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Kansas Public Finance Center
Hugo Wall School of Urban and Public Affairs
Wichita State University

HARPER COUNTY PROPERTY TAX AND PLUMB THICKET REVENUES, 2007-12

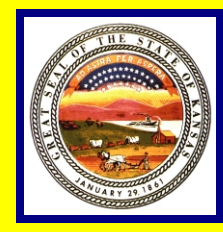
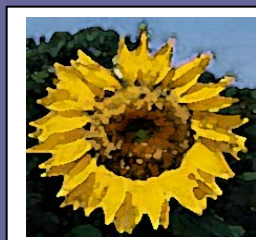
Prepared for



By

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General Demographic Data and Trends

Harper County is located in the southernmost tier of counties about midway between the east and west borders of Kansas. Harper County is bounded on the east by Sumner County, the north by Kingman County, the west by Barber County, and the south by Grant and Alfalfa Counties in Oklahoma. The county is 30 miles wide from east to west and approximately 26.75 miles from north to south. It covers a total of 801 square miles or about 512,640 acres.

According to a U.S. Census Bureau estimate, the population of Harper County was 6,081 in 2005. This is a 7.0 percent decrease since the 2000 Census, and follows an 8.3 percent decline between 1990 and 2000. Based on the 2000 Census, there were 2,773 households and 1,807 families residing in the county, making the population density 8.2 persons per square mile. As of 2004, there were 3,284 housing units at an average density of 4.1 units per square mile. According to 2004 estimates, the racial composition of the county was 97.9 percent White, 0.3 percent Black or African American, 0.8 percent Native American, 0.3 percent Asian, 0.7 percent from two or more races, while 1.1 percent of the population was Hispanic or Latino of any race.

The 2000 Census reported 27.7 percent of households included children under the age of 18, 55.3 percent of households were married couples living together, 6.9 percent of households had a female householder with no husband present, and 34.8 percent of households were non-families. In addition, 32.1 percent of all households were made up of individuals and 17.9 percent had someone living alone who was 65 years of age or older. The average household size was 2.3 and the average family size was 2.9.

In 2000, Harper County's median age was 42.9 years; 24.7 percent under the age of 18; 6.6 percent from 18 to 24; 22.0 percent from 25 to 44; 23.5 percent from 45 to 64; and 23.2 percent were 65 years of age or older. By gender, 51.6 percent of the population was female, while 48.4 percent was male.

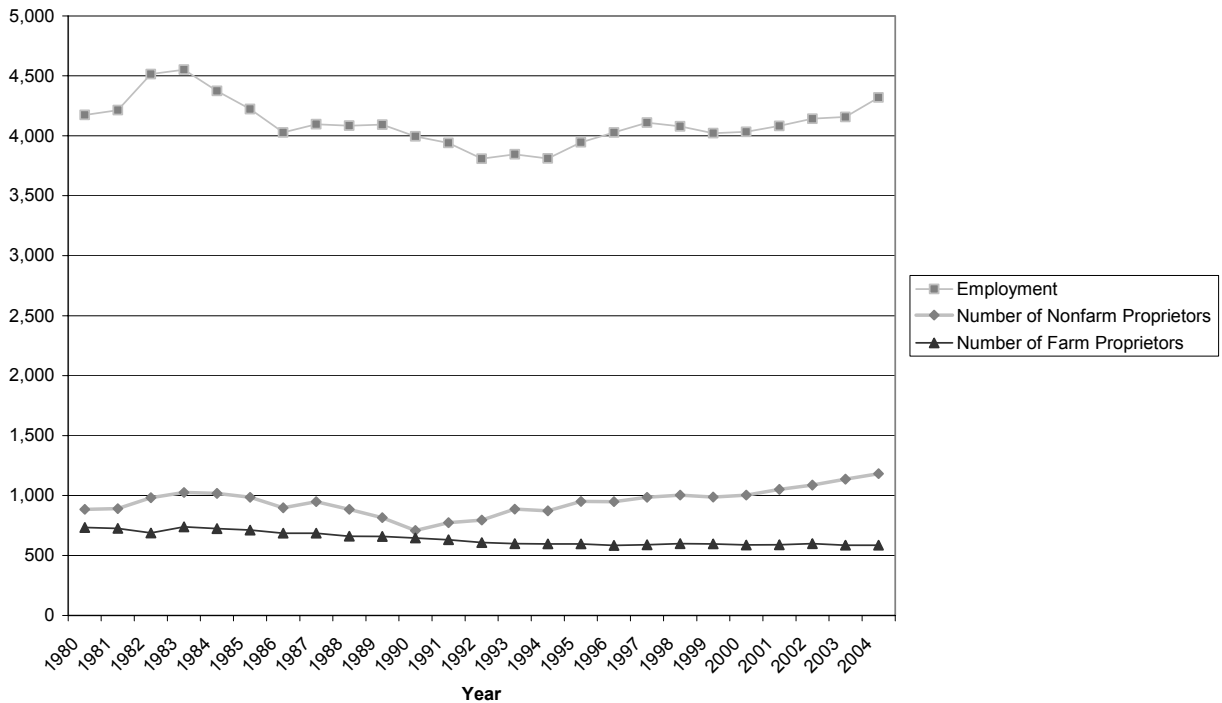
General Economic Data and Trends

Labor Market and Business Ownership

Over the past 25 years, employment trends in Harper County generally decreased over the first part of this period and then subsequently increased over the latter part of this period. From 1990 through 2004, employment increased at an annual rate of 0.6 percent. Over the period 1995 through 2004, employment increased at an average annual rate of 0.8 percent, while employment increased more rapidly from 2000 through 2004 at an average rate of 1.4 percent. Exhibit 1 shows trends in employment and the number of proprietors in Harper County from 1980 through 2004. The largest employers in Harper County are: (1) local government with 871 employees, (2) retail trade with 404 employees, and (3) manufacturing with 317 employees. Exhibit 2 shows employment trends in Harper County from 2001-2004.

Exhibit 1

EMPLOYMENT AND PROPRIETORS
Harper County, Kansas, 1980-2004



The number of nonfarm proprietors in Harper County has followed a similar pattern. Initially the number of nonfarm businesses declined, but subsequently turned upward. Overall the upturn in business ownership predated the recovery in employment. Over the past 15 years the number of nonfarm proprietors increased at an average annual rate of 3.3 percent, while the number of nonfarm proprietors increased at a 2.4 percent rate in the past 10 years, and 4.0 percent rate over the past five years. Mirroring the national trend, the number of farm proprietors has decreased over the entire period. However, over the past 15 years the number of farm proprietors decreased at an average annual rate of 0.6 percent, while the number of farm proprietors decreased at a 0.1 percent rate over the past 10 years, and 0.2 percent rate over the past five years. From 1980 to 2004 the number of farm proprietors has declined from 733 to 585.

Exhibit 2

EMPLOYMENT TRENDS
Harper County, Kansas, 2001-2004

| | 2001 | 2002 | 2003 | 2004 |
|---|-------------|-------------|-------------|-------------|
| Total employment | 4,082 | 4,142 | 4,158 | 4,319 |
| Wage and salary employment | 2,441 | 2,456 | 2,437 | 2,552 |
| Proprietors employment | 1,641 | 1,686 | 1,721 | 1,767 |
| Farm proprietors employment | 590 | 599 | 585 | 585 |
| Nonfarm proprietors employment | 1,051 | 1,087 | 1,136 | 1,182 |
| Farm employment | 673 | 675 | 664 | 672 |
| Nonfarm employment | 3,409 | 3,467 | 3,494 | 3,647 |
| Private employment | 2,440 | 2,481 | 2,546 | 2,683 |
| Forestry, fishing, related activities, and other | N/A | N/A | N/A | N/A |
| Mining | 173 | 163 | 198 | 209 |
| Utilities | N/A | N/A | N/A | N/A |
| Construction | 184 | 163 | 165 | 165 |
| Manufacturing | 302 | 302 | 294 | 317 |
| Wholesale trade | 133 | 116 | 135 | 160 |
| Retail trade | 361 | 401 | 389 | 404 |
| Transportation and warehousing | N/A | N/A | N/A | N/A |
| Information | 31 | 24 | 19 | 17 |
| Finance and insurance | N/A | N/A | N/A | N/A |
| Real estate and rental and leasing | N/A | N/A | N/A | N/A |
| Professional and technical services | 113 | 113 | N/A | N/A |
| Management of companies and enterprises | N/A | N/A | N/A | N/A |
| Administrative and waste services | N/A | N/A | N/A | N/A |
| Educational services | N/A | N/A | N/A | N/A |
| Health care and social assistance | N/A | N/A | 189 | N/A |
| Arts, entertainment, and recreation | N/A | N/A | N/A | N/A |
| Accommodation and food services | N/A | N/A | N/A | N/A |
| Other services, except public administration | 210 | 224 | 221 | 226 |
| Government and government enterprises | 969 | 986 | 948 | 964 |
| Federal, civilian | 42 | 43 | 43 | 41 |
| Military | 30 | 30 | 30 | 28 |
| State and local | 897 | 913 | 875 | 895 |
| State government | 27 | 27 | 28 | 24 |
| Local government | 870 | 886 | 847 | 871 |

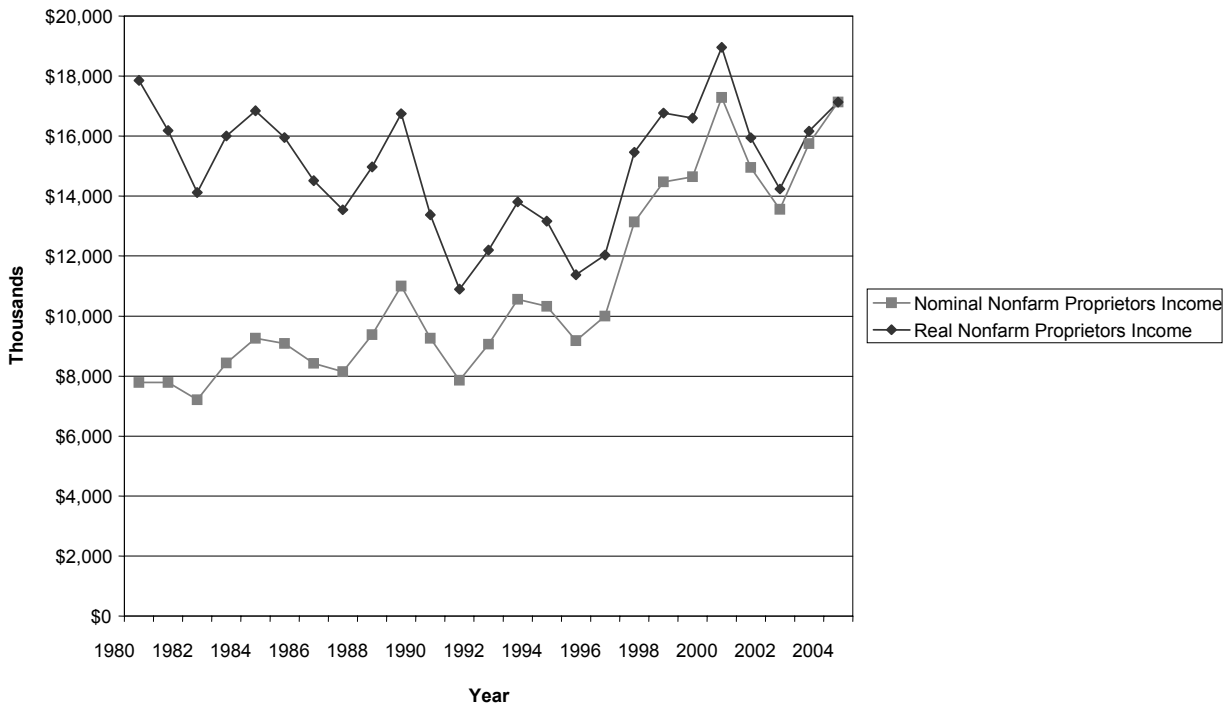
Source: U.S. Department of Commerce, Bureau of Economic Analysis

Income trends tend to be more volatile than employment trends. Nominal (not adjusted for inflation) nonfarm proprietors' income in Harper County has generally increased over the past 25 years. Real (adjusted for inflation) nonfarm proprietors' income decreased over the early part of this period, but subsequently increased during the latter part of the period.

