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CHANGING OPPORTUNITIES -- WHY BUSINESS MOVES

An Address by

Frank E. Morris
President

Federal Reserve Bank of Boston

before the Conference on

Alternatives to Confrontation:
A National Policy Toward Regional Change

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I have looked forward to this conference because I believe it is important for people from different parts of the United States to come together to discuss regional issues. Far too often attention to these issues has degenerated into narrow parochialism rather than a consideration of the broader public interest. I hope conferences such as this can change that and I commend Walt Rostow for helping to bring it about.

I would like to talk this morning about the process through which changes in an area's competitive position contribute to employment growth. I propose to discuss this in terms of what has been happening to the two parts of the Northeast region -- New England and the Mid-Atlantic states. Finally I will present some evidence which I think will persuade you that the economic outlook for New England is brightening.

One of the issues of greatest interest to those concerned about regional economic development is the topic I have been asked to discuss today -- why do businesses move? In my part of the country there is great public concern over whether firms are leaving the region in order to capitalize on a more hospitable economic environment elsewhere.

Despite the controversy over firms leaving different areas, a study done at the Joint Center for Urban Studies at Harvard and MIT reveals that very few plants are actually relocated. Using Dun and Bradstreet data, Peter Allaman and

David Birch were able to establish the contribution to regional growth over the 1970-72 period of the expansion and contraction of existing plants, plant closings and in- and out-migration. They found that even when there were only small net changes in the total level of regional employment, substantial changes in the composition of industry were occurring. For example, in the 1970-72 period an increase of 20 percent in employment in southern metropolitan areas caused by plant start-ups and expansions was offset by a decrease of the same amount resulting from closings and contractions, leaving no net change in the overall level of employment. While all these changes were going on, in- and out-migration of plants had a negligible effect. Neither has migration seemed to be a significant factor in employment change in the Northeast. For example, in the same 1970-72 period although employment in Northeast metropolitan areas fell by 6.6 percent, only 0.3 percent was accounted for by plants actually packing up and leaving the region.

The failure of migration to explain regional growth differences should be no surprise. It is consistent with the traditional theory of the firm. In general, for a firm to find it profitable to close down an active plant and start up a brand new operation, the fixed plus variable costs of the new plant must be less than the variable costs alone of the old. There are occasions when this situation exists. The movement of the textile firms from New England to the South in the 1920s and 1930s is an example. However, rarely are cost differences so overwhelming that it pays firms to pack up and

move, particularly when one considers that fixed costs include not only construction but also the costs of finding new sources of labor and supplies and possibly developing new markets. Thus the migration of going operations contributes next to nothing to regional differences in economic growth.

Regions do, of course, differ in their rates of growth, and if migration is not the reason, what is? The Allaman-Birch analysis shows that differences in the rates at which new firms are created and existing firms expand and, to a lesser extent, go out of business are responsible. Employment losses caused by the contraction of existing plants are remarkably uniform across the country. Thus, the main reason that metropolitan areas in the Northeast experienced an employment loss of about 6 percent from 1970 to 1972 while in the South there was no change is that plant start-ups and expansions increased employment by only 15 percent in the Northeast compared to 21 percent in the South. The loss rate due to contracting firms was the same in both regions and that attributable to plant closings differed by only 0.5 percentage points.

The question to be answered then is why regions differ in the rates at which new firms are created and existing firms expand. There are basically two separable but interrelated factors. Population growth is one of these. This is clear for firms serving a local market; but even for nationally-oriented industries a rapidly increasing pool of labor and potential entrepreneurs is likely to encourage firm formation and expansion.

The process is cumulative: new job opportunities attract further population inflows.

The other major reason for variations in regional growth is differences in the cost of doing business. Regional differences in factor costs clearly cause systematic differences in the rates at which firms expand and thus in employment. A firm located in a low-cost area, for the same level of output, will probably be more profitable than competitors in other parts of the country and thus more likely to expand. Also, large national companies with many branch plants will try to locate these branch operations in the lowest cost areas.

The Northeast is at a disadvantage relative to the South and West with respect to both population growth and relative factor costs. It is not a high-growth area. For a region as established and densely populated as the Northeast this is perhaps inevitable and certainly not altogether undesirable. However, it does mean that the regional economy lacks the impetus provided by rapid population growth.

