The Beacon Hill Institute at Suffolk University is pleased to release its *Metro Area and State Competitiveness Report*, 2002. In this follow up to the *State Competitiveness Report*, 2001 we focus on the competitiveness of the fifty largest metro areas in the country. In this new section, we combine dozens of objectively measurable variables into nine subindexes that we then aggregate into the *Metro Area Competitiveness Index*. From this index we create a ranking of the fifty metro areas according to their relative competitiveness.

Interestingly, the top ten metro areas are quite geographically diverse. Metro areas from both coasts, from Middle America and from the North and the South are all competing effectively for business. It is our hope that presenting the Index results for each metro area will provide insight to voters, businesspeople and policymakers about the strengths and weaknesses of their own metro area.

We also provide an update of last year's analysis of state competitiveness. We find little change from 2001 to 2002 in the top ten states. California is out, dropping to 16th, and Oregon is in, moving up from 13th. We also find only minor shifts among the bottom ten states. There is, however, much movement in the middle 30 states. Most notably, Pennsylvania jumps up ten places to rank 27th and Alaska drops 12 to rank 34th. A summary of the state findings and a complete state ranking are available at the back of this report.

The Institute would like to thank authors Jonathan Haughton and Corina Murg, along with their research team, for their dedicated work on this project.

We hope that this analysis will inspire and aid discussion and debate on why some metro areas and states are more competitive and how others can improve their own competitiveness by utilizing more effectively the resources available to them.

David G. Tuerck

Toval D. Turch



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The Metro Area Competitiveness Index 2002

Introducing the index

What do Seattle, San Francisco, Boston, Denver and Minneapolis have in common? The answer is that all five metro areas have *Competitiveness Index* scores greater than 6.5. By this measure they are the most competitive urban areas in the country.

But what is meant by competitiveness? How can it be measured? And what standard should be used to determine whether a metro area is competitive or not?

In the course of answering these questions we developed and estimated an index of competitiveness for the 50 largest metro areas in the country. The *Metro Area Competitiveness Index* is designed to measure the long-term competitiveness of a metro area, and uses a similar approach to the one taken in our earlier study of state competitiveness (*State Competitiveness Report 2001*).

The Metro Area Competitiveness Index ranks Seattle as the most competitive metro area, with a score of 7.48 on a scale of 0 (utterly uncompetitive) to 10 (extremely competitive). San Francisco and Boston are in second and third place respectively, as Table 1 shows. At the bottom, Buffalo and New Orleans have indexes below 3.7. By construction, the mean

value of the index is 5 and its standard deviation is 1.

	ness Index Index	Rank
Seattle	7.48	1
San Francisco	7.44	2
Boston	7.00	3
Denver	6.96	4
Minneapolis	6.79	5
Austin	6.39	6
	6.25	7
Raleigh	6.25 5.93	8
Kansas City		9
Portland	5.89	
Salt Lake City	5.89	10
Washington	5.54	11
Atlanta	5.39	12
St. Louis	5.37	13
Grand Rapids	5.33	14
Hartford	5.32	15
Richmond	5.27	16
Indianapolis	5.27	17
Cincinnati	5.13	18
Charlotte	5.09	19
Greensboro	5.03	20
Providence	4.99	21
Milwaukee	4.95	22
Pittsburgh	4.94	23
Louisville	4.87	24
San Diego	4.85	25
Dallas	4.82	26
Phoenix	4.80	27
Houston	4.80	28
Chicago	4.77	29
West Palm Beach	4.76	30
Columbus	4.67	31
Vorfolk	4.65	32
Orlando	4.56	33
Miami	4.49	34
Las Vegas	4.46	35
Detroit	4.44	36
New York	4.29	37
San Antonio	4.29	38
Oklahoma City	4.28	39
Cleveland	4.22	40
Rochester	4.14	41
Sacramento	4.08	42
Philadelphia	4.03	43
Tampa	4.01	44
Nashville	3.99	45
Jacksonville	3.98	46
os Angeles	3.92	47
Memphis	3.84	48
Buffalo	3.62	49
New Orleans	2.70	50

No two metro areas have the same Index score. Matching indexes in this table are due to rounding for presentation.

What is competitiveness?

We consider a metro area to be competitive if it has in place the policies and conditions that ensure and sustain a high level of per capita income and its continued growth. To achieve this, a metro area needs to be able both to attract and incubate new businesses and to provide an environment that is conducive to the growth of existing firms.

Competitiveness may be thought of as a catchall term that covers what Michael Porter calls "the microeconomic foundations of prosperity." The metro areas of the United States all face the same macroeconomic conditions; where they differ is in their microeconomic policies. These policies matter. As Porter puts it, "wealth is actually created at the microeconomic level ... - in the ability of firms to create valuable goods and services using productive methods" (p.40).

It follows that the *outcome* of competitiveness is greater affluence, measured by higher levels of real gross metropolitan product or personal income per capita.

Quantifying competitiveness

To be useful as a concept, it is essential to have an operational measure of competitiveness, a measure that aggregates the key microeconomic variables into a single index. The World Economic Forum does this for the countries of the world in its influential annual *Global Competitiveness Reports*, but there is no

equivalent at the level of the metro areas of the U.S. (although some more specialized rankings of metro areas have been developed; we discuss these in more detail below).

In thinking about how to create an index of competitiveness, we begin with the simple economic relation:

Y = f(K,L,technology).

This says that output (Y) depends on the amount of capital (K), labor (L) and technology that is harnessed by the economy.² Not surprisingly, more inputs lead to more output. But what raises input levels? And why do some metro areas mix the ingredients more successfully than others?

To answer these questions we need to focus on the quality of the business environment. Using his celebrated "diamond," Porter finds it helpful to group the influences into four components: the quality of available inputs, the sophistication of local demand, the nature of local suppliers and the extent to which they form clusters, and the rules and institutions that govern the market.³ These are still very broad categories and so, following the Porter-inspired Global Competitiveness Report, we actually classify our indicators into nine groups. The first two groups refer to institutions, the next four to the quality of inputs, and the last three to the nature of local demand. The breakdown is as follows:

Government and Fiscal Policy. Businesses are more likely to be attracted to areas with moderate tax rates and clear evidence of financial discipline (as evidenced, for instance, by high state and municipal bond ratings). This subindex is designed to pick up these effects.

Security. A metro area will be more attractive to business if the legal system is sympathetic to business concerns, if public officials are trusted, if the regulatory burden is light, and if crime is low. The security subindex addresses these dimensions of competitiveness, with particular emphasis on the importance of public safety.

Infrastructure. How easy is commuting? Do most households use the Internet? Is housing affordable? These are the elements of competitiveness that are included in the infrastructure subindex for each metro area.

Human Resources. A high level of labor force participation, and skilled labor that is readily available and not too expensive, combined with a widespread commitment to education, training and health care, make a metro area attractive for business. These factors are captured in the human resources subindex, which in turn is based on ten primary data series.

Technology. The development and application of technology is central to economic development, and has been ever since the industrial revolution. The technology subindex measures this by taking into account research funding, patents issued, the proportion of scientists and engineers in the labor force, and the importance of high-tech companies.

Finance and Cost. A good idea is not enough; businesses also need to be able to mobilize financing for investment, both internally and from the financial system. The finance and cost index measures these factors. However, competitiveness is impaired if prices are high, which is why the cost of living is also included in this subindex.

Openness. Open economies tend to be more competitive and hence more productive. The openness subindex measures how connected the firms and people in a metro area are with the rest of the world. It is based on the level of exports, as well as the number of air passengers, per capita.

Domestic Competition. A higher rate of business births is a particularly clear sign of a competitive environment, and is an important component of the domestic competition subindex. This index also incorporates the Cognetics "entrepreneurial hot spots" index. ⁴

Environmental Policy. Metro areas that are faced with environmental problems, or that have a heavy-handed policy of environmental regulation, are likely to be less attractive to businesses as well as to their workers and managers; we measure this effect with the environmental policy subindex, which among other things reflects the levels of air pollution and of toxic releases.

A complete list of the components of each subindex is given in Table 2 at the end of this section of the report. The data used to compute the indexes are shown in an appendix to the report. We have used the most recent data available; due to time lags, most of the series refer to 2000 or 2001.

The nine categories are coherent, but there is inevitably some degree of arbitrariness in the way in which individual data series are assigned to the subindexes. For instance, the amount of air travel could be included in the infrastructure subindex or the measure of openness; and electricity prices could be included in the infrastructure subindex or the environmental subindex. In practice the assignment of the data series is much less important than the fact that they are included at all.

A competitiveness index is simply a summary measure based on a large number of variables. The difficult, and controversial, part is choosing a weighting scheme. Our approach is the simplest and most transparent: within each subindex, each variable carries equal weight.

Technical note 1:

Creating the indexes

Given the raw data series for each metro area, several steps were needed in order to construct the *Competitiveness Index*.

- First, each variable was normalized to give it a mean of 5, a standard deviation of 1, and a range from 0 (worst) to 10 (best).
- Then the nine subindexes were formed as the simple averages of the normalized component variables.
- 3. Next, the subindexes themselves were normalized, again giving a mean of 5 and standard deviation of 1 to each. These are presented in Table A, inside the front cover.
- 4. Finally, the overall index of metro area competitiveness is calculated as the simple average of the nine subindexes, again normalizing it so it has a mean of 5 and standard deviation of 1. In practice, the *Competitiveness Index* ranged from a low of 2.70 to a high of 7.48.

Then each subindex is given the same weight when constructing the overall index. This has been referred to as a "democratic" weighting structure, but it is of course arbitrary (although reasonable).

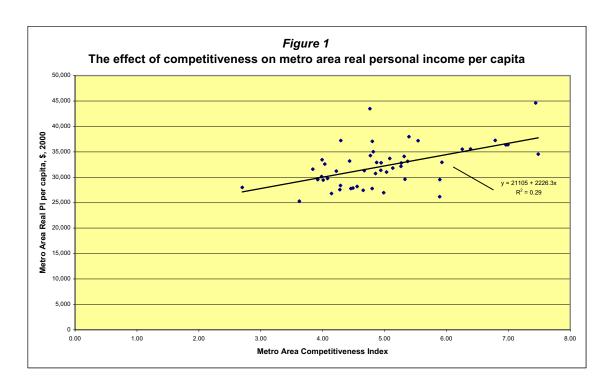
Is the Competitiveness Index useful?

Does the index of metro area competitiveness explain affluence and growth? If the index is properly constructed, then it alone should go a long way towards explaining why some metro areas are affluent and others are not. A simple way to show the relationship is with the scatter plot in Figure 1: the vertical axis shows real personal income per capita while the Competitiveness Index is on the horizontal axis.⁵

Also shown in Figure 1 is the best-fit regression line, which is given by

Real personal income/capita

This equation has an R² of 0.29, which means that more than a quarter of the variation in real personal income per capita from metro area to metro area is attributable to variations in the *Metro Area Competitiveness Index* alone. Competitiveness really does matter.



The Competitiveness Index also has a surprisingly strong correlation with the growth rate of personal income per capita between 1990 and 2000 (R²=0.32), with a higher index associated with a significantly faster increase in per capita income. This result is important, because growth rates are notoriously difficult to "explain,"

particularly with single variables such as the Competitiveness Index. In the short-run the growth of a given metro area is likely to be strongly influenced by local factors – a boom in the auto industry, or a drop in research spending, for instance – which obscure the more fundamental issue of competitiveness.⁶

Putting the Competitiveness Index to work

What do we learn from this exercise? Naturally it is interesting to look at the raw rankings (Table 1), but this may not be the most important use of the information. The detailed data, both in individual variables and the subindexes, allow one to identify the *determinants* of competitiveness. This is of value to policy makers, who are then in a better position to identify what needs to be done in order to improve the position of their metro areas.

The logic behind this is that a higher Competitiveness Index is associated with greater affluence. A reasonable inference is that if one were to improve competitiveness, then residents of the metro area would be better off. And the greatest upside potential is for the indicators whose performance is currently weak. For instance, a low-crime metro area may have trouble reducing the crime rate further, while for a high-crime metro area, efforts to reduce crime are likely to be an efficient way to boost competitiveness.

To illustrate, consider the case of Dallas-Arlington-Fort Worth, Texas, which ranks 26th with a competitiveness index of 4.8. A major strength is the low fiscal burden in Texas, and fiscal discipline, as evidenced by above-average bond ratings for the state and metro area. At the other extreme, the metro area scores low on the environmental subindex, mainly because of the serious air pollution. It scores somewhat above

average on openness and on competition, but does poorly on security and infrastructure.

To make it easier to identify the strengths and weaknesses of each metro area, a subsequent section of this report sets out the relevant details for each area, along with brief metro area-specific commentaries.

Other studies

We are not the first to develop a set of metro area indexes, but we are the first to create a broad-based index of competitiveness, and to design and present it in a way that policy makers will find useful.

Robert D. Atkinson of the Progressive Policy Institute and Paul D. Gottlieb of the Center for Regional Economic Issues have created a Metropolitan New Economy Index, which uses sixteen economic indicators "to assess the 50 largest metropolitan areas' progress as they adapt to the new economic order" (p.3).7 They view the characteristics of the New Economy as an altered industrial and occupational order, greater globalization, and "unprecedented levels of entrepreneurial dynamism and competition." Their emphasize education, measures information flows, the growth of new firms, and technology.

We include many similar variables, which helps explain why eight of the top ten metro areas are the same for the two studies (although there is more disagreement at the bottom end). However, we also believe that there are other important dimensions to competitiveness – and hence to achieving and maintaining affluence – such as the tax burden, public safety, and environmental issues. This is why our index is based on a wider set of variables.

In a somewhat different spirit, *Money* magazine publishes an annual survey of the "best places to live" in the United States. Using 31 variables (including seven related to climate!), the magazine's web site allows readers to express their preferences and then find the places that best suit their needs, from a list of over 400 towns and cities. The survey is not, however, designed to measure competitiveness per se.

