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## Wright State University Regional Economic Report, December 2003

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**December 2003**



**This Issue:**

In **The State of the Regional Economy: Continued weakness but a brighter future.**

The performance of the regional economy is reviewed. Although labor market estimates indicate that the Miami Valley's economy continued to decline over the past year, key national indicators point to future improvements.

The regional **INDUSTRY EMPLOYMENT FORECASTS** are now a student project, the results of which are presented on the back page.

The *Wright State University Regional Economic Report* is underwritten by a Strategic Initiative Grant from the Raj Soin College of Business, Wright State University, Berkwood Farmer, Dean.

Questions or comments regarding the *Report* should be directed to Professor Thomas L. Traynor, Wright State University, Department of Economics, 3640 Colonel Glenn Hwy., Dayton, OH 45435-0001, or via E-mail to: thomas.traynor@wright.edu.

**THE STATE OF THE DAYTON REGIONAL ECONOMY: CONTINUED WEAKNESS BUT A (HOPEFULLY) BRIGHTER FUTURE.**

By Thomas L. Traynor, Professor of Economics, Wright State University

A quick review of the Miami Valley's economy over the past year indicates that the region has continued to struggle. The recent upturn in the national economy, however, should have a positive impact on our region in the coming months.

**Current Conditions**

Total employment in the four county metropolitan statistical areas (Clark, Greene, Miami, and Montgomery) declined for the third consecutive year in 2003. After peaking at a monthly average of 480,020 through the first nine months of 2000, average employment was 457,000 for the first nine months of this year (See Figure 1). This is a decline of 4.8 percent. On the plus side, average hourly earnings for those manufacturing jobs that were retained continued to rise steadily from an average of \$17.44 in 2001 to \$20.47 thus far this year, a 17.4 percent increase. Average weekly hours worked for manufacturing employees rose from an average of 40.7 hours in 2001 to 41.5 hours in 2002, but has held steady thus far this year. The recent steadiness of this statistic indicates that employment in local manufacturing industries should not be expected to rise in the near future.

Overall, the region's weakest performing industries in terms of employment levels have been construction and manufacturing (See Figure 2). The construction industry has been down by over 2000 workers (over 10 percent) in a same-quarter comparison with the year 2000. Hopefully, as

**“After peaking at a monthly average of 480,020 through the first nine months of 2000, average employment was 457,000 for the first nine months of this year. This is a decline of 4.8 percent.”**

various public school construction projects increase in intensity over the next year, construction employment will follow suit. Within the manufacturing industries, durable goods manufacturing has suffered the greatest job loss, from 68,100 workers in the third quarter of 2000 to 50,600 workers in the same quarter this year. This represents a decline of more than 25 percent in only three years. Nondurable goods manufacturing employment has also fallen, from 22,400 to 18,700 over the same time period, which is a 16.5 percent decline. Although an economic turnaround will slow the rate of employment decline in the manufacturing industries, continued

Table 1  
**Dayton MSA Employment Changes (2000 - 2002)**

Industry		Employment Change
Construction	↓	-12.70%
Durable Goods	↓	-25.70%
Nondurable Goods	↓	-16.50%
Trans., Warehousing, Utilities	↓	-12.50%
Retail Trade	↓	-6.30%
Information Services	↑	+17.10%
Financial Services	↑	+10.30%
Health Care Services	↑	+5.80%

*continued on page 2*

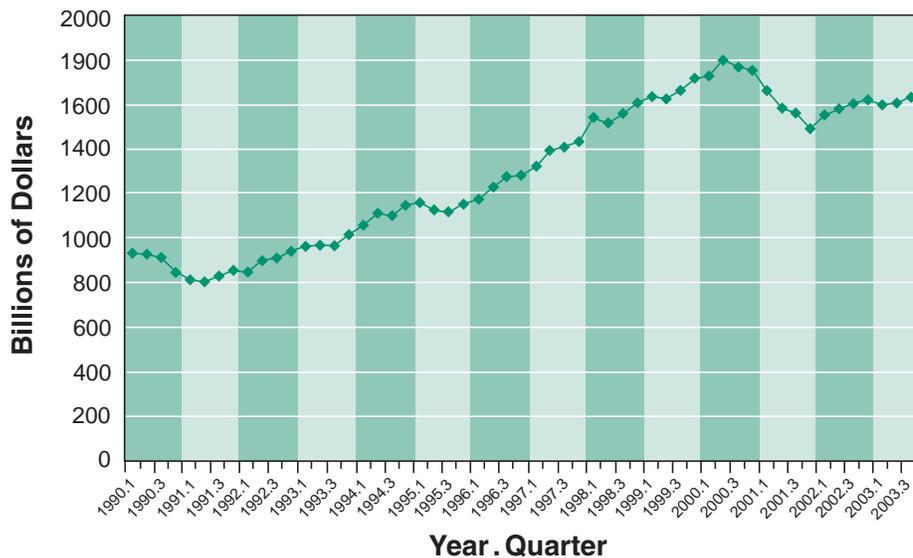
technological improvements (which reduce the labor needed to produce goods), and increased competition from the global marketplace will

**“The most promising sign for continued strong GDP growth was the increase in business spending that has occurred over the past half year.”**

continue to have a negative impact on employment in these industries in the long-run.