Adjusted for inflation, nonfarm proprietors' income in 2004 was slightly below its 1980 level. Over the past 15 years real nonfarm proprietors' income increased at an average annual rate of 2.6 percent, while it increased at a 3.8 percent rate over the past 10 years, and a 1.9 percent average decrease over the last five years. Exhibit 3 shows trends in nonfarm proprietors' income for Harper County from 1980 through 2004.

Exhibit 3

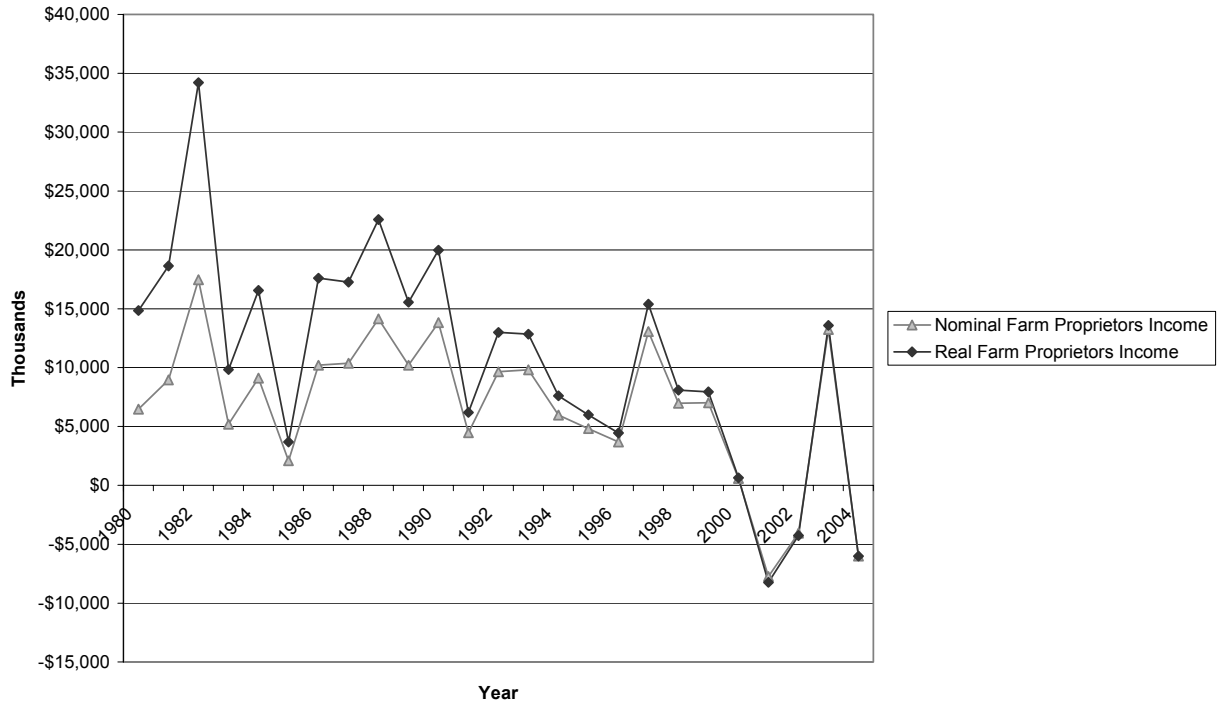
NONFARM PROPRIETORS INCOME
Harper County, Kansas, 1980-2004



On the other hand, both nominal and real farm proprietors' income in Harper County generally decreased over the past 25 years. Adjusted for inflation, farm proprietors' income in 2004 was actually negative. Over the past 15 years nominal farm proprietors' income increased at an average annual rate of 5.1 percent, while it increased at a 6.1 percent rate over the past 10 years, and a 0.3 percent rate over the last five years. Exhibit 4 shows trends in farm proprietors' income for Harper County from 1980 through 2004.

Exhibit 4

FARM PROPRIETORS INCOME Harper County, Kansas, 1980-2004



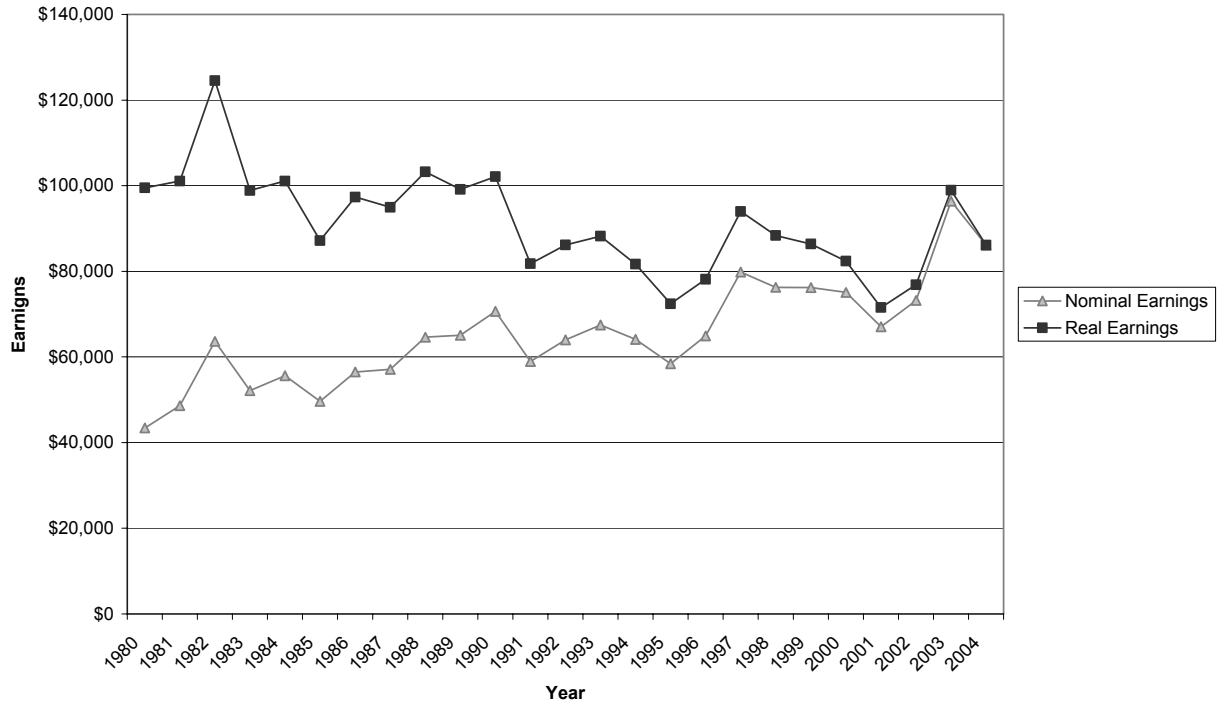
Compensation from Employment

Earnings generally include compensation from employment and related benefits.

Nominal earnings in Harper County have generally increased over the past 25 years. However, real earnings have decreased over this same period. Adjusted for inflation, earnings in 2004 were significantly below their 1980 level. Over the past 15 years real earnings decreased at an average annual rate of 0.4 percent, while they increased at a 1.0 percent rate over the past 10 years, and a 6.2 percent rate over the last five years. Exhibit 4 shows trends in earnings for Harper County from 1980 through 2004.

Exhibit 5

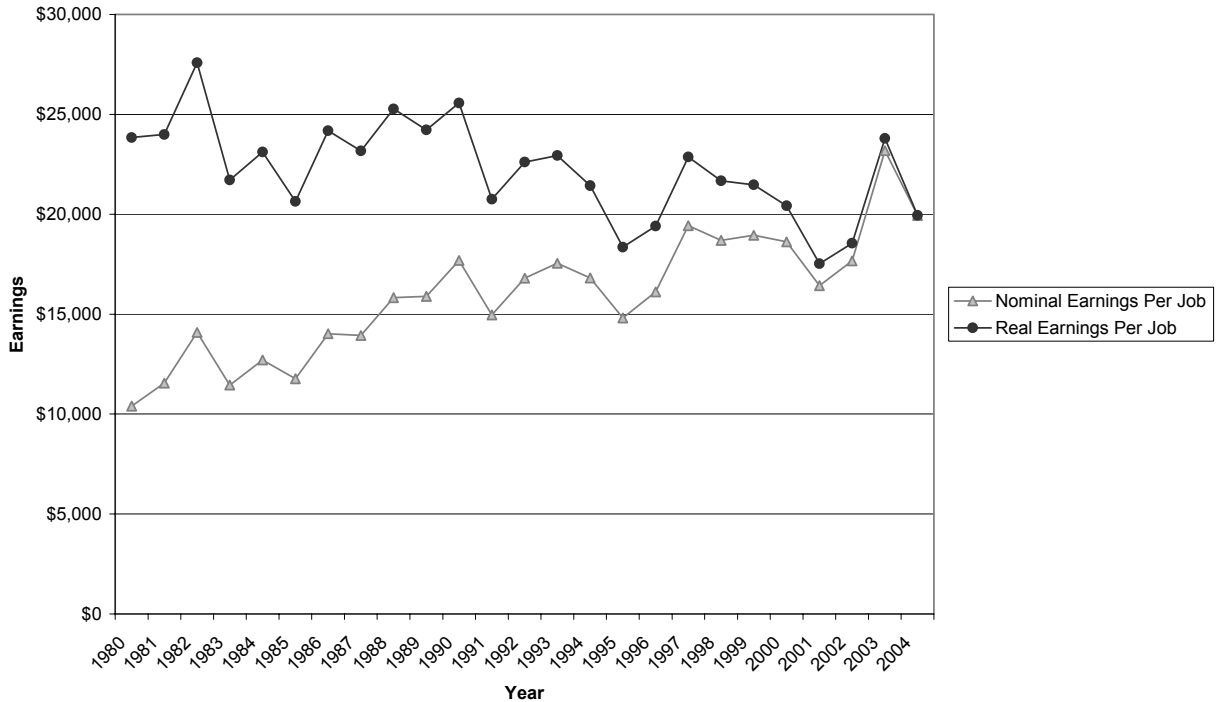
EARNINGS Harper County, Kansas, 1980-2004



Earnings per job in Harper County have exhibited a similar trend. Although nominal earnings per job have generally increased over the past 25 years, real earnings per job have decreased over the same period. Adjusted for inflation, earnings per job in 2004 were significantly below their 1980 level. Over the past 15 years real earnings per job decreased at an average annual rate of 1.0 percent, while they increased at a 0.3 percent rate over the past 10 years, and a 4.8 percent rate over the last five years. Exhibit 5 shows trends in earnings for Harper County from 1980 through 2004.

