The pictures on the cover were arranged in relation to each community's general location in the Central Naugatuck Valley Region.
This report summarizes the fiscal impact of different land uses in each of the thirteen communities that comprise the Central Naugatuck Valley Region of Connecticut. The study was prepared by Planimetrics, LLP of Avon, Connecticut.

The Region includes Waterbury, the Regional center, and the following twelve surrounding communities:

- Beacon Falls
- Bethlehem
- Cheshire
- Middlebury
- Naugatuck
- Oxford
- Prospect
- Southbury
- Thomaston
- Watertown
- Wolcott
- Woodbury

This study, which grew out of a recommendation in the 1998 Regional Plan of Conservation & Development, is intended to:

- Increase awareness of the public costs of different programs and activities,
- Provide a better understanding of fiscal issues by comparing local jurisdictions with each other and Regional averages, and
- Help promote a reasonable long-term balance in every community by comparing fiscal issues with other issues.

With this knowledge, the communities in the Region can continue to explore ways to work together to promote greater Regional cooperation.

Sincerely,

Alfio Candido  
COGCNV Chairman

Peter Dorpalen  
COGCNV Executive Director
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<thead>
<tr>
<th></th>
<th>Section</th>
<th>Page</th>
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Communities in the Central Naugatuck Valley Region
INTRODUCTION

OVERVIEW

Municipal fiscal impact analysis compares the local revenues generated by a particular land use with the local expenditures associated with that use. The comparison helps estimate whether a particular type of use pays more in taxes than it receives in services, or vice versa.

WHY STUDY FISCAL IMPACT?


One of the Plan’s recommendations (page 28) is to evaluate the fiscal impacts of land use activities in the Region. The recommendation reflects a concern in the Region that the current property tax system in Connecticut produces some perverse land use situations where a community may strive to:

- Attract uses that are “fiscal positives” (provide more in tax revenue than they require in services), and
- Avoid uses that are fiscal negatives (require more in services than they provide in tax revenue).

As indicated in the Regional Plan, this type of situation can result in “fiscal inequality, unequal tax burdens, and lack of Regional cooperation in areas of common concern”.

As a result, COGCNV commissioned this study of all 13 communities in the Region. The study was conducted in order to:

- Increase awareness of the public costs of different programs and activities,
- Provide a better understanding of fiscal issues by comparing local jurisdictions with each other and Regional averages,
- Help promote a reasonable long-term balance in every community by comparing fiscal issues with other issues, and
- Implement a recommendation of the Regional Plan.
Fiscal issues are not the only criteria by which municipal land use policies should be based.

Fiscal parameters are only one part of municipal administration. The overall form and function of the community and its physical, social, and economic health is more important.

Since each community in the Region is different, individual reports were prepared for each of the 13 communities. Those reports are available from:

Council of Governments of the Central Naugatuck Valley
20 East Main Street, Suite 303
Waterbury, CT 06702-2399
203/757-0535

LIMITATIONS

Fiscal impact analysis, also called tax impact analysis, attempts to relate the public costs associated with a specific land use to the public revenues associated with that use.

While there are many reasons why such an analysis might be performed, the best rationale might be that it can help promote a reasonable long term balance in a community by comparing fiscal impacts with other issues. On the other hand, it must be realized that every land use does not fiscally benefit the town and uses with negative fiscal results may provide other intangible, but equally valuable, benefits.

Fiscal concerns are not the only criteria by which local land use policies should be based. Every land use will not benefit a community fiscally and a less beneficial land use should not necessarily be excluded since it may provide other community benefits. While different land uses vary significantly in their potential fiscal impact on a community, the overall form and function of the community and its physical, social, and economic health may be more important.

In addition, it is important to recognize, as illustrated in this Regional summary report, that every community is different. A use that may produce a fiscal surplus in one community may not in another community if the fiscal parameters are different. Findings for each community are averages based on long-term conditions and trends and such findings may not be directly transferable to other jurisdictions.

ACKNOWLEDGEMENTS

The preparation of this report was greatly facilitated by the cooperation of municipal officials including the chief elected official, the finance staff, the assessment staff, the school business office staff, and other municipal officials.

Their contributions to this report are gratefully acknowledged.
Fiscal impact analysis reveals some simple truisms about the fiscal situations in most communities in Connecticut:

- Most community services benefit residents,
- Residential uses provide only a portion of local revenue,
- As a result, residential uses can be characterized as having a negative fiscal impact on existing taxpayers in a community.

Consider these charts summarizing revenues and expenditures in the Region:

Residential uses typically receive more in services than they provide in tax revenue.

This is not surprising since municipal services are generally configured to benefit residents (voters) while revenue comes from a variety of sources.

Residential uses provide about 48 percent of all local revenue in the Region (primarily through local taxes) yet benefit from about 84 percent of all local expenditures.
In other words, non-tax revenues (such as state aid, user fees, and investments) and tax revenues from non-residential uses all defray the cost to residential taxpayers of the services they receive.

It is little wonder that, in communities that understand this situation, taxpayers and communities are eager for additional state aid and more economic development. That strategy is designed to bring something positive into the community and is distinctly different from policies that may be designed to exclude certain uses.

As shown in the following charts, even when non-tax revenue is deducted from local expenditures (to produce what is referred to in this report as “net expenditures), the same relationship holds true.

Sources of Local Tax Revenue

Uses Benefitting From Local Net Expenditures
The key determinant of whether a residential use will produce a fiscal surplus is whether it produces any public school pupils.

Any residential unit that does not result in school enrollment will be a fiscal surplus to the community.

The typical response of many communities is to try to limit development that does not “pay its way.”

Residential Uses

Thus, due to the tax revenue from non-residential development and the revenue from non-tax sources, 1-4 family residential uses in the Region generally receive more in services than they pay in taxes.

For every $1.00 received in services, the amount of revenue generated by residential uses varies from $0.55 in Southbury to $0.95 in Bethlehem. Southbury had the highest fiscal benefit to existing residents (and the largest fiscal impact due to new residential development) due to the strong non-residential tax base, revenue received for the Southbury Training School, and the net revenue received from Heritage Village (an age-restricted condominium development). Bethlehem was at the other end of the spectrum due to the low amount of non-residential development.

Condominiums generally pay more in taxes than they receive in services although high school enrollments from some projects do produce a fiscal deficit for a community. For example, it is estimated that the age restrictions at Heritage Village in Southbury produce a $3.5 million annual fiscal surplus for the Town of Southbury.

Apartments generally receive more in services than they pay in taxes although low school enrollments from some projects do produce a fiscal surplus for a community. Mobile homes can be a fiscal surplus if they have result in low school enrollments.

Non-Residential Uses

Non-residential uses typically pay more in taxes than they receive in services. In fact, commercial, industrial, and public utility facilities in the Region are estimated to produce about $58.6 million in annual fiscal surplus to support other uses in the communities in the Region.

Vacant Land (including Public Act 490 Land)

Vacant land requires very few municipal services and, as a result, produces a fiscal surplus to a community. What is interesting with regard to vacant land is its potential future use.

For example, while undeveloped residential land or lots may produce a modest fiscal surplus for a community today, there is a strong possibility that the land could produce a fiscal shortfall once developed.

Tax Exempt Uses

Tax-exempt uses typically receive more in services than they pay in taxes. While some State facilities produce a fiscal surplus (due to payments in lieu-of-taxes), other tax exempt uses are estimated to require about $12.6 million of expenditures annually within the Region.
To maximize fiscal benefits to existing residents, most communities want to:
- Attract new non-residential development,
- Receive more state aid, and
- Generate more revenue from non-tax sources.

Some communities also seek to attract housing types that do not generate school enrollment.

New residential uses seeking the same fiscal benefits enjoyed by current residents dilute the existing benefits and this may result in perverse land use decisions.

