



HoustonBusiness

A Perspective on the Houston Economy

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Houston's Job Growth Will Strengthen in 2004

Continually increasing output, sustained higher energy prices, an elevated rig count and a weakened dollar all point toward employment growth that is knocking at the door.

Three main factors influence Houston's employment growth: the U.S. business cycle, the international economy and energy markets. When forecasting local job growth, the three variables that best capture these underlying influences are the national unemployment rate, the trade-weighted value of the dollar and the rig count. By these measures, Houston should be faring very well.

The U.S. economy began showing signs of sustainable growth beginning in the second quarter of 2003, with production and investment measures increasing quarter after quarter. Although employment at the national level continued to lag apparent underlying strength, the unemployment rate peaked last summer and has come down a long way since then.

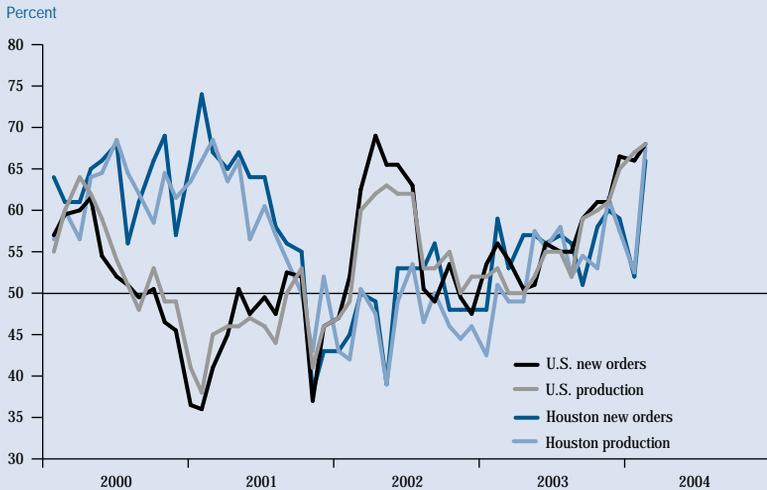
The trade-weighted value of the dollar—an index of the

strength of the dollar relative to our trading partners' currencies—has fallen 15 percent from its 2002 peak. Continued depreciation of the dollar has boosted exports across the nation, a good sign for Houston job prospects.

Higher oil and natural gas prices have spurred drilling. Prices have remained well above their long-run levels, with West Texas Intermediate trading at over \$28 per barrel for more than 14 months and natural gas trading at over \$4 per thousand cubic feet for more than 16 months. Sustained higher energy prices will undoubtedly boost employment growth in the region.

Traditionally, these three variables have accurately predicted overall employment growth in the region, and clearly, momentum in these areas has been building for more than a year. Yet seasonally adjusted employment growth has been lackluster at best for more than two years, and in 2003, it rose by only 0.5 percent, half as much as predicted in *Houston Business* last summer.

Figure 1
Production and New Orders in the United States and Houston



Recovery Without Jobs

Employment statistics are by far the most timely and detailed economic statistics available at the regional level. However, predicting job growth based on the variables discussed above becomes a challenge when these traditional relationships break down, especially when other, non-employment-related data are less reliable or arrive with significant lags. Nevertheless, there are clues that can shed light on the direction of employment growth.

The first such clue is output growth. Expansion can be seen in the U.S. economy in gross domestic product, a comprehensive measure of output that grew more than 4 percent from fourth quarter 2002 to fourth quarter 2003. Output growth can also be seen in production indexes for various key sectors. Figure 1 shows the production and new orders components of the Purchasing Managers indexes for Houston and the United States. All readings are above the 50 percent mark starting in April 2003, indicating output growth in both Houston and national manufacturing.

Economic accounting tells us that output in an economy equals income in that economy. Real wages, a significant

proportion of total income, bottomed out in the first quarter of last year and expanded at a 7.6 percent annual rate in the second quarter, the most recent data available for Houston. Income at the state level increased an annualized 3 percent in the third quarter, perhaps an indication of a continued positive trend for the Houston metro area.