Exhibit 6

EARNINGS PER JOB Harper County, Kansas, 1980-2004

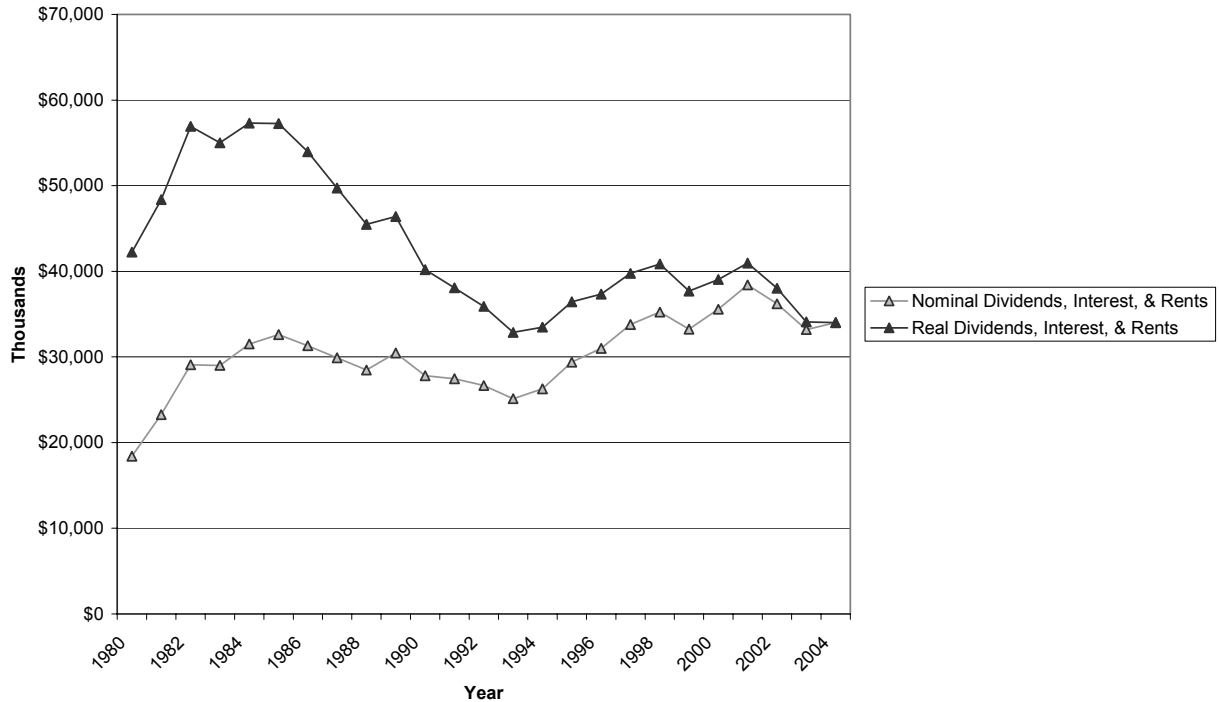


Compensation from Wealth

Dividends, interest, and rents are compensation or returns from wealth. Nominal dividends, interest, and rents in Harper County have generally increased over the past 25 years. However, real returns from wealth have decreased over this same period. Adjusted for inflation, dividends, interest, and rents in 2004 were significantly below their 1980 level. Over the past 15 years real earnings decreased at an average annual rate of 0.6 percent, while they decreased at a 0.8 percent rate over the past 10 years, and a 5.3 percent rate over the last five years. Exhibit 7 shows trends in earnings for Harper County from 1980 through 2004.

Exhibit 7

DIVIDENDS, INTEREST, AND RENTS Harper County, Kansas, 1980-2004



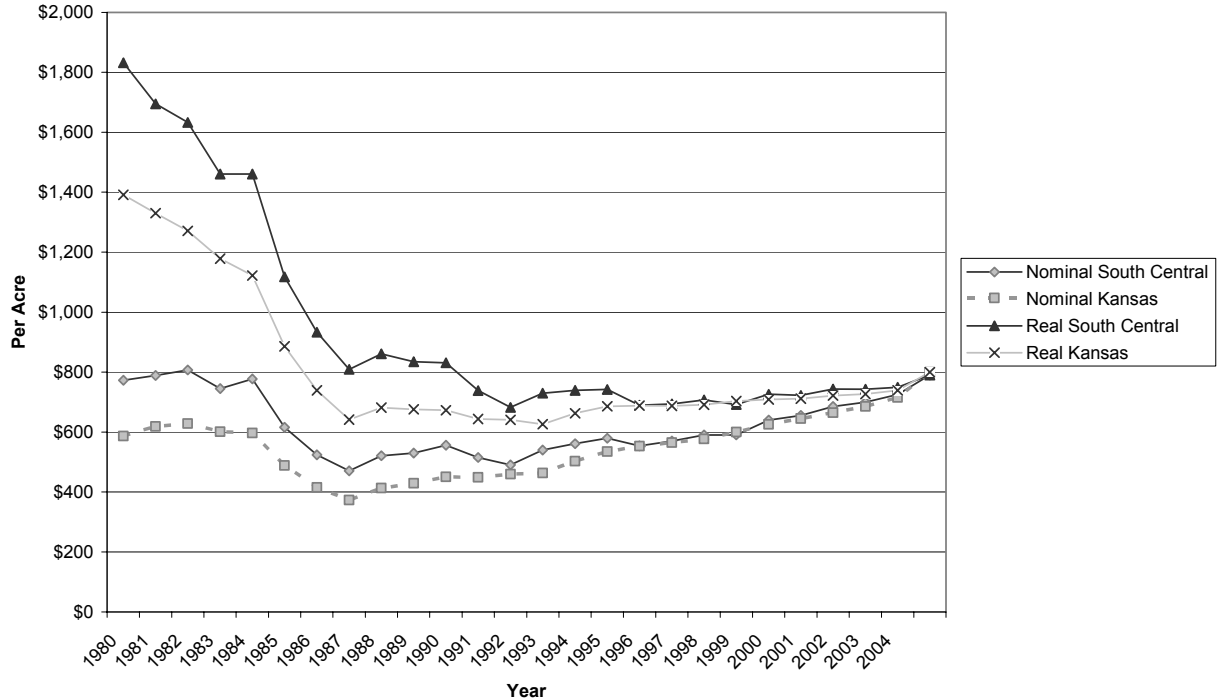
Harper County Appraised Valuation

Trends

After declining significantly during the 1980s land values in Kansas, in the South Central region specifically, have generally increased since the 1990s. Over the past 15 years, Kansas land values have increased at an average annual rate of 3.7 percent, the same rate as the last 10 years. Land values have increased at a 4.4 percent annual rate since 2000. Adjusted for inflation, land values have increased at an annual rate of 1.2 percent over the last 15 years, 1.3 percent over the past 10 years, and 2.0 percent over the past five years. According to the Kansas Agricultural Statistics Service, the average value per acre of farmland in 2005 was \$800. Exhibit 8 shows trends in nominal land values for Kansas and the South Central region from 1980 through 2005.

Exhibit 8

LAND VALUES Kansas and South Central Region, 1980-2005



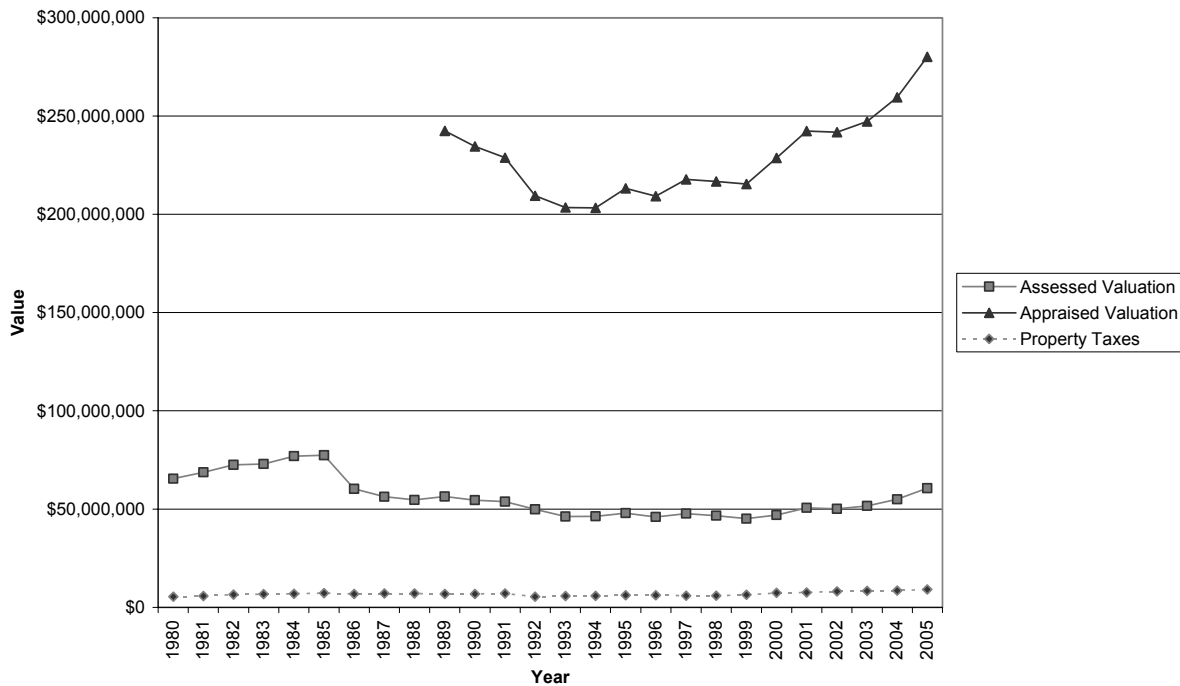
Over the past 15 years, land values in the South Central region have increased at an average annual rate of 2.5 percent, compared to a 3.3 percent rate over the last 10 years, and a 3.8 percent rate since 2000. Adjusted for inflation, land values have decreased at an average annual rate of 0.1 percent over the last 15 years, increased at an annual rate of 0.9 percent over the past 10 years, and increased at a 1.4 percent rate over the past five years. According to the Kansas Agricultural Statistics Service, the average value per acre of farmland in 2005 was \$790.

Over the past 15 years, nominal appraised valuation in Harper County declined significantly during early part of the 1990s, but has recovered since then. During that time period appraised valuation increased at an average annual rate of 1.2 percent. Since 1995, appraised valuation has increased at an annual rate of 2.7 percent. Over the last five years, appraised valuation has increased at an average rate of 3.6 percent. Exhibit 9 shows nominal

assessed valuation, appraised valuation, and property taxes for Harper County for the years 1980 through 2005.

Exhibit 9

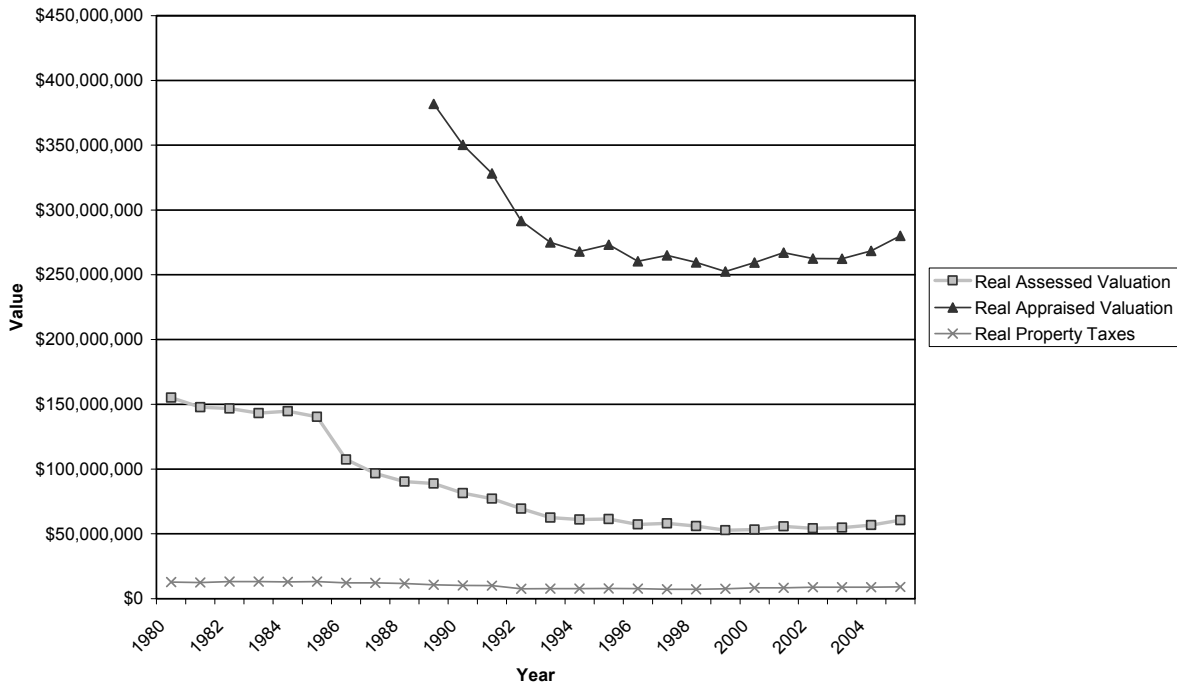
**NOMINAL PROPERTY TAX BASE
Harper County, Kansas, 1980-2005**



However, when inflation is taken into consideration a different trend emerges. Over the past 15 years appraised valuation in Harper County, when adjusted for inflation, has declined significantly. Over that time period real appraised valuation decreased at an average annual rate of 1.4 percent. But since 1995, real appraised valuation has increased slightly at an average annual rate of 0.3 percent. Over the last five years, real appraised valuation has increased at an average rate of 1.2 percent. Exhibit 10 shows real assessed valuation, appraised valuation, and property taxes for Harper County for the years 1980 through 2005.

