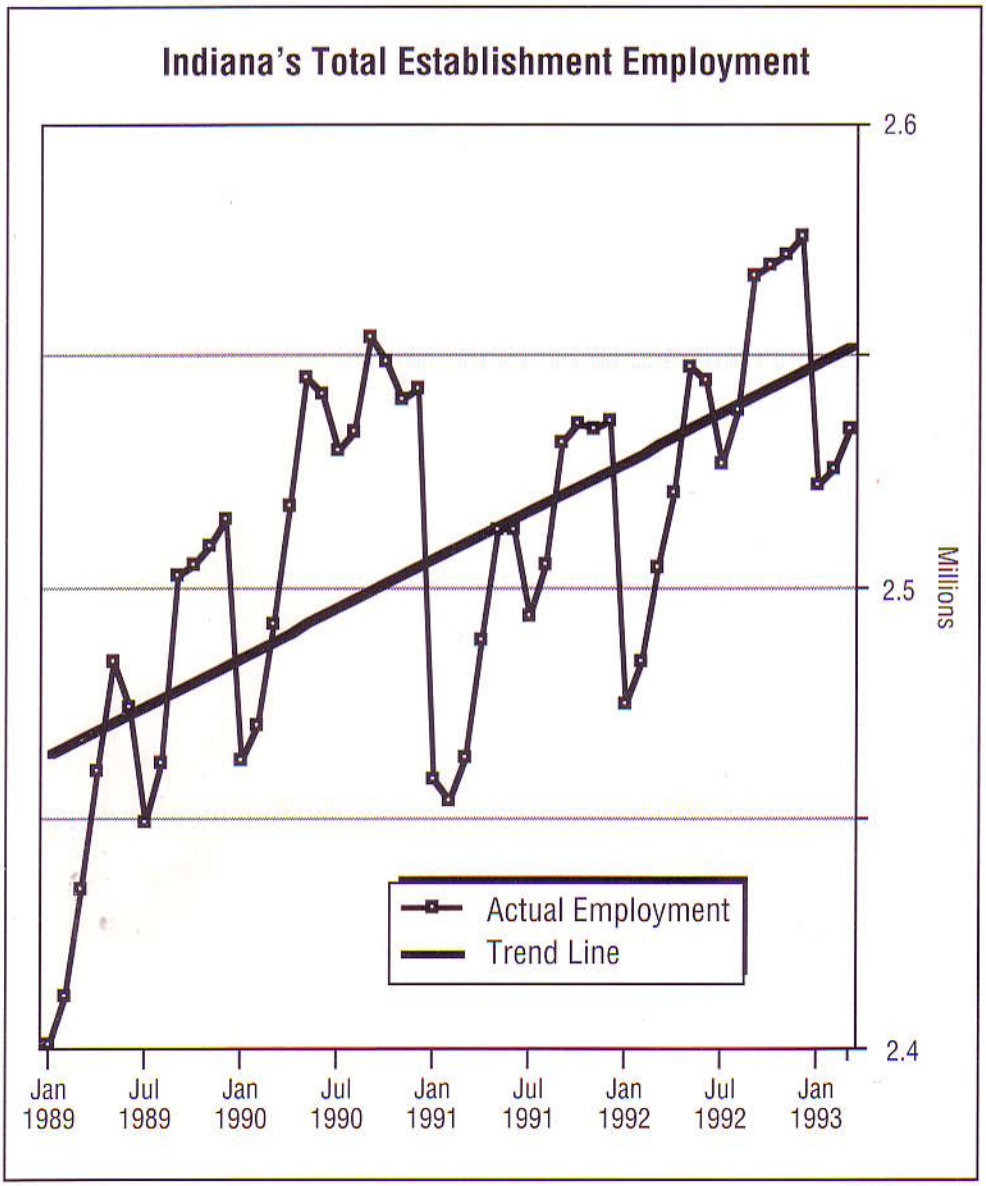
Indiana Business Review



The Midyear Review

Indiana's Employment Record

A publication of the Indiana Business Research Center, Indiana University School of Business

Summer 1993

Contents

Indiana Business Review
Volume 68, Number 2
Summer 1993

Published four times each year by the Indiana Business Research Center, Graduate School of Business, Indiana University.

John Rau, Dean; Morton J. Marcus, Director and Editor; Brian K. Burton, Managing Editor; Melanie Hunter, Senior Editorial Assistant; Melva Needham, Dorothy Fraker, Circulation; Jo Browning, Office Manager. Printed by Indiana University Printing Services.

Unless otherwise noted, information appearing in the *Indiana Business Review* is derived from material obtained by the Indiana Business Research Center for instruction in the School of Business and for studies published by the Center. Subscriptions to the *Indiana Business Review* are available to Indiana residents without charge.

A Midyear Look at the National Economic Outlook
Introduction and Overview

Bruce L. Jaffee

Professor and Chairperson, Department of Business, Economics and Public Policy, School of Business, Indiana University

The national economy ended 1992 on an optimistic tone. Fourth quarter inflation-adjusted gross domestic product (GDP) grew at a 4.7% annual rate. Especially strong was consumer spending, which increased at a 5.7% annual rate during the fourth quarter. On a year-to-year basis real GDP in 1992 grew by 2.1%, its best performance since 2.5% growth was achieved in 1989. But this strong growth was not sustained. First quarter 1993 saw GDP growing at an anemic 0.7% rate. We feel confident that growth will improve during the remainder of the year, though annual growth is likely to be closer to 2.8% than the 3.0% we predicted last fall.

The relatively strong growth area is still likely to remain investment, especially business spending on equipment. But higher corporate income taxes, slow growth in economies abroad, and the unlikely enactment of improved capital gains tax provisions or an investment tax credit will make the forecast of 9.5% growth in investment somewhat suspect. Government spending is likely to be moderate through 1993 as many states and local governments work to resolve their own budget crises and the federal government attempts to reduce the federal budget deficit in form if not substance. Defense spending is likely to continue to decline modestly in 1993 and 1994, further reducing the economic impact of government spending but also adding to structural unemployment problems.

The real estate sector of the economy is performing as we predicted last fall, which unfortunately means poorly. Residential housing starts will struggle to attain the 1.32 million rate forecast last fall. High construction costs, especially lumber prices, and slow income growth have mitigated the effects of low mortgage rates and pent-up demand from the last few years of dismal residential starts. The bottom may have been reached in the commercial real estate market. However, this equilibrium has been reached with office vacancy rates in the 20% range, no appreciable construction activity, and significant declines in rental rates and property values. With continued corporate restructuring and downsizing and current commercial real estate prices well below replacement cost, improvement in this area is unlikely through 1994.

The biggest uncertainty in the economy for 1993 may be the personal consumption sector, which accounts for about two-thirds of GDP. Although this sector grew faster than overall GDP in the third and fourth quarters of 1992, its rate of increase declined in the first quarter of this year and lagged income growth. We do not see personal consumption being a very strong sector for the rest of this year. Unemployment, lackluster consumer confidence levels, at best an insignificant economic stimulus package from Washington, and uncertainty in the health care area are unlikely to overcome the positive forces of lower interest rates, small increases in overall employment, and modest increases in disposable incomes.

Although the international sector has been a bright spot on the economic landscape in the last few years, we see our balance of trade position deteriorating in 1993. This is due not to a lack of competitiveness among U.S. industries but primarily to weaknesses in the demand for our exports resulting from the expected lackluster performance of the economies of most of our major trading partners. The situation would be much worse but for strong export sales anticipated to Canada and Mexico, which will be hurt in the long and short run if NAFTA is not enacted.

Interest rates have declined in the first half of 1993 more than we anticipated. Short-term rates appear now to have bottomed at just below 3.0% and long-term rates, as measured by the 30-year treasury bond rate, are likely to move up slightly from their current 6.8% level. Last fall we predicted that long rates would end the year at approximately 8.5%.

"Unemployment, lackluster consumer confidence levels, at best an insignificant economic stimulus package from Washington, and uncertainty in the health care area are unlikely to overcome the positive forces of lower interest rates, small increases in overall employment, and modest increases in disposable incomes."

However, we now think that a 7.5-8.0% range at the end of the year is more likely. Inflation should remain modest in 1993, with the consumer price index falling in the 3-4% range for the year, as we predicted last fall. Unfortunately, we have no reason to change our forecast for the unemployment rate for 1993: getting below an average of 7.0% for the year will be difficult.

The real surprise for us in the economy so far in 1993 is the performance of the stock market. The decline in interest rates in the first five months of the year appears to have been the driving force for the market. However, with interest rates likely to turn around modestly in the remainder of the year and any improvement in corporate earnings being less than last year, we think the market is now fully valued or overvalued and there is much more downside risk for the rest of the year than upside potential.

Consumer Income and Expenditures

R. Jeffery Green

Professor of Business Economics and Public Policy and Co-Director, Indiana Center for Econometric Model Research, School of Business, Indiana University

Last December we forecast modest growth in consumer incomes and consumer expenditures for 1993. At midyear that forecast still appears to be on track. Real disposable personal income rose at a solid 2.7% annual rate in first quarter 1993 and has increased 2.2% in the last year.

This unspectacular but significant income growth reflects continuing solid gains in employment. Over the 12 months ending in May, total establishment employment rose by almost 1.5 million jobs, or about 1.4%. The growth in employment has been limited by the slow growth in demand for goods and services, continued efforts by firms to increase productivity, continued concern by firms about the high cost of fringe benefits (particularly health care), and the continued loss of jobs in defense-related industries.

We expect income to continue to grow slowly through the remainder of 1993. The transitions mentioned earlier are far from over. Defense spending is slated to be reduced for at least several more years, and the restructuring efforts of firms to increase productivity will continue because global competition is here to stay. In addition to these longer-term factors, the demand for goods and services is likely to be weak in the near term because the international economic outlook is weaker than it was last December.

Japan is currently in a recession, and several of the major European economies are in or near economic recession. The economic transition of Eastern Europe looks like it will take longer than originally supposed, and economic conditions in the former Soviet Union continue to deteriorate. All of this tends to reduce the growth of U.S. exports, which has been the most dynamic sector of the economy over the past several years. We expect economic conditions in Western Europe and Japan to improve next year, but sluggish export growth this year will cause employment and income growth in 1993 to be somewhat below what we forecast last December. For all of 1993, we expect real disposable personal income to rise by about 2.3%, down from our December forecast of 2.5%.

In December, we forecast consumer spending to rise by 2.4% in 1993, about in line with our forecast of real disposable income growth. Our revised forecast of real consumer spending is for growth of 2.3% in 1993, still in line with real income growth but down slightly from our December forecast.

The strongest areas within consumer spending are autos and furniture and household durable goods. The increase in auto expenditures is a bit misleading, because we are coming out of a period from 1990 through 1992 when auto sales were very weak. Even with the improvement in 1993, we expect unit sales of autos to average only about 8.7 million for the year, which is far below the average of more than 10.7 million per year for the period from 1984 through 1988. Likewise, spending on furniture and household durable goods is buoyed by increasing expenditures for new housing after a very weak housing sector in the last few years.

The weakest components of consumer expenditures are for such nondurables as gasoline, fuel oil, and food. Gasoline and fuel oil expenditures are expected to be constrained by further conservation efforts as well as somewhat higher prices. In 1994 these spending components might also be further curtailed by a BTU tax or another energy tax. Food expenditures have been growing slowly because of the current low rate of population growth.

One final uncertainty in the outlook for consumer expenditures is health care. As this is written, the long-awaited Clinton health care proposal has not yet been released. If, as expected, the plan includes extending health care benefits to up to 40 million people who are not currently covered, then one effect of the plan may be to greatly increase real consumer expenditures for health care, as many who went without treatment begin to receive it.

Gross Private Domestic Investment

Lawrence S. Davidson

Professor of Business Economics and Public Policy and Director, Indiana Center for Global Business, School of Business, Indiana University

Last fall we predicted that gross private domestic investment (GPDI) would be the strongest growing sector of the economy in 1993—increasing at an inflation-adjusted rate of around 9.5%. This overall projection was based on plant and equipment spend-

ing growing by 6%, residential construction up by 5.8%, and inventories growing by $30 billion.

Although these numbers may sound impressive when compared to our projected 2.4% growth in consumer spending, they are one more signal of an economy that is not performing according to historical norms. This is because the volatile investment sector often increases by much higher rates during recovery periods. We explained last fall that our modest 9.5% forecast is based on several factors:

- In the past recession, GPDI did not contract as severely as it had in previous recessions.
- A number of longer-term problems continue to constrain consumer and business confidence.
- Interest rates have bottomed and threaten to rise.
- Considerable political uncertainty exists.

Since we last wrote in this space, not much has happened to change this outlook. We believed then that the economy would exhibit strength in fourth quarter 1992 and then retrench somewhat in first quarter 1993. Our numbers today tell us that the economy grew by 4.8% and 0.7%, respectively, over these two quarters, yielding an average rate over that half-year period of around 2.8%. Whereas the quarterly numbers were more volatile than we predicted, the 2.8% is in line with a slowly improving economy growing nearly 3% in 1993.

As we wrote last year, it was becoming obvious that Bill Clinton would be the next president, but it was too early to say with much authority how his first year in office would affect the 1993 economy. We now know several things—his stimulus package will not consist of more than a few billion dollars, there will be no middle class income tax cut, and an investment tax credit is highly unlikely. Nevertheless, as we write this spring, little uncertainty has been cleared up with respect to federal government policy. Clinton's popularity is presently at its lowest level, and he is being tested on all his policies, including energy, deficit reduction, and health care.

These political turmoils are showing up in several surveys. In one poll reported in April, 90% of executives of small and medium-sized companies said they believed economic growth would be sluggish in 1993. By a count of 4:1, these executives said they did not like President Clinton's major programs. In a separate poll of executives of larger companies, most said they planned to reduce debt levels and inventories in 1993 and to increase capital spending by only 3.4%. The latest data on office vacancies suggest that the depression in building construction is not yet over, as the downtown office vacancy rate hit a six-year high of just under 20%. The fact that consumer confidence continues to fall in 1993 does not bode well for any of the components of GPDI.

Despite these apparently bad omens, the behavior of investment spending during the last half year has been about what we expected. If this pace continues during 1993, our forecast will be right on target. Corporate profits increased by almost 24% in 1992 after increasing by only 9% in 1991. (They fell by 3% in 1990). Internally generated funds seem ample now, and many firms have used some of these funds to reduce debt. Interest rates have not yet shown any pronounced tendency to rise in 1993, and should this trend continue and be accompanied by higher stock prices, firms will be in an even better position during the second half of 1993 to increase their spending on plant and equipment.

