

Labor Market Conditions in Ohio Versus the Rest of the United States: 1973-1984

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Introduction

This paper presents evidence that contrasts labor market conditions in Ohio and the rest of the United States during the 1973 to 1984 period. The evidence supports the following four propositions:

1. Whether we focus on the entire private sector or just on private manufacturing, Ohio's percentage change in employment was less than the percentage change in employment in the United States as a whole from 1973 to 1984. While this was particularly true in the last five years of the period, it was nearly as true for the first six.

2. The impact of unions on Ohio's relative wages undoubtedly contributed to the fact that Ohio's employment growth was below the national average, but the existing evidence does not support the belief that the direct union wage effect was a key factor.

3. While increases in the price of the U.S. dollar have deservedly received much attention of late, changes in exchange rates were not a significant factor in the *relative* worsening of Ohio's employment situation. The appreciation in the dollar's price hurt every state in the country, but did not hurt Ohio by an above-average amount.

4. Netting out the direct wage effects of unions, Ohio's manufacturing wage rates for a given quality of labor are substantially above the national average today, as they were in 1973. While we do not know exactly why Ohio's non-union manufacturers pay a great deal more than comparable employers elsewhere in the country, this phenomenon is likely to be one reason why

Ohio's employment growth rate was below the national average during the past 10 years.

The evidence presented is based on May Current Population Survey (CPS) micro-data for 1973, 1979, 1983, and 1984. These data come from surveys of about 60,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. The CPS surveys collect information on such things as employment status, usual hourly earnings, state of residence, union status, years of education, age, sex, race, occupation, and industry.

1. Findings

Table I gives unemployment rates for the United States as a whole, for Ohio, for a group of "high-growth states, and for five states to which Ohio frequently compares itself—Michigan, Pennsylvania, Indiana, Illinois, and New York. The table reveals that, in 1973, Ohio's unemployment rate was slightly below the rate in the United States as a whole. In 1979, the two rates were identical, and in 1984, the Ohio rate was substantially above the national figure. Thus, the unemployment statistics suggest that Ohio's labor market conditions worsened slightly more than conditions elsewhere in the country during the 1973 to 1979 period, and worsened substantially more in the years between 1979 and 1984.

It is now well known that unemployment rates depend greatly on the extent to which the labor force is affected by the business cycle and by various structural factors. Thus, many

Unemployment Rates in May 1973, 1979 and 1984

	1973	1979	1984
United States	4.6	5.4	7.3
Ohio	4.2	5.4	9.7
High-growth states	5.2	5.3	6.3
Michigan	5.3	7.4	11
Pennsylvania	3.9	5.9	8.9
Indiana	3.6	5.6	8.1
Illinois	4.0	5.2	9.3
New York	5.2	6.5	6.5

NOTE: High-growth states include California, Florida, Georgia, Massachusetts, North Carolina, and Texas.

SOURCE: May *Current Population Survey* data for all years.

TABLE 1

economists have come to rely more on the employment-population ratio than on the unemployment rate as a meaningful indicator of labor market conditions. Moreover, the present analysis focuses more on the demand side of the labor market than on its supply side; this implies a greater concern with employment and wages than with unemployment. With all of this as a backdrop, we turn to figures on employment growth rates for Ohio and the rest of the country.

Percentage Increases in Private Sector Employment: 1973-79 and 1979-84

	All sectors		Manufacturing	
	1973-79	1979-84	1973-79	1979-84
United States	15.0	11.0	5.6	-4.4
Ohio	6.0	0.5	-0.7	-12.0
High-growth states	22.0	22.0	13.0	13.0
Michigan	10.0	-2.2	12.0	-23.0
Pennsylvania	1.9	6.6	-8.6	-11.0
Indiana	3.0	4.0	-7.3	-4.7
Illinois	8.3	1.6	-5.6	-8.9
New York	5.0	3.7	6.5	-13.0

NOTE: High-growth states include California, Florida, Georgia, Massachusetts, North Carolina, and Texas.

SOURCE: May *Current Population Survey* data for all years.

