2014 Houston Employment Forecast

A PUBLICATION OF THE GREATER HOUSTON PARTNERSHIP





DECEMBER 3, 2013

GREATER HOUSTON PARTNERSHIP

THE FORECAST IN A NUTSHELL

The Greater Houston Partnership forecasts the Houston metro area will create 69,800 jobs in '14. Employment will grow in all sectors, with professional and business services, education and health services, trade, transportation and utilities and construction turning in the strongest performances. Energy and manufacturing will grow but at slower paces. The year should end with 2.9 million payroll jobs, a net increase of more than 500,000 jobs since January '05. Only two other metros—New York and Dallas-Fort Worth—will be able to make a similar claim.

Several factors will drive job growth in '14—the ramp-up in construction at area chemical plants, the backlog of projects at local engineering firms, growing consumer confidence, and sustained population and income growth. A pick-up in U.S. economic growth would further stimulate Houston's economy.

The Partnership's forecast is based on several assumptions:

- U.S. gross domestic product (GDP), the broadest measure of the nation's economic activity, grows 2.5 percent or better in '14.
- The price of West Texas Intermediate (WTI), the benchmark for U.S. light sweet crude, remains above \$70 per barrel.
- Mortgage interest rates rise only slightly.
- The U.S. stock market does not undergo a major correction.
- The value of the U.S. dollar remains stable against other major currencies.
- Houston's major trading partners maintain purchases of the region's goods and services at current levels.
- Congress raises the U.S. debt ceiling and funds the federal government without damaging business or consumer confidence.
- Any tax laws or environmental or business regulations that emanate from Washington, D.C. have a minimal impact on the industries that drive Houston's economy.

For the 12 months ending October '13, the metro area created 79,600 jobs, a 2.9 percent annual growth rate. This is a slower pace than earlier in the year. Growth peaked at a 4.5 percent annual rate, or 119,300 jobs, during the 12 months ending February '13. That was the fastest pace since June '07, when the region added jobs at a 4.6 percent annual rate.

The frenetic pace of job growth that Houston experienced over the past few years couldn't be sustained indefinitely. Some easing of the employment throttle was inevitable. That easing began mid-year and should continue into the early part of '14 as the region moves toward a more normal and sustainable pace of job growth. Since '93, excluding the recession years, Houston has averaged 61,900 net new jobs per year. The Partnership's forecast of 69,800 jobs in '14 suggests employment growth will be above the long-term trend.

HOW WE GOT HERE

THE CURRENT

SITUATION

¹For purposes of this forecast, the Houston metro area consists of Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, San Jacinto and Waller Counties. Houston has enjoyed almost four years of phenomenal growth. Since January '10, the region has added 337,300 jobs, or more than two for every one lost in the recession. In that time, the region has built 100,000 single-family homes, exported \$434.6 billion in manufactured goods and commodities, sold 1.1 mil-

| Previous Peak (Dec '08) | 2,628,300 |
|------------------------------|-----------|
| Employment Trough (Jan '10) | 2,475,200 |
| Current Employment (Oct '13) | 2,812,500 |
| Jobs Lost in Recession | 153,100 |
| Job Gains Since Jan '10 | 337,300 |

Source: Texas Workforce Commission

lion new cars and trucks, handled 188.1 million airport passengers, and welcomed an estimated 400,000 new residents to the region. (Note: This figure includes those who arrived via U-Haul and those who arrived via the maternity ward.)

During the recent boom, *Forbes Magazine* ranked Houston as the "Coolest Place to Live in America." *Site Selection Magazine* recognized Houston as the "Top Metro for Relocations and Expansions" two years in a row. And *The New York Times* labeled Houston as one of the top destinations to visit in '13. Houston's performance has been so memorable that it deserves its own star on the Hollywood Walk of Fame.

Houston owes much of its prosperity (and notoriety) to the robust oil and gas industry.

- More than one in five jobs created since January '10 has been in energy², yet the sector accounts for only one in 10 of all jobs in the region. (Source: Texas Workforce Commission)
- Since '10, annual wages and salaries paid to Houston-area workers have increased \$22.8 billion. The energy sector accounts for one-fifth of all wages paid but has contributed nearly one-third of the total increase. (Source: Quarterly Census of Employment and Wages)
- From '11 to '12, Houston's real GDP grew \$24.1 billion. Energy and manufacturing accounted for two-fifths of the growth. (Source: Partnership calculations based on U.S. Bureau of Economic Analysis data)
- Of the 1,100 relocation, expansion and start-up announcements the Partnership has tracked since January '10, more than 300 have involved energy, energy services, oil field equipment manufacturing, or engineering firms. (Source: Partnership New Business Announcements database)

Energy has driven much of the region's growth, and that may pose a challenge for Houston in '14. Several indicators suggest energy has begun to cool.