Whereas plant and equipment spending have shown strength in the last two quarters (up at an annualized rate of around 10%), inventory growth has averaged about $7 billion less than our forecast of an accumulation equal to $30 billion. The manufacturing and trade inventory-to-sales ratio fell throughout 1992, appears to have flattened out at about 1.46 in early 1993 (after averaging around 1.52 in 1992), and then surged in the first quarter. As the economy improves in 1993, we believe firms will have to build inventories, though at a rate more like $20-25 billion than our initial $30 billion forecast.

Our conclusion is that whereas considerable uncertainty and weaknesses prevent an historically strong rebound in all components of investment spending, the actual facts support a healthy 9-10% expansion. Much of the behavior of this volatile sector will depend on the outcome of the budget process in Washington. Given the large agenda for change envisioned by the new administration, this process will, no doubt, drag out slowly over the course of the year. This leaves our forecasts for 1993 fairly safe, but as we wrote last fall—"Watch out for 1994!"

Fiscal and Monetary Policy

Carol A. Scotese

Assistant Professor of Business Economics and Public Policy, School of Business, Indiana University

During the presidential campaign, Bill Clinton promised new programs (emphasizing investment, education, and jobs), tax increases on the wealthy and tax cuts for the middle class, and spending cuts from wasteful government programs. However, as the cam-

paign trail turned into the rugged road of compromise, the president's budget plan left only some promises intact.

As of early June, the House had passed the budget proposal by just the slimmest of margins. As discussed at campaign time, the plan revamps the student loan program by eliminating costly middlemen (banks). However, there is stiff opposition to this plan by powerful banking lobbies. Gone are many of the investment tax credit provisions that Clinton had hoped would spur investment, and the capital gains tax remains unchanged. Earlier, a short-term stimulus package, which included a jobs bill, was unable to muster enough support to make it through Congress; however, funds have been set aside to aid workers who become unemployed due to defense cutbacks. In summary, in terms of encouraging education, investment, and job growth, the budget proposal offers a mixed bag.

It appears as though the mood in Washington is not ripe for more spending programs, no matter what their intent. The emphasis is on cutting the deficit, which the current plan will do by about $500 billion over the next five years. The president emphasizes that if government makes a credible effort to reduce borrowing, long-term interest rates will stay low—thereby encouraging investment and growth.

On the revenue side, the biggest money raiser is the proposed energy tax. The tax on BTUs (British Thermal Units) will fall the hardest on energy-intensive industries and on the poor, who tend to spend a higher percentage of their income on home heating and transportation than do higher income groups. In response to these perceived inequities, exemptions and rebates have already been granted to some industries by the House. Also, Clinton's plan proposes increasing the earned income tax credit as well as food stamp and heating assistance expenditures to blunt the incidence of the tax on the poor.

Meanwhile, two additional tax rates, 36% and 39.6%, will be implemented (effective in 1993) for couples with joint incomes over $140,000 and $250,000 respectively. Also, additional Social Security benefits will be taxed.

But the plan must still go to the Senate, where the battle for passage may prove to be even fiercer than that fought in the House. A key Democratic adversary, David Boren of Oklahoma, wants to see the energy tax scrapped in favor of deep cuts in social spending. The chair of the Senate Finance Committee, Daniel P. Moynihan of New York, has supported diluting the energy tax and urging major cuts in Social Security and Medicare.

Whatever the resolution, the present uncertainty over the form new taxes will take may be a drag on the economy. While the wealthy may have been anticipating higher taxes since last fall, there still seems to be sufficient anxiety over the final budget package to contribute to the discouragingly low levels of consumer confidence. Meanwhile, health care reform looms in the background, foreshadowing another round of tax increases, perhaps later this year or early next year.

Monetary Policy

Since the beginning of the year, long-term interest rates have fallen slightly, while short-term rates hovered in the 3% range. As in 1992, M1 growth has been outpacing growth in M2, perhaps due to low short-term interest rates and slow growth in bank lending. The latter appears to be a result of weak loan demand, which tends to nullify some of the expansionary impact of the low interest rate environment.

Although the last two quarters of 1992 showed signs of slightly stronger recovery, the growth rate for the first quarter of 1993 came in at a meager 0.9%. Despite the slow growth, there are scattered signals of inflationary pressures (a rise in consumer prices and an increase in inflationary expectations as measured by survey data). In response, the Federal Reserve Board's Open Market Committee voted in a mid-May meeting to lean towards higher short-term interest rates. However, this does not mean that the Fed will necessarily push in that direction; it merely authorizes Chairman Alan Greenspan to act if he feels the need to do so. In fact, many economists feel that there is sufficient slack in the economy that inflation should not be a problem for the remainder of 1993. Moreover, with weak growth figures and a stubbornly high unemployment rate, the Fed may be reluctant to raise interest rates and further constrict economic activity, particularly in the vulnerable housing market.

The International Economy

Michele Fratianni

Professor of Business Economics and Public Policy, School of Business, Indiana University

The world economy continues to perform in a lackluster manner. Within the group of the seven most industrialized countries—the so-called G7—economic growth remains well below its trend value. Only the United States can expect to perform at a satisfactory rate in 1993. Japan is growing at a rate of approxi-

mately 2%; Canada at a rate of 2-2.5%; the United Kingdom at a rate slightly above 1%; Italy at less than 1%; and Germany and France at negative rates.

Particularly strong is the recession in Germany. The country is burdened by the consequences of its self-imposed objective of raising "overnight" the standards of living for 16 million people in eastern Germany to the level enjoyed by those residing in western Germany. Like the United States of the 1980s, Germany is now experiencing large twin deficits, that is, deficits in the government budget and in the current account of the balance of payments. In a period of a few years, the country has transformed itself from a capital-export country to a capital-import country. Furthermore, economic policy has been complicated by relatively large price increases in 1991 and 1992, which have prompted the Bundesbank, the German central bank, to tighten monetary policy. As a result, the level of German interest rates has been, until recently, very high. Only the unmistakable signs of recession convinced the Bundesbank to release its firm grip on monetary policy. German interest rates have fallen, leading the way for similar actions in other West European countries.

One difference between our December 1992 forecast and this midyear review is that interest rates around the world are now converging, whereas at the end of 1992 they were not. This convergence holds for the countries of the European Community and for the key reference countries such as the United States, Japan, and Germany. It also holds for real interest rates, that is, those measured net of the expected rates of inflation. This readjustment in interest rates will raise the value of the U.S. dollar with respect to the German mark. The appreciation of the dollar is further encouraged by the fact that German labor costs in manufacturing are considerably higher than their U.S. counterparts (both costs measured in the same currency).

A different story holds for Japan, which enjoys an extremely large current-account surplus vis-à-vis the United States. This surplus is the result of a long-run trend—structural reasons—and the slowdown in economic activity in Japan. Since the beginning of the year, the yen has appreciated by 10% with respect to the dollar. Underlying this appreciation is a robust capital repatriation by Japanese banks and insurance companies, which must set aside large amounts of capital for losses incurred in the real estate market and the stock market.

The policy of the Clinton administration of "talking the dollar down" has accelerated the pace of net capital inflows in Japan, with financial institutions trying to rush out of dollar-denominated assets to avoid losses in the exchange market. The trade disputes between the United States and Japan have now moved into the arena of the appropriate yen/dollar exchange rate. The U.S. administration would like the dollar to fall below 100 yen to the dollar to provide an additional boost to U.S. exports and reduce Japanese imports in the United States. The Miyazawa administration is not willing to tolerate a significant decline below the 110 level. The 10% appreciation of the yen has sharply reduced the competitiveness of Japanese products, and the Japanese business community is resenting the high-handed approach of the U.S. administration in dealing with the bilateral deficit.

Economic growth remains strong in Southeast Asia. The Southern provinces of China, Singapore, Thailand, Malaysia, and even the Philippines are growing rapidly and providing economic stimulus to the weaker G7 countries. For the latter one must wait until 1994 to see better times.

Real Estate Markets

R. Brian Webb

Assistant Professor of Finance, School of Business, Indiana University

Slow job growth, declining consumer confidence, and rapidly increasing lumber prices combined to sabotage the expected increase in housing starts through the first few months of 1993. Starts were only 1.21 million units (on a seasonally adjusted basis) in April. The pent-up demand for new housing that surely exists after three consecutive years of historically low starts may yet be unleashed in 1993 if consumer confidence improves. The 1.32 million starts predicted for 1993 is still attainable if the Clinton administration and the economy gain momentum after slower than expected starts. However, residential construction activity will remain below predicted levels until concerns about higher taxes are resolved.

Lumber prices exploded to an all-time record level of over $.50 per board foot in mid-March, more than twice the highest level prior to 1990. Prices have fallen 38% since that time but are still far above previous peaks in lumber prices. Wholesale and retail lumber inventories were quite low last October, and panic buying by builders and dealers spurred by fears of inadequate supply is the most likely explanation for this spike in prices. Seasonal and cyclical increases in the demand for lumber, U.S. duties on imports of Canadian lumber, tax subsidies to exporters of U.S. timber, price manipulation by major lumber producers

and wholesalers, and constraints on timber supply caused by environmental restrictions on logging in the Northwest have all been blamed, however. Lumber prices should ease further in coming months, but the stated environmental priorities of the Clinton-Gore administration may have a long-term effect on lumber supply and prices. Expect the movement toward alternatives such as engineered wood products and steel framing to accelerate.

The average rate for a 30-year, fixed-rate mortgage has increased to 7.75% from 7.5% in the last month. This rise is probably temporary, and 30-year mortgage rates are expected to remain in the 7.5-8.0% range throughout 1993. Very favorable rates continue to be available on 15-year and 7-year fixed rate mortgages as well as on adjustable-rate mortgages. Gradually increasing interest rates may actually increase housing starts in the short run, as individuals commit to new construction so they can lock in financing before rates rise too much.

Existing home prices have increased more rapidly than inflation over the past year, but declines in mortgage interest rates over this time period have largely offset the higher prices. The housing affordability index is at 131.5 for the entire United States, one of the highest levels attained in the last several years. The housing affordability index for the state of Indiana has increased to a very favorable 196.0 during first quarter 1993, primarily because of the declining mortgage rates. Housing prices in the Midwest have leveled off and will not significantly increase until the recovery of the manufacturing sector of the economy becomes more robust. The increased cost of new construction due to higher lumber prices will continue to support existing home prices, however.

Commercial Real Estate

With national vacancy rates on office space remaining in the 20% range, construction activity in the commercial real estate sector continues to be virtually nonexistent. Additional demand for space needed to reduce the high vacancy rates is not expected any time soon because of the slow growth in the number of new jobs being created in the economy, a reduction in the number of existing jobs due to the downsizing activities of corporations, and an emerging movement to reduce the amount of space per employee. Reduction in the required space per employee is being achieved by a number of major corporations by asking their sales staff and other workers who are often on the road to share desk space when they are in the office. Other corporations are going a step further by issuing laptop computers, cellular phones, and portable printers and asking their workers to create "virtual offices" at home, their customers' offices, or wherever they might be. Expect very gradual declines in vacancy rates over the next several years.

Commercial real estate values and commercial mortgage rates have fallen to the point that institutional investors expect reasonable returns on investments in this asset class even if vacancy rates remain high. Cash-on-cash returns on real estate relative to stocks and bonds are at their highest point in modern history (9.5% compared to 7% on long-term treasury bonds), suggesting that commercial real estate price appreciation is not expected or required in the short run.

Because current prices are far below replacement cost, the likelihood of substantial new construction activity is low. The construction industry has already downsized, and future growth in the economy will be slower than normal without the surge in this industry that typically leads economic recovery. A less prominent construction industry in the U.S. economy will persist for many years to come, due to the aging of the population (and the corresponding reduction in the pool of first-time home buyers) and the current oversupply of commercial space.

Indiana's Employment Record

Morton J. Marcus

Director, Indiana Business Research Center, School of Business, Indiana University

At a glance, Indiana's overall employment record since January 1989 looks positive—so positive, in fact, that the record seems to indicate a robust Indiana economy. However, a glance sometimes does not reveal everything that is to be seen. The following figures and their accompanying text subject the record to a more intense examination.

Figure 1. Indiana's rate of employment growth in the past four years and in the past year has exceeded the nation's advances. Between March 1989 and the same month in 1993, 100,000 jobs have been added in the state, with 30,000 added in the past year.[1]

For both periods of time, Kentucky has demonstrated the best performance of our neighboring states, while Illinois has had the poorest record.

Figure 2. Indiana's total establishment employment is off to a good start in 1993, with a 1.2% increase over March of last year. The upward direction in the state's employment is shown by a simple trend line. This figure also demonstrates the seasonal pattern of employment in the state, with a generally upward movement from January within each year, followed by a sharp decline once the winter begins and Christmas sales are over.

Figure 3. Each month during 1990, Indiana and the U.S. saw employment grow, but for the nation the rate of increase began to decline in March. (For Indiana, the decline began in August.) Throughout 1991, employment in Indiana and the U.S. was below the same month a year earlier, but an improvement was evident by midyear. Indiana broke into the positive range in January 1992, with the U.S. following in April. Since then Indiana has maintained a lead over the nation in year-to-year percentage increases (although the gap has narrowed in 1993).

