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Interstate Tax Differentials Related to Economic Growth

By

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## Interstate Tax Differentials Related to Economic Growth

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It has often been alleged with little or no evidence that states with high tax burdens grow more slowly than do states with low tax burdens. Businesses and people are alleged to "vote with their feet", moving from high tax states to low tax states. To measure the relation we need to define tax burdens and to define growth. The purpose of this paper is to measure the effect of taxes on growth.

### Tax Burdens:

States finance their state and local services with state taxes, local taxes, charges for services rendered and miscellaneous income-neglecting federal aids. The degree of reliance on each of these sources of funds varies greatly from state to state. Some propagandists compare only state taxes - in some cases only a particular state tax such as the personal income tax. Some compare only local taxes - often only the property tax, ignoring the fact that in some states local sales and/or personal income taxes are also important. These comparisons are generally not valid. Some compare all state and local taxes of one state with all state and local taxes of other states. This is better but still not valid since states vary greatly in the degree of reliance on charges as opposed to taxes to finance public services.

It is contended here that the most valid comparison of tax burdens among the states is to consider the tax burden as the sum of state and local taxes, charges and miscellaneous income. This definition is officially known as "general revenue from own sources" and it is the definition used in this

paper. Even this measure has its limitations since more services in some states are provided by government and financed out of tax revenue or charges (such as garbage pickup) while the service(s) is (are) provided by the private sector in others. However, it is likely that the tax structure of a state may affect growth as well as the tax level. Therefore we have compared states' per capita general revenue from own sources and per capita personal income taxes to growth.

Since the relative reliance on state taxes, local taxes and charges and miscellaneous income to finance state and local services vary so much from state to state, the figures are provided by state in Table 1 and summarized below.

State taxes per capita in fiscal 1981-82 varied from \$353.42 in New Hampshire and \$467.48 in Tennessee to \$6316.41 in Alaska (oil) and \$1622.34 in Wyoming while state taxes per capita for the United States as a whole were \$717.99 (see Table 1).

Local taxes per capita varied from \$170.96 in Mississippi and \$176.07 in Arkansas to \$924.04 in Wyoming and \$910.66 in New York while local taxes per capita for the nation as a whole were \$457.48 (Table 1).

Charges and miscellaneous revenue per capita varied from \$277.57 in Maine and \$283.91 in Kentucky to \$7701.20 in Alaska, \$1265.74 in Wyoming and \$1019.15 in New Mexico while such revenue per capita for the nation was \$454.37 (Table 1).

General revenue from own sources (state and local taxes, charges and miscellaneous revenue) per capita varied from \$1065.12 in Arkansas and \$1112.21 in Tennessee to \$14,698.70 in Alaska, \$3812.13 in Wyoming and \$2237.39 in New York while such revenue per capita for the nation was \$1629.84 (Table 1).

Forty-three states relied primarily on state taxes to finance state and local services, three (Colorado, New Hampshire, and New York) relied primarily on local taxes, and four (Alaska, New Mexico, Oregon, and South Dakota) relied

Table 1: Total and per Capita State Taxes, Local Taxes, Charges and Miscellaneous Revenue and Revenue from own Sources for Fiscal 1981-82, by States.\*

State	-----millions of dollars-----				-----thousands-----			-----dollars-----		
	State Taxes	Local Taxes	Charges and Miscellaneous General Revenue**	General Revenue from own Sources	Population April: 1980	State Taxes per Capita	Local Taxes per Capita	Charges and Miscellaneous General Revenue per Capita**	General Revenue from own Sources per Capita	
United States	162,657.8	103,641.2	102,937	369,236.1	226,547	717.99	457.48	454.37	1,629.84	
Alabama	2,195.8	777.5	1,716.5	4,689.8	3,894	563.89	199.67	440.81	1,204.37	
Alaska	2,539.2	273.8	3,095.9	5,908.9	402	6,316.41	681.09	7,701.20	14,698.70	
Arizona	1,856.0	1,024.3	1,358.3	4,238.6	2,718	682.89	376.86	499.75	1,559.45	
Arkansas	1,263.7	402.5	768.6	2,434.9	2,286	552.80	176.07	336.24	1,065.12	
California	21,818.7	10,662.7	11,951.9	44,433.2	23,668	921.86	450.51	504.98	1,877.35	
Colorado	1,690.0	1,743.6	1,627.6	5,061.3	2,890	584.78	603.32	563.20	1,751.32	
Connecticut	2,339.5	1,775.5	1,010.9	5,125.9	3,108	752.73	571.27	325.25	1,649.26	
Delaware	594.8	127.3	358.8	1,080.9	594	1,001.35	214.31	604.02	1,819.74	
District of Columbia	-0-	1,227.4	212.8	1,440.2	638	-0-	1,923.82	333.53	2,257.42	
Florida	5,555.9	3,665.4	4,126.7	13,348.0	9,746	570.07	376.09	423.42	1,369.59	
Georgia	3,281.1	1,885.8	2,500.3	7,667.2	5,463	600.60	345.19	457.68	1,403.48	
Hawaii	1,066.2	315.0	481.9	1,863.1	965	1,104.87	326.42	499.38	1,930.66	
Idaho	578.6	232.2	379.2	1,190.0	944	612.92	245.97	401.74	1,260.61	
Illinois	7,429.3	6,249.0	3,910.0	17,588.4	11,427	650.15	546.86	342.18	1,539.20	
Indiana	3,063.7	1,746.4	2,037.4	6,847.4	5,490	558.05	318.11	371.11	1,247.26	
Iowa	1,997.0	1,295.7	1,305.7	4,598.3	2,914	685.31	444.65	448.07	1,578.01	
Kansas	1,442.7	1,086.8	1,289.9	3,819.4	2,364	610.28	459.73	545.62	1,615.65	
Kentucky	2,491.1	638.9	1,039.1	4,169.0	3,660	680.63	184.56	283.91	1,139.07	
Louisiana	3,127.2	1,505.5	2,680.3	7,313.1	4,206	743.51	357.94	637.27	1,738.73	
Maine	731.0	419.6	312.2	1,462.8	1,125	649.77	372.98	277.57	1,330.30	

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Table 1: Total and per Capita State Taxes, Local Taxes, Charges and Miscellaneous Revenue and Revenue from own Sources for Fiscal 1981-82, by States.\* (continued)

State	-----millions of dollars-----				-----thousands-----		-----dollars-----		
	State Taxes	Local Taxes	Charges and Miscellaneous General Revenue **	General Revenue from own Sources	Population April: 1980	State Taxes per Capita	Local Taxes per Capita	Charges and Miscellaneous General Revenue per Capita**	General Revenue from own Sources per Capita
Maryland	3,193.1	2,174.9	2,035.5	7,403.6	4,217	757.19	515.75	482.70	1,755.65
Massachusetts	4,803.7	2,958.8	1,828.0	9,590.4	5,737	837.32	515.74	318.64	1,671.68
Michigan	6,307.2	5,089.6	4,891.3	16,288.1	9,262	680.98	449.51	528.10	1,758.59
Minnesota	3,799.4	1,457.4	2,655.5	7,912.3	4,076	932.14	357.56	651.48	1,941.18
Mississippi	1,462.3	431.0	1,033.9	2,927.2	2,521	580.50	170.96	410.12	1,161.14
Missouri	2,313.1	1,831.0	1,540.2	5,684.3	4,917	470.43	372.38	313.25	1,156.05
Montana	529.1	436.3	457.6	1,423.1	787	672.30	554.38	581.55	1,808.25
Nebraska	860.5	784.7	831.0	2,476.3	1,570	548.09	499.81	529.35	1,577.24
Nevada	745.5	268.3	519.1	1,532.9	800	931.88	335.38	648.91	1,916.15
New Hampshire	325.5	526.9	304.9	1,157.3	921	353.42	572.10	331.06	1,256.60
New Jersey	5,577.2	4,387.6	2,781.8	12,746.7	7,365	757.25	595.74	377.71	1,730.71
New Mexico	1,226.5	261.4	1,328.0	2,815.9	1,303	941.29	200.61	1,019.15	2,161.12
New York	15,438.0	15,989.4	7,856.7	39,284.1	17,558	879.26	910.66	447.47	2,237.39
North Carolina	3,790.0	1,414.7	1,893.0	7,097.8	5,882	644.34	240.51	321.83	1,206.70
North Dakota	532.6	205.7	508.5	1,246.9	653	815.62	315.01	778.71	1,909.42
Ohio	5,819.5	4,684.9	4,067.8	14,572.2	10,798	538.94	433.87	376.72	1,349.52
Oklahoma	2,713.0	946.0	1,400.9	5,059.9	3,025	896.86	312.73	463.11	1,672.69
Oregon	1,552.3	1,402.0	1,643.9	4,598.2	2,633	587.56	532.47	624.35	1,746.37
Pennsylvania	8,185.6	5,053.6	3,985.9	17,225.1	11,864	689.95	425.96	335.97	1,451.88
Rhode Island	674.8	483.1	414.5	1,572.4	947	712.57	510.14	437.68	1,660.42
South Carolina	1,959.2	669.2	1,181.7	3,810.1	3,122	627.55	214.35	378.51	1,220.41
South Dakota	328.8	304.2	333.1	966.1	691	475.83	440.23	482.05	1,398.16
Tennessee	2,146.2	1,398.6	1,561.3	5,106.1	4,591	467.48	304.64	340.07	1,112.21
Texas	9,099.8	6,259.4	6,987.8	22,347.0	14,229	639.52	439.90	491.09	1,570.53
Utah	950.9	526.9	850.6	2,328.4	1,461	650.86	360.64	582.21	1,593.70

