A Study of the Correlation Between Industrial and Commercial Tax Base and Per Capita Income

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INTRODUCTION

The Traverse Bay region of Northwest Michigan has historically endured lower per capita income levels then that of the state or nation as a whole.

One of the goals of the regional economic development strategy adopted by the Traverse Bay Economic Development Corporation for the area is to achieve per capita income levels at least equal to Michigan's numbers in each of the four counties.

One of the tactics adopted to reach this goal is the development of industrial and commercial real-estate to provide sites and facilities for higher skilled higher paying job opportunities.

Before implementing an aggressive program of developing economic centers throughout the region a number of questions needed to be answered:

1. Is there a correlation between the amount of industrial and commercial property a county contains as measured by tax base ratios and per capita income?

2. Is there an optimal level of industrial and commercial property ratios to achieve the income goal?

3. Is there a point at which a county might experience flight of high income residents due to too much industrial and commercial development?

The Traverse Bay Economic Development Corporation undertook a study in 1998 to answer these questions.

METHODOLOGY

The methodology of the study included:

1. Collecting property tax data on all counties in Michigan and the percent of tax base attributable to industrial and commercial property.

2. Per capita income numbers were obtained for all counties in Michigan.

3. All "bedroom" counties with little or no industrial and commercial development and where the income is derived from commuting to adjacent industrialized counties where screened out of the calculations. Commuting pattern data was used for the screening.

4. The data was arranged in order of increasing industrial/commercial tax base percentages compared to average per capita income levels. (Attachment #1)

5. The data was displayed on a graph comparing average per capita incomes and commercial/industrial tax bases and with a state average income line drawn across. (Attachment #2)

RESULTS OF MICHIGAN STUDY

The results of the study of Michigan counties reveal a correlation between commercial and industrial tax bases and per capita income levels.

Results indicated an optimal commercial/industrial tax base of 23%-24% to achieve a per capita income level equal to the Michigan average.

The data also suggests some decline in income after the optimal point. However, the results were inconclusive due to the large gap between 29% and 40% tax base.

OHIO ANALYSIS

To verify the results of the Michigan study and to further analyze the effects of higher industrial/commercial development ratios the study was duplicated with Ohio data. Ohio was selected because of its proximity and economic similarity to Michigan.

The tax base and income data was similarly arranged (attachment #3) and displayed on a graph (attachment #4).

The results of the analysis of Ohio counties supports the conclusions derived from the Michigan study: (1) there is a correlation between industrial/commercial tax base and per capita income levels. (2) there appears to be an optimal industrial/commercial tax base percentage of between 27% & 35% in Ohio and (3) incomes decline at higher rates of industrial/commercial development.

CONCLUSION:

The study answered the three questions:

1. There is a correlation between the per percentage of a counties's tax base derived from industrial and commercial property and a county's per capita income level.

2. The optimal percentage of industrial/commercial tax base in Michigan is 23-24% if a county desires to obtain an income level equal to the state average from indigenous industry and business.

3. There is some evidence to suggest that a county could become over developed with industrial/commercial facilities causing high income earners to relocate to near by counties, resulting in declining per capita income numbers.

TRAVERSE BAY REGION

Following are the 1997 industrial/commercial tax base numbers compared to 1996 per capita income levels in the Traverse Bay region counties:

County	C/I Tax Base %	Per Capita Income
Benzie	8.4%	$18,699
Grand Traverse	21.5%	$23,519
Kalkaska	10.10%	$16,467
Leelanau	6%	$24,425

Leelanau County is a "bedroom" community to Grand Traverse County. It contains few industrial/commercial facilities and the majority of workers commute to Grand Traverse County to earn income. The county could possibly maintain income levels equal to the state average while continuing to depend on Grand Traverse County as a source of salary and wages from commuting county residents.

However, the low 6% industrial/commercial tax base may strain the ability to provide property tax funded education and governmental services as the population grows in the future.

Grand Traverse County's 21.5% commercial/industrial tax base is slightly below the optimal 23% and the $23,519 per capita income average is corresponding slightly below the state $24,588 figure.

The county has room to expand industrial/commercial development to optimal ratios to increase its income levels without over building.

Both Benzie and Kalkaska Counties are experiencing low tax base and income ratios.

Substantial amounts of industrial/commercial growth will need to occur before these two counties can achieve high income levels from indigenous expansion alone.

Strategies need to be developed in both counties that incorporate a balanced mix of local economic center development and participation in the Grand Traverse county and regional economies to provide high skilled higher paying jobs and the resulting high capita income levels, along with the tax revenue needed to support education and government services.