Figure 1
Percent Change in Total Establishment Employment

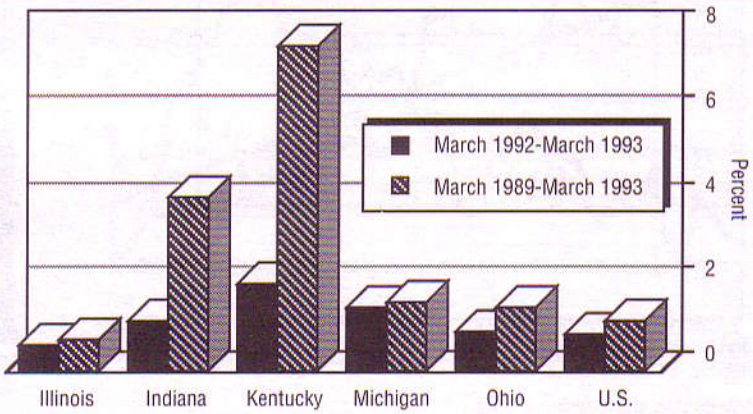
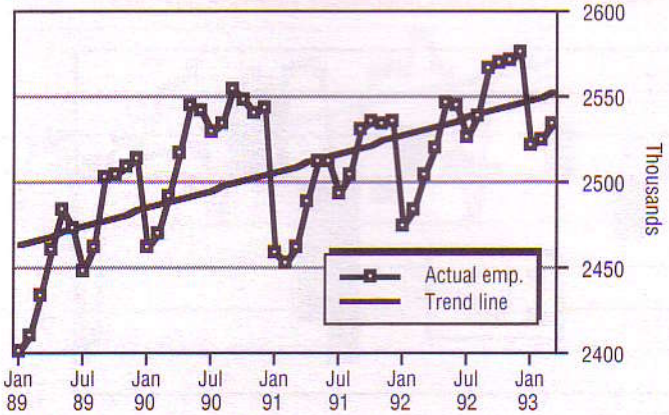
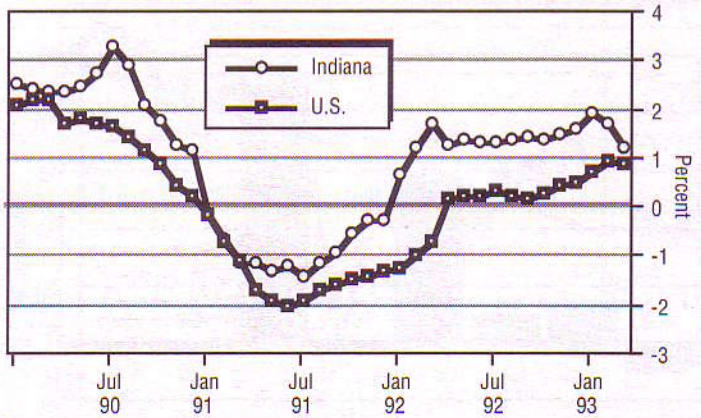


Figure 2
Total Establishment Employment, Indiana



Monthly data, not seasonally adjusted

Figure 3
Total Establishment Employment



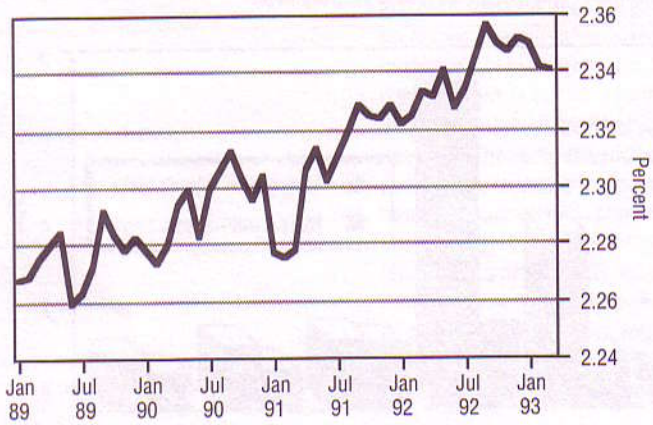
Percent change from same month a year ago.

Figure 4. There is an upward trend in Indiana's share of the nation's employment. (Figure 4 dramatizes this trend because of its scale.) Part of the reason we may have a rising share of establishment employment is that we have less of a tendency toward self-employment than the nation; with 2.25% of all employment, we have but 2.16% of all business (farm and non-farm) proprietors in the country. In the restructuring economy, with employment prospects better in Indiana than elsewhere, fewer people here may be tempted to go it alone in the marketplace.

Figure 5. Our growing share of employment is seen most clearly in construction and manufacturing. Both industries, however, have been distressed across the nation, so the relative advances made by Indiana are not as impressive as they would be if the national economy were more vibrant. A good gain was also made by Indiana in finance, insurance and real estate (FIRE), but here too restructuring and layoffs may be a contributory factor to our showing.

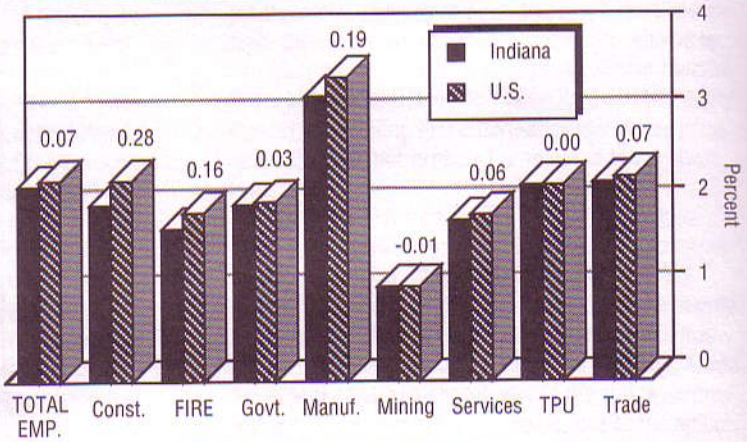
Figures 6 and **7.** In the past year, Indiana's job growth has been strongest in manufacturing and services. In manufacturing we managed to grow while the nation lost jobs. Similarly, in the financial area we had good growth against a national background of virtually no growth. Construction, which had been strong, weakened in the past year. Each sector is detailed in the following pages.

Figure 4
Indiana's Share of U.S. Total Establishment Employment



Monthly data, not seasonally adjusted

Figure 5
Indiana's Share of U.S. Employment, March 1989-March 1993



Numbers shown are change in share over time.

Figure 6
Change in Indiana Employment from March 1992 to March 1993

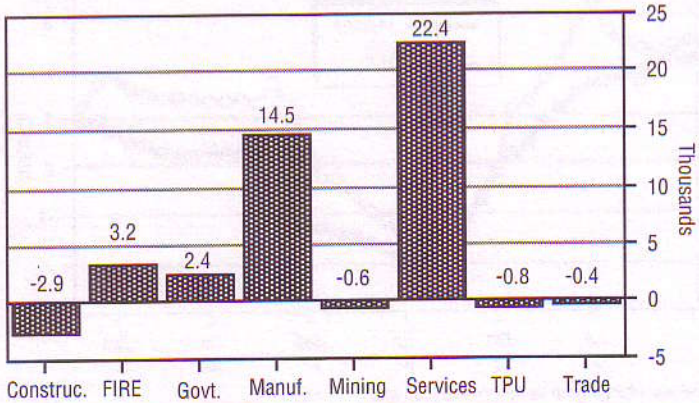


Figure 7
Percent Change in Employment from March 1992 to March 1993

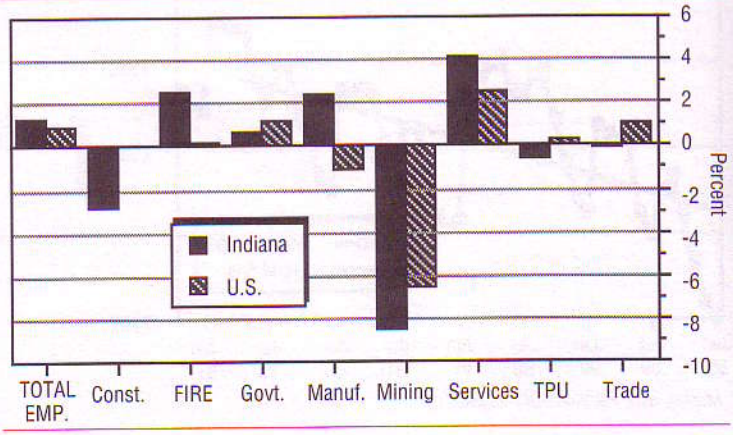


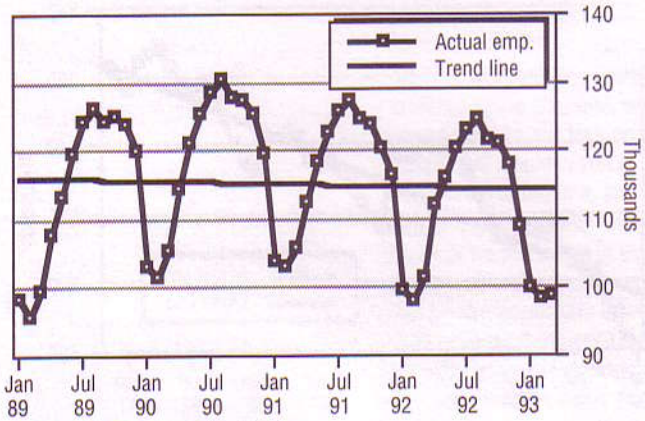
Figure 8. Construction, as expected, shows a strong seasonal pattern. There is a minor downward tendency in the data, which can be seen by the declining trend line and the successively lower peaks and troughs of recent years.

Figures 9 and **10.** Both the financial sector and government employment in Indiana show rising trends over the past four years. Some of the upward trend in government is strengthened by a rise in summer employment (lesser declines from May to July).

Figures 11 and **12.** Both manufacturing and mining have declining trend lines, but this may be misleading. Manufacturing shows a decline through 1989 and 1990, but an upward trend since the recovery in early 1991. The trend line, as applied here, does not pick up this cyclical pattern and probably should be ignored. The decline in mining, seasonal factors aside, has been in effect since mid-1990.

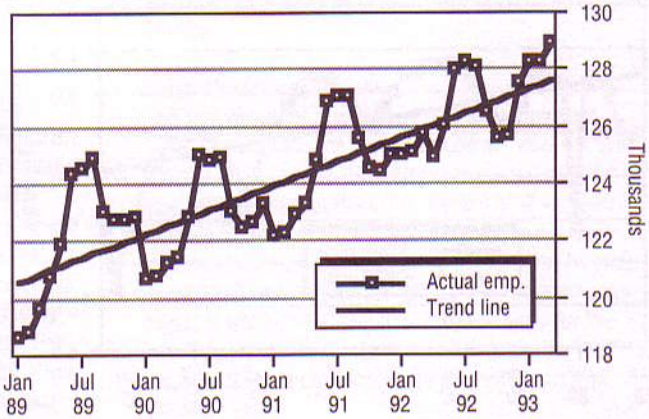
Figure 13. Business and personal services (a vast agglomeration including plumbers and doctors, as well as barbers and attorneys, plus hotel workers and movie theater operators) has a regular seasonal pattern, peaking in September or October off a January low. The upward trend is unambiguous.

Figure 8
Indiana Construction Employment



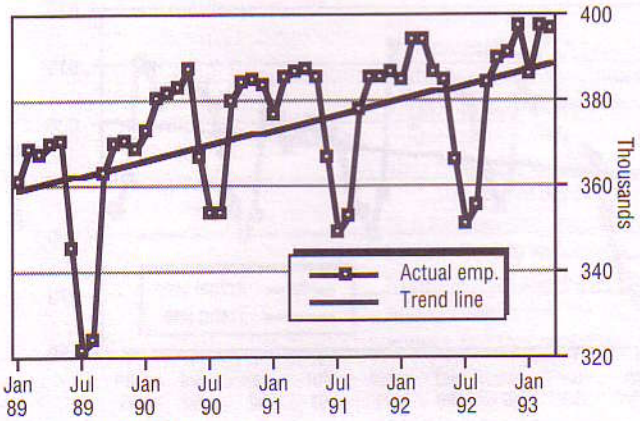
Monthly data, not seasonally adjusted

Figure 9
Indiana Employment in Finance, Insurance, and Real Estate (FIRE)



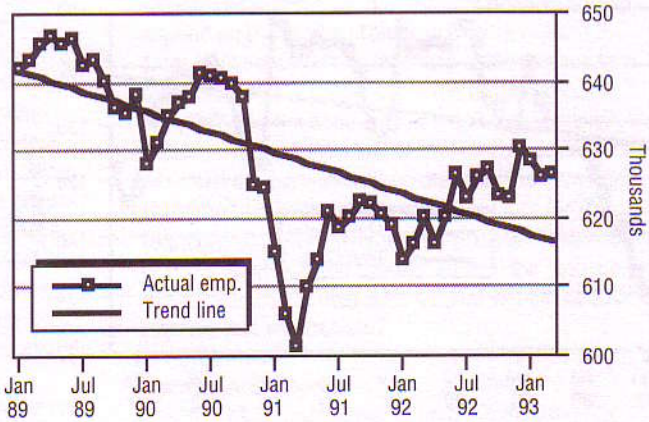
Monthly data, not seasonally adjusted

Figure 10
Government Employment in Indiana



Monthly data, not seasonally adjusted

Figure 11
Indiana Manufacturing Employment



Monthly data, not seasonally adjusted

Figure 14. The upward trend line in transportation and public utilities (TPU) is suspect, based mainly on the expansion of 1989. Since then a case can be made for a downward trend as this sector has successively lower troughs and less pronounced peaks.

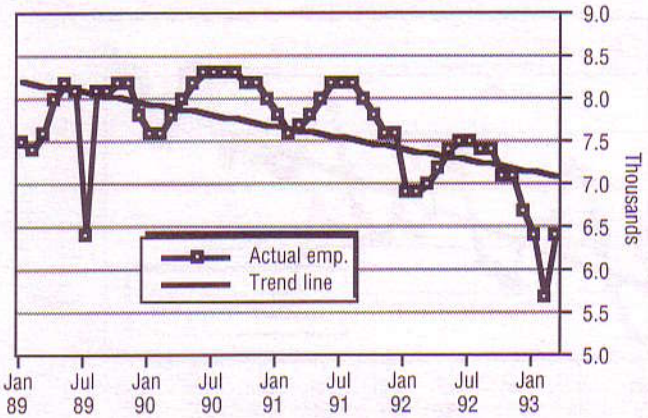
Figure 15. Employment in wholesale and retail trade has a moderate upward trend, again built on the expansion of early 1989. Since then this has been a fairly stagnant sector in the Indiana economy.

This review of employment trends indicates that Indiana's superior relative performance is not to be interpreted as evidence of a robust economy. The sluggishness of employment throughout the nation makes us look good. Our own growth is slow at best. How we will fare in the balance of 1993 depends on the strength of durable goods production (see the preceding national forecast) and the local factors detailed in the individual sections that follow.

Notes

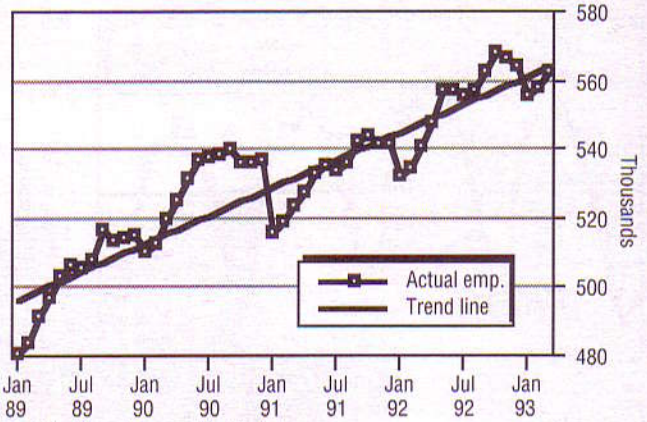
1. The data used in this report are monthly figures not adjusted for seasonal variations, as released by the U.S. Department of Labor. Total employment here refers to establishments only; excluded are people who are self-employed and farm workers.