Table 1: Total and per Capita State Taxes, Local Taxes, Charges and Miscellaneous Revenue and Revenue from own Sources for Fiscal 1981-82, by States.\* (continued)

State	State Taxes	Local Taxes	Charges and Miscellaneous General Revenue**	General Revenue from own Sources	Population April: 1980	State Taxes per Capita	Local Taxes per Capita	Charges and Miscellaneous Revenue per Capita**	
								---millions of dollars---	---dollars---
Vermont	332.3	233.1	191.2	756.6	511	650.29	456.16	374.19	1,480.61
Virginia	3,235.8	2,273.8	1,962.8	7,472.4	5,347	605.16	425.25	367.08	1,397.49
Washington	3,528.4	1,313.1	2,208.9	7,050.4	4,132	853.92	317.79	534.58	1,706.29
West Virginia	1,468.9	392.7	707.6	2,569.1	1,950	753.28	201.38	362.83	1,317.51
Wisconsin	3,934.5	1,993.5	2,214.9	8,142.9	4,706	836.06	423.61	470.66	1,730.32
Wyoming	762.5	434.3	594.9	1,791.7	470	1,622.34	924.04	1,265.74	3,812.13

\*Governmental Finances in 1981-82, U.S. Dept. of Commerce, BLS, pp. 20-28 and p. 96.

\*\*Charges and Miscellaneous General Revenue--Current charges, special assessments, and all other general revenue except taxes and intergovernmental revenue. Current Charges comprise amounts received from the public for performance of specific services benefiting the person charged and from sales of commodities and services except those by liquor store systems and local utilities. Includes fees, toll charges, tuition, and other reimbursements for current services, rents and sales incident to the performance of particular governmental functions, and gross income of commercial-type activities (parking lots, school lunch programs, and the like). Interest Earnings consist of earnings on deposits and securities, other than such earnings of insurance trust funds. Special Assessments are compulsory contributions collected from owners of property benefited by specific public improvements (paving, drainage or irrigation facilities, etc.) to defray the costs of such improvements, and apportioned according to the assumed benefits to the property affected.

primarily on charges and miscellaneous revenue. Thirty-five states relied more on charges and miscellaneous revenue than they did on local taxes to finance state and local services (Table 1). The degree to which states relied on state taxes to finance state and local services varied from 28.1 percent in New Hampshire and 33.4 percent in Colorado to 59.8 percent in Kentucky and 57.2 percent in Hawaii while the nation as a whole financed 44.1 percent of its state and local services with state taxes. All of the figures above abstract from federal aids. Any state can be made to look good or bad by carefully selecting the measure of burdens and/or the years included in the comparison.

Finally, a caveat: one should be careful not to attribute to differences in tax burdens what should be attributed to the sun. The sun, of course, is an euphemism for the South and the West - much of which is relatively undeveloped. The center of population and with it economic activity for the United States has been moving southwest (mostly west) for decades. The natural resources of the northeast and midwest have been exploited to a much greater degree than for the South or the West. The South was severely set back by the Civil War and is still catching up. Much of the West still consists of wide open spaces with unexploited and perhaps undiscovered resources. Americans are still heeding Horace Greeley's advice to "Go West" and a modern Mexican "Greeley" is advising going north which is West to us.

#### Economic Growth:

In this paper, we have used growth in non-agricultural employment 1978-82 as a proxy for economic growth. However, many believe that growth in manufacturing is more sensitive than growth in other sectors to differentials in state and local tax burdens. So we have included this measure



in this paper - using growth in manufacturing employment as a proxy for growth in manufacturing. The December 1983 issue of the Handbook of Labor Statistics, published in 1984, was the latest issue available. The latest year for which the data was available was 1982. The use of a 4 year period was arbitrary. An interesting and careful reader might wish to try a longer period.

Table 2 provides the following data:

- A. Manufacturing employment in 1978 and in 1982 and the percent change in such employment by state
- B. Non-agricultural employment in 1978 and in 1982 and the percent change in such employment by state
- C. Per capita general revenue from own sources by state
- D. Per capita personal income taxes by state

All States:

Regressions were calculated relating for all states:

- A. Growth in non-agricultural employment 1978-1982 and per capita revenue from own sources, 1981-82
- B. Growth in manufacturing employment 1978-1982 and per capita revenue from own sources, 1981-1982.
- C. Growth in non-agricultural employment 1978-1982 and per capita personal income taxes, 1981
- D. Growth in manufacturing employment 1978-1982 and per capita personal income taxes, 1981.

The results are shown in Table 3.

Growth in non-agricultural employment and growth in manufacturing employment were positively related to per capita revenue from own sources (total state and local burden). The former relation was statistically significant; but while the latter was positive, it was not statistically significant. (If, however, Alaska and Wyoming with very high per capita revenue and very low employment bases are excluded from the data, neither

Table 2: Growth in Manufacturing Employment and Growth  
in Non-Agricultural Employment 1978-1982 and General State and  
Local Revenue from own Sources per capita, and personal income taxes per capita

State	Manufacturing Employment in 000's		Percent Change 1978- 1982		Non-agricultural Employment in 000's		Percent Change 1978- 1982		Per Capita Revenue from Own Sources		Per Capita Personal Income Taxes	
	1978	1982	1978	1982	1978	1982	1978	1982				
Maine	111.3	107.4	405.6	-3.5	410.6	1.2	1330.30	156.97				
New Hampshire	109.8	112.1	359.6	2.1	393.1	9.3	1256.60	13.71				
Vermont	47.7	49.1	190.6	2.9	202.3	6.1	1480.61	192.73				
Massachusetts*	652.1		2526.3		390.6		1671.68	358.71				
Rhode Island	134.4	117.1	395.8	-12.9	1425.5	-1.3	1660.42	203.74				
Connecticut	419.6	416.2	1346.1	-0.8		5.9	1649.26	37.90				
New York	1481.2	1361.8	7044.5	-8.1	7234.1	2.7	2237.39	376.60				
New Jersey	786.8	727.7	2961.9	-7.5	3085.2	4.2	1730.71	155.85				
Pennsylvania	1367.8	1167.1	4716.2	-14.7	4561.3	-3.3	1451.88	158.86				
Delaware	69.0	67.9	247.8	-1.6	258.6	4.4	1819.74	440.70				
Maryland	241.5	212.2	1625.8	-12.1	1669.7	2.7	1755.65	285.87				
Washington D.C.	15.0	13.6	596.3	-9.3	595.8	0	2257.42					
Virginia**	409.4	397.7	2033.5	-2.9	608.6	-3.9	1397.49	241.04				
West Virginia	126.6	98.9	633.1	-21.9			1317.51	137.48				
North Carolina	807.2	781.3	2277.4	-3.2	2338.4	2.7	1206.70	221.62				
South Carolina	391.1	362.2	1137.5	-7.4	1162.0	2.2	1220.41	182.91				
Georgia	515.8	500.9	2050.1	-2.9	2201.5	7.4	1403.48	189.62				
Florida	415.5	459.9	3180.6	10.7	3762.0	18.3	1369.59	0				
Kentucky	292.2	246.8	1209.9	-15.5	1164.4	-3.8	1139.07	156.57				
Tennessee	526.0	468.0	1737.0	-11.0	1688.3	-2.8	1112.21	7.77				
Alabama	368.9	337.0	1336.5	-8.6	1315.0	-1.6	1204.37	132.48				
Mississippi	235.3	203.5	813.7	-13.5	793.3	-2.5	1161.14	75.83				
Ohio	1377.2	1103.6	4394.6	-19.9	4138.7	-5.8	1349.52	105.06				
Indiana	741.5	583.3	2205.5	-21.3	2010.3	-8.9	1247.26	117.10				
Illinois*	1276.0		4788.8		3189.3		1539.20	178.31				
Michigan	1179.6	874.1	3609.4	-25.9	1758.59	-11.6	1758.59	219.00				
Wisconsin	569.7	496.3	1887.0	-12.9	1867.2	-1.0	1730.32	351.69				
Minnesota	360.4	346.3	1688.9	-3.9	1708.7	1.2	1941.18	342.60				