TABLE 2

Table 2 presents percentage increases in private sector employment for two periods, namely, 1973 to 1979 and 1979 to 1984, for all sectors taken together and for manufacturing by itself. Once again, Ohio is contrasted with different states and groupings of states. Looking at the figures for the entire private sector first, we find that in the 1973 to 1979 period Ohio's percentage increase was nine points lower than the country as a whole; in the 1979 to 1984 period, we find only a slight worsening in Ohio's relative

position—a percentage increase 10.5 points below the national figure. For manufacturing, the table tells a similar story: Ohio's percentage increase was 6.3 points lower than the nation's from 1973 to 1979 and 7.6 points lower from 1979 to 1984. Thus, *table 2* indicates that Ohio's relative growth experience was bad throughout the past decade and has not just recently turned sour.

Ohio's employment growth figures contrast sharply with Michigan's. Looking at the entire private sector, we find that while in 1973 to 1979 Michigan had a private sector employment growth percentage 5 points below the nation as a whole, in 1979 to 1984, it had a figure 13.2 points below the national figure. For manufacturing alone, the 1973 to 1979 Michigan growth percentage was 6.4 points higher than the national average, whereas the 1979 to 1984 Michigan percentage was 18.6 points lower. Thus, the events of the past five years, in particular the dramatic increase in the dollar exchange rate beginning in mid-1980, most likely had a much more deleterious effect on labor market conditions in Michigan than in Ohio or in most other states. As one can see by comparing the two periods 1973 to 1979 and 1979 to 1984, the dollar's appreciation does not seem to have played a large part in the relative deterioration of labor market conditions in Ohio.

To what extent did unions' direct effects on wage rates cause employment growth differences across areas? To address this question, we begin with *table 3*, which presents data on the percentage of private sector employees who were union members in 1973, 1979, and 1984 in all sectors of the economy and in manufacturing taken by itself. As the table reveals, Ohio's private sector unionization rates were about one-third above the comparable national average throughout the entire 1973 to 1984 period. While the percentage organized in Ohio declined in the private sector as a whole, and in manufacturing from 1973 to 1984, it did so at roughly the same proportionate rate as for the country as a whole. One caution, necessary for those examining *table 3*, is that it is wrong to assume that high growth is the result of low unionization percentages; the high-growth states have many other characteristics besides a low percent in unions, and only a careful analysis would permit one to discern the "true" separate effects of percent unionized and these other factors.

The direct impact of unions on relative wages in different areas depends both on the areas' relative rates of unionization and on the direct impact of unions on wages in the areas. Estimates of the percentage by which union hourly earnings were higher than nonunion hourly earnings among comparable employees in the private sector for 1973, 1979, and 1983-84 are given in *table 4A*; comparable estimates for the

Private Sector Union Percentages in 1973, 1979, and 1984

	All sectors			Manufacturing		
	1973	1979	1984	1973	1979	1984
United States	24	21	16	39	35	27
Ohio	31	31	22	51	54	42
High-growth states	17	15	13	26	22	16
Michigan	36	34	28	58	54	52
Pennsylvania	31	30	20	50	53	43
Indiana	34	30	28	60	53	59
Illinois	31	27	19	44	38	29
New York	30	26	23	41	38	26

NOTE: High-growth states include California, Florida, Georgia, Massachusetts, North Carolina, and Texas.
SOURCE: May Current Population Survey data for all years.

1979.) What these two tables indicate is that the "union wage effect" has been lower in Ohio than elsewhere in the United States throughout the past decade, and that it has become substantially lower throughout the 1973 to 1984 period. The ability of unions to raise their members' wages above those of comparable nonunion employees is today much less in Ohio than it is in the vast majority of states. Furthermore, the fact that the union/nonunion wage differential is conditioned by the impact of unions on nonunion wages has been recognized since measurement of that differential first began.¹

Tables 5A, 5B, and 5C provide estimates of the percentage amount by which private sector hourly earnings were higher in Ohio than in comparison states in 1973, 1979, and 1983-84, respectively; tables 6A, 6B, and 6C provide analogous estimates for the manufacturing sector taken by itself.² It is instructive to consider the first column in table 5A. The first figure in this column indicates that in 1973, usual hourly earnings were 4.8 percent higher in Ohio than in the rest of the country. The second figure in this column indicates that when the compari-