Why metro areas?

This study reports the results for the 50 largest metropolitan areas (metropolitan statistical areas and consolidated metropolitan statistical areas). Collectively they include 58% of the U.S. population, and reflect the fact that the country is overwhelmingly urban and suburban rather than rural. Metropolitan areas are very coherent economic units — they have common labor markets, commuter pools, and newspaper readership, indeed all the features that make up a natural geographical area. In many respects it makes more sense to consider Philadelphia and Pittsburgh as separate economic units, than it does to consider Pennsylvania as a single entity.

One alternative would have been to focus only on the central cities in each urban area. The disadvantage of this is that the central cities are often quite small, and unrepresentative of the greater urban area. For instance, the population of the city of Boston, at 555,000, is less than one tenth of the population of the metro area, which came to 5.8 million in 2000. It is not clear how helpful it would be to compare the city of Boston, dense and highly urbanized, with the city of Houston, which constitutes 89% of its metro area and includes extensive suburbs.

A note on the states

The focus of our current study is the 50 largest metro areas in the country. We have also revised our earlier study on state competitiveness to include the most recent data available. Significant changes in one or more of the variables that make up the overall index have determined changes in the state rankings. Consider the case of Pennsylvania where great improvements in the domestic competition and institutions and human resources subindexes have pushed the state from an overall ranking of 37th in 2001 to an overall ranking of 27th in 2002. For the readers interested in each state's performance in the State Competitiveness Index we provide a detailed table with the overall index and the rankings for each subindex inside the back cover, and a brief comparison with 2001 rankings on page 91.

What next?

We invite you to pore over the detailed results on the following pages. For each metro area we set out the main competitive strengths and weaknesses with a brief commentary. We welcome suggestions for ways in which we might improve our search for answers to that deceptively simple question: how competitive is the Boston area (or the Bay area, or greater New York, or Houston, or ...)?

ENDNOTES

¹ Michael Porter, "The Current Competitiveness Index: Measuring the Microeconomic Foundations of Prosperity," in World Economic Forum, *The Global Competitiveness Report* 2000, Oxford University Press, New York, 2000.

² By dividing across by the population, this equation may also be expressed in per capita terms; output per capita is a standard measure of affluence.

Michael E. Porter, The Competitive Advantage of Nations," Free Press, New York, 1990.

⁴ Cognetics Inc., "Corporate Demographics: Entrepreneurial Hot Spots", 2001. Measure of firms that started in the last 10 years that employ at least 5 people today, as a percent of all firms, and percent of firms 10 years old or less four years ago that had a Growth Index of at least 3 over the past 4 years. The Growth Index is a firm's percent employment growth times its absolute employment growth.

⁵ Prices vary from metro area to metro area. We deflate personal income using the metro-level price indexes estimated based on data from Statistical Abstract of the United States and Taubman Center at Harvard University.

⁶ Higher values of the State Competitiveness Index are strongly correlated with lower poverty rates (R²=0.30); if the Competitiveness Index is one unit higher, the proportion of people in poverty is 1.8 percentage points lower. Poverty data at the metropolitan area are harder to get, but a similar relationship is likely.

⁷ Robert Atkinson and Paul Gottlieb, *The Metropolitan New Economy Index*, Progressive Policy Institute and Center for Regional Economic Issues, April 2001.

Table 2	indovos			
Components of sub Subindex	BHI Metro Area Competitiveness Index Variable	Explanation		
COMMINGA	Taxes as % of current GSP (-)	The greater the overall burden of taxes on a metro area's output, the less attractive that area is as a host for new investment or workers.		
	Workers' compensation collections per employee (-)	High workers' compensation collections per employee increase business costs.		
Government and fiscal policy	Bond rating: S&P's/Moody's composite (+)	High metro area bond rating reflects fiscal responsibility and an ability to secure funding for capital improvement projects that promote growth.		
	State bond rating (+)	High state bond rating increases confidence in state budget managers and reduces interest burden on taxpayers.		
	Unemployment payments per unemployed worker (-)	High unemployment benefits increase business costs by raising the reservation wage.		
	Crime index change, 1999-2000, % (-)	Growth in the crime rate suggests that crime, though perhaps currently low, is on the rise.		
Security	Violent crimes per 100,000 inhabitants (-)	High violent crime rate makes it more difficult to recruit out-of-state workers, and increases business costs.		
secony	Thefts per 100,000 inhabitants (-)	High theft rate drives up insurance premiums and business costs.		
	Murders per 100,000 inhabitants (-)	High murder rate has the same effect as a high violent crime rate.		
	Mass transit availability (+)	Availability of mass transportation is a way of reducing traffic congestion, creating more efficiency in transportation.		
	% of households with computers (+)	Level of computerization reflects computer literacy and usage.		
Infrastructure	% of households online (+)	Internet access has the same effect as computerization.		
	Travel time to work (-)	Time spent in traffic is costly to business and discourages workers from locating in metro area.		
	Median household gross rent (-)	Rental costs reflect housing costs. Higher housing costs make it more costly to recruit workers from out of area.		
	% of population without health insurance (-)	A large number of uninsured suggests that health costs are being passed on to taxpayers and that the health care system is overburdened.		
	High school finishers as % of 18-year olds (+)	A young educated workforce will lead to greater productivity over a longer period.		
	% of population that graduated from high school (+)	An educated workforce is a productive workforce.		
	% of labor force represented by unions (-)	Strong unions raise labor costs and hamper flexibility in opening and closing plants and in adapting the workforce to new tasks.		
Human resources	Unemployment rate (-)	A high unemployment rate suggests that there are rigidities in the labor market.		
	Enrollment in degree-granting institutions per capita (+)	An educated workforce is a productive workforce.		
	% of adults in the labor force (+)	The more adults in the labor force, the greater the labor force and thus the number of workers available to be employed.		
	% of population born abroad (+)	The more foreigners relative to the native-born population, the more motivated the workforce as a whole is likely to be.		

	T	T
	Infant mortality rate, deaths per 1,000 live births (-)	A high infant-mortality rate suggests that there are problems with the health care system. A strong health care system makes it easier to attract workers and to keep down business costs.
	Non-federal physicians per 100,000 inhabitants (+) Academic R&D funding relative to employment	The more doctors there are in the state, the stronger the health care system. Funding for research and development indicates strong
	(+)	universities and gives promise of high-tech startups.
	NIH support to institutions per capita (+)	National Institutes of Health funding indicates the existence of strong universities, hospitals and health care system.
	New patents issued per 100,000 inhabitants(+)	High number of patents indicates the existence of a highly entrepreneurial environment and strong innovation.
Technology	Science and engineering graduate students per capita (+)	The greater the number of science and engineering students, the greater the availability of workers essential to high-tech firms. The stronger the high-tech sector, the greater the prospects of economic growth.
	Scientists and engineers as % of labor force (+)	The greater the number of scientists and engineers, the greater the availability of workers essential to high-tech firms. The more available are such workers, the less expensive it will be to employ them.
	High-tech payroll as % of total payroll (+)	High-tech payroll as % of total payroll indicates the economy is better positioned for the future.
	Bank deposits per capita (+)	The greater bank deposits, the greater the financial strength of persons and businesses. Also, the better developed the financial sector.
Finance and cost	Venture capital as % of GMP (+)	Venture capital is important for startups. The more venture capital, the more sophisticated the financial environment.
	Cost of living (-)	Higher cost of living requires companies to pay higher wages, which drives up the cost of business.
Openness	Exports per capita (+)	A strong export sector suggests that the metro area is competitive with foreign countries as well as other metro areas.
	Air passengers per capita (+)	High air passenger flow is a sign of a developed infrastructure and a strong business sector.
	Net firm creation per 100,000 inhabitants (+)	The greater the turnover of firms, the more robust the competitive environment. New firm creation increases employment.
Domestic competition	Cognetics entrepreneurial hot spots index (+)	Indicates a sustained entrepreneurial environment fostering economic growth.
	New publicly traded companies (+)	The increase of publicly traded companies indicates strong growth in companies as well as an ability to reach public markets and raise capital.
	Electricity prices (-)	Environmental policies that increase the price of electricity discourage business investment.
		The more toxic materials released into the environment
	Toxic release, pounds per capita (-)	(as measured by the Environmental Protection Agency), the less attractive the metro area as a place to live and
Environmental policy	Pollution standards Index (-)	(as measured by the Environmental Protection Agency),

How to Read Index Pages

In this column, you will find variables where the metro area is competitive.

The index value ranks from 0 to 10, with a mean of 5 and a standard deviation of 1. Each metro area's index is ordered to create the overall rank among the 50 metro areas.

Each metro area's overall rank is based on its total index from 1 (highest) to 50 (lowest).

Overall Rank

In this column, you will find variables where the metro area is not competitive.

METRO AREA NAME

In this box on each page, you will find a summary of the high and low points of the competitive index information to be found in detail in the table below.

<u>Index</u>

6.78

Competitive Adv	vantag	jes		Competitive Disadvanta	ages	
Subindex/Variable		Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex		4.38	36	Government and fiscal policy subindex	4.38	36
				Workers' compensation collections per employee	4.99	36
				State bond rating	3.11	46
Security subindex		5.01	25	Security subindex	5.01	25
Thefts per 100,000 inhabitants		5.88	11	Crime index change 1999-2000, %	3.37	49
Murders per 100,000 inhabitants		5.54	16			
					4.78	27
Mass transit availability		6.59	3	Travel time to work	3.69	46
% of households with computers		6.03	7	Median household gross rent	1.23	50
% of adults online		7.07	1			
A subindex combines one or					6.19	8
	chool	5.36	20	% of population without health insurance	3.94	41
more variables that explain certain social or economic		6.01 V	ariable:	s are the elements y unions	4.33	34
example, the security subindex is composed of other variables such as thefts, percentage change in crime, and murders committed in the metro area.	nts ent apita	5.08 C n 6.60 tl 5.00 5 5.20 d 5.34	onsider netro ar hat rank 0 are co lisadvar	ween 1 and 20 are red advantages to a ea, while variables between 30 and onsidered ntages.	6.66	4
High tech payroll as % of total payroll Finance and cost subindex		7.81	1	Finance and cost subindex		
		8.31	1		8.31	1
Bank deposits per capita		5.71	11	Cost of living	3.66	43
Venture capital as % of GMP		10.00	1	On a manage of the state of		
Openness subindex		6.99	3	Openness subindex	6.99	3
Exports per capita		7.50	2			
Air passengers per capita		5.19	16			
Domestic competition subindex		7.42	1	Domestic competition subindex	7.42	1
Net firm creation per 100,000 inhabitants		5.66	14			
New publicly traded companies		9.70	1			
Environmental policy subindex		5.48	14	Environmental policy subindex	5.48	14
Toxic release, pounds per capita		5.24	9	Electricity prices, \$ per mbtu	3.64	42
Pollution standards index		6.18	6			
Serious pollution days p.a.		5.85				

Metro Area Profiles



ATLANTA 5.39 12

Atlanta enjoys a relatively high overall ranking. The primary reasons are a strong fiscal climate and a competitive financial sector. The metro area also scores well for openness and domestic competition. On the negative side, however, Atlanta suffers from poor infrastructure, a high crime rate, and poor environmental policy.

Competitive Advantages	;		Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank	
Government and fiscal policy subindex	6.44	1	Government and fiscal policy subindex	6.44	1	
State bond rating	6.34	1				
Taxes as a % of current GSP	5.80	9				
Unemployment payments per unemployed worker	6.22	2				
Workers' compensation collections per employee	5.56	1				
Security subindex	4.28	40	Security subindex	4.28	40	
			Crime index change 1999-2000, %	4.21	40	
			Violent crimes per 100,000 inhabitants	4.84	35	
			Thefts per 100,000 inhabitants	4.72	30	
			Murders per 100,000 inhabitants	4.50	40	
Infrastructure subindex	3.19	50	Infrastructure subindex	3.19	50	
% of adults online	5.44	17	% of households with computers	4.20	42	
Mass transit availability	5.16	17	Median household gross rent	3.83	46	
,			Travel time to work	3.09	47	
Human resources subindex	4.59	31	Human resources subindex	4.59	31	
% of adults in the labor force	5.35	17	% of population without health insurance	4.82	31	
% of labor force represented by unions	5.88	12	Enrollment in degree-granting institutions per capita	3.15	50	
% of population that graduated from high school	5.38	18	High school finishers as % of 18-year olds	4.39	38	
Unemployment rate	5.65	16	Infant mortality rate, deaths per 1000 live births	4.73	32	
			Nonfederal physicians per 100,000 inhabitants	4.10	42	
Technology subindex	4.73	31	Technology subindex	4.73	31	
Academic R&D funding relative to employment	5.26	9	New patents issued per 100,000 inhabitants	4.64	30	
High-tech payroll as % of total payroll	5.86	9	NIH support to institutions per capita	4.37	39	
			Science & engineering grad. students per capita	3.96	44	
Finance and cost subindex	6.62	2	Finance and cost subindex	6.62	2	
Bank deposits per capita	5.17	19				
Cost of living	7.01	1				
Venture capital as % of GMP	4.95	12				
Openness subindex	6.37	4	Openness subindex	6.37	4	
Air passengers per capita	7.26	3				
Domestic competition subindex	6.68	3	Domestic competition subindex	6.68	3	
Net firm creation per 100,000 inhabitants	6.47	5				
Cognetics entrepreneurial hot spot index	6.90	3				
New publicly traded companies	5.26	8				
Environmental policy subindex	3.75	42	Environmental policy subindex	3.75	42	
	2.7		Pollution standards index	4.48	38	
			Serious pollution days p.a.	2.81	48	
			Toxic release, pounds per capita	5.15	30	

<u>Index</u> <u>Overall Rank</u>

6.39

Austin ranks 6 in the overall index. The metro area benefits from low taxes, low cost of living and a large number of newly issued patents. It also has a fairly large number of newly created firms. What Austin lacks is good environmental policy and a skilled labor force.