Figure 12
Indiana Mining Employment



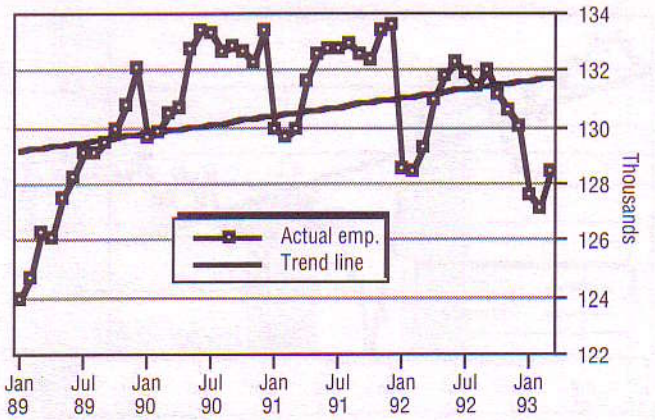
Monthly data, not seasonally adjusted

Figure 13
Indiana Employment in Business and Personal Services



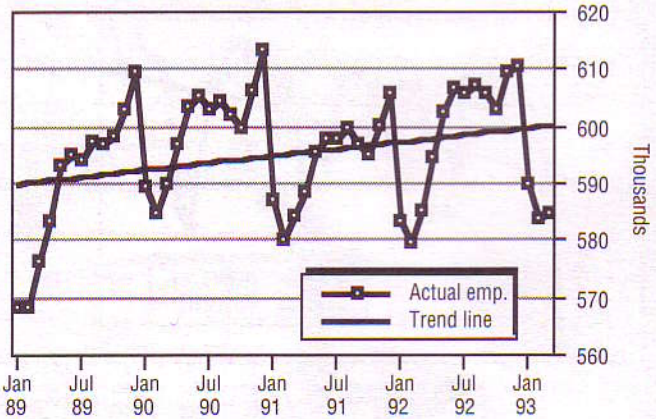
Monthly data, not seasonally adjusted

Figure 14
Indiana Employment in Transportation and Public Utilities (TPU)



Monthly data, not seasonally adjusted

Figure 15
Indiana Employment in Wholesale and Retail Trade



Monthly data, not seasonally adjusted

Indianapolis

Robert Kirk

Professor of Economics, Indiana University-Purdue University at Indianapolis, with data assistance from the Statistical Services Division of the Indiana Department of Employment and Training Services

Employment for the Indianapolis metropolitan area is forecast to increase by 2.5-3% in 1994 compared with 1993. This will be a good performance, although less than what 1993 is expected to be compared with 1992. Real personal income is expected to increase by 3%. This too is somewhat less than the change for the 1992-93 period.

Tax Policy

When this article was written, the Clinton deficit reduction bill had just passed the House by a slim margin. To gain passage in the Senate, it will probably undergo some changes, with more emphasis on spending cuts and less on tax increases. The House-passed bill would result in slower growth in disposable personal income, and inflation will be a little higher compared with what would result from no new taxes or no increases in existing taxes. Because we try to maintain our consumption patterns in the short run as our disposable incomes fall, we will probably shift in favor of necessities and save a little less. The tax-induced lower savings rate may be offset by other determinants of saving, such as baby boomers nearing a phase of life in which saving tends to increase.

The BTU tax would be passed through the various levels of the production process. How much of the tax will be shifted forward to the consumer or backward to the employee or stockholder would depend on the nature of competition in the products and inputs markets. For example, a farmer cannot set the price for his or her cattle or hogs, so the energy tax is an increased cost of production that must be absorbed—unless agriculture would receive some type of exemption. On the other hand, utilities under the House-passed bill would be allowed to pass immediately through the higher energy costs to the ratepayer.

The House bill includes a reduction in the deduction for business meals and entertainment expenses. Marion County received about $10 million in 1992 from the food and beverage tax. The reduced deduction can lower the rate of growth in this revenue source, but that reduction could be offset by strong convention business.

During the 1980s, the inflation-adjusted price of gasoline decreased. As a result of the second OPEC price increase in 1979, the price in 1980 was $2.05 in 1991 dollars. In 1991, the price had fallen to $1.15 in 1991 dollars. Gasoline's relative price decline has facilitated the suburbanization process. On the other hand, in supplying housing the most rapidly growing input price has been for land. The result of the relative increase in land prices has been a tendency toward a smaller number of lots per acre within a more dispersed land-use pattern. The tax-induced increase in the price of gasoline would encourage people to accomplish more errands per trip.

The manufacturing sector is important to the Indianapolis economy in terms of output, employment, and income generated. Although energy-intensive industries have changed their production processes during the 1980s to use energy more efficiently, these industries would be affected by the BTU tax. In an internationally competitive environment, it has become more difficult to shift tax-induced costs forward in the form of higher prices than it was in the 1970s.

Major Projects and Issues

The first group of 300 United Airlines employees at United's maintenance center will be arriving in third quarter 1993. A second group is expected in 1994. The construction of the Circle Centre Mall will continue in 1994 to stimulate the local economy and change the visual appearance of the downtown area. A fall 1995 opening date is anticipated. Indianapolis hopes it will be selected as one of the sites for the new Army Finance Centers. As forecast in the last issue, U.S.-built car sales have increased over the previous year.

The proposed combination of PSI Energy and Cincinnati Gas and Electric (CG&E), along with IPALCO Enterprises' alternative bid for PSI, will be in the news for many months to come. Because the proposed combination is subject to state regulatory approval, some interesting regulatory issues are raised. The outcome of the approval process should depend on the merits of the combination. Will it increase efficiency (lower rates and better service than otherwise)? How probable are the proposed cost savings? Will the combination result in a financially viable company? How will proposed cost savings be allocated between ratepayers and shareholders? Both CG&E and IPALCO are offering a premium for PSI (the difference between the offer price and the value of PSI's assets). What mechanism will the regulators use to allocate the cost savings, and will the courts approve that mechanism?

Occupational Change

The loss of corporate headquarters in Indianapolis has been a topic of discussion recently. It has meant a

loss of business for local suppliers of goods and services, as the out-of-town corporate decision makers take their business elsewhere. When we think of headquarters, we think of certain types of jobs, such as administrative, managerial, and executive. On the other hand, a "branch-plant" town that specializes in production facilities would not be expected to have these types of occupations to the same degree.

Table 1
Percent Change in Employment by Occupation, 1980-90, for Selected Metropolitan Areas

	Executive	*Professional*	*Technical*	*Sales*
Indianapolis	48	39	47	43
Chicago	29	42	26	29
Columbus, OH	47	37	47	47
Detroit	31	23	36	30
Atlanta	79	71	84	76
St. Louis	40	32	32	30
	Precision	*Machinist*	*Transportation*	*Handlers*
Indianapolis	10	-28	12	8
Chicago	-7	-27	-3	-10
Columbus, OH	-2	-14	6	13
Detroit	-1	-21	-7	5
Atlanta	28	-6	36	20
St. Louis	-2	-21	-3	-6

Source: Author's calculations, based on the Census of Population, 1980 and 1990

Table 2
Employment by Occupation, Gender, and Race, 1980 Percent Distribution and Percent Change, 1980-90, for Selected Metropolitan Areas

	1980 Percent Distribution				Percent Change, 1980-90			
	Black Female	*Black Male*	*White Female*	*White Male*	*Black Female*	*Black Male*	*White Female*	*White Male*
EXECUTIVE								
Indianapolis	.03	.03	.27	.67	112	35	115	21
Chicago	.04	.05	.26	.65	102	40	78	5
Columbus, OH	.03	.04	.26	.67	121	43	117	20
Detroit	.04	.05	.25	.66	98	39	92	9
Atlanta	.05	.05	.27	.63	233	113	131	47
St. Louis	.03	.03	.26	.68	83	57	105	16
MACHINIST								
Indianapolis	.07	.09	.28	.56	-36	-19	-24	-23
Chicago	.10	.16	.26	.48	-22	-31	-36	-30
Columbus, OH	.04	.08	.30	.58	-3	-4	-11	-6
Detroit	.07	.16	.18	.59	19	-8	-4	-18
Atlanta	.16	.17	.27	.40	19	21	-20	-7
St. Louis	.07	.12	.26	.55	6	-8	-21	-13

Source: Author's calculations, based on the Census of Population, 1980 and 1990

Other factors affect the changing occupational composition of the Indianapolis labor force besides the presence of corporate headquarters. Technological change introduced into the production process through investment in capital goods is very important. Investment in capital goods increases demand for white-collar jobs and reduces demand for blue-collar jobs. In 1981 we had major tax policy changes to stimulate investment, such as accelerated depreciation allowances and investment tax credits. Also during the early 1980s the value of the dollar appreciated, resulting in strong incentives to cut costs by substituting capital for labor to remain globally competitive.

How have these factors affected the occupational composition of the Indianapolis labor force? **Table 1** shows percent changes in employment by major occupational categories, 1980-90, for selected metropolitan areas. If we think of the first row of occupations as white-collar and the second as blue-collar, then we see a definite shift in the pattern of labor demand. Each of these metropolitan areas has more major corporate headquarters than Indianapolis. If we examined at a more detailed level the composition of each of these occupational categories, we might see significant differences that are obscured by the aggregate nature of the categories.

These occupational shifts had impacts based on gender and race. **Table 2** shows by gender and race the 1980 percent distribution and the percent change 1980-90 in employment for two occupations for the same metropolitan areas shown in Table 1. Executive (which includes managerial and administrative) represents white-collar, and machinist (which includes machine operators, fabricators, assemblers, and inspectors) represents blue-collar.

What do these numbers mean? For the executive category, percent increases were greater for females than for males. Some of the magnitudes of the percent increases are due to the relatively small 1980 bases. There was more variation in the percent distributions for machinists than for executives, caused by the differences in the industrial mixes of the areas' manufacturing sectors. For machinists, decreases in employment were the norm (20 out of 24 gender/race categories).

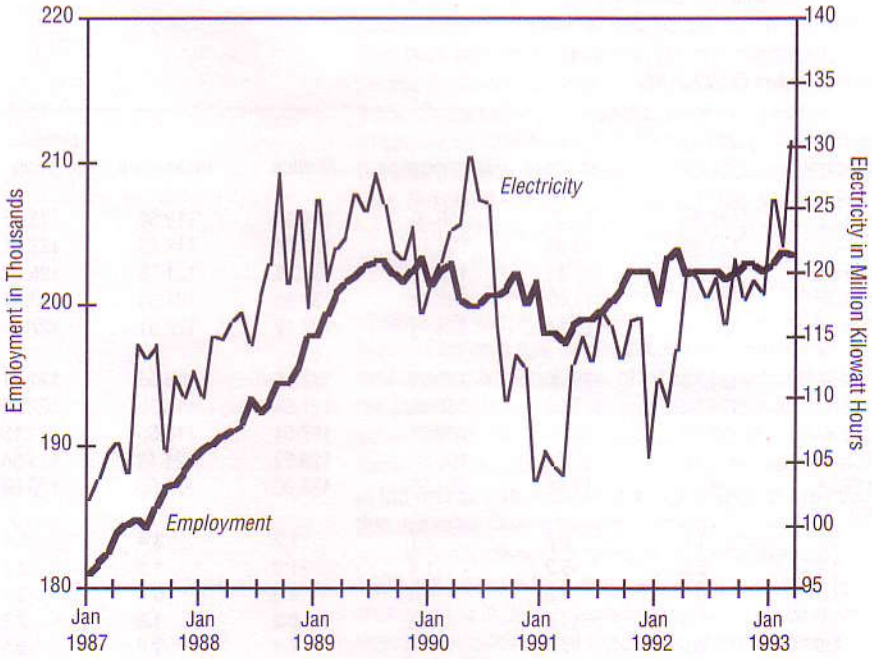
These numbers indicate part of the basis for an expanding black middle class that occurred during the 1980s. The occupational shifts caused differences in growth in earnings during the decade—those with more education benefiting compared to those with less. To the extent that these occupational shifts enhanced the economic status of females relative to males, in some cases the benefits of marriage declined and contributed to the increase in female-headed households.

These occupational shifts are one dimension of a dynamic economy—people moving out of one occupation and into another—in response to changing consumer demands and technology. In some cases they have occurred with minimal personal and social costs; in others, the costs have been high and dysfunctional, involving job loss and poverty. How these dynamics affect a metropolitan area depends on how the local firms and labor force prepare for, and influence, the changes.

We have examined occupational shifts at the metropolitan level because we can think of an urban economy as a highly specialized labor market. On the other hand, the Census Bureau's definition of a metropolitan area uses political jurisdictions—a collection of counties. As suburbanization occurs, problems such as congestion and flood control spill over an individual county's boundaries.

The Indiana General Assembly responded to these types of multi-county problems by giving counties the authority to establish multiple county infrastructure authorities (MCIAs). The purpose of these authorities is to develop and manage infrastructures, such as thoroughfares and flood control projects. The establishment of an MCIA must be in accordance with the ordinances of the county councils involved. At a minimal level, the establishment of MCIA-type structures could provide a forum to discuss particular multi-county issues as we move through the 1990s.

Figure
Fort Wayne Area Payroll Employment and Industrial Use of Electricity



Fort Wayne area consists of Allen, DeKalb, and Whitley counties.
Sources: Indiana Department of Employment & Training Services and Indiana Michigan Power

Fort Wayne

Thomas L. Guthrie

Director, Community Research Institute, and Associate Professor of Business and Economics, Indiana University-Purdue University at Fort Wayne

The first challenge of every economic forecaster is to determine the current status of the economy. Last year the Indiana Department of Employment and Training Services revised area employment downward by approximately 5,000 for the 1990-91 period. I reported this in the 1993 outlook (*IBR*, December 1992), and noted that "there is a high probability that the most recent employment data are wrong again."

That forecast was correct. This year's annual revision increased employment in the 1991-92 period by approximately 5,000. In short, the employment data series for the Fort Wayne area *before* revision was more of a source of *mis*information than information relative to the current status of the economy.

The **Figure** shows the employment data series with the latest revisions. Given the magnitude of recent revisions, the 1992-93 portion of the data series should be viewed with suspicion until the next revision, which will be reported in first quarter 1994. The initial forecast was for area employment to increase between 2,000 and 4,000 in calendar year 1993. Current conditions in both the area and national economies augur well for the accuracy of that forecast.

Fort Wayne area employment growth remains slow, compared with previous recoveries, but steady (see the **Table**). As noted above, March 1993 employment should be viewed as highly suspect until revised

Table
Fort Wayne Area Employment Growth

	Employment (in 000s)	
Month	*Level*	*Change*
July 1989 (last top)	203.0	
March 1991 (last bottom)	197.3	-5.7
March 1992	203.9	6.6
March 1993	203.3	-0.6

data are available. Other proxies of area economic growth not subject to revision continue to increase. One example is industrial use of electricity in the Fort Wayne area (see the Figure).