• At their respective peaks, employment in exploration, oil field services, and oil field equipment manufacturing grew at double-digit rates. Those sectors now grow at single-digit rates.

| ANNUALIZED EMPLOYMENT GROWTH RATES - METRO HOUSTON | | | | | |
|--|------|---------|-------------|--|--|
| | | Peak % | Current % | | |
| Oil and Gas Extraction | 12.3 | May '12 | 6.6 Oct '13 | | |
| Oilfield Services | 21.5 | Dec '11 | 4.1 Oct '13 | | |
| Fabricated Metal Products | 13.9 | Mar '12 | 3.3 Oct '13 | | |
| Oilfield Equipment Manufacturing | 16.6 | Jun '12 | 3.1 Oct '13 | | |
| Total Employment | 4.5 | Feb '13 | 2.9 Oct '13 | | |

Source: GHP calculations based on Texas Workforce Commission data

- The North American rig count, traditionally a barometer of exploration activity, peaked at 2,026 in November '11 and has trended downward since. The rig count now stands near 1,750. While technological advances have increased drilling efficiency, making the rig count a less reliable indicator of production, that decline still suggests reduced demand for drilling equipment.
- Profits from the North American operations of the big three oil field service firms—Halliburton, Schlumberger, and Baker Hughes, firms with a large presence in Houston—slipped 16.3 percent in the first nine months of '13 from the same period in '12.

Energy's strength offsets the weak national recovery. Houston's GDP grew 3.7 percent in '11 compared to 1.8 percent for the U.S., and 5.3 percent in '12 compared

²Defined here as oil and gas extraction, oil field services, the manufacture of fabricated metal products and oil field equipment, and architectural and engineering services. to 2.8 percent for the nation. As energy enters a mature phase of the business cycle, U.S. economic growth needs to accelerate. As the saying goes, a rising tide lifts all boats. In this case, a growing U.S. economy would help all metros, including Houston.

How fast does the U.S. economy need to grow? A rule of thumb holds that U.S. GDP growth of 3.0 percent or more stimulates Houston's economy. However, U.S. GDP growth has exceeded 3.0 percent in only two of the past 12 quarters. Most forecasts call for the U.S. economy to grow at or near 3.0 percent in '14, barely enough to help Houston.

Growth in local exports has also offset weakness in the U.S. economy. Shipments via the Houston-Galveston Customs District grew from \$75.2 billion in '09 to \$127.1 billion in '12, an increase of \$51.8 billion, or 69.0 percent, since '09. Admittedly, this sharp rise includes goods simply passing through the region, but a recent Brookings Institution study suggests at least one-half of all shipments originate here. Brookings also estimated that 14.0 percent of Houston's GDP and 307,020 of Houston's jobs were tied to global trade in '10. Given export growth since then, both shares are undoubtedly much larger today.

| GROWTH RATES U.S. REAL GDP - 2014 | | | | | |
|---|-----|--|--|--|--|
| Forecaster | % | | | | |
| The Conference Board | 2.3 | | | | |
| International Monetary Fund | 3.0 | | | | |
| National Association for Business Economics | 3.0 | | | | |
| Organization for Economic Cooperation and Development | 2.9 | | | | |
| Survey of Professional Forecasters | 2.6 | | | | |

ABOUT THE FORECAST

The primary value of any forecast lies not in the accuracy of the numbers, but in understanding the trends and discontinuities driving the data. Armed with this knowledge, readers should be able to make better-informed decisions in the coming months. This year's forecast calls for a slowdown in job growth, but that expectation shouldn't cause grave concern. Houston couldn't maintain the pace of the previous three years indefinitely. Like a runner who finds his or her stride, Houston will find its stride in '14. The year will bring a more sustainable pace of growth—one that still has Houston outperforming the nation. Here, in greater detail, are insights into the direction Houston's economy will take in '14.



ENERGY

The energy industry has enjoyed exceptional success in recent years, expanding U.S. oil production from an average 5.5 million barrels per day (bbl/d) in '10 to 7.5 million bbl/d in October of this year. The industry has increased U.S. wet natural gas reserves by 93.7 trillion cubic feet (TCF), or 36.7 percent, since '08. The current proven U.S. reserve of 348.8 TCF feet is the highest on record.

Closer to home, Texas production grew from an average 1.0 million bbl/d in '10 to 1.8 million bbl/d in August '13. Much of the increase came from the Eagle Ford Shale, a formation in South Texas that runs from the US-Mexico border near Laredo to northwest of Houston. The industry is on pace to drill 4,100 wells in the Eagle Ford this year, up from 26 wells in '08. The marriage of horizontal drilling and hydraulic fracturing has boosted Eagle Ford production from 352 barrels per day in '08 to 636,643 barrels per day in August of '13.

The question remains, though: how long will the boom last? The answer depends on the price of oil. To drill a well in the Eagle Ford costs \$7 million to \$10 million. The price of oil needs to remain above \$70 a barrel for the Eagle Ford to remain viable. In its November '13 Short-Term Energy Outlook, EIA projected WTI will average \$95 per barrel though '14. In its most recent *Annual Outlook*, EIA forecasts domestic crude prices to increase 2.3 percent annually, net of inflation, over the next 10 years. Bottom line: oil prices should remain high enough to support the current level of drilling well into the future.

The outlook for gas prices is less sanguine. EIA expects that in '14 natural gas will average \$3.84 per MMBtu on the Henry Hub spot market. Natural gas must trade above \$5 for gas-directed drilling to be viable. As a result, exploration for natural gas has fallen, taking the rig count with it. Baker Hughes reports that in mid-November, 370 rigs were drilling for natural gas in North America, down from the peak of 936 rigs in mid-October '11. Though growth in oil-directed drilling has helped close the gap, the overall rig count remains 231 below its peak.

With the new trend toward pad drilling, the rig count will remain below its previous peak for some time. Pad drilling involves sinking multiple wells from a single site. Once a well is drilled, a hydraulic walking or skidding system moves the rig a few yards over to the next well location. From a typical pad, an operator might drill four to six wells. A Hart Energy survey found that 50 percent of all wells in the Eagle Ford and 60 percent in the Bakken are drilled from pads. With pad drilling, fewer rigs and crews are needed. Many firms now find themselves with excess capacity and personnel.

