	.7	.7	95.4
Wasco, IL	1	.7	.7	96.1
West Chicago, IL	2	1.3	1.3	97.4
West Dundee, IL	1	.7	.7	98.0
Wheaton, IL	1	.7	.7	98.7
Whiting, IN	1	.7	.7	99.3
Yorkville, IL	1	.7	.7	100.0
Total	152	100.0	100.0	

The table shows that, of the total number of families purchasing existing homes in Sycamore during 2006 and early 2007, 38.8% were residents of Sycamore who bought a different home for their families.

In addition, 11.2% were from neighboring DeKalb and 5.9% were from other neighboring communities such as Cortland, Genoa, Hinckley, Rochelle and Shabbona, suggesting that 56% of families purchasing existing homes in Sycamore would be considered local people from DeKalb County

Nearly all of the remainder of people purchasing existing homes were families relocating from the suburbs of Chicago. The following graph in *Figure 5* makes that comparison.

**Figure 5-Transfer Taxpayer Previous Residences by General Location**



Considering the number of children and adults moving into existing housing, the data from the mail survey was inserted into an SPSS spreadsheet and statistical analysis applied using independent samples T-testing. Of the 222 total existing homes paying the transfer tax, 121 responded to the mail survey.

To test the hypothesis that new residents in existing housing units had more children than the families that had lived there before SMA calculated the average occupancy levels of the 121 owner-occupied respondents to the survey. The findings are presented in Table 40.

**Table 40- Average Occupancy of Existing Homes**

	N	Mean	Std. Deviation	Std. Error Mean
Total people in the home	118	2.60	1.347	.124

The average of 2.60 people per existing housing unit re-occupied in 2006 is slightly lower than the Special Census findings from 2005 which showed 2.68 people lived in Sycamore’s owner-occupied homes on average. This difference does not prove that there are less children, but it does suggest there are less people overall.

To identify the numbers of children that move into the existing homes paying transfer taxes, the following table was created from the mail survey data, showing the occupancy levels from survey respondents in a format similar to that in the subdivision ordinance.

Some categories, such as four-bedroom attached homes, were not presented because there were no existing homes sold in that category. Other categories, such as existing two-bedroom detached homes were added, even though no new homes have been built within that category.

**Table 41- Estimation of Ultimate Population Per Dwelling Unit for Existing Homes**

Type	0-4 yrs	5-10 yrs.	11-13 yrs.	14-17 yrs.	adults	total
2 bedroom attached	.15	.00	.00	.08	1.50	1.69
3 bedroom attached	.15	.15	.08	.15	1.69	2.22
2 bedroom detached	.00	.00	.20	.10	1.80	2.10
3 bedroom detached	.33	.28	.11	.09	1.83	2.64
4 bedroom detached	.46	.62	.15	.38	2.00	3.61

Table 41 may be difficult to interpret without a context. In this case, the context could be the table that is presented in the subdivision ordinance or the table that shows occupancy levels of new homes. However, before that will be done, it is important to consider other issues.

One important consideration is the percentage of children attending Sycamore schools who are coming from Transfer Tax eligible housing and how that compares to the percent not attending Sycamore Schools coming from new housing.

It is possible to make that comparison because the mail survey to transfer taxpayers asked that question, just as the telephone survey did to residents of new housing units.

The findings suggest that, of those who responded to the mail survey who were transfer taxpayers, 18% said that they were not sending their children to Sycamore schools; assuming respondents intended to send their children to either private school or to home school. This finding was higher than the 11% of new home buyers who reported they were not sending their children to Sycamore schools.

The rival hypothesis, that existing homes are being purchased as investments and occupied by renters with more children than new homes being built, also was tested.

The following table compares the occupancy levels of renters residing in existing homes purchased within the past year paying the transfer tax. It also shows how few renters there were that responded to the survey.

**Table 42- Renters Compared to Owners in Existing Homes**

Ages of residents	Types	N	Mean	Std. Deviation	Std. Error Mean
Adults	Own	107	1.81	.585	.057
	Rent	1	1.00	.	.
1-4 year olds	Own	107	.24	.596	.058
	Rent	1	.00	.	.
5-10 year olds	Own	108	.23	.557	.054
	Rent	1	.00	.	.
11-13 year olds	Own	106	.08	.312	.030
	Rent	1	.00	.	.
14-17 year olds	Own	107	.12	.405	.039
	Rent	1	.00	.	.

Table 42 shows that, of the 108 respondents answering the mail survey question 7 regarding whether they owned or rented their dwelling unit, only one said they rented. This suggests a very small likelihood that people purchased existing homes as investments rather than residences.

As suggested earlier, to put the occupancy levels of existing homes into context, another level of comparison was made. Occupancy levels of existing housing units were compared to those of new housing units.

Comparing the mail survey data findings related to transfer tax data to the City's own point of occupancy permit survey data, the following table shows the difference, with the occupancy levels for existing housing on the left and for new housing on the right.

**Table 43- Estimation of the Ultimate Population Per Dwelling Unit for Existing/New Housing Units**

Type	0-4 yrs	5-10 yrs.	11-13 yrs.	14-17 yrs.	adults	total
1 bedroom attached	na/.00	na/.00	na/.00	na/.00	na/1.00	na/1.00
2 bedroom attached	.15/.03	.00/.02	.00/.02	.04/.01	1.50/1.67	1.69/1.75
3 bedroom attached	.15/.04	.15/.39	.08/.39	.15/.09	1.69/ 2.00	2.22/2.56
4 bedroom attached	na/.00	na/.00	na/.14	na/.14	na/ 2.00	na/2.28
2 bedroom detached	.00/na	.00/na	.20/na	.10/na	1.80/na	2.10/na
3 bedroom detached	.33/.19	.28/.22	.11/.12	.09/.08	1.83/2.06	2.64/2.67
4 bedroom detached	.46/.38	.62/.51	.15/.18	.38/.14	2.00/2.03	3.61/ 3.24
5 bedroom detached	.na/.26	na/.91	na/.41	na/.38	na/ 2.00	na/ 3.96

The findings show that, for some categories, there are no levels of comparison. For instance, because there were no new one-bedroom attached homes built but there were a few existing one-bedroom attached homes sold, there is no level of comparison.

The same is true for four-bedroom attached homes. For the category of five-bedroom detached homes, there were not enough existing homes to create a sample.

Table 43 suggests that for two-bedroom attached housing units, except for preschool children, new units generated more children and adults than did existing housing stock. For three-bedroom attached homes, new homes generated more grade school, and middle school children and adults, but less preschool and high school children than did existing housing stock.

For detached homes, new three and four bedroom units generated less in nearly all age categories except for junior high school age children and adults than did existing housing units.

The importance of these findings are that they provide evidence that the transfer tax may be justified on the basis that existing homes are generally occupied by families with slightly more children than new housing units.

However, one important question remains before a final determination can be made. That question is how many children did the family moving out of the home have compared to the number of children the family moving in had. Without that basis of comparison, it could be problematic to determine the net impact of additional children generated from existing home sales.

On the other hand, there is not a dramatic difference between the occupancy levels of new homes and existing homes, suggesting their ultimate predicted populations may be a function of macro-demographic issues such as birth rates instead of local issues such as preferences for local schools.

## Approved Subdivision Construction

Since the School District boundaries extended beyond the city limits, the residential construction externalities outside the City of Sycamore could have an effect on District 427 that is outside the scope of this study. However, considering only the subdivisions that have been approved by the City of Sycamore for construction, the map of Sycamore presented on the following page and the approved subdivisions in Table 44, provides an understanding of the locations of approved subdivisions and the numbers of unit types that have been approved for construction.

