ECONOMIC IMPACT REPORT

THE EFFECTS OF THE CONSTRUCTION, OPERATION AND FINANCING OF NEW SPORTS STADIA ON CINCINNATI ECONOMIC GROWTH

prepared by

The Center for Economic Education
University of Cincinnati

for the

Hamilton County Administrator

January 2, 1996

THE EFFECTS OF THE CONSTRUCTION, OPERATION AND FINANCING OF NEW SPORTS STADIA ON CINCINNATI ECONOMIC GROWTH

PRINCIPLE AUTHORS

Lee Cerveny, Center for Economic Education
Marie Haney, Center for Economic Education

PROJECT DIRECTOR

George Vredeveld, Ph.D., Center for Economic Education

CONTRIBUTORS

Debra Featherston, Department of Economics, University of Cincinnati
Brian Lin, Center for Economic Education

SUMMARY

THE EFFECTS OF THE CONSTRUCTION, OPERATION AND FINANCING OF NEW SPORTS STADIA ON CINCINNATI ECONOMIC GROWTH

The Hamilton County Commissioners have proposed a strategy for subsidizing the construction and operation of two new stadia for the Cincinnati Reds and the Cincinnati Bengals. Submitted in 1995, the proposal recommends a County sales tax increase to finance the two stadia as well as other public goods. This report examines the effects of the proposed tax increase to understand how much will be raised and who will be affected most by the tax plan. In addition, the effects of the construction and operation of two stadia upon regional economic growth are investigated. The additional tax burden represented by the stadia are weighed against the stadia's contribution to regional economic growth.

NET EFFECT OF FINANCE PROPOSAL

The increase in the sales tax rate from 5.5 percent to 6.5 percent (0.5 percent to 1.5 percent for Hamilton County) will increase 1996 tax revenue by $98.7 million. Total sales tax revenue collected by Hamilton County with the 6.5 percent rate will be $149 million.

The net effect of the increase in the sales tax rate coupled with a $41 million rollback in property taxes is that each household in Hamilton County will face an additional average tax burden of $31 per year for two new stadia, a new jail, expanded expenditures for public safety services and residential housing programs, a reduction in the real estate transfer tax, and a reduction in property taxes. When stadia-only expenditures along with the property tax rollback are considered, there is a net gain to Hamilton County households averaging $1 per year.

Net Effect on Hamilton County Households 1 Percentage Point Increase		
Increase in Hamilton County revenue	$	98,704,228
Increase in sales tax burden to Hamilton County	$	51,521,801
Property tax relief to Hamilton County	$	40,962,255
Total burden to Hamilton County	$	10,559,547
Net burden per household per year	$	31
Net benefit for stadia only expenditures	$	1

If another proposal is adopted and a one half percentage point increase in the sales tax rate is used to finance Reds and Bengals stadia construction (70 percent of revenue) and property tax reduction (30 percent of revenue), the net burden to Hamilton County households will be $33 per year.

Net Effect on Hamilton County Households 1/2 Percentage Point Increase	
Increase in sales tax burden to Hamilton County	$ 26,157,222
Property tax relief to Hamilton County	$ 14,805,634
Total burden to Hamilton County	$ 11,351,588
Net burden per household per year	$ 33

NET EFFECTS BY RESIDENCE

Property tax abatement is estimated to total $41 million. The property tax relief will be directed toward Hamilton County homeowners exclusively.

Households in Hamilton County will pay 55 percent of the sales tax. Other residents of the Greater Cincinnati area will pay 36 percent of the tax, and persons outside of the region will pay 9 percent of the tax. The distribution of the sales tax burden is as follows:

Distribution of Sales Tax Burden According to Place of Residence	Sales Tax Increase from 5.5% to 6.5%	
	$ Amount (millions)	Percent of Total
Hamilton County Consumers	$ 49.3	53%
Hamilton County Owners, Employees and Shareholders of Hamilton County Businesses	$ 2.2	2%
Greater Cincinnati, non-Hamilton County Residents	$ 33.6	36%
Residents from Outside Greater Cincinnati	$ 8.8	9%

NET EFFECTS BY INCOME LEVEL

The net effects by income level are determined by looking at two definitions of income. Average lifetime income is considered because people move across income classes over their lifetime. A young adult often starts out in a low income class, then moves to a higher income class during middle age, and back down to a low class when retirement is reached. Average lifetime income accounts for expenditures that are based on a person's income expectations, not just their current income level. However, a more observable income measure, current annual income, is also used to determine the impact of the sales tax on current members of Hamilton County income groups.

The tax restructuring plan will decrease the tax burden for nearly all Hamilton County homeowners. However, because they do not receive benefits from the property tax rollback, all Hamilton County renters will face a higher tax burden. As a percentage of their annual income, Hamilton County households in the lowest income groups will face a higher tax burden than households in the higher income groups. However, when average lifetime income is considered, the burden is relatively constant across income levels. Because the probability of home ownership increases with income levels, 41 percent of those in the lowest income group will receive property tax relief, while 87 percent of households in the highest income group will face lower property tax burdens.

STADIA CONSTRUCTION

The construction of stadia for the Cincinnati Reds and the Cincinnati Bengals will signify a one-time economic boon of over $1.1 billion for the Cincinnati region. On average, this equals $1,537 per Greater Cincinnati household. Total estimated cost for the stadia project is $520 million. An estimated $467 million in local spending is projected to generate $663 million in additional economic activity for businesses and households. Cincinnati households will gain a total of $373 million in the form of earnings. To meet the increases in demand that will result across all industries in the Cincinnati region, 18,461 jobs will be supported in all area industries.

IMPACT OF NEW STADIA

The economic impact of the annual operations and visitor spending associated with the two new stadia is estimated to be $296 million. Total spending in the local economy as a result of new stadia operations and visitor spending is expected to exceed $170 million. As a result, $91 million will enter the homes of area households in the form of earnings. The projected number of jobs supported by the new stadia is 6,883, a 20 percent increase from jobs supported currently by Riverfront operations. These estimates are based on projections from Riverfront spending and observations of new stadia.

Total Economic Impact of New Stadia						
		Operations		Visitors		Total
Local Spending	$	114,410,730	$	56,262,462	$	170,673,193
Indirect Impact	$	69,233,207	$	55,859,258	$	125,092,465
Total Economic Impact	**$**	**183,643,937**	**$**	**112,121,721**	**$**	**295,765,657**
Household Impact	$	56,530,354	$	34,310,295	$	90,840,648
Jobs		4,087		2,796	$	6,883

ECONOMIC LOSS DUE TO REDS AND BENGALS RELOCATION

In addition to attracting new spending into the area, the operations of the Reds and Bengals teams keeps some spending from leaving the area. Many fans from cities without professional sports come to Cincinnati for Reds and Bengals games. An estimated $32 million would leave the Cincinnati area due to Cincinnati fans traveling outside the region for sports games if the Reds and Bengals did not operate in Cincinnati.

BENEFITS TO INDUSTRIES

A number of Cincinnati industries will benefit significantly from the stadia. Hotels and amusements top the list with over $162 million generated in that industry alone. Riverfront stadium currently generates $133 million of business activity in the hotel and amusements area. Real estate, retail trade, and food producers are also impacted.

TAX IMPACTS

In total, the region will benefit from approximately $5.6 million each year in local taxes generated directly by users of the stadia and visitors to the region. Currently, $4.6 million in local taxes are collected from stadia related activities.

TOURISM

The total direct spending in the local economy by visitors amounts to over $45 million per year. On average, 50 percent of the Reds and Bengals patrons at each game in Riverfront Stadium are from out-of-town. Thus, more than 1.6 million out-of-town visitors come to Reds and Bengals games each year. This is nearly equal to the total population of the Greater Cincinnati area. Among out-of-town fans, 23 percent stayed overnight in the Cincinnati area, and 59 percent went to a Cincinnati area establishment either before or after the game. The total direct spending by visitors with the operations of two new stadia is projected to total more than $56 million.

TABLE OF CONTENTS

Appendices

Introduction

This report sets out to analyze economic effects of the financing, construction and operation of two stadia for Cincinnati's professional sports teams. The costs of public financing of the two new stadia for the Cincinnati Reds and Cincinnati Bengals will be compared with the effects of the sports teams on regional economic growth. Part 1 focuses on the financing plan proposed by Hamilton County. The effects of the sales tax increase coupled with a property tax reduction are analyzed and discussed. In particular, the questions of "Who will pay for the stadia?" and "How much will they pay?" are addressed. In Part 2, the economic impacts of stadia construction and operation are considered. This section will demonstrate the contribution of the stadia to regional economic growth. Finally in Part 3, other benefits of the stadia along with additional burdens and benefits associated with maintaining Cincinnati as the home of the Reds and Bengals will be considered.

About the Research

This research was conducted by the University of Cincinnati's Center for Economic Education in cooperation with the University's Institute for Policy Research. Economic data and background literature were collected and analyzed by the Center for Economic Education with help from numerous agencies and firms both locally and nationally.[1] The Institute for Policy Research (IPR) conducted more than 640 surveys of fans of the Cincinnati Reds and Cincinnati Bengals[2]. In addition, the IPR conducted a survey of automobiles in parking lots of shopping areas to understand residence of consumers. Telephone interviews with numerous sports professionals nationwide helped the research team provide an objective, unbiased analysis of the economic effects of the proposed stadium plan.

---

[1] See Appendices V and VI for complete listing of data sources.
[2] For a complete description of survey methodology and survey guide, see Appendices III and IV.

Part I. Economic Burden of the Stadia and Sports Teams to the Cincinnati Community

1. SALES TAX PROPOSAL

The sales tax proposal being analyzed is an increase in the sales tax rate from 5.5 percent to 6.5 percent (the Hamilton County rate increases from 0.5 percent to 1.5 percent). The analysis of the sales tax proposal is divided into two sections: the tax revenue that will be generated from the new rate, and the issue of who will pay the sales tax. [1]

A. Revenue Generated by the Sales Tax Proposal

An increase in the Hamilton County sales tax rate of one half percentage point will generate an additional $49.4 million in tax revenues for the year 1996. If the rate increases one percentage point (two half-cent increases are implemented), revenues will increase by $98.7 million.[A] The percentage increase in the tax rate will not result in an equal percentage increase in revenue; with the higher tax rate, there will be a modest decrease in sales of taxable goods. Tax revenues that go to the State will actually fall since their tax rate (5%) is unchanged and there is some decrease in quantity sold.

Studies show that with a one percent increase in the sales tax rate, tax revenues increase from 0.89 to 0.98 percent.[2] The difference depends on a number of factors, such as how much of the tax is passed to consumers, the competitiveness of the economy, transportation costs to lower-tax areas, the types of products taxed and consumer perceptions of tax differences. We assume that the effect of a tax increase occurs somewhere in the middle -- a one percent increase in the tax rate will increase tax revenue by 0.94 percent.[3]

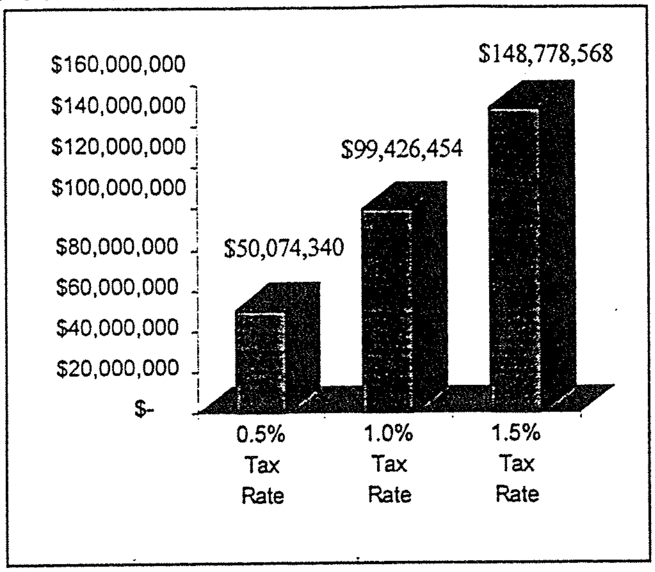
---

[1] The superscript letters will guide the reader to technical notes located on page 29 in the back of the report.

[2] See: Fisher, Ronald C.; 1980.

[3] The total decrease in State tax revenues is estimated to be $4.8 million. The total increase in Hamilton County receipts is estimated to be $98.7 million. Taken together, the increased tax burden is $93.9 million which is consistent with a .94 percent increase for every one percent increase in the tax rate.

1996 Total Sales Tax Revenue to Hamilton County



B. Who Pays the Sales Tax

In determining who will pay the Hamilton County sales tax, both the burden of the tax by residence and by income level are considered. The areas of residence are: Hamilton County, counties within the Cincinnati CMSA except Hamilton County, and residents outside of Greater Cincinnati.[4] Sales taxes are initially faced by consumers and businesses, but businesses shift their part of the tax on to households ("indirect" taxes). It is assumed that the tax shift to households occurs through two methods: by higher prices on goods and services (shift to consumers) and by lower business profits or wages (shift to owners, employees and shareholders).

I. Analysis of the Burden of the Sales Tax by Residence

The burden of the sales tax by place of residence was determined by estimating the taxable goods sold by Hamilton County retailers to Hamilton County residents.[B] Dividing this by total taxable sales of Hamilton County businesses gives us the percentage of the sales tax that was paid by Hamilton county residents.[C] All sales tax information was provided by Hamilton County and the Ohio Department of Taxation.[D]

---

[4] The Cincinnati CMSA consists of the following Ohio, Kentucky and Indiana counties: Ohio: Hamilton, Brown, Butler, Warren, Clermont; Kentucky: Boone, Campbell, Kenton, Grant, Gallatin, Pendleton; Indiana: Dearborn and Ohio.

Hamilton County 1994 Sales Tax Revenue		
Retail Sales Tax Revenue	$	35,107,139
Use Tax Revenue	$	9,717,772
Services Tax Revenue	$	1,708,652
Other	$	638,568
Total	$	**47,172,131**

Ratio of Hamilton County Expenditures on Taxable Items to Hamilton County Sales of Taxable Items	
Estimated Expenditures by Hamilton County Residents on Hamilton County Retail Goods:	$ 2,564,980,436
Taxable Retail Sales in Hamilton County:	$ 7,021,427,800
Ratio of Hamilton County Expenditures to Hamilton County Sales:	37%

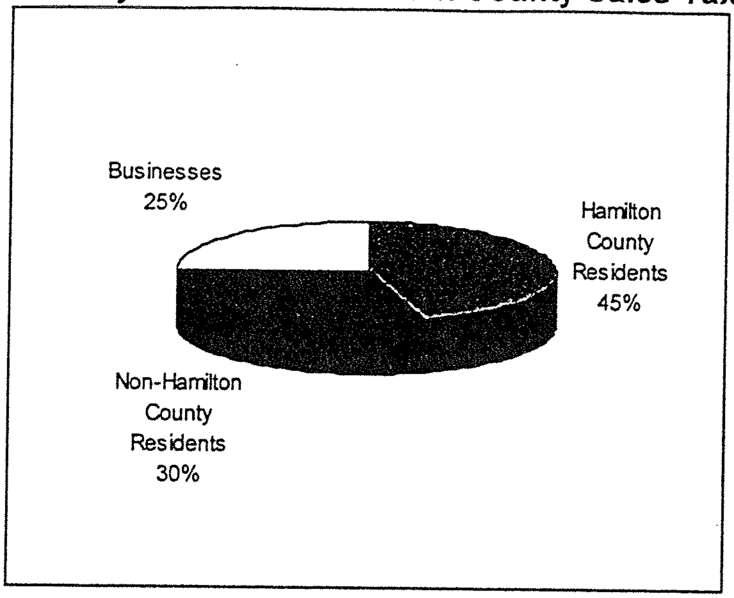
Expenditures by Hamilton County residents on Hamilton County retail goods are estimated at $2.6 billion for 1994 -- 37 percent of the total amount of Hamilton County retail sales.

