

# **COST OF RURAL SERVICES STUDY**

*prepared for*

**LINCOLN/LANCASTER COUNTY, NEBRASKA**



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**December 2003**  
**Final Report** (Revised)

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# Executive Summary

## Major Findings

**Fiscal Break-Even Values.** The methodologies contained herein enable the “break-even” value of a new unit of development in the unincorporated area of the County to be estimated. The break-even amount is the property value at which revenues generated by a new unit of development fully support the cost of providing services to it, inclusive of the costs as identified herein.

The break-even value for a new residential unit in the unincorporated area on the County budget, inclusive of annualized capital costs for roads and normalized Building Fund outlays, is estimated to be about \$270,375. When all three budgets are considered (County, Waverly School District and Southeast Fire District), the overall break-even value for a new dwelling unit in the unincorporated area is about \$279,600, inclusive of new capital facilities.

The average sales price of new homes in the unincorporated area since 1993 is about \$236,550 (in 2002 dollars). Consequently, the average new residential unit in the unincorporated area does not break even on the County budget if new capital improvements are required. Nor does it generate sufficient revenue to cover the cost of schools if new school capacity is required. It should be noted that these break-even amounts do not consider the impact of new development in the unincorporated area on the municipal budgets, which is likely to be negative even after considering sales tax revenue generated by unincorporated area residents.

Break-even amounts for the nonresidential sectors are estimated separately and are detailed later in this report.

**Figure 1**  
**RESIDENTIAL BREAK-EVEN VALUE,  
COUNTY BUDGET**



**Figure 2**  
**DISTRIBUTION OF  
COUNTY PROPERTY TAX  
COLLECTED IN CITIES**



**Transfer to Unincorporated Area.** In FY 2002, there was a net transfer of resources in the County budget to the unincorporated area of about \$5.6 million. Inclusive of the unincorporated areas share of municipal capital outlays for streets, there was a net transfer of benefits and resources of about \$6.9 million from residents and businesses in the County's municipalities to the unincorporated area. These transfer amounts do not include the unincorporated area's share of municipal sales taxes, which is estimated to be about \$0.73 million annually. Also not included are the cost of other municipal services and facilities utilized by development in the unincorporated area. The transfer of resources and benefits represents about 22 percent of the \$31.6 million in County property taxes paid by residents and businesses in the municipalities.

This transfer is attributable to a concentration of property value in the County’s municipalities, the County’s over-lapping tax structure and the cost of providing services to existing development in the unincorporated area, in particular the cost of operating, maintaining, administering and improving County roads. To eliminate the transfer, County property tax revenue generated from the unincorporated area would need to more than double.

**Road Costs Dominate County Budget Outcomes.** At an average new home value of \$236,550, new residential development in the unincorporated area does not pay its way when the County’s capital costs are included. These consist primarily of improvements to County roads and bridges. The cost of paving and other related road improvements for a single new home in the unincorporated area is estimated to be about \$5,589. The County’s road-related expenditures, inclusive of capital, administration, operation and maintenance, amount to about 43 percent of annual expenditures associated with the cost of serving the average new residential unit in the unincorporated area, as illustrated in Figure 3. By contrast, the next largest departmental expenditure, the Sheriff’s Office, amounts to only about 22 percent of total annual costs.

**Figure 3  
UNINCORPORATED  
AREA EXPENDITURES**



## Policy Options

There are a some potential land use and fiscal mechanisms that could be considered to address the transfer from the municipalities to the unincorporated area. Essentially, there are two approaches: cost reduction and cost recovery.

**Cost Reduction Techniques.** The cost to serve new development in the unincorporated area could be reduced through land use policies that concentrate development in areas already served by public facilities. One such policy is a point system that would discourage the approval of subdivisions in areas not served by existing paved roads and other critical services. Another possibility would be to increase the minimum lot size in agriculturally-zoned areas from the present 20 acres to a more realistic minimum farm size of 40 to 80 acres. Yet another policy would be to designate certain County roads as “rural-unpaved.” A policy of keeping some County roads unpaved could discourage new residential development in certain parts of the unincorporated area and adjoining counties by directing it to other areas which can be more readily served by current and planned paved roads.

**Figure 4  
POLICY OPTIONS**

- Concentrate development near paved roads, using performance system, large lot zoning or designation of certain roads as “rural-unpaved”
- Recover roads costs through property tax surcharge or developer exaction/impact fees
- Utilize long-term bonds to pay for road improvements

**Cost Recovery Techniques.** Cost recovery mechanisms can either be broad-based or focused on new development. One example of a broad-based mechanism would be to implement a property tax surcharge in the unincorporated area for road maintenance and/or improvements, possibly through a special improvement district. An option would be to implement this in combination with issuance of long-term bonds for road improvements, secured by a special property tax levy on development in the

unincorporated area (with the possible exemption for agricultural land as it contributes little to the County's paving needs).

A more focused approach would be to recover costs more directly from new development. This is typically accomplished through developer exactions, including impact fees. For example, as a condition of subdivision approval, development proposed for an area served by gravel roads could be required to provide a paved access road from the paved major road system to the development. If it is determined that the County has the authority, the County could impose an impact fee for roads to be used for funding some of its paving improvements.

## Introduction

This study was prepared on behalf of the City of Lincoln and Lancaster County, Nebraska to assist officials, stakeholders and citizens in evaluating the impact of development in the unincorporated area on the net cost of providing general purpose governmental, elementary and secondary education and fire protection services. In particular, the County is interested in knowing the cost and revenue associated with residential “acreages” in the unincorporated area.

This report addresses four major questions:

- Does new development in the unincorporated area generate sufficient revenue to cover the cost of providing local government services to it?
- If not, to what extent does development in the county’s incorporated cities and villages support the cost of providing County services in the unincorporated area?
- What is the net cost of providing local governmental services to existing development in the unincorporated area?
- What is the net cost of providing local governmental services to new development in the unincorporated area?

There are 13 cities and villages, 17 fire districts and 16 school districts in Lancaster County. A number of other special purpose districts also levy real property taxes within the county. These include the regional library, Agricultural Society, County Fairgrounds, the Railroad Transportation Safety District, two natural resource districts, the Southeast Community College, the Airport Authority, Public Building Commission, five educational service units and five sanitary districts.

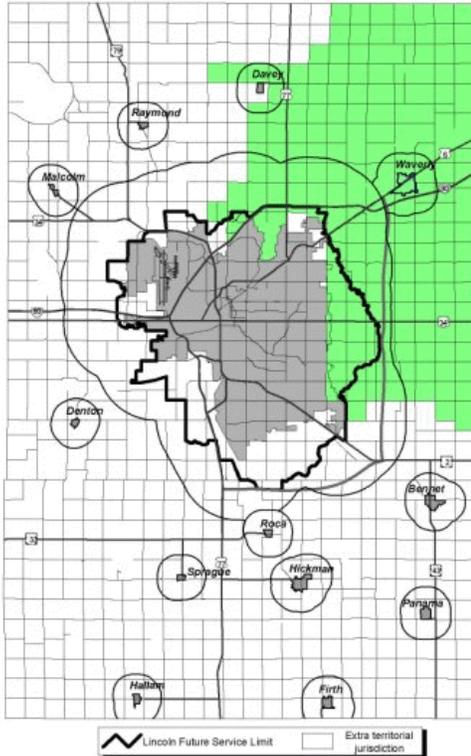
This study focuses on Lancaster County, Waverly School District No. 145, and the Southeast Fire District. Combined, these three jurisdictions provide a full range of general purpose local government services in the unincorporated area. This report concerns itself with the following geographic areas and political subdivisions of Lancaster County:

- the total county, which is the entire area of Lancaster County, including its incorporated cities and villages;
- the unincorporated area of the county;
- the county’s incorporated municipalities (cities and villages);
- the Waverly School District, excluding to the extent possible parts of this District which lie outside of Lancaster County; and
- the Southeast Fire District.

The portions of the County budget included in this study are the general, debt service, building, mental health, and road and bridge funds, plus Railroad Transportation Safety District and rural library. To the

extent possible, grants, contractual and pass-through revenue and their supported expenditures have been netted out.

**Figure 5  
WAVERLY SCHOOL DISTRICT**

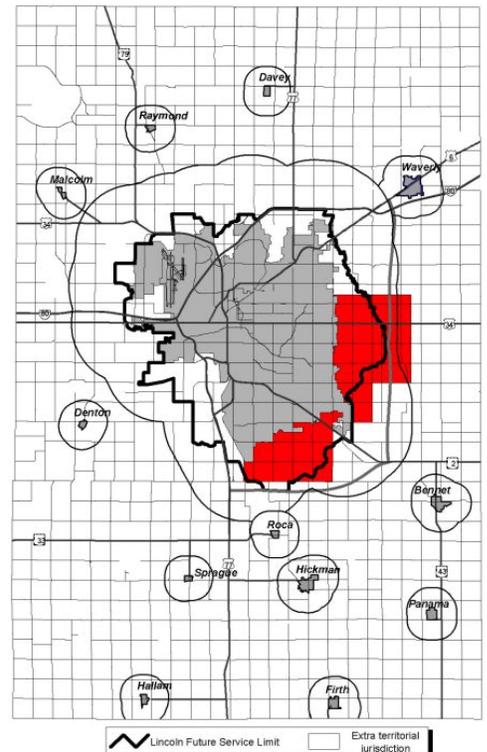


The Waverly School District and the Southeast Fire District were selected by County staff to represent newly developing areas in the unincorporated area. The locations of the two districts are illustrated in Figures 5 and 6.

About 26 percent of the School District's in-county dwelling units and 18 percent of its real property value is within the City of Waverly. Since the large majority of the District's real property value and housing lie within the unincorporated area, its fiscal outcomes are determined largely by the unincorporated portion of the District. Part of the School District also lies outside Lancaster County. To the extent possible, portions of the District's budget attributable to non-Lancaster County valuation and enrollment have been netted out.

The part of the Waverly School District that lies outside of the City of Waverly and within Lancaster County contains about 24 percent of all of the unincorporated area's residential units. The average value of in-county residential units in the District is about \$162,200, which is very close to the average value of all residential units in the entire unincorporated area (\$162,800). Because the District's real property tax rate is only a few percent higher than the average of other school districts in the unincorporated area, it is reasonably representative of them for purposes of this study.

**Figure 6  
SOUTHEAST FIRE DISTRICT**



The Southeast Fire District lies entirely within the unincorporated area and shares a common boundary with the City of Lincoln. About 19 percent of the unincorporated area's residential units and 30 percent of their associated value is within the District's boundaries. At \$255,230, the average value of a housing unit in the District is substantially greater than the average for all the County's unincorporated area. When weighted for valuation, the District's tax levy is second only to the Southwest Fire District, which unlike the Southeast, includes a levy for ambulance service and a bond fund.