**Table 44- 2004-2006 Subdivision Buildouts**

Name of Subdivision	2004		2005		2006	
	D	A	D	A	D	A
Landahl	0	0	0	0	0	0
Foxpointe	5	0	5	0	0	0
Townsend Woods	28	82	38	128	26	70
Krpan's Grandview Townhouses	0	0	0	6	0	15
Heron Creek	62	0	94	0	26	7
Stonegate Townhouses	0	12	0	20	0	8
Castle Townhouses	0	12	0	28	0	7
Parkside Estates	12	0	37	0	26	0
The Willows Apts	0	10	0	128	0	64
Reston Ponds	87	0	48	0	24	0
Sycamore Creek:	0	0	5	0	11	0
North Grove Crossing	0	0	20	62	25	0
Camden Crossing	0	0	0	0	2	0
McAllister Duplexes	0	8	0	0	2	0
Sycamore Creek II	0	0	0	0	0	0
Hickory Terrace	0	0	2	11	10	0
Wynn Townhouses	0	4	0	12	0	8
Gracious Living Homes	0	0	0	8	0	16
Lindgren	0	0	0	0	0	0
Wolfenberger	0	0	0	0	0	0
Mapes	0	0	0	0	0	0
Whitwell	0	0	0	0	0	0
Pappas	0	0	0	0	0	0
Other	2	0	6	54	6	15
<b>Total</b>	196	128	255	457	158	210
	<b>324</b>		<b>712</b>		<b>368</b>	

The number of detached and attached homes that have been built over the past three years is reflected in Table 44, with the detached home under the “D” columns and attached homes under the “A” columns.

The table shows that 609 detached homes were built during that three-year period and 795 attached housing units were built. This is somewhat of a lower number than the 559 detached and 425 attached home data collected in the Sycamore survey at the point of occupancy permit.

Part of this difference is because the data from the previous table was collected for the entire 2004 year, while the survey data was only collected for the second half of 2004. This lag would explain the difference in the number of detached housing units surveyed since June of 2004 compared to the total number built since then. Nevertheless, there are two effects which need to be considered. The first is the effect of new housing units built on the number of school children added to the population in general and to the schools specifically. The second effect is the additional tax revenue that these new homes generate.

Considering the first effect, the total number of people generated, certain assumptions need to be made. One assumption is that the table generated from the Sycamore point of occupancy survey is valid. The second is the number of unit types built.

The latter assumption is necessary because the subdivision buildout figures are specific to whether units built were detached or attached housing units, but were not specific to the number of bedrooms. To determine the latter, the City’s own estimates will

be used. The following table represents the percentage of housing units of each type that City staff report being built:

**Table 45- Percentage of Housing Units by Type**

**Attached Single Family Homes**

1 Bedroom	6.12%
2 Bedroom	87.76%
3 Bedroom	6.12%

**Detached Single Family Homes**

2 Bedroom	4.84%
3 Bedroom	38.71%
4 Bedroom	46.77%
5 Bedroom	9.68%

Again, data is emerging that can be tested. At this point, it is important to determine whether the data collected by the City staff predicts more or less children and adults emerging from new home construction than are actually arriving.

To calculate how housing units of each type could be predicted to be built, the number of housing units per year would be multiplied times the percentages of different types that were built on average.

For instance, considering Table 44 showed that 128 single-family attached homes were built in 2004, the formulas to calculate how many one, two and three bedroom units were built are:

$$\begin{aligned} 128 \times .0612 &= 7.8336 \text{ one bedroom units} \\ 128 \times .8776 &= 112.3328 \text{ two bedroom units} \\ 128 \times .0612 &= 7.8336 \text{ three bedroom units} \end{aligned}$$

The same formulas will be used to estimate new 2004 detached units and all 2005 and 2006 housing units, rounding to the nearest unit. The following table presents the estimated totals of housing units built each year.

**Table 46- Number of Housing Units Actually Built**

<b>Housing types</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
1 bedroom attached	8	28	13
2 bedroom attached	112	401	184
3 bedroom attached	8	28	13
<b>Total attached units</b>	<b>128</b>	<b>457</b>	<b>210</b>
2 bedroom detached	10	12	8
3 bedroom detached	76	99	62
4 bedroom detached	92	120	74
5 bedroom detached	19	25	15
<b>Total detached units</b>	<b>197</b>	<b>256</b>	<b>155</b>

Table 46 totals can now be multiplied times the number of children and adults who that the Sycamore staff occupancy permit survey data in Table 29 on page 54 predicted would be derived from each type of housing unit. This is a way this study can test the data collected by City staff to see if Table 29 predicts the actual number of new children who are arriving or if there are other variables that need to be considered, such as other evidence that some families home-school their children or send them to private schools.

The following formula used to calculate the number of preschool children in 2004 is presented as an example of how the calculations were done:

$$.00(8) + .03(112) + .04(8) + .00(10) + .19(76) + .38(92) + .26(19) = 58.02 \text{ preschoolers}$$

Table 47 shows how many children and adults would have been generated from new housing units in all age group categories for all three years using the formula.

Fractional numbers of people have been rounded to the next nearest person.

**Table 47- Predicted Number of School Children by Grade**

<b>Year</b>	<b>Pre-school</b>	<b>K-5</b>	<b>6-8</b>	<b>9-12</b>	<b>Adults</b>	<b>School Kids</b>	<b>Total</b>
2004	58	86	41	29	602	156	816
2005	84	125	65	42	1,245	232	1,561
2006	50	74	37	25	656	136	842
Totals	192	285	143	96	2,503	524	3,219

Table 47 shows that the total number of school children added from the construction of new housing units in Sycamore would be forecasted to be 524 over the three-year period.

However, in actuality the number of children added to the School District during that three year period was **406, or 77.5%** of the 524 that were predicted. This suggests that the forecast presented in Table 29 predicted more children than appear to be enrolling.

This is an important finding. It suggests there are other variables that need to be considered other than simply the number of children new home owners report move into the new homes and far less than the Naperville table in the subdivision ordinance predicts.

One explanation might be the declining birth rates that have been exemplified in each of the Census findings for the past five decades. During the past five decades, it has been widely observed that birth rates have declined on a national level each decade.

If it assumed that the trend is continuing during this decade, it could be an explanation why this study's data shows less children arriving at the School District than would be predicted from new housing occupancy alone.

If his were the case, applying any table predicting occupancy of new homes would need to take into consideration other demographic issues, such as declining birth rates, in order to accurately predict student population growth in schools.

Another factor that impacts actual school enrollment from new and existing homes is the percent of households that either send their children to private schools or home school them.

As was demonstrated by a telephone survey of new homes and the mail survey of existing homes findings, those studies found that 11% of new home buyers and 18% of existing home buyers with children in their households responded that they did not send their children to Sycamore schools.

Whatever the reasons, it is fair to say that Table 29 predicts more children than appear to be coming from new homes by as much as 45%. It is also reasonable to assume that the Naperville table in the City's subdivision ordinance predicts even more students than the City data.

Since one of the most important goals of this study is to identify how many children should the District 427 expect to receive throughout the buildout of approved subdivisions, it is important to get this right.

To address that question, this study needs to identify how many homes are planned to be built over the next few years. Table 48 shows the number planned between 2007 and 2010.