Estimated weekly earnings in Houston's manufacturing sector have been flat for two years on an annual basis, but momentum has been building since last summer, and in the fourth quarter, the measure registered a nearly 6 percent annualized growth rate. Real retail sales can also be a proxy for income at the local level. Growth reached nearly 3 percent annualized through the first half of last year. Since then, retail Beige Book contacts have continued to report improvement, with January's report the strongest in years.

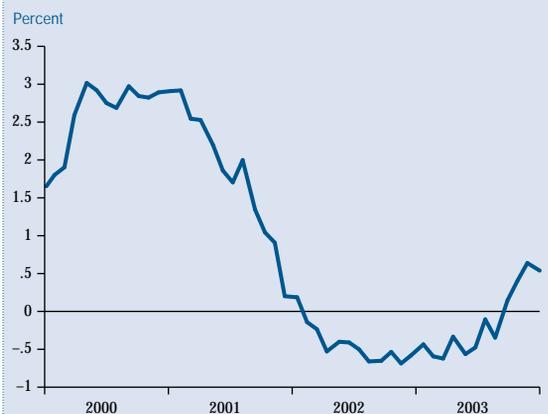
Productivity growth is the main reason for the current breakdown in the long-standing relationship between output

and employment. Productivity is generally defined as output per hour. Immediately following a recession, when output begins to increase, employment is often slow to pick up, leading to strong productivity growth. But during a typical recovery, productivity growth eventually slows as job gains catch up with output gains. However, since the mid-1990s there has been an upward shift in average long-run productivity, due mainly to increased investment in new technologies. While this has a tremendous positive influence on employment and income trends in the long run, it can prolong layoff cycles.

Ultimately, even strong productivity growth will not keep jobs from returning to the region. Figure 2, which looks at Houston's year-over-year employment growth from 2000 to the present, shows an upward trend in job creation. Average hours worked in the manufacturing sector also continue to rise. At the bottom of the business cycle, an increase in hours worked indicates that employers will soon need to step up hiring to keep pace with demand growth.

Finally, the coincident index of economic activity for Houston indicates growth. This index is based on employment, unemployment rates, real wages and real retail sales, and its move-

Figure 2
Year-over-Year Employment Growth in Houston



ments should reflect the broad path of the local economy.¹

Looking Back

The evidence strongly suggests impending employment growth in Houston, so the question is when—not whether—it will occur.

A look at the last downturn supports the idea that 2004 will be that year. During the two-year jobless recovery following the last recession, Houston employment growth slowed to nothing but never went negative. As the national economy strengthened, Houston followed suit. At the end of 1992, U.S. job growth began to see sustained increases, as industrial production, capacity utilization and overall output began to grow solidly. A healthy U.S. economy stimulated Houston, and by mid-1993 employment growth returned in earnest to the region.

Today, these same characteristics are resurfacing in the U.S. economy, which will ultimately boost Houston. Industrial production and capacity utilization have risen steadily since last summer, posting annualized increases of 5.5 percent and 4.5 percent, respectively. GDP has also finally resumed strong growth, registering over 8 percent growth in the third quarter and 4 percent in the fourth quarter.

Looking Forward

A simple model of the Houston economy can be used to predict job growth. But its predictions are now qualified by the productivity wild card. The model, drawing on a history of lower productivity growth, will try to forecast too many jobs in the current, high-productivity environment.

As in past issues of *Houston Business*, three scenarios can help us visualize a range of possible growth paths over the next two years. The lower bound

assumes sluggish, if not negative, growth. Under this scenario, the U.S. economy might experience a double-dip recession, and the national unemployment rate might return to its 2001 recession peak, seen last summer. This scenario calls for a stronger dollar and a declining rig count. Growth in this scenario, which can be seen as the lower bound of the shaded area in Figure 3, would be just over 2 percent this year and 2 percent in 2005.

The upper bound represents the good news scenario. Here, the U.S. economy experiences the growth rates seen in the late 1990s, just before the 2001 recession. The national unemployment rate is close to the lows seen during those years, the dollar continues to depreciate, and the rig count climbs even further, surpassing the last peak, seen in 2001.