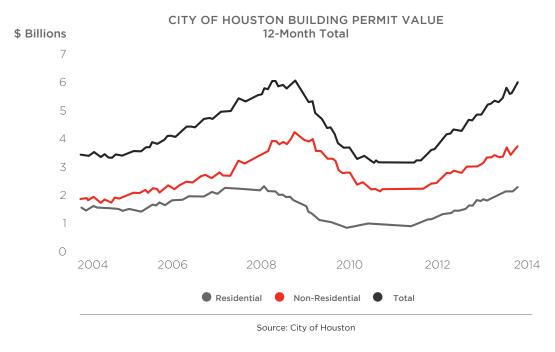
Another drilling boom is set to take off, this one in the Permian Basin. Exploration firms are using technology developed in the Eagle Ford to tap tight formations in the Permian. Though the Permian is in far west Texas, it holds promise for Houston-based exploration and service firms as well.

The outlook is bright for exploration but a bit cloudy for service firms. On the whole, the industry will grow. The Partnership's forecast calls for energy to add 5,600 jobs in '14.

CONSTRUCTION

Houston is in the midst of a construction boom.

• The City of Houston issued building permits totaling \$5.9 billion in the 12 months ending October '13, a 28.9 percent increase over the \$4.6 billion issued during the 12 months ending October '12. Residential permits increased 40.2 percent; nonresidential permits, 17.9 percent.





- McGraw Hill Construction reports that \$10.7 billion in construction contracts were awarded in the 10-county Houston metro area during the 12 months ending October '13, a 0.5 percent increase from the \$10.6 billion awarded during the 12 months ending October '12, and a 25.2 percent increase over the \$6.9 billion awarded during the same period in '11. Because McGraw Hill initial estimates are most often revised upward, the modest increase in the most recent data is likely to turn into a large increase when revisions come in.
- The Houston office of CBRE reports that 10.2 million square feet of office space, 9.8 million square feet of industrial space, and 1.5 million square feet of retail space were under construction at the end of Q3/13. Those figures are substantially higher than the 3.9 million of office, 3.9 million of industrial and 0.9 million of retail just a year earlier.
- Tudor, Pickering, Holt & Company has identified more than \$40 billion in chemical plant expansions and startups announced or underway along the Texas and Louisiana Gulf Coast.
- The U.S. Census Bureau reports that 24,407 permits for single-family homes and 8,363 for multi-family homes were issued during the first eight months of this year. That compares with 19,634 single-family and 9,597 multi-family homes during the same period last year.
- The Houston Association of Realtors® reports that inventory of homes in its Multiple Listing Service database is at its lowest point in records going back to January '96.

Even with the boom, construction employment remains 21,600 jobs below its pre-recession peak. Several factors explain this seeming anomaly:

- As strong as the current housing market is, developers are building half as many homes as they did during the subprime-fueled boom.
- The housing market faces a shortage of lots to build new homes. Land development ground to a halt during the recession, and once the recession ended, builders quickly burned through their inventories.
- Anecdotal evidence suggests that many workers once classified as employees are now classified as independent contractors to avoid immigration and benefits issues.
- Houston has a shortage of skilled construction workers. High schools eliminated shop classes, the construction associations focused on concerns other than training, and builders relied too heavily on the undocumented workforce to pour concrete and frame homes. No one anticipated the current boom, and now there's a labor shortage.

Limited availability of skilled workers may constrain construction jobs growth in '14. The Partnership's forecast calls for this sector to add 6,100 jobs.



MANUFACTURING

Houston is one of only two major metros (the other being Seattle) that can boast it has more manufacturing jobs now than prior to the recession. Local manufacturing owes its resurgence to the energy industry. The two sectors directly tied to the industry—fabricated metals products and machinery manufacturing—have added 33,100 jobs, or one in every ten the region has gained since January '10.

Oil field equipment is considered a durable good, something expected to last three or more years. About one-third of Houston's manufacturing jobs involve the production of nondurables, items easily consumed or with a shorter life span. In Houston, nondurables are dominated by chemicals, refined products and food processing. Nondurables continue to struggle, having recouped less than half the jobs lost in the recession.

The manufacturing outlook offers mixed signals.

- At its June '12 peak, manufacturing employment had accelerated to a 7.6 percent annual growth rate. As of October '13, the annual rate had dropped to 2.5 percent.
- The Houston Purchasing Managers Index (PMI), a short-term leading indicator for regional production, registered 60.8 in October. Readings above 50 indicate likely growth in production over the coming three to four months. Readings above 60 offer a strongly positive outlook.



Source: Institute for Supply Management - Houston

- The manufacturing work week in Houston (47.2 hours, October '13) is shorter than at its peak (51.1 hours, April '11) but longer than its average for the year (46.2 hours, January-October '13).
- Exports of industrial, electrical and scientific equipment, vehicles, iron and steel through the Houston-Galveston Customs District are down 4.9 percent from last year's level.

Growth in manufacturing employment in '14 will depend on the demand for oil field equipment, construction in the petrochemical industry, and purchases from abroad. Employment growth in nondurables won't pick up until the chemical plants under construction come on line. The Partnership's forecast calls for manufacturing employment to add 4,200 jobs in '14.

