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# Business

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AN EIGHTH DISTRICT PERSPECTIVE

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FALL 1985

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## Eighth District Unemployment Trends — A Phantom Army of the Unemployed?

Official estimates of unemployment rates for Eighth Federal Reserve District states registered sharp increases relative to the national unemployment rate in the mid-1970s. Subsequently, these unemployment rates remained higher than the national rate throughout the 1979-84 period, leading a number of observers to conclude that the problem of unemployment had become relatively more severe in these states.

This shift in relative unemployment rates is important. Federal grants to economically distressed areas depend, in part, on state unemployment estimates, so a shifting pattern of geographical unemployment can have significant consequences for the distribution of federal funds.

Chart 1 (see page 2) is a plot of seasonally adjusted quarterly unemployment rates in the Eighth Federal Reserve District (labeled District) and the nation (labeled U.S.). For this study, unemployment data for Arkansas, Kentucky, Missouri and Tennessee are used to represent the Eighth District. With the exception of one fairly short period, the two unemployment rates appear to track one another quite closely. Before the mid-1970s (not shown), the District's unemployment rate rose and fell in tandem with the national average, though the District rate was lower. Beginning about 1977, however, the District's unemployment rate began rising relative to the nation's, and by mid-1980 it had risen above the national average. The District unemployment rate ceased its acceleration in 1980 and has been tracking the national average since then, although at a higher level.

### Some Common Explanations...and Some Puzzles

A number of explanations for the apparent shift in these relationships have been advanced. In most cases, analysts attribute the change to structural shifts in the national economy that have had large adverse consequences on particular states. Some believe that various geographic areas are not attracting an adequate share of new capital investment spending. Others believe the structural shift is the result of the international economic situation as well

as changes in tax policies. Still others attribute it to the shift of the United States toward a service economy or to employment-migration trends. Each of these "maladies" suggests a particular cure, most of which carry substantial price tags.

One difficulty with these explanations is that the increase in District unemployment is not apparent in other indicators of local area economic activity. Presumably, a sharp, permanent increase in unemployment rates would tend to lower growth rates of total employment, personal income and mortgage lending. None of these series, however, exhibits the sharp changes found in the unemployment series.

