



Colby Economic Outlook

Current Conditions & Economic Forecasts

For the State of Maine

The CEO Targets the Maine Economy

This year’s edition of the *Colby Economic Outlook* (CEO) focuses its attention on the Maine economy. For 17 years the CEO has provided a bridge between the academic experience of students at Colby College and the ‘real world’ of policy makers in Maine and Washington, DC. The economic forecasts presented in this newsletter represent the results of an eighteen equation econometric model for the state of Maine. Our forecast horizon extends through 2009. The Maine model of the CEO is maintained by the students in Economics 473, a senior seminar at Colby College under the direction of Professor Michael Donihue. This year the seminar produced several important upgrades to the Maine model, including an expansion of the employment sector, a more detailed decomposition of the income sector, and the development of a forecasting equation for auto sales in the state. The CEO is published in conjunction with Colby’s Goldfarb Center for Public Affairs and Civic Engagement.

Tracking Income in Maine

Maine personal income, defined as income from all sources received by persons living in Maine, increased at an annual rate of growth of 4.2% between 2000 and 2005 – higher than both the New England average of 3.4% and the national average of 4.0%.

This year we decomposed total personal income into its component parts as reported by the U.S. Bureau of Economic Analysis in an effort to better understand, and forecast, this important indicator of economic performance in Maine. Wages and salaries make up the largest portion of income for Maine residents. Perhaps the most interesting component was the BEA’s “adjustment for residence”; income earned outside of Maine by its residents. Although it represented just 2% of total personal income in the third quarter of this year, it shows an interesting trend. From 1948 through 1985 this adjustment was negative, representing subtractions from personal income, and reflecting net out-migration from the state. Since 1985 however, the

adjustment has been positive and has increased at an annualized rate of 2.4% over the past 5 years.

With the recent resurgence of the stock market and rising interest rates, the dividends, interest and rent component of personal income has increased in terms of its share of the total. Overall, however, this component is still lower than at the peak of the ‘tech-bubble’ of 2000.

Component	2006q3 & % of total	2000–05 growth
Total personal income	\$43,271 [†]	4.2%
Wages & Salaries	50.3%	3.7%
Transfers	20.4%	7.9%
Dividends, Interest & Rent	14.5%	-1.4%
Supplements to Wages & Salaries (retirement contributions)	12.9%	6.9%
Proprietors’ Income	7.8%	6.7%
Residence Adjustment	1.9%	2.4%
Farm Income	0.1%	-12%

[†]Millions of dollars, seasonally adjusted at annual rates

Transfer payments in Maine have been increasing in dramatic fashion over the past 5 years. This trend represents significant policy challenges for Maine in terms of future prospects for growth as such expenditures generally do not result in new production.

Not surprisingly, farm income is the most volatile component of personal income, depending significantly on the weather and the availability of labor. Farm income represents a very small fraction of total personal income.

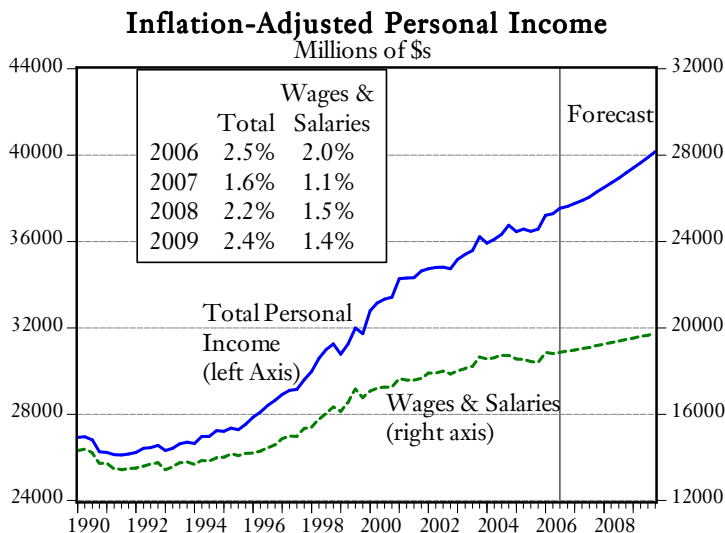
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Adjusted for inflation, total personal income in Maine increased at an annual rate of 2.9% last quarter, and 1.9% annually over the past 5 years. Real wages and salaries rose by 1.4% in the third quarter of this year and 1.5% from 2000 to 2005.

The Income Forecast

The first quarter of 2006 saw personal income grow at an annual rate of 9.3%; the highest rate of growth since the peak of the stock market bubble in the first quarter of 2001. Income growth last quarter (2006q3) was 5.3% at annual rates and we are forecasting that for 2006 income growth will be 5.5% greater than it was in 2005. Higher interest rates and a completion of the current correction in the housing market should slow income growth nationally in 2007, and thus we project that in Maine income growth will be 4.2% next year, followed by 4.7% in 2008 and just under 5% in 2009.