The Northeast is also a relatively high cost place in which to do business. The region, particularly New England, has traditionally had energy costs above the national average. State and local taxes also tend to be high. Because the Northeast is an old established region, its metropolitan areas suffer from the consequences of early development -- an out-dated public and private infrastructure. Roads are often narrow and consequently congested. Railroad beds have deteriorated. Prime locations are already built up and, if available,

demolition must precede new construction. Finally, New England, because of its relatively remote location, faces a transportation cost disadvantage in dealing with the country beyond the Mid-Atlantic.

How Regions Adapt to Survive

If a high-cost region is to prosper, it must adapt so as to minimize its cost disadvantages. There are two principal elements to this process. First, the region's industrial structure shifts to favor those industries least dependent upon the high cost factors. Second, if shifts in the industrial structure still leave the region at a significant cost disadvantage, a satisfactory rate of employment growth can only be maintained by a relative reduction in the local standard of living. The adjective relative is important for with an expanding national economy, changes in the relative positions of different regions have historically been accommodated while all gain absolutely.

The sacrifice in living standards could come in the government sector. A region might offset other costs by keeping business taxes low, either through providing a low level of services or through allocating a disproportionate share of the tax burden to individuals rather than businesses. Maintaining less stringent environmental and other regulatory standards would be a similar response.

However, most often the sacrifice will not be the result of an explicit decision. If industrial growth does not provide sufficient employment opportunities to hold the unemployment rate to a satisfactory level, then wages will

have to adjust. The process may be slow and painful, but high unemployment rates will make workers more willing to accept jobs at lower rates of pay and, over time, wages in the high-cost area will fall relative to those in other parts of the country.

The adaptive process with respect to wages, energy usage and state and local taxes can be observed quite clearly in New England. It is not yet apparent in the rest of the Northeast. However, the Mid-Atlantic's problems seem to be of more recent origin. New England has been a high-cost region almost since water ceased to be the prime power source and has suffered severe economic upheavals periodically over the past fifty years. Moreover its unemployment experience in the seventies has been particularly unfavorable.

Wages

New England's adaption is particularly evident in its wages. The region probably has the highest cost of living in the continental United States. Despite this, wages in New England are below the national average. In 1975 average hourly earnings in manufacturing were 8 percent below the comparable national figure. Only the three southern regions were lower.

Moreover, the differential between New England and the lowest wage areas of the South was cut in half, from 12 percent to 5 percent when account was taken of the composition of industry.

New England's comparatively favorable wage position is not new: regional wage differentials are very stable and respond only slowly to regional economic conditions. However, if conditions are sufficiently severe the response is observable. From 1970 to 1975 the unemployment rate in New England averaged a full percentage point above the national rate and in 1975 at 10.2 percent was the highest in the country. During this time average labor income in manufacturing increased only 39 percent in New England compared to a national gain of 43 percent.

Energy

Another aspect of New England's adaption to unfavorable circumstances can be seen in its consumption of energy. The energy usage of New England manufacturers per employee or per dollar of value added is only half what it is nationally. Because energy costs have always been high in New England, the industrial structure has shifted away from industries which use energy intensively. Refining, primary metals, chemicals and stone, clay and glass are all much more significant nationally than in New England. The most important manufacturing industries in New England in terms of both absolute size and share of national value added are electrical equipment, nonelectrical machinery and instruments. All three are low energy users.

New England's energy costs have been well above the national average throughout the post-war period. There was some narrowing in the sixties, largely because of the availability of, then, low-cost foreign oil. However, the rapid escalation in oil prices following the Arab embargo wiped out these gains. Oil is by far the dominant fuel in New England. Directly or indirectly (through electricity) it accounts for 75 percent of New England's industrial energy use compared to 28 percent nationally. Consequently, with the rise in oil prices, New England's energy disadvantage widened considerably. In 1974 New England manufacturers paid 80 percent more per million Btu for their energy than did the country as a whole.

Since then, however, New England's and the nation's energy prices have begun to converge again. Oil prices have been relatively stable while the cost of gas, which is much less important to New England manufacturers than to competitors elsewhere, has risen sharply. Coal prices have also risen more than oil in this period and this fuel is also used much more extensively outside of New England. As a result, we estimate that manufacturing energy costs in New England are now about 35 to 40 percent above the United States average. Thus we at the Bank feel that allowing free market forces to work in the energy area, especially in the case of natural gas, will not only benefit the nation as a whole but will also work to our own region's particular advantage.

