

LINCOLN COUNTY DATA SET

**Lincoln Institute of Land Policy
Workshop on
Curriculum for Graduate Planning Programs
The Nuts and Bolts of Development Finance**

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I. Overview

The Lincoln County Data Set is a compendium of fiscal, demographic and economic data pertaining to a hypothetical county, Lincoln County, U.S.A. The purpose of the data set is to provide an integrated set of data that can be used to illustrate various aspects of local government finance as it pertains to the practice of planning. Using the Lincoln County Data Set as a baseline or beginning point, the intention is to create a set of practice problems and illustrations that can be used in graduate planning programs or professional training situations to increase the understanding of planners with regards to the financial aspects of various planning activities.

Lincoln County is a hypothetical county that can be located virtually anywhere in the U.S.² Local governments represented in the county include two cities, one town, the county, and two school districts that are separate entities from the other general purpose governments. The general purpose governments existing in Lincoln County include:

General Purpose Governments

- Village of Placidville
- Village of Roaring Rapids
- Town of River.
- Lincoln County

The special purpose governments existing in Lincoln County include:

Special Purpose Governments

- Placidville School District
- Roaring Rapids School District.

Map A.01 shows the general configuration of the various local governments within Lincoln County.

¹This paper and data set has been commissioned by the Lincoln Institute of Land Policy. All errors or omissions are solely the responsibility of the author.

²The data set may need to be changed in some situations to reflect local terminology. For example, urban governments are called “cities” in many states, but also may be named differently in other situations (e.g. boroughs).

Various forms of information are provided for the local governments in Lincoln County. This includes information on: zoning, assessed property values, population, employment, government budgets and the used of debt for each of the local governments. Each of these data sets is described in more detail below. Users will need Microsoft Excel[®] to access data files.

The structure of this paper and associated data sets is as follows.

Section II. Description of Local Governments in Lincoln County

Section III. Maps

Section IV. Zoning, Assessed Property Values, and Selected Demographic and Economic Data

Section V. Annual Budgets

Section VI. Use of Debt and Annual Debt Service for Lincoln County Local Governments: 2005

Section VII. Technical Notes

Section VIII. Classroom Instructional Suggestions

Section IX. Files and Spreadsheets

II. Description of Local Governments in Lincoln County

As discussed above, Lincoln County, U.S.A. is comprised of four general purpose and two general purpose governments. A brief description of each is provided below.

- A. Village of Placidville. Placidville had an estimated population of 1,428 in 2005, a growth of 8.7% over the past decade. The village's early development focused around heavy manufacturing and had its peak in the early 1960s. Much of the heavy manufacturing property is located along the village's river front and is showing signs of vacancy and dilapidation, with several brownfield sites identified. New commercial development has started to occur on the southwest corner of the village, putting pressure on local officials to redevelop the older industrial area along the river.
- B. Village of Roaring Rapids. Roaring Rapids is the county seat for Lincoln County. Its population has grown by 12.3% over the past decade, reaching 1,840 in 2005. The economic base of the village is largely government and health care, with a fairly healthy commercial sector situated around the town square (Central Park). The housing stock in Roaring Rapids is generally considered to be of higher quality than that of Placidville and

has significant “high-end” housing located around Roaring Rapids Lake and along the Placid River. Thirty acres have been platted for single-family housing in the Town of River, adjacent to the current northeast corner of the village. This land is currently still in the Town of River, but is zoned under the village’s extra-territorial zoning powers and is suitable for annexation.