TABLE 3

manufacturing sector taken by itself are given in table 4B. (Because the sample used to construct usual hourly earnings was cut substantially between the 1979 and 1983 May CPS surveys, the 1983 and 1984 surveys were merged to produce a sample of roughly the same size as was used in

Percentage Amounts by which Union Hourly Earnings Exceeded Nonunion Hourly Earnings in 1973, 1979, and 1983-84

	A. Private Sector as a Whole						B. Private Sector, Manufacturing Only					
	Same worker			Same worker, same industry			Same worker			Same worker, same industry		
	1973	1979	1983-4	1973	1979	1983-4	1973	1979	1983-4	1973	1979	1983-4
United States	29 (0.6)	26 (0.8)	29 (0.9)	23 (0.6)	21 (0.8)	24 (0.9)	17 (0.8)	18 (1.1)	20 (1.2)	14 (0.8)	14 (1.0)	16 (1.2)
Ohio	25 (2.4)	23 (3.1)	17 (3.9)	18 (2.3)	19 (3.0)	14 (3.7)	14 (2.7)	8.9 (3.5)	5.3 (4.7)	12 (2.7)	4.8 (3.4)	1.5 (4.7)
High-growth states	30 (1.3)	26 (1.8)	35 (2.0)	25 (1.3)	22 (1.7)	31 (1.9)	16 (1.7)	19 (2.4)	25 (2.9)	13 (1.7)	14 (2.4)	21 (2.9)
Michigan	27 (2.7)	19 (3.5)	22 (4.2)	19 (2.7)	15 (3.4)	16 (4.0)	14 (3.7)	16 (4.3)	18 (5.2)	6.4 (3.6)	13 (4.0)	9.6 (5.1)
Pennsylvania	25 (2.6)	15 (3.2)	18 (3.4)	18 (2.5)	8.6 (3.1)	9.8 (3.3)	12 (2.8)	2.2 (4.0)	8.2 (4.7)	7.6 (2.8)	-2.2 (3.8)	7.1 (4.9)
Indiana	29 (3.2)	24 (4.5)	31 (5.3)	22 (3.2)	18 (4.5)	20 (5.0)	14 (3.7)	10 (5.3)	5.2 (5.1)	8.4 (3.7)	5.0 (5.8)	-0.4 (5.1)
Illinois	23 (2.5)	21 (3.4)	27 (4.1)	17 (2.4)	17 (3.4)	21 (4.1)	11 (3.1)	7.4 (4.7)	13 (5.5)	10 (3.1)	9.8 (5.1)	14 (5.8)
New York	16 (2.1)	7.2 (2.7)	16 (3.1)	12 (2.0)	5.8 (2.7)	13 (3.1)	7.1 (2.9)	7.0 (4.2)	-1.1 (5.6)	7.7 (3.0)	9.3 (4.4)	1.8 (6.0)

NOTES: Numbers in parentheses below percentages are standard errors. The adjective "same" refers to years of education, age and its square, race, sex and occupation (one of eight broad categories). The expression "same industry" denotes one of seven broad categories (in the case of table 4A) and one of 20 two-digit SIC industries in the case of table 4B. High-growth states include California, Florida, Georgia, Massachusetts, North Carolina and Texas.
SOURCE: May Current Population Survey data for all years.

TABLE 4

Percentage Amounts by which Private Sector Hourly Earnings
Were Higher in Ohio than in Comparison States

A. 1973

Comparison states	United States	High-growth states	Michigan	Pennsylvania	Indiana	Illinois	New York
Total amount	4.8 (1.3)	6.4 (1.4)	-5.5 (1.8)	4.1 (1.7)	3.5 (2.0)	6.1 (1.7)	-8.8 (1.5)
Same workers	1.9 (1.0)	3.1 (1.1)	-8.1 (1.3)	2.8 (1.3)	1.3 (1.5)	-7.7 (1.2)	-8.4 (1.1)
Same workers, net of union premium	0.0 (0.9)	-0.3 (1.0)	-7.2 (1.2)	2.6 (1.3)	1.3 (1.4)	-7.1 (1.2)	-8.1 (1.1)
Same workers, same industry	1.7 (0.9)	2.7 (1.0)	-7.8 (1.2)	3.3 (1.2)	2.0 (1.4)	-7.5 (1.2)	-8.6 (1.1)
Same workers, same industry, net of union premium	0.3 (0.9)	-0.1 (1.0)	-7.2 (1.2)	3.1 (1.2)	1.9 (1.4)	-7.1 (1.1)	-8.3 (1.1)