State and Local Taxes

With respect to state and local taxes New England has begun to adapt only recently. The six New England states differ considerably in their levels of taxation. Taxes per capita in 1975 were below the national average in Rhode Island, Maine and New Hampshire. Connecticut and Vermont were only slightly above average. However, Massachusetts with half the region's population dominates New England's statistics and there per capita state and local taxes were 22 percent above the national figure. As a result, per capita taxes in the region as a whole were 9 percent above the national average, almost 40 percent above those in the South.

For some time the governments of Massachusetts and to a lesser extent some of the other New England states operated under the illusion that they could supply a higher level of government services than is consistent with the strength of the region's economy. They failed to recognize that by weakening the region's competitive position they would ultimately produce lower real incomes for its residents. The prosperity of the sixties contributed to the illusion. New England fared very well at that time, not only sharing in the national well-being but profiting particularly from heavy defense expenditures. In that decade per capita taxes in New England rose 120 percent compared to 114 percent nationally.

In the seventies New England policymakers were forced to recognize that the regional economy was not as strong as it

had appeared. As a result, in most of the New England states there was a slowdown in the rate of tax increase relative to the rest of the country: per capita taxes rose 52 percent in New England from 1970-75 compared to 56 percent nationally. Although statistical evidence is not yet available, there are indications of a further slowdown since 1975, particularly in Massachusetts where it was most needed. Policymakers who have historically prided themselves on providing generous government services have at last recognized that a strong economy is an even greater benefit to their constituents. They have demonstrated this awareness most dramatically in the welfare area where in Fiscal Year 1975 Massachusetts was second only to New York in per capita spending. However, in Fiscal Year 1976 all persons judged capable of employment were declared ineligible for the state-financed program of General Relief. By the end of the year this had cut this caseload almost 50 percent below what it would otherwise have been. Both Connecticut and Rhode Island have reformed their business taxes and several New England states have recently tightened up eligibility standards for unemployment compensation.

Is Adaption Working?

Fortunately there are indications that this adaptive process is having a beneficial impact on New England. The latest piece of evidence to this effect is that New England is recovering from the last recession considerably better than

it has from previous downturns. As I mentioned before, the aerospace and defense industries became particularly important for New England during the 1960s. As a result, the coincidence of large defense cutbacks and the 1970 recession was particularly severe in New England and the region did not fully share in the subsequent national recovery.

Since the 1975 recession, employment in New England has increased by 5.2 percent -- somewhat less than the national gain of 7.2 percent -- but a much better performance than that following the previous recession. Because New England is not experiencing strong population growth and does not have many of the South or West's natural advantages, it is probably unrealistic to expect the region's economy to grow as fast as much of the country for any prolonged period of time. Thus, while there is plenty of room for improvement, New England's recent performance is reason for optimism.

The recovery of New England's manufacturing has been particularly encouraging. For a long time there has been great concern that New England might be losing much of its manufacturing. Since the recession, however, manufacturing employment in New England has followed the national pattern very closely and in New England, as well as the nation, employment is now 9 percent above the recession low. We hope that this is an indication that the types of manufacturing we now have in New England can be competitive and prosper in our fairly difficult economic climate.

New England's recent economic performance is all the more interesting when it is compared to that of the Mid-Atlantic states. Since the trough of the recession employment in the Mid-Atlantic states has increased by less than 1 percent. While a considerable part of the Mid-Atlantic's slow growth is accounted for by the continuing difficulties of New York City, other parts of the area are also experiencing significant problems. Thus, most of the reason for the continued slow recovery of the entire Northeast region is the experience of the Mid-Atlantic area and not New England.

Chart I in the handout I have given you traces the level of employment in each of the four major census regions of the United States relative to November 1973. November 1973 is used as a reference point because it has been defined as the pre-recession peak of economic activity for the national economy. The chart indicates that the severity of the recession and the degree of recovery have varied substantially among regions. The Northeast is clearly the slowest growing region, but within the Northeast, as Chart II indicates, New England is recovering markedly better than the Mid-Atlantic states.