Understanding the Results

What is characterized as a negative fiscal impact (receiving more in services than providing in revenue) is not always a negative. Consider the following:
- Churches and other tax-exempt facilities may not “pay their way” but enhance community character and quality of life
- Land trusts pay no taxes but preserve open space in communities which enhances community character and quality of life

Even for tax-paying uses, a negative fiscal impact may not always be a negative. Consider the following for 1-4 family dwellings that receive more in services than they pay in taxes:
- For existing taxpayers, such new development would raise their taxes (to pay for the services required by the new development)
- For residents of existing 1-4 family dwellings, such new development would dilute the fiscal benefits that they currently enjoy (because they may also receive more in services than they pay in taxes)
- However, for new 1-4 family dwellings, the fact that they receive more in services than they pay in taxes would be considered a “good deal” by them

Overall, new non-residential development, low school enrollment-producing residential uses, and additional non-tax revenue produce fiscal benefits for existing residents.

While such events also produce fiscal benefits for new residents, the new residential development may dilute the fiscal benefits enjoyed by existing residents and be seen as a fiscal negative.

Focusing solely on fiscal benefits to existing residents can skew local behavior. If all new residential development is halted in order to retain fiscal benefits for existing residents, community development may be adversely affected. In addition, it does not halt the sale of existing residences to families with school-age children.

Future Directions

It is important to note that every community is fiscally balanced at a given point in time. In other words, each community generates $1.00 in revenue for each $1.00 in services provided. Some communities are balanced differently than other communities and each community is uniquely affected by changing land use patterns.

In the long run, managing the community responsibly to promote the best overall quality of life may be more important than investigating every land use without regard to how it fits into a bigger picture.
A fiscal impact analysis requires knowledge of a number of factors:
- Budget information (revenues and expenditures) is required to determine where money comes from and goes to,
- Tax base information is required to determine how tax revenue (the major source of revenue for most municipal general funds) is generated from different land uses, and
- Demographic information is required to understand the population and school enrollment that results from different land uses.

Fiscal Impact Components

As part of the study, budget, tax base, and demographic information was collected for all 13 communities in the Central Naugatuck Valley Region. While tax base and demographic information was available in a consistent format, the budgets for all communities had to be rearranged to provide for consistent reporting and calculations in the study.
This fiscal impact study is based on the concept of “net expenditures.”

Net expenditures reflect how much tax revenue needs to be raised to support local programs.

Net expenditures are determined by subtracting non-tax revenue (such as state aid) from total expenditures.

**PROCESS**

The study is based on the general fund of each of the 13 municipalities in the Region. The general fund supports almost all municipal expenditures and receives almost all municipal revenue (especially tax revenue).

The study looked at 1997 land uses and 1998-99 revenues and expenditures in each municipality. These dates were selected since 1998-99 was the most recently completed fiscal year at the time the analysis was done and that budget was based on the 1997 Grand List (a compilation of all real estate, motor vehicles and taxable personal property).

The analysis of fiscal impact is based on the concept of net expenditures. Net expenditures reflect how much money needs to be generated by local tax revenue to fund each program area. When non-tax revenues (such as state aid, local user fees, interest on investments, and other sources) are deducted from the program expenditures they are associated with (such as state education aid being deducted from total education expenditures), the net expenditure in that program area can be estimated.

Net expenditures can also be restated in terms of services to different components of the community:

- services to pupils (educational programs),
- services to residents (park/recreation, library, elderly, and other programs or services that benefit residents), and
- services to property (such as fire, police, public works, debt service, and similar expenses that benefit all property).
LAND USE CATEGORIES

To facilitate the analysis, land use categories consistent with property assessment reporting requirements of Connecticut municipalities were used:

Residential Uses

- vacant residentially zoned land
- vacant residential lots
- 1-4 family residential uses
- residential condominiums
- apartments
- mobile homes

Commercial Uses

- vacant commercially zoned land
- commercial buildings
- commercial condominiums

Industrial Uses

- vacant industrially zoned land
- industrial building
- industrial condominiums

Public Act 490 Uses

- private land assessed for farm, forest, or open space use

Public Utility Uses

- land and facilities used by public utility companies

Tax Exempt Uses

- federal, state, or local lands or public facilities (such as schools, hospitals, and garages) that are tax exempt
- private lands or facilities (such as religious, educational, and hospital) that are tax exempt
AVERAGE COSTS AND MARGINAL COSTS

It is important to note that the analysis looks at the “average” cost of different land uses rather than the “marginal” cost of different land uses.

In an average cost analysis, overall fiscal impact can be estimated after comparing the average costs and average revenues that result from a typical land use.

A marginal cost analysis is much more difficult since it requires the determination of how much more it will cost to maintain one more mile of street, provide police or fire service for one more house or business, or educate one additional student.

Marginal costs are typically lower than average costs until the capacity or capability of the current system is consumed. At that time, additional capacity needs to be created through the hiring of new staff, purchase of new equipment, or construction of new facilities -- each of which can have expensive local implications. Such an analysis involves determination of “excess capacity” in various municipal delivery systems and identifying the “straw that breaks the camel’s back.”

Since, over time, average costs and marginal costs will converge, average costs are most often used in town-wide fiscal studies.
Basic information collected as part of the study is summarized on the following pages:

**Demographics**

- Regional Housing Composition
- Regional Population Distribution By Housing Type
- Regional Public School Enrollment By Housing Type

**Tax Base**

- Regional Tax Base Comparison

**Budget**

- Regional Expenditure Comparison
- Regional Revenue Comparison
- Net Expenditure Comparison
Housing composition is important since fiscal impact can vary for different types of residential land uses.

**Housing Units**

Based on information from the assessor in each community and from the Connecticut Department of Economic and Community Development (DECD), the number of housing units in each community was estimated as follows:

**Residential**

1-4 Family Building: The number of dwelling units in single-family, two-family, three-family, and four-family buildings was estimated from Census, DECD, and assessor data.

Apartment: The number of apartment units was estimated from assessor data. While assessed as a commercial property, an apartment building is considered to be a residential land use.

Condominium: The number of residential condominiums was obtained from local assessor data.

Mobile Home: The number of mobile home units was obtained from assessor data.

**Commercial**

Nursing Homes, etc.: The number of nursing home beds or other residential units in commercial facilities was not considered relevant to the analysis.

**Tax Exempt**

Public, Private: The number of dwelling units in tax-exempt facilities (state facilities, church houses, private schools) was estimated based on the assessment type and assessed value of tax exempt facilities.

As can be seen from the table on the facing fold-out page, there are some major differences in the housing mix in each of the thirteen COGCNV communities.
Bethlehem and Oxford have the highest proportion of 1-4 family units.

Waterbury has the highest proportion of apartments.

Southbury has the highest proportion of condominiums.

Prospect and Beacon Falls have the highest proportion of mobile homes.
Population was estimated for each residential use since fiscal impact analysis is not particularly sensitive to the number of residents.

**Population**

Overall 1998 population estimates for each community were obtained from the U.S. Census Bureau.

The 1998 population estimates were allocated to different uses as indicated below. Since fiscal impact analysis is not particularly sensitive to the number of residents of a community (it is more sensitive to the number of public school pupils), occupancy was estimated for all uses.

<table>
<thead>
<tr>
<th><strong>Residential</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4 Family</td>
<td>Occupancy was estimated after occupancy of all other land uses.</td>
</tr>
<tr>
<td>Apartment</td>
<td>Estimated based on the number of apartment units (typically assumed at about 2.0 persons per unit and adjusted based on school enrollment).</td>
</tr>
<tr>
<td>Condominium</td>
<td>Estimated based on the number of condominium units (typically assumed at about 2.0 persons per unit and adjusted based on school enrollment).</td>
</tr>
<tr>
<td>Mobile Home</td>
<td>Estimated based on the number of mobile home units (typically assumed at about 2.0 persons per unit and adjusted based on school enrollment).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Commercial</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing Homes, etc.</td>
<td>The number of residents living in nursing homes or other commercial facilities was estimated from Census data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Tax Exempt</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Public, Private</td>
<td>The number of residents living in tax-exempt facilities (state facilities, church houses, private schools) was estimated based on local contacts and information from the Census.</td>
</tr>
</tbody>
</table>
Per unit occupancy is highest in Watertown, Prospect, and Oxford.

