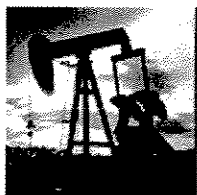


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## U.S. Cities' Preparedness for an Oil Crisis



This is a Tale of Two Types of Cities.

One type of city has a dense, walkable center with cultural attractions, jobs, farmers markets, and residential neighborhoods easily accessible by foot, bike, or public transit. The other type has lower density, a poorly or undefined center, separate centers of business and residential life, and is generally only accessible by car.

We compared these two fundamental types of cities' underlying infrastructure, food and mobility as part of an economic competitiveness analysis. With gas prices on the rise and \$3 or \$4 a gallon gas on the horizon, SustainLane.com took a close look at the 50 largest U.S. cities to see which are most prepared and which are most vulnerable to an extended gas price shock in the \$3 to \$8 dollar a gallon range. Those cities that can reduce or stabilize their spending on gasoline will keep substantially more money in their state's economy, rather than siphoning it overseas.

### How the Index was Created

SustainLane analyzed commute trend data within major cities--how many people rode, drove, carpooled, walked, or biked to work. Then we looked at how much people rode public transit in the general metro area, and metro area road congestion. Sprawl, local food, and wireless connectivity made up our final areas of data analysis (see chart below for weighting of these criteria). The index did not take into consideration energy impacts associated with heating or electricity, which would be largely dependent on non-oil energy sources, such as coal, natural gas, and nuclear energy. Only one U.S. city in our study, Boston, uses a significant amount of heating oil. For this reason Boston, ranked #2, gets an asterisk: if heating oil usage were used as a criteria its rank would be somewhat lower.

SustainLane's index measures the major elements cities have in place to best deal with an oil crisis. To be clear, an oil crisis will negatively impact all U.S. cities, as our nation is dependent on oil-based infrastructure for everything from food to retail, to the manufacturing and service sectors. Significant inflation will undoubtedly occur during an oil crisis. Many of those negative

1. New York ✓
2. Boston\* ✓
3. San Francisco ✓
4. Chicago ✓
5. Philadelphia ✓
6. Portland ✓
7. Honolulu ✓
8. Seattle ✓
9. Baltimore ✓
10. Oakland ✓
11. Washington, DC ✓
12. Milwaukee
13. Miami
14. Minneapolis
15. Denver
16. New Orleans
17. Cleveland
18. Long Beach

impacts cannot be easily anticipated or evenly modeled across the nation. We are confident that the data sets we used—mobility, infrastructure, development patterns, local food indicators and telecommunications capabilities—provide a consistent model for further analysis, discussion, and action.

### The Most Vulnerable Cities

While the top ten cities in the list SustainLane released in late March are more likely to fare better in the event of \$100 a barrel oil, the cities that are the most vulnerable typically fit a general profile opposite that of New York City, the #1 most-prepared city. In New York, 53 percent of the population takes a subway, train, or bus to work; almost ten percent of the city walks or rides a bicycle to get to work (2004 data); and commuters living outside the city are the nation's most habitual users of public transit.

Sun Belt or land-locked cities that developed largely during the suburban boom of the 1960s and 1970s, when car ownership and sprawl development patterns began to proliferate, are the American cities most vulnerable to an oil crisis. Oklahoma City, where 85 percent of the population drives by themselves to work everyday, came out at #50, making it the most likely to be adversely impacted by an oil crisis. Close behind were Louisville, Kentucky; Fort Worth, Texas; and Indianapolis, Indiana.

All of the 10 most-vulnerable cities, with the exception of Virginia Beach, Virginia (#46) and Memphis, Tennessee (#44), are landlocked. People who live and work in these cities currently have few alternatives to driving, with less than five percent commuting to work on public transit. Bicycle commuting or walking to work in these cities occurred at rates under two percent (Tulsa was a minor exception with almost three percent that walked or biked to work). These cities' complete dependence on oil goes beyond local mobility. Goods transported to these locations from overseas ports have to be trucked on oil-comprised tires, manufactured with more than seven gallons of oil each, over great distances of oil-based asphalt.

### Dearth of Local Produce

Local produce is particularly hard to come by in the cities at the bottom of the ranking. Arlington, for example, has zero farmers markets, and Dallas just one per 1.2 million in population. Unless these cities add farmers markets, local residents will have no alternative to supermarket produce trucked in from further a field that will likely be much more expensive.

The wireless revolution has not arrived in Louisville, Kentucky, or Oklahoma City, which were 50<sup>th</sup> and 49<sup>th</sup> in wireless availability, so people there are likely to have a harder time telecommuting than those in the most wired cities of Seattle and the San Francisco Bay Area.

### What Can The Most Vulnerable Cities Do?

It's not impossible for cities that are now the most vulnerable to an oil crisis to become more prepared.

One city that is taking comprehensive actions to lessen its economic and physical dependence on the automobile is Denver. Ranked #15 on our oil crisis preparedness index, Denver has bet its future on new multi-modal public transportation as part of an economic strategy known as Transit Oriented Development.

Greatest Weighting

City commute-to-work data

The city passed the largest regional transportation funding measure in America's history in 2003. The measure, which was led by Mayor John Hickenlooper and regional mayors, garnered 73 percent voter approval for a \$4.7 billion initiative that combines funding for multiple new light rail, commuter rail, and bus rapid transit lines.

There will even be a ski train to zip adventurers into the nearby constellation of Rockies resorts.

Hickenlooper told SustainLane, "What's key to understanding our initiative is how it was formed in close collaboration between our urban center and the suburbs, with every one of the 31 mayors in the region backing it, Republican, Democrat, and independent."

Peter Park, Denver's Director of Planning, was more philosophical. "People wanted a broader range of options as an alternative to the automobile. The greatest cities in the world all have great transit systems. No great city is built around the auto."

Park said Denver is looking at its transit investments, which begin coming on line this year with an expanded light rail system, as a factor that increases real estate value, improves mobility, and creates a stronger and more economically vital city—what he refers to as a "truly authentic urban place."

Though Denver's area population is growing at a healthy rate, its metro region will be better prepared for increased city travel with its extensive new transit system when it is fully built out over the next ten years. "You have more flexibility by being able to add more light rail cars per run and by increasing the frequency of the runs," Park noted. "And you don't have to widen highway lanes and negatively impact the value of real estate. Who really wants to live near or under a freeway?"

Other cities taking steps to prepare for the next oil crisis:

- In 2003, **Houston** residents voted for Metro Solutions, a measure funding increased light rail, commuter rail, and a better bus system.
- Since 2000, **Los Angeles** has added a Bus Rapid Transit system with 28 bus lines serving over 450 miles, bringing regional public transit ridership to number eight among the largest 50 U.S. cities.
- Based on LA's success, **New York City** is considering adding numerous Bus Rapid Transit lines.
- In early 2006, **Oakland**'s city council passed an ordinance to develop 30 percent of food from local and adjacent regional sources, going beyond **Portland** Mayor Tom Potter's call last year for citizens to buy 10 percent of their food from local producers.
- **Philadelphia, San Francisco, Portland, Minneapolis, and Chicago** are in the initial planning stages for implementing a citywide wireless network.

In June, SustainLane.com will release the results of our [US City Ranking](#) for overall sustainability, including healthy quality of life and economic readiness for the challenges of the 21<sup>st</sup> century.

*Data for these rankings covers 2002-2006 and was collected from U.S. Bureau of the Census, U.S. Dept. of Agriculture, Smart Growth America, Intel Corp., Texas Mobility Study/Texas A&M, and through primary research with U.S. cities.*