Taxes on retail goods account for 74 percent of the total sales taxes received by the County. The remaining 26 percent includes use and services taxes, adjustments, assessments, fees and refunds. Use and services taxes have the same tax rate as the retail sales tax in Hamilton County. All use taxes, adjustments and assessments are paid by residents and businesses of Hamilton County (included in use taxes are the sales of motor vehicles, which are taxed according to place of residence).

Tax Revenue		Hamilton Residents		Non-Hamilton Residents		Hamilton Businesses
Retail Tax	$	12,824,902	$	13,505,452	$	9,942,338
Use Tax	$	7,288,329	$	-	$	1,263,890
Service Tax	$	624,183	$	657,306	$	427,163
Other	$	478,926	$	-	$	159,642
Total	$	**21,216,341**	$	**14,162,758**	$	**11,793,033**

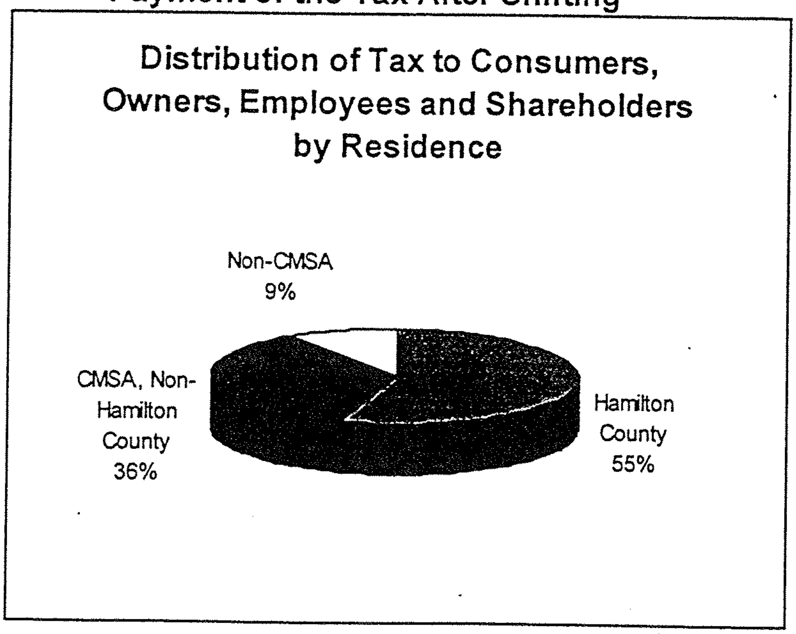
In total, Hamilton County consumers pay 45 percent of the Hamilton County sales tax, businesses pay 25 percent and non-Hamilton County consumers pay 30 percent. E

Initial Payment of the Hamilton County Sales Tax



The above signifies the direct taxes paid by the different economic units. We assume that Hamilton County businesses ultimately pass all sales taxes to households. Specifically, businesses shift 50 percent of the sales tax to consumers in the form of higher prices on goods and services (this becomes the "indirect" tax faced by the consumer). An additional 25 percent is exported out of the region where the burden of the tax is faced by non-Greater Cincinnati consumers. The remaining 25 percent is passed on to business owners, employees and shareholders.[F] This shifting process accounts for the following distribution:

Payment of the Tax After Shifting



Results from an Automobile Survey at Area Shopping Centers

An analysis of the proportion of shoppers in area shopping centers by residence was completed. Automobile license plates in parking lots and garages of a number of area shopping centers throughout Hamilton County were tabulated. A mixture of large malls and shopping plazas both downtown and in the suburbs were surveyed. The automobile license plate survey provides a litmus test against the proportions of incidence cited in this report by revealing information about the shopping characteristics of Hamilton and non-Hamilton County residents.

Percentage of Shoppers Based on Residence

	Percent from:		
Location:	Hamilton County	Other CMSA Counties	Outside CMSA
Downtown Shops	53%	26%	21%
Large Malls	61%	30%	9%
Strip Malls	77%	17%	6%
Average	**63.7%**	**24.3%**	**12.0%**

These results are very much in accordance with our findings. The average number of Hamilton County shoppers found in Hamilton County shopping centers is 64 percent. Although this is above the findings stated earlier, the results are easily explainable. With the shorter driving distance to shopping areas within their own county, Hamilton County residents will tend to go shopping more often and purchase fewer items per trip. This increases the probability of seeing a car from Hamilton County in a parking area, without suggesting that they actually purchase more goods and services. Furthermore, the business purchaser is less likely to drive to shopping centers than the non-business consumer.

Out of county shoppers found in Hamilton County consist predominantly of Butler, Clermont and Kenton counties. There was a higher shopping presence of Kentucky shoppers in Downtown Cincinnati compared to the other shopping areas. This testifies to the relationship between residence and shopping location proximity. Similarly, Butler County residents who border Forest Fair and Tri-County malls, have a much larger "mall" presence than in downtown or strip malls. Clermont County residents have a relatively high presence in the strip malls of Hamilton County that are in close proximity to eastern Cincinnati.[G]

Summary of Sales Tax Incidence by Residence

Hamilton County consumers bear 53 percent of the Hamilton County sales tax, while Hamilton County owners, employees and shareholders (OES) of Hamilton County businesses bear two percent. Together, this yields $151 spent per household each year in additional sales taxes.

Sales Tax Distribution on Hamilton County Residents and Businesses from an Increase in the Sales Tax Rate from 5.5% to 6.5% (1996)			
		Total Amount Paid	**Percent of Tax Paid**
Hamilton County consumers' share	**$**	**49,291,928**	53%
Direct	$	42,250,224	
Indirect	$	7,041,704	
Hamilton County OES share	**$**	**2,229,873**	2%
Tax paid per Hamilton County household	***$***	***151***	*55%*
Non-Hamilton County share	$	**42,367,586**	45%

ii. Analysis of the Burden of the Sales Tax by Income Level

The burden of the one percentage point increase in the Hamilton County sales tax rate may be analyzed by looking at how different income groups spend their money on taxable items. Information on the spending patterns of US households is gathered regularly by the Bureau of Labor Statistics through its *Consumer Expenditure Surveys* (CES). The surveys use both interview and diary methods, and reflect the most comprehensive estimates of household expenditures from national samples of approximately 30,000 households.

Income, Expenditures and Taxes

		Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%
1	Average income level	$ 6,669	$ 16,155	$ 27,951	$ 43,953	$ 90,839
2	**Total sales taxes paid, 1994**	$ 234	$ 363	$ 522	$ 731	$ 1,097
3	As a percent of total expenditures	1.7%	1.8%	1.8%	1.9%	1.8%
4	As a percent of current income	3.5%	2.2%	1.9%	1.7%	1.2%
5	Percent of total sales tax paid	8%	12%	18%	25%	37%

Source: Consumer Expenditure Survey, 1994 US Data[H]

99.

There are two main ways to approach the issue of how much income is spent on sales taxes. The main difference between the two approaches is how income is defined. One approach defines income as the *average amount of money that is made by an individual over his or her lifetime.* By using this approach, we can analyze spending on taxable items in relation to a household's current income as well as their expected future income. The purpose of using this definition of income is to account for the passage of individuals from one income group into another. A young adult typically starts out in a low income class, then moves to a higher income class during middle age, and back down to a low class when retirement is reached. Average lifetime income accounts for expenditures that are based on a person's income expectations, not just their current income level. Total expenditures are used as a proxy for average lifetime income, because the decision of how much to consume today depends on your past debt, your current income, and what you perceive your future income to be. Therefore, your current consumption decisions reflect your average lifetime income.[I]

The second approach defines income as *money that is currently made by an individual.* In using this approach, we can analyze households' spending on taxable items in relation to how much money they earn in the current year.

Line 3 shows taxable expenditures as a percentage of total expenditures.[J] *The burden of the sales tax as a percentage of total expenditures is almost equally distributed among income groups.* Low-income groups spend 1.7 percent of their average lifetime income on taxable goods, while the highest income groups spend 1.8 percent of their average lifetime income on taxable goods.

Line 4 shows the result from using current income as the measure of income. The percentage of current income spent on taxed items decreases as income increases. Therefore, *total sales taxes paid as a percentage of current income also decreases as income increases*; the lowest income group spends 3.5 percent of their income on sales taxes, while the highest income group spends 1.2 percent of their income on sales taxes. *High-income consumer units spend more money in absolute terms than low-income units*; the amount of sales taxes paid increases from $234 in the lowest income group to $1,097 in the highest income group.

Summary of Tax Incidence By Income Group

	Burden as a % of average lifetime income	Burden as a % of current income	Burden in terms of absolute amount
Total Sales Tax Paid	Relatively constant across income levels (slightly lower for lowest income group)	Burden decreases as income level rises	Burden increases as income level rises

2. PROPERTY TAX PROPOSAL

Embodied within the stadia finance proposal is a property tax rollback that would be used to reduce the Hamilton County residential tax burden. The economic impact of the increase in the sales tax was revealed in the previous section, but this will not be the final effect on the community. First, the effect of the decrease in property taxes of Hamilton County residents must be determined.

The County proposes to reduce the property tax burden faced by Hamilton County homeowners by 30 percent of the revenue received from a half percentage point sales tax rate increase, and 53 percent of the revenue received from another half percentage point sales tax rate increase. According to the results found in this study, the total amount of tax revenue going to property tax relief will be $41 million. The rollback will be applicable to owner occupied dwellings only, meaning that non-residential property owners (both businesses and housing units constructed for more than two families) will not receive any tax relief. All savings will be fully realized by Hamilton County homeowners.

The following table shows that as income increases, home ownership increases and renting tends to fall. Because the property tax rollback is not applicable to renters, higher income groups will benefit considerably more from the tax break than low-income groups.

	Property Owners	Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%
1	Percentage homeowners	41%	52%	59%	73%	87%
2	Total property tax expenditures	$ 378	$ 467	$ 562	$ 822	$ 1,606
3	As a percent of total expenditures	2.8%	2.5%	2.1%	2.3%	2.8%
4	As a percent of current income	6.3%	3.2%	2.2%	2.0%	2.0%

Source: Consumer Expenditure Survey, 1991 US data.

Lines 3 and 4 show that *as current income increases, the percentage of income spent on property taxes decreases. As average lifetime income increases, the percentage spent on property taxes at first decreases and then increases.*

The effect of the tax decrease according to income level can be extrapolated by measuring the total percent of property taxes that are paid by each income group (see line 5). Members of the lowest income group pay 10 percent of total residential property taxes in the US, and members of the highest income group pay 42 percent of total residential property taxes. In the case of the proposed rollback, 10 percent of the $41 million property tax relief will go to households in the lowest income group, and 42 percent will be realized by households in the highest income group.

	Property Owners	Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%
5	Proportion of burden of property tax	10%	12%	15%	21%	42%
6	Rollback received from proposal:					
	(millions of dollars)	$ 4.0	$ 5.0	$ 6.0	$ 8.8	$ 17.2

The effect of the property tax reduction on Hamilton County income groups is summarized as follows:

Summary of Property Tax Incidence

	Burden as a % of average lifetime income	Burden as a % of current income	Burden in terms of absolute amount
Total Property Tax Paid	Relatively constant across income levels	Burden decreases as income level rises	Burden increases as income level rises

In total, approximately 58 percent of Hamilton County households will receive property tax relief. On average, each of these households will benefit $207 per year in lower property taxes.

3. Net Economic Effect

The nature of the finance plan will lead to more than one possible outcome for Hamilton County households. Therefore, three situations are considered. First, the total net effect of the entire finance proposal is determined. This refers to two half-percentage point sales tax increases which will be used for:

- the construction of two new stadia for the Cincinnati Reds and the Cincinnati Bengals
- a reduction in property taxes totaling $41 million
- increased expenditures in technology, services and structures of local public safety services and institutions
- increased expenditures for residential housing programs
- a reduction in the real estate transfer tax

Second, the net burden to households for the portion that goes to construction of the Reds and Bengals stadia and property tax reduction are considered. Third, the effect of a half percentage point increase in the sales tax rate that is solely used for stadia construction and property tax reduction is estimated. Finally, Hamilton County households are divided into quintiles of income, and the net effect of the entire finance plan for each income group, by property ownership, is determined.

Total Net Effects

Each Hamilton County household will face an average additional tax burden of $31 per year for two new stadia, a new jail, increased expenditures on public safety services and residential housing programs, a reduction in the real estate transfer tax, and a reduction in property taxes. K

Net Effect on Hamilton County Households 1 Percentage Point Increase	
Increase in sales tax burden to Hamilton County	$ 51,521,801
Property tax relief to Hamilton County	$ 40,962,255
Total burden to Hamilton County	$ 10,559,547
Net burden per household per year	$ 31

Reds and Bengals Portion of Finance Plan

The stadium finance proposal analyzed in this report includes tax increases that are not stadia related. It is estimated that the amount of the sales tax burden attributed to Reds and Bengals stadia construction will be $32.7 million per year. When the burden of the construction along with the $41 million in property tax relief (a total sales tax increase of $73.8 million) is considered, Hamilton County households will experience a net benefit (or decreased burden) of $1 per year.

Net Effect on Hamilton County Households From Stadia-Related Taxes	
Increase in sales tax burden to Hamilton County	$ 40,510,668
Property tax relief to Hamilton County	$ 40,962,255
Total benefit to Hamilton County	$ 451,587
Net benefit per household per year	$ 1
Net benefit to homeowners per year	$ 117
Net burden to renters per year	$ 119

An Increase in the Sales Tax Rate of a 1/2 Percentage Point

It is possible that only one of the two proposed half-cent sales tax increases will go into effect. If this is the case, it can be assumed that 70 percent of the sales tax will be allocated to Reds and Bengals stadia construction and 30 percent will be budgeted for property tax relief. In total, $46.7 million in additional sales tax burdens will be generated, of which $32.7 million will contribute to stadia construction and $14.8 million to Hamilton County property tax relief. Under these assumptions, Hamilton County residents will face a net burden of $33 per year.

Net Effect on Hamilton County Households 1/2 Percentage Point Increase	
Increase in sales tax burden to Hamilton County	$ 26,157,222
Property tax relief to Hamilton County	$ 14,805,634
Total burden to Hamilton County	$ 11,351,588
Net burden per household per year	$ 33

Effect on Hamilton County Residents by Income Group and Property Ownership

The tax restructuring plan will decrease tax burdens in every income group of homeowners with the exception of homeowners in the second highest income group. The tax benefits gained by homeowners as percentages of average lifetime and annual income decrease as income levels increase. In terms of absolute amounts, low income homeowners receive a larger net gain than their high-income counterparts.

1%

Net Effects on Hamilton County Homeowners by Income Class	Under $14,939	$14,940 to $26,890	$26,891 to $44,817	$44,818 to $65,733	Over $65,734	
305 Sales Tax Burden	$ 61	$ 94	$ 134	$ 186	$ 281	.5
Property Tax Relief	240 $ ~~144~~	$ ~~141~~	$ 203 ~~149~~	$ 240 ~~176~~	$ ~~289~~	394
986 **Net Tax Benefit (Burden)**	$ 83	$ 214 47	$ ~~15~~ 69	$ (9)	$ 8	113
As a percentage of:						
Average Lifetime Income	0.24%	0.23%	0.05%	0.02%	0.01%	
Current Income	0.46%	0.22%	0.04%	0.02%	0.01%	

Hamilton County quintiles of income in 1994 dollars. Extrapolated from 1989 Census data and adjusted for inflation.

The tax restructuring plan will increase tax burdens in every income group of Hamilton County renters -- because they do not receive a property tax rollback, the burden is higher than that of homeowners. For renters, the burden as a percentage of average lifetime income is relatively constant across income levels. The tax burden as a percentage of annual income decreases as income increases: the lowest income group pays .8 percent of their income in additional taxes, while the highest income group contributes .2 percent of their income to new taxes.