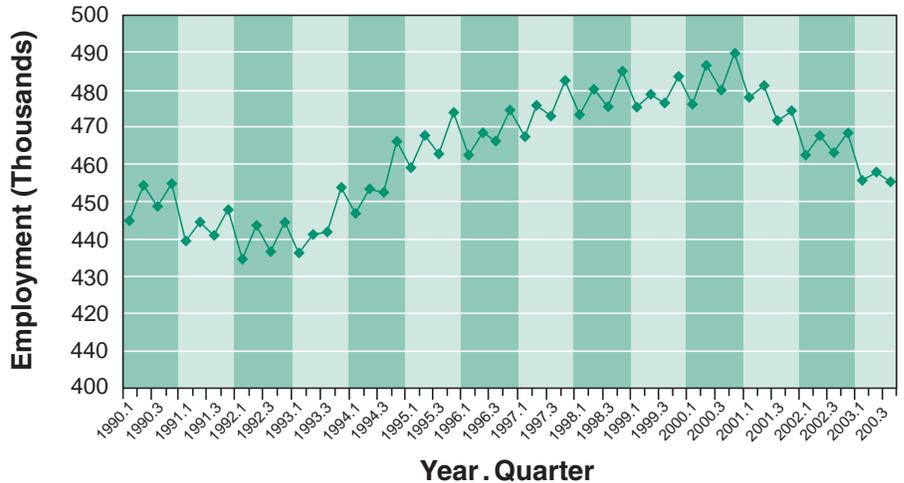
Service sector employment has held its own since 2000. Most service-producing industries experienced relatively small declines in

Figure 1  
**Real Business Spending (1996 Dollars)**



employment over that time frame. The most notable of these were a 12.5 percent decline in transportation, warehousing, and utilities employment, as well as a 6.3 percent decline in retail employment. Both of these industries should experience a turnaround in employment once the national and regional economies improve. Service sector industries that experienced significant job growth were the information services, financial services, and health care industries. Information services employment rose 17.1

Figure 2  
**Total Miami Valley Employment**



percent from 10,500 to 12,300 employees from the third quarter of 2000 to the third quarter of 2003. The region’s financial services

noticeable improvement in the labor markets should not be cause for concern yet, as our regional economy tends to follow the national economy and labor markets respond with a three to six month lag to improvements in national output growth (GDP growth). Although there are many economic statistics that analysts use as indicators of economic growth rates, the most important factor to watch in determining whether or not this recovery is significant and sustainable is business spending. It was a decline in business spending (also known as business investment) early in 2001 that brought on the recession in that year. Also, stagnant business investment has been the main source of the sluggish overall performance of the economy since then (See Figure 3).

industry experienced and increase in employment from 19,400 to 21,400 over the same period, a 10.3 percent increase. Lastly, health care employment continued to grow steadily, by 5.8 percent, to 59,300 workers in the fall of 2003.

**Improvement on the Horizon?**

National economic performance has improved over the past six months, which if continued will positively impact the Dayton regional economy. The lack of

So, although one can point to increased household consumption and increased deficit spending by the federal government as important factors behind the recent acceleration in GDP growth, the most promising sign for continued strong GDP growth was the increase in business spending that has occurred over the past half year. If this growth in business investment continues, the national economy is likely to experience sustained strong growth.

# INDUSTRY EMPLOYMENT FORECASTS

By Thomas L. Traynor, Department of Economics, Wright State University

For the first time, the forecasts presented in this issue of the *Report* are the result of individual term projects conducted by students in the undergraduate economic forecasting course at Wright State University. The students in the course were each assigned an industry for which they developed an econometric model that would produce a proficient forecast. Seven of these were chosen based on their relative importance to the local economy, either as major employment sectors or as key components to the region's economic base. All forecasts were completed under my supervision.

The Dayton Metropolitan Statistical Area (Clark, Greene, Miami, and Montgomery Counties) will continue to feel the effects of the sluggish U.S. economy. The econometric model used to develop the forecasts for the *Report* predicts a further decline in total employment in the region. This will be most apparent in the manufacturing and retail industries, but the construction industry will remain at employment levels significantly below those normally seen in an expanding economy. Wholesale trade and services are expected to be the strongest performing industries over for the foreseeable future.