- C. Town of River. The Town of River covers all property in the county that is not included in the two villages. The bulk of the county’s population lives in the town and has grown by 17.6% over the past decade, reaching 18,672 residents in 2005. The economic base of the town is largely agriculture-based.
- D. Lincoln County. Lincoln County government covers all property in the county and in “theory” provides services to all properties in the county. In practice, the county provides many of its services only to rural residents, leaving the two villages to meet the needs of their populations and businesses. The county does administer welfare and public health programs for residents throughout the county.
- E. Placidville School District. The Placidville School District is responsible for delivering public education to residents of Placidville and a portion of the residents in the Town of River. Approximately 60% of the students living in the Town of River attend schools in the Placidville School District. Approximately 40% of the property value in the Town of River lies within the boundaries of the Placidville School District. Enrollment in the district has grown by 16.6% in the past decade, reaching 3,685 students in 2005. The district is generally perceived to spend as little as possible on educational programs and struggles to maintain or expand an aging stock of buildings.
- F. Roaring Rapids School District. The Roaring Rapids School District is responsible for delivering public education to residents of Roaring Rapids and a portion of the residents in the Town of River. Approximately 40% of the students living in the Town of River attend schools in the Roaring Rapids School District. Approximately 60% of the property value in the Town of River lies within the boundaries of the Roaring Rapids School District. Enrollment in the district has also grown by 16.6% in the past decade, reaching 2,716 students in 2005. In contrast to the Placidville School District, the Roaring Rapids School District is perceived to be a “high-end” school system and is constantly upgrading its physical structures and educational programs.

III. Maps

There are three maps included in the Lincoln County Data Set.

- A. Map A.01: Lincoln County, U.S.A.. Map A.01 provides the general configuration of the various local governments within Lincoln County.
- B. Map A.02: Placidville, Lincoln County. This map provides the general layout of the Village of Placidville and the zoning identification of all properties within current village boundaries. Zoning identifications are used to record information on specific properties in Table A.02.
- C. Map A.03: Roaring Rapids, Lincoln County. This map provides the general layout of the Village of Roaring Rapids and the zoning identification of all properties within current village boundaries. Zoning identifications are used to record information on specific properties in Table A.03. Parcels marked “ETZ” have been platted for single-family residential development, but are not currently within the village’s boundaries.

None of the three maps included in the Lincoln County Data Set are drawn to scale.

IV. Zoning, Assessed Property Values, and Selected Demographic and Economic Data

Three tables provide information on zoning, assessed property values, population, employment and student enrollments for the various local governments in Lincoln County. Table A.01 summarizes this data for all governments. Table A.02 gives detailed information for the Village of Placidville and Table A.03 for the Village of Roaring Rapids. A brief description of each component of the three tables is provided below.

- A. Zoning Class. Zoning is administered by municipal government in Lincoln County, which means the villages of Placidville and Roaring Rapids and the Town of River. School districts and the county have no zoning authority. Classes of land use are described in the zoning chart below.

CHART A.01 Zoning Classes Used in Lincoln County, U.S.A.

Code	Zoning Class	Description
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R	Residential	Residential uses including both single- and multi-family up to four units. Includes condominiums. Does not include multi-family rental housing with five or more units (e.g. large apartment complexes).
C	Commercial	Uses intended for the sale of goods or services for profit, excluding professional services.
O	Office	Uses intended for the provision of technical services, such as medical services, law services, etc.
I	Industrial	Uses intended for the production of any manufactured good.
W	Warehouse	Uses intended for the storage or conveyance of manufactured goods or other physical items for profit.
A	Agriculture	Agricultural uses including production of crops, plants, livestock or products of livestock for profit,
S	Civic and Social Institutions	Uses intended to provide civic or social values and services to the community at large. Includes churches, community groups, etc. Can include low-income publicly assisted housing or senior housing. Generally exempt from local property taxation.
P	Public	Uses intended for provision of local, state or federal government services. Can include public buildings, roadways, parks, etc.
ETZ	Extra-Territorial Zoned	Uses zoned by one local government under the zoning requirements of another local government. Villages in Lincoln County can control zoning of land in the Town of River within three miles of their boundaries.

B. Assessed Property Values. The value for taxation purposes of land and improvements (e.g. structures) is determined by assessors employed by the three municipal governments. Assessed values are an estimate by the respective assessors as to the economic value that would be attached to either land or improvements at the time of sale under unimpeded transaction conditions. Assessed values are considered “comparable” within each

municipal government, but not necessarily comparable among different municipal governments (i.e. assessment ratio needed for this).

Assessed land value refers to the value of land alone when used in its highest and best use. Assessed improvement value refers to the value of improvements (e.g. structures) placed upon the land and may include personal property (such as inventories, equipment, etc.). Total assessed value is the combination of land and improvement values.