Exhibit 10

REAL PROPERTY TAX BASE Harper County, Kansas, 1980-2005



Projections on Appraised Valuation

Three scenarios are presented: a “pessimistic” scenario, a “realistic” scenario, and an “optimistic” scenario. The pessimistic scenario assumes that total appraised valuation will not increase. The realistic scenario is premised on the assumption that total appraised valuation will continue to grow at a moderate 2.5 percent rate. This is in keeping with the long term growth rate in appraisals that has been experienced in Harper County. The optimistic scenario is premised on the assumption that total appraised valuation will grow at a more robust 5 percent rate. Exhibit 11 shows projections of total appraised valuation for Harper County from 2002 through 2012 based on historical trends.

Exhibit 11

**TOTAL APPRAISED VALUATION TRENDS
Harper County, Kansas, 2002 - 2012**

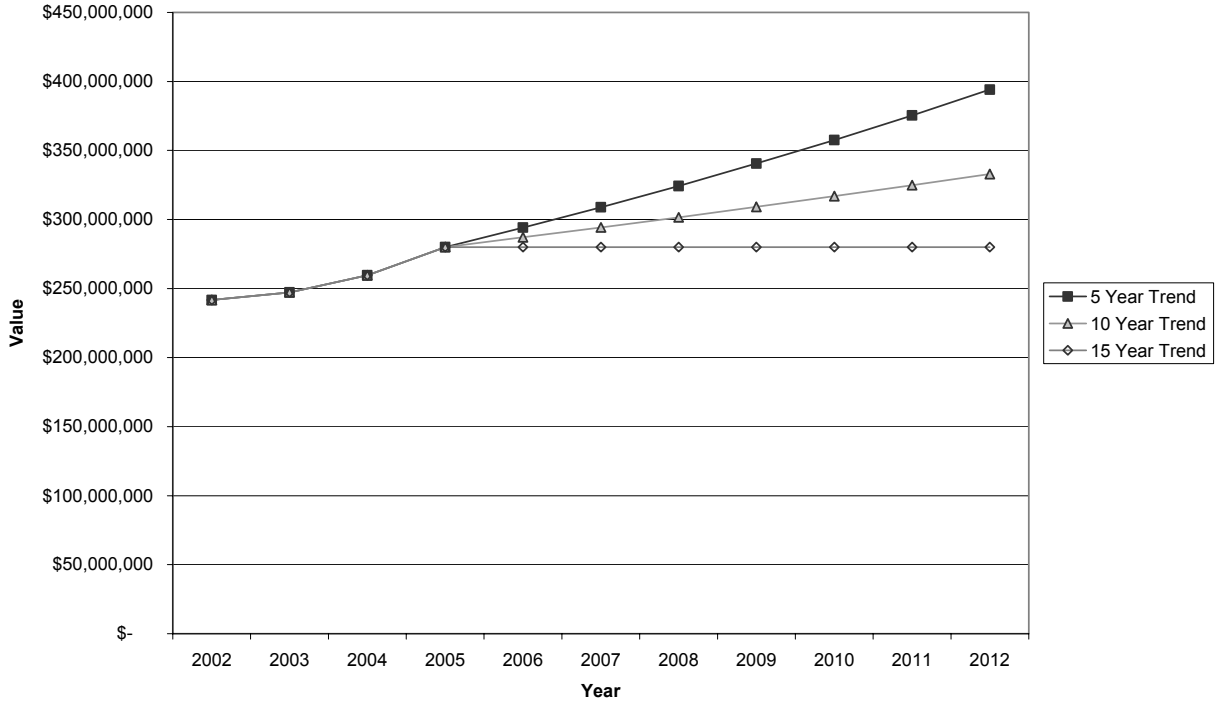


Exhibit 12 shows projections for total appraised valuation for Harper County for 2007 through 2012 based on the above assumptions.

Exhibit 12

**TOTAL APPRAISED VALUATION PROJECTIONS
Harper County, Kansas, 2007-2012**

| Alternative Projections Growth | | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|--------------------------------|------|----------------|----------------|----------------|----------------|----------------|----------------|
| Optimistic | 5.0% | \$ 308,828,477 | \$ 324,269,900 | \$ 340,483,395 | \$ 357,507,565 | \$ 375,382,943 | \$ 394,152,091 |
| Realistic | 2.5% | \$ 294,297,431 | \$ 301,654,867 | \$ 309,196,239 | \$ 316,926,145 | \$ 324,849,298 | \$ 332,970,531 |
| Pessimistic | 0.0% | \$ 280,116,532 | \$ 280,116,532 | \$ 280,116,532 | \$ 280,116,532 | \$ 280,116,532 | \$ 280,116,532 |

Harper County Assessed Valuation

Trends

Over the past 15 years nominal assessed valuation in Harper County has declined during most of the 1990s, but has reversed that trend slightly since 1999. Over that time period,

assessed valuation increased at an average annual rate of 0.7 percent. Since 1995, assessed valuation has increased at an annual rate of 2.3 percent. Over the last five years assessed valuation has increased at an average rate of 4.5 percent. Exhibit 9 shows nominal assessed valuation, appraised valuation, and property taxes for Harper County for the years 1980 through 2005.

When adjusted for inflation, assessed valuation in Harper County has declined significantly over the past 15 years. During that time period, real appraised valuation decreased at an average annual rate of 2.0 percent. Since 1995, real appraised valuation has decreased slightly at an annual rate of 0.2 percent. However, over the last five years real appraised valuation has increased at an average rate of 2.0 percent. Exhibit 10 shows real assessed valuation, appraised valuation, and property taxes for Harper County for the years 1980 through 2005.

Projections on Assessed Valuation

Again, three scenarios are presented. The pessimistic scenario assumes that total assessed valuation will not increase. The realistic scenario is premised on the assumption that total assessed valuation will continue to grow at a moderate 2.5 percent rate. This is in keeping with the long run growth rate in assessments that has been experienced in Harper County. The optimistic scenario is premised on the assumption that total assessed valuation will grow at a more robust 5 percent rate. Exhibit 13 shows projections of total assessed valuation for Harper County from 2002 through 2012 based on historical trends.

Exhibit 13

TOTAL ASSESSED VALUATION TRENDS Harper County, Kansas, 2002 - 2012

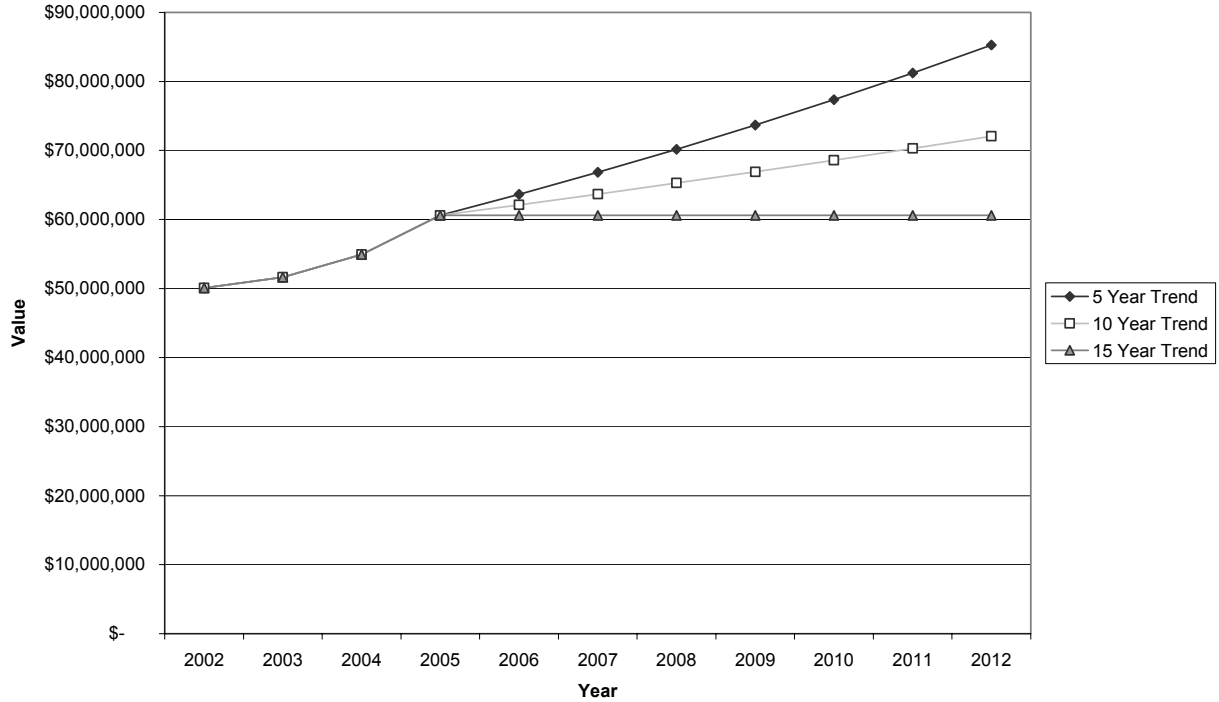


Exhibit 14 shows projections for total assessed valuation for Harper County for 2007 through 2012 based on the above assumptions.

Exhibit 14

TOTAL ASSESSED VALUATION PROJECTIONS Harper County, Kansas, 2007-2012

| Alternative Projections | Growth | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|-------------------------|--------|---------------|---------------|---------------|---------------|---------------|---------------|
| Optimistic | 5.0% | \$ 66,830,713 | \$ 70,172,249 | \$ 73,680,861 | \$ 77,364,904 | \$ 81,233,150 | \$ 85,294,807 |
| Realistic | 2.5% | \$ 63,686,184 | \$ 65,278,339 | \$ 66,910,297 | \$ 68,583,055 | \$ 70,297,631 | \$ 72,055,072 |
| Pessimistic | 0.0% | \$ 60,617,427 | \$ 60,617,427 | \$ 60,617,427 | \$ 60,617,427 | \$ 60,617,427 | \$ 60,617,427 |

Harper County Property Taxes

Trends

Over the past 15 years, property taxes in Harper County have generally trended upward, with property taxes increasing at an average annual rate of 2.3 percent. Since 1995, property

taxes have increased at an annual rate of 4.2 percent. Over the last five years, property taxes have increased at an average rate of 4.0 percent. Exhibit 9 (see page 12) shows nominal assessed valuation, appraised valuation, and property taxes for Harper County for the years 1980 through 2005.

When adjusted for inflation, property taxes in Harper County have actually declined over the past 15 years. During this time period real property taxes decreased at an average annual rate of 0.4 percent. However, since 1995 property taxes have increased at an annual rate of 1.8 percent. Over the last five years, property taxes have increased at an average rate of 1.7 percent. Exhibit 10 (see page 13) shows real assessed valuation, appraised valuation, and property taxes for Harper County for the years 1980 through 2005.