B. 1979

Total amount	3.5 (1.7)	6.2 (1.8)	-7.4 (2.2)	0.3 (2.2)	5.8 (2.7)	-6.9 (2.2)	-0.6 (2.1)
Same workers	2.0 (1.3)	4.8 (1.4)	-8.8 (1.6)	1.5 (1.7)	5.2 (2.0)	-8.4 (1.6)	-0.2 (1.6)
Same workers, net of union premium	-0.0 (1.3)	1.0 (1.4)	-8.6 (1.6)	1.4 (1.7)	4.5 (2.0)	-9.0 (1.5)	-0.3 (1.6)
Same workers, same industry	2.1 (1.3)	4.7 (1.4)	-8.0 (1.6)	2.5 (1.6)	6.0 (2.0)	-8.0 (1.6)	-0.2 (1.6)
Same workers, same industry, net of union premium	0.1 (1.3)	1.5 (1.3)	-7.9 (1.6)	2.4 (1.6)	5.5 (1.9)	-8.5 (1.5)	-0.3 (1.6)

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C. 1983-84

Total amount	3.3 (1.8)	1.6 (1.9)	-3.6 (2.5)	0.8 (2.4)	4.9 (3.0)	-5.3 (2.3)	-2.6 (2.2)
Same workers	0.7 (1.3)	-0.2 (1.4)	-4.8 (1.9)	-0.4 (1.8)	3.8 (2.3)	-6.7 (1.8)	-4.2 (1.7)
Same workers, net of union premium	-0.8 (1.3)	-2.5 (1.4)	-3.7 (1.9)	-0.2 (1.7)	4.3 (2.2)	-6.9 (1.7)	-3.6 (1.7)
Same workers, same industry	1.1 (1.3)	0.2 (1.4)	-5.4 (1.8)	0.1 (1.7)	4.6 (2.2)	-6.4 (1.7)	-3.7 (1.7)
Same workers, same industry, net of union premium	-0.2 (1.3)	-1.9 (1.4)	-4.5 (1.8)	0.2 (1.7)	4.9 (2.2)	-6.6 (1.7)	-3.2 (1.7)

NOTES: Numbers in parentheses below percentages are standard errors. The adjective "same" refers to years of education, age and its square, race, sex, and occupation (one of eight broad categories). The expression "same industry" means one of seven broad categories. High-growth states include California, Florida, Georgia, Massachusetts, North Carolina, and Texas.

SOURCE: May *Current Population Survey* data for the given year.

Percentage Amounts by which Private Sector Hourly Earnings
in Manufacturing Were Higher in Ohio than in Comparison States

A. 1973

Comparison states	United States	High-growth states	Michigan	Pennsylvania	Indiana	Illinois	New York
Total amount	13 (1.9)	18 (2.1)	-8.1 (2.1)	14 (2.2)	12 (2.4)	3.6 (2.2)	3.8 (2.3)
Same workers	7.3 (1.3)	11 (1.4)	-8.9 (1.7)	8.2 (1.7)	3.7 (1.9)	-0.1 (1.7)	2.8 (1.7)
Same workers, net of union premium	5.3 (1.3)	7.3 (1.4)	-8.2 (1.7)	8.1 (1.7)	4.4 (1.9)	-0.6 (1.7)	2.2 (1.7)
Same workers, same industry	3.6 (1.3)	6.9 (1.5)	-5.3 (1.7)	4.8 (1.7)	3.7 (1.9)	-2.1 (1.7)	1.3 (1.8)
Same workers, same industry, net of union premium	2.5 (1.3)	4.4 (1.4)	-5.2 (1.7)	4.7 (1.7)	4.1 (1.9)	-2.2 (1.7)	1.1 (1.8)

