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Houston Business

A Perspective on the Houston Economy

Houston at Midyear: Economic Dog Days Continue

The bottom line for Houston is an employment picture that will slowly turn around as national economic conditions improve. . . Houston will likely match the pace of job growth for the United States, which simply means it will remain weak.

The dog days are fierce in Houston, with the heat bringing stagnation and inactivity synonymous with this late summer period. Similarly, Houston's job market remains in the listless pattern it has exhibited for more than a year. The number of wage and salary jobs in Houston has declined over the past year, but losses total only 7,000 jobs, or 0.4 percent of the 1.6 million jobs in the city. On a quarter-to-quarter basis, with adjustments for seasonal fluctuations and the inexact art of measuring local area employment, the most apt description of Houston's job market for the past 12 months is flat—*very* flat.

From one perspective, the Houston economy has shown considerable resilience during a major energy downturn. This resilience is made more noteworthy by the national economy's anemic recovery from recession. The pace of the national recovery has been too weak to stimulate either national or local job markets. The supposed advantage of Houston's diversification away from the oil patch in the 1980s was that oil prices and the U.S. economy historically moved counter to each other. When one was down, the other was supposed to be up. Instead, both factors are now hurting Houston's economy. In this environment, simply keeping local job growth flat may rank as an accomplishment.

A more disturbing side to Houston's current economic situation is the number of jobs lost in the economic base—that is, in those key export sectors that support local retail and service-sector activity. The questions become, How easily will Houston manage to restore the losses already sustained, and will past and continuing energy losses consign the city to slow growth over the coming year?

LOSSES IN THE EXPORT BASE

A city lives by what it exports to other cities and regions beyond its own borders. Exports, in the sense used in this article, need not cross international boundaries but merely cross local borders on their way to other cities and regions. For example, all goods produced in the Houston metropolitan area that are sold anywhere outside the metropolitan area become local exports. These exports pay for imports and for local service-sector activity, such as retail outlets, laundries, auto repair or banking.

There are no data to identify exports defined in this way, but standard methods exist to identify which sectors contribute to the flow of exports and to estimate the share of employment in sectors involved in export activity. The methods focus on identifying extraordinary concentrations of employment or production. The distribution of employment in Houston, for example, is compared with that of a typical city or region. When an industry in Houston has a share of employment that is relatively large, we associate this overrepresentation with local exports.[1]

Table 1 lists export sectors identified in Houston, and the first column shows the percentage of employment in each sector associated with export activity. The sum of all export sectors is called the *export base*, and monthly totals are shown in Figure 1. It is a standard convention to allocate all mining and manufacturing to the export base. For other sectors, it is assumed that Houston provides itself with a level of goods and services typical of other places in the United States; any surplus in local provision of these services is an export, and any deficiency is an import.

Job losses in Houston's economic base from June 1991 to June 1992 are shown in the second column. Here the picture of "flat" employment becomes somewhat more ominous. We see job gains only in one basic sector, and losses total 13,390 jobs. These are offset by gains in nonbasic activity in sectors such as local government (3,000 jobs), health (4,100), amusements (4,000), and general merchandise stores (1,000). It is unlikely that these nonbasic gains will be maintained for long unless base-sector jobs are restored fairly quickly.

Table 1
Houston's Economic Base

Sector	Percent Basic	Jobs Lost Past 12 Months
Mining	100.0	–5,200
Manufacturing	100.0	–3,100
Construction	38.3	–115
Electric and Other Utilities	48.5	–1,020
Transport, Except Trucking	38.7	–970
Wholesale Durables	31.0	–900
Retail Apparel	24.2	–460
FIRE*, Except Banking	9.1	–40
Personal Services	10.0	0
Business Services	29.5	–1,860
Legal Services	24.2	0
Engineering Services	37.2	40
Total Basic	—	–13,390
Nonbasic	—	6,390
Total Employment	—	–7,000

*Finance, Insurance and Real Estate.

SOURCE: Texas Employment Commission, Calculations of the author.

MULTIPLIERS

A simple ratio indicates that the number of nonbasic jobs supported by each basic job in Houston is nearly 3.0, a figure that intuitively seems high. In fact, changes in Houston's base in recent years were accompanied by swings in nonbasic employment that indicate a smaller role for the base. When we consider total job gains or losses associated with changes in the export base, a more exact measure is the *marginal base multiplier.* It measures explicitly the change in total employment associated with a change in the economic base.