**Table 48- 2007-2010 Predicted Buildouts of Approved Subdivisions**

**Sycamore: Residential Permit Timeline:** Single Family/Multiple Family (Multiple Family includes townhouses, condos, and apartments)

Name of Subdivision	2007		2008		2009		2010	
	SF	MF	SF	MF	SF	MF	SF	MF
Landahl	0	0	0	0	0	0	0	0
Foxpointe	0	0	0	0	0	0	0	0
Townsend Woods*	0	0	0	0	0	0	0	0
Krpan's Grandview Townhouses III	0	16	0	15	0	17	0	0
Heron Creek	25	0	17	0	0	0	0	0
Stonegate Townhouses	0	24	0	24	0	24	0	18
Castle Townhouses	0	0	0	0	0	0	0	0
Parkside Estates	30	0	45	0	45	0	28	0
The Willows Apts.	0	60	0	52	0	4	0	0
Reston Ponds	75	0	75	0	38	0	36	0
Sycamore Creek:	70	0	70	0	70	0	70	0
North Grove Crossing	25	14	26	0	26	0	15	0
Camden Crossing	12	40	19	36	0	24	0	25
McAllister Duplexes	0	0	0	0	0	0	0	0
Sycamore Creek II	0	0	0	0	0	0	50	0
Hickory Terrace	10	0	10	0	10	0	9	0
Wynn Townhouses	0	0	0	0	0	0	0	0
Gracious Living Homes	0	24	0	14	0	12	0	8
Lindgren	0	0	0	0	0	0	11	0
Wolfenberger	0	0	0	0	0	0	25	0
Mapes	0	0	0	0	0	0	40	0
Whitwell	0	0	0	0	0	0	50	0
Pappas	0	0	0	0	0	0	4	0
John Hall Homes	0	0	20	0	25	12	25	6
Inland	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
<b>Total</b>	<b>247</b>	<b>178</b>	<b>282</b>	<b>141</b>	<b>214</b>	<b>93</b>	<b>363</b>	<b>57</b>
	<b>425</b>		<b>423</b>		<b>307</b>		<b>420</b>	

Considering the number of units that have been approved for development, Table 48 provides the estimates supplied by City staff regarding the number of attached and detached units in any given year from 2007 through 2010.

Based upon the estimated percentages of unit types to be built, Table 49 predicts those to be built from 2007 through 2010. Only including 2007 through 2010 in the table was done for ease of readability and interpretation. Any differences from the previous table can be attributed to rounding after computations.

**Table 49- Number of Housing Types Generated by the 2007-2010 Buildout**

<b>Housing types</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
1 bedroom attached	11	9	6	3
2 bedroom attached	156	124	82	50
3 bedroom attached	11	9	6	3
Total attached units	178	142	94	56
2 bedroom detached	12	14	10	18
3 bedroom detached	96	109	83	141
4 bedroom detached	116	132	100	170
5 bedroom detached	24	27	21	35
Total detached units	248	282	214	364

The shows the number of attached homes peaking in 2007 and falling substantially by 2010, while the number of attached homes increases during same period.

The subdivision buildouts from 2011 through 2015 have also been estimated by City staff and are presented in Table 50. Again, the table presented the second half of the nine year period for ease of readability.

**Table 50- 2011-2015 Predicted Buildout of Approved Subdivisions**

**Sycamore: Residential Permit Timeline:** Single Family/Multiple Family (Multiple Family includes townhouses, condos, and apartments)

Name of Subdivision	2011		2012		2013		2014		2015	
	SF	MF	SF	MF	SF	MF	SF	MF	SF	MF
Landahl	0	0	0	0	0	0	0	0	0	0
Foxpointe	0	0	0	0	0	0	0	0	0	0
Townsend Woods	0	0	0	0	0	0	0	0	0	0
Krpan's Grandview Townhouses III	0	0	0	0	0	0	0	0	0	0
Heron Creek	0	0	0	0	0	0	0	0	0	0
Stonegate Townhouses	0	0	0	0	0	0	0	0	0	0
Castle Townhouses	0	0	0	0	0	0	0	0	0	0
Parkside Estates	0	0	0	0	0	0	0	0	0	0
The Willows Apts	0	0	0	0	0	0	0	0	0	0
Reston Ponds	0	0	0	0	0	0	0	0	0	0
Sycamore Creek	40	0	29	0	16	0	0	0	0	0
North Grove Crossing	15	0	0	0	0	0	0	0	0	0
Camden Crossing	0	25	0	0	0	0	0	0	0	0
McAllister Duplexes	0	0	0	0	0	0	0	0	0	0
Sycamore Creek II	60	0	50	15	50	15	50	15	50	15
Hickory Terrace	0	0	0	0	0	0	0	0	0	0
Wynn Townhouses	0	0	0	0	0	0	0	0	0	0
Gracious Living Homes	0	0	0	0	0	0	0	0	0	0
Lindgren	35	0	35	0	0	0	0	0	0	0
Wolfenberger	27	0	68	0	68	0	68	0	68	0
Mapes	40	0	40	0	40	0	40	0	0	0
Whitwell	50	0	40	0	50	0	50	0	50	0
Pappass	15	0	20	0	27	0	27	0	14	0
John Hall Homes	25	20	25	20	25	20	7	20	0	20
Inland	0	0	25	0	40	0	40	0	40	0
Other	0	0	0	0	0	0	0	0	0	0
	307	45	332	35	316	35	282	35	222	35
<b>Total</b>	352		367		351		317		257	

An important consideration in tables 49 and 50 is that the number of detached units are relatively stable between 2011 and 2015, whereas attached units continues to decline precipitously during that period. This is important because, as it was shown earlier, attached units produce far less children than predicted, and detached units produce more.

In order to predict the number of bedrooms of each of these two housing types, the following table is generated by multiplying the percentages of anticipated unit types times the number of units. Table 51 projects the units built between 2011 and 2015. Again, any differences are minor and due to rounding.

**Table 51- Number of Housing Types Generated by the 2011-2015 Buildout**

<b>Housing types</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
1 bedroom attached	3	2	2	2	2
2 bedroom attached	39	31	31	31	31
3 bedroom attached	3	2	2	2	2
Total attached units	45	35	35	35	35
2 bedroom detached	15	16	15	14	11
3 bedroom detached	119	129	122	109	86
4 bedroom detached	144	155	148	132	104
5 bedroom detached	30	32	31	27	21
Totals	308	332	316	282	222

In order to determine the number of children that will be generated from the total homes projected to be built on an annual basis between 2007 and 2015, this can be achieved by applying the number of anticipated unit categories times the predicted number of children that have been historically derived from each unit type as was shown earlier, testing the number of children arriving at the School District between 2004 and 2006.

As considered earlier, that model assumes 1 bedroom units will comprise 6.12% of the new attached units built, 2 bedroom units will comprise 87.76% of new attached units built, and 3 bedroom units will comprise 6.12% of new attached units built.

Likewise, for detached units, 2 bedroom units will comprise 4.84% of new detached units built, 3 bedroom units will comprise 38.71% of new detached units built, 4 bedroom units will comprise 46.77% of new detached units built and 5 bedroom units will comprise 9.68% of new detached units built.

The following table presents the outcomes of those calculations and forecasts the number of children arriving each year from all new housing units. Again, the number of children and adults will be rounded to the nearest person.

**Table 52- Number of Children Predicted Derived from New Housing Units**

<b>Year</b>	<b>Pre-school</b>	<b>K-5</b>	<b>6-8</b>	<b>9-12</b>	<b>Adults</b>	<b>School Kids</b>	<b>Total</b>
2007	33	109	52	37	797	198	995
2008	82	122	57	40	806	219	1,025
2009	61	92	43	32	589	167	756
2010	103	152	68	51	749	271	1,020
2011	87	128	57	43	698	228	926
2012	93	144	61	46	744	251	995
2013	88	132	60	45	725	237	962
2014	79	118	53	38	583	209	792
2015	62	93	42	24	508	154	667
<b>Totals</b>	<b>688</b>	<b>1,090</b>	<b>493</b>	<b>356</b>	<b>6,199</b>	<b>1,934</b>	<b>8,138</b>

Table 52 does not take into consideration the people who had already lived in Sycamore in existing housing stock before they moved to new homes.