Table 2: Growth in Manufacturing Employment and Growth  
in Non-Agricultural Employment 1978-1982 and General State and  
Local Revenue from own Sources per capita, and personal income taxes per capita  
(Continued)

State	Manufacturing Employment in 000's		Percent Change 1978- 1982		Non-agricultural Employment in 000's		Percent Change 1978- 1982		Per Capita Revenue from Own Sources		Per Capita Personal Income Taxes	
	1978	1982	1978	1982	1978	1982	1978	1982	1978	1982	1978	1982
Arkansas	217.5	195.8	-10.0		732.7	719.3	-1.8		1065.12		136.43	
Louisiana	209.5	205.7	-1.8		1463.5	1614.0	10.3		1738.73		44.14	
Oklahoma	172.4	183.6	6.5		1035.5	1232.2	19.0		1672.69		163.30	
Texas	962.8	1060.2	10.1		5271.6	6273.8	19.0		1570.53		0	
New Mexico	33.4	34.0	1.8		444.3	473.9	6.7		2161.12		54.44	
Iowa	252.5	207.7	-17.7		1119.2	1030.6	-7.9		1578.01		231.13	
Missouri	456.8	407.3	-10.8		1953.1	1916.2	-1.9		1156.05		136.21	
Nebraska	94.1	86.5	-8.1		609.9	603.5	-1.0		1577.24		128.14	
Kansas	185.9	166.2	-10.6		912.5	919.2	0.7		1615.65		175.54	
North Dakota	15.7	14.9	-5.1		234.0	250.5	7.1		1909.42		95.63	
South Dakota	24.9	25.0	0.4		236.6	230.1	-2.7		1398.16		0	
Montana	26.3	20.1	-23.6		280.4	271.9	-3.0		1808.25		185.63	
Wyoming	9.6	9.2	-4.2		187.4	217.2	15.9		3812.13		0	
Colorado	168.2	182.8	8.7		1150.0	1311.7	14.1		1751.32		151.45	
Utah	80.3	85.9	7.0		525.4	560.3	6.6		1593.70		201.88	
Arizona	126.9	152.2	19.9		895.4	1029.3	15.0		1559.45		133.95	
Nevada	17.8	18.8	5.6		350.3	405.7	15.8		1916.15		0	
California	1875.2	1928.4	2.8		9199.8	9825.4	6.8		1877.35		278.41	
Hawaii	23.7	22.5	-5.1		377.3	401.1	6.3		1930.66		347.00	
Idaho**	58.1	47.8	-17.7		331.3				1260.61		196.50	
Washington	284.7	289.9	1.8		1485.6	1569.2	5.6		1706.29		0	
Oregon	219.1	185.6	-15.3		1009.4	960.8	-4.8		1746.37		381.71	
Alaska	11.6	11.1	-4.3		163.5	194.4	18.9		14698.70		17.85	
United States	20,505.0	18,853.0	-8.1		86697.0	89596.0	3.3		1629.84		208.82	

Source: Manufacturing Employment and Non-Agricultural Employment from Handbook of Labor Statistics, BLS, 1983, pp. 159-176.

Per capita Revenue from own Sources from Governmental Finances, 1981-82, Dept. of Commerce, Bureau of Census, p. 91.

Per capita Personal Income Taxes from Fiscal Facts for Minnesotans, Minnesota Taxpayer Ass'n, p. 56.

\*Data missing for Illinois and Massachusetts.

\*\*Obvious printing errors for Virginia and Idaho.

Table 3 Regressions Relating Per Capita State and Local Tax Burdens (and Per Capita Personal Income Taxes) to % Growth in Non-Agricultural Employment (and Growth in Manufacturing Employment) - All States.\*

Variables in the Relation	Regression Equation**	R <sup>2</sup>	N*	Statistical Significance
Per capita general revenue from own sources 1981-82 and growth in non-agricultural employment 1978-82	$E = .796615838 + .00143974 T$	.12995	47	Significant at 98% level and <u>positive</u>
Per capita general revenue from own sources 1981-82 and growth in manufacturing employment 1978-82	$M = -6.5721592 + .000289666 T$	.003228	49	Not significant but <u>positive</u>
Per capita personal income taxes, fiscal 1981, and growth in non-agricultural employment 1978-82	$E = 7.196401192 - .02309093 PIT$	.115536	46	Significant at 97% level and negative
Per capita personal income taxes, fiscal 1981, and growth in manufacturing employment 1978-82	$M = -2.36954052 - .02277682 PIT$	.06958	48	Significant at 90% level and negative

\*Data are given in Table 2. Data on both non-agricultural employment and manufacturing employment are missing for 1982 for Massachusetts and Illinois so these states are omitted in the regressions. Data for non-agricultural employment in 1982 are obvious misprints for Virginia and Idaho so they are omitted from regressions for non-agricultural employment but included in regressions for manufacturing employment.

\*\*E = percent growth in non-agricultural employment 1978-82  
 T = per capita general revenue from own sources 1981-82  
 M = percent growth in manufacturing employment 1978-82  
 PIT = per capita personal income taxes, fiscal 1981.

relation is statistically significant but both still positive). This seems to suggest that people and businesses seek high tax burdens which, of course, cannot be the case. What people and businesses really seek is a package of tax burdens and quality of government services that suit their preferences. We all like good services and low taxes. Unfortunately there is no such place. So we have to settle for a mix that suits us best. We simply cannot have good services and low taxes; albeit we can have high taxes and poor services. If there be such a state, it has problems.

Growth in both non-agricultural employment and manufacturing employment were negatively and significantly related to per capita personal income taxes. This result should not be surprising. Significant redistribution of income through taxation, whether we like it or not, is a federal function. A state can use its tax structure to redistribute income only to a limited degree without undesirable consequences.

A scatter diagram was made for each of the relations A to D above (page 7). One could not escape the observation that the statistical significance shown in Table 3 resulted from the southern and western state data. Therefore, two separate sets of regressions and scatter diagrams were prepared (and included) one for the "sunbelt" states, the South and the West, and the other for the "frostbelt" states, the Northeast and Midwest. (see Figure 9 for separation of sunbelt and frostbelt.)

#### Sunbelt States:

The regressions for the sunbelt states are given in Table 4 and the scatter diagrams in Figures 1-4, inclusive.

Growth in both non-agricultural employment and manufacturing employment was positively related to per capita general revenue, the former

Table 4 Regressions Relating Per Capita State and Local Tax Burdens (and Per Capita Personal Income Taxes) to % Growth in Non-Agricultural Employment (and Growth in Manufacturing Employment) - Sunbelt states.\* (See Figure 9 for definition of sunbelt.)

Variables in the Relation	Regression Equation**	R <sup>2</sup>	N*	Statistical Significance
Per capita general revenue from own sources 1981-82 and growth in non-agricultural employment 1978-82 See Figure 1	$E = 4.56894860 + .0011566558 T$	.1446187	24	Significant at 96% level and <u>positive</u>
Per capita general revenue from own sources 1981-82 and growth in manufacturing employment 1978-82 See Figure 2	$M = -2.81022536 + .0000175325 T$	.0000203608	26	Not significant but <u>positive</u>
Personal income taxes per capita, fiscal 1981 and growth in non-agricultural employment 1978-82 See Figure 3	$E = 11.19081344 - .03208613 PIT$	.186523	24	Significant at 98% level and negative
Personal income taxes per capita, fiscal 1981 and growth in manufacturing employment 1978-82 See Figure 4	$M = .763303009 - .02626627 PIT$	.080328	26	Significant at 91% level and negative

See Table 3 for footnotes.

statistically significant and the latter not statistically significant. If data for Wyoming and Alaska are excluded, both are statistically significant.