The national economy continues to grow, albeit slowly. I assume continued growth at approximately 2% (at an annualized rate) for the remainder of 1993. Domestic auto and light truck sales, an important industry for the area economy, are still on track to expand by the originally forecast 700,000 units in 1993. The forecast for total sales for 1993 reaches 11.2 million units.

Auto and light truck production has been uneven from quarter to quarter, a trend that is likely to continue. Despite increased sales, second quarter production was down because of an inventory bulge from the first quarter. Accordingly, third quarter production should increase, not only because the excess inventory will have been depleted but because firms are likely to build inventory in anticipation of a possible strike. The UAW contract expires in September.

Manufacturing exports should remain another source of strength for the area economy through the remainder of 1993. An obvious negative for exports is the fact that the trade-weighted exchange value of the dollar rose 16% between August 1992 and March 1993. However, this should be more than offset by a forecast recovery in the economies of our major trading partners during the remainder of 1993, resulting in increases in the purchases of U.S.-produced products and services.

Evansville

Maurice Tsai

Professor of Economics, University of Evansville

The Evansville economy grew at 2.8% in 1992, as shown in the **Table**. The upward trend in economic activities started slowly in the first half but gained its momentum toward the end of the year. The actual growth rate was better than the originally expected 2.6%. Growth was led by strong manufacturing, service, and construction activities. The industrial production index registered a 3.0% growth after a decline of 2.3% in the 1991 recession. Manufacturing employment increased 4.2%, from 30,800 in 1991 to 32,100 in 1992. This growth can be attributed to the expansion of capacity at the Whirlpool plant, steady growth in other manufacturing firms, and the absence of labor disputes.

Activities in wholesale and retail trade remained stagnant in 1992. The trade sector, in fact, lost 300 workers, or 0.9% of its employment. The service industries, however, remained strong even during the 1991 recession. Employment in the service sector was 52,900 in 1990 but increased to 54,600 in 1991 and 56,500 in 1992. As a result, the trade and service index rose by a modest 1.6% in 1992 following a poor 0.2% growth rate in 1991.

Table
Evansville Area Business Index (1977=100)

	Industrial Production	*Trade and Services*	*Construction*	*Transportation*	*Finance*	*Employment*	*Composite Index*
Quarterly Index							
1Q1992	120.72	129.99	111.45	106.00	124.93	119.56	122.27
2Q1992	125.31	129.36	113.99	105.14	122.73	118.85	123.62
3Q1992	125.66	131.14	112.48	109.75	132.56	121.76	125.22
4Q1992	128.36	133.89	111.02	105.60	133.86	124.35	127.11
1Q1993	126.84	135.41	120.14	104.84	137.12	122.51	127.81
Annual Index							
1989	123.57	121.78	118.76	113.86	122.86	116.55	121.11
1990	124.06	128.82	112.62	112.25	121.64	118.35	122.86
1991	121.32	129.08	98.19	106.86	127.54	118.85	121.18
1992	125.01	131.10	112.24	106.62	128.52	121.13	124.56
1993 (est.)	129.30	136.41	117.00	107.50	138.00	123.50	129.00
Annual Growth Rate (%)							
1989	0.4	1.7	2.8	2.7	1.2	3.4	1.5
1990	0.4	5.8	-5.2	-1.4	-1.0	1.5	1.4
1991	-2.3	0.2	-12.8	-4.8	4.9	0.4	-1.4
1992	3.0	1.6	14.8	-0.2	0.8	1.9	2.8
1993 (est.)	3.4	4.0	4.2	0.8	7.4	2.0	3.5

Source: School of Business Administration, University of Evansville.

Construction activities declined in 1990 and 1991. As interest rates fell and general economic conditions began to revive, construction activities bounced upward in 1992. During 1992, residential construction surged 36% while business construction rose by 25%. The construction index thus showed an increase of 14.3%.

The transportation sector remained weak from 1990 to 1992. The number of air passengers rose only 1.3% in 1992 from the previous year. Employment in this sector declined by 1.3% in 1992, resulting in a loss of 0.2% for the transportation index. This is the only sector that failed to grow in 1992.

The financial sector showed strong growth in 1991 by adding 5% to its employment. The momentum was halted in 1992 by the weak demand for loans and the slow processing of lending by the banking community through the year. The financial index thus rose only by 0.8% for the entire year.

Nonagricultural employment increased only by 500, from 135,500 in 1990 to 136,000 in 1991, but it registered a big increase of 2,500 in 1992. The employment index therefore rose by 2%. The regional unemployment rate rose to 6.5% in 1992 along with the national trend, which was affected by many layoffs in major firms.

In summary, 1992 was a modest recovery year for the Evansville economy. The 2.8% growth rate was the best performance since 1986, when a 7.1% growth rate was recorded.

The year 1993 is expected to be better than 1992 in terms of economic performance. Evidence from the first quarter shows that all sectors but transportation improved over year-ago levels. The composite index for the Evansville economy is projected to rise by 3.5%. Some signs of weakness, such as a downturn in consumer confidence and the eruption of strikes in the coal industry, cast a cloud on the economic future. Despite these adverse factors, Evansville should be able to achieve economic growth equal to, if not better than, that of 1992.

In 1993 industrial production will again lead regional growth, at a rate better than that of 1992. Manufacturing employment did not increase in the first quarter, but expansion of jobs is expected due to the scheduled opening of a new facility that will provide parts for the Whirlpool plant. Electricity consumption by manufacturing firms already rose 2.7% in the first quarter, indicating a higher level of production activities than in the previous year.

In the trade sector, the loss of employment in 1992 will be more than replaced. The loss of a major anchor store in the Eastland Mall in 1992 will be more than made up for by the October opening of an anchor store in the Washington Square Mall and by the announced opening of a K mart superstore on the east side of the city. Employment in the service sector is likely to maintain its current level or grow even further. With recent increases in automobile sales, the trade and service index should rise by 4%.

The transportation sector should become more active because of growing manufacturing and trading activities. Its growth rate will be modest, but the downward trend of the past three years will be reversed. The financial sector should register substantial growth in 1993, probably at 7%. The expansion of the banking sector via mergers in the past had resulted in a 15% growth in bank deposits and an increase in financial employment in the first quarter. Area employment, therefore, will increase as the major sectors in the region expand. In first quarter 1993 the regional economy had already added 3,370 workers to company payrolls.

Despite some adverse developments in the second quarter, the Evansville economy should be able to grow in 1993 at a rate equal to or higher than that of 1992. The unemployment rate, however, may remain at the 6.5% level as in 1992, due to an increase in the size of the labor force.

Northwest Indiana

Leslie P. Singer

Professor of Economics and Emeritus Professor of Public and Environmental Affairs, Indiana University Northwest at Gary

Our midyear review of the local economy shows that we had slightly overestimated the anticipated upsurge in the manufacturing sector. From first quarter 1992 to first quarter 1993 we lost 1,400 manufacturing jobs, of which 1,100 were in steel, 200 in industrial machinery, and 100 in small manufacturing firms unrelated to steel. Our more sober forecasts are in the **Table** on the next page.

The Nonmanufacturing Sector

This sector is where we expect most of the growth to take place. Nonmanufacturing is very volatile, both seasonally and secularly. From third quarter 1991 to third quarter 1992 nonmanufacturing gained 10,900 jobs; from first quarter 1992 to first quarter 1993 only 3,600 jobs were added. The common perception is that we are trading high-wage manufacturing jobs—that is, export jobs—for low-wage nonmanufacturing

Table 1
Northwest Indiana Employment Data

	Actual				Forecast		
	1Q93	*2Q93*	*3Q93*	*4Q93*	*1Q94*	*2Q94*	*3Q94*
Total Employment, Seasonal (000s)	241.70	254.98	257.22	259.36	255.86	260.64	262.22
Total Employment, Annualized*	252.34	254.92	256.26	257.29	257.64	259.07	260.41
Manufacturing, Seasonal	51.56	52.18	52.42	51.37	50.98	51.48	52.01
Nonmanufacturing, Seasonal	190.20	202.80	204.80	207.99	204.68	209.16	210.21
Nonmanufacturing, Annualized*	199.18	201.92	203.99	205.05	205.82	207.78	209.87
Steel Mills, Seasonal	31.40	31.74	31.89	31.38	31.03	31.06	31.80
Steel Mills, Annualized	32.03	31.61	31.14	31.07	30.79	30.32	31.01
Nonsteel Manufacturing, Seasonal	20.10	20.44	20.53	19.99	19.95	20.42	21.18
Construction, Annualized*	17.22	17.42	17.69	17.63	17.58	17.72	18.04
Trade, Seasonal	58.20	62.04	60.51	63.43	60.66	63.34	61.77
Government, Seasonal	35.80	34.91	35.67	33.44	35.67	36.09	35.98
Steel Output Mills, Annualized	3.22	3.29	3.24	3.29	3.24	3.16	3.19
Steel Production, Annualized*	21.46	22.99	22.66	22.71	22.35	22.52	22.41
Manufacturing Payroll, Annual ($billion)*	2.093	2.099	2.101	2.119	2.129	2.139	2.148
Steel Payroll, Annualized*	1.326	1.327	1.329	1.331	1.337	1.332	1.335
Nonmanufacturing Payroll, Annualized*	3.759	3.858	3.926	3.995	4.063	4.131	4.199
Total Payroll (estimate)	10.71	10.31	10.89	10.91	10.61	9.92	9.81
Steel Purchases by Automakers (mil. tons)	5.952	5.957	6.027	6.114	6.175	6.270	6.347
Weekly Manufacturing Hours*	47.10	45.03	43.48	42.65	42.69	43.56	43.88

**12-month moving average.*

(local) jobs. However, that is not exactly the case. Of the large increase in jobs in 1992, 2,100 were in construction, 200 in nondurable goods, 500 in utilities and transportation, 200 in finance and banking, and 700 in health services. More than 70% of these jobs pay relatively high wages. The remaining 2,800 jobs in trade, 2,100 in miscellaneous services other than health care, and 2,100 additional local government jobs (excluding education) were for the most part low-paying and part-time, seasonal, or temporary jobs. After making the necessary payroll adjustment we still show a significant net real increase in the Northwest Indiana payroll. Our analyses tend to establish an exchange ratio of 1 to 2.131; on the average, one jobs lost in manufacturing requires 2.131 new jobs in nonmanufacturing. This balance does not take into account the disparity in fringe benefits.

It is hard to ascertain the real impact of unemployment, which stood at 7.3% in third quarter 1992—a period of expansion. Unemployment was 6.9% in first quarter 1993—a period of slow growth. The labor force responds to a variety of private and public stimuli, including extensions of unemployment compensation benefits. From 1991 to 1992, the labor force grew by more than 20,000 job seekers, whereas in first quarter 1993 it shrank by almost 7,000.

What Sustains the Domestic Economy?

Traditionally, we think of the manufacturing sector as exporting goods to the rest of the economy, thereby providing the secondary money flows for the domestic sectors. If the manufacturing sector is shrinking, other things being equal, the domestic sectors would also have to decline. However, that is not happening, either in periods of expansion or periods of recession.

First, we want to note that Northwest Indiana has several expanding service sectors—notably, retail trade, professional services, insurance, legal services, banking and finance, and health care—that are exported into the agricultural hinterland and to small cities and towns. We also export some labor to metropolitan Chicago and vicinity. The value added (the difference between the cost of mostly domestic and foreign imported goods and the price at which the goods are sold) from retailing alone is considerable. More important, the domestic nonmanufacturing sector is financed from dissaving, decumulation of wealth, and transfer payments (federal and state grants, similar to the external aid a region receives).

Dissaving, Decumulation of Wealth, and Transfers

If a steel worker or other manufacturing employee retires, he or she dissaves or decumulates wealth. In

other words, while gainfully employed, the individual (and the firm on behalf of the individual) might have made payments to a private pension plan, a public plan such as Social Security, private health insurance, and/or public health insurance such as Medicare. Social Security is capped, both in maximum payments and maximum benefits. In addition, the individual might have accumulated liquid wealth in the form of bank deposits, debt obligations, equity shares, or such physical assets as real estate. If the funds were actuarially managed correctly, it would be possible for the nonactive steel workers, salaried employees, retired professionals, and nonactive businesspeople to draw down their accumulated private and public balances; that is, they would finance their consumption in the domestic nonmanufacturing economy by dissaving.

In addition, there are direct transfers such as welfare, Medicaid, poor relief, and some Social Security payments that do not constitute dissavings by the recipients because no accumulation (payments) by them had been made. The social deficit is financed by the surplus created by both current and past active participants in the labor force in production and trade. The surplus is tapped by local, state, or federal governments through taxation or borrowing.

Our analyses indicate that net losses of domestic payments by the manufacturing sector, at least for the time being, are likely to be more than offset by dissaving and direct transfers. We also find that although there continues to be a net accumulation of liquid wealth, the rate of accumulation is declining—partly due to lower yields on liquid assets. On the other hand, the rate of increase in direct transfers is slightly rising. We predict continued growth in the domestic sector, albeit at a somewhat slower pace.

Productivity and Jobs in Steel

The decline in local steel employment from an annualized average of 45,350 in 1984 to an average of 31,400 in first quarter 1993 must be attributed to the rise in productivity, not to a decline in output. Productivity rose from 4.408 production worker hours per ton of crude steel to 3.446 per ton of crude steel in 1992. Using autoregression and maximum likelihood estimation, we measured the proportional change in a moving average of local steel employment as a function of a moving average of proportional changes in productivity (hours per ton of steel) and proportional changes in a moving average of local steel output.

The results show that a proportional change in the moving average of productivity of, say, 10% will tend to reduce average local steel employment by 11.275%. On the other hand, other things being equal, an increase of 10% in steel output will tend to increase local steel employment by 10.712%.

Results also show that steel output and productivity can together explain 99.8% of the variation in local steel employment. It appears that a rise in productivity (a reduction in hours per ton of steel produced) will have a slightly greater negative impact on local steel employment than an equivalent proportional reduction in steel output. Using our long-run growth estimates of an increase in local steel output of 0.789% and a projected annual increase in long-run productivity of -2.874%, we project that, other things being equal, steel employment will decline at an annual rate of 2.381%. Thus we can project a long-run decline in local steel employment of about 775 employees. This projection may be lower if productivity rises less rapidly or if steel output increases more than 1%.

The Future of Northwest Indiana Steel

First we note that the recession lowered average weekly steel output from 2184.32 in 1988 to 1811.69 in 1992. Weekly productivity also dropped, from 3.07 hours per ton of steel to about 3.3 hours per ton. Some Northwest Indiana mills did better than others; however, we do not have official data on individual plants.