Competitive Advantages	;	Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex	6.30	4	Government and fiscal policy subindex	6.30	4
Taxes as a % of current GSP	6.60	3			İ
Workers' compensation collections per employee	5.56	8			İ
Bond rating: S&P's/Moody's composite	5.56	14			İ
State bond rating	5.13	20			İ
Unemployment payments per unemployed worker	5.82	10			
Security subindex	5.96	10	Security subindex	5.96	10
Murders per 100,000 inhabitants	5.86	9	Thefts per 100,000 inhabitants	4.59	31
Crime index change 1999-2000, %	5.90	7			İ
Violent crimes per 100,000 inhabitants	5.95	9			
Infrastructure subindex	5.41	14	Infrastructure subindex	5.41	14
% of adults online	6.98	2	% of households with computers	4.35	38
Mass transit availability	5.29	14	Median household gross rent	4.09	41
Human resources subindex	5.54	11	Human resources subindex	5.54	11
% of adults in the labor force	6.33	5	% of population without health insurance	3.10	47
% of labor force represented by unions	6.11	7	Enrollment in degree-granting institutions per capita	4.40	33
% of population born abroad	5.22	15	High school finishers as % of 18-year olds	3.94	45
% of population that graduated from high school	5.61	12	Nonfederal physicians per 100,000 inhabitants	3.96	45
nfant mortality rate, deaths per 1000 live births	6.84	2			
Unemployment rate	6.61	2			
Technology subindex	6.36	6	Technology subindex	6.36	6
Academic R&D funding relative to employment	5.93	4	NIH support to institutions per capita	4.59	31
High-tech payroll as % of total payroll	7.50	2	Scientists and engineers in the labor force	4.64	30
New patents issued per 100,000 inhabitants	8.21	2			
Finance and cost subindex	6.18	5	Finance and cost subindex	6.18	5
Cost of living	6.33	3	Bank deposits per capita	3.70	46
Venture capital as % of GMP	6.53	3			
Openness subindex	5.41	16	Openness subindex	5.41	16
Exports per capita	5.97	7			
Domestic competition subindex	6.38	8	Domestic competition subindex	6.38	8
Net firm creation per 100,000 inhabitants	5.86	12			
Cognetics entrepreneurial hot spot index	6.20	5			ĺ
New publicly traded companies	5.91	5			<u> </u>
vew publicly traded companies	2.07	48	Environmental policy subindex	3.27	48
Environmental policy subindex	3.27	-70			
Environmental policy subindex Electricity prices, \$ per mbtu	5.47	17	Serious pollution days p.a.	0.70	50
Environmental policy subindex			Serious pollution days p.a.		50

BOSTON Index Overall Rank
7.00 3

Boston is ranked 3 overall, primarily because of ranking number 1 in both the human resources and technology subindexes. The city's fiscal climate, closed economy and high cost of living are among its few disadvantages. A more favorable fiscal policy would further improve this city's already high rank.

Competitive Advantages			Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank	
Government and fiscal policy subindex	3.87	43	Government and fiscal policy subindex	3.87	43	
			Bond rating: S&P's/Moody's composite	4.92	30	
			State bond rating	4.43	39	
			Unemployment payments per unemployed worker	1.84	50	
Security subindex	6.60	2	Security subindex	6.60	2	
Crime index change 1999-2000, %	5.33	18				
Violent crimes per 100,000 inhabitants	5.54	15				
Thefts per 100,000 inhabitants	6.61	2				
Murders per 100,000 inhabitants	6.35	1				
Infrastructure subindex	5.28	17	Infrastructure subindex	5.28	17	
Mass transit availability	6.20	4	Median household gross rent	3.96	43	
% of households with computers	5.61	11	Travel time to work	4.16	41	
% of adults online	5.57	15				
Human resources subindex	7.52	1	Human resources subindex	7.52	1	
% of population born abroad	5.24	14				
% of population that graduated from high school	5.85	8				
% of population without health insurance	6.18	6				
Enrollment in degree-granting institutions per capita	6.57	4				
High school finishers as % of 18-year olds	5.73	11				
Infant mortality rate, deaths per 1000 live births	6.57	3				
Nonfederal physicians per 100,000 inhabitants	7.63	1				
Unemployment rate	6.23	6				
Technology subindex	8.43	1	Technology subindex	8.43	1	
Academic R&D funding relative to employment	6.47	2				
NIH support to institutions per capita	9.58	1				
New patents issued per 100,000 inhabitants	5.86	6				
Science & engineering grad. students per capita	8.59	1				
Scientists and engineers in the labor force	7.83	1				
High-tech payroll as % of total payroll	6.11	7				
Finance and cost subindex	5.90	10	Finance and cost subindex	5.90	10	
Bank deposits per capita	6.72	4	Cost of living	3.27	50	
Venture capital as % of GMP	6.19	4				
Openness subindex	4.69	28	Openness subindex	4.69	28	
Exports per capita	5.10	18	Air passengers per capita	4.48	31	
Domestic competition subindex Net firm creation per 100,000 inhabitants	6.04	10	Domestic competition subindex	6.04	10	
New publicly traded companies	6.67 6.01	2 4	Cognetics entrepreneurial hot spot index	4.56	35	
Environmental policy subindex	5.05	25	Environmental policy subindex	5.05	25	
Pollution standards index	5.92	8	Electricity prices, \$ per mbtu	3.26	46	
Serious pollution days p.a.	5.71	15				
Toxic release, pounds per capita	5.23	14				

Buffalo ranks 49 of the 50 metro areas. It ranks poorly in almost all the subindexes, ranking last with regard to government policy and domestic competition. Its only strengths are its large number of scientists and engineers and its low crime rate.

Subindex/Variable Government and fiscal policy subindex	Index	Rank	Subindex/Variable		
Government and fiscal policy subindex			Subilities/ valiable	Index	Rank
	2.60	50	Government and fiscal policy subindex	2.60	50
			Taxes as a % of current GSP	2.60	49
			Workers' compensation collections per employee	4.43	43
			Bond rating: S&P's/Moody's composite	2.80	49
			State bond rating	3.51	44
			Unemployment payments per unemployed worker	4.92	33
Security subindex	6.33	4	Security subindex	6.33	4
Crime index change 1999-2000, %	6.28	5			ł
Violent crimes per 100,000 inhabitants	5.47	18			ł
Thefts per 100,000 inhabitants	5.69	14			ł
Murders per 100,000 inhabitants	5.76	13			
Infrastructure subindex	5.41	15	Infrastructure subindex	5.41	15
Median household gross rent	6.32	4	Mass transit availability	4.40	37
Travel time to work	6.45	3	% of households with computers	4.50	35
			% of adults online	4.07	43
Human resources subindex	4.10	44	Human resources subindex	4.10	44
Enrollment in degree-granting institutions per capita	5.28	18	% of adults in the labor force	4.14	40
High school finishers as % of 18-year olds	5.26	18	% of labor force represented by unions	2.79	49
Nonfederal physicians per 100,000 inhabitants	7.36	2	% of population born abroad	4.22	44
			% of population without health insurance	4.67 2.63	32
Technology subindex	5.42	12	Technology subindex	5.42	12
Academic R&D funding relative to employment	5.13	11	High-tech payroll as % of total payroll	4.02	44
NIH support to institutions per capita	5.67	7			ł
Science & engineering grad. students per capita	6.21	4			ł
Scientists and engineers in the labor force	5.98	8			
Finance and cost subindex	3.89	43	Finance and cost subindex	3.89	43
Bank deposits per capita	5.55	12	Cost of living	3.39	45
			Venture capital as % of GMP	4.57	38
Openness subindex	4.07	42	Openness subindex	4.07	42
			Exports per capita	4.59	30
Domostic competition subjector			Air passengers per capita	4.15	43
Domestic competition subindex	2.89	50	Domestic competition subindex	2.89	50
			Net firm creation per 100,000 inhabitants	3.27	50
			Cognetics entrepreneurial hot spot index	2.83	50
Environmental nation autimates	4.54		New publicly traded companies	4.36	43
Environmental policy subindex	4.51	39	Environmental policy subindex	4.51	39
Pollution standards index Serious pollution days p.a.	5.55 5.69	18	Electricity prices, \$ per mbtu Toxic release, pounds per capita	2.84 5.08	47
	5.09	16	Toxio release, pourius per capita	5.00	39

CHARLOTTE

A strong fiscal climate and robust financial sector pushes Charlotte to an overall ranking of 19. Its openness to trade and congenial domestic environment for new businesses also add to its strength. However, its weaknesses lie in its poor infrastructure and high crime rate.

Competitive Advanta	ges		Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank	
Government and fiscal policy subindex	6.20	7	Government and fiscal policy subindex	6.20	7	
Bond rating: S&P's/Moody's composite	6.19	1	Unemployment payments per unemployed worker	5.06	31	
State bond rating	5.98	9				
Taxes as a % of current GSP	5.60	16				
Security subindex	3.57	47	Security subindex	3.57	47	
			Crime index change 1999-2000, %	3.91	43	
			Violent crimes per 100,000 inhabitants	3.88	44	
			Thefts per 100,000 inhabitants	4.17	40	
			Murders per 100,000 inhabitants	4.60	36	
Infrastructure subindex	3.25	49	Infrastructure subindex	3.25	49	
			Mass transit availability	3.92	48	
			% of households with computers	3.81	47	
			% of adults online Travel time to work	4.19	40	
			Travel time to work	4.82	33	
Human resources subindex	4.65	29	Human resources subindex	4.65	29	
% of adults in the labor force	5.24	20	% of population born abroad	4.51	30	
6 of labor force represented by unions	6.47	3	% of population that graduated from high school	4.39	39	
			High school finishers as % of 18-year olds	4.66	31	
			Infant mortality rate, deaths per 1000 live births	4.20	40	
			Nonfederal physicians per 100,000 inhabitants Unemployment rate	4.59 4.69	35 32	
Technology subindex	4.95	24	Technology subindex	4.95	24	
High-tech payroll as % of total payroll	5.09	18	Academic R&D funding relative to employment	4.20	47	
NIH support to institutions per capita	5.42	15	New patents issued per 100,000 inhabitants	4.36	36	
Scientists and engineers in the labor force	6.15	6	Science & engineering grad. students per capita	4.54	36	
Finance and cost subindex	6.12	7	Finance and cost subindex	6.12	7	
Bank deposits per capita	5.77	10	Venture capital as % of GMP	4.59	33	
Cost of living	6.11	6				
Openness subindex	5.79	11	Openness subindex	5.79	11	
Air passengers per capita	6.49	5	Exports per capita	4.58	31	
Domestic competition subindex	5.90	11	Domestic competition subindex	5.90	11	
Net firm creation per 100,000 inhabitants	6.34	6	New publicly traded companies	4.51	37	
Cognetics entrepreneurial hot spot index	6.09	7				
Environmental policy subindex	4.92	30	Environmental policy subindex	4.92	30	
			Serious pollution days p.a.	4.56	37	
		l	Toxic release, pounds per capita	5.09	38	



CHICAGO

<u>Index</u> <u>Overall Rank</u>

4.77 29

Despite Chicago's size, its overall competitiveness ranking is below average, at 29 out of 50. Chicago suffers from poor infrastructural facilities, a high crime rate and unemployment. Its main strengths lie in its sizeable population of science and engineering graduate students and substantial amount of bank deposits per capita.

Competitive Advantages			Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank	
Government and fiscal policy subindex	4.88	28	Government and fiscal policy subindex	4.88	28	
Taxes as a % of current GSP	5.24	20	Bond rating: S&P's/Moody's composite	4.49	39	
Workers' compensation collections per employee	5.55	20	State bond rating	4.77	32	
			Unemployment payments per unemployed worker	4.60	37	
Security subindex	4.95	28	Security subindex	4.95	28	
Thefts per 100,000 inhabitants	6.83	1	Murders per 100,000 inhabitants	4.42	44	
			Crime index change 1999-2000, %	3.67	48	
			Violent crimes per 100,000 inhabitants	4.96	33	
Infrastructure subindex	4.48	37	Infrastructure subindex	4.48	37	
% of adults online	5.39	19	Median household gross rent	4.74	32	
Mass transit availability	6.12	5	Travel time to work	3.02	48	
Human resources subindex	4.35	38	Human resources subindex	4.35	38	
% of population born abroad	5.71	9	% of labor force represented by unions	4.15	42	
Enrollment in degree-granting institutions per capita	5.77	11	% of population that graduated from high school	4.57	38	
Nonfederal physicians per 100,000 inhabitants	5.07	20	Infant mortality rate, deaths per 1000 live births	3.94	45	
Technology subindex	4.91	25	Technology subindex	4.91	25	
Science & engineering grad. students per capita	5.83	8	NIH support to institutions per capita	4.61	30	
Finance and cost subindex	5.02	26	Finance and cost subindex	5.02	26	
Bank deposits per capita	5.88	9	Cost of living	4.39	38	
Openness subindex	5.10	22	Openness subindex	5.10	22	
Air passengers per capita	5.21	14				
Domestic competition subindex	4.99	21	Domestic competition subindex	4.99	21	
New publicly traded companies	4.94	17				
Environmental policy subindex Serious pollution days p.a.	5.39	18	Environmental policy subindex Electricity prices, \$ per mbtu	5.39	18	

<u>Index</u> <u>Overall Rank</u>
5.13 18

CINCINNATI

Low crime, high level of openness to trade and a favorable environmental policy push Cincinnati's ranking up to 18. This metro area could benefit from improvements in its human resource, domestic competition and technology sectors.

