HOUSTON BUSINESS BRIEFS

Growth Returns to Beaumont–Port Arthur–Orange

Houston and the Beaumont–Port Arthur–Orange metropolitan area (B–PA–O) have much in common in terms of their early economic development and historical growth: railroads, a port and oil—especially oil. But oil played different roles in the two cities. B–PA–O developed primarily into a refining and petrochemical complex. Meanwhile, Houston matched B–PA–O's refining and chemical growth but developed extensive ties to oil exploration and oil-field equipment, as well as becoming an administrative center for the oil industry. The pattern of growth in B–PA–O in recent years is explained mostly by its comparatively narrow economic base in refining and petrochemicals.

Recent Growth in B–PA–O

As Figure 1 indicates, growth in the 1980s in B–PA–O proceeded on a pattern much like that of Houston, except the recession was longer, deeper and more enduring. B–PA–O's growth peaked at 160,500 jobs in September 1981, about six months before Houston's peak, and hit its low point in March 1987. In between, B–PA–O lost 32,050 jobs, or 20 percent of its nonagricultural employment base. Houston, in contrast, lost 14 percent of its employment base from peak to trough, and it returned to its previous high level of employment in May 1990. B–PA–O remains 20,000 jobs (or 12.5 percent) short of its 1981 peak.

The causes of the B–PA–O setback were widely shared along the Upper Texas Gulf Coast, and oil was the heart of the matter. Although upstream oil is less important in B–PA–O than in Houston, B–PA–O's employment in the mining sector shrank by 40 percent between 1982 and 1990. Also, the recession marked the end of a local construction boom, as employment in that sector declined by 40 percent. Most important, however, were losses in manufacturing. Some losses were tied to producers of oil equipment and machinery for exploration; but more important, refiners and chemical producers closed capacity in response to conservation trends.

Over the past year, the B–PA–O economy accelerated strongly, and through the first quarter of 1991, nonagricultural employment was still growing at a 5.9-percent pace. Even Houston has not proven as immune as B–PA–O to the national recession. And, once more, oil leads the way.

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Figure 1
Nonagricultural Employment in Houston and the Beaumont–Port Arthur–Orange Metropolitan Area

SOURCE: Texas Employment Commission

Some $3 billion in new petrochemical construction has been announced for the area, and much of it is now under construction. There have been some delays, stretch-outs of schedules and cancellations of announced projects, but construction currently is booming. Houston shares this new downstream construction, but it means more to B–PA–O, whose economy is based narrowly on the petrochemical industry.

Historical Development

The history of the oil industry, and certainly the history of the Upper Texas Gulf Coast, divides into two periods: before Spindletop and after. In 1901, the J.M. Guffey Oil Co. struck oil in a mammoth salt dome under Beaumont and changed the region forever. At the time of the Spindletop find, Beaumont was the site of several large sawmills for logs floated out of East Texas woods on the Sabine or Neches rivers. Port Arthur was a new town 15 miles south of Beaumont, developed to provide a port on the Gulf of Mexico that could move grain out of the Middle West. A 26-mile canal dredged across Lake Sabine gave the city navigable access to the sea. Orange, like Beaumont, was a lumber and rail center.

The J.M. Guffey Oil Co. was renamed the Gulf Oil Co., and Texaco was another start-up at Spindletop in 1902. Along with Standard Oil, these two new companies built refineries to market kerosene and to improve the quality of the local crude by removing sulphur. As oil exploration moved west into Humble and Sour Lake and then throughout Texas and Oklahoma, these refineries remained tied to crude-oil supplies via pipeline. However, as oil exploration moved from Spindletop, Houston increasingly took over oil machinery production and became a headquarters for the oil industry. The B–PA–O area became isolated as a refining region. The original three refineries (now belonging to Chevron and Star Enterprises in Port Arthur and Mobil in Beaumont) are now giants and remain as the economic legacy of the 1901 oil boom.

A barrel of oil can be turned into energy products at the refinery or into plastic and synthetic rubber in a petrochemical plant. The two industries are intertwined, as both rely on the same basic hydrocarbons as inputs, and feedstocks for chemical operations often come directly from the refinery. From the end of World War II through the 1950s, rapid petrochemical growth led the industrial growth of the Texas Gulf Coast.

