

## 2008 Business Facilities Rankings Report

Our annual look at the top-ranked localities reflects the fierce competition driving economic development across all regions. We have beefed up our criteria for selecting the best of the best to keep pace with the sophistication and diversity of these efforts.

By Jack Rogers and Bill Trüb

This year's annual Rankings Report is the culmination of a process that continues to evolve in tandem with the diverse and dynamic nature of economic development. Every year, we have made a special effort to expand and upgrade the data and criteria that are applied to our rankings. This year's Report features several notable enhancements that we believe add value and credibility to the results.



In recognition of the recent explosive growth in biotechnology initiatives across the United States, we have significantly expanded the criteria applied to our overall Biotechnology Strength ranking this year in order to give every state some measure of credit for its biotechnology efforts, and to make sure that demographics don't outweigh meaningful accomplishments.

In addition to established benchmarks like expansion of occupational employment, number of facilities, and overall state funding for biotechnology, we have examined a wide variety of indicators for overall strength, including availability of targeted tax credits, generation of biotechnology patents, university grant funding, and the number of bioscience higher education degrees in each state.

### Rankings Get Greener

We also have significantly expanded the criteria applied to our Greenest States ranking to reflect the growing importance of environmental considerations in site selection. To create this year's ranking, we used the number of LEED-certified buildings as a starting point, but also factored in criteria including financial incentives for renewable energy, percentages of state populations that use public transportation, and pollution statistics as measured by the federal Environmental Protection Agency.

Our annual look at the top Global Business Environments has been reconfigured to make sure that all key regions are represented.

For many of our U.S. rankings, we have supplemented our state rankings with several new categories that measure the ongoing competition between large cities and/or MSAs.

As in past Reports, we have applied unique algorithms to our Business Climate, Quality of Life, and Education Climate rankings which yield reliable benchmarks that are true indicators of state leadership in these important categories.

While we have dramatically expanded our data sources for all categories in this year's report, we want to give a special tip of the hat to C Q Press, which publishes a multitude of statistics on states and cities annually, and the Biotechnology Industry Organization (BIO), which in tandem with Battelle each year produces the most comprehensive data set for state biotech initiatives.

Some of this year's results may surprise you, and, of course, a few of the rankings may spark debate. The competition in several categories was extremely close and there were more than a few photo finishes.

We congratulate all of this year's top-ranked locations, and, as always, we invite your suggestions for new categories that may be included in next year's rankings. We encourage you to send us your thoughts via email at [feedback@groupc.com](mailto:feedback@groupc.com).

## **BIOTECHNOLOGY STRENGTH**

It is no exaggeration to say that biotechnology is the fastest growing economic development sector in the United States. From California, which has taken a leadership position by leveraging its huge university system and poured millions into research, to Iowa, which has emerged as a bioenergy front-runner, to New Jersey, a perennial force in drugs and pharmaceuticals, biotech hubs are being established and expanded from coast to coast. The past year also has seen an explosive diversification in biotech developments. The traditional focus of bioscience initiatives in drugs, medical devices, agricultural chemicals and testing labs now is being complemented by growth centers built around specific research targets like stem cells and biofuels.

*Business Facilities* has adjusted the methodology applied to our 2008 rankings to reflect this diversity, and to give every state appropriate credit for its biotech efforts. Using government statistics and the latest State Bioscience Initiatives Report, prepared by the Biotechnology Industry Organization (BIO) and Battelle, as a starting point, we identified more than 20 key criteria that have been applied to rank overall biotechnology strength.

These criteria included the amount of state R&D funding and venture capital investments; the level of concentrated occupational employment in biotech; tax exemptions specifically targeted to biotech; the number of biotech facilities; biotech patents generated; university grant funding; and bioscience higher education degrees, among other factors.

A point scale was applied, giving special credit to states that "walked the walk, as well as talked the talk," financially speaking, when it came to biotech initiatives. Extra points were awarded to states that actually invested in biotech facilities and/or had the highest concentration of employment in more than one biotech subsector.