Although the Fire District's level of development partially accounts for its relatively high tax rate, the larger factor is its policy of pre-funding major capital equipment well in advance through its sinking fund tax levy. For example, the District's 2002-03 sinking fund tax rate is a third greater than its general fund tax rate. This has enabled the District to accumulate sizable cash balances, which stood at about \$1.6 million in FY 2001-02.

The combination of its higher average property value and its sinking fund tax rate causes the Southeast Fire District's revenue generation

to be unrepresentative of other such districts in the rest of the unincorporated area. To compensate for its higher tax base and tax rate, this report applies only the District's general fund tax rate to better represent the tax generating capability of the county's fire districts.

Given time and budgetary constraints, the sheer number of school and fire districts in the County precludes their individual analysis. The selected school district and fire district (after applying only its general fund tax rate) are reasonably representative of areas of the unincorporated area that are undergoing significant new development and can fairly represent its fiscal outcomes. And, though the Southeast Fire District's property value and tax rate causes it to be less representative of the unincorporated area, the county's fire districts do not significantly affect the overall fiscal outcome of existing or new development, as their budgets are only a fraction of the combined budgets of the unincorporated area portion of the County budget and the school districts. Impacts on the County and school district budgets dominate the fiscal outcome of existing and new development in the unincorporated area.

A model was constructed to analyze the net fiscal impact of existing development for each of the unincorporated area's four major land use sectors on the County, School District and Fire District budgets. The net fiscal impact is equal to the revenues generated by each sector less its costs. The model is sensitive to a number of variables, including type of land use, jobs, population, number of farms, trip generation rates, and value of real property.

Four land use sectors are considered by the model: residential, commercial, industrial and agricultural. For purposes of this report, the agricultural sector consists of the County's farm enterprises. Other agriculture-related enterprises, such as equipment and supply operations, off-farm processing and transport are included in the commercial and industrial sectors as categorized by the Lancaster County Assessor. In addition to these sectors, the model also considers the impact on County roads of trips attributable to major recreational sites in the unincorporated area and trips on County roads without an origin or destination in the County.

The budget data used for this report are the FY 2002 actual figures for Lancaster County and the Southeast Fire District, and the Annual Financial Report for the 2001-02 school year for the Waverly School District. Capital outlay data for municipal streets for FY 2002 was obtained from the Nebraska State Auditor's municipal data base files. All dollar figures cited in this report are in 2002 dollars, unless stated otherwise. Jurisdictional, sectoral and unit valuation data are for 2002 as obtained and derived from data provided by the County Assessor. The break-even values determined in this study rely, in large part, on the accuracy of the Assessor's data and the estimated trips on County roads. The break-even values represent a "snapshot" of the fiscal impact of development utilizing budgetary, capital, economic and fiscal conditions in FY 2002.

The methodology applied in this report is described later in some detail. Briefly, it applies cost and revenue allocation techniques that are used in public sector budgetary and service cost analyses. Each jurisdiction's budget is allocated among the four land use sectors. Allocations are accomplished largely based on economic and demographic variables that are linked to major expenditure functions and revenue sources, or on State and local policies. When divided by the number of units in each sector, the existing unit costs and revenue are obtained. Locally-sensitive variables or policies were applied for the allocation of virtually every expenditure and revenue category of the three jurisdictions analyzed in this study.

A notable exception is for costs related to County roads. Allocations to the unincorporated area were based on estimates developed in consultation with County staff. Sector allocations are made on the basis of trip generation rates published by the Institute of Transportation Engineers (ITE) for the residential, commercial and industrial sectors. ITE's rates are widely accepted and are utilized in traffic impact studies throughout the country. The ITE, however, does not publish trip generation rates for farms. An extensive on-line search for documented trip generation rates for farms proved unproductive. The Nebraska Department of Roads Traffic Engineering Division was also contacted. One of its staff engineers reported that they are unaware of any documented trip generation rates for farms, although such trips were characterized as "minimal." For this study, trips attributable to the farm residence are included in residential sector trips. Farm-enterprise related trips (trips exclusively related to the business of the farm) are assumed to be 4.79 daily trips per farm, which is one-half of the ITE trip generation rate for single-family residential units.

The foregoing enables the break-even values for new development to be estimated. The break-even value is the value at which revenue generated by a new unit of development is equal to the cost of providing services to it. These break-even values are determined both with and without the need for capital facilities.

## Findings

The cost of maintaining and paving County roads and repairing and upgrading bridges dominates the fiscal outcome of development in the unincorporated area on the County's budget. The cost of providing law enforcement services to the unincorporated area, and the rural library to a lesser extent, also contribute significantly to the outcome.

On average, new residential development in the unincorporated area does not pay its own way for its share of the County's costs, including the amortized cost of capital facilities, consisting primarily of road and bridge improvements. The cost of building new schools dominates the fiscal outcome on the School District's budget. The cost of providing fire protection in the unincorporated area is only a fraction of the cost of County general government services and schools and does not significantly affect the overall fiscal outcomes.

The value of development also greatly effects its fiscal outcome on local budgets, since property value is directly tied to real property tax payments.

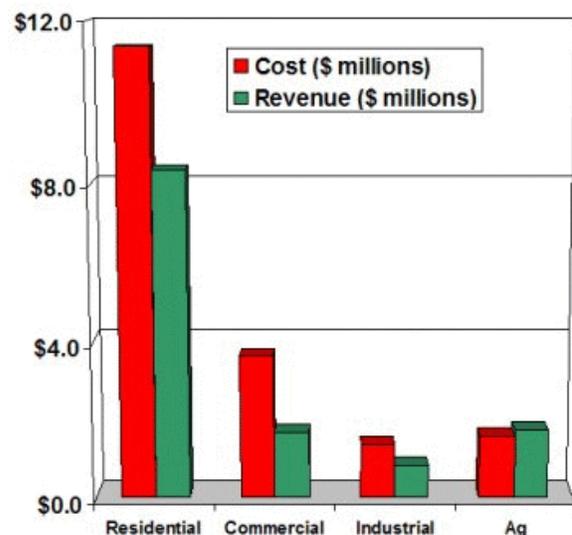
Overall, existing development in the unincorporated area, which is of significantly lower value than new development, does not generate sufficient revenue to the County to pay for the cost of services provided to it. Rather, development in the County's incorporated areas (predominantly the City of Lincoln) supports the cost of providing County services in the unincorporated area. This is primarily attributable to the cost of maintaining existing County roads and new road and bridge improvements.

In FY 2002, there was a transfer of about \$6.9 million in resources from the County's municipalities to the unincorporated area. This figure represents about 8 percent of all County government outlays included in this report, and about 31 percent of all such outlays allocated to the unincorporated area.

Of the four land use sectors in the unincorporated area (residential, commercial, industrial and agricultural), only the agricultural sector generates revenues in excess of the cost of providing County government services to it (see Figure 5).

There are three primary reasons why the existing non-agricultural sectors in the unincorporated area do not break even on the County budget. The large majority of the County's commercial and industrial real property value is within the City of Lincoln. At \$60 per square foot of improved space, unit values for the commercial sector (the second largest component of real property value after the residential sector) are about 50 percent greater in Lincoln than in the unincorporated area. Accordingly, the commercial sector in the City of Lincoln generates higher tax revenue to the County on a unit basis than does such development in the unincorporated area. Secondly, development in the City of Lincoln receives much of its services (streets and law enforcement) from the City. Finally, these sectors do not generate sufficient revenue on a cash basis to support the cost of roads in the County.

**Figure 5**  
**EXISTING COUNTY COSTS/  
REVENUES BY UNINCORPORATED AREA  
LAND USE**



And, since paved roads cost twice as much per centerline mile to maintain as unpaved roads, paving new roads leads to yet higher costs.

The agricultural and commercial sectors in the unincorporated area (including vacant commercial parcels) support much of the cost of providing educational services to the unincorporated area's residential sector.

## **County Government**

- The cost of providing County services in the unincorporated area exceeds the revenue generated by homes and businesses in the unincorporated area.
- Only the unincorporated area's agricultural sector generates positive net revenue to the County budget. In FY 2002, it generated a surplus of about \$141,000.
- The County's municipalities generate positive net revenue to the County budget, the overwhelming majority of which is derived from the City of Lincoln.
- In FY 2002, there was a net transfer of benefits and resources to the unincorporated area of about \$6.9 million.
- The break-even value on the County budget of a new home in the unincorporated area, inclusive of capital costs, is about \$270,375. If no capital facilities were required, the break-even value would be about \$163,125. The average value of existing residential units in the unincorporated area is about \$162,800. Excluding farm residences, the average value for acreages is about \$186,000. Over the last few years, the average value of a newly constructed residential unit in the unincorporated area was \$236,550 in 2002 dollars.<sup>1</sup>
- The cost of providing County services to development in the unincorporated area is dominated by the budgets of the County Engineer and, to a lesser degree, the County Sheriff. In FY 2002, road and law enforcement outlays accounted for 75 percent of all County outlays allocated to the unincorporated area.
- On the revenue side, property taxes and state gas tax revenues account for 71 percent of all County revenues attributable to the unincorporated area.

## **Schools**

- The nonresidential sectors support a significant share of the cost of providing education services to residences in the unincorporated area.
- In the 2001-02 school year, the average cost of educational services in the Lancaster County portion of the Waverly School District was about \$4,509 per residential unit, while the average

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<sup>1</sup>The net transfer amount is based on the County's actual pay-go capital outlays for roads in FY 2002. The break-even amounts are based on an annualized capital factor for paved roads.

residential unit in the District generated \$3,180 in revenue (excluding real property tax revenue from unimproved residential parcels).

- ❑ The balance was paid by the School District's nonresidential sector. On average, the commercial sector contributed \$0.74 per developed square foot of improved space to the Waverly School District. The industrial sector contributed \$0.35 per square foot, while the agricultural sector contributed \$12.64 per acre. The commercial and industrial contributions are likely somewhat higher than for other school districts in the unincorporated area, since the Waverly District includes commercial and industrial development within the City of Waverly.
- ❑ The break-even value of a new residential unit in the Waverly School District is about \$285,850. If no capital facilities were required, the break-even value would be about \$246,275. This compares to an average value of newer homes in the unincorporated area of about \$236,550. The average value per existing residential unit is about \$162,200 in the Lancaster County portion of the District.

### **Fire District**

- ❑ The Southeast Fire District currently generates sizable surpluses from all development within its boundaries. Given its current property values, tax rate and budget, new development will continue to generate surpluses to the District.