Table 52 also does not take into consideration the percentage of children who will attend private schools or be home schooled. Nor does it take into consideration the declining birth rate in the rest of the community, which could reduce the student population for existing housing.

As shown earlier, when comparing the predicted number of children that the Sycamore data shows has been generated from new homes compared to the actual number of children that had arrived in District 427 schools, the total number arriving could be as much as 45% less than predicted.

Therefore, this study finds it unreasonable to assume Table 52 shows 1,934 new children who will arrive between now and 2015, for whom District 427 would have to build new schools to accommodate.

### **Predicted New Students in District 427 from 2007 through 2015**

There are three issues that must be considered before the capital impact of residential growth upon District 427 can be understood. The first is the number of new students the District can anticipate arriving. The second is whether the District has any excess physical capacity within which to accommodate new students. The third is the cost of building new physical plant to accommodate new students.

Considering the number of new students who will be arriving, this analysis begins with a summary of the number of students currently housed within District 427 facilities. Earlier in the study, the historical and current enrollments of the various schools were presented in order to assess how growth has affected enrollments over the past seven

year. The following table shows what enrollments were in the fall of the current school year as presented earlier in this study.

**Table 53- Current Enrollments by School**

<b>Sycamore High School</b>	
2006-2007 School Year	1,176
<b>Sycamore Middle School</b>	
2006-2007 School Year	775
<b>North Elementary School</b>	
2006-2007 School Year	423
<b>Southeast Elementary School</b>	
2006-2007 School Year	438
<b>West Elementary School</b>	
2006-2007 School Year	324
<b>South Prairie Elementary School</b>	
2006-2007 School Year	408

Earlier in this study Table 47 predicted 524 children should have arrived at Sycamore schools as a result of new home construction between 2004 and 2006, whereas Table 14 showed that only 278 arrived, 45% less than predicted.

It was determined that possible explanations for the difference included that 23% of the children were not new to the District, having relocated from an existing home in Sycamore to a new home.

It was also determined that 11% of families purchasing new homes chose to educate their children other than in District 427 schools. And it was also determined that demographic declines in birth rates provided another reasonable explanation.

Therefore, in order to avoid overestimating the number of additional children that should arrive between 2007 and 2015, SMA believes that the predictive model presented in Table 29 should be reduced by 45%.

Multiplying the total number of new students times **77.5%** done in Table 54 shows the resulting growth in the population of individual schools which this study suggests is more reasonable to assume.

**Table 54- Possible School Enrollments 2007-2015**

School	2006-7	2007-8	2008-9	2009-10	2010-11	2011-12	2012-13	1013-14	2014-15
<b>Sycamore High School</b>	1,176	1,205	1,236	1,261	1,301	1,334	1,370	1,405	1,434
<b>Sycamore Middle School</b>	775	815	859	892	945	989	1,036	1,083	1,124
<b>North Elementary School</b>	423	425	450	400	400	400	400	400	400
<b>Southeast Elementary School</b>	438	495	515	450	450	450	450	450	450
<b>West Elementary School</b>	324	325	350	300	300	300	300	300	300
<b>South Prairie Elem. School</b>	408	432	452	400	400	400	400	400	400
<b>New Elementary School</b>	0	0	0	288	406	505	450	450	450
<b>Second New Elem. School</b>	0	0	0	0	0	0	167	269	360

Table 54 shows the grade schools could be over-capacity during the 2007-8 and 2008-9 school years, waiting for the new grade school to be brought on line. From that point, Table 54 shows that a second new grade school will be needed by the 2012-13 school year, suggesting a referendum in 2010.

There is a way of testing whether this study is under-predicting the number of new children that the District will have to accommodate between now and 2015. This study can identify the growth rate during the current school year. .

To help test the assumption that **77.5%** of the predicted number of children will actually arrive, District 427 has provided the month to month enrollments in the schools to illustrate the level of growth.

Those numbers are shown in the following table, beginning with the first enrollments and ending with the most recently available April enrollments.

**Table 55- Student Increase during the 2006-2007 School Year**

<b>Enrollment by Month</b>	<b>End of School FY06</b>	<b>1st day</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>
High School	1129	1191	1185	1185	1181	1173	1168	1164	1160	1157	0	
Middle School	794	778	777	775	772	774	779	781	781	781	0	
South Prairie	405	408	408	413	412	413	412	411	410	415	0	
North	406	425	423	425	425	424	427	429	427	430	0	
Southeast	407	437	438	444	443	441	440	440	440	442	0	
West	311	322	321	327	327	329	337	335	334	336	0	
Elementary	1529	1592	1590	1609	1607	1607	1616	1615	1611	1623	0	
18-21	9	10	10	10	10	10	10	10	10	10	0	
<b>Total</b>	<b>3461</b>	<b>3571</b>	<b>3562</b>	<b>3579</b>	<b>3570</b>	<b>3564</b>	<b>3573</b>	<b>3570</b>	<b>3562</b>	<b>3571</b>	<b>0</b>	<b>0</b>
<b>% increase beg of school</b>		<b>3.18%</b>										

Table 55 shows that the high school enrollment began at 1,191 and fell to 1,157 by April 2007. Middle school enrollment also decreased during that period, from 794 to 781 from the beginning of school through April 2007. However, elementary school enrollment increased by 31 students during the school year.

The summer of 2006 was when most of the growth occurred. This would be intuitive, considering that most families would choose to move into a community during the summer months when children are not in school, showing increased enrollments at the beginning of the school year, which apparently occurred.

Predictive models, like tables 29 and 54, deal in averages of the data received. Actual experiences, shown in Table 55 are rarely as neat and clean. However, the 2006-7 school year data in Table 55 does suggest that enrollments are not increasing as fast as

Table 29 would predict. Therefore, it will be important to consider declining birth rates, and families sending their children to private and home schools when assessing the capital impacts upon District 427 that result from new home construction.

### **Current Facility Capacities of District 427**

In terms of the capital costs of accommodating the new students predicted in Table 54, one important consideration is that a \$30 million referendum was recently approved by Sycamore School District voters to make improvements on some of the schools. That referendum approved the extension of existing debt presented in this study and additional debt to fund capital improvements, primarily to grade schools.

The grade school improvements include life-safety improvements to the existing schools and construction of a new grade school at a cost of about \$15 million. The new school would ideally accommodate 450 children, but could accommodate up to 500 children for a short period of time.

Based upon the square footage of the new grade school estimated to be 75,000 square feet, if the school accommodated 500 children, the standard of square footage per child would be 150 square feet per child.

According to District 427, the State of Illinois recommends a minimum of 100 square feet on average per primary school child and 150 square feet or space per intermediate student, suggesting that District 427 will build more square feet than the minimum recommendation.

However, the reality is that the minimum standard of square footage per child is not current with either the demands of local school districts or the past experiences that districts have had in school designs to meet federal and state mandates.

Some of the state and federal mandates will be accommodated by the recent referendum when the District makes \$15 million worth of life-safety improvements to its other schools in order to be in compliance. But, at \$15 million for the new grade school, the cost per student calculates to be \$200 per square foot, which is about the going rate for school construction today.

Using \$200 per square foot as the cost to accommodate children and 100 square feet as the State mandated minimum and 150 square feet as the total that Sycamore School District 427 has adopted as its practice, a model emerges for calculating the capital costs of accommodating a child within the School District.

The model would suggest that each new child generated from new housing units would cost the School District \$20,000 for grade school students and \$30,000 for middle school and high school students to build additional school space.