The competition for the top-ranked state in overall biotechnology strength was very close, with Pennsylvania edging out California and Massachusetts, which tied for second place. Ohio and Texas

also finished in a dead heat for fourth place. Every state that placed in the top 10 of this year's ranking should be considered a biotechnology leader.

While California, the most populous state, easily topped all of the other states in overall biotech employment (Pennsylvania was second in employment), the diversity and depth of Pennsylvania's initiatives enabled it to score in more than half of the rankings criteria categories, giving it the top ranking.

Pennsylvania has set aside \$150 million in 2007-2008 from its tobacco settlement allocation to support bioscience research in the Commonwealth Universal Research Enhancement (CURE) program; it has created three regionally based Greenhouses that are comprehensive centers for the commercialization of bioscience research; and it has earmarked more than \$32 million during the past two years to fund high-technology facilities, including bioscience sites.

California, New Jersey, Ohio, Connecticut and New York have made impressive commitments to support the advancement of stem cell research. The California Institute for Regenerative Medicine (CIRM), to which California has committed about \$3 billion in funding, and the Stem Cell Institute of New Jersey are establishing leadership positions in stem cell research.

California, Massachusetts, Pennsylvania and New Jersey, respectively, have generated the largest number of bioscience-related patents.

Iowa has allocated \$100 million in 2008 for the Iowa Power Fund, which supports research on clean bioenergy technology, the largest appropriation among at least 23 states that now are supporting bioenergy research and development.

Connecticut, Georgia, and Kansas each have established special financing programs to support commercial bioscience facilities.

Kansas and Florida broke into the top 10 ranking for overall biotechnology strength this year; these two states have made it clear they intend to be major players in biotech.

In the major biotechnology subsectors, Texas took the lead this year in specialized employment in agricultural feedstocks and chemicals, followed by Illinois and Tennessee; California edged out New Jersey in drugs and pharmaceuticals, and in research, testing and medical labs.

This year, we also are recognizing state leadership in biotechnology venture capital investments, funding for bioscience research, and state bioenergy investments, as well as the biotech leaders among large (total private employment greater than 250,000) and medium-sized MSAs (total private employment between 75,000 and 250,000).

## **GREENEST STATES AND CITIES**

Of all the rankings in 2008, one of the most sought-after accolades for a state or city to receive is "the greenest." In today's eco-friendly marketplace, where carbon footprints and renewable energy have become legitimate business concerns rather than boardroom buzzwords, states are eager to position

themselves as environmental advocates. In the same vein, many businesses are committed to operating in locations where they can build their green credentials while conserving energy.

For our 2008 Greenest States ranking, we have pulled together a unique data set that analyzes nine eco-related criteria, resulting in one of the most meaningful green state rankings currently available. Compiling data culled from the Environmental Protection Agency, the U.S. Green Building Council, the U.S. Bureau of the Census, and the Database of State Incentives for Renewables and Efficiency, we have ranked each state based on total pollution levels, number of hazardous waste sites, number of LEED-certified buildings, air pollution emissions, and number of people who use public transportation. We also have factored in each state's menu of financial incentives and rules and regulations pertaining to energy efficiency and renewable energy.

A state's willingness to pass green legislation or offer financial incentives to environmentally conscious businesses has affected our rankings in noticeable ways. For example, California's renewable energy regulations and incentives have helped it to rank fifth, despite the state's reputation for smog and traffic. New York and New Jersey, which often conjure up images of factories and skyscrapers, have benefited in similar ways. Meanwhile, states with much-adored natural landscapes such as Oregon, Colorado, Vermont, and Hawaii, have rightfully earned their high marks on our greenest list.

For our Greenest Cities ranking, we used the most current data (May 2008) from the U.S. Green Building Council to tabulate the cities with the most LEED-certified facilities. The LEED (Leadership in Energy and Environmental Design) certification program is a feature-oriented rating system that awards points to facilities for satisfying specified green building criteria. The difficulty in incorporating more criteria into a greenest cities ranking is finding data providers that consistently compare the same set of cities, define cities' limits in the same way, and use the same time periods for collecting data. As such, we simply awarded cities for their "LEEDing" efforts.