Growth in both non-agricultural employment and manufacturing employment were negatively and statistically significantly related to per capita personal income taxes. If data for Alaska and Wyoming are excluded, neither relation is statistically significant.

Frostbelt States:

The regressions for the frostbelt states are given in Table 5 and the scatter diagrams in Figures 5-8, inclusive.

Growth in non-agricultural employment and manufacturing employment were both positively related to per capita general revenue but neither was statistically significant. Growth in non-agricultural employment and manufacturing employment were both negatively related to per capita personal income taxes but neither was statistically significant.

Conclusions:

1. Having higher state and local tax burdens (defined as revenue from own sources = state taxes + local taxes + charges and miscellaneous income) has a positive and statistically significant effect on growth in non-agricultural employment for the nation as a whole and for sunbelt states as a subset but not for the frostbelt states as a subset. However, if data for Alaska and Wyoming - with high taxes, rapid growth, and very low bases - are excluded, the relation is still positive but not statistically significant for the nation as a whole nor for the frostbelt states but it is statistically significant for the sunbelt states.

Table 5 Regressions Relating Per Capita State and Local Tax Burdens (and Per Capita Personal Income Taxes) to % Growth in Non-Agricultural Employment (and Growth in Manufacturing Employment) - Frostbelt states.\* (See Figure 9 for definition of frostbelt.)

Variables in the Relation	Regression Equation**	R <sup>2</sup>	N*	Statistical Significance
Per capita general revenue from own sources 1981-82 and growth in non-agricultural employment 1978-82 See Figure 5	$E = -7.01656366 + .004325035 T$	.0559338	23	Not significant but <u>positive</u>
Per capita general revenue from own sources 1981-82 and growth in manufacturing employment 1978-82 See Figure 6	$M = -14.6233059 + .00304056 T$	.012503	23	Not significant but <u>positive</u>
Per capita personal income taxes, fiscal 1981, and growth in non-agricultural employment 1978-82 See Figure 7	$E = -.12729565 - .000246029095 PIT$	.000027917	22	Not significant and negative
Per capita personal income taxes, fiscal 1981, and growth in manufacturing employment 1978-82 See Figure 8	$M = -8.46394728 - .00681676102 PIT$	.0092944	22	Not significant but negative

See Table 3 for footnotes.



2. Having higher state and local tax burdens has a positive but not significant effect on growth in manufacturing employment for the nation as a whole, for sunbelt states, and for frostbelt states. If data for Alaska and Wyoming are excluded the relation is still not significant for the nation nor for the frostbelt but it is significant for the sunbelt.

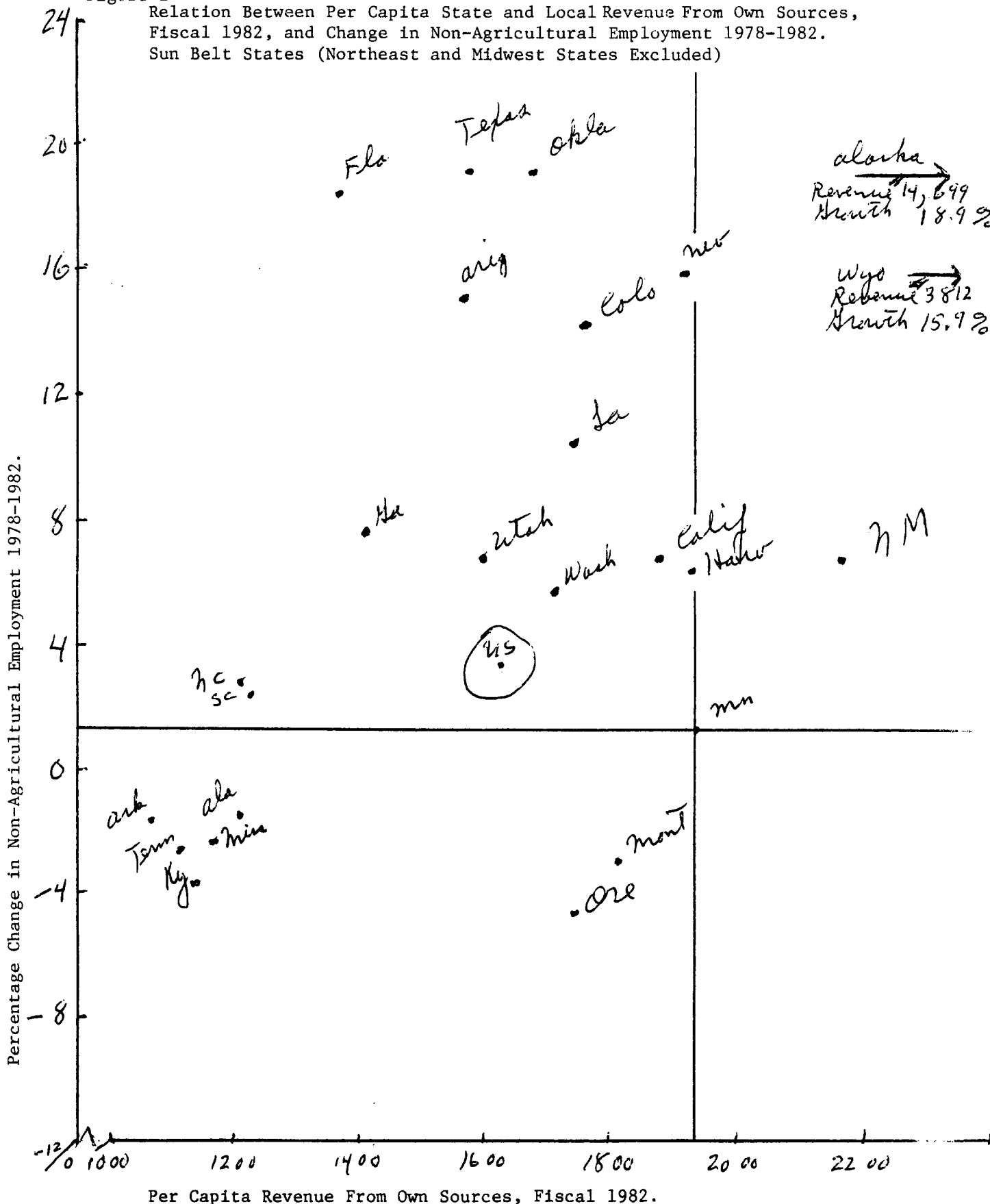
3. Having higher per capita personal income taxes has a negative and significant effect on both non-agricultural employment and manufacturing employment for the nation as a whole and for the sunbelt states but the effect is not significant for the frostbelt states. If data for Alaska and Wyoming are excluded, the relation is still significant for the nation but not for either the sunbelt states or the frostbelt states.

Alaska and Wyoming had the highest per capita general revenue from own sources, high rates of growth in non-agricultural employment, and almost insignificant bases so that their inclusion in the data is not warranted. Alaska had almost no state income taxes and Wyoming had none so that inclusion of their data also warps the results.

The contention that interstate differentials in tax burdens have an important influence on the overall differential rates of growth of the various states is weak. There is little doubt that for some economic activities the tax burden differentials are important. Also, even though interstate tax differentials are not important in the selection of a state for locating a business, intrastate tax differentials may be very important in selecting where within a state a business chooses to locate. This helps to explain the so-called border problem. Along the border between states, interstate and intrastate get blurred.