Capacities of the current schools are largely a matter of opinion. Considering the capacity of the high school to accommodate additional children, it has been suggested by the School District itself that the high school could accommodate up to 500 more students without major capital costs. However, SMA feels that it is unlikely that no capital costs would be associated with that much growth.

Nevertheless, with the addition of 356 high school children throughout the buildout of approved subdivisions through 2015, these additional children should be within Sycamore High School's current capacity. The fact that the current residents of the District paid for that capacity, though, might suggest that using that capacity should have an associated cost as a capital impact.

On the other hand, because school year high school enrollments declined during 2006-7 by nearly as much as they had increased over the summer of 2006, it's possible that high school enrollments might not increase as much as the City staff data would predict.

It has been suggested that the middle school has the additional capacity of an additional 100-125 students. School District officials suggest that the District could, and might have to, accommodate up to 125 students as the enrollments are predicted to grow over the next few years.

On the other hand, actual enrollments for the 2006-7 school year show middle school enrollments to be declining, suggesting that the pressure on the District to expand the middle school might not be as immediate as otherwise thought.

Student growth in District 427 grade schools appears to be a different matter. Table 55 shows that during the summer of 2006, 63 new grade school students arrived with an additional 31 arriving during the school year.

Considering the capacity of the existing grade schools and the additional grade school capacity added by the April 2007 referendum, two existing grade schools might have some additional capacity, but two grade schools are clearly over capacity.

With the capital improvements approved through the recent referendum, Southeast and South Prairie could accommodate up to 500 students. On the other hand, with life-safety improvements at West and North Elementary schools, capacities could go down.

Table 56 compares maximum capacities to current enrollments.

**Table 56- Current School Enrollments Compared to Maximum Capacities**

<b>School</b>	<b>Current Enrollment</b>	<b>Maximum Capacity</b>
<b>Sycamore High School</b> 2006-2007 School Year	1,176	1,500
<b>Sycamore Middle School</b> 2006-2007 School Year	775	900
<b>North Elementary School</b> 2006-2007 School Year	423	400
<b>Southeast Elementary School</b> 2006-2007 School Year	438	500
<b>West Elementary School</b> 2006-2007 School Year	324	300
<b>South Prairie Elementary School</b> 2006-2007 School Year	408	500
<b>New Elementary</b>	0	500

It should be understood that the capacities shown in Table 56 are estimates of maximum capacities, not necessarily desirable capacities. And capacities could change once the renovation processes on existing schools and the construction design on the new elementary school are finalized. It also should be understood that it is possible the new grade school might not be brought on line until the fall of 2009.

It also should be understood that District 427 will ultimately decide on how grade school children are distributed throughout the grade school facilities. What this scenario depicts is that, with the approval of the \$30 million bond issue for a new grade school and life-safety improvements on existing District facilities, two referenda will be needed to make it through the buildout of the approved subdivisions.

## **Capital Costs of Accommodating Additional Students**

The City of Sycamore's subdivision ordinance provides a land/cash exactment from residential developers on behalf of the School District based upon the predicted number of children who the Naperville table predicts will arrive. The extent to which exactments cover the capital costs is the essence of this study.

As has been shown, the numbers of children predicted to be arriving could be within a wide range of possibilities. The upper extent of those possibilities can be as high as the Naperville table incorporated into Sycamore's subdivision ordinance or as low as the numbers of actual students who appear to be arriving.

The School District's capital costs for accommodating a child is also within a range of possibilities. Assuming that the cost of a new grade school can range from \$9 million to accommodate 400 children (Gwendolyn Brooks Elementary School in DeKalb built in 2000) or \$15 million to accommodate 500 children (Sycamore's new grade school to be built in 2008), costs can vary.

Based upon District 427's costs of \$200 per square foot of space and its plans to build 150 square feet of space per child (75,000 square feet for the new grade school), costs per child would be \$30,000.

Similarly, while middle and high school square footage per child is recommended to be 150 per student, the District could decide to build more. Assuming more means 200 square feet per student, \$40,000 to accommodate intermediate school students is not unreasonable.

However, because the high school has capacity and the new grade school has already been approved by referendum, it is not simply a function of applying a cost per

square foot formula to the number of children arriving in order to determine what capital revenues would be required to cover the costs of construction over the next nine years.

Declining birth rates due to an aging population, students attending private and home schools, and students relocating within the District all contribute to the dampening affect on the number of new students arriving at District schools shown in its own enrollment records.

A method of calculating the actual capital impacts upon District 427 through 2015 would be to calculate the costs of accommodating the children who could arrive, subtracting the land cash fees and transfer tax revenues that would be generated if the current ordinances continued to be enforced without change, and determining what the shortfall would be. The same methodology could be applied to the Park District and Library District.

The high end costs of improvements required to accommodate the enrollments are contained in Table 57 in 2007 dollars.

**Table 57- Highest School District Capital Costs through 2015**

<b>High School Student Impacts</b> (356 additional students X 200 sq. ft. X \$200/sq. ft.)	<b>\$14,240,000</b>
<b>Junior High School Student Impacts</b> (493 additional students X 200 sq. ft X \$200/sq. ft.)	<b>\$19,720,000</b>
<b>Grade School Student Impacts</b> (1,090 additional students X 150 sq. ft. X \$200/sq. ft.)	<b>\$32,700,000</b>
<b>Total</b>	<b>\$66,660,000</b>

Table 57 assumes that 1,934 students would be projected to arrive, that all would attend Sycamore schools, that the birth rate is not declining and all of the new students come from outside the community.

Table 57 also assumes the data collected by City staff is the singular predictor of the growth in District student population, an assumption that this study has shown is questionable.

Another view is that 22.5% less students will arrive based upon declining birth rates, students moving within the District and families sending their children to other schools or home schooling them.

A table taking these variables into consideration is presented below.

**Table 58- Median School District Capital Costs through 2015**

<b>High School Student Impacts</b> (276 additional students X 200 sq. ft. X \$200/sq. ft.)	<b>\$11,040,000</b>
<b>Junior High School Student Impacts</b> (382 additional students X 200 sq. ft X \$200/sq. ft.)	<b>\$15,280,000</b>
<b>Grade School Student Impacts</b> (845 additional students X 150 sq. ft. X \$200/sq. ft.)	<b>\$25,350,000</b>
<b>Total</b>	<b>\$51,670,000</b>

Table 58 uses the square footage of 150 per grade school student and 200 per middle and high school student. However, this total is not based on the costs per student required by the State of Illinois. The costs are based on District 427 past estimates.

Applying the minimum required by the State of Illinois, Table 59 predicts the capital costs applying the same number of additional students as Table 58.

**Table 59- Minimum School District Capital Costs through 2015 Based upon Lower Enrollments**

<b>High School Student Impacts</b> (276 additional students X 150 sq. ft. X \$200/sq. ft.)	<b>\$8,280,000</b>
<b>Junior High School Student Impacts</b> (382 additional students X 150 sq. ft X \$200/sq. ft.)	<b>\$11,460,000</b>
<b>Grade School Student Impacts</b> (845 additional students X 100 sq. ft. X \$200/sq. ft.)	<b>\$16,900,000</b>
<b>Total</b>	<b>\$36,640,000</b>

To summarize the findings in tables 57, 58 and 59, the tables show the range of capital impacts upon the school district based upon two different assumptions. One assumption is the number of new students that could be predicted to arrive between now and 2015. The other is the cost per square foot to accommodate them.

Sycamore’s current land/cash ordinance provides that developers bear only the cost of the land, valued at \$122,000 per acre. Square foot capital costs per students to construct buildings are not considered in the ordinance.

The following table summarizes the City of Sycamore’s subdivision ordinance showing what the ordinance provides per child, by dividing the total fee by the number of school children expected to be generated per unit.