Competitive Advantages	;		Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank	
Government and fiscal policy subindex	4.67	30	Government and fiscal policy subindex	4.67	30	
Bond rating: S&P's/Moody's composite	5.77	11	Workers' compensation collections per employee	2.53	47	
State bond rating	5.42	19				
Unemployment payments per unemployed worker	5.42	20				
Security subindex	6.25	6	Security subindex	6.25	6	
Murders per 100,000 inhabitants	6.05	5				
Thefts per 100,000 inhabitants	5.60	17				
Violent crimes per 100,000 inhabitants	6.37	3				
Infrastructure subindex	4.98	24	Infrastructure subindex	4.98	24	
Median household gross rent	6.26	5	Mass transit availability	4.71	30	
Travel time to work	5.38	20	% of households with computers	4.56	33	
			% of adults online	4.05	44	
Human resources subindex	4.25	42	Human resources subindex	4.25	42	
% of adults in the labor force	5.55	15	% of labor force represented by unions	4.33	33	
% of population without health insurance	5.66	16	% of population born abroad	3.98	50	
			% of population that graduated from high school	4.98	32	
			Enrollment in degree-granting institutions per capita	4.26	40	
			High school finishers as % of 18-year olds	4.43	37	
			Infant mortality rate, deaths per 1000 live births	4.20	40	
			Nonfederal physicians per 100,000 inhabitants	4.65	31	
Technology subindex	4.67	32	Technology subindex	4.67	32	
Academic R&D funding relative to employment	5.00	15	High-tech payroll as % of total payroll	4.57	32	
New patents issued per 100,000 inhabitants	5.34	8	NIH support to institutions per capita	4.57	36	
			Science & engineering grad. students per capita	4.78	31	
			Scientists and engineers in the labor force	4.31	39	
Finance and cost subindex	5.03	25	Finance and cost subindex	5.03	25	
			Venture capital as % of GMP	4.58	35	
Openness subindex	5.89	8	Openness subindex	5.89	8	
Exports per capita	5.51	12				
Air passengers per capita	5.70	11				
Domestic competition subindex	4.43	35	Domestic competition subindex	4.43	35	
			Net firm creation per 100,000 inhabitants	4.15	40	
Environmental policy subindex	5.40	17	Environmental policy subindex	5.40	17	
Electricity prices, \$ per mbtu	5.48	15	Toxic release, pounds per capita	5.10	36	

2

Ranking 40 overall, Cleveland has many competitive disadvantages: bad fiscal policy, weak high-tech sector, low rate of firm growth and poor environmental policy. Among this metro area's few bright spots are affordable housing, high school completion and low crime rates.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Ran		
Government and fiscal policy subindex	4.01	42	Government and fiscal policy subindex	4.01	42		
State bond rating	5.53	14	Workers' compensation collections per employee	1.85	49		
			Bond rating: S&P's/Moody's composite	4.54	38		
Security subindex	5.63	14	Security subindex	5.63	14		
Murders per 100,000 inhabitants	5.73	14	Crime index change 1999-2000, %	4.02	42		
Thefts per 100,000 inhabitants	5.82	12					
Violent crimes per 100,000 inhabitants	5.95	10					
Infrastructure subindex	5.23	19	Infrastructure subindex	5.23	19		
Mass transit availability	5.14	18	% of adults online	4.28	38		
Median household gross rent	5.85	10	% of households with computers	4.66	30		
Travel time to work	5.50	17					
Human resources subindex	4.46	35	Human resources subindex	4.46	35		
% of population without health insurance	5.74	12	% of labor force represented by unions	4.15	43		
High school finishers as % of 18-year olds	7.07	2	% of population born abroad	4.24	40		
			Enrollment in degree-granting institutions per capita	4.30	37		
			Infant mortality rate, deaths per 1000 live births	3.68	49		
			Unemployment rate	3.67	45		
Technology subindex	4.49	36	Technology subindex	4.49	36		
			Academic R&D funding relative to employment	4.60	34		
			High-tech payroll as % of total payroll	4.20	39		
			Scientists and engineers in the labor force	4.45	35		
Finance and cost subindex	4.56	37	Finance and cost subindex	4.56	37		
			Venture capital as % of GMP	4.53	41		
Openness subindex	4.56	31	Openness subindex	4.56	31		
Exports per capita	5.08	19	Air passengers per capita	4.33	37		
Domestic competition subindex	3.97	46	Domestic competition subindex	3.97	46		
			Net firm creation per 100,000 inhabitants	4.17	39		
			Cognetics entrepreneurial hot spot index	4.17	41		
.			New publicly traded companies	4.44	42		
Environmental policy subindex	4.81	33	Environmental policy subindex	4.81	33		
			Pollution standards index	4.33	39		
			Serious pollution days p.a.	5.00	31		
			Toxic release, pounds per capita	5.14	32		

<u>Index</u> <u>Overall Rank</u>

COLUMBUS 4.67 31

Columbus scores poorly in many areas. Fiscal policy, openness and security subindexes are among its weaknesses. Among the few competitive advantages for the Columbus metro area are bond rating and high school completion rate. These mixed showings result in a rank of 31 overall.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank		
Government and fiscal policy subindex	4.59	33	Government and fiscal policy subindex	4.59	33		
Bond rating: S&P's/Moody's composite State bond rating	6.19 5.53	1 14	Workers' compensation collections per employee	1.85	49		
Security subindex	4.99	26	Security subindex	4.99	26		
Crime index change 1999-2000, %	5.51	12	Thefts per 100,000 inhabitants	3.81	45		
Infrastructure subindex	5.08	21	Infrastructure subindex	5.08	21		
Median household gross rent	5.46	17	Mass transit availability	4.41	36		
Travel time to work	5.78	11	% of households with computers	4.66	30		
Human resources subindex	5.30	17	Human resources subindex	5.30	17		
% of adults in the labor force	5.85	9	% of labor force represented by unions	4.15	43		
% of population that graduated from high school	5.89	7	% of population born abroad	4.25	39		
% of population without health insurance	5.74	12	Enrollment in degree-granting institutions per capita	4.30	37		
High school finishers as % of 18-year olds	5.14	19					
Technology subindex	4.87	27	Technology subindex	4.87	27		
Academic R&D funding relative to employment	5.40	7	New patents issued per 100,000 inhabitants	4.51	33		
High-tech payroll as % of total payroll	5.43	12	Scientists and engineers in the labor force	4.45	35		
Finance and cost subindex	4.79	31	Finance and cost subindex	4.79	31		
Bank deposits per capita	5.23	18	Venture capital as % of GMP	4.53	41		
Openness subindex	3.94	44	Openness subindex	3.94	44		
			Exports per capita	4.22	40		
			Air passengers per capita	4.34	35		
Domestic competition subindex	4.74	26	Domestic competition subindex	4.74	26		
Cognetics entrepreneurial hot spot index	5.40	15	New publicly traded companies	4.51	38		
Environmental policy subindex	5.33	21	Environmental policy subindex	5.33	21		
Pollution standards index	5.92	9	Serious pollution days p.a.	4.28	41		

<u>Index</u>

Overall Rank

4.82 26

Dallas scores low in the security, finance and environmental subindexes. There is also some weakness in the human resources subindex. Low taxation, available internet access and weak unionization are strong competitive advantages for the Dallas metro area.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index	ndex Rank Subindex/Variable		Index	Rank		
Government and fiscal policy subindex	6.20	8	Government and fiscal policy subindex	6.20	8		
Taxes as a % of current GSP	6.60	3					
Workers' compensation collections per employee	5.56	8					
Bond rating: S&P's/Moody's composite	5.92	10					
State bond rating	5.13	20					
Security subindex	4.58	37	Security subindex	4.58	37		
			Violent crimes per 100,000 inhabitants	4.81	36		
			Thefts per 100,000 inhabitants	4.53	32		
			Murders per 100,000 inhabitants	4.64	35		
Infrastructure subindex	4.62	32	Infrastructure subindex	4.62	32		
% of adults online	6.11	6	% of households with computers	4.35	38		
		_	Median household gross rent	4.78	31		
			Travel time to work	4.31	40		
				1.01	10		
Human resources subindex	4.80	27	Human resources subindex	4.80	27		
% of adults in the labor force	5.77	11	% of population that graduated from high school	4.24	40		
% of labor force represented by unions	6.11	7	% of population without health insurance	3.10	47		
% of population born abroad	5.58	10	Enrollment in degree-granting institutions per capita	4.40	33		
Infant mortality rate, deaths per 1000 live births	5.85	9	Nonfederal physicians per 100,000 inhabitants	3.96	45		
Unemployment rate	5.52	18					
Technology subindex	4.88	26	Technology subindex	4.88	26		
High-tech payroll as % of total payroll	5.93	8	Academic R&D funding relative to employment	4.46	39		
New patents issued per 100,000 inhabitants	5.04	14	NIH support to institutions per capita	4.59	31		
			Scientists and engineers in the labor force	4.64	30		
Finance and cost subindex	4.88	28	Finance and cost subindex	4.88	28		
Cost of living	5.43	20					
Openness subindex	5.57	13	Openness subindex	5.57	13		
Air passengers per capita	5.87	8					
Domestic competition subindex	5.03	19	Domestic competition subindex	5.03	19		
Cognetics entrepreneurial hot spot index	5.56	12					
New publicly traded companies	4.90	20					
Environmental policy subindex	3.68	44	Environmental policy subindex	3.68	44		
Electricity prices, \$ per mbtu	5.47	17	Pollution standards index	4.17	42		
Toxic release, pounds per capita	5.23	11	Serious pollution days p.a.	2.78	49		

<u>Index</u> <u>Overall Rank</u>

DENVER 6.96 4

Sound fiscal policy, good infrastructure, high-quality human resources and a strong technology sector place Denver near the top, at 4 in the overall ranking. The finance and cost subindex is the metro area's biggest competitive disadvantage.

Competitive Advantages			Competitive Disadvantages			
Subindex/Variable		Rank	Subindex/Variable	Index	Ran	
Government and fiscal policy subindex	6.11	9	Government and fiscal policy subindex	6.11	9	
Taxes as a % of current GSP	5.62	15				
Workers' compensation collections per employee	5.56	1				
Bond rating: S&P's/Moody's composite	5.56	14				
State bond rating	5.53	14				
Unemployment payments per unemployed worker	5.85	9				
Security subindex	6.24	7	Security subindex	6.24	7	
Crime index change 1999-2000, %	5.51	13				
Violent crimes per 100,000 inhabitants	6.13	5				
Thefts per 100,000 inhabitants	5.40	20				
Murders per 100,000 inhabitants	5.92	8				
Infrastructure subindex	6.85	4	Infrastructure subindex	6.85	4	
Mass transit availability	5.90	6	Median household gross rent	4.22	40	
% of households with computers	7.19	2				
% of adults online	6.02	7				
Human resources subindex	6.31	6	Human resources subindex	6.31	6	
% of adults in the labor force	5.33	18	High school finishers as % of 18-year olds	4.64	32	
% of population born abroad	5.03	20				
% of population that graduated from high school	6.13	5				
Enrollment in degree-granting institutions per capita	6.40	5				
nfant mortality rate, deaths per 1000 live births	5.78	10				
Unemployment rate	6.31	5				
Technology subindex	6.31	7	Technology subindex	6.31	7	
High-tech payroll as % of total payroll	7.29	3				
New patents issued per 100,000 inhabitants	5.30	9				
Science & engineering grad. students per capita	6.21	6				
Scientists and engineers in the labor force	6.83	3				
Finance and cost subindex	4.71	35	Finance and cost subindex	4.71	35	
Venture capital as % of GMP	5.82	6	Bank deposits per capita Cost of living	4.32 4.46	38 37	
Openness subindex	5.21	19	Openness subindex	5.21	19	
Air passengers per capita	6.28	7	Exports per capita	4.00	45	
Domestic competition subindex	6.05	9	Domestic competition subindex	6.05	9	
Net firm creation per 100,000 inhabitants	6.23	7				
Cognetics entrepreneurial hot spot index	5.45	14				
New publicly traded companies	5.59	6				
Environmental policy subindex	5.42	15	Environmental policy subindex	5.42	15	
Electricity prices, \$ per mbtu	5.55	14	Pollution standards index	4.13	44	
Serious pollution days p.a.	5.88	5				
Toxic release, pounds per capita	5.23	10	T .	1	l	

DETROIT

<u>Index</u> <u>Overall Rank</u>

4.44 36

Detroit's low overall rank of 36 suggests many problems. Among those are weak fiscal policy, high level of crime, lacking financial sector and poor human resources. Exports and state bond rating are among the few strong points of this metro area.

Competitive Advantages			Competitive Disadvantages				
Index	Rank	Subindex/Variable	Index	Rank			
4.40	35	Government and fiscal policy subindex	4.40	35			
6.34	1	Taxes as a % of current GSP	3.93	43			
		, ,	3.43	46			
		Unemployment payments per unemployed worker	4.09	44			
3.97	41	Security subindex	3.97	41			
5.65	15	Crime index change 1999-2000, %	3.71	46			
		Violent crimes per 100,000 inhabitants	4.27	40			
		Murders per 100,000 inhabitants	3.90	47			
4.59	34	Infrastructure subindex	4.59	34			
5.04	19	3	4.53	32			
5.45	18		4.50	37			
		Travel time to work	4.73	35			
4.57	32	Human resources subindex	4.57	32			
5.32	19	% of labor force represented by unions	3.60	46			
5.99	8	Infant mortality rate, deaths per 1000 live births	4.07	43			
5.36	16	Nonfederal physicians per 100,000 inhabitants	4.55	37			
4.97	21	Technology subindex	4.97	21			
5.27	10						
5.41	13						
4.16	40	Finance and cost subindex	4.16	40			
		Bank deposits per capita	4.50	34			
		· ·	4.85	30			
			4.53	41			
6.10	7	Openness subindex	6.10	7			
6.76	3						
4.15	43	Domestic competition subindex	4.15	43			
		Net firm creation per 100,000 inhabitants Cognetics entrepreneurial hot spot index	4.18	38			
		L COOLEGES EDITEDIEDEURIAL NOT SOOT INCEY	4.54	37			
				4.4			
F 70	11	New publicly traded companies	4.45	41			
5.72	11	New publicly traded companies Environmental policy subindex	4.45 5.72	11			
5.72 5.90 5.59	11 10 17	New publicly traded companies	4.45				
	### ### ##############################	Index Rank 4.40 35 6.34 1 3.97 41 5.65 15 4.59 34 5.04 19 5.45 18 4.57 32 5.32 19 5.99 8 5.36 16 4.97 21 5.27 10 5.41 13 4.16 40 6.10 7 6.76 3	Index Rank Subindex/Variable	Index			

GRAND RAPIDS

Good infrastructure and human resources and a low crime level place Grand Rapids at 14 in the overall ranking. Improvements in the technology sector, lower taxes and greater entrepreneurial activity would help this metro area further improve its rank.