Net Effects on Hamilton County Renters by Income Class

	Under $14,939	$14,940 to $26,890	$26,891 to $44,817	$44,818 to $65,733	Over $65,734
Sales Tax Burden	$ 61	$ 94	$ 134	$ 186	$ 281
Property Tax Relief	$ -	$ -	$ -	$ -	$ -
Net Tax Burden	**$ 61**	**$ 94**	**$ 134**	**$ 186**	**$ 281**
As a percent of:					
Average Lifetime Income	0.44%	0.46%	0.47%	0.49%	0.47%
Current Income	0.82%	0.45%	0.37%	0.34%	0.18%

Hamilton County quintiles of income in 1994 dollars. Extrapolated from 1989 Census data and adjusted for inflation.

Property tax relief will only offset higher sales tax payments for Hamilton County homeowners; Hamilton County renters in every income group will face higher tax burdens. Because the probability of home ownership rises with income levels, 41 percent of those in the lowest income group will receive property tax relief, while 87 percent of households in the highest income group will face lower property tax burdens.

Part II. The Effects of the Stadia and Sports Teams on Regional Economic Growth

1. INTRODUCTION

This analysis examines the effects of constructing and operating two new professional sports stadia. The analysis answers pertinent questions, such as:

- What level of new total spending is generated within the economy?
- What level of earnings, and how many jobs can be supported by the project?
- How much tax revenue will be generated?

An economic impact study measures a project's total effect on the regional economy. This approach requires understanding the nature and extent of stadia expenditures to calculate how they affect overall business sales and household earnings in the larger region. Indirect spending also occurs as a result of the stadia. For example, visitors to the stadia make purchases in the hotel and restaurant industries among others. The dollars spent by the visitor represent revenue to the hotel, which in turn makes purchases for cleaning supplies, bedding, maintenance, labor and other such items. This process reflects the *multiplier effect.*

The economic impact analysis was performed using the Regional Input Output Modeling System (RIMS II), developed by the Bureau of Economic Analysis at the U.S. Department of Commerce.[1] The model utilizes projected expenditures for both construction and operation for the stadium as well as potential spending by stadium visitors. The model uses a series of multipliers to measure the economic impact of stadium spending on the entire Cincinnati Consolidated Metropolitan Statistical Area (CMSA). For definitions utilized throughout this report, see Appendix II.

The economic growth that will occur from the construction and operations of stadia will create jobs, increase business profits and household earnings, and increase local tax revenues. This economic growth may then be compared with the economic burden that was determined in the previous section. The following should be kept in mind when comparing burdens and benefits:

- All impact numbers (for Riverfront and the new stadia) are estimated in terms of 1996 dollars.[2] This is directly comparable to the results of the tax section which are in 1996 dollars.

- The multiplier model estimates the total increase in economic growth that will occur from each year of spending, but it does not estimate over what time period the growth will take place. In general, all impacts will be felt in the Cincinnati economy over a one to three year period.

---

1 For a complete description of the methodology, refer to Appendix I.
2 The inflation rate from 1995 to 1996 is estimated as 3.2 percent. Source: *Economic Report of the President*, 1995.

- Every household in the region will feel the impacts of the tax burden and economic growth differently. The comparison presented here is a general one, assuming an equal distribution of burdens and growth across households.

2. Economic Growth from New Stadia Construction

The construction of new stadia for the Cincinnati Reds and the Cincinnati Bengals will create a one-time economic boon of over $1.1 billion for the Cincinnati region. The analysis of the impact of construction expenditures is based on a report submitted by the Regional Stadium Task Force in August 1995. The report listed four alternatives for meeting the changing needs of the Reds and Bengals teams. Of these, the Task Force recommended one path to pursue: the construction of a new "baseball-only" stadium in Downtown Cincinnati for the Cincinnati Reds, and the total reconstruction of the existing Riverfront Stadium site for the Bengals.

Total project cost is estimated at $520 million. Projected cost of building a new Reds Stadium is estimated at $160 million, while the reconstruction of the existing Riverfront Stadium for the Bengals is approximately $170 million.[3] Additional costs will be incurred for parking facilities and infrastructure improvements. The construction projects involve three major components: construction or reconstruction of the stadia, construction and repair of parking garages and lots, and infrastructure improvements. The project will take between 30 and 33 months to complete.

Of the $520 million required for the project, $467 million will be directly spent in the local Cincinnati area. This spending is projected to generate $663 million in additional economic activity for businesses and households. Area households will gain a total of $373 million in the form of earnings. In order to meet the increases in demand that will result across all industries in the Cincinnati CMSA, 18,461 jobs will be supported both directly in construction related industries and indirectly in other industries. *In total, the economy of Greater Cincinnati will experience an impact of over $1.1 billion from the construction of the new stadia for the Cincinnati Reds and Cincinnati Bengals.*

	Stadia	Parking	Infrastructure	Total
Direct Spending	$ 407,900,000	$ 75,900,000	$ 36,000,000	$ 519,800,000
Local Spending	$ 367,110,000	$ 68,310,000	$ 32,400,000	$ 467,820,000
Indirect Impact	$ 525,481,254	$ 91,890,612	$ 45,466,920	$ 662,838,786
Total Economic Impact	**$ 892,591,254**	**$ 160,200,612**	**$ 77,866,920**	**$ 1,130,658,786**
Household Earnings	$ 296,331,192	$ 52,113,699	$ 24,782,760	$ 373,227,651
Jobs	14,648	2,582	1,231	18,461

[3] Whether the Riverfront Stadium is reconstructed for the Bengals or a new stadium is built will not significantly affect the estimates. The most important consideration is total project cost.

The construction industry itself will be the largest benefactor of this spending, with over $467 million generated. Nearly $62 million is generated from business services, which includes such industries as: advertising, mailing, duplicating, maintenance, equipment rental and leasing, personnel and computer and data processing. Producers and distributors of durable goods for construction stand to benefit from stadia investment.

Top Ten Industries Affected by Stadia Construction

New Construction	$ 467,820,000
Business Service	$ 61,939,368
Retail Trade	$ 58,898,538
Real Estate	$ 52,582,968
Fabricated Metal	$ 52,395,840
Wholesale Trade	$ 50,243,868
Transportation	$ 30,314,736
Primary Metal	$ 30,034,044
Stone, Clay and Glass	$ 27,039,996
Food and Tobacco	$ 26,899,650

3. ECONOMIC GROWTH FROM NEW STADIA

This section estimates the economic growth generated from the proposed Reds and Bengals stadia. The economic impact is based on projections of spending which are based on an extensive analysis of Riverfront Stadium. In addition, results of the Oriole Park experience, the Cleveland Indians experience at Jacob's Field and league averages are used to determine possible changes in expenditures that may occur with new stadia.

A. Highlights of Riverfront Stadium

Part V of this report contains a detailed analysis of the economic impact of Riverfront Stadium. Because projections of two new stadia are based on information found in the Riverfront analysis, a few highlights of this section will be offered here.

The economic impact generated by stadia stem from two main components: operations spending and visitor spending. Operations spending refers to the daily spending that must take place to keep the stadium and its tenants operating. Included in this component is spending on stadium management (currently, this is done by the City of Cincinnati), the Cincinnati Reds and Bengals franchises, and concessionaires. For Riverfront Stadium, operations spending in 1995 was nearly $98 million. This direct spending created an additional $57 million in the Cincinnati economy, generating a total impact of $155 million.

The other way economic growth is induced by a sports stadium is through visitor spending in the local economy. This report only includes spending by out-of-town persons when determining household spending associated with Riverfront and new stadia. *This has the strongest impact because it is money that is coming from outside the region.* The effect of Cincinnati's sports teams on local fan spending has some impact, but much of it only alters where and how the local money is spent. Therefore, only the impact generated from new money coming into the economy is considered.

A fan survey conducted by the Institute for Policy Research found that 50 percent of Reds and Bengals fans hail from outside the Greater Cincinnati area. This provides a significant injection of new money into Cincinnati's economy. In addition to this, visiting teams, officials, media and patrons of other stadium events also contribute to the "visitors" impact. In total, visitors who came into the region because of Riverfront Stadium spent $45 million in 1995, generating an economic impact of $90 million.

Together, Riverfront Stadium operations and visitor spending created a total economic impact of $245 million in 1995. Direct spending associated with Cincinnati Reds (including spending by the franchise, visiting teams, media and fans as well as the Reds' portion of the concessions and stadium management budget) contributed $158 million (65%) to the total impact, while the Bengals created an impact of $77 million (31% of the total).

Total Economic Impact	Operations	Visitors	Total
Local Spending	$ 97,999,257	$ 45,243,656	$ 143,242,913
Indirect Impact	$ 57,008,479	$ 44,692,823	$ 101,701,301
Total Economic Impact	**$ 155,007,736**	**$ 89,936,479**	**$ 244,944,215**
Household Earnings	$ 48,709,620	$ 27,503,201	$ 76,212,821
Jobs	$ 3,533	$ 2,224	$ 5,757

B. The Economic Impact of New Stadia

The potential economic impact of the proposed stadium can be estimated based on: (a) our understanding of the impact of new stadia in other cities, such as Baltimore, (b) the impact of Riverfront Stadium o Cincinnati, and (c) the loss due to local fan spending outside Cincinnati.

i. Case Study: Oriole Park

The changes observed in Baltimore's economy as a result of Oriole Park have been analyzed in a study done by the Baltimore City Department of Planning. This report, "The Economic Impact of Oriole Park at Camden Yards", sheds some light as to what new stadia in Cincinnati may bring. The baseball season at Camden Yards began in 1992. Prior to this, Memorial Stadium, which was located outside of downtown Baltimore, was the Oriole's home.

When the new stadium opened, annual local attendance in Baltimore rose by 500,000, while out-of-town visitors to the park more than doubled. The Baltimore Department of Planning estimates that 35 percent of all fans combined their trip to the ball park with other downtown activities, generating over $14 million. In addition, fan spending had doubled since the building of the stadium. Other highlights of the study are listed below.

- More than 3.4 million fans attended Oriole Park in 1992. Attendance by out-of-town patrons increased 76 percent between 1991 and 1992. The largest increase was in out-of-town fans who were from outside the Baltimore or Washington areas.

- Downtown tourism in Baltimore increased by 12 percent in 1992 solely due to Camden Yards.

- In 1992, nearly one half of the $46.1 million spent by out-of-town ball game patrons took place in Downtown Baltimore. The number of persons who took guided tours of the new ballpark totaled 14,200.

- Approximately 35 percent of all Orioles fans visited Downtown establishments before or after the game. The study states, "At least five recently-opened Downtown restaurants, bars and sports-related emporiums have said that the new ballpark was the determining factor in their location decision." Around 80 percent of all pre- and post-game stops occurred in the Downtown area (compared to 31% in Cincinnati and 37% in Pittsburgh).

- Downtown garages took in $1.3 million in ball game-generated parking revenues in 1992.

- Downtown hotels received the business of 56 percent of the fans staying overnight. Hotels experienced a 21 percent increase in discretionary room demand in the summer of 1992 compared to the summer of 1991.

- Attendance at other recreational establishments, such as the National Aquarium and the Maryland Science Center went up an average of 5.6 percent on game days in 1992.

- Out-of-stadium spending increased 144 percent from the 1991 Memorial Stadium level ($21.6 million) to the 1992 Oriole Park level ($52.8 million).

- Total stadium-related spending downtown increased from $8.4 million tō $30.2 million. Stadium-related spending in the suburbs increased from $8.4 million to $14.8 million.

ii. The Economic Impact to Greater Cincinnati from Two New Stadia

Based on the results of the Oriole Park experience, the Cleveland Indians experience at Jacob's Field, and league averages, this study estimates that *the economic impact of the annual operations of two new stadia will be $296 million. This represents a 21 percent increase over the impact of Riverfront Stadium.*

Of this, a total of $91 million will go to households in the form of wages and earnings. In addition, the number of jobs supported in Greater Cincinnati will be 6,883, a 20 percent increase from jobs supported by current Riverfront operations. The stadia will contribute to economic activity throughout the Greater Cincinnati region, in the form of jobs, profits and sales in all industries.

Total Economic Impact of New Stadia Operations		
Category		Economic Impact
Stadium Management	$	32,446,161
Reds Operations	$	81,740,547
Bengals Operations	$	62,373,702
Sports Services	$	7,083,527
Visiting Fans	$	88,597,918
Visiting Teams and Officials	$	9,114,168
Visiting Media	$	4,842,771
Other Event Visitors	$	9,566,863
Total Economic Impact	**$**	**295,765,658**
Number of Jobs Supported		6,883

To estimate the future impact of stadia operations, a number of assumptions were made:

- With two new stadia, expenditures for stadium operations would increase by 50 percent.
- The Cincinnati Reds' operating expenditures would increase by 12 percent from $18.5 million to $20.7 million.[4]
- The Cincinnati Bengals operating expenditures would increase from $17 million to the League average of $19 million.[5]
- Concession expenditures would increase 60 percent due to an additional location, more game patrons, and more concession booths throughout the stadia.
- The impact of visiting teams, officials, media and visitors for other stadia events remain the same.

For visitor spending, the following assumptions were made:

- The new baseball stadium will reach 80 percent of capacity throughout the season. This implies that attendance per game will average 38,000 rather than 33,000.[6]
- The new football stadium will reach 95 percent of capacity throughout the season. This implies 66,000 patrons per game rather than 55,000.[7]

---

[4]The increase in operating expenses account for additional payroll spending (excluding player's salaries) and other additional spending which originates from the new stadia's higher revenues.
[5] Data (in 1994 dollars) on league average in operating expenditures (excluding player's salaries) is from *Financial World*, May 1995, p. 50
[6] Currently, the capacity at Reds' games is 59 percent. However, the capacity at Riverfront for baseball games is 56,668, whereas the new baseball park will have total capacity between 45,000 and 50,000.
[7] Currently, the Bengals achieve 90 percent of capacity at Riverfront, where capacity is 60,389. Based on league averages a new football stadium will have an estimated total capacity of 70,000.

- Fan spending will increase 15 percent.[8] This estimate is based on fan spending measured in Baltimore both before and after the new stadium was built.

- The percentage of fans who come into the area from out-of-town remains constant at 50 percent.[9]

The breakdown of daily operations by stadium management, the Cincinnati Reds, the Cincinnati Bengals, and stadium concessions results in $114 million in direct local spending. This spending will generate an economic impact of $183 million.

Economic Impact -- Total Operations		
Local Spending	$	114,410,730
Indirect Impact	$	69,233,207
Total Economic Impact	**$**	**183,643,937**
Household Impact	$	56,530,354
Jobs	$	4,087

The increase in the number of visitors coming to Reds and Bengals games, along with a 15 percent increase in their expenditures, will result in $56 million of direct spending in the Greater Cincinnati region. This supports 2,796 jobs and contributes over $34 million in wages and earnings to area households. In total, $112 million in economic activity will be generated from out-of-town visitors in Cincinnati due to stadia related activities.

Economic Impact -- Total Visitors		
Local Spending	$	56,262,462
Indirect Impact	$	55,859,258
Total Economic Impact	**$**	**112,121,721**
Household Impact	$	34,310,295
Jobs		2,796

The impacts of the Cincinnati Reds and Cincinnati Bengals have also been estimated. Direct spending by the Reds and their visitors, with a new stadium, will total approximately $110 million in 1996 dollars. This creates an economic impact of $192 million. This direct spending also supports 4,474 jobs. With their renovated stadium, the Bengals will generate $53 million in direct spending, creating an impact of $92 million. This will support 2,134 jobs.

If the total economic benefit of $296 million could be distributed evenly among Greater Cincinnati households, each household would receive $402 for each year the stadia are operating.

---

8 A fan survey study was conducted on Baltimore Oriole fans when Oriole Park opened in 1992. It was determined that fan spending before and after the game increased 73 percent with the opening of the new park; spending per capita went from $8.84 to $15.30. With a 15 percent increase in fan spending in Cincinnati, spending per capita for Reds fans will go from $12.84 to $14.77, and for Bengals fans from $16.12 to $18.54.

9 The Camden Yards study found that out-of-town visitors increased 76 percent, to 46 percent of all fans from out-of-town.

iii. Potential Loss Due to Local Fan Spending Outside Cincinnati

Just as new money is coming into the economy from visiting teams, media and fans, we should be aware of the potential loss to the Cincinnati economy if Cincinnatians go outside of the region for sports spectatorship.