WHOLESALE TRADE

Wholesalers provide merchandise to other businesses for resale (e.g., retailers), to industrial concerns for their own use (e.g., drilling companies), and to manufacturers who incorporate the intermediate goods (e.g., chemical, plastics, paint) into their final products. A handful of sectors—industrial machinery, commercial equipment, electronics, grocery, metals, chemicals and refined products—account for two-thirds of wholesale employment. Growth in wholesale employment will depend on manufacturing output, overseas demand, exploration activity and consumer demand. Manufacturing output will grow in '14, but at a slower pace. Export growth will pick up as overseas economies recover. Drilling activity should increase slightly in '14. Consumer demand, driven by a growing population and rising incomes, should expand. A slowly improving U.S. economy will also help.

Employment in wholesale trade will grow. The Partnership's forecast calls wholesale trade to add 4,200 jobs in '14.

LST.

RETAIL TRADE

A healthy retail sector depends on population, employment and income growth plus a strong dose of consumer confidence. If Houston were a poker hand, it would hold four aces.

- Over the past decade, metro Houston has added an average of 120,000 residents per year. The consensus among forecasters is that Houston's population will grow by at least another 800,000 by the end of the decade.
- Houston has created more than 500,000 jobs over the past decade. If Houston simply reverts to a

| ESTIMATED METRO HOUSTON POPULATION GAINS | | | | | |
|--|-------------|-----------|------------|--|--|
| | 2013 | 2020 | Difference | | |
| Woods and Pool Economics | e 6,312,872 | 7,371,670 | 1,058,798 | | |
| The Perryman Group | 6,344,000 | 7,228,700 | 884,700 | | |
| Texas State Data Center | 6,635,281 | 7,437,124 | 801,843 | | |

Source: Various Forecasts

long-term average employment growth of 2.2 percent per year, the region will add 400,000 jobs by the end of the decade.

- The Perryman Group projects the region's personal income to grow at a 3.8 percent annual rate through 2040. Growth at this pace would add \$91.4 billion in purchasing power, net of inflation, by the end of the decade.
- The 32nd annual Kinder Institute Houston Area Survey found that 78.4 percent of Houstonians believe they will be the same or better off financially three to four years from now.

Houston's retail growth will be tempered somewhat by national trends.

- The Internet continues to cut into sales of brick-and-mortar retailers. Many continue to right-size their stores and payrolls as a result.
- Looming increases in health care premiums for both individual and company-sponsored plans will reduce disposable incomes and thus local purchasing power. The wealth effect will somewhat offset reductions in purchasing power. Consumers tend to spend more when they perceive they are richer. The recent escalation in home values and positive media coverage about the region have made Houstonians feel better about their financial situations. The recent run-up in the stock market has complemented the appreciation in housing values.
- Local builders will add another 28,000 single-family homes in '14. Home sales translate into the purchases of carpet, drapes, furniture and appliances.

Retail sales should remain strong for the foreseeable future. The Partnership's forecast calls for the retail sector to add 5,700 jobs in '14.

TRANSPORTATION, WAREHOUSING AND UTILITIES

Four ports, two major airports, two mainline railroads, a dense pipeline network and a well-developed highway system serve the Houston region. Employment in every transportation sector except air is growing. The lingering effects of the Continental-United merger continue to weigh on the subsector. Significant growth won't occur until '15, when international air service is initiated from Hobby Airport.

Trucking has added 6,300 jobs since the bottom of the recession. Two factors drive the growth—the need to move goods to and from the region's ports and the need to move oil field equipment in and out of Houston. In spite of strong population growth, utilities employment remains flat. New technologies such as smart meters have eliminated the need to walk neighborhoods reading and recording electricity and natural gas consumption. Growth in transportation will depend on the economy's overall growth.

The Partnership's forecast calls for transportation, warehousing and utilities in the aggregate to add 2,400 jobs in '14.

INFORMATION

Information includes newspapers, magazines, book publishers, radio, television, cable, sound recording, movies, software, data processing, the Internet and tele-





communications. The sector has recouped 1,500 of the 3,200 jobs lost in the recession. The Internet has transformed how consumers receive their news. More radio stations rely on national feeds rather than local broadcasts. And advances in technology reduce the need for telecommunications workers. Reflecting a long-term downward trend in information employment that reflects these structural changes, the Partnership's forecast calls for information to add only 200 jobs in '14.



The Great Recession ended June '09 and the finance industry has yet to return to its pre-recession employment level. Nationwide, finance has recovered 34.4 percent of the 480,000 jobs lost in the recession. Houston has fared slightly better, recouping 50.9 percent of the 5,500 jobs it lost. Houston's robust economy has not insulated the industry from the trends affecting the industry. Those trends:

Regulatory uncertainty: The Davis Polk Regulatory Tracker reports that federal agencies have missed 170 of 280 deadlines for issuing rules mandated under the Dodd-Frank Act. Another 118 deadlines are looming.

Lack of confidence: Ten years ago, 53 percent of Americans expressed "a great deal/lot of confidence" in U.S. banking, according to a long-running Gallup poll. Consumer confidence in the banking industry fell to 22 percent in '09 and recovered to only 26 percent by June '13. The spate of settlements that the U.S. Department of Justice negotiated with GMAC, Bank of America, Citi, JPMorgan Chase, Wells Fargo and others over various improprieties has done little to restore confidence. A recent study by consulting firm PwC found half of all banking CEOs see lack of trust as a barrier to growth.