By the 1950s, the refining industry was spread widely along the Gulf Coast, leaving B–PA–O as one of several refining centers. The result was that petrochemicals spread widely as well, with B–PA–O sharing the stimulus of chemical expansion with other, newer refining centers. The Houston area had no refineries until after World War I, but growth thereafter was very rapid. Houston, Galveston and especially Brazosport were the largest beneficiaries of this era of petrochemical expansion.

Table 1
The Beaumont–Port Arthur–Orange Economy:
Distribution of Private Employment, 1991
(Percent)

	B–PA–O	United States	Ratio
Agriculture Services	0.32	0.51	0.62
Mining	0.52	0.85	0.61
Oil and Gas	0.45	0.36	1.25
Other	0.07	0.49	0.14
Construction	10.98	5.71	1.92
Manufacturing	23.73	22.23	1.07
Lumber	0.40	0.82	0.49
Paper	1.51	0.73	2.07
Chemicals	7.39	0.95	7.78
Refining	7.08	0.14	50.57
Other	7.35	19.59	0.38
Transportation	3.56	3.57	1.00
Water	1.36	0.19	7.16
Other	2.20	3.38	0.65
Communications	1.34	1.41	0.95
Utilities	2.20	0.99	2.20
Wholesale Trade	5.17	6.81	0.76
Retail Trade	22.60	21.54	1.05
Finance	2.21	3.48	0.64
Insurance	1.28	2.32	0.55
Real Estate	0.94	2.07	0.45
Services	24.99	28.24	0.88
Personal	1.20	1.39	0.86
Business	4.36	5.84	0.75
Repair	1.40	1.31	1.07
Health	10.44	8.16	1.28
Other	7.57	11.54	0.66

Source: Bureau of the Census, *County Business Patterns (1991)*.

The B–PA–O Economy

Table 1 provides a picture of the B–PA–O economy in recent years. The first column of the table shows the percentage share of *private* employment in the local economy for several important industries. The second column shows the same distribution for a typical locality in the United States. The third column is the ratio of the first two columns. If the value in the third column is greater than 1, the industry is *over-represented* in B–PA–O compared to the United States; hence, it is likely that excess production is an export from the area. If the value is less than 1, the industry is *under-represented* in B–PA–O and probably purchased goods and services from other towns or cities.

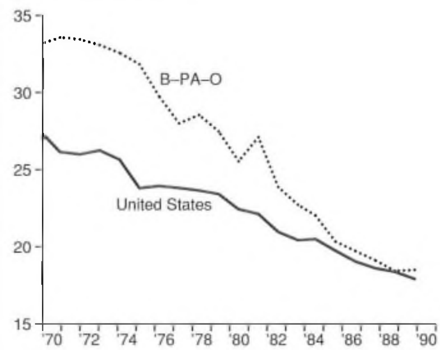
Values greater than 1 in the third column tell us what the B–PA–O region does today; if these values represent exports, this is how B–PA–O pays for imports and supports its local retail trade and services. Oil and gas mining stands out in this list with a ratio of 1.25, but the actual share of local employment (less than 0.5 percent) is surprisingly small for the birthplace of the modern oil industry. Upstream oil has become mostly an historical artifact in the area. Construction (1.92) is quite strong, and, as discussed above, this strength is primarily tied to the ongoing chemical boom. Lumber is another historically important industry that has shrunk away in recent years, although paper remains as a forest-based product of some importance.

Chemicals and refining remain as very important industries, together accounting for nearly one job in seven in the metropolitan area. The importance of water transportation is largely linked to the various local port facilities. Strength in utilities largely reflects the headquarters of Gulf States Utilities. Some health services are exported to the surrounding area.

If we are looking for the source of the slow recovery and recent pattern of slow growth in Beaumont, we need to look at manufacturing. B–PA–O *is* a manufacturing center. Yet, Table 1 indicates that manufacturing employment in the area is barely typical of that found anywhere in the United States. This has not always been the case. As Figure 2 shows, the B–PA–O share of manufacturing in total employment was well above the U.S. share in 1970, but it has steadily lost ground to the United States since that time. This is partly due to setbacks in mining and forest products, but it is also due to the importance of chemicals and refining—highly mechanized sectors that generate little direct employment relative to their output.