Figure 1

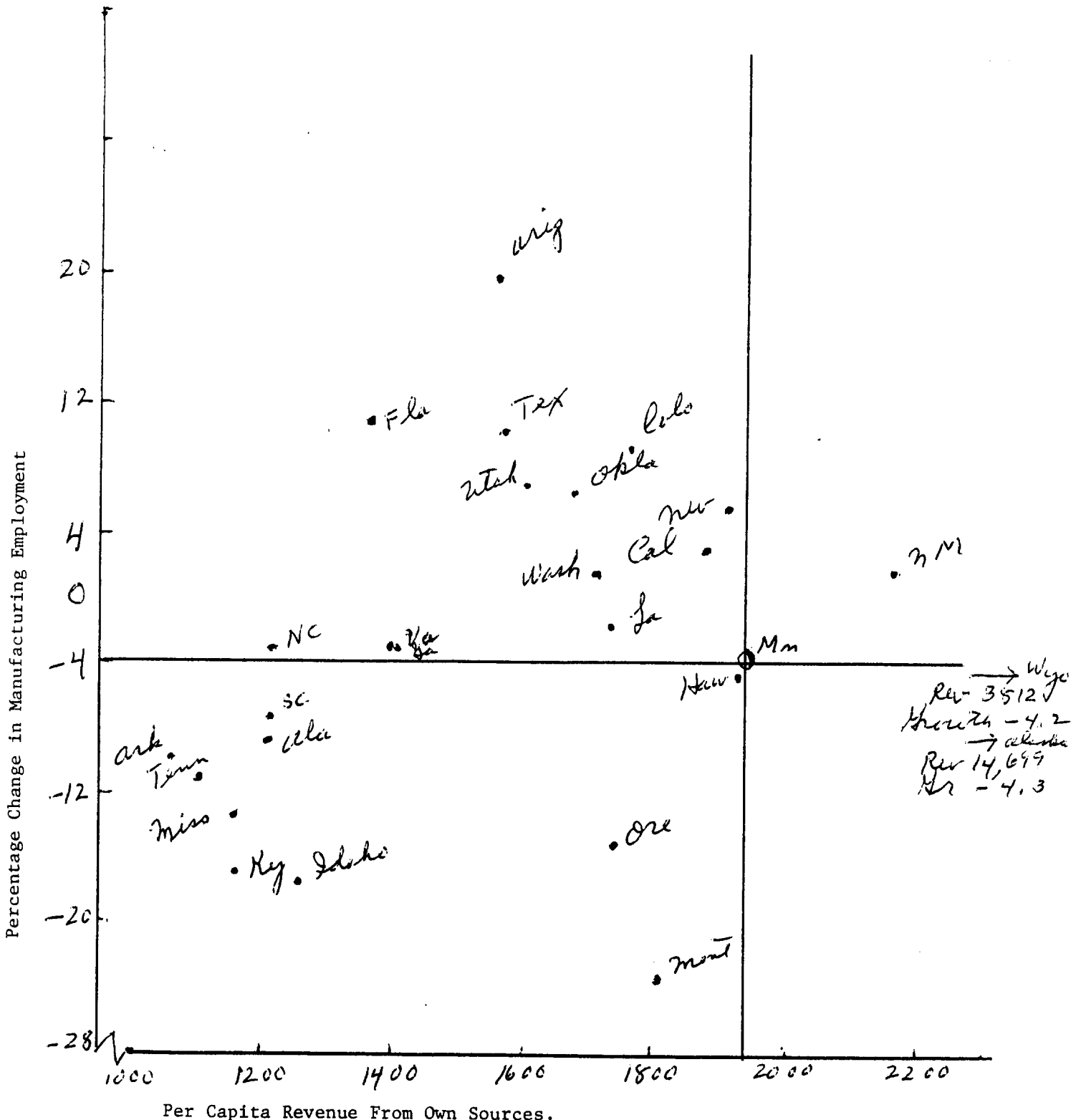
Relation Between Per Capita State and Local Revenue From Own Sources, Fiscal 1982, and Change in Non-Agricultural Employment 1978-1982. Sun Belt States (Northeast and Midwest States Excluded)



Source: Revenues from Governmental Finances, 1981-82, Department of Commerce, Bureau of Census, p 91. Non-Agricultural Employment from Handbook of Labor Statistics, 1983, BLS, p. 159 and 173. Idaho and Virginia 1982 data are obvious errors so excluded.

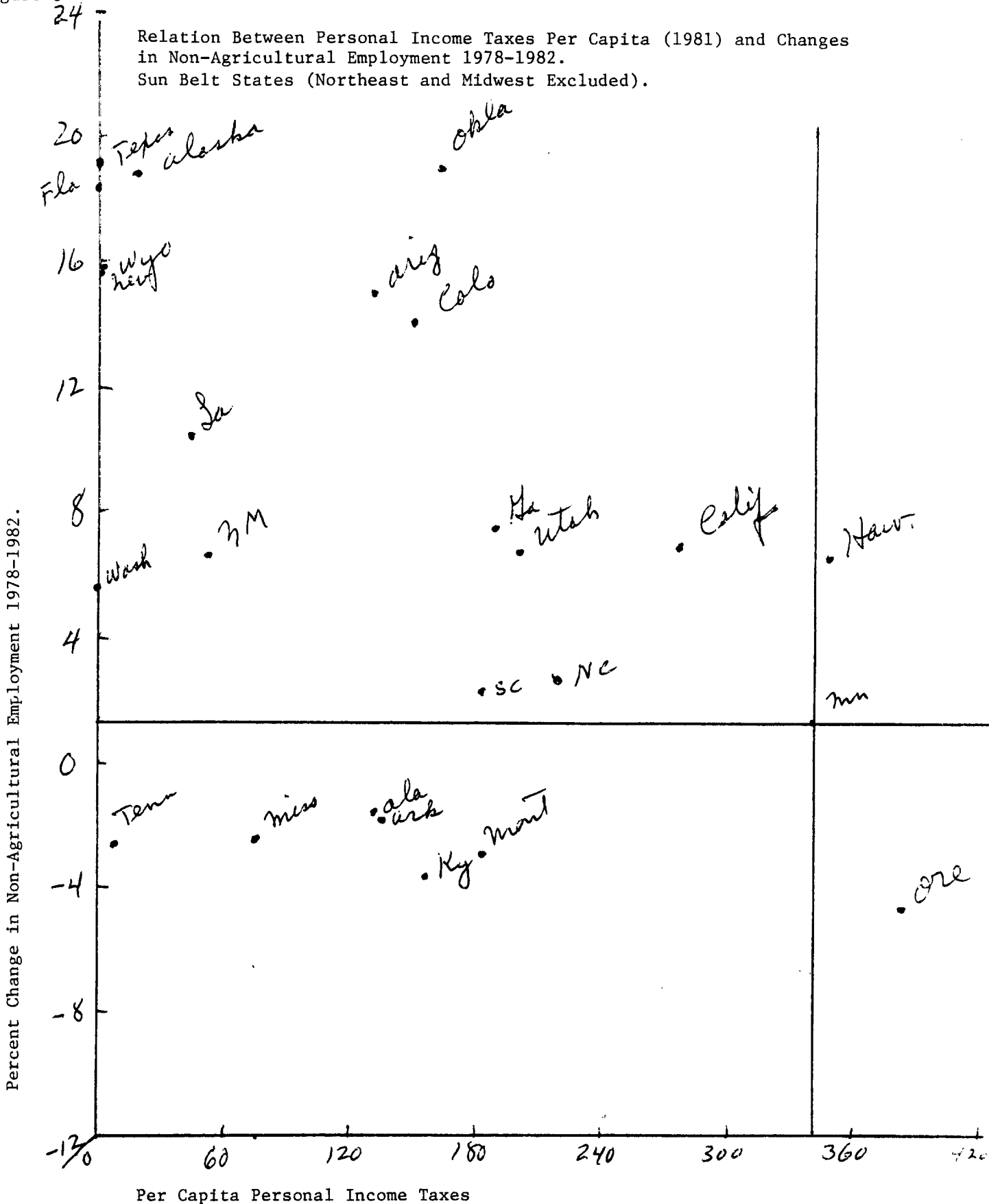
Figure 2

Relation Between Per Capita Revenue From Our Own Sources,  
Fiscal 1982, and Change in Manufacturing Employment 1978-1982.  
Sun Belt States (Northeast and Midwest Excluded)



Source: Revenue from Governmental Finances, 1981-82, Department of Commerce, Bureau of Census, p. 91. Manufacturing Employment from Handbook of Labor Statistics, 1983, BLS, pp. 159-176.