To measure the marginal multiplier for Houston, we estimated an equation of the following form:

$$E_t = a + bB_t + cT_t,$$

where E_t = *Total employment in Houston,*
B_t = *Basic employment in Houston,*
T_t = *Time trend.*

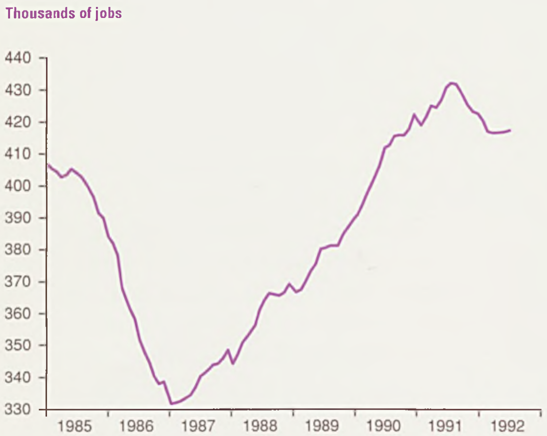
The time trend is included to capture slowly changing structural factors in the job market and the growth of government transfer payments into the Houston area. The equation was estimated through the use of seasonally adjusted quarterly data for 1985 to 1992. All estimated parameters were highly significant, and statistical properties were generally very good.

The estimated equation looked like this:

$$E_t = 635 + 2.1\ B_t + 4.7\ T_t$$

The key parameter is $b = 2.1$, because it reveals the

Figure 1
The Economic Base in Houston, 1985–92



SOURCE: Texas Employment Commission, Calculations of the author.

change in E_t for any change in B_t; in other words, it is the marginal multiplier. These calculations indicate that for every job lost in Houston's economic base, another 1.1 nonbasic jobs are placed at risk; this is considerably less than the 3.0 indicated by the simple nonbasic-to-basic ratio.

Separate estimates were also made of the marginal impact of losses by mining, oil-related manufacturing and other kinds of base jobs. Surprisingly, the estimates cluster closely together. Oil jobs in the mining sector have a multiplier of 2.3, manufacturing is 1.9, and other base sectors combined are 2.2. The differences are not statistically significant. These estimates do not support the widely held impression that oil-sector jobs still exert the most powerful multiplier effect on Houston. Oil-mining jobs do reside in the crucial base sector, but their loss causes no more widespread impact than losses in other base sectors.

IMPLICATIONS

Over the past 12 months, Houston has lost 13,390 jobs in its economic base. A marginal multiplier of 2.1, that counts losses of both basic and nonbasic jobs, implies that more than 22,000 jobs—or 1.4 percent of Houston's total employment—are placed at risk. Losses have been offset by gains of 6,390 nonbasic jobs over the same period, but many of these jobs are best seen as products of miscalculation or poor timing. These expansions or new businesses are not the product of today's weak economy but of the previous 4½ years of very rapid growth in Houston. It is unlikely this nonbasic growth will survive without renewed growth in the economic base.

One source of basic growth that *will* materialize soon is the U.S. expansion. Houston has always been responsive to the U.S. business cycle, and diversification from oil since 1982 has enhanced this sensitivity. There are many good reasons to think that Houston's nonpetroleum sectors are better poised to respond to renewed national growth than are their counterparts in other regions of the country. The speculative excesses of the 1980s are behind us, and renewed growth in Houston has been marked by prudent and cautious management. Many of the real estate and banking problems that created the national credit crunch are now history in Houston. Many local advantages continue in the cost of doing business.

Houston's cyclical advantages will be offset by the current downturn in energy. There are many reasons current job losses in the energy sector will not be restored to the city, just as they were not in 1982 and 1986. One reason is that the oil industry is adjusting to a new tax regime, as many of the historical tax breaks available for domestic drilling were lost in recent years. Also, the search for oil is moving rapidly overseas, with domestic onshore areas perceived as drilled out and drilling banned in many offshore areas. Further, technological advances in the acquisition and interpretation of seismic data have reduced both the number of dry holes and the overall need to drill at all. Finally, natural gas is increasingly the key to domestic drilling, and although the future is bright for this clean, low-cost fuel, any major expansion in domestic drilling for natural gas remains on the horizon.