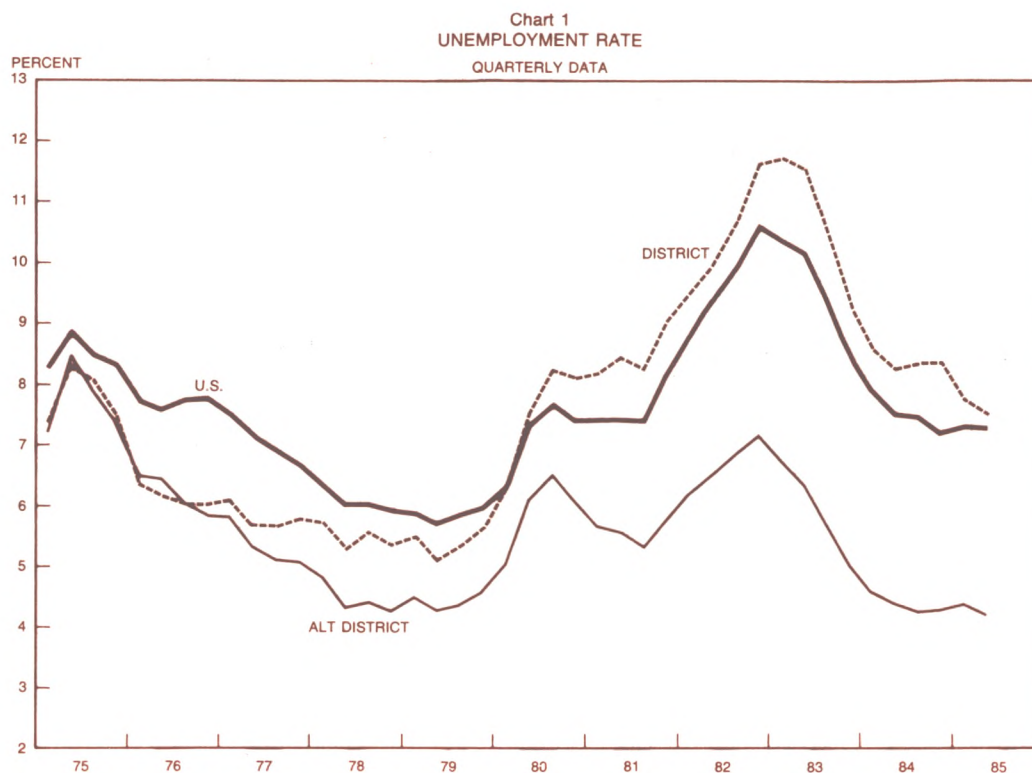
### An Alternative Explanation

The explanation that the shift in the relationship between District and national unemployment rates is due to a change in the structure of the economy conflicts with other relevant data. The following analysis indicates that the shift that occurred in the late 1970s reflects a change in the method of estimating local area unemployment statistics rather than an economic phenomenon. For this reason, District unemployment rates are not comparable across time and the sharp rise in the District unemployment rate is simply a statistical artifact.

### Estimating Unemployment Statistics

The Department of Labor uses two different methods to estimate unemployment statistics. Prior to the mid-1970s, estimates of statewide unemployment rates depended heavily on the number of people who applied for unemployment insurance. On the other hand, the national unemployment rate was (and still is) based upon a monthly survey of 60,000 households known as the Current Population Survey. Since different data were used to estimate state and national unemployment rates, it is not surprising that averages of reported statewide unemployment rates differ from the national rate during this period.





## The 1976 and 1978 Revisions

The Department of Labor changed its method of estimating state unemployment rates during the mid-1970s. In 1976, it began to adjust annually the reported estimates of statewide unemployment (which were based on unemployment insurance claims) to make them conform more closely to the unemployment estimates for the state produced by the Current Population Survey. A further change was adopted in 1978 when this adjustment was instituted on a monthly basis.<sup>1</sup>

The mid-1970s increase in the District's unemployment rate relative to the national rate is similar to an increase in the measured temperature that results when shifting from a Celsius to a Fahrenheit scale. The numbers increase, but it is no warmer. When the method of measuring the District's unemployment rate is held constant, District unemployment shows no sharp acceleration relative to the national rate in the mid-1970s.

<sup>1</sup>See G. J. Santoni, "Local Area Labor Statistics—A Phantom Army of the Unemployed?" *Review*, April 1985.

## Accounting for the Revisions

Chart 1 also includes a plot of the District unemployment rate (labeled ALT District) which holds constant the method of estimating unemployment. The official estimate of unemployment for the District (labeled District) and the ALT estimate are virtually identical through 1976. Beginning in 1977, the two estimates diverge, with the official estimate also rising sharply relative to the U.S. average. The alternative estimate (ALT District), which shows no sharp break at this time, remains below the U.S. average and, in 1981, appears to fall slightly relative to the national unemployment rate.

The data plotted in chart 1 indicate that the increase in the unemployment rate in the District relative to the U.S. rate vanishes when both are estimated by the same technique. While it may be the case that unemployment is a more serious problem in the District than in the nation, these data suggest that its **relative** severity did not change in the late 1970s and early 1980s.

—Kenneth C. Carraro and G. J. Santoni

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## EIGHTH DISTRICT BUSINESS DATA