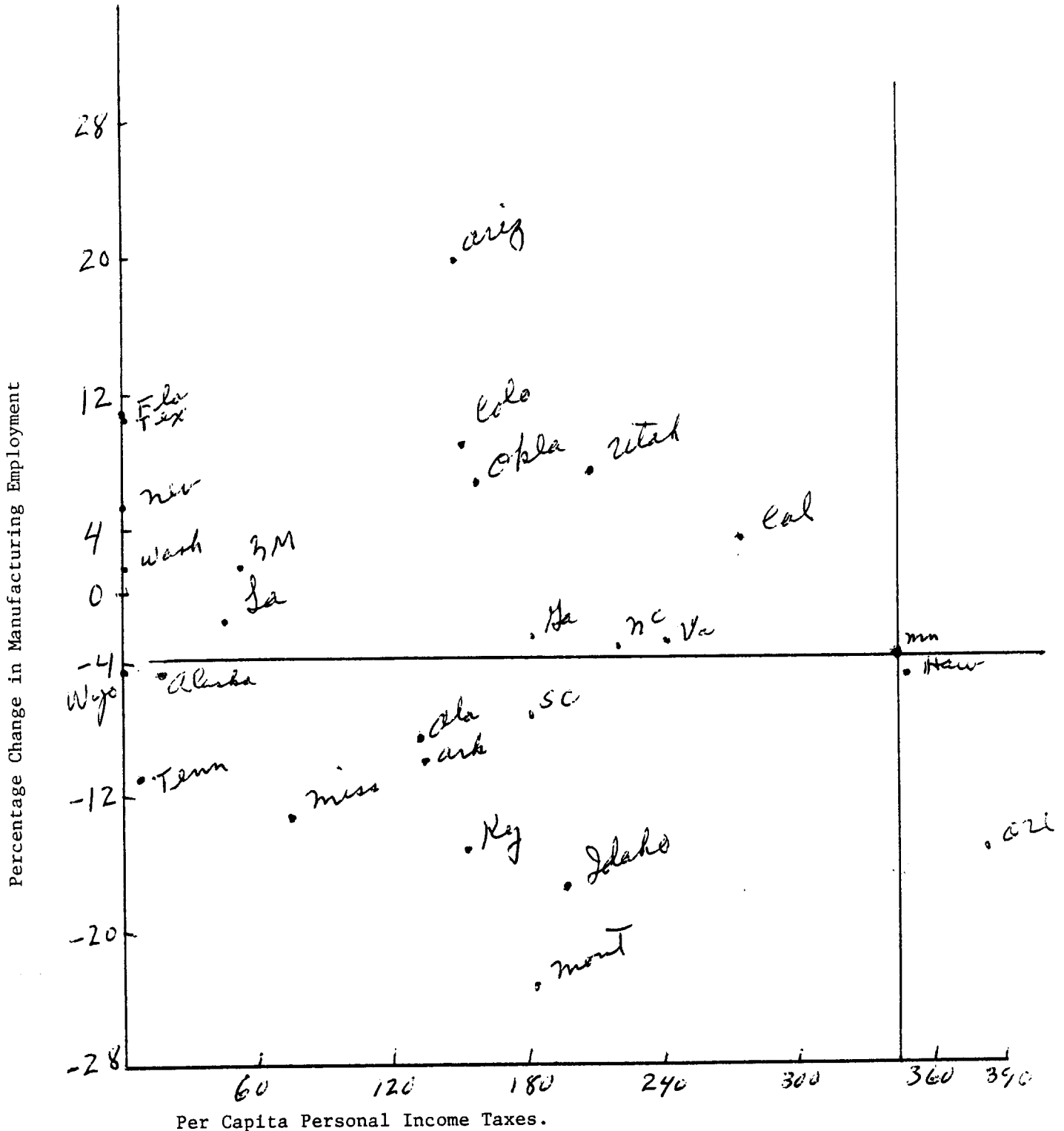
Figure 3



Source: Income Taxes from Fiscal Facts for Minnesotans, 1983, Minnesota Taxpayer's Association, p 56. Non-Agricultural Employment from Handbook of Labor Statistics, 1983, BLS, p. 159 and 173. Idaho and Virginia are omitted because of errors in publication.

Figure 4

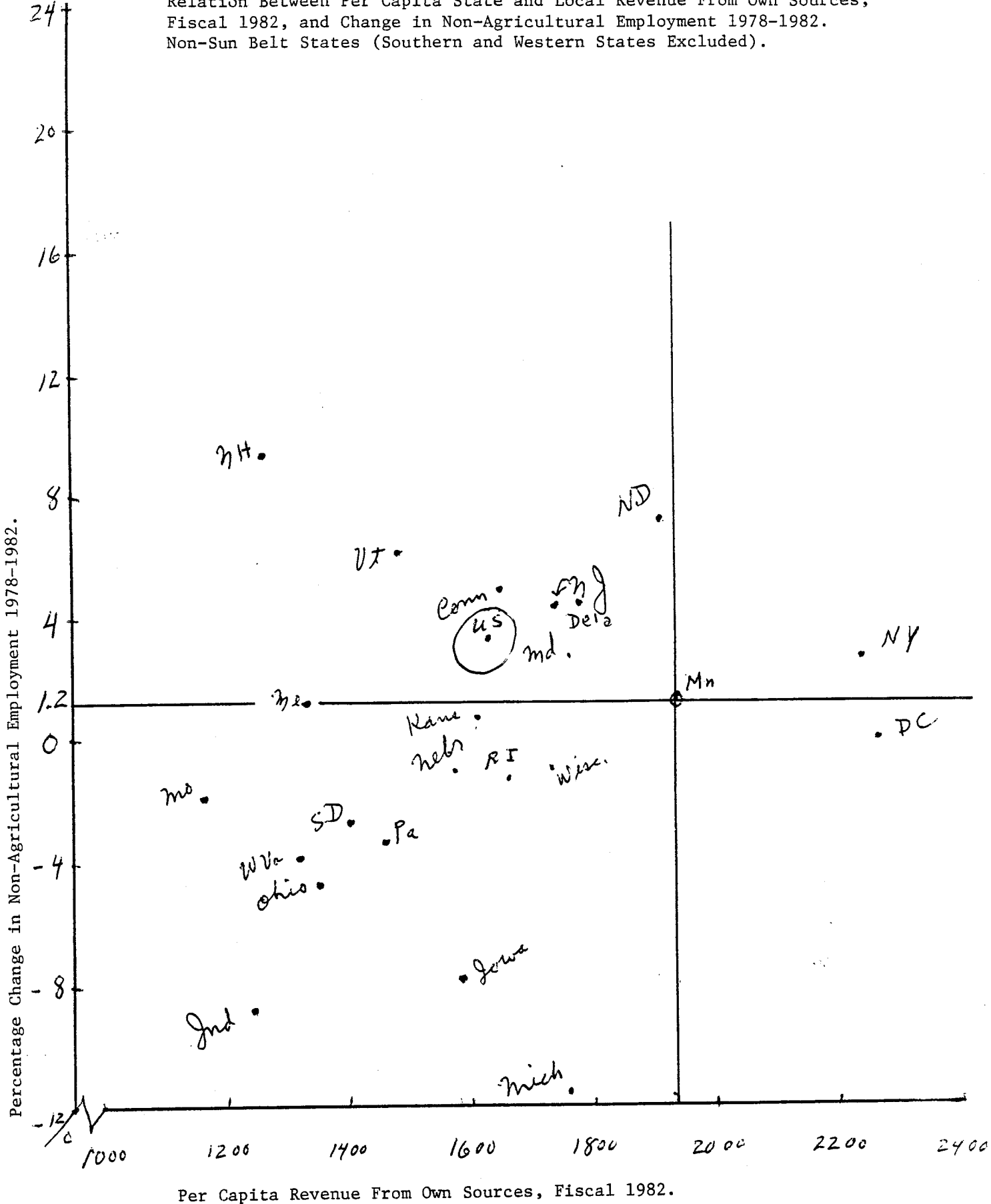
Relation Between Per Capita Personal Income Taxes 1981 and Changes in Manufacturing Employment from 1978-1982. Sun Belt States (Northeast and Midwest excluded)



Source: Income taxes from Fiscal Facts for Minnesotans, 1983, Minnesota Taxpayers Association, p. 56. Manufacturing Employment from Handbook of Labor Statistics, BLS, 1983, pp. 159-173.

Figure 5

Relation Between Per Capita State and Local Revenue From Own Sources, Fiscal 1982, and Change in Non-Agricultural Employment 1978-1982. Non-Sun Belt States (Southern and Western States Excluded).