Per unit occupancy is lowest in Waterbury, Southbury, and Woodbury.

Occupancy per unit is typically lower for apartments and condominiums.
Fiscal impact analysis is very sensitive to the number of school children and care was taken to allocate school children to residential land uses.

**School Enrollment**

Fiscal impact analysis is very sensitive to school enrollment due to the cost of education. As a result, care was taken to allocate the number of school children to different land uses.

The following methodology was used:

**Residential**

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4 Family</td>
<td>Public school enrollment was estimated after estimating enrollments from all other land uses.</td>
</tr>
<tr>
<td>Apartment</td>
<td>The addresses of local apartment complexes were obtained from the assessor. These addresses were submitted to the school department with a request for the number of school children that resided at each address.</td>
</tr>
<tr>
<td>Condominium</td>
<td>The addresses of local condominium complexes were obtained from the assessor. These addresses were submitted to the school department with a request for the number of school children that resided at each address.</td>
</tr>
<tr>
<td>Mobile Home</td>
<td>The addresses of local mobile homes complexes were obtained from the assessor. These addresses were submitted to the school department with a request for the number of school children that resided at each address.</td>
</tr>
</tbody>
</table>

**Commercial**

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing Homes, etc.</td>
<td>No school enrollments are assumed to result from commercial facilities.</td>
</tr>
</tbody>
</table>

**Tax Exempt**

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public, Private</td>
<td>The number of public school pupils living in tax-exempt facilities (state facilities, church houses, private schools) was estimated.</td>
</tr>
</tbody>
</table>

As can be seen from the fold-out table, public school enrollment per housing unit varies in the Region from about 0.34 pupils per unit in Waterbury to about 0.56 pupils per unit in Wolcott.

Another way to look at school enrollment information is in terms of the school enrollment ratio. This ratio expresses the number of school pupils as a percentage of the population. Clearly, a higher enrollment ratio would signify a larger school burden.
Most school enrollments come from 1-4 family dwellings.

Enrollments from apartments and condominiums are highest as a percentage of total enrollment in Waterbury and Woodbury.

School enrollment per 1-4 family dwelling is highest in Southbury and lowest in Waterbury.
The tax base of each community in the Region was summarized. The results are presented on the following foldout page.

The total assessment of each land use includes the real estate and what this study calls the Grand List supplement. The Grand List supplement reflects the assessment amount above and beyond the real estate assessment that results from motor vehicles and personal property minus any exemptions (such as for the elderly, veterans, or manufacturing equipment).

Each community’s Grand List (the compilation of all listed property in a community) contains two major components:
- The taxable Grand List (a compilation of all taxable property), and
- The tax-exempt Grand List (a compilation of all tax-exempt property).

In this analysis, the combination of both Grand Lists is called the consolidated Grand List.

Grand List Supplement

Within the Region, the median Grand List supplement for residential uses was about 14 percent. In other words, the assessed value of motor vehicles and personal property minus any assessment exemptions added about 14 percent to the residential real estate value.

Within the Region, the median Grand List supplement for commercial uses was about 30 percent and the median Grand List supplement for industrial uses was about 56 percent. In other words, the assessed value of any motor vehicles and any taxable personal property (such as computers or machines) minus any exemptions added about 30 percent to the commercial real estate value and about 56 percent to the industrial real estate value.

Tax Exempt Uses

Within the Region, tax-exempt uses add about another 10 percent to the taxable Grand List. However, there are some significant differences between communities in the Region in terms of the amount and type of tax-exempt property.

For example, while tax-exempt properties in suburban communities might include state parks or other open space, the list of tax-exempt properties in Waterbury includes low-income housing and other facilities that are likely to require services.
Residential uses comprise the smallest portion of the tax base in Waterbury, Southbury, and Naugatuck.

Residential uses comprise the largest portion of the tax base in Bethlehem, Prospect, Woodbury, Oxford, and Wolcott.

The per capita Grand List is lowest in Waterbury and Naugatuck since they have not revalued in some time.

The per capita Grand List is highest in Southbury, Woodbury, Middlebury, and Bethlehem.
Expenditures

One of the major parts of the study was comparing expenditures between communities. Each community uses a different budget format, and a detailed review was required to compare budgets in a meaningful way.

As can be seen from the following chart:

- Education expenditures are the largest component of all municipal budgets
- Education expenses as a component of the overall budget are greatest in Prospect, Southbury, Bethlehem, Beacon Falls, and Woodbury
- Education expenses as a component of the overall budget are smallest in Waterbury, Naugatuck, Middlebury, and Thomaston

### Regional Comparison of Per Capita Expenditures

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>$2,456</td>
</tr>
<tr>
<td>Average</td>
<td>$2,182</td>
</tr>
<tr>
<td>Median</td>
<td>$2,151</td>
</tr>
<tr>
<td>Low</td>
<td>$1,716</td>
</tr>
</tbody>
</table>

### Regional Comparison of Expenditure Composition

<table>
<thead>
<tr>
<th>Category</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>59</td>
</tr>
<tr>
<td>Public Safety</td>
<td>12</td>
</tr>
<tr>
<td>Public Works</td>
<td>7</td>
</tr>
<tr>
<td>Capital /Debt</td>
<td>6</td>
</tr>
<tr>
<td>Other Services</td>
<td>16</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Other services include recreation, land use, and other general government services.

### Expenditure Distribution
Per capita spending is highest in Middlebury and Cheshire.

Per capita spending is lowest in Prospect, Beacon Falls, Watertown, and Woodbury.

Per pupil spending is highest in Oxford.

Per pupil spending is lowest in Naugatuck, Wolcott, Watertown, and Beacon Falls.

Regional Expenditure Comparison

(flip page over)
Revenues

Municipal revenue comes from a variety of sources. While the largest category is current taxes on local property, revenue is also derived from:

- Intergovernmental revenue (such as state or federal aid)
- Fines or fees
- Investments
- Miscellaneous (such as taxes from prior years, use of the municipal surplus)

As can be seen from the following chart, current taxes provide most municipal revenue. The percentage of all revenue derived from current taxes is:

- Highest in Middlebury, Southbury, Woodbury, and Bethlehem
- Lowest in Naugatuck and Waterbury

As can be seen from the following chart, non-tax revenue (intergovernmental revenue, fines, fees, investments, and miscellaneous) as a percentage of local revenue sources is:

- Highest in Naugatuck and Waterbury
- Lowest in Middlebury, Southbury, and Woodbury

---

### Regional Comparison of Revenue Composition

<table>
<thead>
<tr>
<th>Category</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Taxes</td>
<td>58%</td>
</tr>
<tr>
<td>Intergov. Rev.</td>
<td>33%</td>
</tr>
<tr>
<td>Fines, Fees,</td>
<td>4%</td>
</tr>
<tr>
<td>Investments</td>
<td>1%</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>4%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Regional Comparison of Current Taxes Per Capita

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>$2,218</td>
</tr>
<tr>
<td>Average</td>
<td>$1,276</td>
</tr>
<tr>
<td>Median</td>
<td>$1,262</td>
</tr>
<tr>
<td>Low</td>
<td>$1,035</td>
</tr>
</tbody>
</table>

---

Percent Revenue From Current Taxes

Revenue From Non-Tax Sources
As can be seen from the following chart, current taxes per capita are:

- Highest in Middlebury, Bethlehem, Cheshire, Southbury, and Woodbury
- Lowest in Beacon Falls, Naugatuck, Prospect, Waterbury, and Wolcott

**Per Capita Current Taxes**

Regional Revenue Comparison

*(flip page over)*
Net expenditures refer to the money that needs to be raised through local tax revenue for a particular program area.

Net expenditures are determined by subtracting non-tax program revenue (such as user fees and state aid) from program expenditures.