The potential economic loss to Cincinnati without the Reds and Bengals may be measured by demonstrating the reduction in local spending by Cincinnati area sports fans on professional sports. Without the Bengals and the Reds, some Cincinnati fans would likely travel to other cities to attend games. Although the number of fans who would leave the area cannot be predicted precisely, it may be estimated by looking at the percentage of fans from nearby metropolitan areas without major league sports teams who attend games in Cincinnati.

According to surveys, approximately 10 percent of all fans surveyed by IPR originate from the Dayton area, while 5 percent of current Reds and Bengals fans hail from Columbus. Columbus sports fans presumably divide their attention between two nearby sports cities, Cleveland and Cincinnati. Using regional population counts, the percentage of population who would leave the city for a professional sports contest can be estimated.[10]

Based on the IPR survey, visitors spend more per game than local residents. Thus, when Cincinnatians travel to sporting events outside the region, they are spending more money than they do at sporting events within the region. In order to spend more money outside of the region, the fans must be cutting back on expenditures within the Cincinnati area, resulting in a negative economic impact.

Since average per game spending both inside and outside the park (for visitors) is $33.16 (including ticket), baseball fans would spend $12,113,007 each year rooting for teams in other cities. Meanwhile, fan spending per football game by visitors is $59.96. Annual losses due to Cincinnati football fans leaving the city would be an estimated $3,835,953. Combined, $15,948,960 of annual spending would leave the Cincinnati economy due to fans traveling to other cities. The economic impact of this loss represents over $32 million in regional economic activity.

Economic Impact of Loss of Local Sports Teams		
Local Spending	$	15,943,800
Indirect Impact	$	16,091,486
Total Economic Impact	**$**	**32,036,125**
Household Earnings	$	9,337,781
Jobs		762

[10] Based on the example of Dayton and Columbus, we may assume that for each game an average of .24 percent of Cincinnati area residents would leave the city to attend a baseball game in another city; and, approximately .34 percent of Cincinnati residents would leave the area to attend a professional football contest. In 1995, the Cincinnati CMSA population was approximately 1,879,220. An estimated 4,510 Cincinnati baseball fans would leave the area per game and 6,389 Cincinnati residents would leave the city to attend a football game.

Part III. The Stadia and Regional Development

1. Other Economic Considerations

The presence of Riverfront Stadium is responsible for contributing to area taxes, which may be spent to support other services. In addition, Reds and Bengals revenues may show up in the form of unidentifiable investments in the local area that also generate a regional impact. Still other economic considerations are worthy of discussion to describe the role of the stadium in the Greater Cincinnati community. The downtown location, the ability of the stadia to generate tourism, and the stadium's role in providing economic opportunity for area businesses all must be weighed in assessing the impact of Cincinnati's professional sports teams.

A. Taxes

Local tax receipts are affected by the presence of the Riverfront Stadium and the activities that take place there. If constructed, the new stadia would continue to contribute to the economic tax base. This section takes into account tax receipts of the local governments that are a direct result of stadium activities. Today, the region benefits from $4.6 million each year in tax receipts generated by users of the stadium and visitors to the region.

Visiting fans, teams and media for Reds and Bengals games, along with visiting patrons of other stadium events, contribute to local taxes through the motel tax and the sales tax. In addition to visitors' spending on taxable food and retail items outside of the stadium, all in-stadium spending that is taxable is also considered. In 1994, Riverfront visitor and stadium spending added over $200,000 annually to the County coffer through sales taxes. Cincinnati visitors who stay overnight after attending a stadium activity added $264,000 to the City of Cincinnati's tax receipts.

The City of Cincinnati receives a significant amount of revenue from the sale of stadium tickets. The City receives $.25 on every ticket sold plus an admissions tax equal to three percent of the price of the ticket. Together, the use and admissions tax contribute over $1.9 million to the City of Cincinnati.

In addition, the City receives income tax revenue from the Reds and Bengals employees, stadium employees, and concession workers. The City receives a total of $2.3 million in income taxes directly from stadium-related employment.

Regional Riverfront Stadium Tax Revenues (1996 Dollars)

Tax	Tax Rate	Recipient	Stadia Related Receipts
Motel Tax	3%	City of Cincinnati	$ 264,852
Admissions	3%	City of Cincinnati	$ 1,124,927
Use Tax	$.25 per ticket	City of Cincinnati	$ 801,565
Sales Tax	0.5%	Hamilton County	$ 203,892
City Income Tax	2.1%	City of Cincinnati	$ 2,256,625
Total			**$ 4,651,862**

New Stadia Tax Estimates

The nature of the leases and contracts has yet to be determined for the new stadia proposal. However, it can be surmised that tax revenues from stadia-related activity would remain an important contribution to the regional tax base. Tax receipts have been determined with the assumptions that the Hamilton County tax rate increases to 1.5 percent, per capita fan spending increases 15 percent, and city income tax receipts from stadia-activity remain constant. Using these assumptions, stadia related tax receipts increase 21 percent. This analysis hinges on the notion that no significant changes would be made in the way taxes are collected by stadium users and tenants. This estimate provides a baseline figure from which tax revenues may be understood in the stadia-planning process.

Tax	Tax Rate	Recipient	Stadia Related Receipts
Motel Tax	3%	City of Cincinnati	$ 540,436
Admissions	3%	City of Cincinnati	$ 1,297,541
Use Tax	$.25 per ticket	City of Cincinnati	$ 948,974
Sales Tax	1.5%	Hamilton County	$ 605,203
City Income Tax	2.1%	City of Cincinnati	$ 2,256,625
Total			**$ 5,648,778**

It is also of interest to consider the effect that the economic impact of the construction and operations of two new stadia would have on tax receipts. With a 21 percent increase in business activity, tax revenue collected by both the County and the State will increase once the stadia are operating. The $1.1 billion of business activity created from the construction project will also contribute significantly to local tax revenues.

B. Franchise Revenues

Total revenues for Cincinnati's sports teams in 1994 was an estimated $45.2 million for the Cincinnati Reds and $54 million for the Bengals. Both teams fell below the respective league averages. For Major League Baseball teams, average total revenues were $60.2 million, while National Football League teams average slightly higher at $61.8 million.

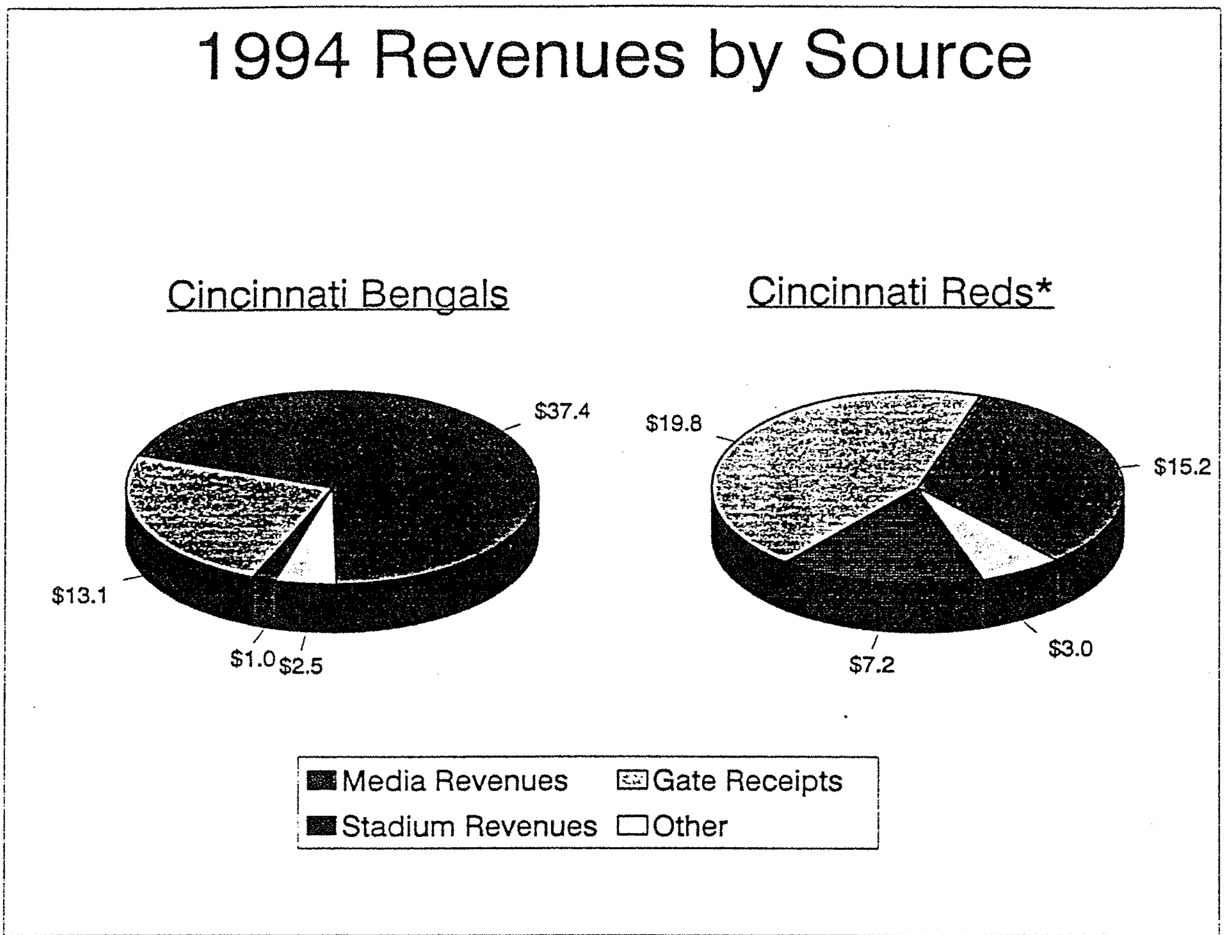
Although gate receipts represent a significant source of revenues for the sports, a growing dependence on media revenues has been the trend among professional baseball and football clubs in the last decade. For the Cincinnati Bengals, media revenues increased from 57 percent to 69 percent in three years. The Cincinnati Reds, however, have recently experienced an increase in gate receipts as a primary source of revenue. Stadium revenues include sales of concessions, parking, and other game-day purchases controlled by the teams. These tend to be more important for baseball than for football clubs.

Percent of Total Revenues		Gate Receipts	Media Revenues	Stadium Revenues
Cincinnati Bengals	1991	29%	57%	5%
	1994	24%	69%	2%
Cincinnati Reds	1991	35%	50%	11%
	1994	44%	34%	16%

Source: *Financial World*, July 7, 1992 and May 9, 1995. Note: 1994 data assumes entire season played.

The sale of broadcast rights is a major source of revenue for the Reds and Bengals. For the Reds, media revenue comprised 27 percent of total revenues earned in 1994 and would have comprised an estimated 34 percent of total revenues had the season played to completion. The numbers for football are even more impressive. An estimated 69 percent of all Bengal revenues generated came from broadcasts in 1994.

A national trend among baseball and football franchises is the growing reliance on the sale of stadium boxes and club seats. On average, professional teams sell their boxes to firms for $91,000 annually. In addition, the sale of special club seats increases the revenues for teams. Club seats, which often involve luxurious seating, catering, and special access features, are sold for an average of $2,200 per year.



Source: *Financial World*, May 9, 1995. Note: Media Revenues include national and local TV, cable, and radio. These figures are based on data from the strike season, but assume total revenues if an entire season had been completed.

Total revenues of other teams with new stadia have increased significantly. In gate receipts alone, Baltimore and Cleveland boosted their revenues during the years in which their respective stadia opened. The Cleveland Indians sold more tickets before opening day than all of 1993.

Gate Receipts (millions)

	Cincinnati Reds	Baltimore Orioles	Cleveland Indians
1991	17.1	19.0	9.5
1992	15.9	30.6*	11.6
1994	19.8	37.6	35.2*

Source: Financial World; * indicates new stadium opened this year.

C. The Stadia and Regional Economic Development

The existing stadia may also affect other aspects of Cincinnati's economy. As with other cities, the stadium proposal perceives the stadia as one part of a broader downtown redevelopment picture. The example of Baltimore's Camden Yards complex illustrated the benefits of this approach. In addition to contributing to the revitalization of Downtown Cincinnati, the stadia serve as a tourism generator and thus fit into a broader regional development plan. In addition, the stadia create employment for individuals and generate business for area firms.

Downtown Cincinnati

The planned location of the stadia in Downtown Cincinnati may add to the city's character and provides a sense of place for area residents. Riverfront Stadium currently contributes to the health of Downtown businesses. Each year, an estimated 3.2 million people go Downtown to watch a Bengals or Reds game or attend another stadium event. An estimated 46 percent of Reds fans and 16 percent of Bengals fans visit Downtown Cincinnati establishments either before or after the game (or both). In contrast, nearly 80 percent of all pre and post-game spending in Baltimore took place downtown.

The Stadia and Tourism

Riverfront Stadium is a major tourist attraction downtown. On average, 50 percent of the Reds and Bengals patrons at each game in Riverfront Stadium are from out-of-town. Thus, over 1.6 million out-of-town visitors come to Reds and Bengals games each year. This is nearly equal to the total population of the Greater Cincinnati area. Of the out-of-town fans, 23 percent stayed overnight in the Cincinnati area, and 59 percent went out before or after the game. The $33 million in direct spending in the local economy by non-local fans generated an economic impact of $66 million in 1995. The potential for two new stadia to attract tourists from outside the region is great.

Stadia and Regional Growth

Robert Baade is an economist who is well known for his work linking stadia construction and renovation with metropolitan area economic growth. He warns that the presence of stadia and sports franchises in metropolitan areas may not significantly contribute to aggregate income in an area.

Baade states that economic activity associated with stadia-related spending is often not new money coming into the economy, rather, it is a diversion of spending from one form of leisure activity within that region to another. Thus, while the economy of the immediate area surrounding the stadium may improve, another area in the same region may decline.

The critical question is how much new money comes into the region. Since 50 percent of game attendees come from outside of the Greater Cincinnati area, there is a large inflow of spending by out-of-town media, visiting teams, officials and visitors for other stadium events. In this case, Riverfront Stadium contributes more than $45 million of new money into the economy.

Other Implications

Riverfront Stadium and its tenants, the Cincinnati Reds and Cincinnati Bengals, contribute to the survival of a number of industries region-wide. In addition to restaurants, hotels and retailers, many others base their livelihoods on the presence of the stadium. When questioned, managers from several local sports bars agreed that televised Reds and Bengals games "bring in the crowds." According to one assistant manager at a downtown establishment, business increases "tremendously...it about doubles." Another bar owner agrees, adding that division and conference games especially bring in a "packed house." Other industries flourish due to the presence of the professional sports teams:

- Downtown Cincinnati parking lots and garages receive some of their best business on game days.
- The professional sports teams in Cincinnati have contributed to the size and reputation of Cincinnati's sports medicine industry.
- The local steel company hired by the City of Cincinnati to oversee stadium changeovers twice each year may not find it profitable in Cincinnati without stadium business.
- Ticket agents handling special events benefit from the stadium.
- Limousine companies and cab drivers enjoy improved business on game days.
- Local broadcast crews hired by visiting city stations benefit from the added activity.

D. Affordability of Professional Sports

The fan survey of the Cincinnati Reds and Bengals revealed that the average income of fans surveyed was $56,000. The average family income of Hamilton County residents is approximately $53,771. Both ticket prices and in-stadium expenses mean that some families do not consider activities at stadia as one of their recreation alternatives. This is one reason that there are at least eight consumer groups in the U.S. focusing on rising ticket prices and costs associated with sporting events.

The question of affordability may be raised again as stadium officials propose construction of additional boxes and luxury seats. Will an increased emphasis on luxury and box seating increase the price of general admission tickets? Some have argued that luxury seats may decrease the availability of regular seats and thus raise their price. Others demonstrate that an increase in the number of fans paying for premium seats could make the cost of games cheaper and increase availability for the general admission seats. Although teams like the Cincinnati Reds and Bengals have kept in-stadium prices and ticket prices below the average prices charged by other teams, the issue will continue to be important for a number of County residents.