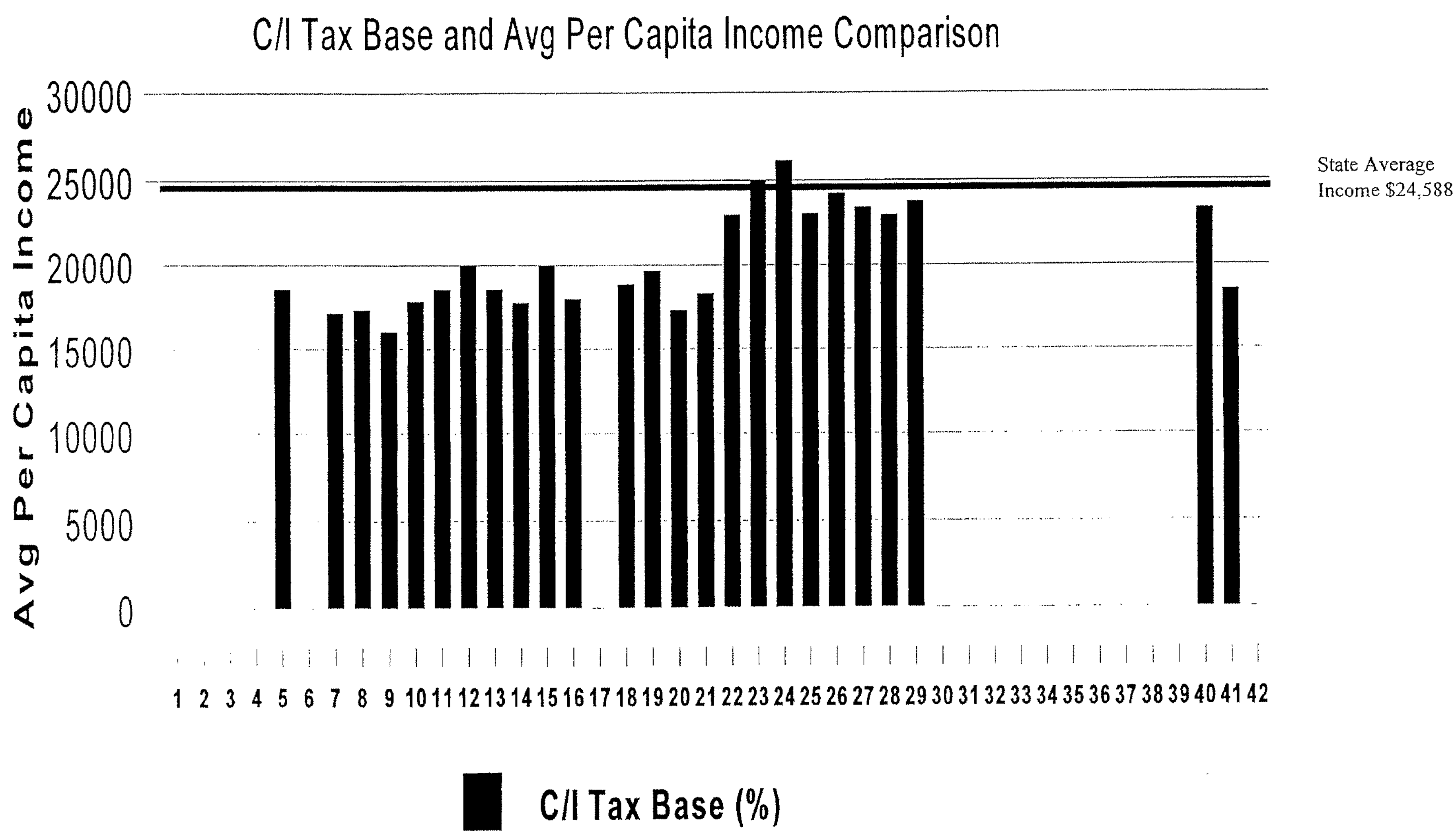
Attachment #1

Michigan Counties
Tax Base and Per Capita Income Comparison

1997 C/I Tax Bases %	1996 Average Per Capita
1	0
2	0
3	0
4	0
5	18,568
6	0
7	17,140
8	17,316
9	16,027
10	17,825
11	18,547
12	20,007
13	18,545
14	17,747
15	19,951
16	17,987
17	0
18	18,854
19	19,662
20	17,305
21	18,304
22	22,951
23	25,014
24	26,121
25	23,034
26	24,248
27	23,411
28	22,951
29	23,759
30	0
31	0
32	0
33	0
34	0
35	0
36	0
37	0
38	0
39	0
40	23,326
41	18,484
42	0