Net Expenditures

The term “net expenditures” is used to refer to the money that needs to be raised through local tax revenues for a particular program area. Net expenditures are determined by subtracting non-tax program revenues (such as user fees and state aid) from program expenditures.

Net expenditures can also be restated in terms of services provided to different components of the community:

- services to pupils (educational programs)
- services to residents (park/recreation, library, elderly, and other programs or services that benefit residents)
- services to property (such as fire, police, public works, debt service, and similar expenses that benefit all property)

Net expenditures vary from municipality to municipality depending on the levels of local expenditures and the revenue sources used by each of the programs.

In the fiscal impact analysis, net expenditures are reallocated to land uses based on the characteristics of each use. Net expenditures for services to pupils (education) are allocated on a per pupil basis. Net expenditures for services to residents are allocated on a per capita basis. Net expenditures for services to property are allocated on the basis of assessed value (ad valorem basis).

As can be seen from the following chart, net expenditures per pupil for education are:

- Highest in Middlebury, Southbury, and Woodbury
- Lowest in Naugatuck, Wolcott, and Waterbury
As can be seen from the following chart, net expenditures for services to people are:

- Highest in Waterbury, Woodbury, Cheshire, and Middlebury
- Lowest in Oxford, Wolcott, and Bethlehem

As can be seen from the following chart, net expenditures for services to property are:

- Highest in Naugatuck and Waterbury
- Lowest in Southbury and Woodbury

Net Expenditure Comparison

*(flip page over)*
USE OF NET EXPENDITURES

Since the number of pupils, number of residents, and assessed value can be estimated for most any land use, the net expenditure estimates provide the basis for estimating the fiscal impact of different land uses in the Region.

The fiscal impact methodology allocates revenues and expenditures based on the consolidated Grand List (taxable and tax exempt properties). The use of the consolidated Grand List assumes that all properties (whether they pay taxes or not) benefit in some material way from the overall provision of municipal services.

The following pages summarize the fiscal impact of different uses in the Region.
Residential Uses

In the Central Naugatuck Valley Region, or elsewhere in Connecticut, residential uses typically receive more in value of services than they provide in tax revenue. Overall, the analysis found that residential uses in the Region received almost $51 million more in services than they paid in taxes in 1998-99.

The main reason is that residential uses produce residents and school children. As a result, residential uses benefited from almost all of the $190 million in net educational expenses, almost all of the $19 million of net per capita expenses, and about $118 million of other expenses.

However, it is important to note that there are differences among the various residential classes (1-4 family dwelling, apartment, condominium, mobile home). In addition, there are differences within each class depending on the characteristics of different uses. These differences are discussed on the following pages.

Residential uses generally receive more in services than they provide in revenue.

The key determinant of whether a residential use will produce a fiscal surplus is whether it produces any public school pupils.

Any residential unit that does not result in school enrollment will be a fiscal surplus to the community.
This chart, and the charts on the following pages, compare the tax revenue received as a multiple of the services provided.

For example, in the chart on this page, 1-4 family dwellings in Bethlehem provide about $0.93 in tax revenue for every dollar in services received. In Southbury, 1-4 family dwellings provide about $0.55 for every $1.00 received in services.

1-4 Family Dwellings

There is an interesting explanation for this pattern. In communities with a large non-residential tax base, more of the revenue to support services to residents is provided by other uses.

As a result, new residential uses tend to be seen as a fiscal drain since they dilute benefits to existing residents.

In Southbury, where the non-residential tax base is among the highest in the region at 27 percent, residents pay only about $0.55 for every $1.00 of services they receive. On the other hand, Bethlehem residents pay about $0.93 for every $1.00 of services they receive since the non-residential tax base is the lowest in the region at 4 percent.

In Southbury, new residential developments that produce school-age children will tend to be seen as a fiscal drain since they increase costs more than they provide revenues. Development which dilutes the fiscal benefits enjoyed by existing residents can make it fiscally attractive for existing homeowners to encourage the purchase of land as open space rather than be developed for residential homes. As more costs are “avoided”, the fiscal benefits to existing residents are maintained or increase.

Followed to its ultimate extreme, a community could reject some residential developments in order to avoid future service costs. This is a classic example of how fiscal issues may be detrimental to the economic or social development of the community and the Region as a whole.
Apartments

Apartments, as a class of residential uses, can either produce a fiscal surplus or a fiscal deficit depending on their occupancy characteristics of each. For example, age-restricted apartments produce a fiscal surplus because there are no school enrollments.

As can be seen from the following chart:

- apartments produce the greatest surplus in Southbury since the Town assesses many assisted living and elderly care facilities as apartments and these produce no school enrollments,
- apartments produce a fiscal surplus in Bethlehem, Oxford, and Woodbury due to low school enrollments, and
- apartments produce a fiscal shortfall in the other municipalities due to the cost of educating school children.

The very high fiscal ratio in Southbury is due to a local assessment practice where assisted living facilities are considered apartments rather than commercial facilities.

The very low fiscal ratio in Prospect is due to a unique occurrence. While there are very few apartments in Prospect, the school enrollment is high from one unit. However, these enrollments are all at the high school and, as a result, the fiscal situation will change with graduation of students.

This points out another reason for caution with fiscal analyses. The estimates reflect conditions at the time the study is done but these conditions can change over time as people age, pupils graduate, revenues change, expenditures change, and other changes occur. For example, a review of apartments in Prospect at the present time may find them to produce a fiscal surplus.

It is important to note that fiscal relationships can change over time.

This is especially apparent in communities with a small number of uses where a small change in occupancy can produce a large change in fiscal impact.
Condominiums

Like apartments, condominiums can either produce a fiscal surplus or a fiscal deficit depending on their occupancy characteristics. For example, age restricted condominiums (like Heritage Village in Southbury) produce a fiscal surplus because there are no school-age children.

As can be seen from the following chart:
- condominiums produce a fiscal surplus in seven of the ten communities that have such developments,
- condominiums produce the greatest surplus in Southbury due to the age restrictions at Heritage Village,
- condominiums produce a fiscal deficit in Naugatuck, Thomaston, and Woodbury due to school-age children that result in costs exceeding what is paid in tax revenue.

Age restrictions cannot be imposed on a development by a municipality in order to produce a fiscal surplus. However, developers can establish age restrictions and zoning regulations could provide for more units per acre for age restricted developments (since the occupancy per unit or bedrooms per unit are typically lower). In fact, regulations based on bedrooms per acre rather than units per acre may be a more appropriate regulatory tool.
Mobile Homes

Mobile homes can also produce a fiscal surplus or a fiscal deficit depending on the occupancy characteristics. Within the Region, mobile homes provide a fiscal surplus in four of the nine communities where they are located and a fiscal shortfall in the others.

As the following chart indicates mobile homes produce:
- a fiscal surplus in Beacon Falls, Oxford, Prospect, and Waterbury due to elderly occupancy or low school enrollments, and
- a fiscal shortfall in Naugatuck, Southbury, Thomaston, Watertown, and Woodbury due to the cost of educating school children.

![Mobile Homes Chart](chart_image_url)
Generally speaking, any residential unit that does not result in school enrollment will be a fiscal surplus to the community.

Variations Within Residential Classes

It is important to note that the preceding discussions are broad generalizations for classes of residential land uses. There are differences within each class, primarily due school enrollments.

Generally speaking, any residential unit (1-4 family dwelling, apartment, condominium, or mobile home) that does not result in school enrollment will be a fiscal surplus to the community.

Factors that can cause residential uses to have a lower fiscal impact include:
- age limitations (resulting in fewer school age children),
- reduced housing turnover (single-family home sales are often made to families with school age children),
- extended length of residency (once school children graduate, a residential use will have a positive fiscal impact), and
- fewer bedrooms (typically resulting in lower occupancy and fewer school children).

