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Emerging Trends in Agricultural-Based Industries in the Northeast

Hugh W. Knox

The Bureau of Economic Analysis (BEA) at the U.S. Department of Commerce produces long-term regional projections of income, population, per capita income and earnings, and employment by industry for regions, states, Metropolitan Statistical Areas, and BEA Economic Areas on a regular basis. The projections are prepared every five years and were last published in 1990.¹

The program originated in the 1960s at the request of the federally sponsored Water Resources Council. The projections have been utilized since then for program planning in several major infrastructure agencies, among them the Corps of Engineers, the Federal Highway Administration, the Environmental Protection Agency, and the Tennessee Valley Authority.

There are several characteristics of the BEA projection program that make the projections useful for planning infrastructure that has both a long lead time and a long useful life:

- flexible geographic and industrial detail
- a consistent national framework
- an assumption of a full-capacity/full-employment economy

The flexible geographic and industry detail makes it possible to aggregate the projections into those areas and industry clusters that are of interest to users. For this paper, the projections in Table 1 are aggregated to shed light on emerging trends in agricultural-based industries in the Northeast. The "Northeast" is defined as the sum of the New England and Mideast regions, essentially Maryland, Washington, DC, Delaware, and points north.

"Agricultural based" is defined here as (1) farms, (2) agricultural services, forestry, and fisheries, and, stretching a bit, (3) certain durables and nondurables manufacturing sectors. About half of manufacturing (by employment) could be considered agricultural based, for example, in such sectors as food and kindred products, paper and allied products, tobacco manufactures, and lumber.

The regional projections are designed to be consistent from one region to another and to be consistent with reasonable projections of the national economy—two characteristics not always present in the regional projections available to the major infrastructure agencies in the 1960s. In those days, the sum of locally generated projections would often result in national growth rates several times a reasonable growth rate for GNP. The natural optimism of local forecasters led to local boomlets that implied unrealistic GNP growth rates. A consistent national framework means that for one region or one industry to grow more quickly than the nation, some other region or industry must grow more slowly. Not all local economies can grow faster than the national economy.

The full-employment perspective reflects a desire on the part of the agencies planning infrastructure for the long term to be able to abstract from short-term cyclical changes in the economy. This means that the trends projected represent an economy functioning at full employment, although the underlying historical data often reflect an economy at much less than full potential. The desire to project full-employment trends led to special problems in projecting for the northeastern region under consideration in this paper. The decade of the 1980s was one of rapid growth for the Northeast, but as the projections were being prepared, it was clear that historical growth rates would not continue into the 1990s. Whether the slowdown projected in Table 1 will prove to approximate long-term full-employment trends will be evaluated over the next several years.

The projections methodology has many components, both for the nation and for the states. For the purposes of this paper, I characterize the pro-

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¹ See U.S. Department of Commerce, Bureau of Economic Analysis, "Regional and State Projections of Income, Employment, and Population to the Year 2000" by Kenneth P. Johnson, John R. Kort, and Howard L. Friedenber, *Survey of Current Business*, May 1990, 33-54.

Table 1. Earnings and Employment Growth Rates, Total Industry and Selected Agricultural-Based Industries, for the Nation and the Northeast, Selected Years 1979–2000

	Earnings		Employment	
	1979–1988	1988–2000	1979–1988	1988–2000
<i>(Average annual growth rate, in percent)</i>				
United States				
Total Industry	2.02	1.94	1.92	1.12
Farm	-3.02	0.42	-1.78	-0.63
Agri. services, forestry, & fisheries	3.02	3.12	5.21	2.74
Nondurables	0.39	1.25	-0.35	0.38
Food	-0.54	0.63	-0.65	0.04
Textiles	-1.68	1.15	-2.13	0.16
Paper	0.68	1.26	-0.22	0.12
Tobacco	0.90	1.16	-2.47	-0.53
Leather	-5.10	-0.75	-5.84	-1.81
Durables	-0.66	1.08	-1.14	0.20
Lumber	-0.54	1.88	-0.03	1.01
New England				
Total Industry	3.97	1.63	2.50	0.97
Farm	-1.83	0.13	-2.31	-0.63
Agri. services, forestry, & fisheries	5.70	2.13	5.94	2.48
Nondurables	0.46	0.66	-1.78	-0.23
Food	-0.44	-0.30	-2.23	-0.69
Textiles	-3.04	-0.47	-4.80	-1.05
Paper	0.36	0.76	-1.15	-0.31
Tobacco	6.31	0.69	1.33	-0.74
Leather	-6.99	-2.02	-8.27	-2.83
Durables	0.80	0.54	-0.93	-0.22
Lumber	1.42	1.43	0.72	0.65
Mideast				
Total Industry	2.51	1.62	1.66	0.88
Farm	-1.91	0.33	-0.99	-0.56
Agri. services, forestry, & fisheries	4.94	2.60	5.58	2.61
Nondurables	-0.07	0.75	-1.57	-0.16
Food	-0.39	0.17	-1.40	-0.32
Textiles	-3.77	-0.31	-4.49	-1.07
Paper	-0.63	0.97	-1.55	-0.21
Tobacco	-5.14	-1.24	-9.37	-2.71
Leather	-5.53	-1.24	-6.68	-2.27
Durables	-2.38	0.32	-2.87	-0.48
Lumber	2.50	2.09	1.50	1.22