B. 1979

Total amount	8.8 (2.4)	15 (2.7)	-10 (2.8)	1.3 (2.9)	8.1 (3.5)	-1.9 (3.1)	6.3 (3.1)
Same workers	5.2 (1.8)	10 (2.0)	-10 (2.1)	2.0 (2.2)	4.3 (2.6)	-4.2 (2.3)	5.2 (2.3)
Same workers, net of union premium	2.3 (1.7)	5.6 (2.0)	-10 (2.1)	1.9 (2.2)	3.8 (2.6)	-5.0 (2.3)	4.5 (2.3)
Same workers, same industry	2.5 (1.7)	6.6 (2.0)	-5.6 (2.2)	1.1 (2.2)	4.4 (2.6)	-5.8 (2.3)	1.4 (2.4)
Same workers, same industry, net of union premium	0.6 (1.7)	3.9 (2.0)	-5.8 (2.2)	1.1 (2.2)	4.2 (2.6)	-6.2 (2.3)	1.0 (2.4)

C. 1983-84

Total amount	14 (3.0)	15 (3.3)	-4.5 (3.5)	10 (3.7)	6.6 (4.0)	1.8 (3.7)	5.1 (4.1)
Same workers	8.3 (2.2)	11 (2.3)	-6.8 (2.7)	4.7 (2.9)	2.7 (3.0)	-1.4 (2.8)	3.3 (3.1)
Same workers, net of union premium	6.0 (2.1)	6.6 (2.3)	-5.8 (2.7)	5.0 (2.9)	3.3 (3.1)	-1.9 (2.8)	2.9 (3.1)
Same workers, same industry	5.4 (2.1)	6.4 (2.3)	-1.9 (2.9)	1.0 (2.8)	5.6 (3.1)	-0.4 (2.9)	-1.0 (3.1)
Same workers, same industry, net of union premium	4.1 (2.0)	3.8 (2.3)	-1.5 (2.9)	1.2 (2.9)	5.7 (3.2)	-0.8 (2.9)	-1.2 (3.1)

NOTES: Numbers in parentheses below percentages are standard errors. The adjective "same" refers to years of education, age and its square, race, sex, and occupation (one of eight broad categories). The expression "same industry" means one of 20 two-digit Standard Industrial Code (SIC) industries. High-growth states include California, Florida, Georgia, Massachusetts, North Carolina, and Texas.

SOURCE: May *Current Population Survey* data for the given year.

son is limited to employees who have the same education, age, race, sex, and occupation, the Ohio premium comes down to 1.9 percent. The third figure also takes into account whether or not an employee is a union member: this figure indicates what the hourly earnings differential would be if we compared workers in Ohio to similar workers elsewhere in the country, subtracting the direct impact of unions on hourly earnings. Thus, the 1.9 and 0.0 figures, taken together, imply that direct union wage effects caused Ohio's hourly earnings to be 1.9 percentage points above the national average. The fourth and fifth figures in the row are comparable to the second and third, respectively. They are based on comparisons among workers who are in one of seven broad industrial categories. The fourth figure indicates that in 1973 comparable private sector employees in a given sector received hourly earnings that were 1.7 percent higher in Ohio than in the rest of the country. The fifth figure, 0.3, implies that 1.4 percentage points of that Ohio premium could be attributed to the direct impact of unions on hourly earnings.

The first columns of *tables 54 5B*, and *5C*, taken together, reveal two key facts. The first is that usual hourly earnings grew slightly less in Ohio than in the rest of the country during the entire 1973 to 1984 period. The second is that the direct effect of unions on wage rates could explain why Ohio's hourly earnings were from 1 to 2 percentage points higher than the national average throughout the entire period, but could not explain the substantial increase in the hourly earnings premium that Ohio's workers have traditionally enjoyed. *Tables 64 GB*, and *6C*, limit the comparisons to employees in the manufacturing sector? The major difference between these tables and the three that preceded them is that the hourly earnings advantage enjoyed by a worker in Ohio, as opposed to the rest of the country,

is much greater in manufacturing than in the nonmanufacturing sectors: Whereas in manufacturing in 1983-84 a worker with a given amount of "human capital" was paid 8.3 percent more in Ohio than in the rest of the United States; in the private sector as a whole, the comparable figure was 0.7 points. There are a number of possible explanations of the Ohio "wage premium." For example, the differential could represent uncaptured labor quality differences, different work conditions, either geographically or in the workplace itself, or the threat of unionization, which could lead nonunion firms to avoid it.