As market forces continue to work, much of the adaptive process that seems to have come into play in New England will take hold in the Mid-Atlantic states. Thus far this does not seem to have happened. Wage rates in the Mid-Atlantic states

have kept pace with national growth over the last period for which data is available, state and local taxes continue to rise faster there than elsewhere and the area also uses energy fairly intensively for production.

If there is an overall theme in what I have been saying, it is that regions are just like people and firms except on a grander scale. They have to do what they are best at and be able to adapt to changing circumstances in order to maximize their opportunities. If more attention were paid to helping different parts of the country adapt and less to who's gaining and who's losing, we'd all be ahead.

Average Components of Employment Change
for Metropolitan and Rural Areas
by Region, 1970-1972

		Metropolitan					
	<u>Net Change</u>	<u>Births</u>	<u>Deaths</u>	<u>Expand</u>	<u>Contract</u>	<u>Inmig</u>	<u>Outmig</u>
Northeast	-6.6%	4.5%	-12.1%	10.9%	- 9.9%	0.2%	-0.3%
New England	-8.5	4.9	-13.0	10.5	-10.9	0.4	-0.3
North Central	-4.3	4.5	-10.2	10.6	- 9.3	0.2	-0.2
South	0.0	7.8	-11.6	13.6	- 9.9	0.3	-0.2
West	-3.5	6.7	-13.9	14.2	-10.7	0.3	-0.2
		Rural					
Northeast	-2.3	5.4	-13.2	13.6	- 8.2	0.3	-0.2
New England*	-5.6	5.9	-14.5	12.3	- 9.5	0.7	-0.5
North Central	1.4	6.6	-12.7	15.9	- 8.5	0.3	-0.2
South	1.2	7.4	-13.9	15.6	- 8.0	0.4	-0.2
West	7.7	10.4	-14.8	21.6	- 9.6	0.3	-0.2

*A portion of the area surrounding Portland, Maine only area classed as rural in study.
Note: Figures understate firm births. Thus there is a downward bias to the overall employment changes.

Source: Allaman, Peter M. and Birch, David L., Components of Employment Change for Metropolitan and Rural Areas in the United States by Industry Group, 1970-1972. Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University, September 1975, p. 13. Figures are calculated from the employment at establishments listed in Dun and Bradstreet files on December 31, 1969 and December 31, 1972. An establishment may be a branch or subsidiary and still be treated as a separate entity if it has a distinct location. Inmigration is defined to be the presence of an establishment in an area in 1972 and that was in another area in 1969. Outmigration is defined to be the absence of an establishment in 1972 from an area in which it was located in 1969. A birth is the presence in an area in 1972 of an establishment started in 1970-72. A death is the closing down of an establishment. Expansion and contraction refer to establishments which did not change their location in 1970-72. All employment changes are expressed as percentages of the December 1969 levels.

Regional Comparison of Average Hourly Earnings for Manufacturing Production Workers,
1960, 1965, 1970 and 1975

	<u>US</u>	<u>Northeast</u>		<u>North Central</u>		<u>South</u>			<u>West</u>	
		<u>NE</u>	<u>MAT</u>	<u>ENC</u>	<u>WNC</u>	<u>SAT</u> ¹	<u>ESC</u>	<u>WSC</u>	<u>MTN</u> ²	<u>PAC</u>
a) Average Hourly Earnings in Manufacturing										
1960	\$2.26	\$2.08	\$2.32	\$2.56	\$2.28	\$1.80	\$1.88	\$2.07	\$2.41	\$2.62 ³
1965	2.61	2.44	2.68	2.97	2.66	2.11	2.17	2.39	2.77	3.04
1970	3.36	3.18	3.42	3.81	3.45	2.76	2.83	3.09	3.37	3.83
1975	4.81	4.42	4.93	5.60	4.92	3.95	4.07	4.45	4.70	5.31
b) Estimated Average Earnings Standardized for Industry Mix (For each region, hourly earnings by industry are averaged with each industry figure weighted according to that industry's relative importance nationally.)										
1960		\$2.08	\$2.31	\$2.41	\$2.16	\$1.96	\$2.00	\$2.00	\$2.50	\$2.50
1965		2.44	2.68	2.74	2.50	2.28	2.26	2.31	2.93	2.88
1970		3.18	3.40	3.58	3.27	2.95	2.92	2.98	3.54	3.64
1975		4.42	4.86	5.22	4.65	4.20	4.16	4.28	4.86	5.10

¹DC not included; no manufacturing earnings available.