**Table 60- Subdivision Ordinance School Land/Cash Fees**

<b>Unit category</b>	<b>Total Children</b>	<b>Current Fee</b>	<b>Per Child</b>
Two bedroom detached	.204	\$817	\$4,005
Three bedroom detached	.726	3,269	4,503
Four bedroom detached	1.188	5,560	4,680
Five bedroom detached	.893	4,310	4,826
Two bedroom attached	.174	774	4,448
Three bedroom attached	.351	1,446	4,120
Four bedroom attached	.649	2,949	4,544

The table shows that there are slight differences of the land or cash exactments that the ordinance assesses on a per child basis, but on average, a developer pays \$4,447 per child to the School District. The math is simple enough. Multiplying the number of

units to be built times the land/cash fee will yield the total fees to be received by the School District from that source.

The additional revenues derived from the transfer taxes, based on 222 existing residential units and 368 new housing units combined with commercial properties sold in Fiscal 2006-7, raised and transferred to the School District \$692,912.55.

Based upon this one-year experience, which SMA considers a reasonable expectation on an annual basis, approximately \$700,000 in annual receipts could be expected.

The following table presents the land/cash and transfer tax revenues the School District should derive from the sale of new and existing homes under the current subdivision ordinance. The net total represents the amount of money District 427 could receive under the current subdivision ordinance and transfer tax combined.

**Table 61- School District Current Predicted Total Capital Revenues**

<b>Year</b>	<b>Transfer Tax</b>	<b>Impact Fees</b>	<b>Yearly Total</b>	<b>Net Total</b>
2007	\$700,000	\$1,218,236	\$1,918,236	\$1,918,236
2008	700,000	1,335,193	2,035,193	3,953,429
2009	700,000	1,003,701	1,703,701	5,657,130
2010	700,000	1,618,575	2,318,575	7,975,705
2011	700,000	1,369,348	2,069,348	10,045,053
2012	700,000	1,464,322	2,164,322	12,061,375
2013	700,000	1,397,419	2,097,419	14,158,794
2014	700,000	1,247,671	1,947,671	16,106,465
2015	700,000	991,241	1,691,241	17,797,706

The table shows that about \$17.8 million in land/cash exactments and transfer taxes could be expected to be derived from new and existing home sales over the next nine years. That would leave about \$12 million to be generated from referenda or additional impact fees in order to meet the anticipated facility needs of the maximum number of students that could be generated from new homes.

It should be noted that District 427 is not required to be spent transfer tax revenues on capital costs, even though that appeared to be the City's intention as a result of arguments made by managed growth advocates that led to the tax being adopted.

At the time, the case made was that there should be a transfer tax because people without children moving within the community from existing homes to new homes in Sycamore would be selling their homes as starter homes to people with children. Therefore, the transfer tax was an equitable means of transferring the capital burden to the District of that demographic change.

This study has shown that people moving into existing homes have slightly less total children than the most recent Special Census shows the entire community has. Therefore, while the arguments made by those suggesting families with children are using the affordable existing housing stock in greater numbers than new homes, the data does not support that argument.

Another consideration is that, while the City may have intended the transfer tax to be a source of revenue to defer capital impacts of existing housing sales, District 427 officials report the District is utilizing that revenue to support operating expenditures. The District is not prohibited from doing so, although that did not appear to be the City's intention.

Nevertheless, SMA will consider the transfer tax as a source of capital revenues because that was the original intent.

**The Capital Impacts on the Park District**

The capital impacts upon the Park District are less mathematical in their assessment than for the School District. However, the general concepts are similar in that there are standards of services, excess capacity considerations, and tipping points at which new facilities would need to be built.

Beginning with the concept of excess capacity, the following table presents the current number of people Park District facilities serve and the conceptual levels of services these facilities could provide. Both golf course and swimming pool usages were derived from revenues and capacities from full usage every day.

**Table 62- Park District Facilities**

<b>Facility</b>	<b>Current Usage</b>	<b>Capacity</b>
Golf Course	31,000 18-hole rounds	45,000 18-hole rounds
Swimming Pool	17,000 visits	25,000 visits

The difference between estimating capacity of schools and recreation facilities is that schools are used every day of the school year by the same number of children. Recreation facilities have peak usage times and off-peak usage times.

If peak hours are at full capacity, such as hot days for the swimming pool or evenings and weekends for the golf course, then the only real slack time is during off-peak hours. That is generally the case for the Sycamore Park District. Peak times are

currently at full capacity, leaving only off-peak hour slack to be filled by an increase in population.

In the case of the golf course, according to the golf operations administrator, the maximum number of rounds that the course has ever accommodated was 44,000 rounds in a given year. Golf has been on a decline in play over the past decade. Therefore, population increases that lead to additional rounds must be factored into a model that also includes a decreasing per capita demand for the service.

Another variable in a golf course demand model is competition. In DeKalb County, there are a great number of golf courses that are competing for a decreasing demand demographic, exacerbated by the occasional addition of a new golf course, such as Green Tree Golf Course on the south side of DeKalb, which opened this season.

Swimming pools have experienced similar declines in demand, as well as competition dynamics. For instance, the Genoa and DeKalb Park District aquatic centers have made improvements in the past 10 years which the Sycamore Park District facility has not matched.

Part of the reason is that the Sycamore Park District swimming pool is constructed upon a 100-year floodplain, making it difficult to secure building permits to enhance the facility. Sycamore's pool is also land-locked in Community Park, with no place to expand parking.

Nevertheless, the assessment of Strategic Management Alliance is that an increase in population in Sycamore would have a positive effect on the Sycamore Park District's golf course and swimming pool usage, despite the overall decline in usages in recent years and increased competition from neighboring communities.

When it comes to assessing other Park District facilities, the methodology is even more qualitative. For instance, the athletic facilities at Community Park are considered to be at full capacity. The soccer facilities are over capacity, since some soccer fields were displaced to make room for the new park and golf course maintenance facility.

The Park District has recently moved into a new community center facility, which it rents. That site is mainly used as a fitness center, and is not at capacity, based on the current number of people using the center.

Neighborhood parks are another issue. The current subdivision ordinance provides for the following land/cash exactments for parks, based upon the populations that the Naperville table predicts times \$122,000 per acre.

**Table 63- Current Subdivision Ordinance Park District Fees**

<b>Category</b>	<b>Expected Population</b>	<b>Fee</b>
1 bedroom attached	1.119 people	\$418
2 bedroom attached	1.990 people	\$697
3 bedroom attached	2.392 people	\$837
1 & 2 bedroom detached	2.017 people	\$706
3 or more bedroom detached	2.899 people	\$1,015

The Park District currently owns about 325 acres of land to serve a population of about 15,000 people. According to parks and recreation standards, this would be a community standard of about 20 acres per 1,000 people, which is desirable.

Considering the table above, at \$122,000 per acre, this would allow the Park District to purchase 3 acres per 1,000 people, ultimately reducing the acreage per 1,000 as the population of Sycamore grows.

In order to determine the fees that would be generated by the subdivision ordinance on behalf of the Park District as simple formula can be used. Multiplying the fees for each home category times the number of units anticipated to be built between 2007 and 2015, the following table presents the expected revenues that the park district would receive from the land/cash ordinance on a year by year basis.

The park land in the table is the amount that could be purchased with the fees at \$122,000 per acres, and the total people are the expected number of people that would be added to Sycamore’s population that year.