### **Overall (County, School, Fire)**

- ❑ Based on FY 2002 conditions, the overall break-even value for all three jurisdictions for a new residential unit in the unincorporated area is about \$279,600, inclusive of capital costs. If no capital facilities were required, the break-even value would be about \$219,600 per unit. The average value of all existing residential units in the unincorporated area is \$162,800, while County staff report that the average value of acreage residential units is about \$186,000. The average value of a newly constructed home in the unincorporated area over the last four years is about \$236,550 in 2002 dollars based on County Assessor data.
- ❑ Overall, the break-even value for new commercial space in the unincorporated area is about \$102 per square foot (land and improvements), inclusive of capital costs. If no capital improvements were required, the break-even value would be about \$47 per square foot. The average value of all commercial development in the unincorporated area is \$39.30 per square foot.
- ❑ Overall, the break-even value for new industrial space in the unincorporated area is about \$25 per square foot (land and improvements), inclusive of capital costs. If no capital improvements were required, the break-even value would be about \$10 per square foot. The average value of all industrial development in the unincorporated area is \$25.20 per square foot.

## Impact on City of Lincoln

Since 1990, new development in the unincorporated area has occurred in the context of an overall increase in total County population and jobs. As shown in Table 1, between 1990 and 2000 the number of housing units in the County, the City of Lincoln and the balance of the County grew by 20.2 percent, 20.4 percent and 17.8 percent, respectively.

On balance, when an existing household in Lincoln moves to the unincorporated area, sooner or later that household is replaced by another. This is borne out by occupancy rates, which are virtually identical for all three geographic areas and have remained virtually unchanged between 1990 and 2000, as shown in Table 1. New residential development outside of Lincoln has not caused a “hollowing out” effect on the City of Lincoln during this time. Although comparable data are not available for the unincorporated area, its occupancy rates would not be expected to deviate significantly from those of the balance of the county.

**Table 1**  
**OCCUPANCY RATES, 1990-2000**

	Total County	City of Lincoln	Balance of County
1990 Total Housing Units	86,734	79,079	7,655
1990 Occupied Housing Units	82,759	75,402	7,357
2000 Total Housing Units	104,217	95,199	9,018
2000 Occupied Housing Units	99,187	90,485	8,702
1990 Occupancy Rate	95.42%	95.35%	96.11%
2000 Occupancy Rate	95.17%	95.05%	96.50%
Housing Unit Growth Rate, 1990-2000	20.16%	20.38%	17.81%

*Source:* 1990 and 2000 U.S. Census

There is a perception that much of the new residential development in the unincorporated area is caused by households relocating from the City of Lincoln. Data from the County Assessor shows that the average housing value in the unincorporated area (\$162,800) is double that for the City of Lincoln (\$81,000). This suggests that on average, households moving from Lincoln to the unincorporated area are probably occupying higher value housing than they did in the City. If so, the unincorporated area is attracting a higher income segment of the City’s population.

The economic (as distinct from fiscal) impact of new residential development on the City of Lincoln is largely unaffected by whether such development occurs in or outside of the City’s boundary. The City is the major business, economic, commercial, transportation and retail hub for the county. It accounts for the large majority of non-agricultural jobs in the county and already captures most local purchases by households and businesses. Continuation of current land use policies would allow the city to retain its position as the County’s major employment center. The City can also be expected to continue to capture the large majority of the in-county “multiplier effect” of spending associated with new development in the balance of the county. Accordingly, the City would continue to collect sales taxes on most local purchases by households and businesses in the county.

New development in the unincorporated area poses a number of other issues for the City of Lincoln, such as “build-through” and annexation policies, extension of municipal utilities, and provision of other City services and facilities to newly developing areas adjacent or near to the City’s boundary. Some of these issues have been addressed in previous studies, but are beyond the scope of this effort.

## Methodology

Whenever possible, this report applies locally-sensitive variables to allocate each of the three jurisdictions' budgets among their land use sectors. These consist of residential, commercial, industrial and agricultural (farms) sectors. Allocations are based in large part upon the economic, demographic and valuation data shown in Table 2. Note that the unincorporated area contains 12.8 percent of the real property value of the entire county, 7.4 percent of the population and 5.7 percent of the jobs.

**Table 2  
ECONOMIC, DEMOGRAPHIC, LAND USE AND VALUATION DATA**

	Total County	City of Lincoln	Unincorp. Area	Waverly School District	SE Fire District
<b>Residential</b>					
Units (dwelling units)	104,778	95,788	6,682	2,381	1,257
Real Property Value	\$9,231,201,996	\$7,917,058,492	\$1,114,439,162	\$394,080,335	\$329,743,537
<b>Commercial</b>					
Units (improved sq. ft.)	29,286,429	27,522,814	892,221	542,867	118,626
Real Property Value	\$1,851,083,386	\$1,792,114,975	\$38,571,347	\$29,295,417	\$12,941,745
<b>Industrial</b>					
Units (improved sq. ft.)	28,361,720	26,608,000	1,518,729	1,400,197	133,415
Real Property Value	\$698,178,727	\$648,990,863	\$41,271,813	\$16,603,522	\$8,879,886
<b>Agricultural</b>					
Units (acres)	415,475	0	415,475	109,325	13,058
Real Property Value	\$331,888,781	\$0	\$331,888,781	\$86,366,543	\$9,488,358
<b>Centrally Assessed</b>					
Real Property Value	\$96,603,274	\$60,107,474	\$35,284,177	\$5,320,628	\$1,522,433
<b>Total Value</b>	\$12,208,956,164	\$10,418,271,804	\$1,561,455,280	\$531,666,445	\$362,575,959
<b>Population and Jobs</b>					
Population	250,291	225,581	18,308	9,368	na
Jobs (at place)	134,865	124,260	7,646	na	na

*Source:* County Assessor, 2002; 2000 U.S. Census; 1997 Economic and Agricultural Census; real property value is the taxable value, and includes improved and unimproved parcels for land use category; agricultural excludes value of farm residences and associated acreage which is included in the residential category; jobs are at place of work and include agricultural employment and farm proprietors; distribution of jobs within the county is estimated by Consultant based on percent of commercial and industrial square feet and farm employment; Waverly School District data cited include only Lancaster County share of District, except for population, which includes total District.

The allocation process for the County budget involves two steps. The first allocates the general purpose portions of the County budget (including the rural library and the unincorporated share of the Rural Transportation Safety District, or RTSD) between the County's municipalities and the unincorporated area. The second step allocates the unincorporated share among the four major land use sectors. This latter step is also accomplished for the School District and Fire District budgets.

For each jurisdiction, the amount allocated to each land use sector is divided by the number of units for each sector. This yields the average existing unit cost and revenue for each sector. Units are defined as dwelling units for the residential sector; square feet of improved floor area for commercial and industrial sectors; and farm acreage for the agricultural sector. Unit counts were obtained from a special

query to the County Assessor's data base. These average unit costs and revenues are representative of existing development, and serve as the basis for estimating costs and revenues for new development.

New development can differ from existing development in its demand for service and its revenue yield. On average, new development is often of greater value than existing development. Accordingly, it would tend to generate higher levels of real and other property taxes or income-sensitive taxes and fees. New development can also generate higher unit costs for capital facilities such as roads. In addition, State school aid formulas are sensitive to the local ability to pay (property tax "resources"), which can be affected by new development. Where appropriate, the average existing unit costs and revenue are adjusted to reflect higher or lower values attributable to new development. A combination of adjusted and existing unit costs and revenue are applied to determine the overall costs and revenue attributable to new development.

Allocations of the County budget between its municipalities and the unincorporated area are accomplished on the basis of factors such as percentage of real property value, jobs plus population, population, arrests, service indicators, type of road improvement, as well as on budgetary policies and practices. If no direct local data are available, consultant estimates informed by interviews with County Staff and other data are applied.

Such is the case for the unincorporated area allocation factor for the Sheriff's Department. These costs are allocated between the municipalities and the unincorporated area on the basis of Sheriff's employees by function. Based on an interview with the Sheriff, criminal investigation division employees are allocated 90 percent to the unincorporated area, while patrol division employees (excluding two contractual employees) are allocated 80 percent to the unincorporated area. Special services division employees are allocated based on the total number of arrests in the county. Civil division employees are allocated based on the percentage of jobs plus population. The administrative and support division is pro-rated among each of the other four divisions. Based on these allocations, 48 percent of the Sheriff's Department outlays are allocated to the unincorporated area, and 52 percent are allocated to the municipalities.

Sectoral land use allocations for the unincorporated area's share of the County budget, and for the School District and Fire District, are also accomplished on the basis of local factors. These include real property value, jobs plus population, share of vehicle trips, calls for service, and budgetary policies and practices.

All of the jurisdictions utilized or generated significant fund balances for the budget years examined. These balances were obtained in part from prior years and/or excess of revenue over expenditures in the current year. This study allocates fund balances applied to FY 2002 expenses among the land use sectors as if they were a revenue source. Essentially, this approach assumes future tax rates and fees will continue to utilize or generate fund balances, although this may or may not actually occur. Unit revenue used to estimate break-even values include each sector's share of fund balances utilized for current expenditures or generated in FY 2002. If these unit balances do not continue in future years, the break-even values could be greater than estimated herein.

## Capital Costs

The County's unit capital costs for new development in the unincorporated area are determined and applied based on an evaluation of current debt and capital finance practices, and in the case of roads on the amortized cost per centerline mile of paving existing gravel roads.

The County funds its capital facilities through a combination of pay-go (current revenue, primarily for roads) and pay-use (debt supported) outlays. These outlays are paid by the County's debt service and building fund and County Engineer's bridge and special road and highway funds.

The County's existing general purpose debt service of \$2.45 million is allocated 11.3 percent to the unincorporated area and 88.7 percent to the municipalities. This allocation is based on a functional review of facilities supported by outstanding debt, the proportionate share of debt by functional category, and interviews with the Director of the County's Budget and Fiscal Office.

For other than roads and bridges, the County's capital cost for new development is determined and applied as follows. The existing average unit debt service amount is applied to reflect new development's share of existing debt-financed general purpose capital facilities and any necessary expansions or additions thereto. Normalized building fund outlays per unit are applied to new development for pay-go supported capital improvements.

## Roads and Bridges

The County pays for construction, improvements, maintenance and operation of County roads and bridges through the County Bridge and Road Special Fund and the Highway Fund. In FY 2002, outlays from the Bridge and Road fund were supported primarily by transfers from the General Fund, and to a lesser extent by contractual reimbursements from the Rural Transportation Safety District (RTSD). Highway Fund outlays were supported primarily by the County's share of gas tax proceeds, and to a lesser extent by motor vehicle fees and contractual reimbursements from the RTSD.

In FY 2002, the County Engineer reports that operational costs for County roads amounted to \$6.6 million. Construction costs amounted to \$5.8 million, while administrative costs were \$0.93 million.

The RTSD is a county-wide ad-valorem taxing district with the power to set its own mill levy. Each year, the RTSD allots a portion its revenue to the County's Road and Bridge and/or Highway Fund. Under an informal agreement and over time, the County Engineer has received, on average, about 13 percent of the RTSD funds. In FY 2002, the County Engineer received a total of \$525,365 from the RTSD. This is somewhat greater than the RTSD's reported average contribution. The unincorporated area's revenue contribution to the RTSD is based on its proportionate share of taxable real property value. In FY 2002, this was about 13.4 percent, which corresponds closely with the average amount reportedly received from the RTSD by the County Engineer.