The fact that residential uses with school children produce a fiscal shortfall while residential uses with no school children produces a fiscal surplus puts municipalities in a dilemma. In most suburban communities, the development pattern most desired by existing residents has been single-family homes in residential subdivisions. Yet these uses typically produce a fiscal deficit for a community. Multi-family developments are typically seen as “out of character” and have been opposed by existing residents. However, these developments can produce a fiscal surplus for a community.

It is not generally possible to influence the age composition of new residential subdivisions. While it may be possible to influence the age composition of new multi-family developments so that they produce a fiscal surplus, it begs the question of whether it is desirable to do so.

Again, fiscal decisions are not the only basis on which land use decisions should be made. All residents of a community and the Region are entitled to housing choices.
It is also difficult to influence the bedroom composition of new residential subdivisions. This is a function of the Health Code and could still occur through additions following approval. The bedroom composition of multi-family developments can typically be influenced at the time of approval and may not be permitted later depending on the development form (such as condominium).

In other words, a community can have more influence over the composition of apartment and condominium occupancy through design and approval than they can have over single-family subdivisions.

It can be possible for a community to influence length of residency and housing turnover. Studies have found that housing occupancy (and school enrollment) following a house sale (whether a new or existing house) typically peak within about 8 to 12 years after the sale and then children move on with their lives.

In other words, after a family has been in occupancy in a house for about a decade, the likelihood that the unit will produce a fiscal surplus increases.

Thus, it can be desirable for a community to encourage longer-term residency and discourage housing turnover. The best way to do this is by minimizing the costs of ownership for longer term residents.

Options that are available to communities include elderly tax breaks. A case study of the potential impact of the sale of a house occupied by an elderly couple to a family with just one school-age child is presented in Chapter 6.
Non-Residential

In the Region in FY 1998-99, non-residential uses supplied about $58.6 million of net tax revenue to support other uses.

Commercial / Industrial / Public Utility Uses

Based on the preceding discussion about residential uses, it should come as no surprise that commercial, industrial, and public utility uses produce a fiscal surplus for a municipality.

Since such uses do not directly result in local public school enrollments or local residents, they have no impact on education or service categories in the local budget that represent about 60 percent of local expenditures.

Of course, such uses require workers who must live somewhere. However, employees typically live over a wider area and so a community can benefit fiscally from having local businesses.

In addition, such uses are typically assessed at high market values and typically have personal property (machinery, equipment, computers) that can add a significant amount to the tax base.

In 1998-99, commercial, industrial, and public utility uses in the Region produced a fiscal surplus of about $58.6 million annually to support other uses in the Region.

As can be seen from the following chart:

- Commercial uses in the Region all produce a fiscal surplus to the municipality where they are located (the amount of revenue received is in excess of the $1.00 in services provided)
- Commercial uses produce the largest surplus in Woodbury and Southbury
- Commercial uses produce the smallest surplus in Naugatuck, Waterbury, Thomaston, Watertown, and Wolcott

The pattern is similar for industrial uses although the magnitude of the fiscal surplus is different due to the amount of manufacturing equipment or other personal property associated with industrial uses.
Vacant Land (including PA-490 Land)

Vacant land requires very few municipal services and, as a result, produces a fiscal surplus to a community.

What is interesting with regard to vacant land is its potential future use. For example, vacant commercial or industrial land produces a fiscal surplus today and will produce an even larger fiscal surplus (in dollar terms) when developed in the future. In many respects, there is no negative fiscal outcome. The earlier that property is developed, the more tax revenue is available to offset residential services.

Undeveloped residential land or lots are another matter. While they produce a fiscal surplus today, there is a strong possibility that the land could produce a fiscal shortfall once developed. It is this dilemma that can make the Public Act 490 program beneficial for communities.

While PA-490 will reduce the taxes that an undeveloped residential property might pay today, it tends to defer the date that the property might be developed in the future. In a sense, it is a program that can help a community defer or manage the time that a use will occur that requires more in services than it provides in revenue.

As can be seen from the following chart, vacant lands and Public Act 490 lands produce a fiscal surplus to the municipality where they are located (the amount of revenue received is in excess of the $1.00 in services provided).

## Vacant Land

In the Region in FY 1998-99, vacant land (including PA-490 land) supplied about $6.0 million of net tax revenue to support other uses.

However, the key issue is what happens to that land once it is developed.

### Public Act 490

Public Act 490 allows land owned by a private party (or non-tax exempt organization) to be assessed as farm, forest, or open space land under the Public Act 490 program (Section 12-107 of the Connecticut General Statutes).

The Public Act 490 program reduces the assessment of parcels that meet certain criteria so that an increasing tax burden would be less of a contributor to the sale and development of property. Any property that is sold within 10 years of its designation pays a recapture provision. In this way, the program encourages long term ownership of property and helps moderate development.
Tax Exempt Uses

Tax-exempt uses include federal property, state property, local property (such as schools, town halls or city halls, public works, recreation, and library), and property owned by non-profit entities (such as land trusts, historical societies, religious institutions, cemeteries, and veteran’s organizations).

Since tax exempt uses pay no taxes yet receive some services, they typically produce a modest fiscal shortfall.

One exception is due to payments in lieu of taxes (PILOT) from the State of Connecticut. PILOT payments can exceed the expenses attributed to State facilities and such uses can produce a fiscal surplus. As shown in the following chart, there are differences between communities and whether State facilities produce a fiscal surplus. Most of this variation is related to higher payments in lieu of taxes for certain types of facilities (such as the Cheshire Correctional Institution, Southbury Training School, and Oxford Airport). Other variations result from local expenditures and tax base composition.
Once the fiscal impact of different land uses is known in each municipality, the “balance of payments” between uses can be estimated. In essence, the balance of payments identifies:

- which uses support other uses, and
- which uses are supported by other uses.

Overall, about $70 million dollars is transferred annually between different land uses in the Region in order to provide adequate tax revenue to meet the net expenditures in different program areas.

**TRANSFERS BETWEEN LAND USES IN THE COGCVN REGION**

The balance of payments looks at:

- which uses support other uses in the Region, and
- which uses are supported by other uses in the Region.
The largest amount of support (almost $51 million annually) is provided to 1-4 family dwellings. About $10 million is used to provide services to municipal facilities. Almost $8 million is provided to support residential apartments. Another $2 million is used to support churches and other religious facilities.

The greatest support is provided by commercial developments (about $30 million) and industrial developments (about $27 million). While vacant land provides almost $6 million worth of support to other uses at the present time, over 80 percent of this land is residentially zoned and subject to future residential development that may prove to be a fiscal negative. Within the Region, residential condominiums produce a fiscal surplus of over $4 million annually to support other uses. Net support in the Region of almost $2 million is provided by State payments-in-lieu-of-taxes.

Other fiscal studies have reported that private open space (such as land assessed as farm, forest, or open space as part of the Public Act 490 program in Connecticut) is a fiscal positive. However, those studies have also reported the results by comparing the revenue received in relation to the service provided. This analysis confirms those overall findings but also shows that the actual amount of fiscal surplus available to other uses is fairly modest (about $230,000 in the entire Region). Of course, since such programs help reduce the possibility that land will be developed and become a fiscal negative, the positive result overall is important to note.

In the computation of the Balance of Payments, it is important to note that the use of the Consolidated Grand List assumes that all properties in the Region (whether they pay taxes or not) benefit in some material way from the overall provision of municipal services. In other words, it includes tax exempt uses as beneficiaries of municipal expenses such as road maintenance, police protection, fire protection, and similar services.