Factors Affecting Property Tax Trends

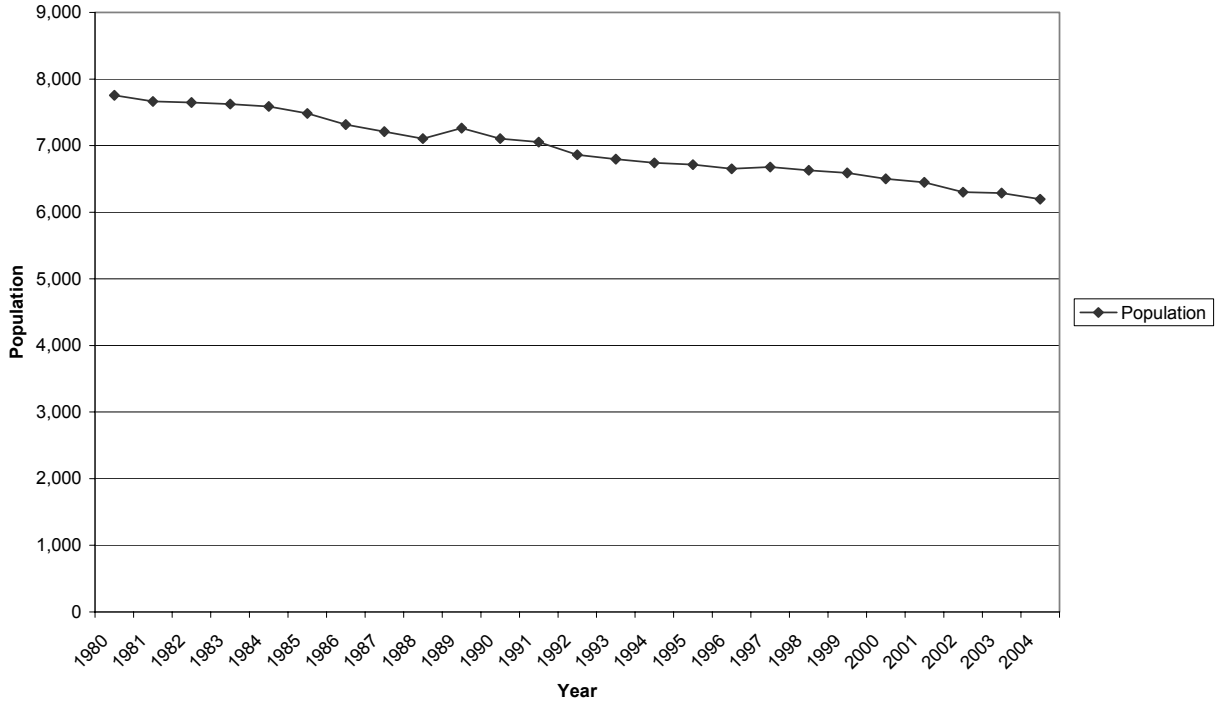
Three key determinants of property tax growth are population, income, and inflation. First, increases in population will increase the demand for both residential and commercial property. Second, increases in the level of income will increase the amount of resources available for purchases of property. Third, increases in prices resulting from inflation will increase property tax receipts because property taxes are computed on an *ad valorem* basis.

Population Trends

Over the past 25 years population in Harper County has declined significantly. From 1990 through 2004, population decreased at an annual rate of 0.9 percent, the same rate as the period from 1995 through 2004. Since 2000 population has decreased at an average annual rate of 1.2 percent. Exhibit 15 shows the trend in population in Harper County from 1980 through 2004.

Exhibit 15

POPULATION Harper County, Kansas, 1980-2004

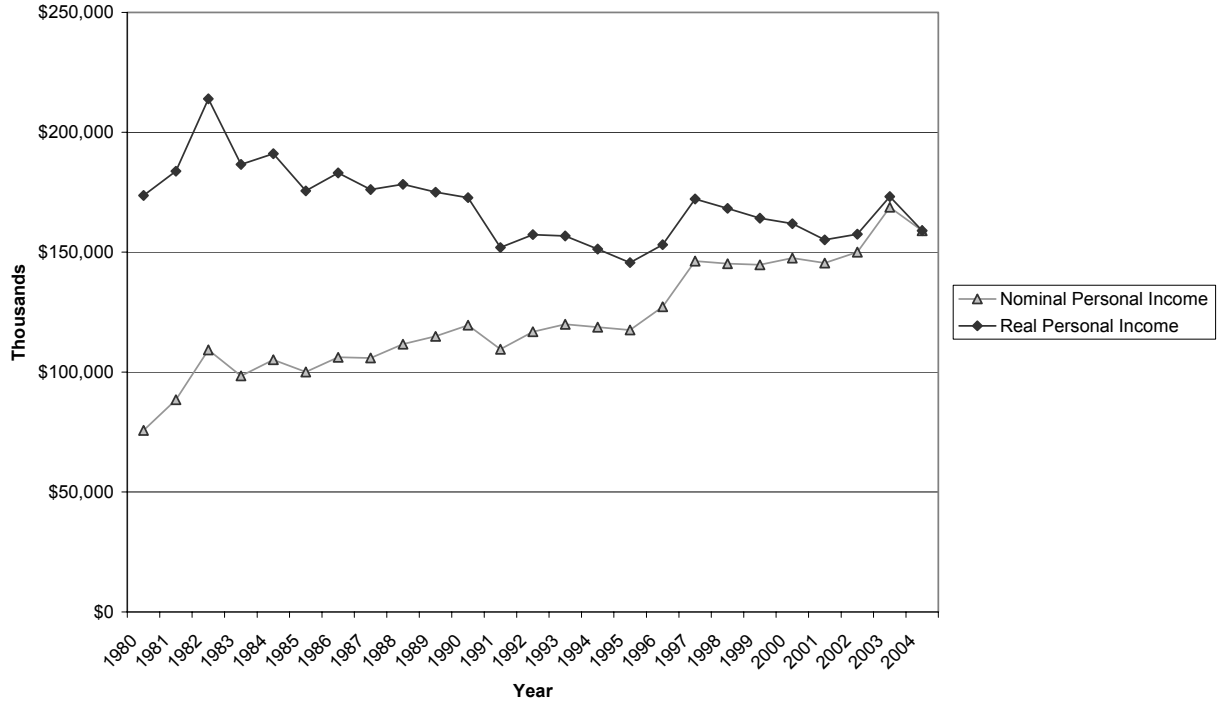


Income Trends

Personal income is defined as the income that is received by persons from participation in production, from both government and business transfer payments, and from government interest. It is calculated as the sum of wage and salary disbursements, other labor income, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and transfer payments to persons, less personal contributions for social insurance. The personal income of an area is the income that is received by, or on behalf of, all the individuals who live in the area; therefore, the estimates of personal income are presented by the place of residence of the income recipients.

Exhibit 16

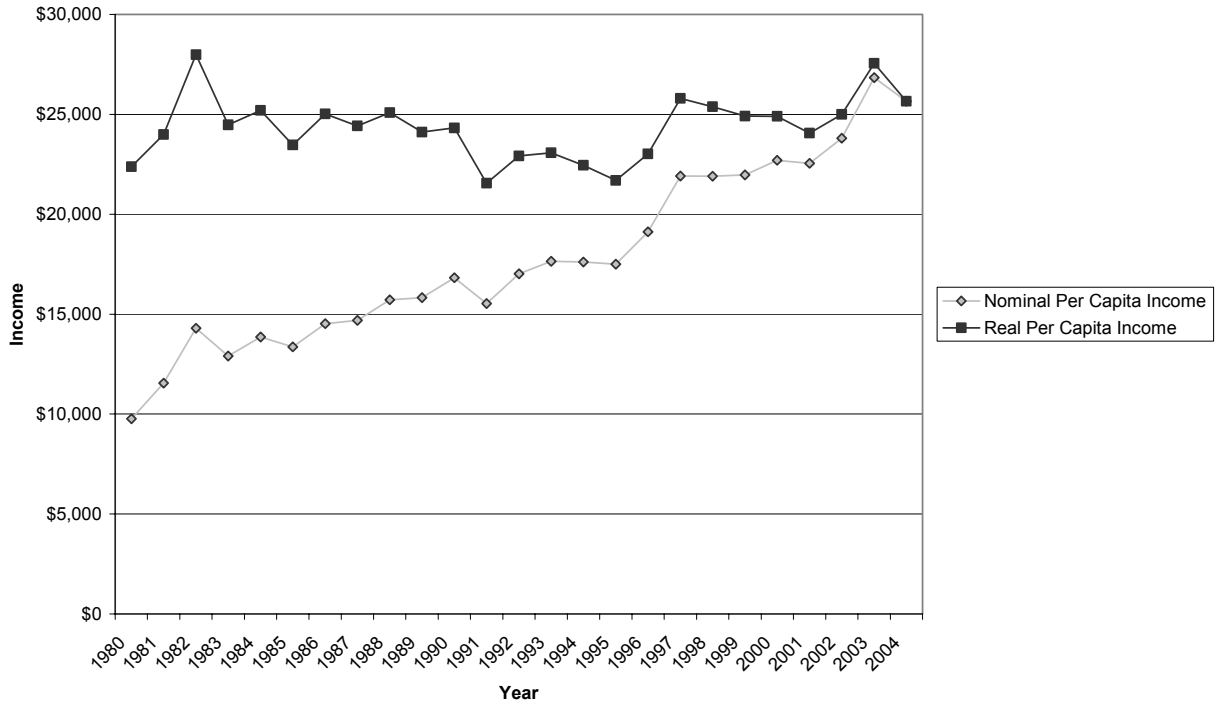
PERSONAL INCOME Harper County, Kansas, 1980-2004



During the period from 1990 through 2004 Harper County personal income increased at an average annual rate of 2.8 percent. Adjusted for inflation, personal income increased at a modest 0.2 percent rate over this same period. From 1995 through 2004 personal income increased at an average annual rate of 3.0 percent. Adjusted for inflation, personal income increased at a 0.6 percent rate over this period. Over the period from 2000 through 2004, income increased at an average annual rate of 3.8 percent. On a real basis income increased 1.7 percent over this time. Exhibit 16 presents Harper County personal income from 1980 through 2004.

Exhibit 17

PER CAPITA INCOME Harper County, Kansas, 1980-2004



During the period from 1990 through 2004, Harper County per capita income increased at an average annual rate of 3.7 percent. Adjusted for inflation, per capita income increased at 1.1 percent rate over this same period. From 1995 through 2004 per capita income increased at an average annual rate of 3.9 percent. Adjusted for inflation, per capita income increased at a 1.5 percent rate over this period. Over the period from 2000 through 2004, income increased at an average annual rate of 5.1 percent. On a real basis, income increased 2.9 percent over this time. Exhibit 17 presents Harper County per capita income from 1980 through 2004.

Inflationary Trends

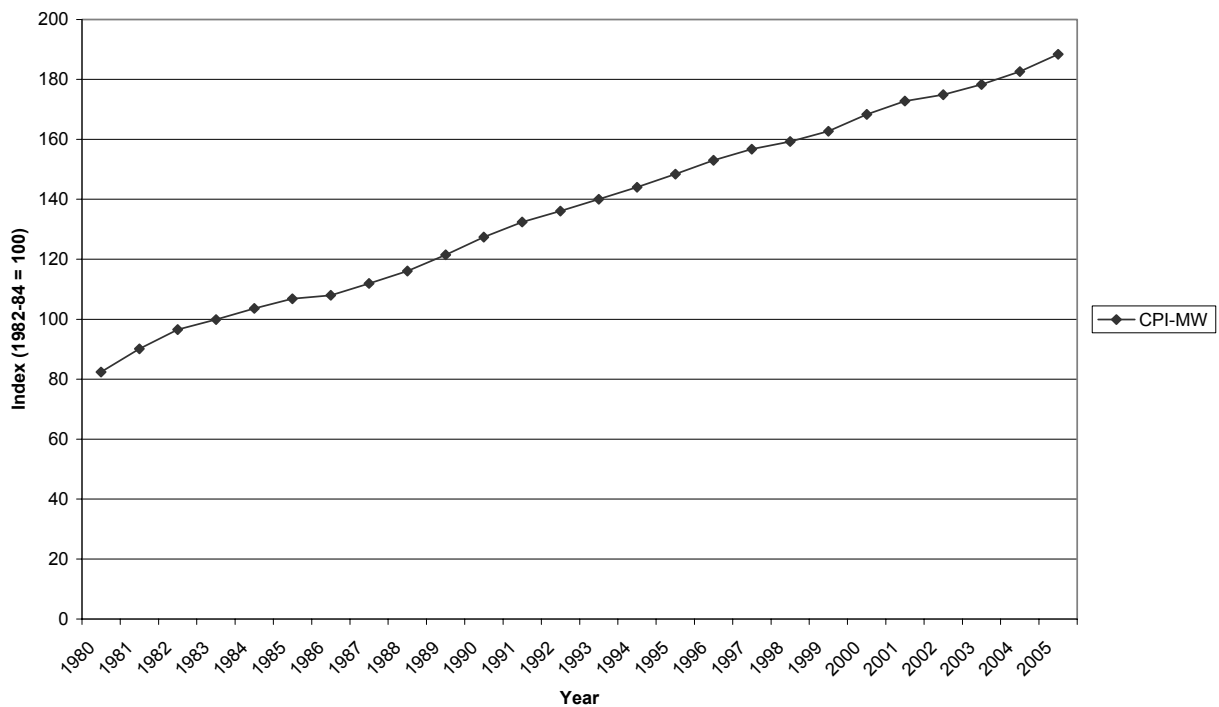
Inflation is defined as an increase in the overall level of prices in the economy. Because property taxes are based on a percentage of the value of the property, the level of inflation will have a significant effect on property tax receipts. A commonly used measure of inflation is the Consumer Price Index for All Urban Consumers (CPI-U). The CPI-U measures the average

price of consumer goods and services typically purchased by urban households. There are also CPIs computed for individual commodities and groups of commodities. In addition, there are CPIs tabulated on a regional basis. Exhibit 18 shows the Consumer Price Index for All Urban Consumers in the Midwest region.