Competitive Advantages			Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Ran	
Government and fiscal policy subindex	5.35	21	Government and fiscal policy subindex	5.35	21	
Bond rating: S&P's/Moody's composite	5.98	8	Taxes as a % of current GSP	3.93	43	
State bond rating	6.34	1	Unemployment payments per unemployed worker	4.22	42	
Security subindex	5.99	9	Security subindex	5.99	9	
Violent crimes per 100,000 inhabitants	5.70	11				
Thefts per 100,000 inhabitants	5.46	19				
Murders per 100,000 inhabitants	6.21	3				
Infrastructure subindex	5.73	10	Infrastructure subindex	5.73	10	
% of households with computers	5.04	19	Mass transit availability	4.00	47	
Travel time to work	6.71	1	% of adults online	4.75	31	
Median household gross rent	5.83	11				
Human resources subindex	5.51	12	Human resources subindex	5.51	12	
% of population without health insurance	5.99	8	% of labor force represented by unions	3.60	46	
% of population that graduated from high school	5.54	14	% of population born abroad	4.31	36	
Enrollment in degree-granting institutions per capita % of adults in the labor force	5.36	16	Nonfederal physicians per 100,000 inhabitants	4.55	37	
Technology subindex	4.50	35	Technology subindex	4.50	35	
Science & engineering grad. students per capita	5.41	13	Academic R&D funding relative to employment	4.20	47	
	0		High-tech payroll as % of total payroll	3.72	48	
Finance and cost subindex	5.31	16	Finance and cost subindex	5.31	16	
Cost of living	5.60	17				
Venture capital as % of GMP	5.03	9				
Openness subindex	4.30	37	Openness subindex	4.30	37	
Exports per capita	5.26	16	Air passengers per capita	3.79	50	
Domestic competition subindex	4.28	41	Domestic competition subindex	4.28	41	
			Net firm creation per 100,000 inhabitants	4.51	31	
			Cognetics entrepreneurial hot spot index	4.60	34	
			New publicly traded companies	4.36	43	
Environmental policy subindex	5.40	16	Environmental policy subindex	5.40	16	
Pollution standards index	6.89	1	Electricity prices, \$ per mbtu	4.75	37	
			Toxic release, pounds per capita	5.05	41	
			Serious pollution days p.a.	4.07	45	



GREENSBORO

Index Overall Rank
5.03 20

Greensboro ranks first place for workers' compensation collections and union representation. Other advantages are low taxes and a good technology sector. The metro area scores low for human resources and infrastructure. Most notably, lack of mass transit hurts the area.

Competitive Advantages			Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank	
Government and fiscal policy subindex	5.95	13	Government and fiscal policy subindex	5.95	13	
Taxes as a % of current GSP	5.64	11	Unemployment payments per unemployed worker	4.77	35	
Workers' compensation collections per employee	5.56	1				
Bond rating: S&P's/Moody's composite	5.77	11				
State bond rating	5.94	11				
Security subindex	4.83	29	Security subindex	4.83	29	
,			Thefts per 100,000 inhabitants	4.51	33	
Infrastructure subindex	4.60	33	Infrastructure subindex	4.60	33	
Travel time to work	6.10	7	Mass transit availability	3.74	50	
Median household gross rent	5.95	9	% of households with computers	3.74	45	
median received greec rolls	3.93	9	% of adults online	4.63	34	
Human resources subindex	4.16	43	Human resources subindex	4.16	43	
% of labor force represented by unions	6.49	1	High school finishers as % of 18-year olds	3.62	47	
			% of population that graduated from high school	3.86	44	
			% of population born abroad	4.39	31	
			Infant mortality rate, deaths per 1000 live births	3.81	47	
			Nonfederal physicians per 100,000 inhabitants	4.63	32	
Technology subindex	5.17	16	Technology subindex	5.17	16	
Academic R&D funding relative to employment	5.40	7	New patents issued per 100,000 inhabitants	4.38	35	
NIH support to institutions per capita	5.59	9	Science & engineering grad. students per capita	4.69	33	
Scientists and engineers in the labor force	6.37	4	High-tech payroll as % of total payroll	4.25	38	
Finance and cost subindex	6.13	6	Finance and cost subindex	6.13	6	
Bank deposits per capita	5.89	8	Venture capital as % of GMP	4.48	49	
Cost of living	6.11	6				
Openness subindex	4.71	27	Openness subindex	4.71	27	
Exports per capita	5.59	11	Air passengers per capita	4.01	46	
Domestic competition subindex	4.61	27	Domestic competition subindex	4.61	27	
			Cognetics entrepreneurial hot spot index	4.49	38	
Environmental policy subindex	4.97	28	Environmental policy subindex	4.97	28	
	1		Toxic release, pounds per capita	5.10	37	
	1	l	Serious pollution days p.a.	4.40	40	

Index Overall Rank
5.32 15

HARTFORD

Hartford shows a strong performance in security, human resources and infrastructure. It ranks first for its high school completion and unemployment rates. What keeps Hartford from ranking higher are its fiscal and environmental policies, as well as its performance on the domestic competition subindex.

Competitive Advantages			Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank	
Government and fiscal policy subindex	3.32	47	Government and fiscal policy subindex	3.32	47	
			Taxes as a % of current GSP	3.78	45	
			Workers' compensation collections per employee	5.28	33	
			Bond rating: S&P's/Moody's composite	4.49	39	
			State bond rating	4.73	33	
			Unemployment payments per unemployed worker	2.02	49	
Security subindex	6.74	1	Security subindex	6.74	1	
Crime index change 1999-2000, %	5.56	11				
Violent crimes per 100,000 inhabitants	6.42	2				
Thefts per 100,000 inhabitants	6.02	7				
Murders per 100,000 inhabitants	6.17	4			_	
Infrastructure subindex	6.20	5	Infrastructure subindex	6.20	5	
% of households with computers Travel time to work	6.76	5				
Traver time to work	5.84	10				
Human resources subindex	6.39	4	Human resources subindex	6.39	4	
% of population without health insurance	6.49	4	Enrollment in degree-granting institutions per capita	4.18	41	
High school finishers as % of 18-year olds	7.50	1	% of adults in the labor force	4.68	32	
Unemployment rate	6.67	1	Infant mortality rate, deaths per 1000 live births	4.20	40	
Nonfederal physicians per 100,000 inhabitants	6.94	5				
Technology subindex	5.94	8	Technology subindex	5.94	8	
NIH support to institutions per capita	6.22	4				
New patents issued per 100,000 inhabitants	5.18	12				
Science & engineering grad. students per capita	6.39	3				
Scientists and engineers in the labor force	5.86	10				
High-tech payroll as % of total payroll	5.43	11				
Finance and cost subindex	5.11	19	Finance and cost subindex	5.11	19	
Bank deposits per capita	7.19	2	Cost of living	3.27	48	
Openness subindex	5.06	23	Openness subindex	5.06	23	
Exports per capita	5.43	13				
Domestic competition subindex	3.32	49	Domestic competition subindex	3.32	49	
			Net firm creation per 100,000 inhabitants	3.86	47	
			Cognetics entrepreneurial hot spot index	2.88	48	
		1	New publicly traded companies	4.63	31	
Environmental policy subindex	4.24	40	Environmental policy subindex	4.24	40	
Environmental policy subindex Toxic release, pounds per capita Pollution standards index	4.24 5.23 5.59	40 15	Environmental policy subindex Electricity prices, \$ per mbtu Serious pollution days p.a.	4.24 2.83 5.02	40 50	

HOUSTON

<u>Index</u> <u>Overall Rank</u>

4.80 28

Houston ranks 2 for its cost of living and 3 for its level of taxation. Economic openness and overall government policy are Houston's strongest competitive advantages. Human resources and environmental policy stand out as weak spots for this metro area, bringing its rank just below the middle of the pack.

Competitive Advantages			Competitive Disadvantages			
Subindex/Variable		Index Rank Subindex/Variable		Index	Rank	
Government and fiscal policy subindex	6.04	11	Government and fiscal policy subindex	6.04	11	
Taxes as a % of current GSP	6.60	3	Bond rating: S&P's/Moody's composite	4.92	30	
Workers' compensation collections per employee	5.56	8				
State bond rating	5.13	20				
Unemployment payments per unemployed worker	5.71	13				
Security subindex	4.74	31	Security subindex	4.74	31	
Crime index change 1999-2000, %	5.24	19	Violent crimes per 100,000 inhabitants	4.34	39	
			Murders per 100,000 inhabitants	4.69	33	
Infrastructure subindex	4.71	30	Infrastructure subindex	4.71	30	
Mass transit availability	5.01	20	% of households with computers	4.35	38	
% of adults online	5.99	8	Travel time to work	3.80	44	
Median household gross rent	5.33	20				
Human resources subindex	4.05	45	Human resources subindex	4.05	45	
High school finishers as % of 18-year olds	5.33	17	% of population without health insurance	3.10	47	
% of population born abroad	6.11	6	% of population that graduated from high school	3.24	47	
% of labor force represented by unions	6.11	7	Unemployment rate	4.67	34	
			Enrollment in degree-granting institutions per capita	4.40	33	
			% of adults in the labor force	4.34	37	
Technology subindex	4.77	30	Technology subindex	4.77	30	
Academic R&D funding relative to employment	5.00	15	NIH support to institutions per capita	4.59	31	
New patents issued per 100,000 inhabitants	5.00	18	Scientists and engineers in the labor force	4.64	30	
High-tech payroll as % of total payroll	4.96	20				
Finance and cost subindex	5.46	15	Finance and cost subindex	5.46	15	
Cost of living	6.63	2	Bank deposits per capita	4.34	36	
			Venture capital as % of GMP	4.63	32	
Openness subindex	5.83	10	Openness subindex	5.83	10	
Exports per capita	5.92	8				
Air passengers per capita	5.20	15				
Domestic competition subindex	5.01	20	Domestic competition subindex	5.01	20	
New publicly traded companies	4.96	15				
Environmental policy subindex	3.56	45	Environmental policy subindex	3.56	45	
Electricity prices, \$ per mbtu	5.47	17	Toxic release, pounds per capita	4.96	45	
			Pollution standards index	2.98	48	
			Serious pollution days p.a.	4.05	46	

Index Overall Rank
5.27 17

INDIANAPOLIS

Indianapolis ranks high for government and environmental policies. The metro area benefits from a sound bond rating, low unemployment rate and workers' compensation cost. Low rankings on the technology and finance subindexes represent serious disadvantages.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank		
Government and fiscal policy subindex	6.06	10	Government and fiscal policy subindex	6.06	10		
Taxes as a % of current GSP	5.36	18					
Workers' compensation collections per employee	5.56	1					
Bond rating: S&P's/Moody's composite	6.19	1					
State bond rating	5.53	14					
Security subindex	5.16	23	Security subindex	5.16	23		
Thefts per 100,000 inhabitants	5.96	9	Crime index change 1999-2000, %	4.64	32		
			Murders per 100,000 inhabitants	4.57	37		
Infrastructure subindex	4.91	25	Infrastructure subindex	4.91	25		
Travel time to work	5.58	14	Mass transit availability	4.15	44		
Median household gross rent	5.56	14	% of households with computers	4.52	34		
y	0.00		, , , , , , , , , , , , , , , , , , , ,	1.02	01		
Human resources subindex	5.09	24	Human resources subindex	5.09	24		
% of population without health insurance	5.44	18	% of population born abroad	4.09	45		
High school finishers as % of 18-year olds	5.72	13	Infant mortality rate, deaths per 1000 live births	4.73	32		
% of population that graduated from high school	5.38	19	Nonfederal physicians per 100,000 inhabitants	3.98	44		
Unemployment rate	6.18	7	· · · · · · · · · · · · · · · · · · ·	0.50			
% of adults in the labor force	5.44	16					
Technology subindex	4.27	40	Technology subindex	4.27	40		
			Academic R&D funding relative to employment	4.20	47		
			NIH support to institutions per capita	4.21	40		
			Science & engineering grad. students per capita	4.60	35		
			Scientists and engineers in the labor force	4.37	38		
			High-tech payroll as % of total payroll	4.61	31		
Finance and cost subindex	4.60	36	Finance and cost subindex	4.60	36		
			Venture capital as % of GMP	4.49	48		
Openness subindex	4.85	25	Openness subindex	4.85	25		
Exports per capita	5.42	14	Air passengers per capita	4.38	33		
Domestic competition subindex	4.87	23	Domestic competition subindex	4.87	23		
Cognetics entrepreneurial hot spot index	5.88	8	Net firm creation per 100,000 inhabitants	4.33	36		
			New publicly traded companies	4.52	36		
Environmental policy subindex	6.30	5	Environmental policy subindex	6.30	5		
Electricity prices, \$ per mbtu	6.00	5	Toxic release, pounds per capita	5.14	31		
Pollution standards index	5.88	12					

JACKSONVILLE

Index Overall Rank
3.98 46

Jacksonville scores very poorly for its security, technology and openness subindexes. Infrastructure, human resources and finance are also disadvantages. Few pollution days, a strong entrepreneurial base and low unemployment payments are the few bright spots in this metro area's report.