Assessed values are determined as of January 1 of each year and are shown for 1994 and 2004. All values shown are in “current” dollars (i.e. have *not* been adjusted for inflation).

- C. Population. Population is an estimate of the number of people living in different land use classes as of January 1 of each year.
- D. Employment. Employment is an estimate of the number of full time equivalent workers employed in each land use class as of January 1 of each year.
- E. Students. Students is the number of full time equivalent students that are enrolled in the two public school districts as of January 1 of each year.

V. Annual Budgets

Annual budgets are shown for all governments in Lincoln County. All governments budget on a January 1 to December 31 fiscal year basis and are required to have balanced budgets each year. Budgets are shown for 1995 and 2005 and are reported in “current” year dollars. Only one local government, the Village of Placidville, makes use of a special utility that has a budget separate from the general budget. The Placidville Water and Sewer Utility utilizes user charges to finance its operations (i.e. no property tax revenues are used).

VI. Use of Debt and Annual Debt Service for Lincoln County Local Governments: 2005

Two types of debt are used by governments in Lincoln County. Municipal governments and school districts use five-year serial bonds to fund needed capital projects. Under this approach, debt is issued in a single year with defined amounts of principle retired in each of the five following years. Different interest (coupon) rates are normally charged for each series (i.e. year of principle repayment), with rates generally increasing with years to maturity. Interest is

paid annually for all outstanding debt. Lincoln County government makes use of the second type of debt, term bonds. Under this approach, debt is issued in a single year and is repaid in total five years after its issuance. A single interest (coupon) rate is applied to this debt and is paid annually until the debt is retired. As part of the term bond agreement, the county must place 20% of the principle owed into a bond sinking fund each year until the debt is retired. The term bond is retired five years after its issuance using funds from the bond sinking fund.

In any year, debt service is the amount of money that will be paid by a local government for retirement of principle or payment of interest. Annual debt service does not include sinking fund transfers, except those used to retire debt.

Local governments in Lincoln County are limited by state statute in terms of how much debt they can issue or have outstanding in any given year. Municipal governments (i.e. villages and towns) are limited such that new and outstanding debt cannot exceed five percent of their total tax base. Lincoln County's debt is limited to ten percent of its total tax base and the two school districts' debt is limited to 20 percent of their respective tax bases.

All data concerning the use of debt is shown in current dollars.

VII. Technical Notes

The following notes are intended to provide further information that may improve use of the Lincoln County Data Set.

1. Types of Property Values. Generally, two types of property values are used in local government finance. The first, *assessed* value, is the value of land and improvements that is established by local assessors. As discussed above, these values are generally thought to be comparable within tax administration districts, but not necessarily across different tax administration districts. Different assessors may place different values on identical properties located in different tax administration districts. This creates problems in property tax administration when a single tax base is used by several governments in generating property taxes. The answer to this problem is creation of *equalized* values. These values are determined by an authority higher than the local tax administration district (e.g. state Department of Revenue) and attempt to standardize (or equalize) property value assessments across different jurisdictions. In the property tax administration process, equalized property values are used to allocate the property taxes

to be collected among the various jurisdictions; assessed property values are used to determine actual property tax bills.

The two types of property values are tied together for any given tax administration district through the *assessment ratio*, which is defined as total assessed value divided by total equalized value. Assessment ratios greater than one mean that local assessors are estimating property values too high in comparison to similar properties in other jurisdictions. Assessment ratios less than one have the opposite meaning.

The data shown in Tables A.01, A.02 and A.03 are assessed values. The property values of the three municipal governments have been allocated to the county and two school districts assuming the assessment ratio is one (i.e. total assessed value equals total equalized value). If different assessment ratios are used for the various tax administration districts, the composition of the tax base for the two school districts would need recalculated. This can be done by first determining equalized value for each tax administration district using the revised assessment ratios and then allocated 40% of the equalized value of the Town of River to the Placidville School District and 60% to the Roaring Rapids School District.