If expenses were only allocated on the basis of the Taxable Grand List, expenses would be allocated only among taxable uses and this would:

- decrease their support of other uses, or
- increase their negative net fiscal impact.
The information in this study can be used to estimate the fiscal impact of different land uses or policies. The following sample case studies are presented:

**Existing Development**
- Existing Residential Development  Wolcott
- Existing Non-Residential Development  Thomaston

**Proposed Development**
- Proposed Residential Development  Woodbury
- Proposed Non-Residential Development  Prospect

**Other Case Studies**
- Tax Impact of Property Purchase With Cash  Bethlehem
- Tax Impact of House Sale  Watertown
- Median Sales Price Analysis  Beacon Falls
- Breakeven Assessment of a Residential Unit  Oxford

While individual case studies can help to illustrate different findings, it must be remembered that the effect of one development or one fiscal policy may be dwarfed by overall economic changes or by small changes in other fiscal parameters.
Case Study #1: Wolcott

Existing Residential Development

Estimating Revenue

For an existing residential development, add up all the real estate assessments, motor vehicle assessments, and personal property assessments. Deduct any tax exemptions (elderly, veterans, blind). This is the total net assessment for the development. Multiply by the mill rate to determine the tax revenue generated.

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Estate Assessment</td>
<td>$1,428,000</td>
</tr>
<tr>
<td>Motor Vehicle Assessments</td>
<td>$174,000</td>
</tr>
<tr>
<td>Personal Property Assessments</td>
<td>$22,000</td>
</tr>
<tr>
<td>Exemptions</td>
<td>($5,000)</td>
</tr>
<tr>
<td><strong>Total Assessment</strong></td>
<td><strong>$1,609,000</strong></td>
</tr>
</tbody>
</table>

Times mill rate: 27.98 mills

Tax Revenue Generated: $45,020

Estimating Net Expenditures

Net expenditure amounts are discussed on pages 24-25. Count the number of school children and multiply by the net expenditure for services to pupils. Count the number of residents and multiply by the net expenditure for services to residents. Take the total assessment for the development ($1,609,000) and multiply by the net expenditure for services to property. Add all of these estimates together to get the total estimated annual net expenditures.

<table>
<thead>
<tr>
<th>School Children</th>
<th>Per Pupil</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>$3,079</td>
<td>$30,790</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residents</th>
<th>Per Capita</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>$44.47</td>
<td>$1,556</td>
</tr>
</tbody>
</table>

Total assessment times 27.52 mills: $20,145

Annual Net Expenditures: $52,491

Estimating Annual Net Fiscal Benefit

The annual net fiscal benefit is estimated by subtracting the estimated net expenditure associated with the development from the estimated revenue.

<table>
<thead>
<tr>
<th>Revenue Generated</th>
<th>$45,020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Expenditures</td>
<td>$52,491</td>
</tr>
</tbody>
</table>

Annual Net Fiscal Benefit: ($7,471)

Since the estimated annual net fiscal benefit is a negative number, it means that the fictitious development is presently resulting in a fiscal shortfall for the community.
Existing Non-Residential Development

Estimating Revenue

For an existing non-residential development, add up all real estate assessments, motor vehicle assessments, and personal property assessments. Deduct any tax exemptions (manufacturing equipment). This is the total net assessment for the development.

<table>
<thead>
<tr>
<th>Assessed real estate value</th>
<th>$560,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor Vehicle Assessments</td>
<td>$0</td>
</tr>
<tr>
<td>Personal Property Assessments</td>
<td>$100,000</td>
</tr>
<tr>
<td>Exemptions</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Total Assessment</strong></td>
<td><strong>$660,000</strong></td>
</tr>
</tbody>
</table>

Times mill rate 25.10 mills

**Tax Revenue Generated** $16,566

Estimating Net Expenditures

Multiply, take the total assessment for the development ($660,000) by the net expenditure for service to property (page 25) to estimate the total estimated annual net expenditures.

<table>
<thead>
<tr>
<th>0 school children times</th>
<th>$4,042 per pupil</th>
<th>$0</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 residents times</td>
<td>$66.36 per capita</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Total assessment times</strong></td>
<td><strong>$10.59 mills</strong></td>
<td><strong>$6,989</strong></td>
</tr>
</tbody>
</table>

**Annual Net Expenditures** $6,989

Estimating Annual Net Fiscal Benefit

The annual net fiscal benefit is estimated by subtracting the estimated net expenditure associated with the development from the estimated revenue.

<table>
<thead>
<tr>
<th>Tax Revenue Generated</th>
<th>$16,566</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual Net Expenditures</strong></td>
<td><strong>$6,989</strong></td>
</tr>
</tbody>
</table>

**Annual Net Fiscal Benefit** $9,577

Since the estimated annual net fiscal benefit is a positive number, it means that the fictitious development is presently resulting in a fiscal surplus for the community.

Case Study #2

Thomaston

This case study is for a fictitious existing non-residential development in Thomaston.
Case Study #3

Woodbury

COGCNV Region

**New Residential Development**

A proposal has been submitted for a 12-unit subdivision in Woodbury. The houses are estimated to sell for $350,000 each. The development is expected to produce 10 school-age children and a total population of 32 new residents. What is the estimated annual fiscal benefit?

**Estimating Revenue**

Multiply the average selling price of a proposed house or unit times the number of units to get the total estimated market value of the development. Multiply that times the current residential assessment-sales ratio (obtained from the local assessor) to determine the total real estate assessment for the development. Add another 8.7% in Woodbury for the net effect of motor vehicle assessments, personal property assessments, and assessment exemptions. Multiply the total assessment by the current mill rate to determine the tax revenue generated.

12 houses @ $350,000 = market value of $4,200,000

At the residential assessment-sales ratio (57%) = assessed value of $2,394,000

Adjustment for vehicles, property, exemptions (plus 8.7%) = $207,880

**Total Assessment** $2,601,880

Times mill rate 18.90 mills

**Tax Revenue Generated** $49,182

**School Enrollment**

While the average school enrollment per unit in Woodbury was 0.42 students per unit, studies of school enrollment have found that the typical impact from new development is roughly double what the community-wide average is.

In Woodbury, this would correlate to a new house multiplier of about 0.84 students per unit and a total enrollment of 10 students from the new development.

**Estimating Net Expenditures**

Estimate the number of school children and multiply by the per pupil net expenditure for services to pupils (see pages 24-25). Estimate the number of residents and multiply by the per capita net expenditure for services to residents. Take the total assessment for the development ($2,601,880) and multiply by the net expenditure for services to property. Add all of these estimates together to get the total estimated annual net expenditures.

10 school children times $7,413 per pupil = $74,126

32 residents times $77.84 per capita = $2,2571

Total assessment times $3.22 mills = $8,382

**Annual Net Expenditures** $84,765

**Estimating Annual Net Fiscal Benefit**

The annual net fiscal benefit is estimated by subtracting the estimated net expenditure associated with the development from the estimated revenue.

Tax Revenue Generated $49,182

Annual Net Expenditures $84,765

**Annual Net Fiscal Benefit** ($35,583)
In this scenario, the proposed development will require more in service costs than it provides in tax revenue.

The mill rate will have to be raised to maintain service levels and that existing residents will have to pay higher taxes as a result of the new development.

**Tax Benefit Of A Proposed Use Or Activity**

The value of a one mill change in the tax rate is determined by dividing the Taxable Grand List by 1,000.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxable Grand List</td>
<td>$693,208,482</td>
</tr>
<tr>
<td>Divide by 1,000</td>
<td>1,000</td>
</tr>
</tbody>
</table>

**Value of One Mill Change in the Tax Rate**

$693,208

When the Annual Net Fiscal Benefit is divided by the value of a one-mill change, it will result in the change in the tax rate (in mills) resulting from the proposed development.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Net Fiscal Benefit</td>
<td>($35,583)</td>
</tr>
<tr>
<td>Divide by Value of One Mill Change in the Tax Rate</td>
<td>$693,208</td>
</tr>
</tbody>
</table>

**Tax Rate Decrease Due to Development**

(0.05133 mills)

Since the estimated tax rate decrease is a negative number, it means that the proposed development is expected to increase the tax rate in the community.