	Growth Rates <sup>1</sup>		
	Current Period	Year-to-Date 1985	1984
<b>General Business Indexes<sup>2</sup></b>	<b>May-July</b>		
Arkansas	1.2%	0.7%	3.2%
Kentucky	0.4	3.2	5.0
Missouri	2.8	2.6	3.5
Tennessee	-1.5	1.3	6.7
<b>Retail Sales<sup>3</sup></b>	<b>Apr-June</b>		
United States	10.7%	8.8%	7.6%
Arkansas	19.6	6.2	2.4
Kentucky	34.7	21.2	0.1
Missouri	20.7	14.3	9.0
Tennessee	14.7	3.7	10.9
<b>Payroll Employment</b>	<b>May-July</b>		
United States	2.8%	3.0%	4.4%
District	0.5	1.9	3.8
Arkansas	0.1	0.1	4.6
Little Rock	-0.5	-3.1	3.7
Kentucky	0.5	5.0	4.0
Louisville	2.9	1.4	2.8
Missouri	-0.8	0.3	3.3
St. Louis	-0.3	0.5	3.7
Tennessee	2.4	2.4	3.9
Memphis	-0.6	1.3	4.7
<b>Average Hourly Earnings-Mfg.</b>	<b>May-July</b>		
United States	2.9%	4.0%	3.7%
Arkansas	3.7	4.6	2.6
Little Rock	-3.6	4.1	-1.7
Kentucky	3.5	3.2	3.5
Louisville	0.6	1.1	3.6
Missouri (June)	2.2	0.1	5.5
St. Louis (June)	-0.4	1.4	6.1
Tennessee	0.8	1.2	6.2
Memphis	0.9	5.5	5.7
<b>Personal Income</b>	<b>1st quarter '85</b>	<b>Year-to-Date 1985</b>	<b>1984</b>
United States	6.1%	6.1%	9.1%
District	4.2	4.2	9.5
Arkansas	4.5	4.5	8.7
Kentucky	3.9	3.9	10.3
Missouri	3.4	3.4	9.5
Tennessee	5.3	5.3	9.4
	<b>Employment<sup>1</sup></b>	<b>Prices<sup>1</sup></b>	
	<b>(current period May-July)</b>	<b>(current period May-July)</b>	
	<b>Year-to-Date 1985</b>	<b>Year-to-Date 1985</b>	<b>Same Period 1984</b>
<b>Key Industries</b>			
Fabricated Metal Products	1.0%	20.1%	0.8%
Electrical and Electronic Equipment	-4.6	8.2	1.6
Nonelectrical Machinery	-3.4	14.2	2.2
Transportation Equipment	-2.3	8.5	2.6
Food and Kindred Products	-0.6	-0.3	-2.4
Textile and Apparel	-5.3	4.7	0.1
Printing and Publishing	1.1	6.3	6.2
Chemicals and Allied Products	-0.8	-17.1	1.3
Construction	2.0	19.3	2.5

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## EIGHTH DISTRICT BUSINESS DATA

	<u>Current Period<sup>1</sup></u>	<u>Previous 3 Months</u>	<u>Average Year- to-Date 1985</u>	<u>Average 1984</u>
<b>Unemployment Rate</b>	<b>May-July</b>			
United States	7.3%	7.3%	7.3%	7.5%
District	7.7	7.7	7.7	8.4
Arkansas	8.2	8.1	8.1	8.9
Little Rock	6.2	6.0	6.2	7.1
Kentucky	8.5	7.9	8.2	9.5
Louisville	7.9	7.7	7.9	8.6
Missouri	6.6	7.0	6.8	7.2
St. Louis	7.9	7.7	7.8	8.1
Tennessee	8.0	8.0	8.1	8.5
Memphis	6.4	6.2	6.3	7.2
 <b>Construction Contracts<sup>4</sup></b>				
(millions of dollars)	<b>May-July</b>			
District	\$909.1	\$850.8	\$842.2	\$830.4
Arkansas	104.2	95.0	97.1	115.7
Kentucky	212.8	164.0	179.1	167.5
Missouri	304.2	265.2	265.3	251.4
Tennessee	288.0	326.7	300.8	295.7

**NOTE:** With the exception of construction contracts and employment and prices in key industries, all data are seasonally adjusted.

<sup>1</sup>Data are presented as three-month averages to minimize distortions due to the large variability of monthly data. The current period growth rate is a comparison of the average of the current three months to the average of the previous three months. The year-to-date growth rate is from the average of the three months ended in December 1984. All growth rates are compounded annual rates of change.

<sup>2</sup>Sources: Arkansas and Missouri from Southwestern Bell, Kentucky and Tennessee from South Central Bell.

<sup>3</sup>Sources: Arkansas from Southwestern Bell, Kentucky from Kentucky Revenue Department, and Missouri/Tennessee from U.S. Department of Commerce.

<sup>4</sup>Source: F.W. Dodge, Construction Potentials, McGraw-Hill Information Systems Company, proprietary data provided by special permission.