Adjusted for inflation we’re forecasting real personal income growth of 2.5% this year, followed by 1.6% in 2007. Wages and salaries should do slightly better than the rate of growth in consumer prices next year, averaging 1.1% in 2007, 1.5% in 2008 and 1.4% in 2009.

Employment Outlook

This year’s edition of the Colby Economic Outlook features a closer look into the health & education, construction, and manufacturing employment sectors. By decomposing total nonagricultural employment in this fashion we get a clearer picture of the important engines of growth for the Maine economy.

Since the beginning of 2001, through November of this year, only Maine and Massachusetts among the New England states have posted overall gains in total employment. At the national level, the total number of jobs in November was more than 100,000 below its January 2001 level. However, during the same period, Maine created over 2,000 jobs.

Maine’s biggest employment challenges lie in the manufacturing sector. Over the past 15 years, manufacturing in Maine has been on a steady decline from approximately 95,000 jobs in 1990 to the roughly 57,000 manufacturing jobs still present today – primarily coming from losses in the paper, textile & apparel, wood products, and computer & electronics industries. Economists who have studied the Maine economy over this period will tell you they would not have predicted such a prolonged drop off. However, the data continues to convey a struggling manufacturing sector. But how long will this continue? Is it possible that manufacturing in Maine will one day be obsolete? We tend to disagree. Increases in foreign competition most definitely claimed victims in producers of labor-intensive goods. This is because foreign countries have an abundance of cheap labor to produce such goods. But we feel that manufacturing businesses still operate in Maine for a reason. They have survived in the face of globalization thus far, and therefore most likely possess some comparative advantages. While we are forecasting continued job losses in the manufacturing sector throughout our forecast horizon, the rate of decline should slow noticeably.

On the positive side, the health & education and construction sectors have been strong performers for the Maine economy. Total construction employment is up by roughly 1,700 jobs since January 2001 thanks in large part to strong gains in residential and commercial construction in the state. The health services industry, however, has been the true source of job growth in the state during the past 5 years, posting job gains in excess of 15,000 through November 2006. Without these gains, Maine would have experienced a sharp drop in total employment over this period. This mirrors a nation-wide trend and presents some uncertainty about the future in terms of the sustainability of job growth in this sector.

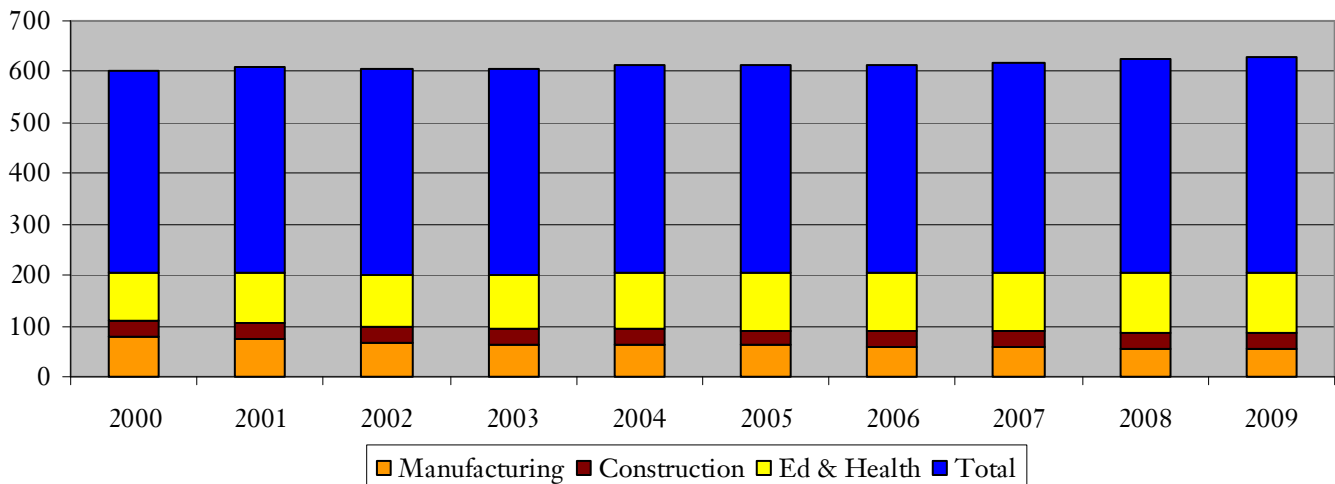
Higher interest rates are already taking a bite out of the housing bubble nationally. We are projecting that for

all of 2006 construction employment in Maine will rise by 1.6%, and then slow a bit; increasing by 1.2% in 2007, 0.6% in 2008 and then post just under 1% growth at the end of our forecast horizon.

We continue to be optimistic in terms of the education and health services sector of Maine’s economy. We see continued strength over the forecast horizon, with employment growth projected to average 0.8% annually through 2009.

Thus, total nonagricultural employment is projected to grow by 0.3% this year. 2007 should see slightly better overall employment growth, sustained by a pickup in growth in the non-manufacturing sector. Sluggish population growth in the state will continue to act as a drag on long-term prospects however, as employment growth stays below 1% in 2008 and 2009. With the forthcoming closure of the Naval Air Station in Brunswick and the future of employment levels at Bath Iron Works in question, there remains much uncertainty about longer-term job growth in Maine.