Chicago, which ranked first in the 2007 rankings as the city with the largest number of LEED-certified projects, again tops the list in 2008, with a total of 40.

Seattle joins Chicago this year at the top of the greenest cities list, moving up from its second-place finish in 2007's rankings.

Here are the categories, listed in order of weight, used to formulate the Top 20 Greenest States:

- Total Pollution Released by Pounds of Toxins (Environmental Protection Agency, 2005)
- Financial incentives for Energy Efficiency (Database of State Incentives for Renewables and Efficiency, 2008)
- Financial Incentives for Renewable Energy (Database of State Incentives for Renewables and Efficiency, 2008)
- Rules, Regulations, and Policies for Renewable Energy (Database of State Incentives for Renewables and Efficiency, 2008)
- Rules, Regulations, and Policies for Energy Efficiency (Database of State Incentives for Renewables and Efficiency, 2008)
- Number of LEED-certified Buildings (U.S. Green Building Council, 2008)
- Number of Hazardous Waste Sites by State (Environmental Protection Agency, 2007)
- Total Air Emissions (Environmental Protection Agency, 2005)
- Percentage of People who Use Public Transportation (U.S. Bureau of the Census, 2006)

## **BUSINESS CLIMATE**

Our Business Climate ranking unofficially is our flagship ranking, because of its 18 input factors that determine the final outcome, three of which are themselves other Business Facilities rankings. The 2008 Cost of Labor ranking is an important component; it is composed of six factors. The 2008 Educated Workforce ranking (composed of three weighted input factors) is another key component of our Business Climate ranking. Finally, the 2008 Quality of Life ranking counts for something in the overall Business Climate ranking as well; Quality of Life is made up of a whopping 20 factors (one of which is our seven-factor Educational Environment ranking). That means that exactly 50 distinct factors we researched find their way into this 2008 Business Facilities Business Climate ranking.

Besides the three rankings used as factors, we also specifically looked at data including projected population change, change in per capita gross domestic product (GDP), business tax climate, quality of road infrastructure, and average bills for gas, electricity and rent for industrial and commercial customers.

The big winner-not just in this ranking but throughout several of our rankings this year-was South Dakota. Not intent to take 2nd place again, it hopped up to first to complete its dominance of Cost of Labor, Quality of Life, and Business Climate. Whatever you may think of the suitability of South Dakota for your upcoming relocation or expansion, it seems at the very least prudent to take a hard look at why the state is doing so well even as other states bounce around our rankings.

As was the case last year, the Rocky Mountain States again had strong representation in the top tier of the rankings in this category, joined by Texas, which bounced up to number two from last year's 9th place finish.

Three states pushed their way into the top 10 business climates from 2007 to 2008. Number nine this year-Florida-made a modest but notable climb from 13th place last year. More dramatic perhaps was 8th place Oklahoma rocketing from 21st place in 2007, and 10th place Arkansas rising from 19th place last year. With Florida and Arkansas joining the top 10 next to number 6 Virginia (which was 8th in 2007), the Southeast region has staked its claim clearly on our Business Climate scoreboard.

The 2008 Business Climate ranking was calculated using the same factors and weightings as last year, with the only difference being that we used data updated by a year, so the results are directly comparable to 2007. (It should be noted, however, that there were some minor changes in the calculation of the Educated Workforce and Educational Environment rankings which constituted part of the final Business Climate ranking.) It will be very interesting to see how the general downturn in the national economy this year shakes up our Business Climate ranking in future years as economic data from 2008 is tabulated.

## **QUALITY OF LIFE**

To measure the quality of life, we take a look at 20 key factors that influence how happy you and your employees are likely to be based on the state you live in. Quality of life is a key component of our Business Climate ranking as well, since, all other things being equal, we believe that employers and employees who are happy outside of work will contribute to a better bottom line through increased motivation, morale, productivity, and retention. Quality of life also is a critical factor for companies that need to attract top talent to remain competitive, or companies that are relocating and seek to reduce the executive "churn" that accompanies a major move of corporate offices.