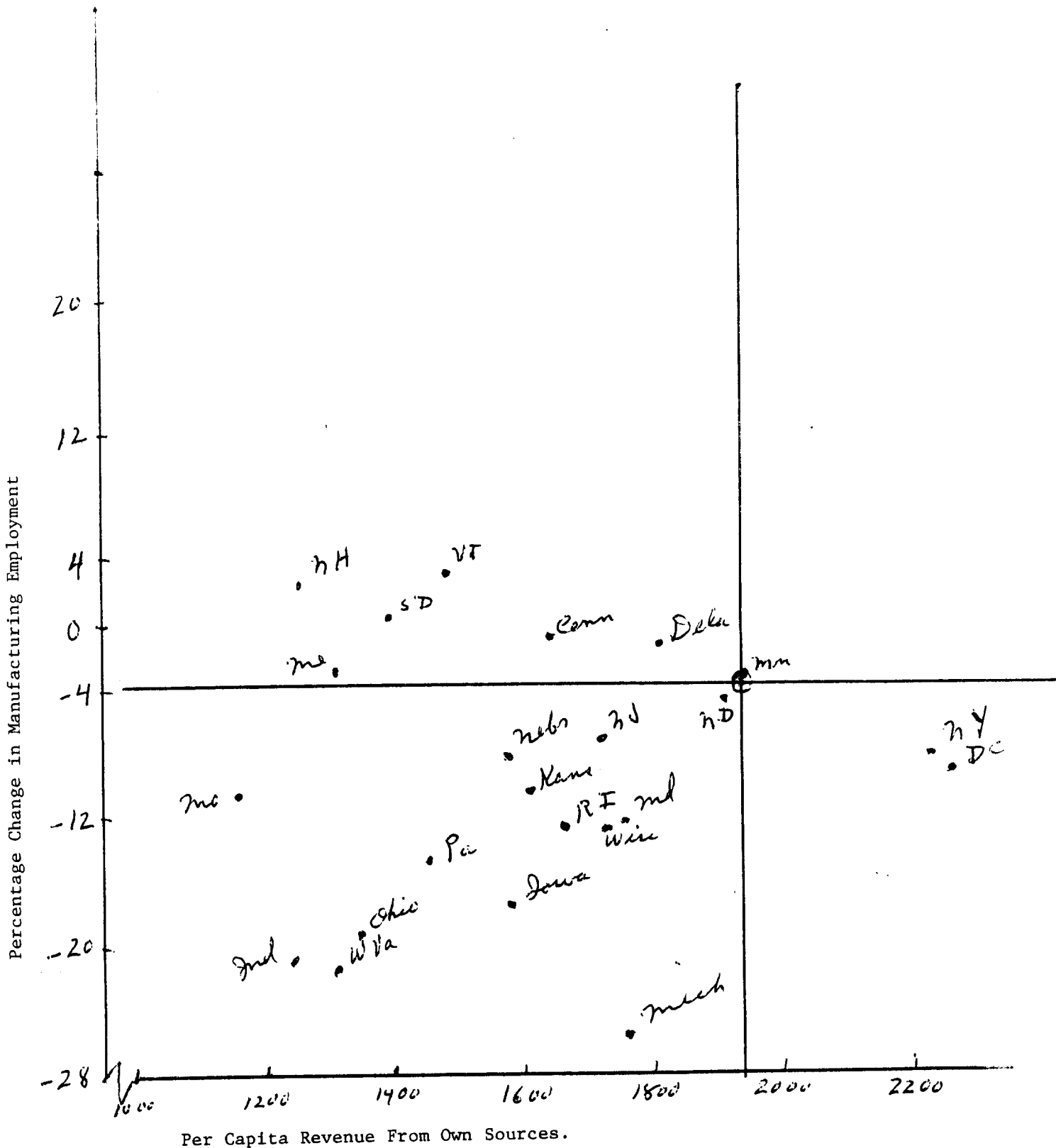


Per Capita Revenue From Own Sources, Fiscal 1982.

Source: Revenues from Governmental Finances, 1981-82, Department of Commerce, Bureau of Census, p 91. Non-Agricultural Employment from 1983 Handbook of Labor Statistics, BLS, p 159 and 173. Data missing for Illinois and Massachusetts.

Figure 6

Relation Between Per Capita Revenue From Own Sources, Fiscal 1982,  
and Change in Manufacturing Employment 1978-1982.  
Non Sun Belt States (Southern and Western States Excluded)



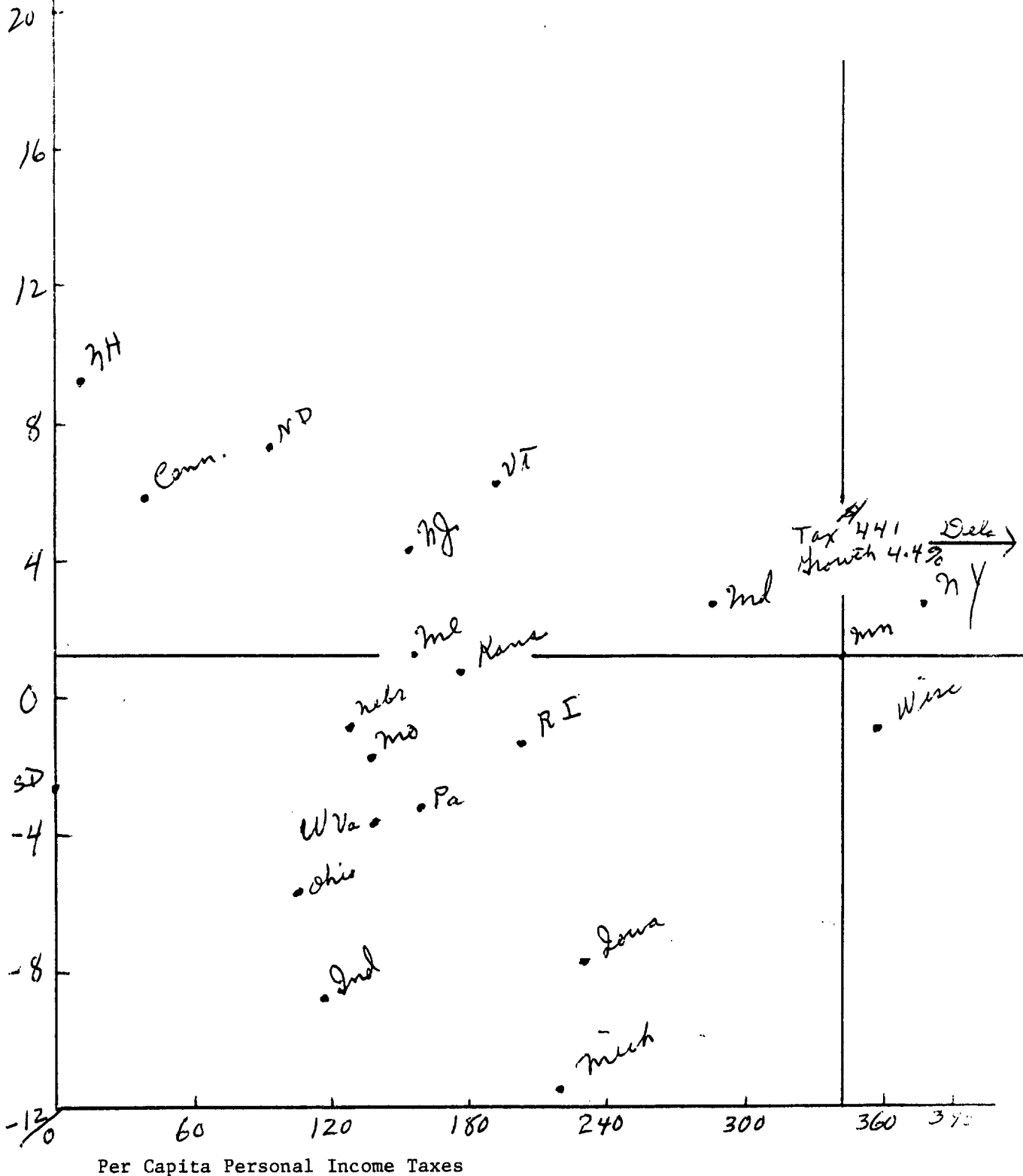
Source: Revenue from Governmental Finances, 1981-82, Department of Commerce, Bureau of Census, p. 91. Manufacturing Employment from Handbook of Labor Statistics, 1983, BLS, pp. 159-176. Illinois and Massachusetts excluded because of lack of data.

Figure 7

24

Relation Between Per Capita Personal Income Taxes By State in 1981 and the Rate of Change in Non-Agricultural Employment 1978-1982. Non-Sun Belt States (Excludes Western and Southern States).

Percent Change in Non-Agricultural Employment 1978-1982.