If we measure manufacturing *output* rather than employment, then B–PA–O looks more like a manufacturing center. Manufacturing output makes up 30.4 percent of total local production, which compares to only 20.3 percent for the typical place in the United States. The difference between the concentration of output and employment rests simply on the ability of both chemicals and refining to produce a large quantity of output per worker. For example, in recent years the typical manufacturing employee has annually produced close to $50,000 in output per year; for the chemical industry, output per worker has been $70,000, and for refiners it is $275,000. Further, the growth rate of productivity was high in recent years, meaning that any need for new production from these industries was met with a stagnant or even a declining work force. In the 1980s, chemical employment in B–PA–O fell by nearly 10 percent, and refining fell by more than 40 percent. This attrition was partly associated with closing some capacity, particularly small refineries in the early 1980s, but productivity gains also played a significant role.

Figure 2
Manufacturing's Share of Employment
Beaumont–Port Arthur–Orange
vs. the United States



SOURCE: Texas Employment Commission

Conclusion

The current rapid expansion in B–PA–O is led by a boom in petrochemical construction that is now reaching its peak. Unfortunately, the plants under construction are likely to generate comparatively few permanent jobs relative to the size of the investment made. A further push in construction soon will materialize from a major prison complex to be built in Beaumont, and it will also be helped by a tightening housing market.

However, the isolation of the B–PA–O region as a refining and chemical center continued through the 1980s. It left the metropolitan area increasingly dependent on industries that, even if expanding briskly, generate few new jobs. Without continued petrochemical expansion, which is unlikely in the 1990s, the next few years should see a return to a pattern of slow employment growth in B–PA–O.

Houston Beige Book
June 1991

The June Beige Book survey of economic conditions in the Houston vicinity indicates continued modest expansion. The effects of the U.S. recession continue to mount as large engineering firms report that nationwide cutbacks in capital spending are now cutting local payrolls. Domestic exploration also remains slow as the price of natural gas continues to be seriously depressed, and downstream chemical operations are feeling the effects of both the recession and new capacity coming online. Most indicators of consumer spending and regional employment remain positive, however, and continued economic growth seems likely through early June. The rate of local expansion continues to decline from the robust pace posted last year.

Retail and Auto Sales

Consumer optimism returned to the Houston area in May, with strong increases in retail sales. Several retail chains cite Houston as a clear leader in the state in terms of retail gains. Early hot weather helped some, but gains were notable across almost all classes of retail operations. Spring inventories generally cleared out nicely, leaving few prospects for extensive discounting late in the season. Based on ambitious purchasing already underway, observers report that major department stores are planning on a strong Christmas season.

Auto sales in Houston for 1991 remain 6 percent below 1990 levels on a year-to-date basis, but sales in both April and May returned to levels that match the strong performance of last year. National auto sales, by comparison, remain 16 percent below the comparable figures for last year.

Oil and Natural Gas

The domestic rig count has improved slightly in recent weeks but remains far below levels of 12 months ago. Depressed natural gas prices sharply cut into domestic exploration, and offshore rigs continue to leave the Gulf of Mexico. Numerous rumors persist that the major oil companies are reassessing their domestic oil and gas operations, with spinoffs and potential cutbacks possible in coming months. International exploration, however, continues to grow, and oil service companies report improved overall sales and profits due to a surge in overseas exploration.

Downstream chemical operations report their order books have been confused by both the recession and a large quantity of new capacity coming online. Although product prices have fallen, lower cost of feedstock left margins only slightly lower than those seen for much of the past year. Refiner's margins are generally strong but are reported slipping as the summer driving season is not looking strong this year.

Wood Products and Paper

Wood products are in short supply in much of the South due to wet weather that made it difficult to get the logs out of the woods. The result was stronger prices and greatly diminished inventories. Respondents feel that home-building is now in an upswing and that pricing and sales would have improved even without weather-related problems. Paper producers report that their sales are holding up but only at the expense of serious price cutting. Reduced energy prices are a bright spot, allowing significant cost saving, but not enough to cover revenue losses. Like lumber producers, paper industry respondents feel the recession's bottom has past and most shut-in capacity is coming back online.

Real Estate

Virtually all the news in real estate markets continues positive. Vacancy rates on office space continue to fall, and tenant activity is strong. Inventories of new homes continue to fall, with starts still lagging home sales. Starter homes clearly have moved to the lead in this housing market, fueled by rising occupancy and rising rents in apartments. Move-up housing, which led the early recovery in Houston's market for new homes, now is hurt by fewer corporate relocations due to the national recession. Existing hous-ing is selling at record rates, but sales of homes priced above $150,000 have slowed sharply in recent weeks. ❖

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