2. Value/Budget Lags. In property tax administration, next year's budget is financed using the current year's tax base. For example, the tax base existing January 1, 2004 is used to determine the property tax rate that will produce revenues for the 2005 budget. Accordingly, the property values shown in Tables A.01, A.02 and A.03 are for 1994 and 2005, while the budgets in Table B.01 are for 1995 and 2005.
3. Uniform Taxation. The data contained in the Lincoln County Data Set assumes that Lincoln County is located in a state that utilizes *uniform* property taxation. This means that all properties, if taxed, are taxed at the same (uniform) rate. Some states utilize *non-uniform* property taxation. In these states, residential property may be taxed at a different rate than industrial property for example. Complete the following steps to transform the Lincoln County Data Set to a non-uniform format: (1) set property tax rates for all but one classes of property; (2) determine the amount of property taxes that can be raised on these classes; and (3) determine the property tax rate on the remaining class that will just

produce the appropriate overall property tax collections.

4. Current/Constant Dollars. All financial data contained in the Lincoln County Data Set is expressed in *current* dollars. This means, for example, that the budgets shown for 1995 are exactly what was spent in 1995, the data has not been adjusted for inflation. Below are the price deflators that can be used for Lincoln County if *constant* dollar estimates are needed.

<u>Lincoln County Price Deflators</u>			
<u>1994</u>	<u>1995</u>	<u>2004</u>	<u>2005</u>
100.0	101.2	110.6	111.8

5. Multi-Family Housing. Multi-family rental apartments that have five or more units are zoned Commercial in the Lincoln County Data Set. Condominium units, regardless of number of units, are zoned Residential.
6. ETZ. Extra-Territorial Zoning is a tool authorized by state legislatures that allows urban governments to zone and control land at the edge of their jurisdictions even though the land is contained within the boundaries of another local government (usually rural townships). In the Lincoln County Data Set ETZ has been used by the Village of Roaring Rapids to control future development in the Town of River. This area is coded ETZ01 through ETZ64 in Map A.03.
7. Control Panels. It may be desirable to update the appearance of the various data sets on occasion. For example, for classroom purposes it may be useful to have local budgets in the Lincoln County Data Set always reflect the most current year. All data sets (except Maps) have a control panel page that allows easy updating of the respective data sets. Control panels have areas for changing dates and other selected information (such as size of bond issue). Changes made in the control panel page will be automatically reflected in all affected pages of the various spreadsheets.

VIII. Classroom Instructional Suggestions

The Lincoln County Data Set has been constructed in the hopes that a variety of applications can be created that will help practicing planners understand the fiscal dimensions of the actions they undertake. Below are several suggestions for how the data set can be used for these purposes.

1. Analysis of General Fiscal Patterns. Variations have been created in the data set relative to the spending and property tax base of the various local governments. For example, villages provide different services than the town or county, and vary between Placidville and Roaring Rapids themselves. Some jurisdictions are tax base “rich,” while other are relatively poor. Certain economic activities dominate in each jurisdiction (e.g. manufacturing in Placidville or agriculture in the Town of River), while all share some activities (e.g. commercial). Often, an initial classroom exercise that analyzes existing patterns can help students realize that a seemingly huge “bucket of data” can produce simple, and interesting patterns.
2. Local Choices and Institutional Arrangements. The Village of Placidville provides water and sewerage treatment services through an independent utility, relying on user charges to fund the utility. The Village of Roaring Rapids provides the same services as part of the general bundle of public services provided, using general revenues to fund these activities. A good beginning analytical problem can be created around the question: (1) what would happen to the property tax rate in Placidville if it decided to close the water/sewer utility and provide these services as a general public service (like Roaring Rapids); or alternately (2) what would happen to the property tax rate in Roaring Rapids if it decided to utilize a separate utility such as that used in Placidville? This problem highlights the trade-off between using property taxes or user charges to fund local services and stresses the fundamentals of property tax determination.
3. Use of Debt. Debt and debt service are often poorly understood by planners. The use of scheduled term debt (\$2,000,000 each) by Lincoln County produces an odd fiscal position for the county. It commits the same amount in sinking fund transfers each year as it procures in new borrowing. Thus, it could produce the same revenues each year without using debt and without the added interest costs. Students can be asked to review the borrowing patterns of each local government (being guided directly or indirectly to the situation with Lincoln County) and thereby learn about how decisions to borrow today affect decisions to spend later.
4. Annexation. The fiscal impacts of annexation can be demonstrated by creating a problem where the land zoned ETZ in the Town of River is annexed to the Village of Roaring Rapids. Students will need to determine how the land would be valued, once developed;

how village and town spending will be affected; and how the tax bases and property tax revenues of the village and the town would be affected.