To calculate unit amounts for County roads and bridges, the percent of average daily trips generated by each land use sector in the unincorporated area of the county was determined using the ITE trip generation rates, the estimated trip generation rate for farm enterprises, and land use data compiled from the County's geographic information system (GIS) data base. Total daily trips by development in the

unincorporated area of the county on County roads and each land use sector's share of trips are calculated as shown in Table 3.

There are two other significant generators of trips on County roads: a) recreation areas within the unincorporated area, and b) trips on County roads without an origin or destination in the unincorporated area. Collectively, these two types of trips are referred to as "external" trips. With the exception of additional operations and maintenance (O&M) costs for newly paved roads, the added O&M cost for trips without an origin an destination in the unincorporated area would be expected to be very low.<sup>2</sup> Accordingly, this study allocates only the incremental cost of maintaining the County's paved roads to external trips. Based information obtained from the County Engineer and discussions with County staff, external trips are estimated to account for about 20 percent of the County's total O&M cost for roads. This consists of external trips' share of the incremental cost of maintaining the County's paved roads and the cost of maintaining roads within the boundary of non-County recreation sites in the unincorporated area.

The balance of the County's O&M costs for roads is assigned to land uses in the unincorporated areas on the basis of daily trips generated. The share of trips for each land use is shown in Table 3, and is used to allocate these outlays among existing development in the unincorporated area and to derive existing unit O&M costs that are also applied to new development.

**Table 3  
TOTAL DAILY TRIPS BY LAND USE CATEGORY, 2002**

Land Use	ITE Code	Unit	Units, Unincorp.	Trip Rate	Primary Trips	Total Trips	% of Trips
Single-Family Detached	210	dwelling	6,281	9.57	100%	60,109	
Single-Family Attached	230	dwelling	67	5.86	100%	393	
Mobile Home	240	dwelling	267	4.81	100%	1,284	
Multi-Family	220	dwelling	67	6.63	100%	444	
<b>Subtotal, Residential</b>			<b>6,682</b>			<b>62,230</b>	<b>60.18%</b>
Office	710	1,000 sq. ft.	45	11.01	100%	495	
Retail	820	1,000 sq. ft.	446	44.46	63%	12,492	
Hotel/motel	310/320	1,000 sq. ft.	45	13.86	100%	624	
Other	820	1,000 sq. ft.	357	44.46	63%	9,999	
<b>Subtotal, Commercial</b>			<b>893</b>			<b>23,610</b>	<b>22.83%</b>
<b>Subtotal, Industrial</b>	<b>110</b>	<b>1,000 sq. ft.</b>	<b>1,519</b>	<b>6.97</b>	<b>100%</b>	<b>10,587</b>	<b>10.24%</b>
<b>Subtotal, Agricultural</b>	<b>na</b>	<b>Farm operators</b>	<b>1,457</b>	<b>4.79</b>	<b>100%</b>	<b>6,979</b>	<b>6.75%</b>
<b>Total</b>						<b>103,406</b>	<b>100.00%</b>

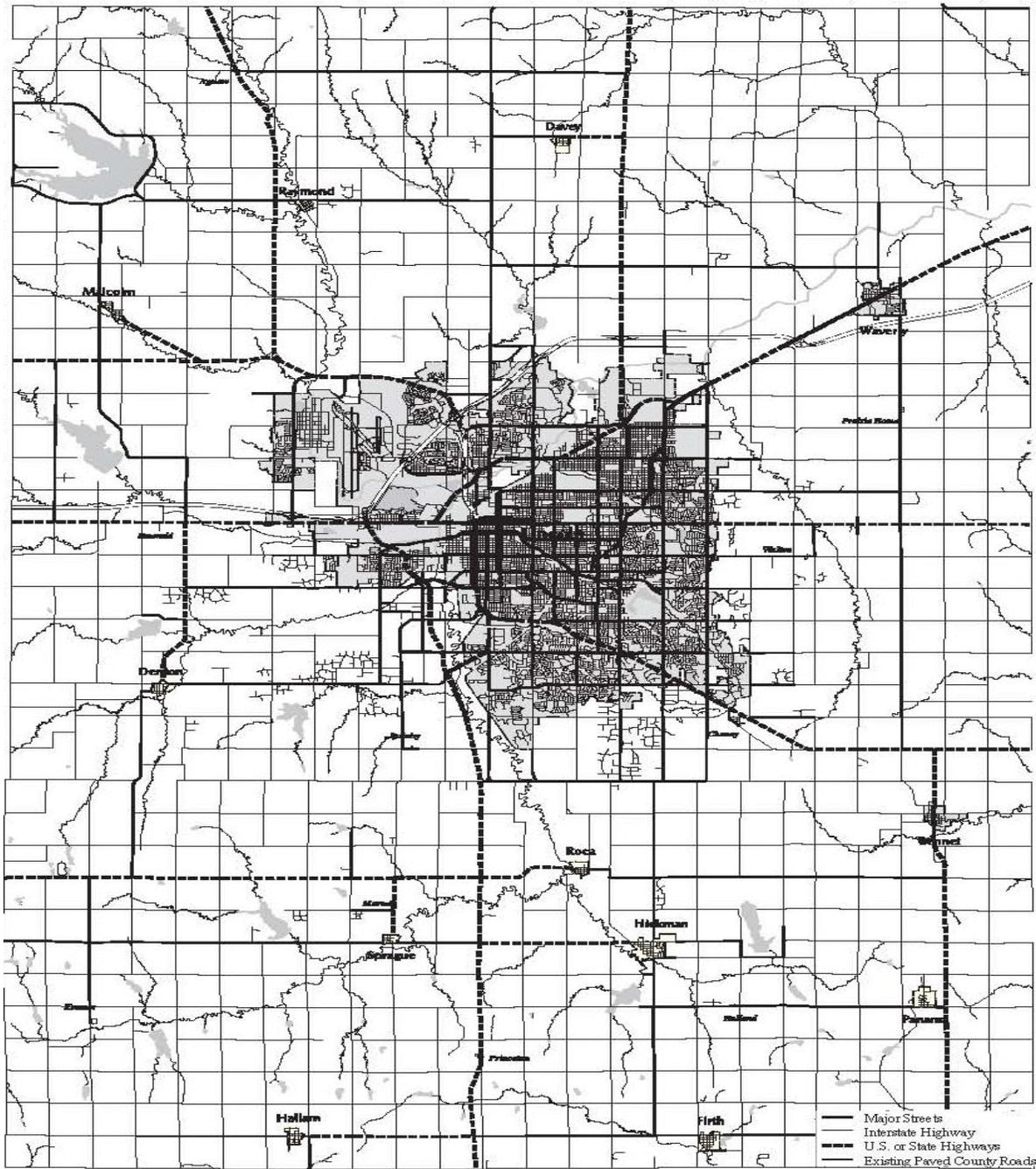
*Source:* Trip rate is average daily trips (ADT) during weekday from Institute of Transportation Engineers (ITE), *Trip Generation*, 6th ed., 1997; units in unincorporated area from the Lancaster County Assessor; percentage of primary trips for commercial retail/other (additional 10% deducted for diverted-link trips), from ITE, *Trip Generation Handbook*, October 1998 for an average size shopping center of 331,000 square feet.

Based on the foregoing, and as shown later in Table 8, the annual O&M costs for County roads is \$476 per residential unit, \$1,353 per thousand square feet of improved commercial space, \$357 per thousand square feet of improved industrial space, and \$0.86 per acre of agricultural land.

<sup>2</sup>Type of road surface, miles of road, weather and heavy truck traffic are the most significant factors that affect road maintenance costs.

Each sector's share of trips is also used to derive a roads capital factor for each land use sector based on the County Engineer's cost per centerline mile for newly paved roads, as shown in Table 4. The County's paved road system is illustrated in Figure 6.

**Figure 6**  
**COUNTY PAVED ROAD NETWORK**



Of the 242 centerline miles of existing paved roadway in the unincorporated area, about 80 percent, or 193.91 miles, are estimated to be attributable to the unincorporated area's residential, commercial, industrial and agricultural sectors. This estimate was arrived at based on a review of the County Engineer's Road and Bridge Construction Program between 2002 and 2008, maps showing the location of County roads and development in the unincorporated area, and consultations with County Planning Staff. The balance are attributable to external trips.

Roads currently exist along almost every section line in the unincorporated area. All but 242 centerline miles of County roads are unpaved and consist of gravel and earth roads and rural subdivision roads. When traffic volumes exceed the County Engineer's threshold, these segments are considered for paving.

County staff report that for residential acreage subdivisions with lot sizes of less than three acres, a community water and sewer system must be provided. Most internal roads in acreage subdivisions are dedicated to the County. For lot sizes of one acre or less the County also requires internal roads to be paved. Most of the County's acreage subdivisions are served by on-site well and septic systems and unpaved internal roads. Unpaved dedicated roads in acreage developments can be paved either through a special improvement district, or by the County should the traffic counts reach the threshold for paving. If paving is accomplished through a special improvement district, the cost is paid by property owners within that district. County staff report that in response to market demands, there appears to be an increasing trend for developers to provide paved roads in such subdivisions.

As shown in Table 4, the share of existing paved County roads for the unincorporated area's land use sectors is determined based on its share of trips. This figure is divided by the number of existing units to determine the number of miles per unit. This figure is then multiplied by the County's average cost per centerline mile to convert existing gravel roads to paved roads (inclusive of bridges) of \$320,000 to obtain the cost per new unit for paving roads. The resulting figure is then annualized at 4.5 percent over twenty years. This yields the annualized (pay-use) unit amount for paved County roads and bridges required to serve new development. Although the County typically funds its road and bridge improvements on a pay-go basis, the methodology represents a comparable annualized cost.

**Table 4**  
**ANNUALIZED PAVED ROAD CAPITAL COST PER UNIT**

Land Uses	Unit	% Trips	Miles	Units	Miles/Unit	Cost/ Unit	Annualized Cost/Unit
Residential	Dwelling	60.18%	116.70	6,682	0.017465	\$5,588.75	\$429.64
Commercial	1,000 sq. ft.	22.83%	44.27	893	0.049574	\$15,863.83	\$1,219.55
Industrial	1,000 sq. ft.	10.24%	19.86	1,519	0.013074	\$4,183.81	\$321.64
Agricultural	Acres	6.75%	13.09	415,475	0.000032	\$10.08	\$0.77
<b>Total</b>		<b>100.00%</b>	<b>193.91</b>				

*Source:* Share of trips from Table 3; total miles is excludes estimated share of paved miles attributable to trips without an origination or destination in the unincorporated area; miles are allocated among land uses by percent of weighted trips; units from the Lancaster County Assessor, 2002; cost per unit is based on miles per unit times a construction cost of \$320,000 per new paved centerline mile of roadway from Lancaster County Engineer; cost per unit is annualized at 4.5% over twenty years.