We also estimate that the new labor contract will cause productivity to rise at a somewhat slower pace in the next five years. This is good news for employment in a strange sort of way, because the steel work force will decline at a relatively slower rate in the next two years if the new labor agreement's work-sharing clauses are fully enforced. How well local mills can maintain or expand their market share depends on the fortunes of the domestic automobile industry and on the success or failure of domestic melt mills to gain market share in commercial steel products.

In Conclusion

- We expect that the new labor agreement will cause local steel to continue to hold excess labor.
- We expect no recovery of employment, even if steel demand responds favorably to the president's economic stimuli in 1993-94. The current overflowing order books will slim down as steel attempts to raise prices.
- Northwest Indiana's share of U.S. steel output, which has been rapidly expanding in the post-1982 recession period, has stabilized at about 24% and is likely to decline in the next two years as Indiana's melt mills gain market share.
- Northwest Indiana mills will continue to hold a competitive edge in the production of high-quality exterior sheet used by the automobile industry for at least the 1993-94 period.
- The service center, appliance, machinery, and construction markets will continue to be wide open,

with melt mills and local integrated mills battling for market share through extensive price-shading.

• In spite of the contractual wage freeze, steel wages are 27% above local nonsteel manufacturing hourly wages. Thus, there will be more substitution of capital for labor in 1994-95.

• The only expansion in steel productive capacity in 1993-94 will be by a small foreign-owned mini-mill operating in Porter County.

South Bend/Mishawaka-Elkhart/Goshen

John E. Peck

Professor of Economics and Director, Bureau of Business and Economic Research, Indiana University South Bend

This midyear assessment of the economic condition of the South Bend/Mishawaka and Elkhart/Goshen communities is based on an analysis of the latest available economic indicators for the area tracked by Indiana University South Bend's Bureau of Business and Economic Research (BBER). A look at the indicators suggests that through the early months of 1992 the area economies of South Bend/Mishawaka and Elkhart/Goshen were performing about as expected in the year-end area forecast (*IBR*, December 1992). Employment gains continued to suggest that the local recovery, as for the nation as a whole, was holding but at a relatively slow pace. The slowness in this area of the state was particularly evident in the South Bend/Mishawaka economy.

The **Table** summarizes the various indicators of local economic activity compiled by the BBER. These figures are seasonally adjusted and, with the exception of the unemployment rates and real estate data, are index numbers expressed as a percentage of base year 1986 values. It is noted that comparative indicators along with percentage changes are given for February and March 1993. To highlight longer-term trends, the same figures are also provided for March 1992.

South Bend/Mishawaka

After registering a significant 1.5% increase in overall nonagricultural employment from December 1992 to January 1993, the South Bend/Mishawaka index decreased in subsequent months. The decline in March was 0.4% overall, with a full 1% decline in manufacturing employment and a drop of 0.2% in the nonmanufacturing sector. The overall decline from January to March, measuring 0.7%, can be attributed to two factors. First, the seasonal adjustment suggests that conditions in the area economy were softer than usual for the first quarter of the year. Second, that softness is principally a problem in the service sector, because even though manufacturing employment dropped in March, the index rose a significant 2.0% in February. The situation in manufacturing is somewhat of a surprise, given anticipation of the effect of plant closures and job losses at Toro Company and Allied Building Products. These losses will undoubtedly show up in later months. When one looks at the absolute employment numbers, there were 1,400 more people employed in the county in March 1993 than in March 1992—again, a reflection of a relatively weak recovery.

Other South Bend/Mishawaka indicators provide a mixed picture, depending upon the sector viewed. Energy sales were up substantially, but recent improvements in new car and truck registrations were lost in March, each dropping by more than 20%. The most positive picture is that found in new housing permits issued. The March index was up 28.7% from February and rested 39.4% above the base year 1986 index.

Elkhart/Goshen

The March employment picture in the Elkhart/Goshen area was decidedly different from that in neighboring St. Joseph County. The indices of overall nonagricultural and manufacturing employment rose for the fifth consecutive month. Nonmanufacturing rose during that period as well; however, the index did take a marginal 0.2% fall in March. The year-to-year increase shows overall employment rising 2.4%, which is about what we had predicted for a recovery that most forecasters have thought would be slow. All in all, there were 2,400 more people at work in Elkhart County in March 1993 than in March 1992, with 900 of those coming in the area's very critical transportation equipment sector of manufacturing.

The remaining Elkhart/Goshen indicators, as in St. Joseph county, point to a sluggish economy relative to previous post-recession recovery periods. Energy sales showed strength. New car and truck registrations were up, though car sales remained severely depressed, with registrations hovering for many months around 50% of what they were in the 1986 base year. Although it dropped in March, the volatile housing permit index remained above 100 and has looked good over the last several months of recovery.

Table
Economic Indicators: South Bend/Mishawaka and Elkhart/Goshen

	SOUTH BEND/MISHAWAKA					ELKHART/GOSHEN				
				%Change From:					*% Change From:*	
	March 1993	*February 1993*	*March 1992*	*February 1993*	*March 1992*	*March 1993*	*February 1993*	*March 1992*	*February 1993*	*March 1992*
Employment Indicators										
Nonagricultural Employment[1]	112.6	113.1	111.2	-0.4%	1.3%	114.3	113.8	111.6	0.4%	2.4%
Manufacturing	87.2	88.1	84.5	-1.0%	3.2%	109.7	109.5	107.1	0.2%	2.4%
Nonmanufacturing	120.1	120.3	119.0	-0.2%	0.9%	118.4	118.5	116.2	-0.1%	1.9%
Unemployment Rate	5.6%	6.6%	6.2%			4.3%	5.7%	5.4%		
Help Wanted Advertising[2]	79.4	84.2	64.5	-5.7%	23.1%	108.8	125.2	96.2	-13.1%	13.1%
Utilities[3]										
Industrial Electricity Sales	104.8	100.3	97.7	4.5%	7.3%	122.3	109.9	109.2	11.3%	12.0%
Commercial Gas Sales	120.1	92.1	92.4	30.4%	30.0%	135.0	85.9	92.5	57. 2%	45.9%
Industrial Gas Sales	81.0	52.9	57.7	53.1%	40.4%	83.6	57.1	51.9	46.4%	61.1%
Car and Truck Registrations[1]										
New Passenger Cars	47.6	60.4	60.4	-21.2%	-21.2%	55.3	41.3	43.2	33.9%	28.0%
New Trucks	72.4	95.2	70.9	-23.9%	2.1%	86.9	72.6	74.1	19.7%	17.3%
Bankruptcies—South Bend Division[4]										
Business	56.0	67.8	56.0	-17.4%	0.0%	(Included in South Bend Division)				
Nonbusiness	192.5	221.8	219.7	-13.2%	-12.4%					
Housing Construction Data[5]										
Estimated Value of Permits	160.3	129.4	123.2	23.9%	30.1%	140.8	180.3	143.6	-21.9%	-1.9%
Number of Permits Issued	139.4	108.3	118.5	28.7%	17.6%	107.2	139.9	104.4	-23.4%	2.7%
Average Value per Permit	125.7	112.7	114.3	11.5%	10.0%	139.2	124.4	147.0	11.9%	-5.3%
Residential Real Estate Data										
Number of Active Listings	1,381	1,308	1,523	5.6%	-9.3%	1,498	1,533	1,862	-2.3%	-19.5%
Average Days Listed	108	109	110	-0.9%	-1.8%	105	108	100	-2.8%	5.0%
Average Market Price	$77,613	$75,068	$74,847	3.4%	3.7%	$75,706	$77,270	$71,053	-2.0%	6.5%
% of Sales to List Price	95.0	95.6	95.2	-0.6%	-0.2%	94.0	94.0	94.0	0.0%	0.0%

All figures except for Unemployment Rate and Residential Real Estate Data are seasonally adjusted index numbers with base year 1986 = 100.
[1]*St. Joseph and Elkhart counties.*
[2]*South Bend* Tribune *and Elkhart* Truth.
[3]*Electricity sales are South Bend and Elkhart. Gas sales are St. Joseph and Elkhart counties.*
[4]*South Bend Division comprises Cass, Elkhart, Fulton, Kosciusko, LaPorte, Marshall, Miami, Pulaski, St. Joseph, Starke, and Wabash Counties.*
[5]*St. Joseph County, excluding cities of South Bend, Mishawaka, Osceola, Walkerton, and New Carlisle. Elkhart County, excluding cities of Elkhart, Goshen, Nappanee, and Millersburg.*

Outlook

Most national indicators suggest that the economy is improving but at an agonizingly slow pace. The situation is much the same in the St. Joseph and Elkhart County area economies. Of the two, the most substantial progress of late has come in Elkhart/Goshen. In South Bend/Mishawaka, what was seen as steady improvement toward the end of 1992 was reversed some in the first few months of 1993. We feel that the area can probably count on more of this "two steps forward, one step backward" advancement, with an overall increase in employment of 2-3% in the next 12 months.

Bloomington

Richard L. Pfister

Professor Emeritus of Business Economics and Public Policy, Indiana University, Bloomington

Last December we thought Bloomington was poised for continued growth in 1993 following a fairly good recovery in 1992. Early reports for 1993 suggest that growth is continuing and has probably been stronger

than it was in 1992. The rebenchmarking of employment data in March resulted in only minor changes for 1991 and 1992, so the pattern we reported in December held up. Bloomington suffered a mild employment recession in 1991 but had begun to recover late in the year, and continued to do so at a modest pace in 1992. The rate of employment growth in the Bloomington economy during 1992 was about the same as for the state.

The employment data for the first four months of 1993 are encouraging. Each month from January through April showed increases in establishment employment over the same month a year ago. The increases averaged just over 3,000 employees, which is roughly a 3.5% increase. Most encouraging is that manufacturing employment showed small increases over year-ago levels in three of the first four months of 1993. There was no change in March compared with a year ago. These small increases represent the first turnaround from a slow but steady decline for three years. (Growth in manufacturing employment will not come easily. The day after I wrote the preceding sentences, ABB—formerly Westinghouse—announced that it will soon discontinue the manufacture of capacitors and will lay off 100 employees.)

After being essentially flat for a year and a half, retailing employment began to rise in the last three months of 1992 and has continued to rise (versus year-ago levels) in the first four months of 1993. The average monthly growth over last year has been nearly 600 workers, which amounts to a rate of 4.7%. Service employment has likewise continued the growth that began in 1992. The growth is slower than for retailing, averaging just 2.3% per month in the January-April period as compared with the same period in 1992. For the other industry categories, employment in 1993 was steady in relation to 1992.

Another bright note has been the sharp drop in initial claims for unemployment insurance reported by the Bloomington office. For the first four months of 1993, the number of claims was down by 21% from the same period of 1992. The number of claims for April was the lowest since March 1989. (The Bloomington office serves more than just the Bloomington metropolitan area.)

The unemployment rate for Monroe County has been slightly higher in the first four months of 1993 than it was during the comparable period of 1992. It is still the second lowest for all Indiana counties, however. The rate for April was 3.9%, which compares with 5.6% for the state.

Construction activity also appears likely to grow during 1993. Building permits rose sharply during the first four months of 1993. Value of permits for residential construction was up 12% over the 1992 level, while value for nonresidential construction was up more than 50%. The value of contracts let as reported by F. W. Dodge Company showed little change for the first three months of 1993 as compared with the same period of 1992. The data on permits are generally a good indicator of what to expect in the near future.

Despite the promising beginning by the Bloomington economy, its growth rate could taper off during the remainder of 1993 if the national and state economies slow significantly. So far, however, the data for Bloomington suggest that we can be cautiously optimistic for the rest of the year.

Terre Haute

Marvin Fischbaum

Professor of Economics, Indiana State University

Terre Haute largely escaped the recession of 1990-91. Along with much of the country, the local economy edged forward modestly in the 18 months following. The pace of economic activity quickened in the second half of 1992, and all signs—tea leaves, chicken intestines, wooly worms—pointed to a quick dash toward prosperity. Alas, in 1993 Terre Haute's economy stumbled. The MSA unemployment rate, which stood at 3.7% in December 1990 and averaged 5.3% in 1991 and 6.1% in 1992, reached 7.7% in February before dropping back to 6.2% in March.

Plant closings at Peabody Coal, Pillsbury, and Snacktime, along with retrenchment at Ivy Hill and Pitman-Moore, contributed to the showdown. Peabody Coal finally closed its mine in Vermillion county after a protracted phaseout. At the Pillsbury facility in downtown Terre Haute, the experience was similar. Most of the 200 miners and 250 factory workers had been let go before 1993 began.

Ivy Hill, however, had been expanding. Layoffs this year were attributed to the elimination of the long box packaging of CD recordings. That change was adopted in response to concerns by environmental activists over the use of excess packaging materials.

At the time of the closing of the Snacktime unit of Borden, 200 people were on the payroll. In the late 1980s, $10 million had been invested in the plan, and employment reached 430 people. More recently, the potato chip and snack cracker business has suffered from excess capacity and heightened competition. Both industry leader Frito-Lay and number two Borden have retrenched and consolidated.

Cutbacks at the Pitman-Moore division of IMCERA will lead to a reduction in staff of at least 200 jobs, many of which are managerial or professional. The company also abandoned efforts to get FDA approval for its version of porcine somotropin, closing off prospects for increased employment and leaving, at least temporarily as surplus, a factory built (at a cost of $50 million) specifically to manufacture that product of recombinant DNA technology.

Problems at Pitman-Moore surfaced in spring 1992, when the FDA discovered serious deficiencies at the company's Kansas City manufacturing facility. Reduced profits in fiscal 1992 were attributed to costs associated with the temporary shutdown of the Kansas City unit. Cutbacks at Terre Haute followed in the spring. Last December IMCERA fired the president of Pitman-Moore and called for a complete reorganization of the division. On May 19, Pitman-Moore announced retrenchments at 11 of its 27 production facilities, including the permanent closing of the Kansas City operation (it had never reopened) and decimation of operations at Terre Haute.

When Commercial Solvents was acquired by the company then called IMC in 1975, it possessed one of two sites within the corporation that did research in the area of animal health and pharmaceuticals. In the mid-1980s IMC decided to consolidate research in its animal health division and chose Terre Haute over Northbrook, Illinois. The focus of R&D gradually narrowed to the development of porcine somotropin (pST). A combination of difficulties, including the entrance of a large number of potential competitors, the FDA's slow action on approval, and development of alternative means of producing leaner hogs, made prospects for commercial success increasingly problematic. With the abandonment of pST, research facilities will be transferred to the Chicago area, and the focus of research will be redirected.

In addition, the contract for producing Baciferm, an in-feed antibiotic, will not be renewed. Henceforth Pitman-Moore will manufacture just one product at Terre Haute—Ralgro, which releases a chemical that causes beeves to increase their own production of bovine somotropin (bST). Pitman-Moore, which had 470 employees at Terre Haute in 1989 and 275 on May 19, will now pare down to about 75.