Competitive Advantages			Competitive Disadvantages			
Subindex/Variable	Index Rank		Subindex/Variable	Index	Rani	
Government and fiscal policy subindex	5.50	18	Government and fiscal policy subindex	5.50	18	
Workers' compensation collections per employee	5.56	12	Taxes as a % of current GSP	4.53	37	
Bond rating: S&P's/Moody's composite	5.34	19				
State bond rating	5.13	20				
Unemployment payments per unemployed worker	5.86	8				
Security subindex	3.59	46	Security subindex	3.59	46	
Crime index change 1999-2000, %	5.42	17	Violent crimes per 100,000 inhabitants	2.95	47	
			Thefts per 100,000 inhabitants	4.07	42	
			Murders per 100,000 inhabitants	4.18	45	
Infrastructure subindex	4.52	36	Infrastructure subindex	4.52	36	
			Mass transit availability	4.37	39	
			Travel time to work	4.67	36	
Human resources subindex	4.33	39	Human resources subindex	4.33	39	
% of labor force represented by unions	5.83	13	% of population without health insurance	4.14	36	
Infant mortality rate, deaths per 1000 live births	5.59	14	High school finishers as % of 18-year olds	3.78	46	
Nonfederal physicians per 100,000 inhabitants	5.07	15	Enrollment in degree-granting institutions per capita	3.85	45	
			% of adults in the labor force	4.35	36	
Technology subindex	3.89	44	Technology subindex	3.89	44	
High-tech payroll as % of total payroll	5.15	17	Academic R&D funding relative to employment	4.20	47	
			NIH support to institutions per capita	3.96	44	
			New patents issued per 100,000 inhabitants	4.17	46	
			Science & engineering grad. students per capita	4.00	39	
			Scientists and engineers in the labor force	3.85	42	
Finance and cost subindex	4.56	38	Finance and cost subindex	4.56	38	
Cost of living	5.62	13	Bank deposits per capita	4.25	40	
			Venture capital as % of GMP	4.53	41	
Openness subindex	3.71	48	Openness subindex	3.71	48	
			Exports per capita	3.88	48	
			Air passengers per capita	4.37	34	
Domestic competition subindex	5.05	18	Domestic competition subindex	5.05	18	
Net firm creation per 100,000 inhabitants	5.02	19	New publicly traded companies	4.36	43	
Cognetics entrepreneurial hot spot index	5.72	9				
Environmental policy subindex	5.59	12	Environmental policy subindex	5.59	12	
Serious pollution days p.a.	5.85	7	Electricity prices, \$ per mbtu	4.95	32	
. , , ,	0.00	·	Toxic release, pounds per capita	5.13	34	

Ranking 8 overall, Kansas City shows good performance in the infrastructure, human resources and environmental subindexes. It ranks 3 for the percentage of adults in the labor force. Kansas City scores low for measures of openness and finance and cost.

Competitive Advantages			Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rani	
Government and fiscal policy subindex	5.78	15	Government and fiscal policy subindex	5.78	15	
Taxes as a % of current GSP	5.28	19				
State bond rating	6.02	8				
Security subindex	5.59	17	Security subindex	5.59	17	
Crime index change 1999-2000, %	6.80	4	Violent crimes per 100,000 inhabitants	4.99	32	
			Murders per 100,000 inhabitants	4.72	32	
Infrastructure subindex	6.01	6	Infrastructure subindex	6.01	6	
% of households with computers	5.49	13	Mass transit availability	4.29	41	
% of adults online	5.59	14				
Travel time to work	5.92	9				
Median household gross rent	5.54	15				
Human resources subindex	6.30	7	Human resources subindex	6.30	7	
% of population without health insurance	5.73	14	% of population born abroad	4.23	41	
High school finishers as % of 18-year olds	6.30	6	Nonfederal physicians per 100,000 inhabitants	4.39	39	
% of population that graduated from high school	6.15	4				
Enrollment in degree-granting institutions per capita	5.99	6				
% of adults in the labor force Infant mortality rate, deaths per 1000 live births	6.88 5.32	3 20				
Technology subindex	4.86	28	Technology subindex	4.86	28	
Science & engineering grad. students per capita	5.40	15	Academic R&D funding relative to employment	4.33	42	
High-tech payroll as % of total payroll	5.33	15	New patents issued per 100,000 inhabitants	4.28	41	
Finance and cost subindex	4.84	30	Finance and cost subindex	4.84	30	
			Venture capital as % of GMP	4.53	41	
Openness subindex	4.48	33	Openness subindex	4.48	33	
			Exports per capita	4.55	33	
Domestic competition subindex	5.30	15	Domestic competition subindex	5.30	15	
Net firm creation per 100,000 inhabitants	5.33	17				
Cognetics entrepreneurial hot spot index	5.40	15				
New publicly traded companies	4.92	19	Fundamental maliantantial			
Environmental policy subindex	5.73	10	Environmental policy subindex	5.73	10	
Toxic release, pounds per capita	5.20	20				
Serious pollution days p.a.	5.83	10				

LAS VEGAS

Index Overall Rank
4.46 35

Las Vegas ranks last for technology and near last for government policy, human resources and finance. High crime rates and a low export level also represent disadvantages. The metro area's strong competitive advantages are low taxes and dynamic entrepreneurship.

Competitive Advantages			Competitive Disadvantages		
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex	4.09	41	Government and fiscal policy subindex	4.09	41
Taxes as a % of current GSP	5.89	7	Workers' compensation collections per employee	2.47	48
			Bond rating: S&P's/Moody's composite	4.92	30
			State bond rating	4.73	33
			Unemployment payments per unemployed worker	4.45	38
Security subindex	5.30	21	Security subindex	5.30	21
Crime index change 1999-2000, %	5.45	16	Violent crimes per 100,000 inhabitants	4.99	31
Thefts per 100,000 inhabitants	5.80	13	Murders per 100,000 inhabitants	4.48	41
Infrastructure subindex	4.66	31	Infrastructure subindex	4.66	31
Mass transit availability	5.03	19	% of households with computers	4.63	32
Travel time to work	5.46	18	Median household gross rent	4.30	39
Human resources subindex	3.64	48	Human resources subindex	3.64	48
% of population born abroad	5.77	8	% of population without health insurance	4.56	34
Infant mortality rate, deaths per 1000 live births	5.39	17	High school finishers as % of 18-year olds	4.62	33
			% of population that graduated from high school	4.05	43
			% of labor force represented by unions	4.44	31
			Unemployment rate	3.68	44
			% of adults in the labor force	3.92	45
			Nonfederal physicians per 100,000 inhabitants	3.62	49
Technology subindex	3.21	50	Technology subindex	3.21	50
			Academic R&D funding relative to employment	4.33	42
			NIH support to institutions per capita	3.81	50
			New patents issued per 100,000 inhabitants	4.15	48
			Science & engineering grad. students per capita	3.16	50
			Scientists and engineers in the labor force	3.31	50
			High-tech payroll as % of total payroll	3.66	50
Finance and cost subindex	3.54	47	Finance and cost subindex	3.54	47
Venture capital as % of GMP	4.82	18	Bank deposits per capita	3.74	45
			Cost of living	4.50	36
Openness subindex	6.25	5	Openness subindex	6.25	5
Air passengers per capita	7.96	1	Exports per capita	3.73	50
Domestic competition subindex	7.32	2	Domestic competition subindex	7.32	2
Net firm creation per 100,000 inhabitants	8.18	1			
Cognetics entrepreneurial hot spot index	7.11	2			
Environmental policy subindex	4.72	36	Environmental policy subindex	4.72	36
Electricity prices, \$ per mbtu	5.48	16	Toxic release, pounds per capita	4.91	47
Serious pollution days p.a.	5.80	13	Pollution standards index	3.33	47

<u>Index</u> <u>Overall Rank</u>

47

3.92

LOS ANGELES

Ranking very near the bottom, Los Angeles shows poor performance in five of the nine subindexes. It ranks 50 for pollution standards and for the percentage of the population with a high school diploma. High computer and internet usage and percentage of foreign-born population are among the few advantages.

Competitive Advantages		Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex	4.66	31	Government and fiscal policy subindex	4.66	31
Unemployment payments per unemployed worker	5.74	12	Workers' compensation collections per employee	4.99	36
			State bond rating	3.11	46
Security subindex	5.10	24	Security subindex	5.10	24
Thefts per 100,000 inhabitants	6.48	6	Violent crimes per 100,000 inhabitants	4.10	41
			Murders per 100,000 inhabitants	4.48	42
Infrastructure subindex	5.01	23	Infrastructure subindex	5.01	23
Mass transit availability	5.38	13	Travel time to work	3.80	43
% of households with computers	6.03	7	Median household gross rent	3.83	45
% of adults online	5.97	9			
Human resources subindex	4.42	37	Human resources subindex	4.42	37
Enrollment in degree-granting institutions per capita	5.92	7	% of population without health insurance	3.94	41
% of population born abroad	7.62	2	High school finishers as % of 18-year olds	4.59	34
Infant mortality rate, deaths per 1000 live births	5.78	10	% of population that graduated from high school	2.29	50
Nonfederal physicians per 100,000 inhabitants	5.08	11	% of labor force represented by unions	4.33	34
			Unemployment rate % of adults in the labor force	3.66	46
				4.54	35
Technology subindex	4.96	22	Technology subindex	4.96	22
NIH support to institutions per capita	5.43	11	Academic R&D funding relative to employment	4.60	34
Science & engineering grad. students per capita	5.20	17	High-tech payroll as % of total payroll	4.56	33
Scientists and engineers in the labor force	5.35	17			
Finance and cost subindex	3.95	42	Finance and cost subindex	3.95	42
Venture capital as % of GMP	4.88	14	Bank deposits per capita	4.07	43
			Cost of living	4.64	32
Openness subindex	4.35	36	Openness subindex	4.35	36
			Air passengers per capita	4.33	36
Domestic competition subindex Net firm creation per 100,000 inhabitants	4.96	22	Domestic competition subindex Cognetics entrepreneurial hot spot index	4.96	22 36
riot initi organori per 100,000 initabilanto	5.56	16	Cognotion Stitlepreneutial flot spot flides	4.54	30
Environmental policy subindex	3.06	49	Environmental policy subindex	3.06	49
Toxic release, pounds per capita	5.24	7	Electricity prices, \$ per mbtu Pollution standards index	3.64 2.41	42
			Foliation Standards index	2.41	50

LOUISVILLE

Index Overall Rank

4.87 24

A low cost of living, short commuting time and high labor participation rates are bright spots for the Louisville metro area. However, it ranks 49 for technology and 39 for its openness subindex. Poor human resources performance represents another disadvantage.

Competitive Advantages		Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex	5.04	27	Government and fiscal policy subindex	5.04	27
			Workers' compensation collections per employee	5.08	34
			Bond rating: S&P's/Moody's composite	4.92	30
			State bond rating	4.90	30
			Unemployment payments per unemployed worker	5.02	32
Security subindex	5.59	16	Security subindex	5.59	16
Crime index change 1999-2000, %	5.45	15	Murders per 100,000 inhabitants	4.85	30
Thefts per 100,000 inhabitants	5.95	10			
Infrastructure subindex	5.23	20	Infrastructure subindex	5.23	20
Travel time to work	5.93	8	% of households with computers	4.13	43
Median household gross rent	6.52	3	% of adults online	4.01	46
Human resources subindex	4.47	34	Human resources subindex	4.47	34
% of adults in the labor force	6.46	4	% of population that graduated from high school	4.62	37
			Enrollment in degree-granting institutions per capita	4.08	42
			% of population born abroad	4.00	48
			Infant mortality rate, deaths per 1000 live births Nonfederal physicians per 100,000 inhabitants	4.27	37
Technology subindex	3.80	49	Technology subindex	3.80	49
			Academic R&D funding relative to employment	4.60	34
			NIH support to institutions per capita	4.16	42
			New patents issued per 100,000 inhabitants	4.29	40
			Science & engineering grad. students per capita	3.87	46
			Scientists and engineers in the labor force	3.75	47
			High-tech payroll as % of total payroll	4.26	36
Finance and cost subindex	5.99	9	<u> </u>		
Bank deposits per capita	5.99 5.47 6.17	9 15 5	High-tech payroll as % of total payroll	4.26	36
Bank deposits per capita	5.47	15	High-tech payroll as % of total payroll	4.26	36
Bank deposits per capita Cost of living	5.47 6.17	15 5	High-tech payroll as % of total payroll Finance and cost subindex	4.26 5.99	36 9
Bank deposits per capita Cost of living Openness subindex Domestic competition subindex	5.47 6.17	15 5	High-tech payroll as % of total payroll Finance and cost subindex Openness subindex Air passengers per capita Domestic competition subindex	4.26 5.99 4.28	36 9 39
Bank deposits per capita Cost of living Openness subindex Domestic competition subindex	5.47 6.17 4.28	15 5 39	High-tech payroll as % of total payroll Finance and cost subindex Openness subindex Air passengers per capita Domestic competition subindex Net firm creation per 100,000 inhabitants	4.26 5.99 4.28 4.19	36 9 39 42
Bank deposits per capita Cost of living Openness subindex Domestic competition subindex	5.47 6.17 4.28	15 5 39	High-tech payroll as % of total payroll Finance and cost subindex Openness subindex Air passengers per capita Domestic competition subindex	4.26 5.99 4.28 4.19	36 9 39 42 33
Bank deposits per capita Cost of living Openness subindex Domestic competition subindex Cognetics entrepreneurial hot spot index Environmental policy subindex	5.47 6.17 4.28 4.51 5.61	39 33 11	High-tech payroll as % of total payroll Finance and cost subindex Openness subindex Air passengers per capita Domestic competition subindex Net firm creation per 100,000 inhabitants New publicly traded companies Environmental policy subindex	4.26 5.99 4.28 4.19 4.51 3.73 4.60 5.56	36 9 39 42 33 49 32
Bank deposits per capita Cost of living Openness subindex Domestic competition subindex Cognetics entrepreneurial hot spot index Environmental policy subindex	5.47 6.17 4.28 4.51 5.61	15 5 39 33 11	High-tech payroll as % of total payroll Finance and cost subindex Openness subindex Air passengers per capita Domestic competition subindex Net firm creation per 100,000 inhabitants New publicly traded companies Environmental policy subindex Toxic release, pounds per capita	4.26 5.99 4.28 4.19 4.51 3.73 4.60 5.56 5.04	36 9 39 42 33 49 32 13 42
Bank deposits per capita Cost of living	5.47 6.17 4.28 4.51 5.61	39 33 11	High-tech payroll as % of total payroll Finance and cost subindex Openness subindex Air passengers per capita Domestic competition subindex Net firm creation per 100,000 inhabitants New publicly traded companies Environmental policy subindex	4.26 5.99 4.28 4.19 4.51 3.73 4.60 5.56	36 9 39 42 33 49 32

<u>Index</u> <u>Overall Rank</u>

3.84 48

MEMPHIS

Ranking in the 40's in the security, infrastructure, human resources, and technology subindexes brings Memphis to an overall ranking of 48. This metro area's bright spots include a strong performance on the government and fiscal policy subindex and low crime rates.