During the period from 1990 through 2005 the CPI-U for Midwest consumers increased at an average annual rate of 2.6 percent. From 1995 through 2005, the Midwest index increased at an average annual rate of 2.3 percent. Over the period from 2000 through 2005 prices increased at an average annual rate of 2.1 percent. As a general rule, property values tend to grow at a level slightly above the inflation rate. Since the population and income levels in Harper County have been flat or declining historically, property values in the area will likely grow at a rate slightly below the rate of inflation.

Exhibit 18

**CONSUMER PRICE INDEX
Midwest Urban Consumers, 1980-2004**



The National Economy and the Business Cycle

The National Bureau of Economic Research (NBER) defines a recession as a period of significant decline in total output, income, employment, and trade, usually lasting from six months to a year and marked by widespread contractions in many sectors of the economy. The NBER is generally recognized as the official arbiter of when recessions begin and end. The National Bureau of Economic Research is a private, nonprofit, nonpartisan research organization dedicated to promoting a greater understanding of how the economy works. Since 1981, the NBER has identified three recessions. The first began in July of 1981 and lasted until November of 1982. The second began in July of 1990 and lasted until March of 1991. The most recent recession began in March of 2001.

Projections on Property Taxes

Again, three scenarios are presented. The pessimistic scenario assumes that total property taxes will not increase. The realistic scenario is premised on the assumption that total property taxes will continue to grow at a moderate 2.5 percent rate. This is in keeping with the long term growth rate of property taxes that has been experienced in Harper County. The optimistic scenario is premised on the assumption that total property taxes will grow at a more robust 5 percent rate. Exhibit 19 shows projections of total property taxes for Harper County from 2002 through 2012 based on historical trends.

Exhibit 19

**TOTAL PROPERTY TAX TRENDS
Harper County, Kansas, 2002 - 2012**

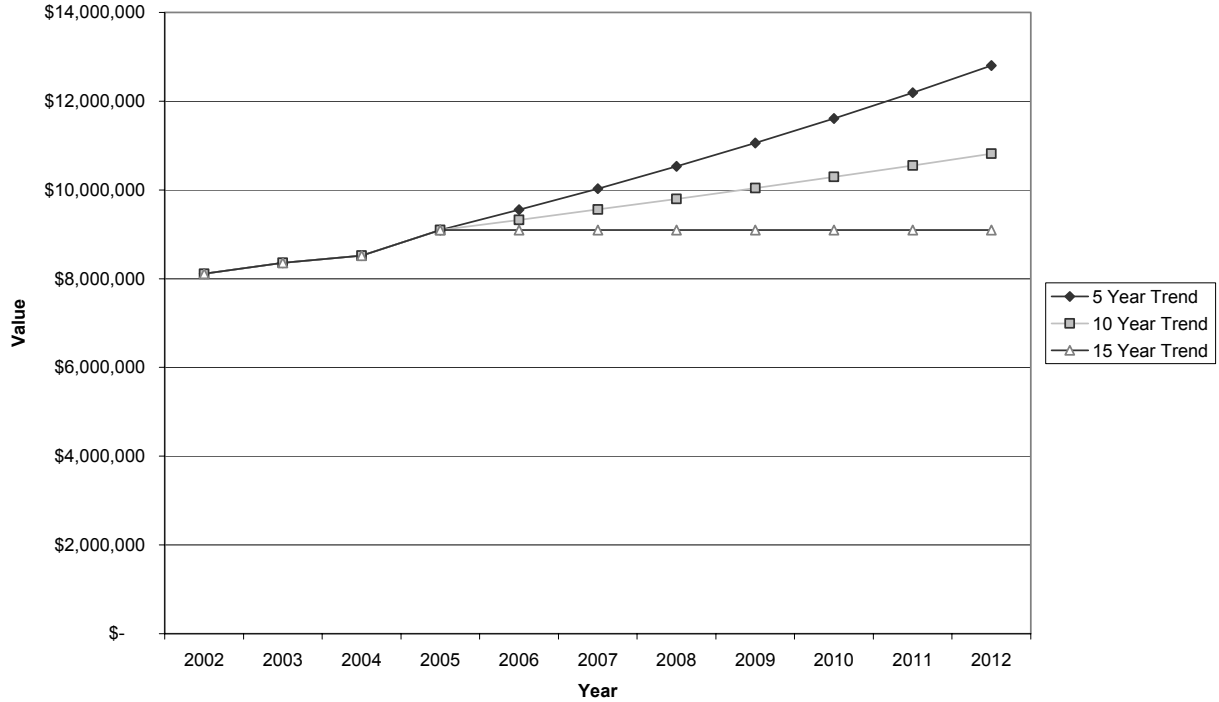


Exhibit 20 shows projections for total property taxes for Harper County for 2007 through 2012 based on the above assumptions.

Exhibit 20

**TOTAL PROPERTY TAXES
Harper County, Kansas, 2007-2012**

| Alternative Projections | Growth | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|-------------------------|--------|---------------|---------------|---------------|---------------|---------------|---------------|
| Optimistic | 5.0% | \$ 10,030,488 | \$ 10,532,012 | \$ 11,058,613 | \$ 11,611,543 | \$ 12,192,120 | \$ 12,801,726 |
| Realistic | 2.5% | \$ 9,558,532 | \$ 9,797,495 | \$ 10,042,432 | \$ 10,293,493 | \$ 10,550,830 | \$ 10,814,601 |
| Pessimistic | 0.0% | \$ 9,097,948 | \$ 9,097,948 | \$ 9,097,948 | \$ 9,097,948 | \$ 9,097,948 | \$ 9,097,948 |

Plumb Thicket Landfill Host Fees

Waste Connections

Waste Connections, Inc. (WCI) is an integrated solid waste services company that provides solid waste collection, transfer, disposal and recycling services mostly to secondary

markets in the Western and Southern United States. WCI serves more than one million residential, commercial and industrial customers from operations in 23 states (Alabama, Arizona, California, Colorado, Idaho, Illinois, Iowa, Kansas, Kentucky, Minnesota, Mississippi, Montana, Nebraska, New Mexico, Ohio, Oklahoma, Oregon, South Dakota, Tennessee, Texas, Utah, Washington and Wyoming). The company owns or operates a network of 114 solid waste collection operations, 36 transfer stations, 26 recycling operations, and 33 active landfills. In addition, WCI provides intermodal services for the rail haul movement of cargo containers in the Pacific Northwest through a network of six intermodal facilities (*2005 Annual Report*).

According to Waste Connections (*2005 Annual Report*):

We own solid waste landfills to achieve vertical integration in markets where the economic and regulatory environments make landfill ownership attractive. Where our operations are vertically integrated, we eliminate third party disposal costs and generally realize higher margins and stronger operating cash flows. The fees charged at disposal facilities, which are known as “tipping fees,” are based on market factors and take into account the type and weight or volume of solid waste deposited and the type and size of the vehicles used to transport waste.

Sedgwick County Solid Waste Stream

When Sedgwick County’s original plan was written in March 1997, municipal solid waste (MSW) generated in this county was taken to Brooks Landfill in Wichita, Kansas. The total amount of MSW generated in Sedgwick County in 1996 (calculated to exclude Construction & Demolition materials and special wastes) was reported as 463,647 tons or 1,277 tons per day (TPD) over 363 days. The total amount of material received at Brooks Landfill in 1996 was 1,571 TPD. Brooks Landfill closed on October 9, 2001 (Solid Waste Management Plan, 2003).

Beginning October 10, 2001, MSW generated in Sedgwick County was taken to Waste Connections Transfer Station in Wichita and then transferred to Red Carpet Landfill in Meno, Oklahoma. Another transfer station, operated by Waste Disposal, LLC located in Wichita, also began accepting MSW in August 2002. This material is currently transferred to Rolling Meadows Landfill in Topeka, Kansas. In 2002 the amount of MSW reported as being accepted

at the two transfer stations was 442,477 tons or 1,219 TPD over 363 days. This represents a reduction of 4.6 percent as compared to the calculated MSW tonnage at Brooks or a diversion of 22.4 percent from the total materials received at Brooks since the original Solid Waste Plan was written (Solid Waste Management Plan, 2003).

The two transfer stations in Sedgwick County are currently hold permits for a total of 2,100 tons per day. There is permit capacity for over 760,000 tons annually at the current transfer stations in Sedgwick County. In 2002, the two transfer stations combined received 442,477 tons, which is 58 percent of their capacity. There already exists excess capacity to handle the current and future MSW generated in Sedgwick County (Solid Waste Management Plan, 2003).

In 2005, the Kansas Department of Health and Environment (KDHE) approved a permit application from Waste Connections, Inc. for a landfill in an area known as “Plumb Thicket” in northeastern Harper County, approximately 40 miles southwest of Wichita. The landfill is located on land owned by Waste Connections, Inc. (KDHE Approves Permit, 2005).