## Schools

Over the last few years, the Waverly School District has completed extensive construction and renovations to expand its capacity to accommodate new students. Currently, the District has an enrollment capacity of 2,250 students, which exceeds its actual 2002-03 school year enrollment of 1,712 students.

The District's capital factor per new residential unit is derived as shown in Table 5. It is based on the its recent cost for constructing a high school and substantially renovating a middle school, and on the estimated cost per pupil for new elementary school capacity. The high school was reportedly constructed at a cost of \$11.9 million and has a capacity of 750 students, for a per pupil cost of \$15,867. The renovated middle school was reportedly constructed at a cost of \$6.0 million and has a capacity of 600 students, for a per pupil cost of \$10,000.

District officials report that its Eagle elementary school has substantial excess capacity, but that the Waverly elementary school is approaching capacity. The District's construction cost for new elementary school capacity is estimated based on a median cost per student of \$11,255 as reported for the Midwest by the 2001 Construction Report published by *Schools Planning and Management* magazine (Abramson). This figure is adjusted downward to \$6,535 to reflect the difference in the reported median per pupil cost for middle schools and the District's actual per pupil cost for its renovated middle school. Per pupil amounts shown in Table 5 for each type of school are weighted by the District's enrollment at capacity to obtain a weighted per pupil capital cost of \$10,570, which reflects new capacity in upper grades obtained new construction and renovation of existing space for the lower and middle grades. This figure does not include costs for land acquisition.

The weighted per pupil capital cost is annualized at 4.5 percent for twenty years. In the 2001-02 school year, there were an estimated 3,011 residential units in the District, inclusive of estimated units in the District outside of Lancaster County. These units generated an enrollment of 1,668 students for an average of 0.554 students per dwelling unit. The annualized per pupil cost is converted to a per dwelling unit amount by multiplying it by the District's average enrollment per dwelling unit. This results in an annualized cost per dwelling unit of about \$450. This figure is applied to represent the average unit cost for schools for new residential development.

**Table 5**  
**ANNUALIZED SCHOOL CAPITAL COST PER UNIT, 2002**

School	Enrollment at Capacity	% of Enrollment	Cost per Pupil	Weighted Cost per Pupil	Annualized Cost per Dwelling Unit
Elementary	900	40.00%	\$6,535	\$2,614	\$111.33
Middle	600	26.67%	\$10,000	\$2,667	\$113.57
High	750	33.33%	\$15,867	\$5,289	\$225.26
Total	2,250	100.00%		\$10,570	\$450.16

*Source:* Waverly School District and the 2001 Construction Report published by *Schools Planning and Management*; cost per dwelling unit represents 0.554 students per unit and is annualized at 4.5% over twenty years.

The rate at which new development generates enrollment in public schools can affect the unit cost for schools. In some communities undergoing significant rates of population growth, newer housing generates significantly higher numbers of pupils on average than the average existing dwelling unit. If

sustained, this can cause local schools to experience rates of enrollment growth that exceed their rate of population growth.

This has not been the case for the Waverly School District. Between 1989 and 2001, population in the District increased by 32.6 percent, while enrollment increased by only 13.2 percent. This caused the ratio of the District's enrollment to population to decline from 0.209 to 0.179 percent. This result is somewhat surprising given the District's population growth during this time. One would have expected this ratio to have remained relatively stable, or possibly even to have increased during this time.

One partial explanation for the District's decline in the ratio of enrollment to population may be Nebraska's "open" enrollment policy. Essentially, any student eligible to attend public schools may attend any public school in the State, subject to approval by the receiving school district. Waverly School District officials report that some students residing within their District attend Lincoln Public Schools (LPS). Reportedly, some new households in the Waverly School District that have relocated from the City of Lincoln continue to send their children to LPS.

LPS reports that there were 535 non-resident students attending its schools in the 2001-02 School Year. Presumably, most of these students reside in other rural school districts in Lancaster County. These students represent only about 1.74 percent of LPS's K-12 membership, but their share of rural membership is much greater. Assuming 80 percent of non-resident students are from rural school districts in the County, this represents an avoided capital cost of schools for these districts of as much as \$5.3 million, based on the Waverly School District's capital factor developed in this study.

Waverly School District officials also report that attendance of school-age pupils in private schools seems to have increased.

These two factors (enrollment of rural resident students in Lincoln Public Schools and private schools) likely account for much of the observed decline in the District's ratio of enrollment to population.

The methodology employed in this study applies the current ratio of enrollment to population in the District to estimate enrollment from new residential units. The actual capital cost per pupil for each of the county's school districts will depend upon their existing capacity, their ability to accommodate enrollment growth by renovating existing space, the rate at which new development generates new enrollment in each School District, and the tendency for households whose children have graduated from local schools to continue to reside within the District.

## **Fire**

Capital costs for the Southeast Fire District are not explicitly estimated. This is because it collects sufficient revenue to pay for operations, replacement and acquisition of new capital equipment and facilities. Revenue from new development is estimated based on the District's current tax rate and other revenue. Its property tax and other revenue well exceed the annualized cost of capital facilities and equipment. In addition, the District has substantial cash balances on hand.

## Allocations and Unit Costs

Allocations of the County budget between the unincorporated area and the municipalities are listed and described in Table 6 by major budget category. Allocations of the resulting unincorporated area amounts among the land use sectors in the unincorporated area are provided in Table 7. The average cost of providing County services to an existing dwelling unit in the unincorporated area, and the revenue it generates to the County budget are summarized in Table 8, as are the unit costs for an additional 1,000 square feet of nonresidential development. Table 8 also shows unit costs and revenues associated with each acre of the county's agricultural sector. This table also shows the basis for unit costs applied to new development in the unincorporated area.

The cost of building and maintaining County roads and bridges constitutes its largest single outlay. In FY 2001-02, these outlays (capital, operations, maintenance and administration) amounted to \$13.38 million out of total general purpose outlays of \$70.08 million. However, outlays for roads and bridges are even more significant for the unincorporated area. In FY 2001-02, County road-related outlays attributable to the unincorporated area were \$10.69 million out of total allocated expenditures of \$17.93 million. In FY 2001-02, the Sheriff's Department had outlays of \$5.92 million, of which \$2.84 million is allocated to the unincorporated area. Combined, the County Engineer and the Sheriff's department accounted for 76 percent of all County outlays allocated to the unincorporated area.

The value of new development contributes substantially to its fiscal outcome on the County budget. To the extent that the average value of new development in the unincorporated area is greater than the average of existing development, it will yield higher real property taxes and other value- and income-sensitive taxes and fees. Less obviously, valuation differences can also affect the expenditure side of the budget. Households occupying higher value housing tend to have a greater demand (and ability to pay) for certain public services such as rural libraries. Higher value households also tend to have a lower demand for public services such as health, human services, general assistance, and the public defender.

The methodology employed in this report to estimate the impact of new development adjusts some unit costs and revenue to reflect these tendencies. These value- or income-sensitive unit revenue and expenditures are adjusted (either positively or negatively) based on the percentage difference between the average unit value of existing and new development. These adjustments are either "positive" or "negative," indicating their correlation with real property value. Budget categories for which these adjustments are applied are identified in the following tables as being either "pos value" or "neg value" for the County, School District and Fire District tables.

For example, rural library outlays are positively adjusted based on per unit residential property value. If the average value of a new residence in the unincorporated area is 50 percent more than that of existing residences, then the per unit cost of new development applied for rural libraries is 50 percent more than the existing unit cost. Outlays for health and human services are negatively adjusted based on per unit residential property value. If the average value of a new residence in the unincorporated area is 50 percent more than that of existing residences, then the per unit cost of new development applied for health and human services is 50 percent lower than the existing unit cost. In addition to those noted above for the County budget, adjustments for new units are also made for the School District budget categories for motor vehicle, State aid and homestead exemption revenues.

**Table 6  
COST AND REVENUE ALLOCATION, UNINCORPORATED AREA, FY 2001-02**

	<b>Basis of Allocation</b>	<b>Total Allocation</b>	<b>Percent</b>	<b>Unincorp. Allocation</b>
<b>Expenditures</b>				
Treasurer, Assessor, Register	Real Property Value (Ag)	\$5,368,672	13.38%	\$718,221
Other General Fund	Jobs plus Population	\$9,459,588	6.74%	\$637,482
Courts, Justice	Jobs plus Population	\$6,011,309	6.74%	\$405,162
Sheriff	Consultant, interview	\$5,924,283	47.97%	\$2,841,642
County Attorney	Jobs plus Population	\$4,602,656	6.74%	\$310,219
Corrections, Detention, Probation	Arrests	\$6,258,815	3.43%	\$214,677
Juvenile Attention, Probation	Arrests	\$2,743,837	3.43%	\$94,114
Public Defender, Indigent Defense	Arrests	\$2,106,576	3.43%	\$72,256
Emergency Management	Real Property Value (Ag)	\$88,634	13.38%	\$11,857
Health, Human Svcs, Veterans, GA	Population	\$7,523,703	7.32%	\$550,359
Mental Health	Population	\$1,481,406	7.32%	\$108,439
Building Fund*	Jobs plus Population	\$1,476,302	6.74%	\$99,488
County Engineer (admin)	Composite roads O&M, capital	\$934,210	79.88%	\$746,275
County Engineer (O&M)	Consultant	\$6,626,767	79.80%	\$5,288,293
County Engineer (capital)	Consultant	\$5,821,620	79.98%	\$4,655,841
Rural Library	Population, Unincorp %**	\$551,628	74.09%	\$408,707
Agricultural Agent	Consultant, interview	\$655,888	75.00%	\$491,916
Debt Service	Consultant, interview	\$2,445,920	11.27%	\$275,582
<b>Total</b>		<b>\$70,081,814</b>	<b>25.59%</b>	<b>\$17,930,530</b>
<b>Revenue</b>				
Real Property Tax	Real Property Value	\$33,444,126	12.79%	\$4,576,130
Personal Property Tax	Comm and Indus RPV	\$3,136,771	13.97%	\$470,584
In-lieu Tax	Real Property Value	\$954,383	12.79%	\$122,056
Motor Vehicle Tax	Real Property Value	\$5,802,291	12.79%	\$742,055
Inheritance Tax	Real Property Value (Ag)	\$3,706,544	13.38%	\$495,861
Agency Fees and Charges	RPV (Ag)+Unincorp Increment	\$9,754,821	6.74%	\$864,851
Other Fees and Charges	Real Property Value (Ag)	\$592,768	13.38%	\$79,301
Keno	Incorporated	\$757,700	0.00%	\$0
<b>State Aid</b>				
Homestead Exemption	Population	\$679,158	7.32%	\$49,680
Insurance Tax	Real Property Value (Ag)	\$352,255	13.38%	\$47,125
Airline Tax Allocation	Jobs plus Population	\$162,270	6.74%	\$10,935
Motor Vehicle Pro-rate Tax	Unincorporated Area	\$113,900	100.00%	\$113,900
State Aid County LB816	Real Property Value (Ag)	\$1,073,952	13.38%	\$143,673
Gas Tax (Hwy Fund)	Formula****	\$4,659,614	80.00%	\$3,727,691
Earned Interest	Composite	\$1,563,379	17.49%	\$273,435
Cash Balance	Composite	\$3,670,684	17.49%	\$642,003
<b>Total</b>		<b>\$70,424,616</b>	<b>17.55%</b>	<b>\$12,359,280</b>
Uninc. Share of Muni Road Capital	% of Trips			\$1,326,955
Net Transfer to/(from) Incorporated Area				(\$6,898,205)

\* Building Fund amount is not normalized. Normalized amount of \$500,000 for Building Fund yields unincorporated allocation amount of \$33,700, which is applied to determine unit amounts.