²Standardized earnings for Mountain states are based on more limited data than other regions and must be viewed with caution.

³1960 does not include Alaska and Hawaii.

Source: U.S. Bureau of Labor Statistics, Handbook of Labor Statistics, 1974 and 1975. Regional figures calculated from figures in Bureau of Labor Statistics, Employment and Earnings States and Areas, 1939-1975.

Regional Comparison of Rates of Growth in Average Hourly Earnings for Manufacturing
Production Workers, 1960-70 and 1970-75
(annual rates of change - percent)

	<u>US</u>	<u>Northeast</u>		<u>North Central</u>		<u>South</u>			<u>West</u>	
		<u>NE</u>	<u>MAT</u>	<u>ENC</u>	<u>WNC</u>	<u>SAT</u>	<u>ESC</u>	<u>WSC</u>	<u>MTN</u>	<u>PAC</u>
a) Average Hourly Earnings in Manufacturing										
1960-70	4.0%	4.3%	4.0%	4.1%	4.2%	4.4%	4.2%	4.1%	3.4%	3.9%
1970-75	7.4	6.8	7.6	8.1	7.4	7.4	7.5	7.6	6.9	6.7
1960-75	5.2	5.2	5.2	5.4	5.3	5.4	5.3	5.2	4.5	4.8
b) Estimated Average Earnings Standardized for Industry Mix (For each region, hourly earnings by industry are averaged with each industry figure weighted according to that industry's relative importance nationally.)										
1960-70		4.3%	3.9%	4.0%	4.2%	4.2%	3.9%	4.1%	3.5%	3.8%
1970-75		6.8	7.4	7.8	7.3	7.3	7.3	7.5	6.6	7.0
1960-75		5.2	5.1	5.3	5.2	5.2	5.0	5.2	4.5	4.9

Source: U.S. Bureau of Labor Statistics, Handbook of Labor Statistics, 1974 and 1975. Regional figures calculated from figures in Bureau of Labor Statistics, Employment and Earnings States and Areas, 1939-1975.

Cost of Energy Used in Manufacturing:
New England and the Rest of the United States

(\$ per million Btu)

	<u>1947</u>	<u>1958</u>	<u>1962</u>	<u>1971</u>	<u>1974</u>	<u>1976</u> ¹
New England	.66	.91	1.04	1.15	2.62	2.78
United States (ex New England)	.32	.59	.62	.78	1.42	2.04
Ratio of New England to United States costs	2.06	1.54	1.68	1.47	1.84	1.36

¹Estimated.

Source: Annual Survey of Manufacturers 1974 Fuels and Electric Energy Consumed and sources and procedure cited in R. W. Eisenmenger and R. F. Syron "The Energy Crisis and New England's Economy" New England and the Energy Crisis Federal Reserve Bank of Boston, October 1975. The change in manufacturing fuel costs between 1974 and 1976 is estimated on the basis of prices paid by steam electric plants. This is a volatile series and prices were abnormally high in 1974. Thus this estimate may overstate to some degree the improvement in New England's relative energy costs since 1974.

Per Capita State and Local Government Taxes by Region

	Per Capita Taxes <u>FY1975</u>	<u>Percent Change in Per Capita Taxes</u>	
		<u>FY1970-75</u>	<u>FY1960-70</u>
United States	\$670.09	55.9%	114.2%
<u>Northeast</u>			
New England	729.35	52.2	119.5
Mid-Atlantic	842.89	58.4	126.2
<u>North Central</u>			
East North Central	648.37	50.3	115.3
West North Central	617.69	53.9	109.8
<u>South</u>			
South Atlantic	556.07	58.2	124.1
East South Central	436.37	58.6	119.9
West South Central	517.12	67.6	84.6
<u>West</u>			
Mountain	597.23	42.6	98.4
Pacific	837.99	54.5	105.0

Source: Calculated from U.S. Bureau of the Census, Governmental Finances in 1974-75, 1969-70 and 1959-60.