5. Land Valuation. Agricultural land in Lincoln County (and the Town of River) is currently assessed at its highest and best use. Several states are moving to “use value” assessment of agricultural land. Under this approach, agricultural land is assessed at its value in agriculture, rather than its highest and best use (e.g. new land for development at the edge of cities). A problem can be created where use value assessment is adopted by the state and agricultural values are reduced by 40% across the board (or some higher percentage near cities and less else where). The shift in tax burdens among jurisdictions can clearly be demonstrated with this problem. Tax rates will go down in jurisdictions with large amounts of agricultural land and will go up in cities. This problem is very useful in underscoring the basics of property tax administration.
6. Non-Uniform Taxation. The Lincoln County Data Set assumes uniform taxation across all classes of land and property. When the data set is transformed to a non-uniform form format (see Section VII.3 above), problems can be created that change the tax rate on various classes of property and analyze the impacts on local government revenues and the incidence of property taxes on different groups of land owners.
7. Fiscal Impacts of Development. The Village of Placidville has a growing commercial sector and significant vacant commercially zoned land that could be developed in the future. Different forms of standard fiscal impact analysis could be conducted on the cost and revenue impacts to the various governments associated with future commercial development in the village.

Given the local government budget and property value data contained in the Lincoln County Data Set, it would also be possible to conduct standard cost of community services studies for the three municipal governments. This type of analysis would allow students to contrast the various fiscal impact analysis techniques that are commonly applied and to assess the importance of key assumptions that are made.

8. Fiscal Impacts of Land Conservation. Problems can be developed that look at the fiscal impacts of placing undeveloped land into conservancy. Land conservancy can either

remove land values from the local tax roll or cap values at some pre-development level. The Town of River has ample land suitable for conservancy and would provide a suitable jurisdiction for the analysis. This exercise largely involves a thorough understanding of the basic property tax administration system.

9. Tax Increment Financing. The financing tool tax increment financing basically involves a variation of the normal property tax administration process. The deteriorating industrial areas within the Village of Placidville could serve as a classic case for the application of tax increment financing. Students can be asked to prepare a redevelopment plan for the industrial areas of the village, using tax increment financing to fund at least portions of the redevelopment. This exercise would involve basic knowledge of: the property tax administration process; tax increment financing; borrowing; and fiscal impact analysis. In addition, some states have special environmental remediation tax increment financing programs that can be used on brownfield sites. The industrial area within Placidville has two sites that have been designated as brownfields and in need of remediation.

The above are beginning suggestions for how the Lincoln County Data Set can be used to improve graduate level instruction on the intersection between local budgets and planning. It will be exciting to see these and other ideas created, developed, tested and ultimately shared to the benefit of the broader planning community.

IX. Files and Spreadsheets

The Lincoln County Data Set is Comprised of three files that are readable in the Microsoft Excel[®] format. The files and spreadsheets contained within each file are listed below.

A. File: LincolnCountyMaps

Spreadsheets:

Map A.01 Lincoln County, U.S.A.

Map A.02 Placidville, Lincoln County

Map A.03 Roaring Rapids, Lincoln County

B. File: LincolnCountyTaxRolls

Spreadsheets:

Table A.01 Zoning, Assessed Property Values, and Selected Demographic and Economic Data: All General and Special Purpose Governments in Lincoln County, U.S.A.

Table A.02 Zoning, Assessed Property Values, and Selected Demographic and Economic Data: Village of Placidville

Table A.03 Zoning, Assessed Property Values, and Selected Demographic and Economic Data: Village of Roaring Rapids

C. File: LincolnCountyBudgets

Spreadsheets:

Table B.01 Annual Budgets: All General and Special Purpose Governments in Lincoln County, U.S.A.

Table B.02 Use of Debt and Annual Debt Service for Lincoln County Local Governments: 2005