\*\*Unincorporated population as share of population of county outside of City of Lincoln

\*\*\* Real and personal property tax amounts from unincorporated area from RTSD levy included in unincorporated allocation.

\*\*\*\* Gas tax revenue is distributed by the State according to a formula that is sensitive to rural and non-rural population and motor vehicle registrations. Based on the State formula and discussions with the County Finance Director, the unincorporated area of the County is estimated to account for about 80 percent of the distribution to Lancaster County.

Source: 2002-2003 Lancaster County Nebraska Adopted Budget, Fiscal Budget Year July 1, 2002 to June 30, 2003.

**Table 7**  
**LAND USE ALLOCATION, UNINCORPORATED AREA, FY 2001-02**

	<b>Basis of Allocation</b>	<b>Resid.</b>	<b>Comm.</b>	<b>Ind.</b>	<b>Agric.</b>
<b>Expenditures</b>					
Treasurer, Assessor, Register	RPV (Ag), Local	73.02%	2.53%	2.70%	21.75%
Other General Fund	Jobs plus Population	70.54%	16.28%	3.43%	9.75%
Courts, Justice	Jobs plus Population	70.54%	16.28%	3.43%	9.75%
Sheriff	Calls-for-service	64.08%	22.24%	6.23%	7.45%
County Attorney	Jobs plus Population	70.54%	16.28%	3.43%	9.75%
Corrections, Detention, Probation	Jobs plus Population	70.54%	16.28%	3.43%	9.75%
Juvenile Attention, Probation	Residential	100.00%	0.00%	0.00%	0.00%
Public Defender, Indigent Defense	Residential	100.00%	0.00%	0.00%	0.00%
Emergency Management	Jobs plus Population	70.54%	16.28%	3.43%	9.75%
Health, Human Svcs, Veterans, GA	Residential	100.00%	0.00%	0.00%	0.00%
Mental Health	Residential	100.00%	0.00%	0.00%	0.00%
Building Fund	Jobs plus Population	70.54%	16.28%	3.43%	9.75%
County Engineer (admin)	Composite, O&M + capital	60.19%	22.83%	10.24%	6.74%
County Engineer (O&M)	Trips (Table 3)	60.18%	22.83%	10.24%	6.75%
Rural Library	Residential	100.00%	0.00%	0.00%	0.00%
Agricultural Agent	Consultant, interview	5.00%	0.00%	0.00%	95.00%
Capital					
Existing Debt Service	Jobs plus Population	70.54%	16.28%	3.43%	9.75%
Roads	Trips (Table 3)	60.18%	22.83%	10.24%	6.75%
<b>Total</b>					
<b>Revenue</b>					
Real Property Tax	RPV (Ag), Local	73.02%	2.53%	2.70%	21.75%
Personal Property Tax	Comm & Indus RPV	0.00%	32.74%	35.73%	31.53%
In-lieu Tax	RPV, Non-central	73.02%	2.53%	2.70%	21.75%
Motor Vehicle Tax	RPV, Local, non-Ag	93.32%	3.23%	3.46%	0.00%
Inheritance Tax	RPV (Ag), Local	73.02%	2.53%	2.70%	21.75%
Agency Fees and Charges	Job plus Population	70.54%	16.28%	3.43%	9.75%
Other Fees and Charges	Job plus Population	70.54%	16.28%	3.43%	9.75%
Keno	None	0.00%	100.00%	0.00%	0.00%
State Aid					
Homestead Exemption	Residential	100.00%	0.00%	0.00%	0.00%
Insurance Tax	RPV (Ag), Local	73.02%	2.53%	2.70%	21.75%
Airline Tax Allocation	Job plus Population	70.54%	16.28%	3.43%	9.75%
Motor Vehicle Pro-rate Tax	Non Res Trips (Table 3)	0.00%	57.33%	25.72%	16.95%
State Aid County LB816	Job plus Population	70.54%	16.28%	3.43%	9.75%
Gas Tax (Hwy Fund)	Trips (Table 3)	60.18%	22.83%	10.24%	6.75%
Earned Interest	Composite	66.31%	13.55%	6.85%	14.56%
Cash Balance	Composite	66.31%	13.55%	6.85%	14.56%
<b>Total</b>					

*Note:* RPV stands for Real Property Value; some figures are rounded.

**Table 8**

**EXISTING UNIT COST/REVENUE AND BASIS FOR NEW UNITS, UNINCORP. AREA, FY 2001-02**

	Per Existing Unit				Basis for New Units		
	Resid. (Dwelling)	Comm. (1000 sf)	Ind. (1000 sf)	Ag. (Acre)	Resid.	Comm.	Ind.
<b>Expenditures</b>							
Treasurer, Assessor, Register	\$78.49	\$20.00	\$13.00	\$0.37	existing	existing	existing
Other General Fund	\$67.29	\$116.00	\$14.00	\$0.15	existing	existing	existing
Courts, Justice	\$42.76	\$74.00	\$9.00	\$0.10	existing	existing	existing
Sheriff	\$272.51	\$708.00	\$116.00	\$0.51	existing	existing	existing
County Attorney	\$32.74	\$57.00	\$7.00	\$0.07	existing	existing	existing
Corrections, Detention, Probation	\$22.66	\$39.00	\$5.00	\$0.05	existing	existing	existing
Juvenile Attention, Probation	\$14.09	\$0.00	\$0.00	\$0.00	existing	existing	existing
Public Defender, Indigent Defense	\$10.81	\$0.00	\$0.00	\$0.00	neg value	existing	existing
Emergency Management	\$1.25	\$2.00	\$0.30	\$0.00	existing	existing	existing
Health, Human Svcs, Veterans, GA	\$82.36	\$0.00	\$0.00	\$0.00	neg value	existing	existing
Mental Health	\$16.22	\$0.00	\$0.00	\$0.00	existing	existing	existing
Building Fund	\$3.56	\$6.00	\$1.00	\$0.01	existing	existing	existing
County Engineer (admin)	\$67.22	\$191.00	\$50.00	\$0.12	existing	existing	existing
County Engineer (O&M)*	\$476.36	\$1,353.00	\$357.00	\$0.86	existing	existing	existing
Rural Library	\$61.17	\$0.00	\$0.00	\$0.00	pos value	existing	existing
Agricultural Agent	\$3.68	\$0.00	\$0.00	\$1.13	existing	existing	existing
Capital							
Debt Service	\$29.09	\$50.00	\$6.00	\$0.07	existing	existing	existing
Roads (pay-go per year)*	\$429.64	\$1,219.55	\$321.64	\$0.77	Table 4	Table 4	Table 4
<b>Total</b>	<b>\$1,711.90</b>	<b>\$3,835.55</b>	<b>\$899.94</b>	<b>\$3.82</b>			
<b>Revenue</b>							
Real Property Tax	\$525.35	\$127.00	\$81.00	\$2.40	val x rate	val x rate	val x rate
Personal Property Tax	\$0.00	\$173.00	\$111.00	\$0.36	existing	pos value	pos value
In-lieu Tax	\$13.34	\$3.00	\$2.00	\$0.06	pos value	pos value	pos value
Motor Vehicle Tax	\$103.63	\$27.00	\$17.00	\$0.00	pos value	pos value	pos value
Inheritance Tax	\$54.19	\$14.00	\$9.00	\$0.26	pos value	pos value	pos value
Agency Fees and Charges	\$91.30	\$158.00	\$20.00	\$0.20	existing	existing	existing
Other Fees and Charges	\$8.37	\$14.00	\$2.00	\$0.02	existing	existing	existing
Keno	\$0.00	\$0.00	\$0.00	\$0.00	existing	existing	existing
State Aid							
Homestead Exemption	\$7.43	\$0.00	\$0.00	\$0.00	existing	existing	existing
Insurance Tax	\$5.15	\$1.00	\$1.00	\$0.03	pos value	pos value	pos value
Airline Tax Allocation	\$1.15	\$2.00	\$0.00	\$0.00	existing	existing	existing
Motor Vehicle Pro-rate Tax	\$0.00	\$73.00	\$19.00	\$0.05	pos value	pos value	pos value
State Aid County LB816	\$15.17	\$26.00	\$3.00	\$0.03	existing	existing	existing
Gas Tax (Hwy Fund)	\$335.78	\$954.00	\$251.00	\$0.61	existing	existing	existing
Earned Interest	\$27.13	\$38.00	\$12.00	\$0.10	existing	existing	existing
Cash Balance	\$63.71	\$88.00	\$29.00	\$0.06	existing	existing	existing
<b>Total</b>	<b>\$1,251.70</b>	<b>\$1,698.00</b>	<b>\$557.00</b>	<b>\$4.16</b>			

*Note:* \*Cost per unit based on allocated costs divided by existing land uses in unincorporated area; some amounts are rounded; "existing" means existing amount per unit is applied to new units; "pos value" means existing amount per unit is adjusted by the ratio of new unit to existing unit value; "neg value" means existing amount per unit is adjusted by the ratio of existing to new unit value; "per mile" means that the capital factor for roads is applied for new units; "value x rate" means the real property tax rate is applied to the new unit value.

Costs and revenue for the School District and Fire District budgets are allocated in a similar manner among their existing land use sectors as shown in Tables 9 and 11, respectively.

The average cost to the School and Fire Districts to serve a unit of existing development in the unincorporated area, and the revenue it yields, are shown in Tables 10 and 12, respectively. These tables also show the basis for unit costs and revenues that are applied to new development.