NONAGRICULTURAL EMPLOYMENT

- NORTHEAST NONAG EMPLOYMENT
- ▲ SOUTH NONAG EMPLOYMENT
- ... WEST NONAG EMPLOYMENT
- NORTH CENTRAL NONAG EMPLOYMENT

LEVEL RELATIVE TO NOVEMBER 1973 PEAK

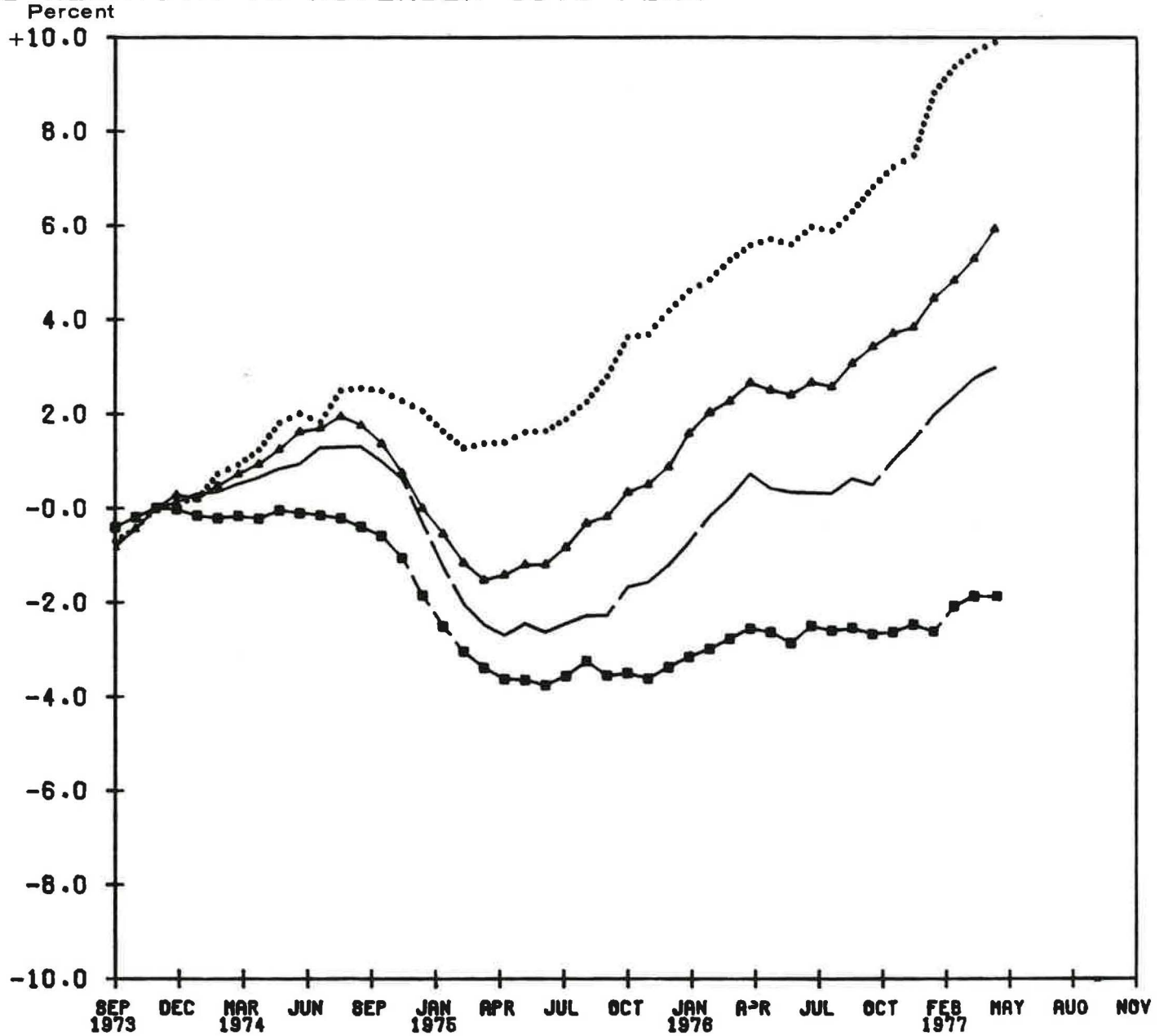


Chart 2

NONAGRICULTURAL EMPLOYMENT

- US
- ▲ MIDATL
- NE