Competitive Advantages		Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex	6.01	12	Government and fiscal policy subindex	6.01	12
Taxes as a % of current GSP	6.60	2	State bond rating	4.69	38
Workers' compensation collections per employee	5.56	19			
Bond rating: S&P's/Moody's composite	5.34	19			
Unemployment payments per unemployed worker	5.64	16			
Security subindex	3.72	44	Security subindex	3.72	44
Crime index change 1999-2000, %	7.56	2	Violent crimes per 100,000 inhabitants	2.64	50
			Thefts per 100,000 inhabitants	4.35	38
			Murders per 100,000 inhabitants	2.38	49
Infrastructure subindex	3.98	44	Infrastructure subindex	3.98	44
Median household gross rent	5.72	13	Mass transit availability	4.31	40
			% of households with computers	3.71	48
			% of adults online	4.10	42
Human resources subindex	2.91	49	Human resources subindex	2.91	49
% of population without health insurance	5.78	11	High school finishers as % of 18-year olds	4.03	42
% of labor force represented by unions	5.80	18	% of population that graduated from high school	4.21	41
			Unemployment rate	4.16	40
			Enrollment in degree-granting institutions per capita	3.98	43
			% of adults in the labor force	4.14	41
			% of population born abroad	4.08	46
			Infant mortality rate, deaths per 1000 live births	1.11	50
			Nonfederal physicians per 100,000 inhabitants	4.59	36
Technology subindex	3.87	46	Technology subindex	3.87	46
			Academic R&D funding relative to employment	4.33	42
			NIH support to institutions per capita	4.58	35
			New patents issued per 100,000 inhabitants	4.26	42
			Science & engineering grad. students per capita	3.78	49
			Scientists and engineers in the labor force	4.08	41
			High-tech payroll as % of total payroll	4.18	40
Finance and cost subindex	5.08	21	Finance and cost subindex	5.08	21
Cost of living	5.97	10	Bank deposits per capita	4.64	31
			Venture capital as % of GMP	4.48	49
Openness subindex	5.40	17	Openness subindex	5.40	17
Exports per capita	5.11	17			
Air passengers per capita	5.43	13			
Domestic competition subindex	4.52	32	Domestic competition subindex	4.52	32
Cognetics entrepreneurial hot spot index	5.56	12	Net firm creation per 100,000 inhabitants	3.81	48
			New publicly traded companies	4.59	33
Environmental policy subindex	4.65	37	Environmental policy subindex	4.65	37
Electricity prices, \$ per mbtu	5.77	9	Toxic release, pounds per capita	5.13	33
			Pollution standards index	4.64	35
			Serious pollution days p.a.	3.87	47

Index Overall Rank
4.49 34

Ranking 34 overall, the strong areas for Miami are its economic openness and environmental policy subindexes. Areas that create the most urgent needs for improvement are security and human resources, specifically high crime and low education rates.

1ndex 4.22 5.56 5.13	Rank 38	Subindex/Variable	Index	Rank
5.56 5.13		0 1 1 1 1 1 1 1		
5.13		Government and fiscal policy subindex	4.22	38
	12	Taxes as a % of current GSP	4.53	37
E 0E	20	Bond rating: S&P's/Moody's composite	1.95	50
5.65	15			
3.14	49	Security subindex	3.14	49
		ÿ ,	4.24	38
		· · · · · · · · · · · · · · · · · · ·	2.85	49
		Thefts per 100,000 inhabitants	3.59	47
4.17	41	Infrastructure subindex	4.17	41
5.63	9	Travel time to work	3.77	45
		Median household gross rent	4.37	38
	_			46
	-			36
		,		48
5.07	15			49
		1 ' '		48
				45 47
3.88	45	Technology subindex	3.88	45
5.00	15	NIH support to institutions per capita	3.96	44
		New patents issued per 100,000 inhabitants	4.29	39
		Science & engineering grad. students per capita	4.00	39
		Scientists and engineers in the labor force	3.85	42
		High-tech payroll as % of total payroll	4.17	42
5.31	17	Finance and cost subindex	5.31	17
	-			İ
4.80	19			
7.48	2	Openness subindex	7.48	2
5.71	10			ĺ
7.65	2			
4.77	25	•	4.77	25
5.40 4.98	15 14	Net firm creation per 100,000 inhabitants	4.13	41
5.89	8	Environmental policy subindex	5.89	8
5.24	4	Electricity prices, \$ per mbtu	4.95	32
5.63	16			1
5.80	12			ĺ
	3.99 5.83 8.81 5.07 3.88 5.00 5.31 5.52 4.80 7.48 5.71 7.65 4.77 5.40 4.98 5.89 5.24 5.63	3.99 46 5.83 13 8.81 1 5.07 15 3.88 45 5.00 15 5.31 17 5.52 13 4.80 19 7.48 2 5.71 10 7.65 2 4.77 25 5.40 15 4.98 14 5.89 8 5.24 4 5.63 16	Crime index change 1999-2000, % Violent crimes per 100,000 inhabitants Thefts per 100,000 inhabitants 4.17 41 Infrastructure subindex 5.63 9 Travel time to work Median household gross rent 4.17 Human resources subindex 5.83 13 % of population without health insurance High school finishers as % of 18-year olds % of population that graduated from high school Unemployment rate Enrollment in degree-granting institutions per capita % of adults in the labor force 3.88 45 Technology subindex NIH support to institutions per capita New patents issued per 100,000 inhabitants Science & engineering grad. students per capita Scientists and engineers in the labor force High-tech payroll as % of total payroll 5.31 17 Finance and cost subindex 5.52 13 4.80 19 7.48 2 Openness subindex 5.71 10 7.65 2 4.77 25 Domestic competition subindex Net firm creation per 100,000 inhabitants Net firm creation per 100,000 inhabitants 8.89 8 Environmental policy subindex Electricity prices, \$ per mbtu	Crime index change 1999-2000, % Violent crimes per 100,000 inhabitants 2.85 Thefts per 100,000 inhabitants 3.59

MILWAUKEE

Milwaukee has a solid advantage in infrastructure, human resources and environmental policy. Attention to the advancement of the health care sector could further improve the human resources subindex ranking. Weaknesses lie in government policy, most notably in high tax rates, and in economic openness.

Competitive Advantages		Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex	4.15	39	Government and fiscal policy subindex	4.15	39
Workers' compensation collections per employee	5.56	7	Taxes as a % of current GSP	3.17	48
Bond rating: S&P's/Moody's composite	5.34	19	State bond rating	4.32	40
			Unemployment payments per unemployed worker	4.23	41
Security subindex	4.69	32	Security subindex	4.69	32
Violent crimes per 100,000 inhabitants	5.65	13	Crime index change 1999-2000, %	4.14	41
•			Murders per 100,000 inhabitants	4.51	39
Infrastructure subindex	5.59	11	Infrastructure subindex	5.59	11
Mass transit availability	5.01	20	% of adults online	4.52	36
Travel time to work	6.13	5			
Median household gross rent	5.50	16			
Human resources subindex	5.41	14	Human resources subindex	5.41	14
% of population without health insurance	6.69	2	% of labor force represented by unions	4.45	30
High school finishers as % of 18-year olds	5.87	9	Unemployment rate	4.95	30
% of population that graduated from high school	5.48	17	% of population born abroad	4.33	35
Enrollment in degree-granting institutions per capita	5.54	15	Infant mortality rate, deaths per 1000 live births	3.81	47
% of adults in the labor force	5.81	10	Nonfederal physicians per 100,000 inhabitants	4.66	30
Technology subindex	4.42	38	Technology subindex	4.42	38
New patents issued per 100,000 inhabitants	4.99	19	Academic R&D funding relative to employment	4.46	39
			Scientists and engineers in the labor force	3.60	48
			High-tech payroll as % of total payroll	4.42	34
Finance and cost subindex	5.05	22	Finance and cost subindex	5.05	22
Bank deposits per capita	5.50	14	Venture capital as % of GMP	4.57	38
Openness subindex	4.27	40	Openness subindex	4.27	40
			Air passengers per capita	4.15	44
Domestic competition subindex	4.54	30	Domestic competition subindex	4.54	30
			Net firm creation per 100,000 inhabitants	4.38	34
			New publicly traded companies	4.50	39
Environmental policy subindex Electricity prices, \$ per mbtu	6.65	3	Environmental policy subindex	6.65	3
Pollution standards index	5.84 6.63	7 2			
	3.00				

MINNEAPOLIS

Index Overall Rank

5

6.79

Minneapolis garners a number 5 overall ranking with top ten listings in the environmental policy, openness, human resources and infrastructure subindexes. This metro area is a standout for the highest percentage of high school graduates in its population. A significant tax burden keeps this city from ranking higher overall.

7 7 8 12 8 12 7 6 18 13 2 13 2	Subindex/Variable Government and fiscal policy subindex Taxes as a % of current GSP Workers' compensation collections per employee Unemployment payments per unemployed worker Security subindex Infrastructure subindex Mass transit availability Human resources subindex % of labor force represented by unions	5.18 3.58 5.35 4.31 5.73 5.90 4.60	Rank 25 46 31 39 12 7 31
7 7 7 8 12 8 12 7 6 18 13 2 5 4 1 8 13	Taxes as a % of current GSP Workers' compensation collections per employee Unemployment payments per unemployed worker Security subindex Infrastructure subindex Mass transit availability Human resources subindex	3.58 5.35 4.31 5.73 5.90 4.60	46 31 39 12 7 31
7 12 8 12 7 6 18 13	Workers' compensation collections per employee Unemployment payments per unemployed worker Security subindex Infrastructure subindex Mass transit availability Human resources subindex	5.35 4.31 5.73 5.90 4.60	31 39 12 7 31
7 6 18 13 2 5 4 1 8 13	Unemployment payments per unemployed worker Security subindex Infrastructure subindex Mass transit availability Human resources subindex	5.73 5.90 4.60	39 12 7 31
7 6 18 13 2 5 4 1 8 13	Security subindex Infrastructure subindex Mass transit availability Human resources subindex	5.73 5.90 4.60	7 31
7 6 18 13 2 5 4 1 8 13	Infrastructure subindex Mass transit availability Human resources subindex	5.90 4.60	7 31
7 6 18 13 2 5 4 1 8 13	Mass transit availability Human resources subindex	4.60 7.20	31
7 6 18 13 2 5 4 1 8 13	Mass transit availability Human resources subindex	4.60 7.20	31
6 18 13 2 5 4 1 8 13	Mass transit availability Human resources subindex	4.60 7.20	31
18 13 2 5 4 1 8 13	Human resources subindex	7.20	2
13 2 5 4 1 8 13			
5 4 1 8 13			
5 4 1 8 13			
4 1 8 13	% of labor force represented by unions	4.29	39
1 8 13			
8 13			
13			
2			
12			
10			
11	Technology subindex	5.50	11
20			
5			
12			
14			
32	Finance and cost subindex	4.75	32
12	Cost of living	4.81	31
6	Openness subindex	6.25	6
6			
10			
14	Domestic competition subindex	5.52	14
8			
16			
4	Environmental policy subindex	6.47	4
40			
10			
	6 6 10 14 8 16	12 Cost of living 6 Openness subindex 6 10 14 Domestic competition subindex 8 16 4 Environmental policy subindex	12 Cost of living 4.81 6 Openness subindex 6.25 6 10 14 Domestic competition subindex 5.52 8 16 4 Environmental policy subindex 6.47 10 14

NASHVILLE

Even with the lowest tax burden and workers' compensation collections, Nashville's overall rank is at 45. The human resources subindex does poorly due to an uneducated workforce. The security and infrastructure subindexes are also among the problems for this metro area.