2. HIGHLIGHTS AND COMPARISONS: THE NET EFFECTS OF PROFESSIONAL SPORTS AND SPORTS STADIA IN THE CINCINNATI COMMUNITY

Highlights and Comparisons

The net cost of the finance plan, including two new stadia, a new jail, increased expenditures on public safety services and a residential housing program, is $31 per household per year for Hamilton County residents and $85 per household for other Greater Cincinnati residents. The average cost per Greater Cincinnati household is $60 per year.

The net gain to Hamilton County households from financing only the construction of the stadia, with a $41 million property tax roll-back, is $1 per year.

Almost all Hamilton County homeowners will experience a lower overall tax burden. Hamilton County renters will be faced with a higher tax burden. The tax burden as a percent of *average lifetime income* is relatively constant across income levels. As a percent of *current income* the tax burden decreases as income level rises. In *absolute terms*, the burden increases as the income level rises.

While the effect on regional growth of constructing and operating the two new stadia will be positive, not every household will feel the same effect. The transfer of spending toward stadia-related activities and away from other activities could negatively impact some households.

Stadia construction will generate a one-time economic impact of $1.1 billion of economic growth in Greater Cincinnati -- this amounts to $1,537 per Greater Cincinnati household.

The economic impact of the annual operations and visitor spending of the two new stadia are estimated to be $296 million, a 21 percent increase in the impact of Riverfront stadium. This translates into $402 per Greater Cincinnati household per year.

More than 1.6 million out-of-town visitors attend Reds and Bengals games each year. This is nearly equal to the total population of Greater Cincinnati. These visitors directly spend more than $45 million in the Greater Cincinnati region due to stadium-related activities. The estimate for visitor spending with two new stadia is more than $56 million, a 24 percent increase.

Out-of-town stadium visitors currently contribute $4.6 million to the local government in taxes. This contribution will increase 21 percent to $5.6 million with the proposed plan.

Currently, Riverfront-related spending supports $76 million in local earnings. With two new stadia, this will increase to $91 million -- a 19 percent increase.

Riverfront-related spending supports 5,757 local jobs. With two new stadia, the number of jobs will increase to 6,883 -- a 20 percent increase.

Each year, an estimated 3.2 million people go downtown to watch a Reds or Bengals game or attend another stadium event.

If the Reds and Bengals left town, more local residents would attend ball games outside of the region. The economic loss due to the exodus of this spending would total $32 million each season.

Conclusions

The construction, operations and visitor spending associated with the stadia will have a large economic impact on the region. Stadia construction will generate $1.1 billion of economic growth which amounts to $1,537 per Greater Cincinnati household. The annual economic impact of the operations and visitor spending associated with the two new stadia are estimated to be $296 million, which is $402 per household. Out-of-town spending will contribute $112 million to economic growth. 18,461 jobs will be associated with the construction of the stadia and 6,883 jobs will be associated with stadia operations and visitor spending.

The cost of the project is estimated at $520 million. To finance the project annual tax burdens will increase approximately $31 per Hamilton County household and $85 per Cincinnati area (but non-Hamilton County) household. While the total increase in economic activity far outweighs the tax burden, the two are not directly comparable. A dollar increase in economic activity does not offset a dollar increase in tax burden. Furthermore, the benefits and costs of the stadia project accrue to households differently.

This study focused on economic impacts that were measurable. There are other positive and negative consequences that were not considered. The final comparison of the costs and benefits of the stadia project will depend on the individual's personal assessment of the value of job creation and economic development in the region, of having the Reds and Bengals in the area (and the likelihood they would leave without new stadia), and of possible other effects such as downtown development, more appealing living environment, etc., compared to the increased tax burden and other costs associated with the project.

TECHNICAL NOTES

Part IV. Technical Notes to Part I.

[A]REVENUE GENERATED BY THE SALES TAX PROPOSAL

- 1996 sales tax projections for the 5.5% tax rate were provided by the Hamilton County Administrator's Office.
- From Fisher's study of the District of Columbia, he finds that after accounting for both higher prices and the ability for marginal county residents to travel to a lower-tax area, the revenue elasticities with respect to the general tax rate range from .89 to .91.
- This elasticity is a lower bound because he assumes that the taxes are fully passed on to consumers. If they were not fully passed on, revenue from the sales tax would be higher.
- Assuming that there is no loss of sales at the border (either because the tax is not fully passed on or because travel costs are greater than the tax differential saving) revenue increases by 197%. This yields an increase in revenue of $93 million (elasticity is .98). Note that revenue does not increase by the full amount (200%) because part of the sales tax revenue is not dependent on the sales tax rate. This represents the upper bound.
- With revenue elasticities ranging from .89 to .98, we can assume Hamilton County is somewhere in the middle with an elasticity of .9375.
- The decrease in quantity sold affects the tax revenue of both the County and the State. The proportion lost by the State is equal to the ratio of their portion of the tax (5%) to the total tax rate (6.5%) multiplied by the value of the decrease in quantity sold ($6,259,293). This yields a loss in revenue of $4.8 million. The portion lost by the County is the decrease in quantity sold multiplied by (1.5/6.5).

[B] ANALYSIS OF THE BURDEN OF THE SALES TAX BY RESIDENCE

When determining the distribution of the tax by place of residence and income class, it is assumed that prices faced by consumers will increase by the same amount as the tax increase. In other words, the burden of the sales tax is placed on consumers. This assumption leads to an overstatement of the burden faced by consumers, and an understatement of the burden faced by owners, employees and shareholders of Hamilton County businesses. If retailers along the borders of Hamilton County do not increase prices to the full extent of the tax increase, the lower profit will eventually be felt by owners, employees and shareholders of the business.

Determining Hamilton County Resident Expenditures on Taxable Goods

- Data on consumer expenditures comes from the Bureau of Labor Statistics' Consumer Expenditure Survey (CES). The most recent data for expenditure patterns of residents of the Cincinnati CMSA are from 1991 (the CES does not provide data on the county level). However, the expenditure patterns of consumer units in the Midwest are as recent as the third quarter of 1994. Given this, two things were done: Hamilton County expenditures were linked to the

Cincinnati CMSA and Midwest data, and Hamilton County expenditures for 1994 were determined.

Consumer Units and Total and Taxable Expenditures

- It is assumed that the expenditure patterns of Hamilton County residents mimic those of the Cincinnati CMSA as a whole. Because the CES data are expressed in a "consumer unit" measure, the annual expenditures for Cincinnati and Hamilton County residents are identical. However, to determine total expenditure by Hamilton County residents, the number of consumer units in Hamilton County must be determined.

- In order to determine the number of consumer units in Hamilton County, the ratio of consumer units in the CMSA in 1990 to the total CMSA population in 1990 was calculated. This ratio is .41 (consumer units represent 41% of total individual population). Assuming the ratio of consumer units to population is constant across time and constant across all counties within the CMSA, the number of consumer units in Hamilton county is 41 percent of its total population. This yields 354,086 consumer units in Hamilton County for the year 1990, and 357,079 in 1994.

- By multiplying the number of consumer units in Hamilton County by the average expenditure for consumer units (measured for Cincinnati CMSA), the total county expenditure is determined. For 1991, this yields $9.9 billion spent by Hamilton County residents. However, extracted from this amount is any spending on tax-exempt items. The following items listed in the CES were considered to be tax-exempt: food at home; housing; utilities, fuels, and public services; personal services; 44 percent of transportation expenditures; health care; education; miscellaneous spending; cash contributions; and personal insurance and pensions. This yields taxable expenditures of $3.8 billion in 1991.

1994 Hamilton County Expenditures

- In order to determine total expenditures and taxable expenditures for 1994, a link must be established between the Cincinnati expenditure patterns of 1991 and the more recent 1994 expenditure patterns of the Midwest.

- It is assumed that the percent of income spent on all taxable items remains the same from 1991 to 1994. These ratios are then used to determine the amount spent on taxable items in 1994, based on the 1994 Midwest total expenditures figure. In 1994, total spending by Midwesterners (and thus Cincinnatians) was $29,274 per consumer unit per year. Total taxable expenditures per consumer unit were $11,258, which is 38 percent of total spending. By multiplying this amount by Hamilton County consumer units, total taxable expenditures by Hamilton County residents is found to be approximately $4.0 billion for the year 1994.

Spending by Hamilton County Residents Outside of Hamilton County

An estimate of resident spending outside of the county was obtained through the following steps:

- It was determined that the ratio of expenditures to sales in other counties in the CMSA was on average .61 (by taking the ratio of resident expenditures to county sales for surrounding counties). This means that on average, 39 percent of other CMSA counties' sales were not paid by their own residents.

- The assumption was maintained that 25 percent is paid by businesses, which leaves 14 percent to out-of -towners.

- If we assume that most of the out-of-towners are from within the CMSA, we can use county population to CMSA population ratios to determine how much is purchased by residents in each county. Hamilton County accounts for roughly 50 percent of the population of the CMSA, and therefore, its residents account for approximately 7 percent of the retail sales in each of the surrounding counties.

- The 1987 retail sales figures from the 1994 US Census were used to determine total Hamilton County expenditures outside of Hamilton County. After adjusting for inflation and growth, the ratio of Hamilton County residents' expenditures outside Hamilton County to Hamilton residents' total retail expenditures is .13.

- In addition, expenditures on motor vehicles were excluded because they represent a use tax rather than a retail tax -- Hamilton County residents pay the Hamilton County tax rate no matter where the vehicle is purchased.

Expenditures/Sales Ratio

- To determine the amount of the Hamilton County sales tax that is paid by Hamilton County residents, the ratio of Hamilton County expenditures on taxable retail goods to Hamilton County sales of taxable retail goods is utilized. It was determined from the Consumer Expenditure Survey that expenditures made by Hamilton County residents on taxable items were $4.0 billion. After subtracting imports and motor vehicle expenditures, taxable expenditures by Hamilton County residents total $2.6 billion.

[C] Determining Taxable Retail Sales of Hamilton County Retailers

- Taxable retail sales in Hamilton County are subject to a 5 percent tax which goes to the State of Ohio, and a 0.5% tax which goes to Hamilton County. According to the Ohio Department of Taxation, $35,107,139 was received by Hamilton County in retail sales tax receipts. Therefore, retail sales in Hamilton County totaled around $7.0 billion in 1994.

[D] Hamilton County Sales Tax Information

- 1994 tax revenues represent the latest year for which complete tax data are available.

- Items exempt from the sales tax include: food for human consumption off the premises where sold; newspapers and magazine subscriptions sent by second class mail; motor fuel; sales of artificial and natural gas, electricity, and water when delivered through pipes, wires or conduits; prescription drugs; property used directly in manufacturing, mining or agriculture; value of trade-ins on new motor vehicles; telephone and cable television services; sales by churches and non-profit organizations; sales to churches, non-profit organizations and non-profit hospitals.

- Taxable services include: business data processing services; long distance telecommunications services; lawn care and landscaping services; private investigation and security services; building cleaning and maintenance and exterminating; personnel supply services; physical fitness facilitates and recreation and sports club memberships.

- Use tax revenue comes from taxes paid by Hamilton County residents and businesses for products purchased outside of the State of Ohio.

- Other revenue includes adjustments and assessments on Hamilton County businesses and residents, and it also includes fees (there is a 1% fee which goes to the State for administrative purposes) and refunds that are taken from Hamilton County's revenue.

- The 26 percent of sales tax revenues to the county not accounted for by retail sales are predominantly paid by Hamilton County residents. For instance, the use taxes are entirely paid by Hamilton County residents - either by the consumer or business who reports their purchase to the Ohio Department of Taxation (consumers use tax), or the out-of-state seller who is required by law to submit sales tax receipts to the counties of its customers (seller's use tax). Included in this category is the sale of motor vehicles. Similarly, adjustments and assessments apply only to Hamilton County residents and businesses. The only items outside of retail sales that could be paid by out-of-county residents are services that are subject to tax. Here, it is assumed that 37 percent of services sales are accounted for by Hamilton County consumers and businesses (identical to the retail distribution), and the remaining 63 percent from out-of county consumers or businesses.

- Once the remaining 26 percent of the sales tax is accounted for, it is determined that Hamilton County residents pay 45 percent of the sales tax (again, this is higher because the non-retail portion of the tax is predominantly paid by residents).

[E] THE BUSINESS PORTION OF THE SALES TAX

- See: Ring, Raymond J,; 1989. Ring estimated the proportion of sales taxes paid by businesses for the 45 states which had sales taxes, and he found a range from 18 to 65 percent. For Ohio, he estimated the percent paid by businesses as 30 percent. Other Ohio estimates range from 14 to 25 percent. We assume that for Hamilton County the business portion of the sales tax is 25 percent.

[F] THE SHIFTING OF THE BUSINESS PORTION TO HOUSEHOLDS

- Ultimately, all business tax burdens are faced by households, whether as consumers, owners, employees, shareholders or others recipients of business profit. See: Joseph A. Pechman, Who Paid the Taxes. 1966-85?. The Brookings Institution, Washington D.C., 1985. and Dick Netzer, Economics of the Property Tax, The Brookings Institution, Washington D.C., 1966.

- The distribution of owners, employees and shareholders of Hamilton County businesses among place of residence is as follows:

Hamilton County	CMSA. Non-Hamilton County	Non-CMSA
38%	12%	50%

[G] RESULTS FROM AN AUTOMOBILE SURVEY AT AREA SHOPPING CENTERS

- Survey Locations:

Downtown:
Fountain Square Garage, Fountain Square Lot, Tower Place Garage. 234 surveyed.

Area malls:
Beechmont, Kenwood Towne Center, Tri-County, Forest Fair, Northgate, Western Woods. 573 surveyed.

Strip malls:
Beechmont Ave., Montgomery Rd., Reading Rd., Colrain Rd., Hamilton Rd., Harrison Ave. 321 surveyed.

Percentage of shoppers from other CMSA counties:

	Brown	Butler	Clermont	Warren	Boone	Campbell	Kenton	Indiana
Downtown	0.0%	6.4%	4.7%	0.9%	2.1%	4.3%	6.4%	1.7%
Malls	0.5%	14.0%	8.7%	3.7%	0.2%	0.4%	1.6%	1.0%
Strip Malls	0.3%	5.6%	6.5%	0.6%	0.0%	0.3%	1.6%	1.9%
Average	**0.3%**	**8.7%**	**6.6%**	**1.7%**	**0.8%**	**1.7%**	**3.2%**	**1.5%**

[H] ANALYSIS OF THE BURDEN OF THE SALES TAX BY INCOME LEVEL

- The latest available data on total spending by income groups are for the U.S. in 1994. This data separates the population into five income groups. In order to use this data, we must first assume that income groups in Hamilton County have similar spending patterns to their corresponding income groups across the country. We also assume that consumer units in the Cincinnati CMSA in 1994 spend the same proportion of their income on taxable goods as they did in 1991

[I] PERMANENT AND CURRENT INCOME

- See: Schaefer; 1969. Total consumption is an imperfect measure for "permanent income"(average lifetime income). However, the main barrier to the permanent income approach in studying tax incidence is the lack of data quantifying permanent income.

[J] SPENDING AS A PERCENT OF CURRENT INCOME

- Note that the lowest income groups include individuals who are *temporarily* low income. This means that they may have accumulated financial assets which they can live off (retirees) or expectations for future increases in salary (students). The income definition includes self-employment income, and therefore includes gains and losses from a profession, an unincorporated business, or from the operation of a farm. The unusual characteristics of this group leads to more than 100 percent of their income being spent.

[K] ANNUAL TAX REVENUE

- Each year the sales tax is in effect, there will be an increase in total tax revenue and in the cost per household due to increases in inflation and increases in taxable sales.

APPENDICES

APPENDIX I. ECONOMIC IMPACT OF RIVERFRONT STADIUM: METHODOLOGY

Background

Opened in 1970, Riverfront Stadium was designed to be a multi-purpose stadium for use by Cincinnati's two professional sports teams: the Cincinnati Reds and the Cincinnati Bengals. The stadium seats 56,668 for baseball and 60,389 for football. The moveable seating section has a seating capacity of 4,480. In addition to regular seating, there are 20 private boxes.