On a more positive note, Roadway Express will start up an air freight transportation system, using the terminal the city prepared for Evergreen Express as its hub. Roadway indicated that its initial investment in the venture will be about $100 million but provided no estimate as to investment or employment in Terre Haute. Given the cost of a single jet liner, the local impact might be quite modest.

Though boding ill for the future, plant closings and retrenchments cannot explain the substantial increase in the reported unemployment rate that occurred in January and February. The Snacktime closing occurred after the survey period in March, and the Pitman-Moore retrenchment will show up in the June figures at the earliest. Further, the establishment employment figures for March show a year-to-year *increase* in manufacturing employment of 700 and a year-to-year increase in total establishment employment of 400, leaving a net decrease in employment elsewhere—including a loss of 300 in state and local government. Significant expansion in manufacturing at Great Dane in Brazil and DADC in Terre Haute offset losses elsewhere. Great Dane added a new line of containers to its trailer production, and uses for laser discs continue to expand.

Construction employment has held up well to date, with home construction supported by a buoyant real estate market and a fair amount of commercial construction still in progress. However, future prospects appear increasingly guarded. In recent months only DADC among industrial enterprises applied for a permit representing a substantial investment.

More significantly, a cloud now hangs over the Destic coal gasification project. PSI and Destic, supported by a $272 million federal grant, plan to invest in an experimental technology for utilizing high-sulphur coal. The construction phase would employ 400 workers at its peak. Indianapolis Power and Light (IPALCO) has launched a hostile takeover bid for PSI. In challenging the application by PSI for a license, IPALCO gives every indication that it wants to terminate the Destic project.

Finally, more than 100 teachers in the Vigo County School System have been given notice that they may not have jobs this fall. In addition, Indiana State University will reduce its numbers through attrition.

So, in summary, although far from bleak, the outlook for the Terre Haute economy clearly seems less promising than it did six months ago.

Kokomo

Dilip Pendse

Associate Professor of Economics, Indiana University Kokomo

Scanning Kokomo's economic data is a bit like interpreting a modern painting. At first glance it looks confusing, but on closer examination one sees many interesting patterns all pointing in the same direction. The latest data available show that the economy has begun to turn the corner. Kokomo's economic landscape has changed for the better during the first four months of 1993. And although the growth is not robust, it is not feeble either.

Kokomo's job market improved during the first three months of 1993. The unemployment rate stood at 6.9%, compared with 7.8% a year ago. The average monthly labor force of 38,963 remained 2% above the same period a year ago. Similarly, on the average about 2,700 people per month remained jobless during first quarter 1993—roughly 300 fewer than the same period a year ago, thanks to faster job growth.

Compared to a strong showing a year ago, the construction sector's performance remained lackluster during the first four months, despite low interest rates. During January-April 1993, the number of building permits issued remained 17% below the number reached during the same period a year ago. The value of permits issued totaled $16.4 million, compared with $41.6 million a year ago. Unlike last year, when residential construction showed considerable vigor, the first four months of 1993 registered stronger gains in nonresidential construction than in residential construction. It is encouraging to note that during January-April, 31 building permits were issued for nonresidential purposes, compared with 22 a year ago. In contrast, residential construction permits totaled 142, or 24% lower than the same period a year ago. Permits issued for single-family homes totaled 45 during January-April, compared with 63 during January-April 1992.

What's in store for the remaining months of 1993? The employment situation will continue to show improvement. Kokomo residents will not face the layoff mania. For the year as a whole, the unemployment rate will be at 6.5%, with a range of 5.5-8%. Employment will grow by 300-400 in the retail and service sectors and by about 100 in the manufacturing sector.

Both residential and nonresidential building permits should register improvement over the first four months' data. However, for the year as a whole, the construction sector will show an overall 15-20% decline from its performance a year ago. The silver lining to developments in the first four months of 1993 is that Kokomo's economy is showing signs of improvement and marching onward at a respectable pace.

Richmond-Connersville-New Castle

Ashton I. Veramallay

Professor of Economics and Director, Center for Economic Education, Indiana University East

The forecast for the Richmond-Connersville-New Castle (RCNC) area economy calls for an upturn in economic activity during the next two quarters of 1993. As the national economic recovery continues, albeit at a fragile pace, it will affect the local region.

There will be a gradual improvement in the employment picture. The recent dip in the local unemployment rate into the single-digit range is both invigorating and encouraging, despite the fact that national employment remains 1 million short of the prerecession peak in June 1990, when the economy was providing jobs for 110 million people. The expected openings of Carpenter Manufacturing and Manville under new ownership will not only reabsorb displaced workers into the labor force but also reduce transfer payments. Further, the expansion of local businesses such as Cinram and Holland Colours will give a much-needed boost to local employment. Indiana ranks 30th in job growth, and real earnings per job in the state are considerably below the national average. It is important to note that a mild downturn usually generates a mild and extended upturn.

Consumers are still optimistic about the present state of the economy. With inflation under control and interest rates at 20-year lows, there will be an increase in demand for durable goods and various services. RCNC merchants can therefore expect above-average sales, provided consumer optimism does not wane with the prospect of higher taxes.

The Clinton "honeymoon" with Congress apparently is over with the rejection of his stimulus package. This package, aimed at rebuilding America with increased spending on infrastructure, environmental technology, and defense conversion, would have cre-

ated 500,000 new jobs to offset the massive layoffs by the corporate sector. RCNC would have benefited from the Clinton infusion of additional spending, given the current anemic recovery of less than 2% real GDP.

Moreover, in the area of public policy it seems that we are a mixed-up people. We want government services, high-paying jobs, health care reform, and deficit reduction without pain or sacrifice. These desired outcomes are possible only through new taxes, spending cuts, or—more likely—a combination of both. The Clinton administration does not have a painless magic formula. Fiscal policy changes are never without cost, and vested interests always use scare tactics to oppose such changes. The focus on gays, lesbians, Ross Perot, Bill and Hillary's hairstyles, and other trivia is distracting. As voters we have to be at least supportive of our new president as he seriously tackles the perplexing macroeconomic problems. The solutions will not materialize in 100 days or four years; they will require long-term commitment. Together, with sacrifice, we can ensure an economic resurgence with positive externality to RCNC.

Columbus

Patrick M. Rooney

Assistant Professor of Economics, IUPUI-Columbus

Figures comparing the labor market for first quarter 1993 with that of last year indicate an improvement; yet figures comparing the current labor market with that of fourth quarter 1992 indicate a deterioration (see **Table 1**). The number of people employed increased only 1.2% from first quarter 1992 to first quarter 1993, but the same number fell from fourth quarter 1992 to first quarter 1993. The number of unemployed changed modestly in these periods, generating a very small decrease in the local unemployment rate from 5.7% a year ago to 5.6% this year. The Help Wanted Advertising Index for Columbus has shown similar trends. The index is up 23.5% from a year ago (81% from two years ago), but it is up a more modest 13.9% from fourth quarter 1992. Overall, the local labor market has been described by some firms trying to hire workers as "relatively tight."

Home construction in Bartholomew County has taken off: the imputed value of residential permits in the first quarter is 92.4% higher than a year ago and almost one-third higher than in the fourth quarter. The number of residential permits has also grown dramatically, increasing 69% from a year ago and 50% from fourth quarter 1992. The average estimated value per permit has increased 14% from first quarter 1992 but fallen 12% from the fourth quarter. Who is

Table 1
Columbus Area Data

	1Q 1993	*4Q 1992*	*% Change 4Q-1Q*	*1Q 1992*	*% Change 1Q92-1Q93*
Labor Market					
Number Employed	29.333	30,105	-2.6%	28,987	1.2%
Number Unemployed	1,733	1,703	1.8%	1,743	-0.6%
Unemployment Rate	5.6	5.4	3.7%	5.7	-1.8%
Cont'd Unemployment Ins. Claims	4,560	3,002	51.9%	5,747	-20.7%
Initial Unemployment Ins. Claims	531	7553	-4.0%	781	-32.0%
Help Wanted Advertising (1987=100)	163	144	13.9%	132	23.5%
Residential Construction					
Estimated Value of Permits Issued ($ million)	2.371	1.791	32.3%	1.232	92.4%
Number of Permits Issued	27	18	50.0%	16	68.8%
Average Value per Permit ($ million)	0.088	0.100	-11.8%	0.077	14.0%
Real Estate					
Number of Homes Sold	198	NA	NA	254	-22.0%
Average Number of Days Listed	139	NA	NA	141	-1.5%
Average Market Price (sold)	$91,727	NA	NA	$74,965	22.4%

Sources: Indiana Business Research Center, Indiana University; The Republic*; Multiple Listing Service; Indiana Bureau of Motor Vehicles*

Table 2
Columbus Area Financial Performance

	INDUSTRY OR FIRM				
CRITERIA	*All Industry Average*	*Special Machines Industry*	*Cummins*	*Auto Parts Industry*	*Arvin*
% Change in Sales from 1Q92-1Q93	5	5	19	13	4
% Change in Profits from 1Q92-1Q93	27	N.M.	722	138	69
Return on Equity (most recent 12 months)	11.4	7.2	23.7	14.6	9.5
Price Earnings Ratio (based on April 23 stock price and earnings for latest 12 months)	22	37	16	20	18
12 Months' Earnings Share	$1.75	$1.14	$5.58	$1.89	$1.89

Note: N.M. = Not Meaningful (implication is usually negative earnings).
Source: Business Week, *May 17, 1993.*

buying all of these new homes? Apparently the housing boom is a result of changing household formations and family size rather than mass migration. Although the overall population has remained fairly constant, the number of people per household has fallen, driving up the number of residences required.

Home sales in first quarter 1993 indicate a very strong real estate market compared with that of a year ago. Although the number of houses sold is down from 254 to 198 (a 22% decrease), the average price is up almost $17,000, from $74,965 last year to $91,727 this year. Houses in Columbus are selling at a slightly faster rate so far this year than they did in the comparable period last year. The average number of days on the market is down 1.5%, from 141.4 to 139.3

Falling interest rates and the $9,000 fall in the median home price from fourth quarter 1991 to fourth quarter 1992 combined to raise the Housing Affordability Index (HAI) for Columbus from 163 at the end of 1991 to 213 at the end of 1992. This implies that a family earning the median income in Columbus earns more than twice as much money as is necessary to qualify for the median-priced home sold here. Since the HAI for fourth quarter 1992 and the values of houses sold in first quarter 1993 only compare actual homes sold in those periods with no adjustment for differences in quality, and the HAI excludes many types of transactions, it is not appropriate to say that there was a huge fall in all home properties in Columbus from fourth quarter 1991 to fourth quarter 1992, followed by an even larger gain from first quarter 1992 to first quarter 1993. The median home price (of houses sold) in Columbus has risen 16.8%, from $56,175 in 1988 to $65,612 in 1992. Fueled by falling interest rates during most of that period, the HAI for Columbus has continued to improve, rising from 185.5 for 1998 to 201.5 for 1992.

Looking at **Table 2**, Arvin Industries, Inc. has not done as well as the composite "auto parts industry," but Arvin has experienced more than double the growth in profits of the all-industry average from first quarter 1992 to first quarter 1993. Arvin had a very profitable 1992: operating earnings improved by 86%, but an accounting rule change with which all corporations had to comply reduced earnings from $39.9 million to $6.4 million. First quarter 1993 continued to be successful for Arvin, with sales reaching a record $476 million and net earnings reaching $6.1 million, the best since 1987.

Cummins Engine Co. has significantly outperformed both its reference group, "special machines industry," and the all-industry average with respect to all of the measures except the price-earnings ratio. Cummins' sales growth is almost four times that of its peer group and the all-industry average.

More impressive is the tremendous increase in Cummins' profitability (722% increase in the first quarter). Cummins transformed a $66 million loss from operations in 1991 into a $67 million profit in 1992; a mandated change in accounting rules more than offset the profits, resulting in a $190 million

loss. Heavy truck sales increased more than 30% from 1991 to 1992 and are expected to grow another 27% this year.

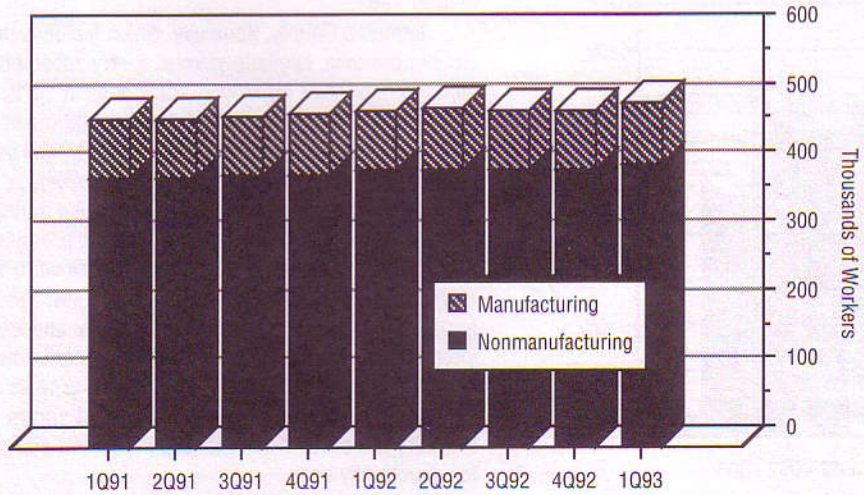
The Office of Economic Development reports that expansions by local firms since January will add $18.56 million of new investment and 173 new jobs, including Arvin's $7.9 million and 103 jobs. Also, Top Seal Corporation plans to invest $4 million and add 45 jobs by 1995; when the plant is at capacity, the total number of jobs will be more than 120.

Local Forecast

Because the most likely outcome (80% probability) is modest but sustainable growth—hovering around 3% for the national economy—Columbus can expect to grow somewhat more rapidly. Its durable goods manufacturing base will tend to expand more rapidly than the national economy during this upward phase of the business cycle. So we can anticipate that local incomes will grow fairly steadily, both from pay increases and increased employment. However, an important caveat must be mentioned here. The pay and employment increases will not be as rapid nor as dramatic as they may have been in the past. Domestic firms, especially in manufacturing, are trying to raise output without adding substantially to payrolls by boosting productivity. Furthermore, both domestic and international competition will encourage relatively modest pay gains. The pay and employment increases have already translated themselves into rapid growth in housing starts. This will continue and can be expected to trickle down to other suppliers, retailers, and restaurateurs. Local firms must realize that their particular circumstances will be greatly affected by the extent of the local and regional, if not national, competition their industry faces. Given the tremendous growth in retail square footage and the number of new restaurants, not all of them can expect to prosper equally, if at all—even if the local economy continues to grow.