Consumer deleveraging: Consumer debt remains 11 percent below its peak of \$12.68 trillion in Q3/08, according to the Federal Reserve Bank of New York. Household debt service payments as a percent of disposable personal income fell from 13.46 percent in Q3/07 to 9.89 percent in Q3/13.

Weak loan demand: Adjusted for inflation, the value of all commercial and industrial loans held at U.S. banks remains \$133.4 billion below its pre-recession peak as of October '13, reports the Board of Governors for the Federal Reserve Bank System. With GDP growing less than 3 percent per year and a substantial amount of underutilized industrial capacity, there's little incentive to borrow.

Pressure to cut costs: With many services now available online and via mobile devices, the industry needs fewer employees and fewer branches. New Dodd-Frank regulations limit the fees banks can charge so many are shifting their focus from retail and small business services to wealth management and middle-market lending. The recent wave of mortgage refinancing is ending. Freddie Mac expects refinancing to comprise 40 percent of loan originations in '14, down 70 percent in '12. The industry also needs fewer loan officers.

By other measures, Houston's banking sector is strong. Deposits have nearly doubled since '08. Several banks—BB&T, BBVA Compass, Community Trust Bank, EverBank, Mercantil Commercebank, MidSouth Bank, Post Oak Bank, Salamanaca Group, Seacoast Commerce, Wells Fargo—have recently established or expanded operations in Houston. And in its October Beige Book, the Federal Reserve Bank said it's "cautiously optimistic" about the outlook for financial services in the region.

The sector should experience moderate growth in '14 as new banks enter the market

| DEPOSITS AT METRO HOUSTON BANKS As of June 30 Each Year | | | | |
|--|------------------------|--|--|--|
| Year | Deposits - \$ Millions | | | |
| '08 | 109,261.0 | | | |
| '09 | 118,202.9 | | | |
| '10 | 137,112.8 | | | |
| '11 | 153,975.6 | | | |
| '12 | 179,099.1 | | | |
| '13 | 208,032.5 | | | |

Source: Federal Deposit Insurance Corporation



and existing banks establish branches in the new suburbs. The Partnership's forecast calls for the financial services sector to add 1,000 jobs in '14.

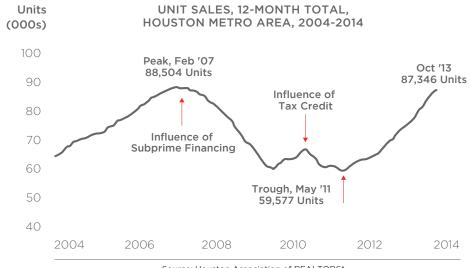
REAL ESTATE

Real estate is doing quite nicely, thank you. In the 12 quarters ending Q3/13, Houston absorbed 10.5 million square feet of office space, 12.9 million square feet of industrial space and 3.8 million square feet of retail space. That's equivalent to seven Williams Towers, 11 George R. Brown Convention Centers, and two Memorial City Malls. Since January '10, residential brokers have sold more than 274,000 homes, or one home every 7.2 minutes.

Energy drives demand for office and industrial space. The industry needs to evaluate leases, manage drilling programs, build equipment, plan pipelines, and design chemical plants—and they need space in which to do this. Anadarko Petroleum, Bechtel, BHP Billiton, BP, Exxon Mobil, Chevron, ConocoPhillips, Noble Energy, Phillips 66, Schlumberger, Shell Oil, Technip and URS broke ground or signed long-term leases for large blocks of space in the past 2 years.

But the commercial market may be cooling. Announcements of large leases and office tower construction in the media today are the culmination of negotiations begun two or more years ago. And the deals are getting smaller. According to CBRE, the five largest lease deals in Q1/13 took a combined 671,000 square feet of office space. In Q3/13, the five largest deals took a combined 311,000 square feet. Kiley Advisors has identified more than 50 office construction projects announced or on the drawing boards. With activity slowing, only a fraction of those will break ground.

Residential and retail remains strong, however. For residential, it's a matter of too few homes and too many buyers. The Houston Association of Realtors® counted a 3.1-month supply of homes in its Multiple Listing Service in October, meaning it will take that long to sell all the homes in inventory at current rate of sales. A sixmonth supply is considered normal. Retail sales and the demand for retail space will grow as population, employment and incomes grow.



Source: Houston Association of REALTORS*

As with banking, technology will temper growth in real estate. Internet resources now allow tenants and buyers to pre-screen properties before meeting with brokers and in some cases bypass brokers altogether. But the demand for broker services will grow with the economy. The Partnership's forecast calls for the sector to add 900 jobs in '14.

PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES

Professional, scientific, and technical services account for more than one in seven jobs in the region. The category includes law offices, accounting and bookkeeping



services, architectural and engineering firms, geophysical surveying, testing labs, computer systems design, management consulting, advertising, public relations, and other miscellaneous services.

The ongoing energy boom has fed employment growth in engineering services as firms design new pipelines, pumping stations and chemical plants to transport and process the newly discovered crude. The local building boom is providing work for local architects. Employment at legal and accounting firms has remained flat as clients pressure the firms to hold down billings. The outlook for computer systems and management consulting looks bright as firms seek ways to improve operations through new technologies and business practices. The Partnership's forecast calls for the sector to add 5,900 jobs in '14.