One of the components of our Quality of Life ranking is our own Education Environment ranking, since good schools can dramatically influence the attraction an area holds for families. Other component groups contributing to each state's final rank in quality of life include the crime rate, material well being (including average income levels, tax rates, and personal bankruptcy rates), job security, arts and recreation assets (as funded by the state), pollution, commute length, health care premiums, occupational accident rates, climate, and the cost of living.

It's interesting to note that a data element can have a different role in different rankings. When it comes to quality of life, a low unemployment rate is good and tends to enhance job security. However, from a company's point of view, a low unemployment rate can mean higher wages, so it plays an opposite role in our Business Climate ranking. (On the other hand, since this Quality of Life ranking is itself a factor in the Business Climate ranking, there is a tug-of-war between too much and too little unemployment when it comes to the best place to locate your company.)

Much of our data comes from "State Rankings 2008" published by the CQ Press, but we also relied on data from the Kaiser Family Foundation at [www.statehealthfacts.org](http://www.statehealthfacts.org), and from the Missouri Economic Research and Information Center (for its cost of living data). The ranking was conducted using the same factors and weightings as in 2007, but with updated data, so the results from the two years are directly comparable.

South Dakota once again shows its dominance in Quality of Life, hanging on to the top spot just as it managed to do in the Cost of Labor ranking. (Indeed, South Dakota is so strong this year that it captured the top spot in the Business Climate ranking as well.) Nebraska made an excellent showing by moving from 9th to 4th place this year, and Montana and Idaho (ranked 8th and 10th this year, respectively) each moved up eight places from 2007. Montana and Idaho are the only states in the top 10 of our 2008 Quality of Life ranking that were not in the top 10 last year.

## **COST OF LABOR**

There was a shuffling of the top 10 states in this year's Cost of Labor ranking, with one big exception: South Dakota retains its number one ranking. The methodology used was the same as 2007; all six data sources were updated from the previous year.

In the top 10, the biggest changes came from Arkansas, which jumped from 23rd in 2007 to 9th in 2008; Georgia, which rose from 15th to 7th; and Virginia, which increased from 8th place to 2nd, right behind South Dakota.

The thinking behind this ranking was to compile some of the most critical labor costs facing employers in the United States. To that end, we measured unionization rates, unemployment insurance tax rates, worker's compensation premium rates, average hourly pay in manufacturing, average annual pay in the private sector (all industries), and the employer's average annual cost for providing an employee with "employee + one" health coverage. Each of these six factors carried an equal weight. Up-to-date worker's compensation premium data was not available for ND, OH, WA, WV, or WY; those states had their remaining five factors weighted more heavily to normalize the results.

## **GLOBAL BUSINESS ENVIRONMENTS**

Culled from The Economist Intelligence Unit's (EIU) 2008 e-readiness report, we present the world's Top Ten Global Business Environments, in addition to specific business environment rankings by region. The EIU report, sponsored by IBM, scores the world's 70 largest economies (with a score of 10 being the best) based on their abilities to absorb information and communications technology, and then use these tools for economic and social benefit. Each country is assessed in six categories, one of which is Business Environment. We have extracted the top-scoring countries in the Business Environment category to compile our results.

In the overall global business environment category, Denmark leads the international marketplace, and European nations occupy six of the 10 slots. Canada, which topped last year's rankings, dropped to fourth place. The United States is noticeably absent from the top 10, having been replaced in the eighth slot by Australia.

Regionally, Canada and the United States again rank first and second in 2008's Americas and Caribbean ranking. In fact, the top six countries remained the same from last year. New to the EIU's 2008 assessment is Trinidad and Tobago, which managed to infiltrate the rankings and take the seventh position in this region.

Western Europe's business environments showed little change from 2007, as the same 10 countries occupy the rankings with just some minor shuffling of positions. This year, however, Denmark pulled away from the pack to take complete ownership of the number one spot, which was shared with the UK and Finland in 2007. Central and Eastern Europe is a new regional ranking this year. The area, led by Estonia, is seeing tremendous business growth, but still is not as robust as the long-established mega-economies of Western Europe.