**Table 9**  
**LAND USE ALLOCATION, WAVERLY SCHOOL DISTRICT, FY 2001-02**

	Basis of Allocation	Resid.	Comm.	Ind.	Agric.	Lancaster Allocation
<b>Expenditures</b>						
Instruction/Pupil Support	Residential	100.00%	0.00%	0.00%	0.00%	\$6,905,317
Admin and Business Svcs	Residential	100.00%	0.00%	0.00%	0.00%	\$957,191
Facilities	Residential	100.00%	0.00%	0.00%	0.00%	\$1,184,686
Transportation	Residential	100.00%	0.00%	0.00%	0.00%	\$424,143
Federal Programs	Residential	100.00%	0.00%	0.00%	0.00%	\$170,938
Miscellaneous	Residential	100.00%	0.00%	0.00%	0.00%	\$22,843
Debt Service	Residential	100.00%	0.00%	0.00%	0.00%	\$916,387
<b>Total</b>						<b>\$10,581,505</b>
<b>Revenue</b>						
Local						
Real Property Tax	RPV, Local	73.37%	5.90%	3.34%	17.39%	\$6,655,940
Motor Vehicles	RPV, Local	73.37%	5.90%	3.34%	17.39%	\$590,667
Other Local	RPV, Local	73.37%	5.90%	3.34%	17.39%	\$140,146
County and ESU	RPV, Local	73.37%	5.90%	3.34%	17.39%	\$91,215
State						
State Aid	Residential	100.00%	0.00%	0.00%	0.00%	\$1,081,916
Homestead Exemption	Residential	100.00%	0.00%	0.00%	0.00%	\$66,645
Federal	Residential	100.00%	0.00%	0.00%	0.00%	\$415,731
Other, Cash Balance	Composite	77.93%	5.47%	2.76%	14.17%	\$1,274,499
<b>Total</b>						<b>\$10,316,759</b>

Source: Lancaster portion only from *Annual Financial Report for the Fiscal Year Ended on August 31, 2001, Waverly Public Schools*; RPV stands for Real Property Value.

**Table 10**  
**EXISTING COST/REVENUE AND BASIS FOR NEW UNITS, WAVERLY SCHOOLS, FY 2001-02**

	Per Existing Unit				Basis for New Units		
	Resid. (Dwelling)	Comm. (1,000 sf)	Ind. (1,000 sf)	Ag. (Acres)	Resid.	Comm.	Ind.
<b>Expenditures</b>							
Instruction/Pupil Support	\$2,900.18	\$0.00	\$0.00	\$0.00	existing	na	na
Admin and Business Svcs	\$402.01	\$0.00	\$0.00	\$0.00	existing	na	na
Facilities	\$497.56	\$0.00	\$0.00	\$0.00	existing	na	na
Transportation	\$178.14	\$0.00	\$0.00	\$0.00	existing	na	na
Federal Programs	\$71.79	\$0.00	\$0.00	\$0.00	existing	na	na
Miscellaneous	\$9.59	\$0.00	\$0.00	\$0.00	existing	na	na
Debt Service	\$450.16	\$0.00	\$0.00	\$0.00	Table 5	na	na
<b>Total</b>	<b>\$4,509.43</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>			
<b>Revenue</b>							
Local							
Real Property Tax	\$1,846.35	\$446.00	\$285.70	\$9.99	val x rate	val x rate	val x rate
Motor Vehicles	\$186.47	\$45.00	\$32.50	\$0.89	pos value	pos value	pos value
Other Local	\$41.67	\$75.00	\$3.40	\$0.12	existing	existing	existing
County and ESU	\$27.12	\$49.00	\$2.20	\$0.08	existing	existing	existing
State							
State Aid	\$452.64	\$0.00	\$0.00	\$0.00	neg value	neg value	neg value
Homestead Exemption	\$27.88	\$0.00	\$0.00	\$0.00	neg value	neg value	neg value
Federal	\$174.60	\$0.00	\$0.00	\$0.00	existing	existing	existing
Other, Cash Balance	\$423.29	\$122.00	\$23.80	\$1.56	existing	existing	existing
<b>Total</b>	<b>\$3,180.02</b>	<b>\$737.00</b>	<b>\$347.60</b>	<b>\$12.64</b>			

*Note:* Some figures are rounded; "existing" means existing amount per unit is applied to new units; "pos value" means existing amount per unit is adjusted by the ratio of new unit to existing unit value; "neg value" means existing amount per unit is adjusted by the ratio of existing to new unit value; "per mile" means that the capital factor for roads is applied for new units; "value x rate" means the real property tax rate is applied to the new unit value.

**Table 11**  
**LAND USE ALLOCATION, SOUTHEAST FIRE DISTRICT, FY 2001-02**

	<b>Basis of Allocation</b>	<b>Resid.</b>	<b>Comm.</b>	<b>Ind.</b>	<b>Agric.</b>	<b>District Allocation</b>
<b>Expenditures</b>						
Operating	RPV, Local	91.33%	3.58%	2.46%	2.63%	\$105,233
Capital	RPV, Local	91.33%	3.58%	2.46%	2.63%	\$43,709
<b>Total</b>						<b>\$148,942</b>
<b>Revenue</b>						
Real Property Tax	RPV, Local	91.33%	3.58%	2.46%	2.63%	\$227,205
Motor vehicle Tax	RPV, Local	91.33%	3.58%	2.46%	2.63%	\$860
Other State	RPV, Local	91.33%	3.58%	2.46%	2.63%	\$637
Local Receipts, Other	RPV, Local	91.33%	3.58%	2.46%	2.63%	\$89,598
<b>Total</b>						<b>\$318,300</b>

*Source: 2002-2003 State of Nebraska General Budget Form, Southeast Fire District of Lancaster County; "RPV" stands for Real Property Value.*

**Table 12**  
**EXISTING COST/REVENUE AND BASIS FOR NEW UNITS, SE FIRE DIST., FY 2001-02**

	<b>Per Existing Unit</b>				<b>Basis for New Units</b>		
	<b>Resid. (Dwelling)</b>	<b>Comm. (1000 sf)</b>	<b>Ind. (1000 sf)</b>	<b>Ag. (Acre)</b>	<b>Resid.</b>	<b>Comm.</b>	<b>Ind.</b>
<b>Expenditures</b>							
Operating	\$76.28	\$32.00	\$19.00	\$0.21	existing	existing	existing
Capital (sinking fund)	\$31.68	\$13.00	\$8.00	\$0.09	existing	existing	existing
<b>Total</b>	<b>\$107.96</b>	<b>\$45.00</b>	<b>\$27.00</b>	<b>\$0.30</b>			
<b>Revenue</b>							
Real Property Tax	\$43.75	\$11.00	\$7.00	\$0.46	value x rate	value x rate	value x rate
Motor Vehicle Tax	\$0.62	\$0.00	\$0.00	\$0.00	existing	existing	existing
Other State	\$0.46	\$0.00	\$0.00	\$0.00	existing	existing	existing
Other Local	\$64.94	\$27.00	\$17.00	\$0.18	existing	existing	existing
<b>Total</b>	<b>\$109.77</b>	<b>\$38.00</b>	<b>\$24.00</b>	<b>\$0.65</b>			

*Note: Nonresidential amounts are rounded to one decimal; "existing" means existing amount per unit is applied to new units; "value x rate" means the real property tax rate is applied to the new unit value.*

## Break-Even Values

Break-even values can be described as representing the property value at which impacts of new units are “tax neutral” on the existing taxpayer. Developments with property values higher than the break-even value would be tax positive to existing taxpayers, meaning that either service levels can be increased without an increase in tax rates or that service levels can remain constant at lower tax rates. Likewise, lower values would be tax negative, meaning that services levels would decline over time or that tax rates would have to rise to maintain current service levels.

Two versions of the break-even values are calculated: with and without capital facilities. The break-even value without capital facilities indicates the value needed to generate revenues to cover O&M costs, assuming existing capital facilities have sufficient capacity to accommodate the new development and do not need to be replaced. This figure is useful for gauging short-term impacts of development in situations where existing facilities have excess capacity. In the longer-run, however, new development will create the need to expand capital facilities, and consequently should generally be given greater weight. The break-even values cited are based on an annualized cost of capital for roads.

The figures shown in the “Combined” column of Table 13 represent the overall break-even value of a new residential unit in the unincorporated area, both with and without capital facilities, after considering revenue and expenditures for all three jurisdictions. The break-even values do not mean that the cited values cause all three entities to break even individually. Rather, this is the value at which negative net revenues to one or two are offset by positive net revenue to the other(s).

It should be noted that the break-even analysis does not consider the costs (or revenues) to municipal budgets. As noted earlier, development in the unincorporated area accounted for an estimated \$1.3 million in capital outlays for municipal streets in FY 2002. On the other hand, sales tax revenues generated by unincorporated residents generate an estimated \$0.7 million for the municipalities. While a full analysis of municipal budgets was beyond the scope of this study, it is very likely that the net impact of unincorporated area development on municipal budgets is negative.

Because the County and the School and Fire Districts are experiencing moderate rates of growth, the effect of new development on their budgets is typically small on a year to year basis, unless there is a need for a large capital improvement. These effects can become more pronounced over time as much of this budgetary impact is cumulative.

The break-even values may be somewhat lower or higher for other School and Fire Districts in the unincorporated area. The extent to which this is the case is determined largely by the School District, since the unit cost of providing local education services far exceeds that of fire protection services. The major variables that could cause break-even values to be lower or higher in other school districts in the county are each district's tax rate, its current per pupil resources, and its ability to accommodate new enrollment in existing facilities.

At an average new home value of \$279,600, the overall impact, with capital facilities, of a new residential unit in the unincorporated area on existing taxpayers is neutral. It would not cause a tax increase or a decline in service levels for existing residents, businesses and other taxpayers in the unincorporated area or in the municipalities.

Considering only the County budget, the break-even value for acreage development is \$270,375 with capital facilities, while the comparable value for the School District and Fire District is \$285,850 and \$156,000, respectively.

The overall break-even value for new commercial development in the unincorporated area is \$102 per square foot (land plus improvements) with capital facilities. Considering only the County budget, the break-even value for new commercial development in the unincorporated area is \$240 per square foot, while the comparable value for the Fire District is \$66 (since commercial development has no impact on school costs, the break-even value is zero for the School District).

The overall break-even value for new industrial development in the unincorporated area is \$25 per square foot (land plus improvements) with capital facilities. Considering only the County budget, the break-even value for new industrial development in the unincorporated area is \$61 per square foot, while the comparable value for the Fire District is \$40 (since industrial development has no impact on school costs, the break-even value is zero for the School District).