ADMINISTRATIVE SUPPORT, WASTE MANAGEMENT AND REMEDIATION SERVICES

This sector includes firms that provide clerical, human resource, cleaning, security, bill collection, trash hauling and employment services. Employment services (i.e., temporary and contract workers) account for one in every 10 jobs added in the recovery. The sector also serves as a bellwether for the economy.

Businesses often rely on contract workers during a recovery to handle the initial uptick in demand. Once the firm realizes it has enough business to sustain a larger workforce, contract and temporary employees are often offered full-time or permanent status. Conversely, when a recession sets in, contract workers are the first to be laid off.

In November '07, almost a year before the recession struck Houston, the Texas Workforce Commission (TWC) reported initial declines in employment services. In April '10, before it was apparent the recovery was underway, TWC reported gains in this sector. Since the beginning of '13, annualized employment gains have averaged 8.4 percent, less than the double-digit rates experienced early in the recovery, but still respectable.

The Partnership's forecast calls for administrative support to add 8,800 jobs in '14.

EDUCATIONAL SERVICES

This sector includes private education—vocational training, technical schools, private universities and testing services. School districts and community colleges are classified as local government. The University of Houston, Texas Southern and several schools in the Texas Medical Center are part of state government.

School enrollments rise for several reasons—a growing school-age population, workers seeking to upgrade their skills, and parents seeking alternatives to public education. Growing enrollments require more instructors, administrators and tutors. The Partnership forecasts educational services to add 1,000 jobs in '14.



HEALTH CARE AND SOCIAL ASSISTANCE

Three population groups help drive health care employment—babies, old people, and newbies. Approximately 90,000 babies are born each year, each requiring dozens of visits to the doctor for checkups and vaccinations. Another 18,000 residents reach the age of 65 each year, their visits to the doctor increasing as joints grow sore, cholesterol counts rise and vision worsens. Another 60,000 people move here each year, each needing to find a doctor, dentist and ophthalmologist. As these populations grow, the overall demand for health care grows.

The Patient Protection and Affordable Health Care Act has been slow to impact employment in Houston. The first mandates under the act—that insurance companies cover pre-existing conditions and children may remain on their parents' polices until age 26—took effect in September '10. A dozen more provisions have been implemented since then. Houston has added 27,300 health care jobs over the period.



As noted in last year's forecast, the impact of the Affordable Health Care Act on health care employment remains an unknown. The Act requires insurance companies to cover all applicants and offer the same rates regardless of pre-existing conditions or gender. Individuals not covered by an employer-sponsored health plan, Medicaid, Medicare or other public insurance program must purchase an approved private insurance policy or pay a penalty. Medicaid eligibility has been expanded. The act also changes Medicare from a fee-for-service system to a bundled payment system. Hospitals and physician groups will receive a lump sum for treating a specific episode of care, such as gall bladder surgery, rather than being paid for each procedure or visit.

The Affordable Care Act will change how we pay for—but not the need for—health care. Houston's doctor and nurse corps will grow as the population—young, old and in between—grows. The Partnership forecasts this sector to add 7,900 jobs in '14.

ARTS, ENTERTAINMENT AND RECREATION

Two-thirds of this sector's employment, approximately 19,000 jobs, is at golf courses, bowling alleys, marinas, health and fitness centers and gyms. Job growth here depends on population growth and ambitious New Year's resolutions. Approximately one-third of sector employment is in the performing and visual arts. Job growth here depends on corporate support and discretionary income.

According to the most recent BLS Consumer Expenditure Survey, the typical Houston household spent \$2,892, or 5.0 percent of its household income, on

entertainment in '12. The U.S. average is \$2,589, or 5.1 percent. BLS classifies books, hobbies, movies, the arts and sports as entertainment. The amount spent locally on theatre tickets and museums is not available, but national one-fourth data suggest of a family's entertainment expenditures go toward arts admissions. That share has remained fairly constant over time.

The Partnership's employment forecast assumes the region's population grows, the audience base expands, Houstonians frequent the arts at the same rate, and corporations maintain their financial support. The Partnership forecasts the sector to add 400 jobs in '14.

IMPACT OF THE ARTS

The Houston Arts Alliance and Americans for the Arts recently released a study that concluded the nonprofit arts community contributed \$977.7 million to the local economy in '11. The study analyzed the expenditures of 171 Houston-area nonprofit arts and culture organizations and estimated the eventrelated spending habits of 16.2 million arts and culture patrons. Houston-area nonprofit arts and culture organizations spent \$414.6 million on employee salaries, vendor services, supplies and various assets and items within the community. Event-associated spending immediately before and after the performances (i.e., restaurants, shops, bars, parking lots)-pumped an additional \$563.1 million into the local economy.

ACCOMMODATION AND FOOD SERVICES

The region gained prominence as a travel and food destination in '13.

• The New York Times ranked Houston seventh on its list of 46 Places to Go in '13. The article noted Houston's cultural and culinary institutions, including the Museum District and new restaurants such as Oxheart, Underbelly and Uchi. Houston was the only U.S. destination to rank in the top 10.



- *Travel + Leisure* ranked Houston seventh on its list of Best U.S. Cities for Affordable Getaways.
- *GrubHub* ranked Houston 10th on its list of Most Food-Diverse Cities in the U.S, citing the 69 ethnic cuisines available here.

The Greater Houston Convention & Visitors Bureau reports Houston in '13 hosted 319 meetings and conventions with 676,000 attendees booking 481,000 room nights. The bureau expects Houston to host a comparable number of meetings and delegates and book as many if not more room nights in '14.