In the Asia/Pacific region, Hong Kong and Singapore share the top spot, which was held solely by Singapore in 2007. The only other notable change this year is Japan leapfrogging over Malaysia into seventh place.

One significant alteration in 2008 is our decision to create a Middle East/North Africa category, as opposed to 2007's combination of the Middle East with all of Africa. The only sub-Saharan countries assessed by the EIU are South Africa and Nigeria, which we feel are far too geographically removed from the region's core to be fairly compared. Turkey also was included in this ranking due to its predominantly Middle Eastern location, despite straddling both Europe and Asia.

## **AUTOMOTIVE MANUFACTURING GROWTH**

There is no doubt that the U.S. automotive industry today stands on the brink of major upheaval, the impact of which probably won't fully register until next year's ranking for automotive manufacturing growth is compiled. The double whammy of an economic slowdown and a spectacular escalation in the price of gasoline threatens to reshape the automotive landscape. The major carmakers already have announced that they will be dramatically scaling back their production of large, gas-guzzling vehicles, including SUVs and minivans, which until recently were their most popular offerings. Large truck production also is expected to take a major hit. Thus far in 2008, the only glimmer of a silver lining on the horizon is found in the fact that the falling value of the U.S. dollar as measured against foreign currencies-and the reduction in the cost of unionized labor at the Big Three plants in the U.S. (due to new contract concessions)-actually have put U.S. automotive manufacturing plants in an envious competitive position compared to their overseas counterparts. As we reported recently on our Business Facilities blog, GM, Ford and Chrysler are poised to invade overseas markets.

Chrysler actually is shifting production of minivans and Jeeps from Europe to the U.S. to take advantage of lower costs and available plant capacity, and Ford is considering ramping up exports if it can match GM in bringing down its labor costs. GM, meanwhile, reportedly is planning to build a new small car in Lordstown, OH, that would be geared to overseas sales.

Toyota, which successfully invaded the U.S. automotive market by building assembly plants in America that did not use union labor, is said to be very concerned about GM's new labor pact with the United Auto Workers. The tables have turned. Exports of U.S.-made cars and light trucks have more than doubled since 2002, notching \$50 billion in sales last year. U.S. carmakers are aggressively targeting buyers in more than 80 countries, including huge emerging markets in Asia and South America.

We offer this summary as our way of recognizing that this year's automotive ranking, while saluting some impressive upward movement in manufacturing growth, represent a snapshot in a rapidly changing picture.

This year's ranking, which factor in the number of cars and light trucks produced, show significant movement for some of the key players. Texas tops the list for the 2008 ranking, jumping up from last year's 6th-place finish. Illinois jumps into the top 10 at 2nd place, while South Carolina moves up to 3rd place from last year's showing in 8th place. Michigan also cracks the top 10 this year, perhaps a harbinger of what can be expected in next year's ranking if industry analysts are correct about current trends.

## **EDUCATED WORKFORCE**

It is not surprising that cities and states with highly educated workforces are more likely to attract relocating businesses than areas that struggle to keep pace with educational advancements. After all, companies are eager to employ skilled workers who are experts in their respective fields and who require minimal post-hire, supplementary training.

Most entry-level positions require employees to possess a high school diploma, but in today's competitive job market, having an undergraduate or graduate degree significantly improves one's employability. As such, our Most Educated Workforce rankings examine the number of employees over the age of 25 that possess a high school diploma, a bachelor's degree, or an advanced degree. We divide our rankings both by state and by city because results in these areas are often divergent. For instance, Vermont and New Hampshire are the states with the most educated workforces in 2008, but none of their cities rank in the top 20. Alternatively, metropolitan areas in Kentucky and North Carolina occupy the second and third most educated city slots, yet these two states as whole entities do not rate in our top 20.

This year, Vermont comes in at number one, an impressive rise from sixth in 2007, while Colorado had an inverse fate, falling to sixth in 2008 from the summit last year.