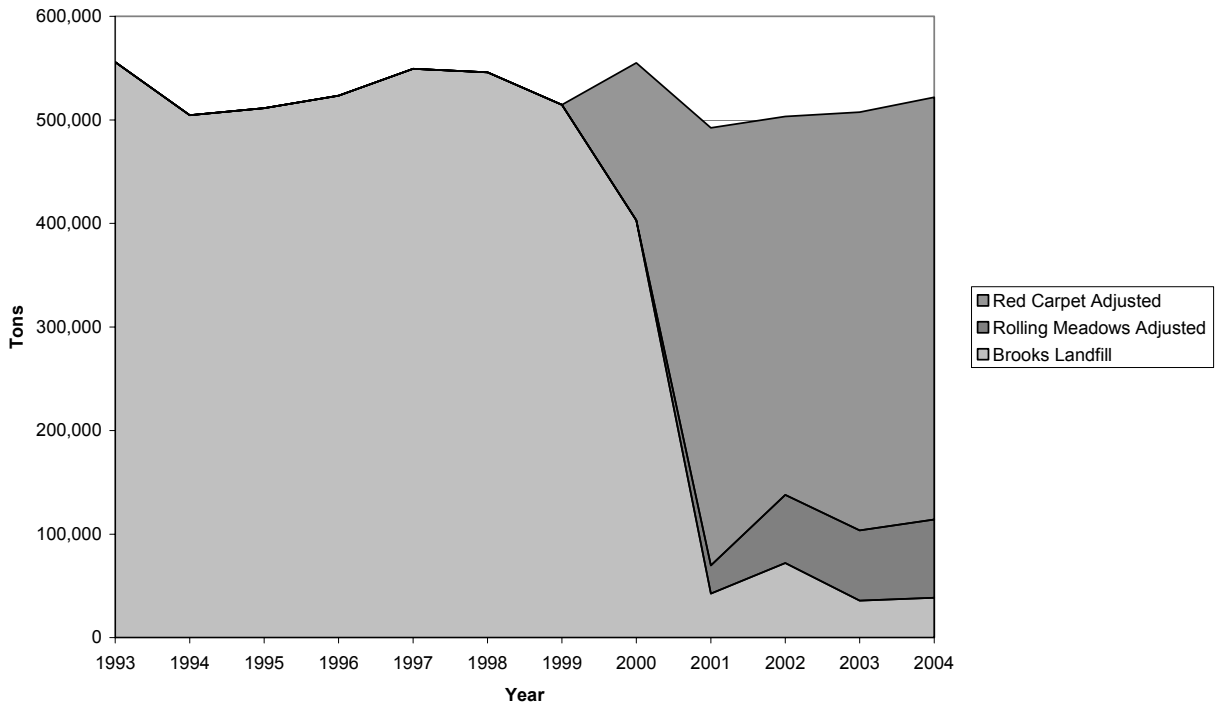
Trends

The vast majority of the solid waste to be disposed at Plumb Thicket Landfill will originate in Sedgwick County. Since the closure of Brooks Landfill in Sedgwick County for the disposal of municipal solid waste, most was transferred to Red Carpet Landfill in Meno, Oklahoma and Rolling Meadows Landfill near Topeka, Kansas. Most of the MSW that was previously transferred to the Red Carpet Landfill is now being transferred to the Plumb Thicket Landfill. Approximately 85 percent of the solid waste transferred out of Sedgwick County is transferred to the Plumb Thicket Landfill. Exhibit 21 shows the solid waste tonnage for Sedgwick County from 1994 through 2005. As can be seen from the graphic, the overall solid waste stream trended upward slightly during the middle 1990s, then declined toward to end of the decade, and began increasing again slightly during the early 2000s. During the period from 1995 through 2005, the Sedgwick County MSW stream decreased at an average annual rate of

0.2 percent. Over the period from 2000 through 2005, the waste stream decreased at an average annual rate of 0.8 percent. Overall, the trend during this period is essentially flat.

Exhibit 21

**SOLID WASTE TONNAGE
Sedgwick County, Kansas, 1994-2005**



Projections on Host Fees

Three alternative scenarios are presented. The pessimistic scenario assumes that the host fee rate will increase at a 2.0 percent annual rate, slightly less than the average CPU-MW growth rate, and that the solid waste tonnage will decrease by 1.0 percent annually, slightly less than the short term average. The realistic scenario is premised on the assumption that the host fee rate will increase at a 2.5 percent annual rate, approximately the long term average CPU-MW growth rate, and that the solid waste tonnage will remain constant. The optimistic scenario is premised on the assumption that the host fee rate will increase at a 3.0 percent annual rate, slightly higher than long term average CPU-MW growth rate, and that the solid waste tonnage

will increase by 1.0 percent annually, slightly above the long term average. In all of the scenarios, it is assumed that the “Base Gate Rate” will increase at least as rapidly as inflation. Therefore, it is unlikely that the capped “CPI Adjusted Rate” will come in to play since the overall inflation rate has not been below 1.5 percent since 1964. Exhibit 22 shows host fee projections for Plumb Thicket Landfill from 2002 through 2012 based on historical trends and alternative projections.

Exhibit 22
HOST FEE PROJECTIONS
Plumb Thicket Landfill, 2007-2012

| Assumption | Growth | Inflation | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|--------------------------------|--------|-----------|------------|------------|--------------|--------------|--------------|--------------|
| Rate | | | | | | | | |
| CPI-MW | | | | | | | | |
| 5-Year | 2.1% | | \$ 2.30 | \$ 2.35 | \$ 2.39 | \$ 2.45 | \$ 2.50 | \$ 2.55 |
| 10-Year | 2.3% | | \$ 2.30 | \$ 2.35 | \$ 2.41 | \$ 2.46 | \$ 2.52 | \$ 2.58 |
| 12-Year | 2.6% | | \$ 2.31 | \$ 2.37 | \$ 2.43 | \$ 2.49 | \$ 2.56 | \$ 2.62 |
| Tonnage | | | | | | | | |
| 5-Year | -0.8% | | 401,421 | 398,210 | 395,024 | 391,864 | 388,729 | 385,619 |
| 10-Year | -0.2% | | 406,292 | 405,479 | 404,668 | 403,859 | 403,051 | 402,245 |
| 12-Year | 1.0% | | 416,121 | 420,282 | 424,485 | 428,730 | 433,017 | 437,348 |
| Alternative Projections | | | | | | | | |
| Optimistic | 1.0% | 3.0% | \$ 947,174 | \$ 985,345 | \$ 1,025,055 | \$ 1,066,365 | \$ 1,109,339 | \$ 1,154,045 |
| Realistic | 0.0% | 2.5% | \$ 938,889 | \$ 962,361 | \$ 986,420 | \$ 1,011,080 | \$ 1,036,357 | \$ 1,062,266 |
| Pessimistic | -1.0% | 2.0% | \$ 936,087 | \$ 945,261 | \$ 954,525 | \$ 963,879 | \$ 973,325 | \$ 982,864 |

Plumb Thicket Landfill Property Taxes

There are four generally accepted approaches to assigning a value to a property: (1) the sales comparison approach, (2) the cost approach, (3) the income approach, and (4) the royalty approach.

Sales Comparison Approach

According to Ellsworth (1997) “[t]he sales comparison approach relies on the marketplace to establish the value of a facility.” Thus,

[t]he *objective* in the Market Approach is to predict the most probable selling price of the subject property. The *rationale* of the Market Approach is that a purchaser will usually not pay more for a property than he would be required to pay for a comparable alternative property (*principle of substitution*).

Furthermore, a seller will not take less than he can obtain elsewhere in the market. The *method* of the Market Approach is an empirical investigation in which the prediction of the most probable selling price is based on actual sales of comparable properties (Parvin, 1978).

Exhibit 23 shows property tax projections using the sales comparison approach for the Plumb Thicket Landfill for the years 2007 through 2012. Since 1990, land values in the South Central region have increased at an average annual rate of 2.5 percent. Between 1995 and 2005 land values increased at an average annual rate of 3.3 percent. Since 2000, land values in the South Central region have increased at average rate of 3.8 percent. Based on these trends three scenarios are presented. The baseline values for the projections are current property tax assessments based on agricultural use reported on the Treasurer' Tax Roll (Adelhardt, 2006). The pessimistic scenario assumes that the assessed value of the landfill property will increase 2.0 percent per year, which is slightly below the long term growth rate of agricultural land. The realistic scenario is premised on the assumption that the assessed value of the landfill property will continue to grow at a moderate 3.0 percent rate. This is in keeping with the long term growth rate in appraisals that has been experienced in the South Central region. The optimistic scenario is premised on the assumption that the assessed valuation of the landfill property will grow at a more robust 4.0 percent rate. Since the land is not being used for agricultural purposes, this approach probably grossly understates the value of the landfill.

Exhibit 23

PROPERTY TAX PROJECTIONS: MARKET APPROACH Plumb Thicket Landfill, 2007-2012

| Assumption | Growth | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|----------------------------------|--------|----------|----------|----------|----------|----------|----------|
| Sales Comparison Approach | | | | | | | |
| 5-Year | 3.8% | \$ 3,322 | \$ 3,449 | \$ 3,580 | \$ 3,716 | \$ 3,857 | \$ 4,004 |
| 10-Year | 3.3% | \$ 3,306 | \$ 3,416 | \$ 3,528 | \$ 3,645 | \$ 3,765 | \$ 3,889 |
| 15-Year | 2.5% | \$ 3,281 | \$ 3,363 | \$ 3,447 | \$ 3,533 | \$ 3,621 | \$ 3,712 |
| Property Tax Projections | | | | | | | |
| Optimistic | 4.0% | \$ 3,329 | \$ 3,462 | \$ 3,600 | \$ 3,744 | \$ 3,894 | \$ 4,050 |
| Realistic | 3.0% | \$ 3,297 | \$ 3,396 | \$ 3,498 | \$ 3,603 | \$ 3,711 | \$ 3,822 |
| Pessimistic | 2.0% | \$ 3,265 | \$ 3,330 | \$ 3,397 | \$ 3,465 | \$ 3,534 | \$ 3,605 |

Cost Approach

According to Ellsworth (1997): “In the cost approach, the cost of substituting an asset with another asset of comparable utility is examined. . . .”

In the “Cost Approach,” the property to be appraised is treated as a physical entity, separable for valuation purposes into site and improvements. Site value plus the present worth of the improvements provides an indication of the value of the property (O’Flaherty, 1978).

Exhibit 24 shows the producer price index for solid waste collection for the years 1994 through 2004. Over this time period costs for solid waste collection have trended upward at an average annual rate of 2.5 percent.

Exhibit 24

**PRODUCER PRICE INDEX
Solid Waste Collection, 1994-2004**

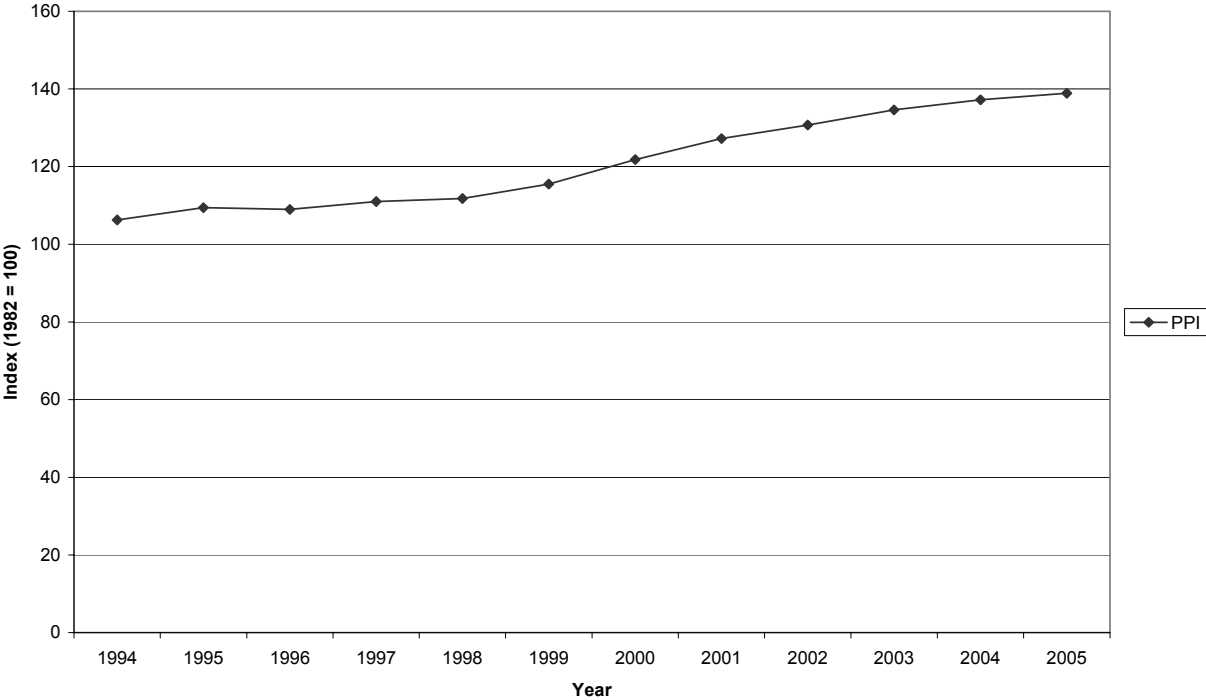


Exhibit 25 shows property tax projections using the cost approach for the Plumb Thicket Landfill for the years 2007 through 2012. The baseline values for the projections are unofficial property tax assessments based on commercial operations provided by the Harper County

Appraiser’s Office for the Harper County Board of Commissioners (And Now, 2002). The pessimistic scenario assumes that the assessed value of the landfill property will increase 2.0 percent per year, which is slightly below the long term growth rate of the cost of solid waste collection. The realistic scenario is premised on the assumption that the assessed value of the landfill property will continue to grow at a moderate 3.0 percent rate. This is in keeping with the long run growth rate of the cost of solid waste collection. The optimistic scenario is premised on the assumption that the assessed valuation of the landfill property will grow at a more robust 4.0 percent rate. Note that projected property taxes under this approach would remain under the “no-contest” cap of \$250,000 in the host agreement through at least 2009.