The middle line in Figure 3 depicts the scenario in which all variables remain constant through the end of 2005. With no changes to the dollar, the rig count or the unemployment rate, the model calls for 2.5 percent growth in 2004 and 3.3 percent growth in 2005.

The upper bound illustrates how Houston job growth has traditionally responded to the current good economic news, the lower bound to how it would respond to a significant deterioration in the economic outlook. Despite the strong probability of a very positive economic outlook, actual job growth may well come in closer to the middle estimate, matching a scenario that foresees limited economic progress through the rest of this year. This is simply because of the

Figure 3
Actual and Forecasted Employment in Houston



dampening effect of continued strong productivity growth in the near term. It is reasonable to expect job growth of only 2 to 2.5 percent this year, strengthening slightly to 2.5 percent in 2005.

Conclusion

Employment growth in Houston has been anemic since the middle of 2001, turning the corner to sustained growth only in mid-2003. The employment forecast made last summer predicted a strong return to growth by the end of 2003. Although this prediction was waylaid by stronger than expected productivity growth, job creation is inevitable. Continually increasing output, sustained higher energy prices, an elevated rig count and a weakened dollar all point toward employment growth that is knocking at the door. And with six more months of evidence, this sentiment is strengthening, not weakening. Houston should experience a strong boost in job growth this year and a return to historically normal growth rates in 2005.

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Notes

¹ See *Houston Business*, January 2003, for a detailed description of this index.

Economic progress in Houston remains slow, with seasonally adjusted data showing employment growing at about a 0.9 percent annual rate since last July and the unemployment rate barely budging downward in recent months. This contrasts with the outlook for the local economy, which continues to brighten with a U.S. economic recovery under way, good levels of energy activity and a resumption of global expansion.

Retail and Auto Sales

Retailers uniformly reported a solid January and February, with sales meeting or exceeding plan. Sales were up an average 5 percent due to an improving local economy and colder weather that helped push consumers into the malls. Department stores, furniture stores, discounters and high-end retailers all shared in the results.

Auto sales were slow in January and early February, a normal seasonal occurrence. However, there is concern that the many rebates and low-interest deals that started with the economic slowdown in 2001 pulled in consumers who would otherwise be in showrooms today. The hope is that the clock is ticking on some of these "stolen sales" as the vehicles bought then approach 3 years old.

Real Estate

Home sales continue strong, thriving in what is still a low interest rate environment. Existing home sales were up 17 percent in December com-

pared with December 2002 and finished the year up 8 percent overall. New home sales in November were up 7 percent compared with a year earlier, traffic was up 8 percent and the inventory of new speculative houses was up 25 percent. Apartments have been one of the victims of the housing boom, as overall occupancy has dropped to near 90 percent. Heavy concessions are the norm in leasing offices.

Energy Prices

So far in 2004, crude oil prices have held steady at \$32-\$34 per barrel. Inventory levels have been at the bottom of the normal range in recent weeks, at one point hitting their lowest level since 1982. Natural gas prices, driven by extremely cold weather in the Northeast, briefly reached \$7 per thousand cubic feet in mid-January. Price has since retreated to \$5.50, and inventories have generally remained above normal for this time of year.

Higher energy prices have had little effect on drilling activity, which remained unchanged at about 1,100 working rigs in the United States and only slight increases internationally. Drilling in the U.S. parts of the Gulf of Mexico continued to weaken to fewer than 100 working rigs, but with drilling in Mexican waters up

substantially, day and utilization rates are slowly improving.

Refining and Petrochemicals

Heating oil prices were helped by cold weather, and gasoline demand has been unseasonably strong. Inventories of both products are normal to above normal, and refineries began seasonal maintenance turnaround on schedule. The very strong margins refiners enjoyed in January fell back slowly in February.

Petrochemicals had good news to report for the first time in several years. Demand improved substantially, as did capacity utilization and profit margins. Ethylene, polyethylene, propylene, chlorine and PVC are among the products benefiting from the improved economic environment. Some of the gains may be temporary, however, because of recent exports of ethylene due to major plant outages in Europe and Venezuela, propylene diverted to the refinery system because of strong gasoline demand, and a new ethylene unit coming on line soon.



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