Attachment #2

Michigan



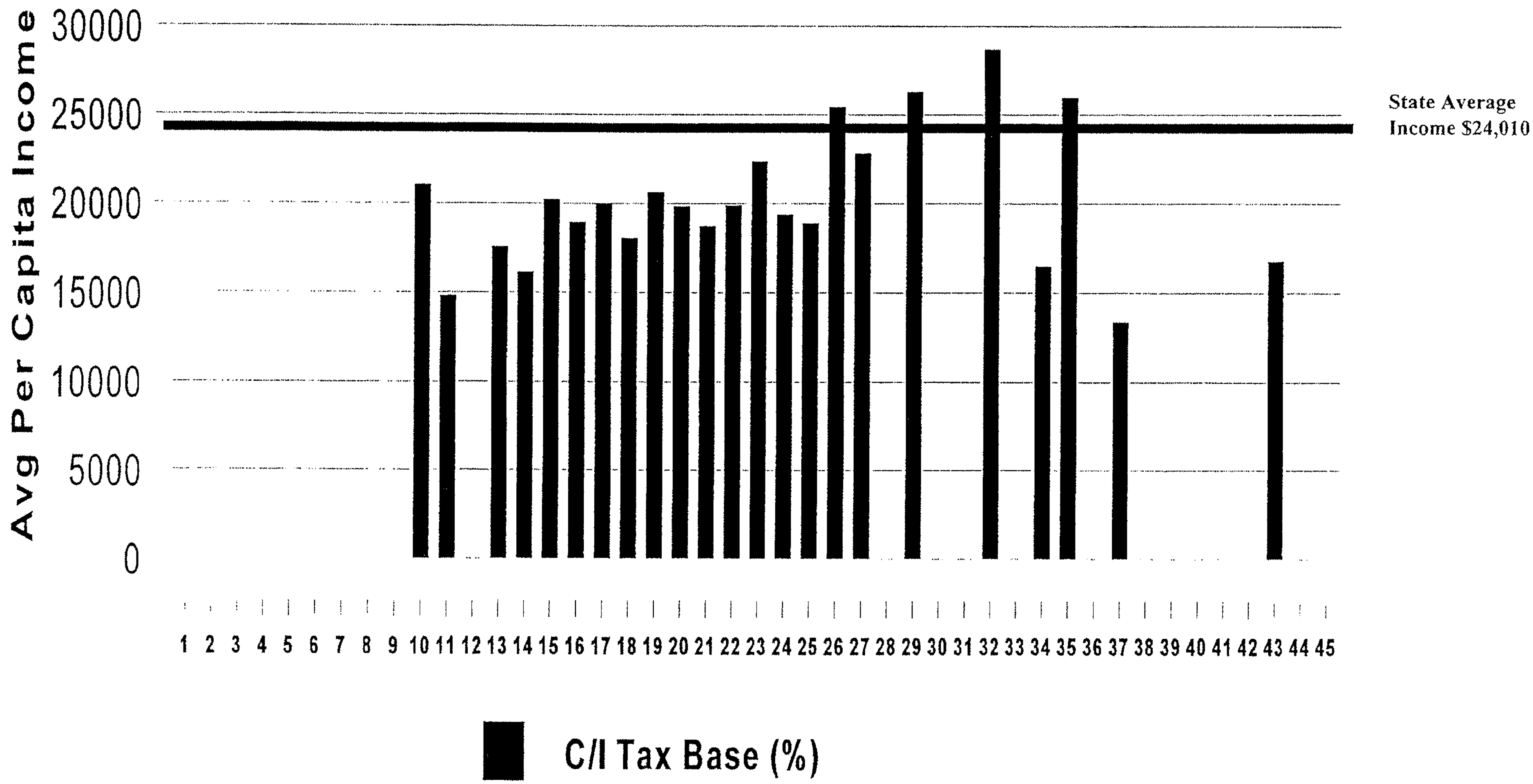
Attachment #3

Ohio Counties
Tax Base and Per Capita Income Comparison

1995 C/I Tax Bases %	1996 Average Per Capita
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	21,050
11	14,813
12	0
13	17,590
14	16,149
15	20,220
16	18,942
17	19,967
18	18,066
19	20,649
20	19,817
21	18,739
22	19,888
23	22,382
24	19,378
25	19,802
26	25,399
27	22,836
28	0
29	26,266
30	0
31	0
32	28,690
33	0
34	16,484
35	25,959
36	0
37	13,391
38	0
39	0
40	0
41	0
42	0
43	16,795
44	0
45	0

Ohio

C/I Tax Base and Avg Per Capita Income Comparison



Data Sources

Per Capita Income

Michigan
Survey of Current Business, May 1998: U.S. Department of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis.

Ohio
Survey of Current Business, May 1998: U.S. Department of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis.

Tax Base

Michigan
1997 State Equalized Valuation by State Tax Commission, State of Michigan 1997.

Ohio
Ohio County Profiles: Prepared and distributed by the Ohio Department of Strategic Research, Ohio Department of Development, Columbus Ohio, June 1997.

Commuting Patterns

Michigan
Southeast Michigan Council of Governments (Detroit, Michigan: special tabulation from 1990 census).

Ohio
Geographic Mobility, Commuting, and Veteran Status: 1990, Ohio Strategic Research Department.