Interestingly, the direct impact of unions on wages in manufacturing could not explain a "very large" proportion of the over-all Ohio wage premium. In 1983-84, the direct effect of unions could explain 2.3 percentage points of an 8.3 percentage point differential when workers were not grouped in terms of particular manufacturing industries. In the same year, the direct effect of unions could explain 1.3 points of a 5.4 percentage point differential that was observed within 20 two-digit Standard Industrial Code (SIC) manufacturing industries.

II. Conclusion

The evidence presented in this paper supports a number of contentions. First of all, while the appreciation of the dollar since mid-1980 has had a very detrimental effect on labor market conditions in Ohio, it has had an even more detrimental effect on conditions in the country as a whole. Therefore, the rapidly rising price of the dollar over the past five years is not the cause of the relative worsening of Ohio's employment situation during this period. The figures shown above are consistent with this belief. They reveal that Ohio's employment situation, when compared to the rest of the country's, worsened by roughly the same amount in the 1973 to 1979 period as it did in the years from 1979 to 1984.

Second, high hourly earnings, especially in the manufacturing sector, are likely to have lowered Ohio's employment growth relative to that elsewhere in the country. However, the data presented do not imply that unions' direct effect on wage rates was the primary cause of this phenomenon. Even in nonunion settings, Ohio

1 In H. Gregg Lewis, *Unionism and Relative Wages in the United States: An Empirical Inquiry* Chicago: University of Chicago Press, 1963, this problem is discussed. It is assumed that the union/nonunion comparison should be treated as a comparison of union wages to wages in a world without unions, simply because of the intractable nature of the problem. Researchers following Lewis have made an identical assumption. For more information about the factors influencing the union/nonunion wage differential, see George E. Johnson, "Economic Analysis of Trade Unionism," *American Economic Review*, vol. 65, no. 2 (May 1975), pp. 23-34; and Richard Freeman and James Medoff, *What Do Unions Do?* New York: Basic Books, 1984, pp. 43-60.

2 For a mathematical derivation of the semilog earnings function, see Jacob Mincer, *Schooling, Experience, and Earnings*, New York and London: Columbia University Press and National Bureau of Economic Research, 1974 p. 11. That the semilog earnings function fits data better than a linear function is supported in Jacob Mincer, "The Distribution of Labor Incomes: A Survey with Special Reference to the Human Capital Approach," *Journal of Economic Literature*, vol. 18, no. 1 (March 1970), pp. 1-26; and in *Schooling, Experience, and Earnings*, p. 113.

3 In a competitive labor market, all that should determine a worker's wage are his innate productive capacity and the conditions associated with the job he holds. To the extent that industry dummies capture different working conditions, they should be included in the regression models estimated. To the extent that they capture only cross-industry differences in the impact of trade unions, they incorrectly absorb the object of our estimation and should be excluded.

manufacturers pay substantially more for a given type of worker than do employers elsewhere in the country. While this may reflect a desire to "avoid unionization," the evidence to support this contention has not yet been forthcoming.

Even if employers in Ohio have to pay more to attract and retain their workers than do employers elsewhere in the country, Ohio's employment situation can improve. A weakening of the dollar would not help Ohio more than the average state in the country on the employment front, but it clearly would increase the number of jobs in the state. Productivity improvements, on the other hand, would improve both Ohio's absolute and its relative employment situation. In the political arena, where I believe the trade situation can ultimately be improved, and at the worksite, where many productivity-enhancing innovations can be adopted, labor and management should be working together toward a common end — greater competitiveness. I also believe that this cooperation is much more likely if neither party continuously blames the other for today's problems, especially without solid evidence to support the position. Where one of the parties is clearly at fault, it must be willing to work with the other in the name of more and better jobs. Labor and management must be united, not divided, to improve labor market conditions in Ohio and in the rest of the country.