The property and stadium are owned by Hamilton County, which floated bonds to pay for the construction. Bonds totaling $44 million paid for the stadium. The City of Cincinnati operates the stadium under a lease from Hamilton County. The City, in turn, leases the stadium to the Cincinnati Bengals and the Cincinnati Reds. In addition to collecting rent from the Reds and the Bengals, a portion of the revenues from stadium admissions and concessions returns to the City. The City operates the stadium budget as an enterprise fund, so what is not spent each year goes back into the account -- it does not get transferred to some other city operation.

The City is responsible for managing the stadium and ensuring its readiness for various events and activities. A team of 18 administrators, engineers and maintenance workers work to ensure a clean and safe stadium. In addition, the crew prepares the stadium for a new sports season. Each year City staff must oversee two major changeovers: one in October, after the completion of the Reds season; and one in December, after the Bengals season. The City contracts out this "changeover" to a local steel worker's union. For four Bengals games each fall, the teams must share the stadium and a temporary changeover occurs, setting up special seats and "portable" dugouts and other features. It costs the city $40,000 per conversion. Mini-conversions during the fall month cost $2,000 and happen about six times per year.

Other Financial Information

Other financial relationships characterize the City's role in stadium operations:

- The City receives 7.5 percent of revenues of Reds games admissions; 10 percent of revenues of Bengals games admissions and negotiated revenues from other events at Riverfront (i.e., festivals and concerts).

- The City receives 10 percent of gross receipts for Reds and Bengals concessions and 42.5 percent of gross receipts for concessions from other events. The Cincinnati Reds are responsible for all in-stadium concessions.

- The City has all rights to the parking revenues from stadium garages and lots which total 5,546 on-site spaces. In the open lots, the price of a space is $3.50 (2,145 spaces). In the garage, (3,401 spaces) the price is $5.00. On the plaza, there are spaces for 130 buses, vans and limousines at $15.00 per vehicle.

- A stadium use charge for each ticket sold is $.25. This goes to the enterprise fund. A three percent admissions tax on tickets is used to pay for services.

- The Cincinnati Reds are responsible for in-stadium advertising. The City receives $10,000 per year from the Reds for advertising (i.e., scoreboard, signs, banners).

The Cincinnati Reds

The Cincinnati Reds have been playing at Riverfront Stadium since 1970. The Reds consists of players, coaches, managers, trainers and an administrative staff that is housed at the stadium's north end. A staff of nearly 60 employees serves the Reds. The Cincinnati Reds season begins in April and runs through October. A total of 81 home games are played at Riverfront Stadium. In 1994, the Reds shortened season of 58 games resulted in $1,897,683 in paid admission. The estimates used in this report are based on spending as if the full 81-game season had occurred.

The Cincinnati Bengals

There are between 100 and 150 players and more than 500 coaches, managers, trainers, administrators and other employees which make up the Cincinnati Bengals. The Bengals play in Cincinnati each year from September through December. In addition, the Bengals train in the Cincinnati area beginning in June. Pre-season training takes place over four weeks in the summer, in Wilmington, Ohio. The remainder of the summer is spent in Spinney Field, their training site in the west side of the city. Although many of the players have home residences outside of the Cincinnati area, they spent at least six months of the year living in Cincinnati. Managers, coaches and administrators work for the Bengals year-round, engaged in scouting, drafting, pursuing players, planning and coaching. In a regular sports season, there are 10 NFL football games played at Riverfront Stadium. Total paid admission for the Bengals in 1994 was $548,936.

1. The Impact of Stadium Operations on Regional Economic Growth

Riverfront Stadium operations consists of several dimensions of activity that were measured to compute the economic impact. The City of Cincinnati manages the facility with a core staff of administrators, engineers and maintenance workers. The City's primary tenants are the Cincinnati Reds and Cincinnati Bengals who together utilize the stadium for 9-10 months each year. An independent concessionaire serves both the Reds and Bengals and operates out of the stadium facility. In addition, other events are held at the stadium which contribute to its overall impact. Each of these sources of economic growth will be discussed and the total impact calculated.

A. Stadium Management

City spending for personnel, operations equipment, tools, supplies and administrative costs total $11.4 million. (The projected budget for 1996 reflects a 2 percent increase.) Of this, $8 million is spent in the local Cincinnati economy, generating $13.5 million in additional economic activity. *The total economic impact generated from the City of Cincinnati operating Riverfront Stadium is over $21.6 million.* This spending supports $3.8 million in household earnings in Greater Cincinnati, along with 267 jobs.

Economic Impact of Stadium Management		
Local Spending	$	8,088,713
Indirect Impact	$	13,542,061
Total Economic Impact	**$**	**21,630,774**
Household Impact	$	3,784,809
Jobs		267

B. Reds Franchise

The economic impact of Cincinnati Reds operations totals $73.1 million. Data about the Cincinnati Reds was gathered through published financial reports and estimates of average outlays. Of the $69 million spent on operations, about $48 million (70 percent) remains in the local economy. Major expenses include player salaries, transportation, game-day costs and equipment. This local spending generates $25 million in household earnings, and supports 1,829 jobs in the Greater Cincinnati area.[1]

Economic Impact of Reds Operations		
Direct Spending	$	69,120,058
Local Spending	$	48,384,040
Indirect Impact	$	24,755,318
Total Economic Impact	**$**	**73,139,358**
Household Earnings	$	24,828,006
Jobs		1,829

C. Bengals Franchise

Local spending by the Bengals generates a total of $55.8 million in the Greater Cincinnati economy. According to Cincinnati Bengals sources and published reports, the Bengals spend $37.8 million in the local economy, approximately 63 percent of their total spending. Approximately $18.8 million enters into area households in the form of wages and earnings. In addition, 1,360 local jobs are supported by the Bengals operation.

Economic Impact of Bengals Operations		
Direct Spending	$	60,173,856
Local Spending	$	37,808,352
Indirect Impact	$	18,002,047
Total Economic Impact	**$**	**55,810,399**
Household Earnings	$	18,759,386
Jobs		1,360

[1] Operations estimates for the Cincinnati Reds were obtained from Financial Weekly, May 9, 1995. "Suite Deals -- Why new stadia are shaking up the pecking order of sports franchises".

D. Stadium Concessions

All stadium concessions are conducted by a local firm, Sports Services, which operates under a contract from the Cincinnati Reds. The firm provides food, beverages, novelties and programs during Reds and Bengals games as well as special stadium events. Their total annual spending is more than $4.9 million, of which $3.7 million stays in the Greater Cincinnati market. As a result of these expenditures, the stadium concessionaires generate a total economic impact of $4.4 million locally. Up to 700 employees work annually at the stadium in concessions, any of whom are teenagers and part-time workers. In addition, the business activity generated by concessions creates 77 jobs in other area industries. More than $1.3 million dollars returns to area households due to stadium concessions.

Economic Impact of Stadium Concessions		
Direct Spending	$	4,957,536
Local Spending	$	3,718,152
Indirect Impact	$	709,052
Total Economic Impact	**$**	**4,427,204**
Household Earnings	$	1,337,419
Jobs	$	77

E. Total Economic Impact of Riverfront Operations

The total economic impact from stadium operations is $155 million. In addition, over 3,500 jobs in the Cincinnati region benefit from the presence of the stadia and franchise-operations.

	Stadium Management	Cincinnati Reds	Cincinnati Bengals	Stadium Concessions	Total Operations
Local Spending	$ 8,088,713	$ 48,384,040	$ 37,808,352	$ 3,718,152	$ 97,999,257
Indirect Impact	$ 13,542,061	$ 24,755,318	$ 18,002,047	$ 709,052	$ 57,008,478
Total Economic Impact	**$ 21,630,774**	**$ 73,139,358**	**$ 55,810,399**	**$ 4,427,204**	**$ 155,007,735**
Household Earnings	$ 3,784,809	$ 24,828,006	$ 18,759,386	$ 1,337,419	$ 48,709,620
Jobs	267	1,829	1,360	77	3,533

2. Impact of Stadium-Related Visitors on Regional Economic Growth

In addition to general stadium operations, visitors to the region who are attracted by stadium-related events have an economic impact on regional growth. By spending money in hotels, restaurants, retail centers, gas stations, and other Cincinnati attractions, these visitors from outside the region bring in additional dollars to the community. This results in economic benefits for all area residents.

A. Economic Impact of the Visiting Team and Officials

When an out-of-town team plays the Cincinnati Reds or the Cincinnati Bengals at Riverfront Stadium, they often are accompanied by an entourage that includes the team, coaches, managers, trainers, doctors, photographers, public relations staff, team media, celebrities, sponsors and owners. Each of these individuals contributes something to the Cincinnati economy, for they must eat, sleep and engage in other activities during their stay.

In addition to the visiting team, a group of officials from the leagues come to Cincinnati to officiate each game. For Bengals games, the NFL sponsors 15 people at each football game: 7 officials, 3 observers, 2 league representatives and 3 film crew members. National League Baseball sends 4 umpires for each Reds game.

The following assumptions were made about the visiting teams' stay in Cincinnati.

General Information	Visiting Baseball Team	Baseball Officials	Visiting Football Team	Football Officials
Number of days in Cincinnati per game	1.4	1.4	1.5	1.5
Number of nights in Cincinnati per game	1	1	1	1
Number of games in Cincinnati per season	81	81	10	10
Number in group	80	4	150	15

Spending by the team and its associates represents money that comes into the local Cincinnati economy from outside the region. The major categories of spending are: transportation (airplanes, trucks, buses, limousines), dining and entertainment, lodging, security, and rental equipment.

Economic Impact	Reds		
	Visiting Team	MLB	Total
Local Spending	$ 3,685,237	$ 128,799	$ 3,814,035
Indirect Impact	$ 3,547,104	$ 137,373	$ 3,684,477
Total Economic Impact	**$ 7,232,341**	**$ 266,171**	**$ 7,498,512**
Household Earnings	$ 2,259,691	$ 87,189	$ 2,346,880
Jobs	158	7	165

Economic Impact	Bengals		
	Visiting Team	NFL	Total
Local Spending	$ 739,944	$ 63,004	$ 802,948
Indirect Impact	$ 745,457	$ 67,251	$ 812,708
Total Economic Impact	**$ 1,485,401**	**$ 130,255**	**$ 1,615,656**
Household Earnings	$ 462,563	$ 42,669	$ 505,233
Jobs	35	3	38

Direct spending by teams, officials and their accompanying entourage in the regional Cincinnati economy totals $4.6 million. This translates into an economic impact of more than $9 million in economic growth. The associated earnings for area households exceeds $2.8 million. In addition, 203 local jobs are supported by this direct spending by visiting teams.

Economic Impact of Visiting Team and Officials	
Local Spending	$ 4,616,983
Indirect Impact	$ 4,497,185
Total Economic Impact	**$ 9,114,168**
Household Earnings	$ 2,852,113
Jobs	203

B. Economic Impact of the Media

With each professional baseball or football game, there is a significant amount of economic activity generated by media coverage of the game. The impact of media coverage occurs through expenditures from visiting broadcasters and reporters from outside the region coming to report a game.

Economic Impact	Bengals		
	Visiting Team	NFL	Total
Local Spending	$ 739,944	$ 63,004	$ 802,948
Indirect Impact	$ 745,457	$ 67,251	$ 812,708
Total Economic Impact	**$ 1,485,401**	**$ 130,255**	**$ 1,615,656**
Household Earnings	$ 462,563	$ 42,669	$ 505,233
Jobs	35	3	38

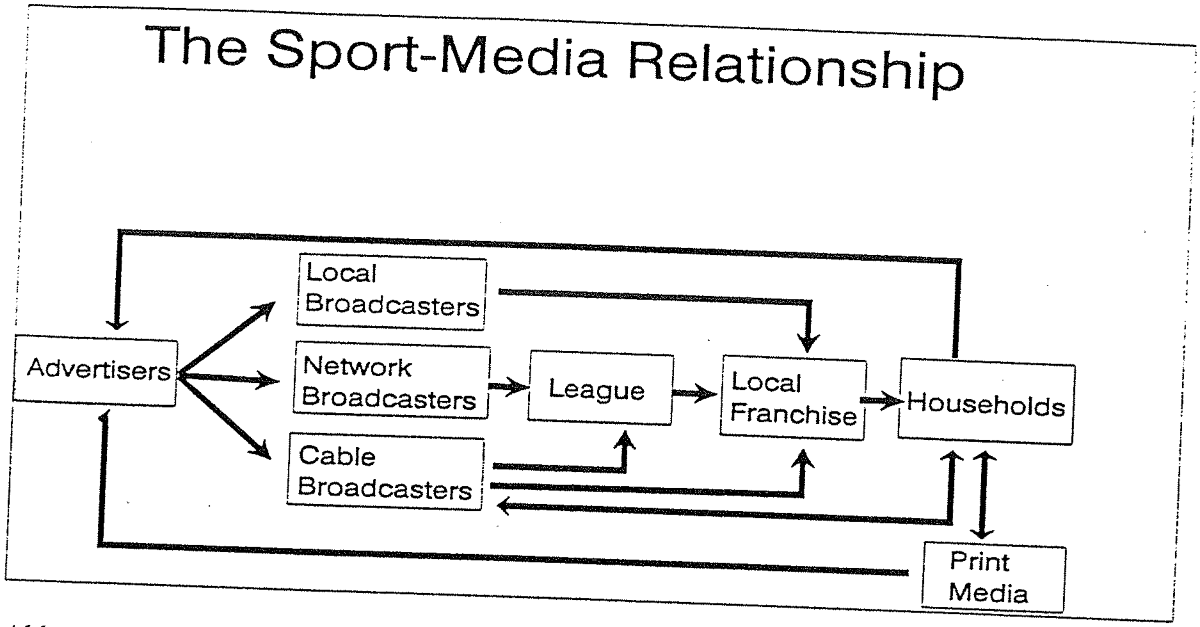
Direct spending by teams, officials and their accompanying entourage in the regional Cincinnati economy totals $4.6 million. This translates into an economic impact of more than $9 million in economic growth. The associated earnings for area households exceeds $2.8 million. In addition, 203 local jobs are supported by this direct spending by visiting teams.

Economic Impact of Visiting Team and Officials	
Local Spending	$ 4,616,983
Indirect Impact	$ 4,497,185
Total Economic Impact	**$ 9,114,168**
Household Earnings	$ 2,852,113
Jobs	203

B. Economic Impact of the Media

With each professional baseball or football game, there is a significant amount of economic activity generated by media coverage of the game. The impact of media coverage occurs through expenditures from visiting broadcasters and reporters from outside the region coming to report a game.

Overview of the Role of the Media



Although media coverage of professional baseball and football can take many forms, television generates the most money, with various national and local broadcasters competing for the rights to cover a game. National contracts are negotiated by the networks and leagues, with the revenues distributed evenly among the teams. Local broadcast contracts, on the other hand, are directly negotiated by the franchise, which retains the revenues earned. Cable broadcasts may be either national or local. Like the networks, national cable stations, such as ESPN, negotiate with the league, whereas local cable stations deal directly with the team.

National networks providing baseball coverage in 1996 will generate $12 million in broadcast revenues to each Major League team. Baseball games are also covered on cable and pay per view networks. In the case of football, broadcast rights are shared among networks and account for a league total of nearly $4.5 billion over the 1994-97 period. These revenues are distributed equally to each of the 30 NFL teams. Revenues from local coverage are also significant, especially for baseball.

Print media also base much of their sales on coverage of sports events. In 1984, 50 percent of an average newspaper's news coverage was devoted to sports and that the sports page has five times the readership as the average section of the newspaper.[1]

Economic Impact of Visiting Media

Dollars spent by local networks on professional sports coverage cannot be easily distinguished from their overall sports budget, thus only spending by visiting media will be considered. Based on estimates provided by area television stations and data from broadcasting research reports, the economic impact due to coverage by outside media was calculated.