**Table 13**  
**AVERAGE EXISTING AND NEW UNIT BREAK-EVEN VALUES, 2002**

	County (Unincorp. Area )	Waverly School District	Southeast Fire District	Combined
<b>Residential (per dwelling)</b>				
Existing Value	\$162,819	\$162,189	\$255,230	na
New, with capital	\$270,375	\$285,850	\$156,000	\$279,600
New, without capital	\$163,125	\$246,275	\$38,150	\$219,600
<b>Commercial (per sq. ft.)</b>				
Existing Value	\$39.30	\$52.75	\$109.06	na
New, with capital	\$240.25	\$0.00	\$65.50	\$102.15
New, without capital	\$120.90	\$0.00	\$16.00	\$47.30
<b>Industrial (per sq. ft.)</b>				
Existing Value	\$25.20	\$10.33	\$66.50	na
New, with capital	\$61.20	\$0.00	\$39.75	\$25.15
New without capital	\$26.65	\$0.00	\$9.85	\$10.20
<b>Agricultural (per acre)</b>				
Existing Value (market)	\$998.00	\$987.00	\$908.00	na

## Policy Options

### Summary of Issues and Observations

In FY 2002, there was a transfer of benefits and resources from the County's incorporated areas (primarily the City of Lincoln) of about \$6.9 million to the unincorporated area, inclusive of their respective shares of the capital costs of each other's roads and streets. The transfer amount does not consider municipal sales taxes paid by residents of the unincorporated area<sup>3</sup> or other costs associated with use of municipal services by residents of the unincorporated area (such as police and fire protection, parks, recreational facilities and libraries). This transfer of resources is not due to any intended policy, but has evolved over time as a result of the County's tax structure, its land use characteristics and service delivery patterns.

The transfer of resources raises issues of equity and fairness. Tax equity, because residents of the incorporated area are supporting the cost of providing services in the unincorporated area. Fairness, because average incomes (as reflected by housing values) are about twice as high in the unincorporated area.

The largest factor affecting this transfer on the cost side is the cost of County roads. Annual variations in the amount of this transfer are largely a result of capital outlays for County roads.<sup>4</sup> During years in which major capital outlays for road improvements are lower, the transfer is reduced. On an average annual basis, the relative amount of this transfer can be expected to remain fairly stable given a continuation of the County's land use policies and assuming the City of Lincoln continues to annex developed or developing areas on its periphery. A continuation of existing policies will likely result in maintaining about the same distribution of population and jobs between the County's incorporated and unincorporated area.

Another issue raised is the efficient use of public resources, particularly the existing paved road network within the County. Most of this network has significant excess capacity, even during peak traffic conditions. Policies that seek to concentrate development in areas currently or planned to be served by paved roads (or municipal streets) will help to reduce the need for new paved roads. This would, in turn, tend to hold down the County's road maintenance costs, since paved roads are twice as expensive to maintain as unpaved roads.

Concentrating development in areas where services already exist and development has already occurred could also help to support another important goal of the County, which is the preservation of agricultural land. Preservation of the County's agricultural sector would also help to achieve fiscal equity, since it is the only land use sector in the unincorporated area (other than centrally assessed public utility property) that generates a net fiscal surplus to the County.

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<sup>3</sup> In FY 2002, residents of the unincorporated area are estimated to have paid about \$0.73 million in sales taxes to the City of Lincoln. The estimated sales taxes paid by residents of the unincorporated area is based on the taxable share of their personal income spent in the City of Lincoln. It does not include taxes from taxable sales in the City of Lincoln by non-local residents or businesses as these sales are not generated by or attributable to the unincorporated area.

<sup>4</sup> A review of the County Engineer's budget suggests that capital outlays for County roads have been between about \$3.0 - \$5.5 million annually since 1995.

Another issue raised by this report is the mechanism by which the County supports the cost of its roads. Improvements and maintenance are supported by a combination of current revenues and fund balances accumulated during prior years. During periods of economic expansion, several miles a year may be added to the County's paved road network. But when revenues decline, fewer miles of roads may be able to be paved. Yet traffic volumes typically do not decline, and may even increase. An alternative method of financing improvements to the County road system would be to issue long-term bonds. This spreads out and levels out the cost of implementing the County's road improvements over a multi-year cycle (typically twenty years). Using bond proceeds, road improvements could continue to be implemented even during fiscally lean years.

To the extent that many school-age children in households moving from the City of Lincoln to the unincorporated area tend to continue to attend City schools, new acreage development tends to generate additional revenue to the County's rural school districts with a limited increase in their costs. Provided that tuition payments on behalf of students in the unincorporated area attending Lincoln Public Schools support their costs, this would tend to reduce impacts on rural school districts while being fiscally neutral for LPS. This would likely continue to remain the case as long as LPS has excess capacity to accommodate non-resident students.

It is unlikely that a significant reduction in the transfer could be achieved by building more—or higher value—housing in the unincorporated area. There is a limited demand for higher value housing in the County. The unincorporated area is already attracting a large share of this demand, making it difficult for it to attract more. And, increasing the unincorporated area's share of the County's housing stock without a significant increase in its average value would add to the total amount of the transfer.

## **Policy Options**

There are a number of potential land use and fiscal mechanisms that could be considered to address the foregoing issues. Essentially, there are two approaches: cost reduction and cost recovery.

### **Cost Reduction Techniques**

Cost reduction could be attained through land use policies that concentrate new development in areas already served by public facilities or in areas that are planned to soon be annexed into the City of Lincoln. This can be accomplished through a variety of mechanisms. One would be to implement a point system or performance criteria, similar to the one under development by the City/County Planning Department, that would discourage the approval of subdivisions in areas not served by existing paved roads and other critical services.

Another possibility would be to increase the minimum lot size in agriculturally-zoned areas from the present 20 acres to a more realistic minimum farm size of 40 to 80 acres. As development proceeds and the County adds to the paved road network, areas could be re-zoned from agricultural to rural residential densities.

Over time, as the City of Lincoln's boundaries expand, the urban fringe around the City can also be expected to expand outward. This outward expansion will cause continued development in the urban fringe and could also result in residential development spilling over into adjacent counties. As the major employment center, this could cause higher traffic volumes on some of the County's unpaved roads,

thereby triggering additional paving. To help reduce its future paving needs, the County could consider designating certain County roads as “rural-unpaved,” meaning that they are not planned for future paving. This would send a signal to developers, home buyers and adjacent Counties to direct new residential development away from these roads and toward existing and planned paved roads.

Adequate public facility ordinances for schools have been tried in some communities, but would probably not be workable in Lancaster County. These ordinances typically require proposed subdivisions to demonstrate that the public schools serving the area have adequate existing or programmed classroom capacity to accommodate the additional students that would be generated by the development. If capacity is not available, the developer would have the option of funding an improvement or having the project denied. In Douglas County, Colorado, for example, developers have occasionally funded portable classrooms. In general, however, the rural school districts in Lancaster County appear to welcome new students, and some students moving into new acreage developments continue to attend Lincoln public schools, at least for a time.

### **Cost Recovery Techniques**

Cost recovery is typically addressed through financing mechanisms. These mechanisms can either be broad-based or focused on new development.

One example of a broad-based mechanism would be to implement a property tax surcharge in the unincorporated area for road maintenance and/or improvements. Essentially, property owners in the unincorporated area would be taxed at a higher rate to support an additional property tax levy for County roads.

To eliminate the annual transfer from the municipalities to the unincorporated area, the unincorporated area’s real property tax rate would have to about double. This is unlikely to occur. This leaves two options. The first would be to continue the current method of funding County roads and implement a higher real property tax rate for the unincorporated area that recovers only some of these costs. The second would be for the County to finance a substantial share of its road improvements through bonds and to support their repayment through a special assessment on the unincorporated area. The annualized cost of these bonds is likely to be lower than recent pay-go capital outlays for road improvements.

The extent to which this latter approach would contribute to reducing the transfer to the unincorporated area depends largely on whether such bonds would be supported by general property taxes or a surcharge for the unincorporated area. Supporting such bonds through general property taxes (paid by all property owners in the County) could achieve some reduction in the transfer by annualizing the County’s capital cost for roads, but the reduction would be lower, and its duration less certain, than if such bonds were to be repaid through a surcharge on the unincorporated area.

Another approach is to recover costs more directly from new development. This is typically accomplished through developer exactions, including impact fees. For example, as a condition of subdivision approval, development proposed for an area served by gravel roads could be required to provide a paved access road from the paved major road system to the development. The County is already requiring this informally of major subdivisions, but this policy could be formally adopted as part of the subdivision regulations.

If it is determined that it has the authority, the County could also consider imposing an impact fee for roads to be used for funding its paving improvements. Since the County's existing paved road system has little need for capacity improvements, the impact fee could be targeted to paving gravel roads. And since development with access to the paved road system would have little impact on gravel roads, a County road impact fee could legitimately exempt developments with paved road access. Such a fee would provide a source of funding for paving as well as a disincentive for locating in areas without access to the paved road network.

## **Appendix: Changes from Draft and Revisions to Final**

Following preparation of the Draft Final version of this report, comments were received from the County Engineer on the assignment of costs for County roads. In the Draft Final, the approach taken was to assign the cost of County roads to the major land uses in the unincorporated area. This approach did not credit the unincorporated area for external trips on County roads (those without an origination or destination in the unincorporated area, including trips to recreation sites in the unincorporated area). Neither, however, did it charge the unincorporated area for a share of the cost of municipal streets.

An origin and destination study would be required to more accurately determine the amount of external traffic on County roads. Such a study is beyond the scope of this report. In this revised Final report, a portion of the County's capital costs for roads and the incremental increase in operation and maintenance (O&M) cost for paved roads for external trips is estimated and deducted from amounts allocated to the unincorporated area. The roads capital factor for new development is also reduced by the number of miles of paved County roads estimated to be associated with external trips. Similarly, the unincorporated area's share the municipal capital outlays for roads is estimated and added to amounts attributable to the unincorporated area. After considering this cost, the net transfer amount reflects the unincorporated area and municipal shares of each other's respective capital costs for roads and streets, and the incremental costs for O&M of the County's paved roads.

A re-examination of the County Engineer's budget found that it contained contractual inter-agency reimbursements for garage services. This amount was omitted from agency fee revenue, and the County Engineer's administrative costs were included and pro-rated between the unincorporated area and the municipalities. The roads weighting factors were eliminated (essentially causing equal weights to be assigned for all sectors) as they have only a minor effect on the results. The Emergency Management Services amount was found to contain FEMA grant funds which were omitted along with the expenditures they support. The allocation for this revenue source was also changed to reflect the relative share of jobs and population as this source is more sensitive to these factors.

A portion of the County's personal property tax revenues were allocated to the agricultural sector based on its share of taxable value obtained from the Certificate of Taxes Levied for Tax Year 2002.

Population for the Village of Roca was included in the municipal population total.

The net effect of these changes is to lower the estimated break-even value of new housing in the unincorporated area of the County and the estimated transfer of fiscal resources from the municipalities to the unincorporated area.

Additional data were also obtained from the County Assessor that enabled the average value of new residential units in the unincorporated area to be determined for the most recent three-year period. This figure (in 2002 dollars and inclusive of some new mobile home units) is used in place of average sales price data for the balance of the County that had been obtained from the regional multiple listing service.

Jobs and population for the unincorporated area were re-calculated and applied for unincorporated area allocations.