**Nonagricultural Employment
Thousands of Workers**



Retail Sales

Consumer retail sales have also been playing a big role in supporting the Maine economy for the past decade. Taxable retail sales are one of the most useful variables in our model for tracking the tourism sector of the Maine economy and in confirming anecdotal evidence on consumer sentiment in the non-tourism sectors.

Total retail sales in the state grew, in real terms, at an annualized rate of growth of 1.4% over the past 5 years. Among the different sectors of retail sales, building supply sales have experienced the fastest growth reflecting a boom in new construction and remodeling spending. Taxable sales in food stores have actually declined in real terms, presumably as people switch to purchases of these items in general merchandise, i.e., ‘big-box’ retail outlets. As many businesses in the tourism industry in Maine will confirm, there has been little in the way of significant real growth in this industry in the past 5 years posting only moderate gains of about 1% annually.

Inflation-Adjusted Taxable Retail Sales

	Annual Growth 2000 - 2005
Total	1.4%
Autos	0.5%
Building Supply	5.9%
Food Stores	-1.9%
General Merchandise	0.8%
Lodging	1.0%
Restaurants	1.3%

Adjusted for inflation, taxable retail sales fell by 0.25% in 2005 and we’re projecting the 2006 will be about the same. 2007 should show retail sales growth about in line with inflation, at just above 2.7%. In nominal

terms, retail sales should grow by 3.3% in 2008, followed by 3.6% growth in 2009.

Auto Sales

This year the forecasting seminar undertook a special project to model taxable sales in the Auto Transportation sector. This sector includes taxable sales of automobiles, boats, snowmobiles, and other recreational vehicles and represents one of the largest sources of sales tax revenue for the state.

We modeled retail sales in this sector as a function of the national economy (real GDP growth), nominal personal income in Maine, and gasoline prices. Our forecast assumes modest growth in national output over the forecast horizon and no change in gasoline prices from their current average price.

Auto sales declined by 1.6% in 2005, despite the offering of strong incentive programs on the part of manufacturers. We are forecasting a further 3.3% decline in auto sales in Maine this year, followed by a 0.9% decline in 2007. In 2008 we foresee a 1.4% increase in sales, followed by 1.6% growth in 2009.

The Colby Coincident Index

The Colby Coincident Index (CCI) is an aggregate economic index for the state of Maine. The CCI is a composite index of economic indicators that provides a single, easy to follow indicator of aggregate behavior for Maine's economy. While Gross State Product (GSP) is widely considered to be the best single measure of aggregate economic activity, it is unfortunately published with a two-year lag, leaving policy makers

somewhat blind to current economic conditions. Also, GSP data are published annually and therefore fail to provide information about mid-year fluctuations. By combining the behavior seen in multiple current economic indicators, the CCI offers insight into the recent economic trends. More importantly, by forecasting the indicators, we can produce a forecast of overall economic activity in Maine. The variables that make up the CCI include retail sales, manufacturing employment, non-manufacturing employment, and personal income.

The CCI shows sluggish overall economic growth for the Maine economy in 2005 and 2006. 2007 should be a little better according to our estimates. By 2008 and 2009, the Maine economy should be back on track, with overall growth forecast at about 1.1% in each year.

We've decided in this issue of the CEO not to incorporate any explicit assumption about the effects of the impending closure of the Naval Air Station in Brunswick. At this point, the Naval Air Station is slated to shut down late in 2009 with most of the effects occurring in 2010 and beyond and no clear plans for what is to be done with the base post-closure.

Co-Authors

Prof. Michael Donihue

Ivan Albarran
Babatunde Bamigboye
James Cooper
Michael Kiprop
Brian Liberty
Trevor Hanly

Jingjing Zhou

The forecasts and analysis in the CEO represent the views of the authors and do not necessarily represent the opinions of the faculty and staff at Colby College.

Colby Economic Outlook for the Maine Economy

	2006	2007	2008	2009
Colby Coincident Index	0.42%	0.80%	1.05%	1.08%
Total Nonagricultural Employment	0.30%	0.73%	0.92%	0.75%
Nonmanufacturing Employment	0.74%	1.01%	1.20%	1.01%
Construction Employment	1.57%	1.23%	0.56%	0.91%
Education & Health Services Employment	0.99%	0.80%	0.80%	0.77%
Manufacturing Employment	-3.63%	-1.93%	-1.73%	-1.76%
Personal Income	5.51%	4.15%	4.67%	4.95%
Real Personal Income	2.45%	1.57%	2.17%	2.44%
Wage & Salary Income	5.05%	3.70%	3.96%	3.90%
Real Wage & Salary Income	2.01%	1.13%	1.48%	1.42%
Taxable Retail Sales	2.76%	2.58%	3.34%	3.58%
Automobile Sales	-3.29%	-0.86%	1.43%	1.56%