**Table 64- Park District Predicted Land/Cash Ordinance Fees**

<b>Year</b>	<b>Total Fees</b>	<b>Total People</b>	<b>Park Land</b>
2007	\$370,549	995	3.04 acres
2008	\$379,627	1,025	3.11 acres
2009	\$278,810	756	2.29 acres
2010	\$402,513	1,020	3.30 acres
2011	\$338,933	926	2.78 acres
2012	\$356,153	995	2.92 acres
2013	\$340,222	962	2.79 acres
2014	\$306,021	792	2.51 acres
2015	\$246,048	667	2.02 acres
<b>Totals</b>	<b>\$3,018,876</b>	<b>8,138</b>	<b>24.74 acres</b>

The previous table shows that the Park District could expect to receive about \$3 million in fees from developers over the next nine years which, if spent on park land alone, would purchase 24.74 acres of land at \$122,000 per acre.

The District's current standard of about 20 acres per 1,000 would require about 163 acres of land to maintain. At \$122,000 per acre, the fees to purchase that amount of land would be nearly \$19.9 million.

### **Impacts of Residential Growth upon the Sycamore Public Library**

Qualitative analysis, such as case study comparison analysis, is often necessary as a methodology to understand the impact of growth on some governmental units such as public libraries. To perform comparative case study analysis, there are sources of information that lend themselves to statistical analysis.

At a website maintained by the University of Illinois (<http://lrc.lis.uiuc.edu/web/IPLS.html>), there are data about all of the individual libraries within the State of Illinois. Assembled as reports in a PDF format, the most recent of these is for the fiscal year of 2004-5.

Using these reports as a basis of comparison is useful, especially if there can be similar libraries selected which have a level of comparability that can help this study assess whether Sycamore's Public Library is under stress from residential growth.

To make comparisons, three reports were selected; the report on sources of income, the report on staffing levels, and the report on hours of operation. The communities selected to compare to the Sycamore Public Library were Warrenville, North Aurora, and Rochelle.

All three of these communities are about the same population as Sycamore, are in the same region of the state and have been experiencing growth of late.

Considering the 2004-5 reports, the following table provides levels of comparability upon which this study can identify certain conditions of stress.

**Table 65- Library Comparisons for 2004-5**

<u>Library</u>	<u>Population Served</u>	<u>Total Staff</u>	<u>Staff/1000</u>	<u>Total Income</u>	<u>per capita Income</u>	<u>Hours/week</u>	<u>per capita attendance</u>
Sycamore	12,020	13.7	1.1	\$745,306	\$62.01	64.0	11.3
North Aurora	13,674	16.0	1.2	949,046	69.41	68.0	11.5
Rochelle	13,370	6.0	0.4	296,905	22.21	56.0	4.7
Warrenville	13,363	14.3	1.1	882,684	66.05	67.0	11.7

The findings in Table 63 show that in 2004-5, the Sycamore Public Library was in a very similar condition as North Aurora and Warrenville in terms of total staff, total operating income, and per capita usage compared to Rochelle.

This case study analysis shows that the Sycamore Public Library is much more like a suburban library than a downstate library in terms of funding and staffing.

How the recent resident growth will affect that comparison remains to be seen. But earlier analysis in this study of the recent operating revenues suggests that the Library is keeping pace with growth.

The Sycamore Library head librarian was asked to provide a narrative of her views of the effects of recent residential growth since 2005. A transcript of those comments is available in the Appendix of this study.

Summarizing her responses suggests that the current Library facility is at or near capacity in terms of usage at the time of this writing. As presented earlier, the Special Census in 2005 showed that nearly 3,000 people were added to the community since that

time. Assuming that Sycamore's per capita Library usage remained at around 11.3 visits per person per year, that increase in population should account for nearly 34,000 additional annual visits to the Library in addition to the 135,733 visits that it was experiencing in 2005.

### **Policy Implications of Residential Development in Sycamore**

It has not been the intent of this study to tell the policy makers at the City of Sycamore what decisions they should make in order to deal with future residential development. It is intent of this study to provide information upon which they can base decisions. However, certain findings are clear making their implications clear.

First, the previous analyses of the capital impacts of residential development upon Sycamore suggest that the City's current subdivision ordinance, which secures exactments from developers, is not recovering enough money to pay the local governments for all of the capital impacts that result from residential growth.

While this study has shown that the City of Sycamore is in a solid operating and capital position, and other governmental units seem to be in sound financial operating conditions, capital costs are not being totally recovered by the Sycamore Park District and School District 427. This study has shown that, in addition to the land/cash and transfer tax revenues, the School District needed to seek referenda to increase property taxes in order to accommodate new students.

This study has shown that, even with the social science data collection tools available, the data about the number of new students that will arrive each year can vary from what can be predicted.

The Park District is in a somewhat different position. It has excess capacity at the swimming pool and golf course. Additional population in the community would provide an opportunity to generate more revenues at those facilities. But the current subdivision ordinance only provides a portion of what the Park District needs to maintain its current ratio of park acreage to population.

The Public Library is another issue. As the narrative from the library director suggests, the 10 year excess capacity that was envisioned during the construction of the previous library expansion project may have been utilized already. It might be time for the next expansion project to be considered if the Sycamore Public Library intends to maintain its service levels.

Based on the findings in this study, it might be a good time for the City of Sycamore to review its subdivision ordinance and make changes that could provide additional capital resources to its local governments- resources that appear to be needed.

A good place to start would be the Table of Estimated Ultimate Population. The City now has enough data to apply its own table as the basis for predicting the number of children and adults that will reside in new homes.

The City should also begin to collect occupancy level data from Transfer fee payers as a way to determine whether there are higher numbers of children moving into existing housing as opposed to new housing.

As far as the impact fees themselves, this study has identified several reasons why the ultimate impact fees charged to developers for schools, and ultimately the people who purchase the new homes, are not simply a function of the predicted number of children

coming from the home times the School District's per student cost of building a new school.

One reason is that the telephone survey of the purchasers of new homes identified that nearly 23% of them already lived in Sycamore. A second consideration is that 11% of those families with children moving into new homes and 18% of families moving into existing homes do not send their children to Sycamore schools. A third consideration is that the birth rate is down nationwide, and appears to be down in Sycamore as well. The data collected by the City and SMA support that finding by virtue of the lower number of pre-school children in households.

These considerations suggest that adopting the predicted occupancy table that has been generated from this study and multiplying the number of children that might come out of a household times the dollar amount that the School District is spending per student to build the new grade school is not sufficient for determining the School District impact fees..

Developers would be overcharged and ultimately new homeowners would pay the fees. On the other hand, undercharging developers, which requires the School District to request frequent referenda, is a policy which could divide the community. Instead the goal should be to develop a model that makes sense to everyone based upon the research in this study.

The research in this study suggests that the following table could be used to predict the occupancy levels of new homes in Sycamore for the Park District and Public Library. Table 64 is a restatement of Table 29 presented earlier.

**Table 66—Estimation of the Ultimate Population per New Dwelling Unit**

Type	0-4 yrs	5-10 yrs.	11-13 yrs.	14-17 yrs.	School kids	adults	total
1 bedroom attached	.00	.00	.00	.00	.00	1.00	1.00
2 bedroom attached	.03	.02	.02	.01	.05	1.67	1.75
3 bedroom attached	.04	.39	.39	.09	.87	2.00	2.56
4 bedroom attached	.00	.00	.14	.14	.28	2.00	2.28
2 bedroom detached	.00	.00	.20	.10	.30	1.80	2.10
3 bedroom detached	.19	.22	.12	.08	.44	2.06	2.67
4 bedroom detached	.38	.51	.18	.14	.83	2.03	3.24
5 bedroom detached	.26	.91	.41	.38	1.70	2.00	3.96

While Table 64 estimates how many children and adults would be predicted to move into new housing units, the data presented in this study suggests that about 23% of those children will already have been in Sycamore schools, based upon the finding that this is the percentage of new home buyers who were simply upgrading their housing by moving within the community.