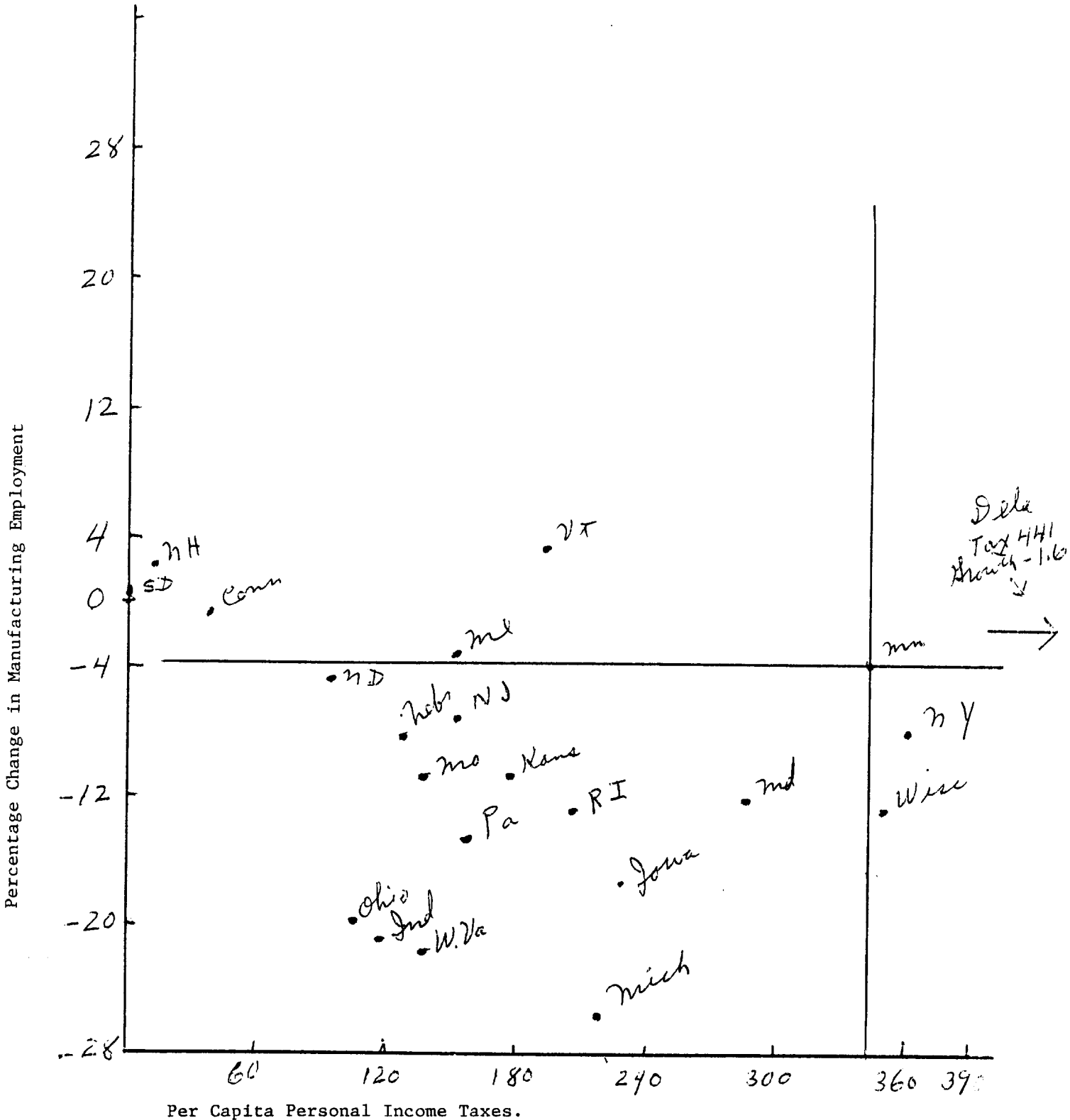


Source: Income Taxes from Fiscal Facts for Minnesotans, 1983, Minnesota Taxpayer's Association, p 56. Non-Agricultural Employment from Handbook of Labor Statistics, 1983, BLS, p. 159 and 173. Data not available for Illinois and Massachusetts.



Figure 8

Relation Between Per Capita Personal Income Taxes 1981 and Changes in Manufacturing Employment from 1978-1982.  
Non-Sunbelt States (Excludes Southern and Western States)



Source: Income taxes from Fiscal Facts for Minnesotans, 1983, Minnesota Taxpayers Association, p. 56. Manufacturing Employment from Handbook of Labor Statistics, BLS, 1983, pp. 159-173.  
Illinois and Massachusetts excluded because of missing data.

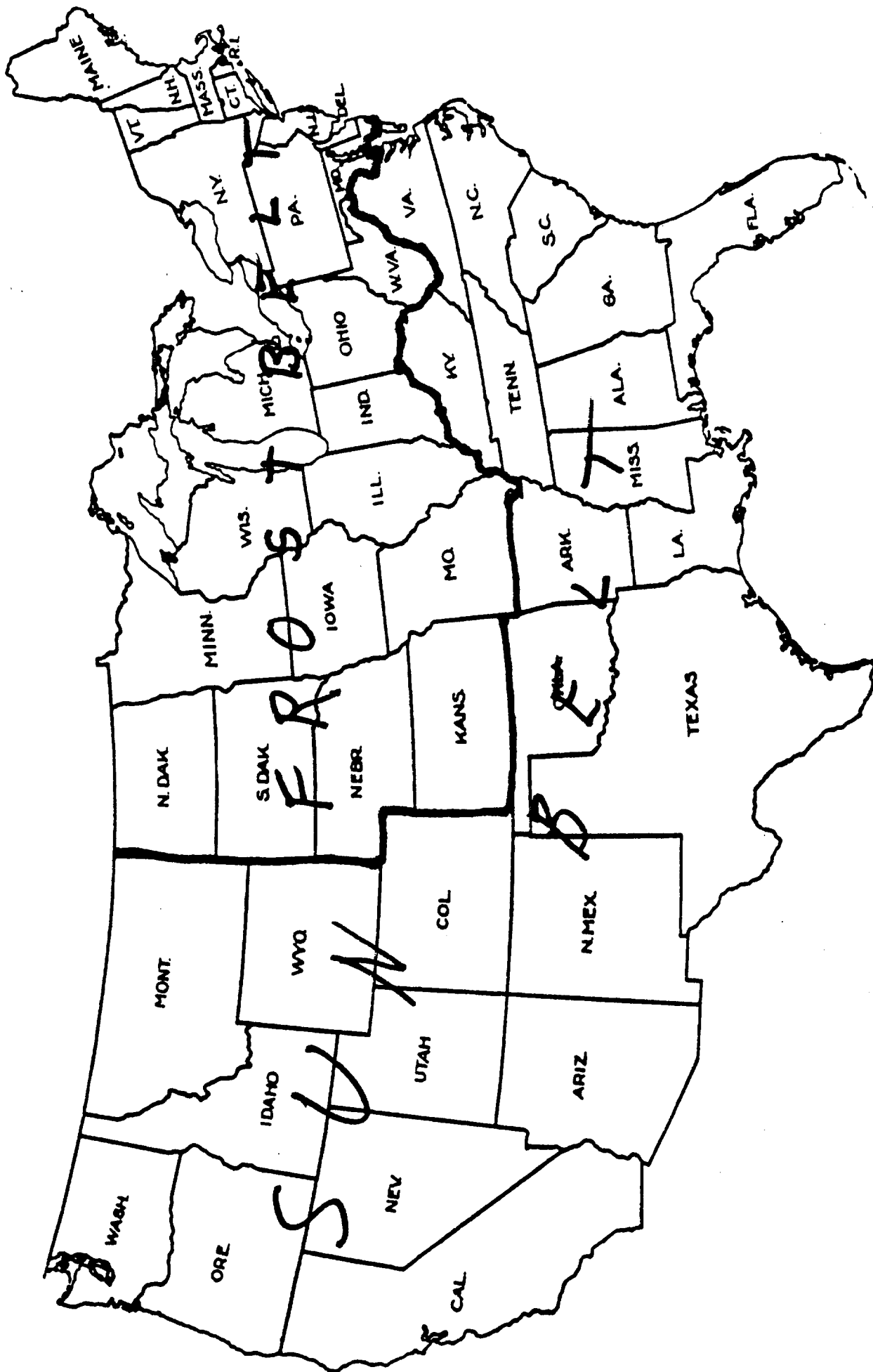


Figure 9