To determine the effect on a typical residential property owner, take the total residential assessment and divide by the number of housing units to determine the average assessment. Multiply by the change in the tax rate to determine the benefit to a typical residential property owner.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total residential assessment</td>
<td>$621,437,544</td>
</tr>
<tr>
<td>divided by number of housing units</td>
<td>3,821</td>
</tr>
<tr>
<td>Average assessment per housing unit</td>
<td>$162,637</td>
</tr>
<tr>
<td>times the change in the tax rate</td>
<td>(0.05133)</td>
</tr>
</tbody>
</table>

**Annual Tax Benefit to a typical residential property owner**

($8.35)

Since the estimated tax benefit is a negative number, it means that the proposed development is expected to increase the tax bill for a typical housing unit.
Proposed Non-Residential Development

Estimating Annual Net Fiscal Benefit

Estimate the assessed value of the development. Add an allowance for the motor vehicles, personal property, and exemptions (55.9% for industrial development in Prospect). Multiply the total assessment by the current mill rate to determine the tax revenue generated by the development.

Estimated assessed value of $1,000,000
Adjustment for vehicles, property, exemptions (plus 55.9%) $559,000
Total Assessment $1,559,000
Times mill rate 24.97 mills
Tax Revenue Generated $38,928

Since it is a non-residential development, no expenses are anticipated for education or residents. Take the total assessment for the development ($1,559,000) and multiply by the net expenditure for services to property to estimate the expenditures generated.

Total assessment times $6.87 mills $10,710
Annual Net Expenditures $10,710

The annual net fiscal benefit is estimated by subtracting the estimated net expenditure associated with the development from the estimated revenue.

Tax Revenue Generated $38,928
Annual Net Expenditures $10,710
Annual Net Fiscal Benefit $28,218

Tax Benefit Of A Proposed Use Or Activity

Assuming that the value of a one mill change in the tax rate in Prospect is $369,651, the change in the tax rate (in mills) resulting from the proposed development would be:

Annual Net Fiscal Benefit $28,218
Divide by Value of One Mill Change in the Tax Rate $369,651
Tax Rate Decrease Due to Development 0.076337 mills

Assuming that the average assessment of a residential property in Prospect is about $114,922, the tax benefit to a typical residential property owner would be:

Average assessment per housing unit $114,922
times the change in the tax rate 0.076337 mills
Annual Tax Benefit to a typical residential property owner $8.77

Since the estimated tax benefit is a positive number, it means that the proposed development is expected to reduce the tax bill for a typical housing unit.
“Payback” Of Property Purchase

Land uses that produce a negative annual fiscal benefit result in increased taxes to existing property owners.

In some cases, it may be more cost-effective for a community to purchase the property since the cost of acquiring the property can be amortized over a period of time whereas an annual fiscal deficit could continue indefinitely. In other words, if new development is going to cost existing taxpayers more money whether the property is developed or purchased, it may make sense to purchase the property for municipal use or open space.

Dividing the cost of purchase by the annual fiscal benefit from development will result in an estimate of how long it would take to “pay back” the purchase price. In general terms, a “payback period” of seven years or less would be considered a more prudent investment than one with a longer payback period.

Estimate the market value of the property in its undeveloped state. Multiply by 1,000 and divide this by the Grand List. This is the change in the tax rate (in mills) to purchase the property with cash from current tax revenue.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market value of the property in its undeveloped state</td>
<td>$250,000</td>
</tr>
<tr>
<td>Divide by Value of One Mill Change in the Tax Rate</td>
<td>$242,761</td>
</tr>
<tr>
<td><strong>Tax rate Increase to purchase the property with cash</strong></td>
<td>1.02982 mills</td>
</tr>
</tbody>
</table>

Note from the foldout page on proposed residential development, that a new 12-lot subdivision development in Bethlehem could produce an annual fiscal deficit of $38,185 and increase taxes by about 0.15730 mills.

Dividing the estimated purchase cost of the property by the annual fiscal benefit from development to estimate the number of years to “pay back” the property purchase.

**“Payback Period” of property purchase:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market value of the property in its undeveloped state</td>
<td>$250,000</td>
</tr>
<tr>
<td>Divide by the Annual Net Fiscal Benefit</td>
<td>($38,185)</td>
</tr>
<tr>
<td><strong>Number of years to “pay back” the property purchase</strong></td>
<td>6.55 years</td>
</tr>
</tbody>
</table>

In Bethlehem, after 6.55 years, taxpayers would have paid the same amount whether the property was developed or the property was purchased by the community.
Case Study #6

Watertown

Possible Tax Benefit of A House Sale

Suppose a house in Watertown, which is occupied by an elderly couple, is sold and occupied by a family with a school child and an infant. The total assessment of the property (including motor vehicles) is estimated to be $140,000. What is the fiscal benefit?

<table>
<thead>
<tr>
<th>Total Assessment</th>
<th>$140,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Times mill rate</td>
<td>20.79 mills</td>
</tr>
<tr>
<td>Tax Revenue Generated</td>
<td>$2,911</td>
</tr>
</tbody>
</table>

Estimating Annual Net Fiscal Benefit Before The Sale

The estimated annual net expenditures before the sale are estimated to be:

| 0 school children at   | $3,996 per pupil | $0 |
| 2 residents at         | $52.10 per capita | $104 |
| Total assessment at    | 8.49 mills       | $1,189 |
| **Annual Net Expenditures** |             | **$1,293** |

As a result, the annual net fiscal benefit is estimated to be:

| Tax Revenue Generated  | $2,911 |
| Annual Net Expenditures | $1,293 |
| **Annual Net Fiscal Benefit** | **$1,618** |

Estimating Annual Net Fiscal Benefit After The Sale

The total estimated annual net expenditures after the sale are estimated to be:

| 1 school children at   | $3,996 per pupil | $3,996 |
| 4 residents at         | $52.10 per capita | $208 |
| Total assessment at    | 8.49 mills       | $1,189 |
| **Annual Net Expenditures** |             | **$5,393** |

As a result, the annual net fiscal benefit after the sale is estimated to be:

| Tax Revenue Generated  | $2,911 |
| Annual Net Expenditures | $5,393 |
| **Annual Net Fiscal Benefit** | **($2,482)** |

The change in the net fiscal benefit is ($4,100) and the property went from producing a fiscal surplus to producing a fiscal shortfall.

For this reason, elderly tax relief can be a prudent fiscal policy by a community if it reduces the desire to sell a house.

The sale of a house occupied by two residents to a family with school age children will turn a fiscal surplus into a fiscal shortfall.

Elderly tax relief may reduce the desire to sell a house can be a prudent fiscal policy by a community if it extends occupancy.
Case study #3 looked at the fiscal benefit of typical new residential development. This case study looks at the fiscal benefit of 12 typical houses in Beacon Falls.

**Estimating Annual Net Fiscal Benefit**

The calculations are similar to those discussed on pages 42-43 for estimating the tax revenue generated, the net expenditures, and the annual net fiscal benefit. Calculations follow:

- **12 houses at Median Sales Price @ $110,000**: $1,320,000
- **At the residential assessment-sales ratio (55%) = assessed value of**: $726,000
- **Adjustment for vehicles, property, exemptions (plus 13.6%)**: $98,506
- **Total Assessment**: $824,506
- **Times mill rate 24.65 mills**: Tax Revenue Generated $20,321
- **7 school children times $3,847 per pupil**: $26,931
- **32 residents times $54.90 per capita**: $1,757
- **Total assessment times $7.48 mills**: $6,170
- **Annual Net Expenditures**: $34,858

The annual net fiscal benefit is estimated by subtracting the estimated net expenditure associated with the development from the estimated revenue.

<p>| | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Tax Revenue Generated</td>
<td>$20,321</td>
</tr>
<tr>
<td>Annual Net Expenditures</td>
<td>$34,858</td>
</tr>
<tr>
<td><strong>Annual Net Fiscal Benefit</strong></td>
<td>($14,537)</td>
</tr>
</tbody>
</table>
Breakeven Assessment of Residential Unit

What does a residential unit have to be assessed at (or sell at) to “cover its costs? Clearly, the answer to this question depends on the number of school age children in the unit.

Assuming one school age child in a family of three people in Oxford, the calculations would proceed as follows.