The bottom line for Houston is an employment picture that will slowly turn around as national economic conditions improve. The local stimulus from national markets should help Houston more than other parts of the country, but this momentum will be partially lost to continued struggles by upstream oil. Houston will likely match the pace of job growth for the United States, which simply means it will remain weak. A return to the strong growth Houston enjoyed between 1987 and 1991 seems unrealistic, at least for 1992 or 1993.

[1] The calculations necessary to compute the economic base were the subject of an earlier edition of *Houston Business*. See "The Mechanics of Houston's Economic Base" in the August 1990 issue.

Responses from retailers and oil service companies provided some small signs of optimism about improved conditions in the remainder of 1992. Expressing more discourgement, however, were respondents from the real estate industry. Although Houston's office and retail markets never really healed from the 1982 downturn, early signs of weakness have become visible in areas that were recently quite healthy—single-family housing, apartments and industrial space.

RETAIL AND AUTO SALES

Retailing was reported to be inching ahead of last year in terms of sales activity, and summer inventory had cleared out well. The improved pace of activity came at the expense of the bottom line, however, as clearances and markdowns were necessary to sustain volumes. Respondents expressed surprising optimism about the fall and holiday season and said that fall shipments to retailers had been running well ahead of current results at the cash register. Cutbacks continued in the back-office operations of many retailers. Local auto sales followed the national trend upward, with strong sales in June; new car and truck sales were up 6 percent for the first half of 1992, compared with 1991.

ENERGY PRICES AND ACTIVITY

Energy prices improved nicely over the summer, with oil prices at $21–$22 per barrel and natural gas for September delivery rising to $1.90 per thousand cubic feet. Tension between Iraq and the United Nations continued to support oil prices, but Iraq's eventual return to the market will place downward pressure on price. Natural gas prices rose as extraordinarily cool spring weather was followed by a heat wave in the South. Winter gas storage was depleted extensively going into the summer months, and the combination of storage refills and heavy summer demands drove up prices.

The Baker Hughes rig count hit another all-time low in June, with 596 working rigs. Unusually wet weather in the Midwest contributed to the low rig count. Improvements since June have been mostly seasonal or related to tax credits for tight-sands gas drilling. Most respondents in oil services and oil-field machinery felt they had passed their low point in drilling activity and that the second half of 1992 will bring significantly improved conditions. A few respondents indicated that some improvement is already at hand.

REFINING AND PETROCHEMICALS

In recent weeks, gasoline consumption moved slightly ahead of last year's pace, but a very weak start to the driving season earlier this summer pushed prices to record lows and left inventories at high levels. Prices for gasoline improved in recent weeks, but margins continue to be poor. Petrochemical producers said sales are stable, and better product prices gave margins a small lift.

CONSTRUCTION

With petrochemical construction winding down along the Gulf Coast, refining-related projects are filling the gap. The Clean Air Act is a driving force, but general modernization, expansion and foreign partnerships also have a role.

Otherwise, nonresidential construction in Houston has declined 2.3 percent, based on a comparison of the first half of 1992 with 1991. Further, the 1992 totals are propped up by several large public projects, particularly for airport and school renovation. Private commercial construction largely has been confined to additions and alterations to existing structures.

REAL ESTATE

For the first half of 1992, sales of new homes in Houston were down 3.3 percent and starts were down –0.3 percent. After a strong start in 1992, new home construction cooled off in the second quarter. The inventory of new homes remained thin. The unsold inventory of resales, however, hit a four-year high in June, with 37,000 active listings; sales of existing homes were down 7 percent from June 1991.

Apartment occupancy and rents have flattened over the second quarter. The office market continues to deteriorate, especially downtown. Industrial sales and leasing activity were both off in the second quarter, and the industrial vacancy rate rose very slightly.

For more information, call Bill Gilmer at (713) 652-1546.
For a copy of this publication, write to
Bill Gilmer • Houston Branch • Federal Reserve Bank of Dallas
P.O. Box 2578 • Houston, Texas 77252