Source: U.S. Department of Commerce, *Survey of Current Business*, May 1990, pp. 40, 42.

cess as having three steps: national, state, and BEA/state review. In the first step, preliminary national projections were developed for 1995, and 2000 and beyond.² GNP was projected based on projections of population, labor force, employment, and GNP per employee. The population projections were based mainly on the work of the Census Bureau, and the labor-force projections were based mainly on the work of the Bureau of Labor Statistics. The methodology assumes that an acceptable estimate of a full-employment labor force combined with an es-

timate of how productive that labor force is will provide a reasonable estimate of full-employment GNP. Full employment was assumed to be an unemployment rate of 5% and productivity growth was projected to be about 1% per year. For 1995, alternative national projections of total personal income, and employment and earnings by industry (derived by summing econometric projections for states) were used to help set the national totals.

In the second step, preliminary state projections of employment and earnings by industry, population, and total personal income were made within the framework of the corresponding projected national totals. The methodology focuses initially on the historical patterns of change in the share of an

² For a detailed discussion of methodology, see U.S. Department of Census, Bureau of Economic Analysis, *BEA Regional Projections to 2040, Vol. I: States, 1990, M-2–M-12*.

industry's employment in a state relative to the nation. A key assumption underlying the methodology is that states and industries will not maintain especially high or low growth rates forever. Countervailing economic forces, such as migration to fast-growing areas or the movement of jobs to lower-labor-cost areas, will lead to a long-term narrowing of state per capita income differentials. Beginning in 1929, the first year in BEA's state personal income series, such narrowing has taken place with the exception of the 1980s, when areas such as New England and the Mideast diverged from the national average.³

In the final step, an intensive and detailed evaluation of the preliminary projections by BEA staff and by the state government agencies and universities that participate in the Federal-State Cooperative Program for Population Projections was undertaken before the results were made final. The comments from state representatives are especially valuable in identifying changes that may have long-term significance but which do not yet show up in the historical data. The results of the projections are shown in Table 1 and discussed below.

Throughout the 1990s, the national economy (under a full-employment assumption) is projected to have slower annual growth than in the 1980s for both earnings and employment—for earnings, 1.94% versus 2.02%; for employment, 1.12% versus 1.92%. This reflects, in part, a slowing of population and a slower rate of increase in participation rates, resulting in a slowing in labor-force growth.

The trends for the New England and the Mideast regions are similar to the nation in direction but more dramatic, reflecting both the very rapid growth

in those regions in the 1980s and their very slow growth currently. For New England, annual earnings growth is projected to slow to 1.63% from 3.97%, and for the Mideast, annual earnings growth is projected to slow to 1.62% from 2.51%. Similar trends are projected for employment.

For the New England region, the only industries projected to grow close to or faster than the all-industry national average are agricultural services, forestry, and fisheries; finance, insurance, and real estate; and services. For the Mideast, only agricultural services, forestry, and fisheries, and services are projected to grow close to or faster than the all-industry national average, reflecting a projected sharp falloff in growth rates in the finance, insurance, and real estate industries. The farm sector is projected to decline more slowly in New England and to show only modest growth in the Mideast when comparing the 1990s to the 1980s.

Summary

In summary, from the perspective of the northeastern agricultural-based industries vis-à-vis the nation and the larger regional macroeconomic picture, there is strong growth projected in agricultural services, forestry, and fisheries, and some improvement in the farm sector. For those durables and nondurables manufacturing industries connected to agriculture, only lumber in the Mideast is projected to grow faster in earnings and employment than is the nation. However, no agricultural-based industry looms large enough in New England or the Mideast to strongly influence the region's outlook. For the 1990s, the northeastern regional outlook is for slow to moderate growth, a significantly different picture from the robust 1980s.

³ For an in-depth analysis of convergence/divergence in state per capita income, see U.S. Department of Commerce, Bureau of Economic Analysis, "Accounting for Regional Differences in Per Capita Personal Income Growth: An Update and Extension" by Daniel H. Garnick, *Survey of Current Business*, January 1990, 29-40.