The research in this study suggests that another 11% of new residents with children in the household will not send their children to Sycamore schools, based upon the responses from the telephone survey. The research also suggests that a declining birth rate could reduce the number of new children arriving even more.

Based on these factors, this study has found that it would be reasonable to reduce the number of children predicted to move into new homes, but not arriving at the schools, by as much as **22.5%**.

The research in this study suggests that the most recent costs to accommodate a grade school child have become about \$30,000, based on the predicted cost of building the new grade school that has been approved. The cost of \$30,000 per student is based on the estimate that the new 75,000 square foot grade school, costing about \$15 million,

will hold a maximum of 500 students. That would calculate to 150 square feet of space per student time the estimated construction costs of \$200 per square foot.

However, this study has considered that State of Illinois only requires about 100 square feet of space per grade school child. To base an impact fee upon 150 square feet per child would be over-assessing developers and cannot be defended, even though 150 square feet per grade school student is what the District 427 chose to build.

Assuming 100 square feet per child at \$200 in construction costs per square foot suggests that the per student impact that could be defended would be about \$20,000 per grade school student.

Likewise, while the School District may prefer to build 200 square feet of space at \$200 per square-foot per intermediate student, totaling \$40,000 per student this cannot be defended. What can be defended is \$30,000 per student of capital costs based on 150 square feet per student at \$200 per square foot.

Assuming that Table 64 would be the best predictor of the number of adults and children moving into new housing, the following Table predicts the number of children that would arrive at Sycamore's schools.

**Table 67- School Age Students per New Dwelling Unit**

Type	5-10 yrs.	11-13 yrs.	14-17 yrs.	School kids
1 bedroom attached	.000	.000	.000	.000
2 bedroom attached	.016	.016	.008	.040
3 bedroom attached	.302	.302	.070	.674
4 bedroom attached	.000	.109	.109	.218
2 bedroom detached	.000	.155	.078	.233
3 bedroom detached	.171	.093	.062	.326
4 bedroom detached	.395	.140	.109	.644
5 bedroom detached	.705	.318	.294	1.317

Table 65 shows how many children could be predicted to arrive based upon the data identified in this study. In terms of the impact on the School District, multiplying the number of children that a home would be predicted to yield times the cost of accommodating a student is a relatively simple calculation.

To do calculate the impact per housing type, the fraction of grade school students per housing type would be multiplied times \$20,000 and added to the fraction of middle school and high school students generated by that housing type times \$30,000. Table 66 presents the associated impact.

**Table 68- School Impact per New Dwelling Unit**

Type	Grade School Students	Intermediate	School Impact
1 bedroom attached	.000	.000	\$ 0
2 bedroom attached	.016	.024	1,050
3 bedroom attached	.302	.372	17,200
4 bedroom attached	.000	.218	6,540
2 bedroom detached	.000	.233	6,990
3 bedroom detached	.171	.155	8,070
4 bedroom detached	.395	.249	15,370
5 bedroom detached	.705	.612	32,460

It should be understood that this study does not suggest that Table 66 ought to be the impact fees for those housing types. It suggests that those are the defensible impacts to the School District based upon the data that is available.

Currently, the City subdivision ordinance requires land/cash fees from developers per new home. The City also adopted a transfer fee in June 2006 that is charged per new home. Since land/cash fees are charged based upon the number of children a home would be thought to generate and transfer fees are like a sales tax on the value of the home, the following table shows how much the current subdivision ordinance collects.

Table 67 also presents the City staff estimates of the percentages of historical construction of different housing categories, the number of school age children the subdivision ordinances predicts to be in the household, the average historical costs of homes in that category, and the land/cash fee based upon the number of children times

**Table 69- Current Fees per New Dwelling Unit**

Housing Type	Percentages Built	Home Price	Land/cash Fee	Transfer Fee	Total
1 bedroom attached	6.12%	na	na	na	na
2 bedroom attached	87.78%	\$164,182	\$774	\$820.91	\$1,594.91
3 bedroom attached	3.12%	\$294,642	1,446	1,473.21	2,919.21
2 bedroom detached	4.84%	\$228,699	817	1,143.95	1,960.95
3 bedroom detached	38.71%	\$336,569	3,269	1,682.85	4,951.85
4 bedroom detached	46.77%	\$346,507	5,560	1,732.54	7,292.54
5 bedroom detached	8.68%	\$443,581	4,310	2,217.91	6,527.91

Table 67 only shows the housing types that the current approved subdivisions intend to build between now and 2015. City staff predicts 6.12% of attached units to only contain one bedroom based upon recent construction patterns. However, the subdivision ordinance does not have an impact fee for that category. Nor does City staff have an estimated home price by which to base the transfer tax. On the other hand, since no children are shown to arrive from one-bedroom attached homes, a School District impact fee would not be in justified.

However, comparing the other categories, based upon the number of children that this study predicts will arrive in Table 66 and based upon the costs of accommodating them shown in the same table, there are differences between the amount of money the

School District receives per housing unit and the recent historic impacts. The following table shows the differences for the housing types that the City staff predicts will be built.

**Table 70- Comparison of Fees Received to Calculated School Impacts**

<b>Housing Type</b>	<b>Fees Received</b>	<b>School Impacts</b>	<b>Difference</b>
2 bedroom attached	\$1,594.91	\$1,050	\$544.91
3 bedroom attached	2,919.21	17,200	(14,280.79)
2 bedroom detached	1,960.95	6,990	(5,029.05)
3 bedroom detached	4,951.85	8,070	(3,118.15)
4 bedroom detached	7,292.54	15,370	(8,077.46)
5 bedroom detached	6,527.91	32,460	(25,932.09)

Except for three-bedroom attached and five-bedroom detached housing units, the differences between what is being collected and what the calculated impacts are is modest. And considering that only 3.12% of attached units predicted to be built by City staff would be three-bedroom units, and only 8.68% of detached units would be five-bedroom houses, the large differences may not affect the School District as much as making modest changes in the other housing category types.

Whether the City of Sycamore would decide to amend the ordinance to eliminate part or all of the differences is a policy decision left to the City Council. However, there is clearly a justification to do so if they so choose.

The Park District’s model is much simpler. The Park District’s model would estimate the value of land, currently selling at an undeveloped value of \$50,000 per acre times the number of people living in a home, considering the acres per thousand standard the Park District is attempting to maintain.

This study has shown that true impact to the Park District of residential development is the cost of maintaining its 20 acres per thousand population ratio. That would suggest that for each new person moving into the community, .02 acres would need to be purchased or somehow acquired by the Park District to maintain its current ratio.

Valued at \$50,000 per acre, the impact fee value to the Park District would be a function of multiplying .02 acres times \$50,000 for a total of \$1,000 per person. The following table calculates how much that would cost each new home.

**Table 71- Park District Land/Cash Impacts**

<b>Category</b>	<b>Total People</b>	<b>Land/Cash Fee</b>
1 bedroom attached	1.00	\$1,000
2 bedroom attached	1.75	\$1,750
3 bedroom attached	2.56	\$2,560
4 bedroom attached	2.28	\$2,280
2 bedroom detached	2.10	\$2,100
3 bedroom detached	2.67	\$2,670
4 bedroom detached	3.24	\$3,960

This model is simpler than the School District’s because there is not a consideration of those who will move within the City from one home to another. Also, there is no subtraction for non-usage of governmental services as there was for the School District.

The one firm conclusion of this study is that demographics can change over time. Therefore, it is recommended that the City review its estimates on an annual basis to make sure that the School District, Park District, and Public Library fees are fair to all parties concerned.

## **Appendix**