Seattle's workforce receives the most educated title this year, up from third in 2007, as Raleigh, NC jumps 12 positions into third in 2008.

## **EDUCATION CLIMATE**

Our Education Climate ranking differs from the Educated Workforce rankings because it examines a broader set of criteria. More than a tally of the total numbers of degree-holders in each state and city, our Education Climate determines the effectiveness of a state's educational system by analyzing its commitment to learning through numerous factors. Student to teacher ratios; public high school graduation rates; enrollment rates at institutes of higher education; federal allocations for the Head Start program; estimated expenditures per pupil at public elementary and secondary schools; and state and local government expenditures on education are factored into this comprehensive analysis. The results provide a clear sense of how each state handles and reacts to its educational strengths, needs, and overall trends.

Relocating businesses may find this ranking especially helpful because, among many reasons, it assesses the educational aptitude of a potential pool of employees.

Remarkably, Vermont and New Hampshire come in at numbers one and two, completing a sweep of the top two spots in both Educational Climate and Educational Workforce: States. For Vermont, this means a repeat of 2007's top score, while New Hampshire pushed into second place from third last year. Iowa fell from second to fourth this year, while North Dakota moved up to third. Nebraska remains in fifth position.

## **BUSINESS TAX CLIMATE**

Once again, we turn to The Tax Foundation, a nonpartisan organization based in Washington, DC, for our compilation of the best business tax climates in the nation. The overall index of best climates is made up of five subindices: corporate tax, individual income tax, sales tax, unemployment tax, and property tax. We also break out the Best Sales Tax Climate for Business. The entire report is available for free at [www.taxfoundation.org](http://www.taxfoundation.org).

## **MANUFACTURING MOMENTUM**

Manufacturing capability is one of the most critical factors in the growth and proliferation of many businesses. Access to facilities and markets, speed of production and shipment, and available labor all are components that companies consider when searching for a site for a new manufacturing facility. Therefore, our Manufacturing Momentum ranking provides an insightful look at which states are succeeding in building business climates conducive to manufacturing. This data is more than a compilation of the most manufacturing facilities within state lines; rather, we have looked at the progress a state has made in growing their manufacturing base. To create such a ranking, we utilized the

Census Bureau's 2008 Statistical Abstract of the United States, of which the latest figures for manufacturing are from 2005. Specifically, we have tabulated the absolute and percent change over a two- to three-year period in the number of manufacturing establishments and employees, the change in payroll statistics, value-added gains, and shipment amounts within each state. Additionally, we have factored in the amount of value-added dollars per production worker by state.

While it appears that many companies are choosing to uproot and move their manufacturing operations to more cost-efficient locations abroad, many states still remain competitive choices to establish manufacturing operations. This year, New Mexico led the pack, nudging ahead of Oregon by just two points—a small margin considering Louisiana trailed Oregon by approximately 20 points. Although New Mexico saw a slight decrease (about -1%) in its number of manufacturing establishments between 2002 and 2005, it had substantial gains in other categories like employees and payroll. The most resounding gains for this state came in value added during manufacturing, value of manufacturing shipments, and value added per production worker, where New Mexico resoundingly trounced the competition. Utah, which took the fifth spot in 2008 (up 2 positions from 2007), recorded the most manufacturing establishment growth in terms of number of facilities.

Nevada showed impressive gains in this year's ranking for the manufacturing momentum category, jumping up to 6th place from last year's showing of 15th place. South Dakota, meanwhile, dropped out of the top 15, while neighboring North Dakota maintained its standing in 11th place on the list.

Also surging into the top 10 on the 2008 ranking for manufacturing momentum was Washington, which posted an 8th place showing. Washington failed to crack the top 15 positions for this category in 2007.

As you evaluate this ranking, keep in mind that there are numerous anomalies that effect the results. A state may increase its manufacturing facilities, but still lose manufacturing jobs overall. Also, population growth may push down a state's value added per worker, because cheap labor may not equal higher productivity.