**Total Employment**—Total employment in the Dayton MSA is expected to rise significantly during the fourth quarter of 2003, in part due to improved economic conditions and in part due to seasonal factors. The first quarter of 2004 is expected to bring about a seasonal decline which will leave employment roughly one percent above the third quarter 2003 level.

**Construction**—The construction industry is expected to remain relatively stable through the fourth quarter of 2003, bucking the usual seasonal decline. First quarter 2004 construction employment is expected to fall significantly due to seasonal influences. Overall, construction employment is forecasted to remain well below late 1990's levels.

**Durable Goods Manufacturing**—Employment in the durable goods industry is expected to continue declining in the near future. As discussed in the previous article, improvements in the national economy may only prove to slow the rate of decline of local durable goods manufacturing employment. The forecasted decline is 2,400 jobs by the end of the first quarter of 2004.

**Wholesale Trade**—Local wholesale trade employment is expected to remain unchanged through the first quarter of 2004. This continues a pattern that has existed for more than a year now.

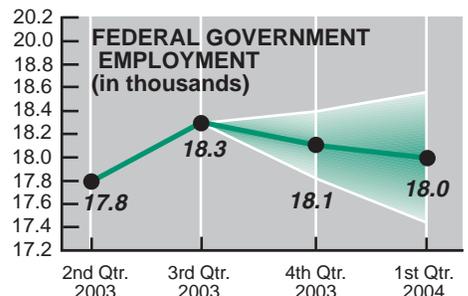
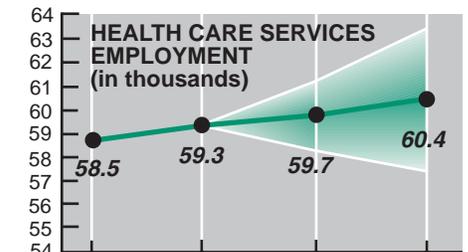
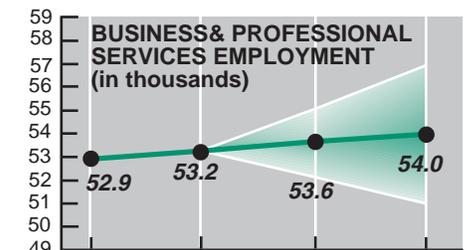
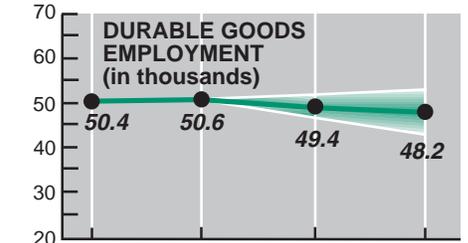
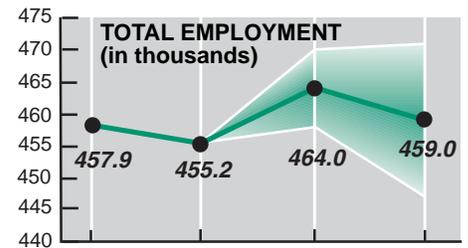
**Business and Professional Services**—Employment in the business and professional services industry (which includes engineering, technical, employment, and other similar services) is expected to rise by roughly 1,000 employees in the coming months. This is primarily due to the improved economic outlook.

**Health Care**—Employment in the health care industry is expected to accelerate its rate of growth through at least the first months of 2004. The econometric model developed for this forecast predicts an increase of nearly 2000 workers over the six month forecast period.

**Federal Government**—Dayton-area federal government employment is expected to continue its slow, steady decline through the first quarter of 2004. Despite increased attention to national defense and security over the past two years, the Dayton area has not experienced a sustained boost in the form of federal employment.

The students involved in the production of these forecasts are: James Beaver, Alla Berkovich, Travis Emmons, Jennifer Fallert, Ryan Frank, Andrew Harrison, Larry Hartlaub, James Hiester, Sri Kandula, Jonathan Loritz, Timothy Mallon, Mina Marion, Kristina Peele, Justin Ross, Hillary Steberl, Alden Tinnin, and Mary Wilmes.

The cone shaped portion of the graphs represent the 95 percent confidence intervals for the forecasts. This means that the true future values of each industry's employment level should be within these ranges 19 out of 20 times. Also the shading from dark to light represents the fact that the confidence intervals follow the bell curve, in that employment levels near point forecasts (the black line) are more likely to occur than employment levels near the outer limits of the confidence intervals (the white lines).



The *Report* is published biannually and provides articles pertinent to the Dayton Metropolitan Area's economy. The *Report* is sent to friends of Wright State University and is available at no cost to any interested parties. To be added to the mailing list, please call (937) 775-3070.



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