There is a slight chance (5% probability) that the passage of a meaningful deficit-reduction plan would instill confidence in both financial markets and consumers, which could translate into robust growth exceeding 4% for the following year. This would mean even more rapid sales growth for our local manufacturing firms and would tend to drive down the unemployment rate, possibly to 3.5%. Unfortunately, it is more likely (15% probability) that there will be another recession or very slow growth (0-2%). Though this could result from a variety of sources, its most likely candidates are either an overreaction to inflationary pressures by the Federal Reserve, or a further erosion of consumer confidence. Although this is not very likely to occur, its effects would be quick and painful. The most likely result would be another round of substantial layoffs and the concomitant economic and emotional pain associated with that.

Figure 1
Louisville Area Employment: Seven-County Area Establishment Data



Seasonally Adjusted

Jeffersonville/New Albany (Louisville Area)

Fay Ross Greckel

Professor of Economics, Indiana University Southeast

The Louisville area economy continued its pattern of slow, uneven growth in late 1992 and early 1993. The seven-county metropolitan area (Clark, Floyd, and Harrison counties in Indiana, and Jefferson, Oldham, Bullitt, and Shelby counties in Kentucky) reflected the weak expansion of the national economy.

According to the recently revised employment data for 1992, adjusted to remove the effect of normal seasonal variations, the metropolitan area as a whole experienced fairly strong job growth in the first half of 1992, a slight decline in jobs in the second half of the year, and then a strong job expansion during first quarter 1993 (see **Figure 1**). There were 9,000 more

Figure 2
Southern Indiana Employment: Clark/Floyd/Harrison Establishment Data

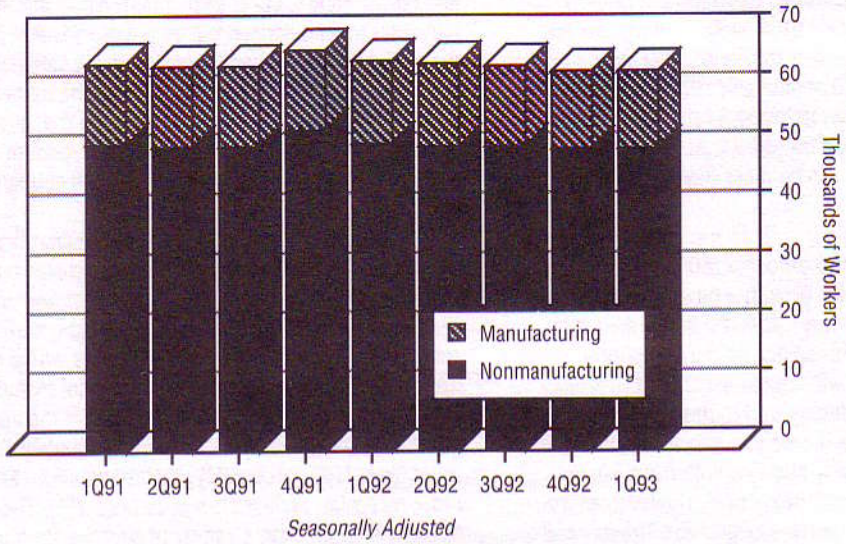
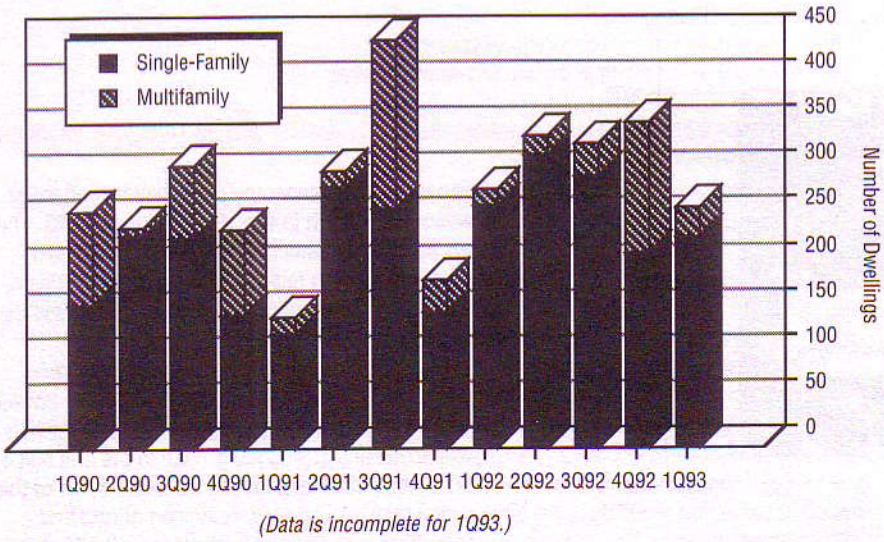


Figure 3
Residential Building Permits: Clark/Floyd/Harrison Counties, Indiana



jobs filled during first quarter 1993 than during first quarter 1992, a gain of 1.8%. This was less than the typical year-to-year increase during earlier expansion periods, but not bad considering the rather sluggish growth nationwide.

Manufacturing employment remained basically steady. More than 3,500 jobs were added in the service sector, with business services and recreation enjoying especially large gains. Health services, normally a growth sector, lost more than 1,000 positions. Other areas gaining 1,000 jobs or more included trucking and warehousing, retail trade, and local government.

The southern Indiana economy did not fare as well as the rest of the metropolitan area. After adjustment for seasonal factors, the number of jobs in Clark, Floyd, and Harrison counties appears to have fallen slowly but steadily throughout 1992 (see **Figure 2**). The three-county employment level declined by about 1,000 jobs between first quarter 1992 and first quarter 1993.

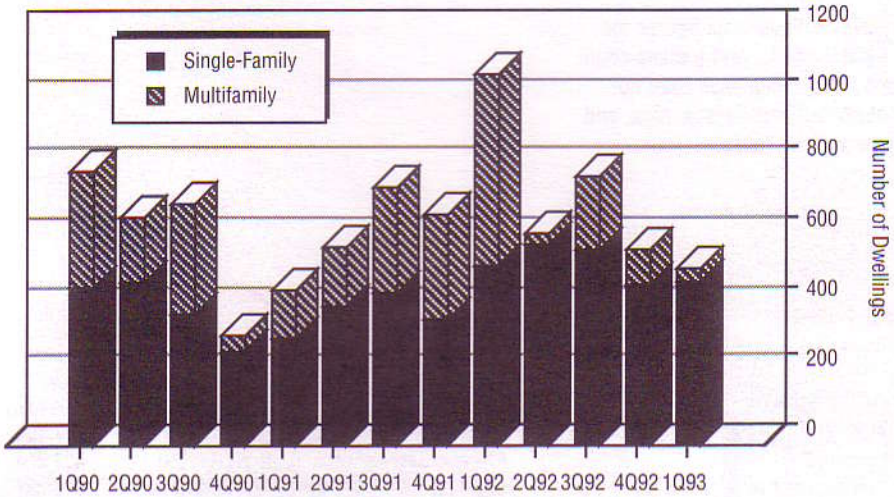
Local educational services and manufacturing each lost about 1,000 jobs, with the latter sector particularly affected by the virtual shutdown of the ICI Americas plant in Charlestown last fall. However, the number of hours worked per week rose in almost all manufacturing areas. Gains of about 300 jobs each were reported for construction, professional services, and nonprofessional services.

The increased number of construction jobs in the southern Indiana counties is mirrored in the building permit statistics. As **Figure 3** shows, building permits rebounded in 1992, rising 22% above the number issued in 1991. All of the net increase occurred in single-family homes. When complete data are in for first quarter 1993, the total number of units should be very close to the level recorded for first quarter 1992.

Jefferson County, Kentucky, which includes the city of Louisville, similarly enjoyed a very substantial increase in permits for single-family units in 1992. Permits were also issued for nearly 900 apartment units, about the same number as in the previous year. Single-family home building is off to a relatively strong start in 1993. The 478 permits issued during the first quarter were the fourth highest quarterly total since the beginning of the decade. It is difficult to tell as yet whether this presages a "boomlet" year for home building or whether the mild weather and low interest rate venue simply encouraged an earlier-than-usual start to a typical home construction year. In contrast to single-family housing, **Figure 4** shows that very few permits were issued in the first quarter for multifamily units.

New car and truck sales were off to a fairly good start early this year. Although they were about 3%

Figure 4
Residential Building Permits: Jefferson County, Kentucky



lower than in the strong first quarter 1992, first quarter 1993 sales were running ahead of fourth quarter 1992 level. As has been true for some time, new truck sales are showing more growth than car sales, and Jefferson County dealers as a whole are faring better in their new vehicle sales than are Clark and Floyd county dealers. April sales data point to a robust second quarter, with a 19% gain over April 1992 sales.

All in all, the outlook is promising for the remainder of 1993. The building permit and car sales reports suggest that consumer confidence is fairly strong and that construction activity and retail spending are likely to outpace 1992. Employment should also continue to improve. Layoff announcements still occur, but much less frequently than in preceding years. One piece of recent good news is that General Electric not only will continue to operate its Appliance Park plant but will embark on a $70 million investment in that facility. Many other businesses are increasing weekly hours, adding workers, or simply starting up. Although expansion is still spotty and weak areas still exist, the overall outlook is positive.

Coming this fall . . . .

Projections of Indiana Counties by Age and Sex

This fall the Indiana Business Research Center will be releasing projections based on results from the 1990 Census. Produced for the State of Indiana, these projections will provide detailed population estimates by age and gender for each of the 92 counties. The information will be organized in five-year intervals through the year 2030.

The projections, produced by the IBRC twice each decade since the 1970s, take into account changing patterns in fertility, mortality, and mobility as indicated in data from the 1990 Census, the State Board of Health, and other sources. They are being produced as part of a statewide program sponsored by the State of Indiana, and are an important part of decision making and planning for both the private and public sectors. Look for further details in your mailbox in the coming months.

For more information, contact:

Carol Rogers
Public Information Manager
Indiana Business Research Center
School of Business
Indiana University (IUPUI)
801 W. Michigan
Indianapolis, IN 46202-5151
Phone: 317-274-2205
Fax: 317-274-3312

Latest Indiana Per Capita Income Figures Released

The 1991 preliminary per capita income figures for the state of Indiana, Indiana MSAs, and Indiana counties have been released. These data have been updated on STATIS for states and counties in June, and are shown in the **Figure** and the **Table.**

Figure
Per Capita Personal Income in Indiana by Counties, 1986-91

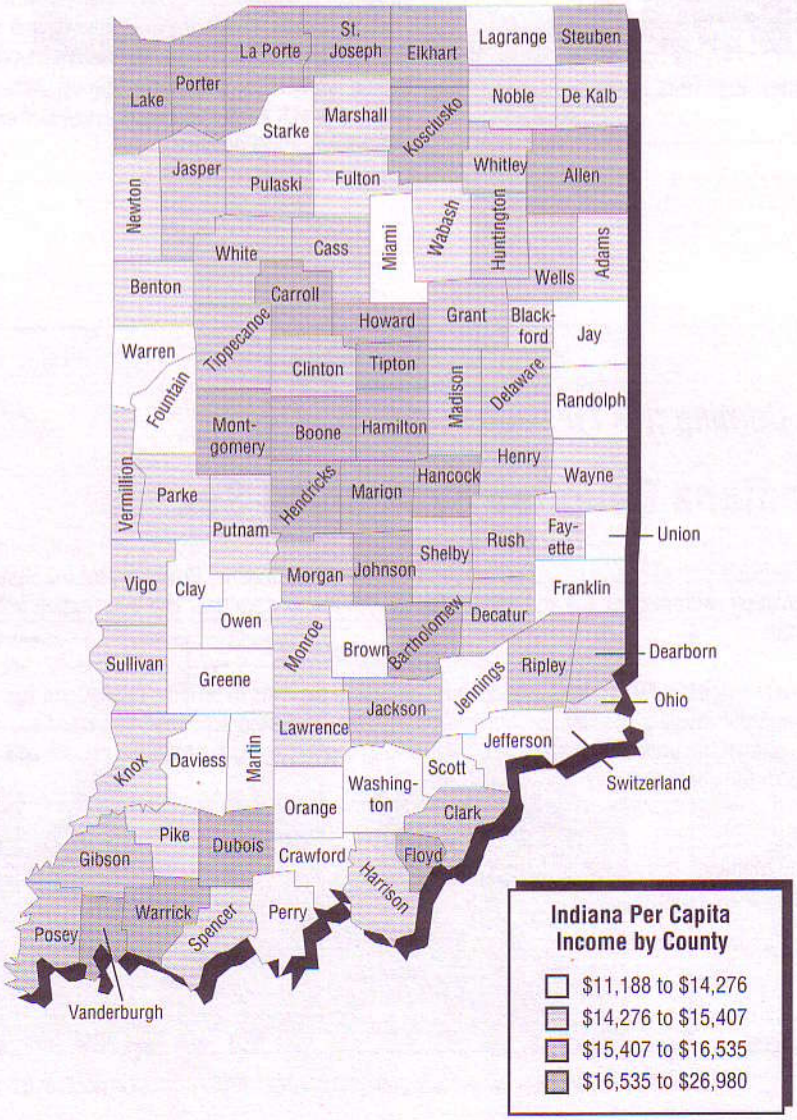


Table
Per Capita Personal Income for Indiana MSAs, 1986-91

Area Title	*1991 Preliminary*
Indiana	$17,193
Chicago-Gary-Kenosha, IL-IN-WI (CMSA)	$22,255
Cincinnati-Hamilton, OH-KY-IN (CMSA)	$18,937
Bloomington, IN	$14,957
Cincinnati, OH-KY-IN	$19,273
Elkhart-Goshen, IN (MSA)	$16,857
Evansville-Henderson, IN-KY (MSA)	$17,863
Fort Wayne, IN (MSA)	$17,962
Gary, IN (PMSA)	$16,811
Indianapolis, IN (MSA)	$19,844
Kokomo, IN (MSA)	$17,754
Lafayette, IN (MSA)	$16,184
Louisville, KY-IN (MSA)	$18,912
Muncie, IN (MSA)	$16,080
South Bend, IN (MSA)	$17,625
Terre Haute, IN (MSA)	$15,113
Indiana (Metropolitan Portion)	$17,942
Indiana (Non-metropolitan Portion)	$15,308

(1986 dollars not adjusted for inflation)

Indiana Business Review
Summer 1993

Indiana Business Research Center
Graduate School of Business
Indiana University
Bloomington, IN 47405

ADDRESS CORRECTION REQUESTED

Nonprofit Organization
U.S. Postage
PAID
Bloomington, Indiana
Permit No. 2