[1] Lever, J. and Wheeler, S. "The Chicago Tribune Sportspage: 1900-1975," Sociology of Sport Journal (1)4 (1984), pp. 299-313.

Media personnel attendance is generally estimated by the number of press credentials issued for a typical game. (Since season press credentials are issued for Major League Baseball, estimates were obtained from the Cincinnati Reds and various sportscasters). The average number of out-of-town media personnel attending a Reds game is 17, while the average number attending a Bengals game is 87. The average spending for dining, hotel, transportation and other expenses is estimated at $185.76 per person.

Based on media spending assumptions, total spending per game by media professionals is approximately $3,158 for a Cincinnati Reds game, and $16,161 for a Bengals contest. An additional source of media spending is generated from the broadcast of the game itself. Due to high transport costs, networks and cable operators often rely on local sources for their broadcasting needs. These expenses (which include cameras, crew and transmission) amount to $25,800 for each Reds game and $31,992 for each Bengals game.

Based on annual media expenditures of $2.3 million for a Reds game, the total economic impact of media spending is $3.9 million. Over 55 regional jobs exist because of the media spending at Cincinnati Reds games. For the Bengals, the impacts are less significant due to the shorter season. Direct spending of $481,531 results in $858,670 in regional economic activity due to the presence of the media. In addition, 15 area jobs are linked to outside media coverage of Bengals games.

Economic Impact of Media Spending

	Reds	Bengals	Total
Local Spending	$ 2,345,592	$ 481,531	$ 2,827,123
Indirect Impact	$ 1,638,509	$ 377,139	$ 2,015,649
Total Economic Impact	**$ 3,984,101**	**$ 858,670**	**$ 4,842,771**
Household Earnings	$ 1,099,356	$ 251,790	$ 1,351,146
Jobs	55	15	70

Additional Impacts

The media offer some additional benefits to area residents. Data from A.C. Nielsen's Media Research Services indicate that for every Cincinnati Reds game, approximately 87,219 Cincinnati area households are watching. The Cincinnati Bengals, meanwhile, enjoy viewership of 190,296 among area residents. National broadcasts of Reds and Bengals games increases the "visibility" of the Greater Cincinnati area to people all over the country. Based on the *Cincinnati Enquirer*'s readership estimates, over 300,000 readers read the sports pages during the week and about 506,000 read the sports section on weekends. Another 145,000 people read *Cincinnati Post*'s sports section.

C. Economic Impact of Visiting Fans

Who are the fans?

Reds and Bengals fans were surveyed by the University of Cincinnati's Institute for Policy Research to understand spending patterns and demographic information[2]. It was found that the "typical" fan attends the game in a group of 2 to 3 adults, earns between $50,000 to $60,000 per year, is a 41-year old male, who has spent between $25 to $40 before and/or after the game.[3] *Roughly half of all fans come from outside the Greater Cincinnati area.* The following information was gathered:

General Fan Information	Reds	Bengals
Median Age	41	41
Median Income	$53,580	$59,660
Percent Male	70%	76%
Previous Games Attended	3%	17%
Adults in the Group	2.7	3.0
Children in the Group	0.7	0.4

How much do fans spend?

Nearly 50 percent of all Reds fans and 60 percent of Bengals fans visit another establishment before or after the game. A greater percentage of fans go out before the game than after. (However, 10 percent of fans surveyed did not know if they were going out after the game.) Before games, 83 percent of Reds fans and 69 percent of Bengals fans visit establishments in Greater Cincinnati. After games, 57 percent of Reds fans and 62 percent of Bengals fans went out to Cincinnati establishments.

Establishment	Reds	Bengals
Eating and Drinking Establishment	63%	90%
Other Entertainment	21%	1%
Gas Station	3%	4%
Shopping	3%	1%
Hotel	5%	1%
Other (Combination)	5%	3%

The following summarizes fan spending decisions:

General Fan Spending	Reds	Bengals
Cost of Ticket	$7.84	$27.97
Ballpark Spending	$9.28	$10.34
Out-of-Stadium Spending	$9.36	$12.24
Percent going out before or after game	50%	60%

2 See Appendix III for details regarding the survey.
3 All fan spending numbers are in 1995 dollars. The economic impact of fans and other visitors are in 1996 dollars.

The Economic Effects of Fan Spending

To highlight the incremental impact of fan spending, this study focuses on visitors to the Cincinnati region. This has the strongest impact since it is *money coming from outside the region.* The effect of Cincinnati's sports teams on spending by Cincinnati residents has some impact, but much of it only alters where and how the local money is spent.[4]

Expenditures by Out-of-Town Fans

The impact of baseball and football fans on the Cincinnati economy stems from the influx of out-of-town visitors attending home games. The analysis of out-of-town visitor spending was based on the IPR survey:

- Over 53 percent of Reds fans and 46 percent of Bengals fans live outside of the Greater Cincinnati region.
- An estimated 35 percent of fans using season tickets are not residents of Greater Cincinnati.
- For about 80 percent of out-of-town fans, the primary reason for being there is to see the sports game.
- An average of 58 percent of visitors attending a Reds or Bengals game go out either before or after the game. The predominant place visited by out-of-town fans was an eating or drinking establishment (67 percent for Reds fans and 88 percent of Bengals fans.)
- Total per person spending before and after the game is approximately $13.00 for the Cincinnati Reds fan and $16.34 for the Cincinnati Bengals fan.
- A majority of the visitors' spending takes place in the local area -- 80 percent of Reds fans' spending and 72 percent of Bengals' spending is in Greater Cincinnati.
- Reds and Bengals games were the primary reason for coming into town for 76 percent of out-of-town fans who stayed in a hotel the night of the game.
- Reds and Bengals fans spend a total of $14.5 million each year on the hotel industry in Greater Cincinnati.

The business activity generated in the Cincinnati area from out-of-town Reds and Bengals fans is significant. *In total, over $66 million is added to the Cincinnati economy each year due to visiting Reds and Bengals patrons.* Reds fans spend $28 million per season in the area, which yields a total economic impact of more than $58 million. Bengals fans spend $4 million per season, generating $8 million in the Cincinnati economy. The total impact on household earnings from all Reds and Bengals visitors is over $20 million. In addition, 1,712 jobs are supported by out-of-town patrons.

---

[4] This is an example of a transfer of money within the local region. Without the sports teams, local residents will probably spend money on other types of entertainment, such as movies or concerts. However, some local residents will travel out of town to attend professional baseball and football games, which will represent a loss to the Cincinnati economy. See page 20 for an estimate of this loss.

Economic Impact of Out-of-Town Fans on Cincinnati

Economic Impact	Reds	Bengals	Total
Direct Spending	$ 32,730,523	$ 5,177,155	$ 37,907,678
Local Spending	$ 28,976,618	$ 4,024,533	$ 33,001,151
Indirect Impact	$ 29,202,875	$ 4,208,650	$ 33,411,525
Total Economic Impact	**$ 58,179,493**	**$ 8,233,183**	**$ 66,412,676**
Household Earnings	$ 17,933,705	$ 2,459,868	$ 20,393,574
Jobs	1,502	210	1,712

The immediate beneficiaries of fan spending are the restaurants, hotels, gas stations, and retail centers which attract game fans. The industries which provide materials and supplies to these establishments also benefit.

D. Economic Impact of Other Stadium Events

Riverfront Stadium also sponsors activities and events which contribute to the overall economic impact in the area. Without the stadium, these events may not occur, as a facility of this size may be necessary to house the number of participants. Each year, the stadium is host to an average of 2 to 3 special events in addition to Reds and Bengals games. On average, these events attract approximately 128,500 attendees per year, many of whom come from outside the Greater Cincinnati region. In 1994, for example, attendance at two large events was 101,000. Over a three day period, attendance at the Coors Jazz Festival was 69,000, while the Rolling Stones brought 32,000 fans to Riverfront Stadium.

This study assumes that 50 percent of special event patrons are from outside the Greater Cincinnati area. While in Cincinnati, these visitors spend money on hotels, food, retail goods, parking and other entertainment. In total, they will contribute over $4.7 million to the local economy, generating a total impact of over $9.5 million. In addition, 239 local jobs will be supported by the visitors' spending.

Economic Impact of Other Events	
Local Spending	$ 4,798,399
Indirect Impact	$ 4,768,463
Total Economic Impact	**$ 9,566,863**
Household Earnings	$ 2,906,368
Jobs	239

E. Total Economic Impact from Visitors to the Region

Spending by visiting teams, officials, media and fans have a total economic impact of $90 million. In addition, $27 million goes to area households and 2,224 jobs in the Cincinnati region are supported.

	Visiting Team	Media	Visiting Fans	Other Events	TOTAL
Local Spending	$4,616,983	$2,827,123	$33,001,151	$4,798,399	$45,243,656
Indirect Impact	$4,497,185	$2,015,649	$33,411,525	$4,768,463	$44,692,823
Total Economic Impact	**$9,114,168**	**$4,842,771**	**$66,412,676**	**$9,566,863**	**$89,936,479**
Household Earnings	$2,852,113	$1,351,146	$20,393,575	$2,906,368	$27,503,201
Jobs	203	70	1,712	239	2,224

3. Total Economic Impact of Riverfront Stadium

The total spending in the local economy that occurred as a result of Riverfront Stadium, its operations and fan spending was $143 million in 1994. This generated a total economic impact of $245 million in the Greater Cincinnati economy. Greater Cincinnati households received $76 million of this impact in the form of earnings, and 5,757 jobs were supported.

Total Economic Impact	Operations	Visitors	Total
Local Spending	$ 97,999,257	$ 45,243,656	$ 143,242,913
Indirect Impact	$ 57,008,479	$ 44,692,823	$ 101,701,301
Total Economic Impact	**$ 155,007,736**	**$ 89,936,479**	**$ 244,944,215**
Household Earnings	$ 48,709,620	$ 27,503,201	$ 76,212,821
Jobs	$ 3,533	$ 2,224	$ 5,757

The specific contributions of the Cincinnati Reds and Cincinnati Bengals to the local economy may also be examined. The Cincinnati Reds contributed $90 million in direct spending in the local economy, which created an economic impact of $158 million. This supported 3,763 local jobs and brought in $49 million in earnings to area households.

	Cincinnati Reds	Cincinnati Bengals
Local Spending	$90,604,404	$47,840,110
Indirect Impact	$67,831,848	$29,100,990
Total Economic Impact	**$158,436,252**	**$76,941,100**
Household Earnings	$49,281,284	$24,025,169
Jobs	3,763	1,761

The spending associated with the Cincinnati Bengals was $47 million in 1994. This generated an additional $29.1 million in the local economy, to reach a total impact of $77 million. Of this, $24 million went to area households in the form of earnings, and 1,761 local jobs were supported.

A number of Cincinnati industries benefit significantly from the stadium. Hotels and amusements top the list with over $133 million generated in that industry alone. Real estate, retail trade, and food producers were also impacted. The top ten Greater Cincinnati industries impacted by Stadium operations are as follows:

Lodging and Amusements	$ 133,114,498
Real Estate	$ 15,925,065
Retail Trade	$ 10,867,137
Food and Tobacco	$ 7,449,333
Wholesale Trade	$ 6,867,354
Business Service	$ 5,978,513
Insurance	$ 5,756,303
Transportation	$ 5,713,977
Health Services	$ 5,565,837
Miscellaneous Services	$ 5,301,301

APPENDIX II. RESEARCH METHODOLOGY

RIMS II is a multiplier model developed by the Bureau of Economic Analysis at the U.S. Department of Commerce. This model is used to calculate the economic impact of a change in final demand on a specified economy. In the present analysis, the change in final demand is measured by the total stadium-related spending, and the specified economy is the Cincinnati CMSA.

The money that is spent each year by a firm is known as its *direct spending*. When the economic impact is calculated, only local spending is considered. In some cases, not all spending is done locally. For instance, a portion of operations spending by the Reds and Bengals does not enter Cincinnati's economy. Since many players reside outside of the Cincinnati region during the off-season, only a portion of salaries to players would be considered *local* spending. The stadium's ongoing spending outlays have been divided into several components (e.g., payroll, capital equipment, services). Visitor spending was estimated for hotels, recreation, food, retail and transportation costs.

The economic impact of the stadia goes beyond this local spending. Each of the businesses directly affected by the sports teams, in turn, spend money on goods and services they purchase from other area businesses. This generates greater business activity and employment. The industries which subsequently gain business from initial expenditures by the teams now have more business than they did before, which further stimulates demand, sales, output and employment in the local economy.

Initial spending by the stadium project is "multiplied" throughout the economy. RIMS II measures the impact of the initial expenditures by using location specific multipliers which determine the total amount of business activity, household earnings and employment that will be generated within the Cincinnati CMSA.

Note that the direct and local spending refer to expenditures that occur over a one-year period. For fan and team spending, this would occur between April and December. The economic impact associated with this spending is not, however, realized in one year. While RIMS II models how much money will be generated in a regional economy, it does not model how long it will take the multiplier effect to be fully realized in that economy.

APPENDIX III. DEFINITIONS USED IN THIS REPORT

Direct Spending:	The dollar amount that is directly spent by the stadium tenants, stadium operators, fans or other sports-related industry.
Local Spending:	The amount of direct spending that enters the Cincinnati region.
Indirect Impact:	The amount of business activity and household earnings generated in the entire economy *as a result* of direct spending.
Total Economic Impact	This is made up of the direct spending by the teams, fans and stadium operators plus the indirect impact of spending.
Household Earnings:	This is the amount Greater Cincinnati households receive in the form of wages and salaries due to the presence of the stadium. Household earnings measure the increase in earnings that occur in all households originating from stadium-related spending.
Jobs:	The full and part time jobs necessary to support the level of business activity implied by the indirect impact of stadium-related activities.
Cincinnati Consolidated Metropolitan Statistical Area (CMSA):	Includes the Ohio counties of Hamilton, Brown, Clermont, Butler and Warren; the Kentucky counties of Boone, Campbell, Kenton, Grant, Gallatin, and Pendleton; and Ohio and Dearborn County in Indiana.

APPENDIX IV. SUMMARY OF SURVEY METHODOLOGY

Patrons attending Riverfront Stadium for Cincinnati Reds and Cincinnati Bengals games were interviewed during the months of September and October by interviewers trained by the Institute for Policy Research's professional staff. Patrons were interviewed by 3-4 interviewers during the period before each game. Interviews were held at or near the stadium entrance. Face-to-face interviews were conducted with every third person entering into the individual interviewer's area after each successive completed interview.

Interviews with patrons at five different Cincinnati Reds games were conducted between September 16 and September 20, 1995. The first two games were with Atlanta (National League champions) and the next three games were with Montreal. Two of the games were afternoon contests, while three were at night. Two of the games were on weekends, while three were weekday events. All Reds interviews were held at the end of a rather successful season, on the wake of the baseball strike.

Interviews with patrons at three Cincinnati Bengals games were conducted on September 24, October 1, and October 29, 1995. The teams playing were Houston, Miami and Cleveland, respectively. All games were played on Sunday afternoons. Bengals interviews were held at the beginning of their fall season.

The survey effort resulted in 651 interviews with Reds and Bengals fans. Precisely, 304 completed surveys were conducted with Bengals fans and 347 completed surveys were held with Reds fans. At the conclusion of data collection, questionnaires were coded and cleaned. Summary statistics were presented to the research team at the Center for Economic Education for further analysis. A copy of the survey questions is attached.

APPENDIX V. FAN SURVEY QUESTIONS

1. How many adults, 18 or older are in your group today?

2. How many children (under 18) are in your group today?

3. How many Bengals/Reds games have you, personally, attended this year prior to this one?

4. How much did your Bengals/Reds ticket cost?

5. Approximately how much will you and your group be spending before, during and after the game today on concessions and souvenirs inside the stadium?

6a. Did you and your group stop at any stores, restaurants, attractions or any other place of business before arriving at the stadium today? *If yes:* Where did you stop? Where is it located?

6b. Will you and your group stop at any stores, restaurants, attractions or any other place of business after leaving the stadium today? *If yes:* Where will you stop? Where is it located?