Estimating Net Expenditures For Residents and Pupils

Multiply the number of school children by the per pupil net expenditure. Multiply the number of residents by the per capita net expenditure. Add all of these estimates together to get the total estimated annual net expenditures. Notice that this has excluded the net expenditures for services to property.

<table>
<thead>
<tr>
<th></th>
<th>1 school child times</th>
<th>3 residents times</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$6,581 per pupil</td>
<td>$6,581</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$42.94 per capita</td>
<td>$129</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Annual Resident Net Expenditures</strong></td>
<td><strong>$6,710</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Estimating Revenue Required

The real estate assessment and the estimated market value of the residence are estimated as follows:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Tax Revenue Required for Annual Resident Net Expenditures</td>
<td>$6,710</td>
</tr>
<tr>
<td>Divided by 40.48 mills (the sum of the mill rate ( approx. 30.40 mills) and the mill rate for services to property rate ( approx. 10.08 mills))</td>
<td>0.04048</td>
</tr>
<tr>
<td><strong>Total Assessment</strong></td>
<td><strong>$165,761</strong></td>
</tr>
<tr>
<td>Divided by 1.127 (the adjustment for vehicles, property, exemptions)</td>
<td>1.127</td>
</tr>
<tr>
<td><strong>Real Estate Assessment</strong></td>
<td><strong>$147,082</strong></td>
</tr>
<tr>
<td>Divide by the residential assessment-sales ratio</td>
<td>55%</td>
</tr>
<tr>
<td><strong>Estimated Market Value of Residence</strong></td>
<td><strong>$267,421</strong></td>
</tr>
</tbody>
</table>

If there are two school age children and a family of four, the resident expenditures increase to $13,334 and the estimated market value would need to be about $531,404.

Overall, the residential market value needed to support one pupil in the Oxford schools is about $262,280.
CONCLUSION

While this report has attempted to summarize some fiscal relationships in the Central Naugatuck Valley Region, it should be considered a starting point for further discussion rather than a final conclusion.

A municipal fiscal impact analysis provides insight into the fiscal impact of different land uses on the General Fund at a given point in time. As changes occur in the Grand List, local revenues and expenditures, housing occupancy, and school enrollments, the overall fiscal impact of different land uses can be expected to change. Caution should be taken before applying these results to other time periods or jurisdictions since the results of this study represent the interaction of demographic and fiscal parameters that:

- may be unique to the communities in the Region, and
- are changing over time.

It is important to stress that this study only looks at fiscal implications. It does not consider physical, social, or economic implications of different uses. For example

In terms of policy implications of the information in this report, it is important to stress that fiscal concerns should not be the only criteria for determining municipal policy, especially conservation and development decisions.

In the final analysis, while different land uses vary in their potential fiscal impact in a community, the overall form and function of the community and its physical, social, and economic health should be the more important issue. As has been stated previously, it is important to note that each use should be studied in light of all of its anticipated impacts on the community and not simply tax costs and revenues alone.

In the long run, managing the community responsibly to promote the best overall quality of life may be more important than investigating every land use without regard to how it fits into a bigger picture.

Different land uses have different impacts (including fiscal impacts) in each community.

Overall, it is important to evaluate each use in light of all of its anticipated benefits and costs on the community and not simply tax costs and revenues alone.
### References


1996 Housing Unit Data, Connecticut Department of Economic and Community Development.

1997 Grand List Data, Local Assessors Offices.


1998-99 Budget Data, Local Finance Offices.

1999-2000 School Enrollment Data, Local Boards of Education.
Acknowledgments

Council of Governments of the Central Naugatuck Valley

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Member</th>
<th>Alternate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beacon Falls</td>
<td>Susan Cable, First Selectman</td>
<td>Karen Wilson</td>
</tr>
<tr>
<td>Bethlehem</td>
<td>Jeffrey Nicholas, First Selectman</td>
<td>Victor Allen</td>
</tr>
<tr>
<td>Cheshire</td>
<td>David Borowy, Council Chair</td>
<td>Michael Milone</td>
</tr>
<tr>
<td>Middlebury</td>
<td>Edward St. John, First Selectman</td>
<td>John Baumer</td>
</tr>
<tr>
<td>Naugatuck</td>
<td>Joan Taf, Mayor</td>
<td>Executive Committee</td>
</tr>
<tr>
<td>Oxford</td>
<td>Paul Schreiber, First Selectman</td>
<td>Vice Chairman</td>
</tr>
<tr>
<td>Prospect</td>
<td>Robert Chatfield, Mayor</td>
<td>Executive Committee</td>
</tr>
<tr>
<td>Southbury</td>
<td>Alfo Candido, First Selectman</td>
<td>Secretary</td>
</tr>
<tr>
<td>Thomaston</td>
<td>Clifford Brammer, First Selectman</td>
<td>Executive Committee</td>
</tr>
<tr>
<td>Waterbury</td>
<td>Philip Giordano, Mayor</td>
<td></td>
</tr>
<tr>
<td>Watertown</td>
<td>Sean Butler, Council Chair</td>
<td></td>
</tr>
<tr>
<td>Wolcott</td>
<td>Michael DeNegris, Mayor</td>
<td>Treasurer</td>
</tr>
<tr>
<td>Woodbury</td>
<td>Richard Crane, First Selectman</td>
<td>Chairman</td>
</tr>
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</table>

Regional Planning Commission

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beacon Falls</td>
<td>Jonathan Chew, Arthur Koeller</td>
</tr>
<tr>
<td>Bethlehem</td>
<td>Victor Allen, Jack Nelson</td>
</tr>
<tr>
<td>Cheshire</td>
<td>John Campbell, Sherwood Dawson</td>
</tr>
<tr>
<td>Middlebury</td>
<td>Thomas Gormley, Francis Ruccio</td>
</tr>
<tr>
<td>Naugatuck</td>
<td>Joseph McEvoy (Chairman)</td>
</tr>
<tr>
<td>Oxford</td>
<td>Isabel Kearns</td>
</tr>
<tr>
<td>Prospect</td>
<td>George Kitzman (Secretary), Gene McCarthy</td>
</tr>
<tr>
<td>Southbury</td>
<td>Harmon Andrews, John Fischer</td>
</tr>
<tr>
<td>Thomaston</td>
<td>Sam Barto</td>
</tr>
<tr>
<td>Waterbury</td>
<td>Thomas Diblasi, Allyn DeMaida</td>
</tr>
<tr>
<td>Watertown</td>
<td>Mary Barton</td>
</tr>
<tr>
<td>Wolcott</td>
<td>Joseph Paulo</td>
</tr>
<tr>
<td>Woodbury</td>
<td>Katherine Campbell (Vice-Chairman), Eugene Crawford</td>
</tr>
</tbody>
</table>

COGCVN Staff

<table>
<thead>
<tr>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Dorpalen, Executive Director</td>
</tr>
<tr>
<td>Virginia Mason, Senior Planner</td>
</tr>
<tr>
<td>Susan Forster, Senior Planner</td>
</tr>
<tr>
<td>Laurel Stegina, Regional Planner</td>
</tr>
<tr>
<td>Kristi LeDuc, GIS Research Associate</td>
</tr>
<tr>
<td>Glenda Prentice, GIS Assistant</td>
</tr>
<tr>
<td>Peggy Stack, Office Manager</td>
</tr>
<tr>
<td>Patricia Bauer, Financial Manager</td>
</tr>
</tbody>
</table>

Project Steering Committee

<table>
<thead>
<tr>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sam Barto, Thomaston</td>
</tr>
<tr>
<td>Mary Barton, Watertown</td>
</tr>
<tr>
<td>Delores Curtis, Southbury</td>
</tr>
<tr>
<td>Kay Campbell, Woodbury</td>
</tr>
<tr>
<td>William Donovan, Prospect</td>
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<tr>
<td>Richard Pfurr, Cheshire</td>
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</tbody>
</table>

Planimetrics

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Arroll Borden
Donald Poland