Combine the convention business with business and leisure travel and '14 should be a good year for Houston. PKF Consulting expects average daily room rates to increase 6.7 percent to \$107.50 per night and citywide occupancy rates to nudge up from 68.0 percent to 68.5 percent. Any time occupancy nudges above 65 percent, it's a signal the market could support additional hotels. A handful will open in '14 and nearly a dozen more in the following two years.

According to the BLS Consumer Expenditure Survey, the typical Houston family spends \$3,333 a year eating out. The U.S. average is \$2,649. These expenditures support the 220,000 jobs in Houston's 8,500 restaurants, cafes, fast food franchises, cafeterias, food trucks, caterers and bars. Historically, the region adds approximately 275 new bars and restaurants each year-a few less in lean times a few more in fat times-and 4,000 to 10,000 jobs to staff those eating and drinking places. The Partnership expects the pattern to continue, and the region to add 6,600 jobs in accommodation and food services in '14.

| HOUSTON'S RESTAURANT INVEN | FORY |
|-------------------------------------|-------|
| | 7.007 |
| Full-service restaurants | 3,863 |
| Fast food and take-out | 2,501 |
| Coffee, donut, pretzel, bagel shops | 893 |
| Bars | 623 |
| Food service contractors | 247 |
| Caterers | 174 |
| Cafeterias, grills, buffets | 159 |
| Mobile food services | 39 |

Source: Quarterly Census of Employment and Wages



OTHER SERVICES

This sector includes automotive, electronics and household appliance repair, commercial equipment repair, barber shops and beauty salons, dry cleaners and funeral parlors, churches, nonprofits and professional and social organizations. Job growth in this sector depends on population and income growth. As the economy improves, Houstonians are more inclined to replace rather than repair broken items, but everyone still needs a haircut, a trip to the beauty parlor, and to have their suits cleaned and pressed. GHP's forecast calls for this sector to add 2,000 jobs in '14.



GOVERNMENT

Three factors drive employment growth in the public sector—population growth, revenue growth, and public attitudes toward government. As noted earlier, the region's population continues to grow, and that growth translates into the need for more police, firefighters, teachers and librarians.

Public revenues have also recovered. The Texas Comptroller of Public Accounts reports that sales tax collections in the region's 115 cities are up \$66.9 million in the first 10 months of '13, compared to the same period the previous year.

Property values have skyrocketed as well. The taxable value of all property in the 10-county region rose \$27.5 billion, or 5.89 percent, from '10 to '12. Various exemptions (homestead, veterans, disability, over 65) will reduce potential revenues, but the increase is significant.

| VALUE OF TAXABLE PROPERTY IN THE HOUSTON METRO AREA | | | | | |
|---|-----------|-------------|-----------------|------|--|
| | Value - | \$ Millions | Change from '10 | | |
| County | 2010 | 2012 | \$ Millions | % | |
| Austin | 4,277.2 | 4,482.0 | 204.8 | 4.8 | |
| Brazoria | 12,460.2 | 13,652.8 | 1,192.6 | 9.6 | |
| Chambers | 6,793.0 | 8,885.5 | 2,092.5 | 30.8 | |
| Fort Bend | 49,963.9 | 52,651.4 | 2,687.5 | 5.4 | |
| Galveston | 24,320.8 | 25,893.3 | 1,572.6 | 6.5 | |
| Harris | 323,701.8 | 339,983.8 | 16,282.0 | 5.0 | |
| Liberty | 5,133.2 | 5,584.4 | 451.2 | 8.8 | |
| Montgomery | 36,976.9 | 39,795.4 | 2,818.5 | 7.6 | |
| San Jacinto | 2,158.5 | 2,214.0 | 55.5 | 2.6 | |
| Waller | 4,591.2 | 4,721.2 | 130.0 | 2.8 | |
| 10-County Total | 470,376.7 | 497,863.8 | 27,487.1 | 5.8 | |

Source: Texas Comptroller of Public Accounts

Attitudes toward government are harder to quantify. The 32nd Kinder Houston Area Survey found that 44.2 percent of respondents believe government is trying to do too many things that should be left to individuals and businesses while 48.5 percent believe government isn't doing enough. This narrow margin suggests an inkling leaning toward, but not a mandate for, increasing government services.

Public education poses a special challenge. The Texas Education Agency reports that enrollment in Houston's 60-plus districts grew by more than 35,000 students between the '09-'10 and the '11-'12 school years, yet the number of school employees fell by nearly 4,000. And only half of all students graduating from area schools are deemed ready for college. Clearly, Houston would benefit from having more teachers in the classrooms.

Federal employment depends on appropriations from Washington. Given the federal budget constraints, it's unlikely federal employment will grow in Houston.

The Partnership anticipates federal employment will remain flat, state and local employment will creep up, and school district employment will approach pre-recession levels. The Partnership's forecast calls for the government sector to add 3,400 jobs in '14.

A FINAL NOTE

Houstonians who have grown accustomed to recent rapid growth may find it hard to accept normal growth. If all Houston has to look forward to is normal, then five years from now the region will have 625,000 more residents, 325,000 additional jobs, 125,000 new single-family homes, more than 60,000 fresh apartment units, and it will have seen \$1 billion in foreign trade and 250 million air passengers pass through the region. From a forecaster's perspective, normal looks pretty good.