7. Approximately how much will you and your group be spending at these places of business before or after the game (that is in some way related to attending this Bengals/Reds game)?

8. Please look at this card and tell me what age group you fall into.

9. Please look at the other side of the card and tell me what income group you fall into.

10. Record sex of respondent.

11. Do you and the members of your group live in Hamilton County, elsewhere in Greater Cincinnati, or outside Greater Cincinnati? Where do you live?

If residence was outside Greater Cincinnati, the following questions were also asked:

12. Is attending the Bengals (Reds) game the primary reason you or any member of your group came to Greater Cincinnati? *If no:* What is the primary reason?

13. How many days, if any are you or the members of your group staying overnight in Greater Cincinnati? *If zero:* Terminate interview.

14. Are the members of your group staying in Ohio, Kentucky or Indiana? Where are you staying; what county?

15. Are the members of your group staying at a hotel or with friends or relatives?

16. How much are you or the members of your group spending for a hotel/motel room per night?

APPENDIX VI. SOURCES OF DATA

The following organizations provided data or assisted the research team in producing this report:

Cincinnati Bengals
Cincinnati Enquirer
City of Cincinnati
Hamilton County Commissioners
Major League Baseball
National League Association
National Football League
National Broadcasting Company
Nielsen Corporation
Ohio Department of Taxation
Sports Services Inc.
WLW-TV

APPENDIX VII. BIBLIOGRAPHY

Ady, Robert
1993. **Breaking A Tie.** President, *PHH Fantus Consulting*, speech at Arrowhead Stadium; Kansas City, Missouri.

Baade, Robert A.
1987. **Is there an Economic Rationale for Subsidizing Sports Stadiums?** *Heartland Institute;* (13): 1-27.

Baade, Robert A.
1994. **Stadiums, Professional Sports, and Economic Development: Assessing the Reality.** *Heartland Institute;* (62): 1-40.

Baade, Robert A. and Dye, Richard F.
1990. **The Impact of Stadiums and Professional Sports on Metropolitan Area Development.** *Growth & Change;* 21(2): 1-14.

Baim, Dean V.
1994. **The Sports Stadium as a Municipal Investment.** Westport, Connecticut: Greenwood Press.

Barton, Billie
Assistant Manager Cherry Grove BW-3; telephone conversation: November 2, 1995.

Borg, Mary O., Mason, Paul M., and Shapiro, Stephen L.
1991. **The Incidence of Taxes on Casino Gambling, Exploiting the Tired and Poor.** *American Journal of Economics and Sociology;* 50(3): 323-332.

Brennan, Jack
Bengals Publicity Director; telephone conversation: November 7, 1995.

Branch, E. Raphael
1994. **The Consumer Expenditure Survey: A Comparative Analysis.** *Monthly Labor Review;* December: 47-55.

Carn, Neil G. and Rabianski, Joseph
1991. **Selecting Industrial Locations.** *National Real Estate Investor*; August: 24-29.

Carroll, Robert J. and Yinger, John
1994. **Is the Property Tax a Benefit Tax? The Case of Rental Housing.** *National Tax Journal;* 47(2): 295-316.

Casey
Manager Montgomery Barleycorns; telephone conversation: November 2, 1995.

Cincinnati Enquirer
Marketing Department; telephone conversation: November 2, 1995

Cincinnati Bengal Playoff Games. *Greater Cincinnati Center for Economic Education*; 1988.

Colclough, William G., Daellenbach, Lawrence A. and Sherony, Keith R.
1994. **Estimating the Economic Impact of a Minor League Baseball Stadium.** *Managerial and Decision Economics;* 15: 497-502.

Crispell, Diane
1995. **Which State is Number One?** *American Demographics;* February: 13-14.

Cutter, Susan L.
1985. **Rating Places: A Geographer's View on Quality of Life.** State College, Pennsylvania: Commercial Printing Inc.

Derrick, Frederick W. and Scott, Charles E.
1993. **Businesses and the Incidence of Sales and Use Taxes.** *Public Finance Quarterly;* 21(2): 210-226.

Dolan, Mike
SportsChannel; telephone conversation: November 2, 1995.

Economic Impact of the Cincinnati Reds. *Greater Cincinnati Center for Economic Education;* 1989.

Economic Impact of the Play-Off Games and World Series on the Cincinnati Economy. *Greater Cincinnati Center for Economic Education;* 1990.

Estimates of Community Economic Impacts of Eight World Cup '94 Soccer Matches in Los Angeles, Pasadena, and Southern California. *Economic Research Associates;* 1993.

Eitzen, Stanley
1993. **Sport and Contemporary Society: An Anthology.** New York: St. Martin's Press.

Euchner, Charles
1993. **Playing the Field.** Baltimore: Johns Hopkins University Press.

Fisher, Ronald C.
1980. **Local Sales Taxes: Tax Rate Differentials, Sales Loss, and Revenue Estimation.** *Public Finance Quarterly;* 8(2): 171-187.

Fisher, Ronald C. and Rasche, Robert H.
1984. **The Incidence and Incentive Effects of Property Tax Credits: Evidence from Michigan.** *Public Finance Quarterly;* 12(3): 291-319.

Fogel, George
WLWT sportscaster; telephone conversation: November 1, 1995.

Fox, William F., Murray, Matthew N. and Blank, Larry R.
1992. **Economic Effects of the University of Tennessee, Knoxville, Athletic Department on the Knoxville MSA.** *Survey of Business;* 28(2): 20-23.

Fox, William F.
1986. **Tax Structure and the Location of Economic Activity along State Borders.** *National Tax Journal;* 39(4): 387-401.

Fox, William F. , Ploch, Donald R., Price, Patricia A. and Bott, Susan E.
1985. **Taxes and State Borders.** *Survey of Business;* Summer & Fall: 16-22.

Fusi, Deborah S.
1990. **Putting Together the Quality-of-Life Puzzle: Seattle, Atlanta and Chicago Voted Best.** *Site Selection;* August: 840-844.

Furhman, Andy
WLW sportscaster; telephone conversation: November 1, 1995.

Gantz, Walter and Wenner, Lawrence A.
1995. **Fanship and the Television Sports Viewing Experience.** *Sociology of Sport Journal;* 12: 56-74.

Glaser, Mark A. and Bardo, John W.
1991. **The Impact of Quality of Life on Recruitment and Retention of Key Personnel.** *American Review of Public Administration;* 21(1): 57-71.

Goldberg, Kalman and Robert C. Scott
1985. **City Sales and Property Tax Restructuring: Household and Business Incidence Effects.** *Public Budgeting and Finance;* Autumn: 89-98.

Heinberg, J.D. and Oates, W.E.
1970. **The Incidence of Differential Property Taxes on Urban Housing: A Comment and some Further Evidence.** *National Tax Journal;* 23(1): 92-101.

Hemmerick, Steve
1988. **Merging Real Estate, Sports, Promotion.** *Pensions & Investments;* 16(14): 3,12.

Hsieh, Chang-Tseh and Liu, Ben-Chieh
1983. **The Pursuance of Better Quality of Life: In the Long Run, Better Quality of Social Life is the Most Important Factor in Migration.** *American Journal of Economics and Sociology;* 42(4): 431-440.

Hubbell, Kenneth and Gerald W. Olson
1976. **Alternative Methods for Funding Property Tax Financed Services: Kansas City.** *National Tax Journal;* 29(1): 86-96.

Johnson, Arthur T.
1983. **Municipal Administration and the Sports Franchise Relocation Issue.** *Public Administration Review;* Nov./Dec.: 519-527.

Kiesewetter, John
1995. **Reds Fail to Score with Listeners.** *Cincinnati Enquirer*; Oct. 14, 1995.

Klobuchar, Amy
1982. **Uncovering the Dome.** Prospect Heights, Illinois: Waveland Press, Inc.

Kotler, Philip, Donald H. Haider and Irving Rein
1993. **Marketing Places.** New York: The Free Press.

Kullman, Brad
Reds Publicity Department; telephone conversation: November 8, 1995.

Leonard, Wilbert Marcellus II
1988. **A Sociological Perspective of Sport.** New York: Macmillan Publishing Company.

McClellan, Steve
1995. **Broadcasters Balk at Admission Price.** *Broadcasting & Cable;* 125(13): 34-37.

McDonald, John F.
1993. **Incidence of the Property Tax on Commercial Real Estate: The Case of Downtown Chicago.** *National Tax Journal;* 46(2): 109-120.

McManamy, Rob
1988. **Sports Jobs Soar Despite the Risks.** *ENR;* 221(2): 57-60.

Mikesell, John L.
1970. **Central Cities and Sales Tax Rate Differentials: The Border City Problem.** *National Tax Journal;* 23(2): 206-213.

Mikesell, John L.
1971. **Sales Taxation and the Border County Problem.** *Quarterly View of Economics and Business;* 11: 23-29.

Mikesell, John L. and Zorn, C. Kurt
1986. **Impact of the Sales Tax Rate on its Base: Evidence from a Small Town.** *Public Finance Quarterly;* 14(3): 329-338.

Miller, Harvey, J. and Randall W. Jackson
1988. **The Impact of the Professional Football Strike on the Chicagoland Area.** *Illinois Business Review*; 45(3): 3-7.

Mutti, John H. and Morgan, William E.
1983. **The Exportation of State and Local Taxes in a Multilateral Framework: The Case of Household Type Taxes.** *National Tax Journal;* 36(4): 459-475.

Netzer, Dick
1966. **Economics of the Property Tax.** Washington D.C.: The Brookings Institution.

Newsome, Bobby A.
1990. **Uniformity in Property Tax Assessments: A Tale of Two Counties.** *The Real Estate Appraiser & Analyst;* 56(2): 64-66.

Noll, Roger G.
1974. **Government and the Sports Business.** Washington D.C.: The Brookings Institution.

Orr, Larry L.
1968. **The Incidence of Differential Property Taxes on Urban Housing.** *National Tax Journal;* 21(3): 253-262.

Orr, Larry L.
1972. **The Incidence of Differential Property Taxes on Urban Housing: Reply.** *National Tax Journal;* 25(2): 217-220.

Osterberg, William P.
1991. **Public Subsidies for Private Purposes.** Federal Reserve Bank of Cleveland *Economic Commentary;* April.

O'Sullivan, Arthur
1993. **Urban Economics.** Chicago, Illinois: Richard D. Irwin, Inc.

Ozanian, Michael K.
1995. **Why New Stadiums are Shaking up the Pecking Order of Sports Franchises.** *Financial World;* May 9: 42-56.

Ozanian, Michael K.
1993. **Foul Ball.** *Financial World;* 162(11): 18-31.

Ozanian, Michael K. and Taub, Stephen
1992. **Big Leagues, Bad Business. It's Time to Restructure Major League Sports. Here's Why. And Here's How.** *Financial World;* July 7: 34-51.

Paul, Diane B.
1975. **The Politics of the Property Tax.** Boston, Massachusetts: Lexington Books.

Pechman, Joseph A.
1985. **Who Paid the Taxes, 1966-85?** Washington D.C.: The Brookings Institution.

Pechman, Joseph A.
1989. **Tax Reform, the Rich and the Poor.** Washington D.C.: The Brookings Institution.

Pickard, Jerome P.
1966. **Taxation and Land Use in Metropolitan and Urban America.** Washington: Urban Land Institute.

Phillips, John
1993. **Sociology of Sport.** Boston: Allyn and Bacon.

Porell, Frank W.
1982. **Intermetropolitan Migration and Quality of Life.** *Journal of Regional Science;* 22(2): 137-157.

Power, Thomas M.
1980. **The Economic Value of the Quality of Life.** Boulder, Colorado: Westview Press.

Public Financial Management, Inc.
1995. **Stadium Project Financing Structure; Final Report.** *Regional Stadium Task Force.*

Regan, Tom H.
1995. **The Economic Impact of the Denver Broncos Football Club on the Denver Metropolitan Economy.** *International Journal of Public Administration;* 18(1): 227-247.

Report on the Economic and Tax Impacts of the Camden Yards Stadium Development, *Peat Marwick with the Regional Science Research Institute,* Maryland Stadium Authority, 1987.

Ring, Raymond J,
1984. **The Effect of Permanent Income on Retail Sales by Sales Category.** *Quarterly Journal of Business and Economics;* 23(4): 13-30.

Ring, Raymond J.
1989. **The Proportion of Consumers' and Producers' Goods in the General Sales Tax.** *National Tax Journal;* 42(2): 167-179.

Rock, Steven M.
1983. **The Incidence of Household-Based Taxes: Evidence from the Consumer Expenditure Survey.** *American Economist;* 27(2): 37-41.

Rock, Steven M.
1984. **The Impact of Deductibility on the Incidence of a General Sales Tax.** *National Tax Journal;* 37(1): 105-112.

Romano, Michael
1995. **The Bucs are Staying, but will Diners Pay the Tab?** *Restaurant Business;* 94(3): 30.

Rosen, Harvey S.
1988. **Public Finance**, Illinois: Irwin Company.

Rosentraub, Mark S. and Nunn, Samuel R.
1978. **Suburban City Investment in Professional Sports.** *American Behavioral Scientist;* 21(3): 393414.

Ruggeri, Giuseppe C. and Bluck, Kelly A.
1992. **The Treatment of Transfers in the Measurement of Sales Tax Incidence: The Case of Canada's Manufacturers' Sales Tax.** *Public Finance Quarterly;* 20(1): 24-46.

Rule, Roger
Chamber of Commerce; telephone conversation: November 2, 1995.

Ryan, Tim
Former Director of Economic and Business Research, University of Louisiana; telephone conversation: October, 1995

Sacher, Seth B.
1993. **Housing Demand and Property Tax Incidence in a Life-Cycle Framework.** *Public Finance Quarterly;* 21(3): 235-259.

Sanders, Hy
1989. **Problems with Conventional Expenditure Tax Wisdom or State Policy Analysis with Sales and Excise Taxes and Problems with the Data.** *National Tax Journal;* 42(3): 315-322

Santi, Lawrence
1994. **Estimates of the Incidence of the State Sales and Use Tax on Arkansas Households, 1989-1995.** *Arkansas Business and Economic Review;* 27(1): 10-18.

Savageau, David and Richard Boyer
1993. **Places Rated Almanac.** New York: Prentice Hall Travel.

Schaefer, Jeffrey M.
1969. **Sales Tax Regressivity Under Alternative Tax Bases and Income Concepts.** *National Tax Journal;* 22(4): 516-527.

Silver, Jerry
Research Department, Cincinnati Post; telephone conversation: December 12, 1995

Smith, Marguerite T. and Nance-Nash, Sheryl
1995. **The Best Places to Live Today.** *Money;* September: 126-146.

Snodgrass, Dodd W. and Otto, Daniel M.
1990. **Analysis of Local Sales Taxation in Rural Areas: An Oklahoma Case Study.** *Growth & Change;* 21(2): 34-45.

Stencel, Sandra
1995. **The Business of Sports.** *Congressional Quarterly Researcher;* 5(6): 121-143.

Susan
Assistant Manager Willie's Sports Cafe; telephone conversation: November 2, 1995.

The Economic Impact of Oriole Park at Camden Yards. *Baltimore City Department of Planning,* December, 1992.

Wagner, Stephen
1995. **Cities that Satisfy.** *American Demographics;* September: 18-20.

Walsh, Michael J. and Jones, Jonathan D.
1988. **More Evidence on the "Border Tax" Effect: The Case of West Virginia, 1979-84.** *National Tax Journal;* 41(2): 261-265.

Wassmer, Robert W.
1992. **Property Tax Abatement and the Simultaneous Determination of Local Fiscal Variables in a Metropolitan Area.** *Land Economics;* 68(3): 263-82.

Wills, Bill.
Operations Director of WLW Radio; telephone conversation: October 19, 1995.

Work Plan; New Baseball Stadium Proposal. *Executive Response to Council Motion No. 9599,* Seattle, 1995.

Ziegert, A. L., and Sullivan, D. H.
1991. **The Effect of Labor Supply and Tax Rates on Intraurban Location.** *Land Economics;* 67(2): 195-202.