Exhibit 25

**PROPERTY TAX PROJECTIONS: COST APPROACH
Plumb Thicket Landfill, 2007-2012**

| Assumption | Growth | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---------------------------------|--------|------------|------------|------------|------------|------------|------------|
| Cost Approach | | | | | | | |
| 5-Year | 2.6% | \$ 224,143 | \$ 229,999 | \$ 236,007 | \$ 242,173 | \$ 248,499 | \$ 254,991 |
| 10-Year | 2.6% | \$ 224,065 | \$ 229,839 | \$ 235,761 | \$ 241,836 | \$ 248,067 | \$ 254,459 |
| 12-Year | 2.5% | \$ 223,999 | \$ 229,704 | \$ 235,554 | \$ 241,552 | \$ 247,703 | \$ 254,011 |
| Property Tax Projections | | | | | | | |
| Optimistic | 4.0% | \$ 227,174 | \$ 236,261 | \$ 245,712 | \$ 255,540 | \$ 265,762 | \$ 276,392 |
| Realistic | 3.0% | \$ 224,990 | \$ 231,740 | \$ 238,692 | \$ 245,853 | \$ 253,228 | \$ 260,825 |
| Pessimistic | 2.0% | \$ 222,806 | \$ 227,262 | \$ 231,807 | \$ 236,443 | \$ 241,172 | \$ 245,995 |

Income Approach

According to Cox (1978): “An investor purchases property for the benefits (income) that the property is expected to produce. . . .The Income Approach to value is a method of estimating the present value of anticipated income benefits.” Foreman (1978) has concluded that: “The only appropriate method of appraising a sanitary landfill is to arrive at the present worth of the income stream from operation of the landfill over its remaining economic and physical life. . .” The Supreme Court of Wisconsin considered the use of the income approach to valuing a landfill in Kenosha County, Wisconsin (*Waste Management v. Kenosha County*, 1994). Similarly the Supreme Court of Virginia considered the use of the income approach to

valuing a landfill in Chesterfield County, Virginia (*Shoosmith Brothers v. County of Chesterfield*, 2004).

Exhibit 26

PROPERTY TAX PROJECTIONS: INCOME APPROACH Plumb Thicket Landfill, 2007-2012

| Assumption | Growth | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|--------|---------------|---------------|---------------|---------------|---------------|---------------|
| Income Approach | | | | | | | |
| Rate | | | | | | | |
| CPI-MW | | | | | | | |
| 5-Year | 2.1% | \$ 38.80 | \$ 39.61 | \$ 40.44 | \$ 41.29 | \$ 42.16 | \$ 43.05 |
| 10-Year | 2.3% | \$ 38.87 | \$ 39.77 | \$ 40.68 | \$ 41.62 | \$ 42.58 | \$ 43.55 |
| 12-Year | 2.6% | \$ 38.99 | \$ 40.00 | \$ 41.04 | \$ 42.11 | \$ 43.20 | \$ 44.33 |
| Tonnage | | | | | | | |
| 5-Year | -0.8% | 401,421 | 398,210 | 395,024 | 391,864 | 388,729 | 385,619 |
| 10-Year | -0.2% | 406,292 | 405,479 | 404,668 | 403,859 | 403,051 | 402,245 |
| 12-Year | 1.0% | 416,121 | 420,282 | 424,485 | 428,730 | 433,017 | 437,348 |
| Revenue Trends | | | | | | | |
| 5-Year | -0.8% | \$ 15,574,346 | \$ 15,774,196 | \$ 15,976,610 | \$ 16,181,622 | \$ 16,389,265 | \$ 16,599,572 |
| 10-Year | -0.2% | \$ 15,794,193 | \$ 16,125,145 | \$ 16,463,031 | \$ 16,807,997 | \$ 17,160,192 | \$ 17,519,767 |
| 12-Year | 1.0% | \$ 16,223,735 | \$ 16,812,007 | \$ 17,421,611 | \$ 18,053,318 | \$ 18,707,932 | \$ 19,386,281 |
| Projections of Gross Revenues | | | | | | | |
| Optimistic (Inflation = 3.0%) | 1.0% | \$ 17,422,172 | \$ 19,739,321 | \$ 22,364,651 | \$ 25,339,150 | \$ 28,709,257 | \$ 32,527,588 |
| Realistic (Inflation = 2.5%) | 0.0% | \$ 15,856,785 | \$ 16,253,204 | \$ 16,659,535 | \$ 17,076,023 | \$ 17,502,923 | \$ 17,940,497 |
| Pessimistic (Inflation = 2.0%) | -1.0% | \$ 15,809,476 | \$ 15,964,408 | \$ 16,120,860 | \$ 16,278,844 | \$ 16,438,377 | \$ 16,599,473 |
| Projections of Net Income (Expenses = 75%) | | | | | | | |
| Optimistic | | \$ 4,355,543 | \$ 4,934,830 | \$ 5,591,163 | \$ 6,334,787 | \$ 7,177,314 | \$ 8,131,897 |
| Realistic | | \$ 3,964,196 | \$ 4,063,301 | \$ 4,164,884 | \$ 4,269,006 | \$ 4,375,731 | \$ 4,485,124 |
| Pessimistic | | \$ 3,952,369 | \$ 3,991,102 | \$ 4,030,215 | \$ 4,069,711 | \$ 4,109,594 | \$ 4,149,868 |
| Projections of Property Taxes | | | | | | | |
| Optimistic | | \$ 1,196,287 | \$ 1,349,077 | \$ 1,520,489 | \$ 1,712,543 | \$ 1,927,405 | \$ 2,167,372 |
| Realistic | | \$ 1,088,801 | \$ 1,110,820 | \$ 1,132,620 | \$ 1,154,081 | \$ 1,175,064 | \$ 1,195,408 |
| Pessimistic | | \$ 1,085,552 | \$ 1,091,082 | \$ 1,095,997 | \$ 1,100,204 | \$ 1,103,596 | \$ 1,106,053 |

Exhibit 26 shows property tax projections using the income approach for the Plumb Thicket Landfill for the years 2007 through 2012. The pessimistic scenario assumes that the “base gate rate” will increase at a 2.0 annual rate and that tonnage will decrease at a 1.0 percent annual rate. These rates are slightly below their historic rates of change. The realistic scenario is premised on the assumption that the rate will increase at a 2.5 percent rate, while tonnage will remain constant. This is in keeping with the long run historic rates. The optimistic scenario is premised on the assumption that the rate will increase 3.0 percent annually and that tonnage will increase 1.0 percent annually. These rates are slightly above their historic trends.

Property taxes were projected based on the assumption that expenses are approximately 75 percent of gross revenues. This assumption is based on Waste Connections’ financial statement (*2005 Annual Report*). The value of the net income stream was capitalized

using a rate of 12.0 percent for 30 years, again, based on data from the WCI financial statement (*2005 Annual Report*). Property taxes were computed using an assessment ratio of 25.0 percent for commercial property and a mill rate of 136.956. Note that projections using this approach will significantly exceed the no-contest provision of the host agreement.

Royalty Approach

Alternatively, the value of a landfill may be determined using the royalty approach. The royalty approach to valuation uses a combination of the comparative sales and income approaches. In the royalty approach the objective is:

to establish the rental [royalty] that a tenant utilizing the premises to its highest and best use, is warranted in paying. These market rental [royalty] estimates, based on the principle of anticipation, are projections relating to the reasonably foreseeable future (Cox, 1978).

Karvel and Patchin (1992) have concluded that using the income approach alone overvalues on-going businesses because the going-concern value of the business “should be recognized as a value separate and distinct from the value of the real property with which it is associated.”

According to Foreman (1978): “A landfill may be leased to an operator, typically on some percentage of the gross income, ranging from 20% to 30%, usually with the lessee paying all expenses.” The Jefferson County, Kansas Appraiser has used a 12.5 percent royalty rate to value the Hamm Landfill (Wagner, 2006). Jerry Jones, “an expert in the area of appraisal of sanitary landfills,” retained by BFI Waste Systems, has used a 10.0 percent royalty rate to value a sanitary landfill site in Missoula County, Montana (*Ostergren v. Department of Revenue*, 2000). Jones also propounded the use of royalty approach for a landfill in Gregg County, Texas (*Gregg County v. Laidlaw Waste Systems*, 1995).

Exhibit 27

PROPERTY TAX PROJECTIONS: ROYALTY APPROACH Plumb Thicket Landfill, 2007-2012

| Assumption | Growth | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|-------------------------------|--------|--------------|--------------|--------------|--------------|--------------|--------------|
| Royalty Approach | | | | | | | |
| Royalty Rate (12.5%) | | | | | | | |
| Optimistic (Inflation = 3.0%) | 1.0% | \$ 2,177,772 | \$ 2,467,415 | \$ 2,795,581 | \$ 3,167,394 | \$ 3,588,657 | \$ 4,065,948 |
| Realistic (Inflation = 2.5%) | 0.0% | \$ 1,982,098 | \$ 2,031,651 | \$ 2,082,442 | \$ 2,134,503 | \$ 2,187,865 | \$ 2,242,562 |
| Pessimistic (Inflation =2.0%) | -1.0% | \$ 1,976,184 | \$ 1,995,551 | \$ 2,015,107 | \$ 2,034,856 | \$ 2,054,797 | \$ 2,074,934 |
| Property Tax Projections | | | | | | | |
| Optimistic | | \$ 598,144 | \$ 674,539 | \$ 760,245 | \$ 856,272 | \$ 963,702 | \$ 1,083,686 |
| Realistic | | \$ 544,400 | \$ 555,410 | \$ 566,310 | \$ 577,040 | \$ 587,532 | \$ 597,704 |
| Pessimistic | | \$ 542,776 | \$ 545,541 | \$ 547,999 | \$ 550,102 | \$ 551,798 | \$ 553,026 |

Exhibit 27 shows property tax projections using the royalty approach for the Plumb Thicket Landfill for the years 2007 through 2012. The pessimistic scenario assumes that the “base gate rate” will increase at a 2.0 annual rate and that tonnage will decrease at a 1.0 percent annual rate. These rates are slightly below their historic rates of change. The realistic scenario is premised on the assumption that the rate will increase at a 2.5 percent rate, while tonnage will remain constant. This is in keeping with the long run historic rates. The optimistic scenario is premised on the assumption that the rate will increase 3.0 percent annually and that tonnage will increase 1.0 percent annually. These rates are slightly above their historic trends.

Property taxes were projected based on a royalty rate of 12.5 percent of gross revenues. The value of the royalty stream was capitalized using a rate of 12.0 percent for 30 years, again, based on data from the WCI financial statement (*2005 Annual Report*). Property taxes were computed using an assessment ratio of 25.0 percent for commercial property and a mill rate of 136.956. Note that projections using this method will also exceed the no-contest clause of the host agreement.

Risks to Projections

Overall it must be remembered that the accuracy of the projections is dependent on the validity of the assumptions underlying the projections. Although local economies tend to behave in a consistent fashion over time, unforeseen changes and circumstance

do frequently occur. It is impossible to anticipate these events with any certainty into the future.

Finally, it must be kept in mind that the projections are premised on certain assumptions coming to pass in the future and that the nature of future trends will reflect past trends. The extent to which the future conforms to these assumptions will determine the relative accuracy of these projections. Also, it should be noted that although the mathematics of the computations imply a high level of precision, a projection of \$1,234.567.89 may be more realistically interpreted as an estimate of about \$1.2 million.

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