This forecast was prepared by Patrick Jankowski with assistance from Edith Chambers, Leonie Karkoviata, Roel Martinez, Deanna Morrow, Deborah Mostert, Adam Perdue and Jenny Philip,

| HOUSTON MSA NONFARM PAYRO | LL EMF | PLOYME | ENT FO | RECAST | (0009 | 5) |
|--|------------------|---------|------------|---------|----------|---------|
| Note: Columns may not add up due to rounding | Employment as of | | Net Change | | % Change | |
| and omission of residual categories | Dec '13 | Dec '14 | Dec '13 | Dec '14 | Dec '13 | Dec '14 |
| Total Nonfarm | 2,833.2 | 2,903.0 | 78.0 | 69.8 | 2.8 | 2.5 |
| Total Private | 2,455.8 | 2,522.2 | 74.8 | 66.4 | 3.1 | 2.7 |
| Goods Producing | 548.6 | 563.9 | 13.4 | 15.3 | 2.5 | 2.8 |
| Service Providing | 2,284.6 | 2,339.1 | 64.6 | 54.5 | 2.9 | 2.4 |
| Mining and Logging | 110.6 | 116.2 | 6.0 | 5.6 | 5.7 | 5.1 |
| Oil and Gas Extraction | 59.4 | 62.6 | 3.2 | 3.2 | 5.7 | 5.4 |
| Support Activities for Mining | 49.8 | 51.5 | 2.7 | 1.7 | 5.7 | 3.4 |
| Construction | 185.4 | 191.5 | 3.9 | 6.1 | 2.1 | 3.3 |
| Manufacturing | 253.6 | 257.8 | 4.5 | 4.2 | 1.8 | 1.7 |
| Durable Goods | 172.5 | 176.2 | 3.3 | 3.7 | 2.0 | 2.1 |
| Non-Durable Goods | 80.1 | 80.6 | 0.2 | 0.5 | 0.3 | 0.6 |
| Trade, Transportation, and Utilities | 593.9 | 606.2 | 25.6 | 12.3 | 4.5 | 2.1 |
| Wholesale Trade | 152.9 | 157.1 | 7.3 | 4.2 | 5.0 | 2.7 |
| Retail Trade | 303.7 | 309.4 | 12.9 | 5.7 | 4.4 | 1.9 |
| Transportation, Warehousing, and Utilities | 137.1 | 139.5 | 5.2 | 2.4 | 3.9 | 1.8 |
| Information | 32.8 | 33.0 | 0.9 | 0.2 | 2.8 | 0.6 |
| Financial Activities | 142.4 | 144.3 | 2.4 | 1.9 | 1.7 | 1.3 |
| Finance and Insurance | 90.9 | 91.9 | 1.2 | 1.0 | 1.3 | 1.1 |
| Real Estate | 51.5 | 52.4 | 1.2 | 0.9 | 2.4 | 1.7 |
| Professional and Business Services | 428.7 | 444.1 | 20.8 | 15.4 | 5.1 | 3.6 |
| Professional, Scientific, and Technical Services | 203.3 | 209.2 | 7.2 | 5.9 | 3.7 | 2.9 |
| Legal Services | 24.3 | 24.5 | 0.1 | 0.2 | 0.4 | 0.8 |
| Accounting, Tax Preparation, Bookkeeping | 20.5 | 20.7 | 0.2 | 0.2 | 1.0 | 1.0 |
| Architectural, Engineering, and Related Services | 72.6 | 76.5 | 5.5 | 3.9 | 8.2 | 5.4 |
| Computer Systems Design and Related Services | 27.9 | 29.0 | 0.9 | 1.1 | 3.3 | 3.9 |
| Management of Companies and Enterprises | 24.5 | 25.2 | 1.3 | 0.7 | 5.6 | 2.9 |
| Administrative Support and Waste Management | 201.1 | 209.9 | 12.5 | 8.8 | 6.6 | 4.4 |
| Administrative and Support Services | 192.2 | 200.9 | 13.1 | 8.7 | 7.3 | 4.5 |
| Employment Services | 80.4 | 87.4 | 5.2 | 7.0 | 6.9 | 8.7 |
| Educational and Health Services | 347.8 | 356.7 | 11.5 | 8.9 | 3.4 | 2.6 |
| Educational Services | 48.3 | 49.3 | 1.5 | 1.0 | 3.2 | 2.1 |
| Health Care and Social Assistance | 299.5 | 307.4 | 10.0 | 7.9 | 3.5 | 2.6 |
| Leisure and Hospitality | 268.7 | 275.7 | 4.0 | 7.0 | 1.5 | 2.6 |
| Arts, Entertainment, and Recreation | 27.2 | 27.6 | 0.4 | 0.4 | 1.5 | 1.5 |
| Accommodation and Food Services | 242.7 | 249.3 | 4.8 | 6.6 | 2.0 | 2.7 |
| Other Services | 98.7 | 100.7 | 2.0 | 2.0 | 2.1 | 2.0 |
| Government | 377.1 | 380.5 | 2.9 | 3.4 | 0.8 | 0.9 |
| Federal Government | 27.6 | 27.7 | 0.1 | O.1 | 0.4 | 0.4 |
| State Government | 71.8 | 71.9 | 0.1 | O.1 | 0.1 | 0.1 |
| Local Government | 277.9 | 281.1 | 2.9 | 3.2 | 1.1 | 1.2 |

Source: GHP Research Department based on Texas Workforce Commission data

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