Competitive Advantages		Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex	5.84	14	Government and fiscal policy subindex	5.84	14
Taxes as a % of current GSP	6.97	1	State bond rating	4.73	33
Workers' compensation collections per employee	5.56	1	Unemployment payments per unemployed worker	4.74	36
Bond rating: S&P's/Moody's composite	5.34	19			
Security subindex	3.60	45	Security subindex	3.60	45
Crime index change 1999-2000, %	5.22	20	Violent crimes per 100,000 inhabitants	2.85	48
			Thefts per 100,000 inhabitants	4.04	43
			Murders per 100,000 inhabitants	4.51	38
Infrastructure subindex	3.49	48	Infrastructure subindex	3.49	48
			Mass transit availability	4.06	45
			% of households with computers	3.93	44
			% of adults online	4.05	44
			Travel time to work	4.97	32
Human resources subindex	4.31	40	Human resources subindex	4.31	40
% of population without health insurance	5.89	10	High school finishers as % of 18-year olds	2.90	50
% of labor force represented by unions	5.80	19	% of population that graduated from high school	4.65	36
			Enrollment in degree-granting institutions per capita	3.96	44
Technology subindex	3.97	42	Technology subindex	3.97	42
			New patents issued per 100,000 inhabitants	4.15	47
			Science & engineering grad. students per capita	3.80	48
			Scientists and engineers in the labor force	4.14	40
			High-tech payroll as % of total payroll	4.13	43
Finance and cost subindex	5.82	12	Finance and cost subindex	5.82	12
Bank deposits per capita	5.35	16			
Cost of living	5.97	10			
Openness subindex	4.44	34	Openness subindex	4.44	34
			Exports per capita	4.36	37
Domestic competition subindex	4.51	34	Domestic competition subindex	4.51	34
			Net firm creation per 100,000 inhabitants	4.05	45
Environmental policy subindex	4.80	34	Environmental policy subindex	4.80	34
Electricity prices, \$ per mbtu	5.78	8	Toxic release, pounds per capita	5.12	35
			Pollution standards index	4.56	36
			Serious pollution days p.a.	4.23	42

NEW ORLEANS

Index Overall Rank
2.70 50

Placing last in the overall index, New Orleans has many areas needing improvement. The metro area ranks at 50 in both the security and the human resources subindexes. Attention to these areas is critical. Of secondary concern are the poor bond ratings, weak infrastructure and lack of a technology sector. Low rents and cost of living are strengths.

Competitive Advantages		Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rani
Government and fiscal policy subindex	4.27	37	Government and fiscal policy subindex	4.27	37
Taxes as a % of current GSP	5.81	8	Bond rating: S&P's/Moody's composite	3.01	47
Unemployment payments per unemployed worker	6.39	1	State bond rating	2.30	50
Security subindex	2.05	50	Security subindex	2.05	50
			Crime index change 1999-2000, %	3.70	47
			Violent crimes per 100,000 inhabitants	4.02	43
			Thefts per 100,000 inhabitants	4.49	34
			Murders per 100,000 inhabitants	0.71	50
Infrastructure subindex	4.19	40	Infrastructure subindex	4.19	40
Median household gross rent	6.23	6	% of households with computers	3.06	50
			% of adults online	4.75	31
			Travel time to work	4.59	37
Human resources subindex	2.45	50	Human resources subindex	2.45	50
			% of population without health insurance	3.69	45
			High school finishers as % of 18-year olds	4.09	40
			% of population that graduated from high school	3.60	45
			Unemployment rate	2.87	49
			Enrollment in degree-granting institutions per capita	4.56	30
			% of adults in the labor force	2.50	50
			% of population born abroad	4.27	37
			Infant mortality rate, deaths per 1000 live births	4.07	43
Technology subindex	3.82	48	Technology subindex	3.82	48
			NIH support to institutions per capita	4.05	43
			New patents issued per 100,000 inhabitants	4.10	49
			Science & engineering grad. students per capita	4.72	32
			Scientists and engineers in the labor force	3.54	49
			High-tech payroll as % of total payroll	3.84	47
Finance and cost subindex	5.10	20	Finance and cost subindex	5.10	20
Cost of living	5.95	12	Bank deposits per capita Venture capital as % of GMP	4.61 4.56	32 40
Openness subindex	4.58	30	Openness subindex	4.58	30
Air passengers per capita	4.90	20	Exports per capita	4.53	34
Domestic competition subindex	4.14	44	Domestic competition subindex Net firm creation per 100,000 inhabitants	4.14	44 46
			New publicly traded companies	3.92 4.36	46
Environmental policy subindex	4.77	35	Environmental policy subindex	4.77	35
Electricity prices, \$ per mbtu	5.63	11	Toxic release, pounds per capita	4.93	46
			Pollution standards index	4.56	37
			Serious pollution days p.a.	4.52	38

<u>Index</u> <u>Overall Rank</u>

NEW YORK

4.29 37

Although occupying top spots in mass transit and bank deposits, New York City still ranks 37 overall. Reasons for this relatively poor showing include weak government and environmental policies. This metro area would also benefit from improvements to education, which would bring up the human resources subindex performance.

Competitive Advantages		Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex	3.30	48	Government and fiscal policy subindex	3.30	48
			Taxes as a % of current GSP	3.21	47
			Workers' compensation collections per employee	4.83	40
			Bond rating: S&P's/Moody's composite	3.85	43
			State bond rating	4.13	42
			Unemployment payments per unemployed worker	4.20	43
Security subindex	5.46	20	Security subindex	5.46	20
Thefts per 100,000 inhabitants	6.50	4	Crime index change 1999-2000, %	4.21	39
Infrastructure subindex	5.27	18	Infrastructure subindex	5.27	18
Mass transit availability	9.67	1	Travel time to work	1.99	50
% of adults online	5.23	20	Median household gross rent	3.57	49
Human resources subindex	4.44	36	Human resources subindex	4.44	36
% of population born abroad	6.79	4	% of population without health insurance	5.03	30
Nonfederal physicians per 100,000 inhabitants	6.84	6	High school finishers as % of 18-year olds	4.54	35
			% of population that graduated from high school	4.09	42
			% of labor force represented by unions	3.18	48
			Unemployment rate	4.19	38
			Enrollment in degree-granting institutions per capita	4.54	31
			% of adults in the labor force	3.49	48
Technology subindex	5.33	14	Technology subindex	5.33	14
NIH support to institutions per capita	5.25	16			
New patents issued per 100,000 inhabitants	4.99	20			
Science & engineering grad. students per capita	5.71	9			
Scientists and engineers in the labor force	5.62	11			
Finance and cost subindex	5.89	11	Finance and cost subindex	5.89	11
Bank deposits per capita Venture capital as % of GMP	7.92 4.85	1 17	Cost of living	3.40	44
Openness subindex	4.38	35	Openness subindex	4.38	35
			Air passengers per capita	4.23	41
Domestic competition subindex	4.41	37	Domestic competition subindex	4.41	37
New publicly traded companies	5.10	10	Cognetics entrepreneurial hot spot index	3.79	46
Environmental policy subindex	3.55	46	Environmental policy subindex	3.55	46
Toxic release, pounds per capita	5.24	5	Electricity prices, \$ per mbtu	2.83	49
			Serious pollution days p.a.	4.45	39



NORFOLK

Index Overall Rank
4.65 32

Even with strong government and fiscal policy and infrastructure rankings, Norfolk still ranks 32 overall. This is due to poor marks in the openness, finance, and domestic competition subindexes. This metro area places last for both new patents issued and bank deposits per capita.

Competitive Advantages		Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex	6.34	2	Government and fiscal policy subindex	6.34	2
Taxes as a % of current GSP	5.63	13			
Workers' compensation collections per employee	5.56	17			
State bond rating	6.33	6			
Unemployment payments per unemployed worker	5.90	7			
Security subindex	4.55	38	Security subindex	4.55	38
Violent crimes per 100,000 inhabitants	5.40	19	Crime index change 1999-2000, %	4.39	35
			Murders per 100,000 inhabitants	4.42	43
Infrastructure subindex	5.88	8	Infrastructure subindex	5.88	8
% of households with computers	5.48	14	Mass transit availability	4.47	33
% of adults online	5.94	10	_		
Travel time to work	5.52	15			
Human resources subindex	4.97	25	Human resources subindex	4.97	25
% of population without health insurance	5.29	20	% of adults in the labor force	3.02	49
High school finishers as % of 18-year olds	5.56	15	% of population born abroad	4.23	43
% of population that graduated from high school	5.57	13	Infant mortality rate, deaths per 1000 live births	4.27	37
% of labor force represented by unions Unemployment rate	6.16	4			
Technology subindex	4.58	33	Technology subindex	4.58	33
Science & engineering grad. students per capita	5.45	12	Academic R&D funding relative to employment	4.60	34
Scientists and engineers in the labor force	5.48	13	NIH support to institutions per capita	4.42	37
			New patents issued per 100,000 inhabitants	4.04	50
			High-tech payroll as % of total payroll	4.25	37
Finance and cost subindex	3.70	44	Finance and cost subindex	3.70	44
Cost of living	5.44	18	Bank deposits per capita	3.32	50
			Venture capital as % of GMP	4.50	46
Openness subindex	3.40	49	Openness subindex	3.40	49
			Exports per capita	3.96	47
			Air passengers per capita	3.87	49
Domestic competition subindex	4.26	42	Domestic competition subindex	4.26	42
			Cognetics entrepreneurial hot spot index	4.44	39
			New publicly traded companies	4.36	43
Environmental policy subindex	5.86	9	Environmental policy subindex	5.86	9
Electricity prices, \$ per mbtu Pollution standards index	5.61 5.90	13 11	Serious pollution days p.a.	4.91	33

OKLAHOMA CITY

4.28

39

Scoring in the top ten for the environmental subindex is Oklahoma City's only bright spot. The metro area is last in economic openness and has significant weaknesses in the human resources and technology subindexes.

Competitive Advantages		Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex	5.06	26	Government and fiscal policy subindex	5.06	26
Bond rating: S&P's/Moody's composite	5.34	19	Taxes as a % of current GSP	4.84	33
Unemployment payments per unemployed worker	5.66	14	Workers' compensation collections per employee State bond rating	5.02 4.32	35 40
Security subindex	4.98	27	Security subindex	4.98	27
Crime index change 1999-2000, %	6.25	6	Thefts per 100,000 inhabitants	3.01	49
Murders per 100,000 inhabitants	5.51	17			
Infrastructure subindex	4.72	29	Infrastructure subindex	4.72	29
Travel time to work	6.23	4	Mass transit availability	3.88	49
Median household gross rent	6.63	2	% of households with computers	3.12	49
			% of adults online	4.63	34
Human resources subindex	4.48	33	Human resources subindex	4.48	33
% of labor force represented by unions	5.69	20	% of population without health insurance	3.64	46
Unemployment rate	5.99	10	% of adults in the labor force	4.32	39
Infant mortality rate, deaths per 1000 live births	5.52	15	% of population born abroad	4.38	33
Technology subindex	3.93	43	Technology subindex	3.93	43
			NIH support to institutions per capita	3.92	49
			New patents issued per 100,000 inhabitants	4.22	44
			Science & engineering grad. students per capita	3.85	47
			High-tech payroll as % of total payroll	4.01	45
Finance and cost subindex	4.91	27	Finance and cost subindex	4.91	27
Cost of living	6.07	9	Bank deposits per capita	4.21	41
			Venture capital as % of GMP	4.58	35
Openness subindex	3.37	50	Openness subindex	3.37	50
			Exports per capita	3.74	49
			Air passengers per capita	4.06	45
Domestic competition subindex	4.58	28	Domestic competition subindex	4.58	28
New publicly traded companies	5.20	9	Net firm creation per 100,000 inhabitants	4.13	42
			Cognetics entrepreneurial hot spot index	4.76	30
Environmental policy subindex	5.94	7	Environmental policy subindex	5.94	7
Electricity prices, \$ per mbtu	5.95	6			
Toxic release, pounds per capita Serious pollution days p.a.	5.23 5.52	16			
	0.02	19		1	

ORLANDO

Index Overall Rank

4.56 33

A problem area for Orlando is the security index. It has the poorest crime index change of any metro area considered. Other problem areas include the technology subindex, where research funding and issuance of new patents lag. Bright spots that help the metro area rank 33 overall are the openness to business and domestic competition subindexes.

Competitive Advantages		Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex	5.38	20	Government and fiscal policy subindex	5.38	20
Workers' compensation collections per employee	5.56	12	Taxes as a % of current GSP	4.53	37
State bond rating	5.13	20	Bond rating: S&P's/Moody's composite	4.92	30
Unemployment payments per unemployed worker	5.94	5			
Security subindex	3.37	48	Security subindex	3.37	48
			Crime index change 1999-2000, %	3.19	50
			Violent crimes per 100,000 inhabitants	3.29	45
			Thefts per 100,000 inhabitants	4.22	39
Infrastructure subindex	4.02	42	Infrastructure subindex	4.02	42
			% of adults online	4.72	33
			Travel time to work	4.51	38
			Median household gross rent	4.41	37
Human resources subindex	5.26	18	Human resources subindex	5.26	18
% of labor force represented by unions	5.83	13	% of population without health insurance	4.14	36
Unemployment rate	5.74	12	High school finishers as % of 18-year olds	4.52	36
% of adults in the labor force	6.00	7	Enrollment in degree-granting institutions per capita	3.85	45
% of population born abroad	5.19	17			
Infant mortality rate, deaths per 1000 live births	5.65	13			
Nonfederal physicians per 100,000 inhabitants	5.07	15			
Technology subindex	3.86	47	Technology subindex	3.86	47
			Academic R&D funding relative to employment	4.33	42
			NIH support to institutions per capita	3.96	44
			New patents issued per 100,000 inhabitants	4.19	45
			Science & engineering grad. students per capita	4.00	39
			Scientists and engineers in the labor force	3.85	42
Finance and cost subindex	4.73	33	Finance and cost subindex	4.73	33
Cost of living Venture capital as % of GMP	5.62 4.86	13 15	Bank deposits per capita	4.16	42
Openness subindex	5.87	9	Openness subindex	5.87	9
Air passengers per capita	7.17	4	Exports per capita	4.02	44
Domestic competition subindex	5.29	16	Domestic competition subindex	5.29	16
Net firm creation per 100,000 inhabitants	6.03	10	New publicly traded companies	4.36	43
Cognetics entrepreneurial hot spot index	5.24	19			
Environmental policy subindex	5.35	19	Environmental policy subindex	5.35	19
	5.21	17	Electricity prices, \$ per mbtu	4.95	32
Toxic release, pounds per capita Serious pollution days p.a.	5.77	14	Pollution standards index	4.74	33

PHILADELPHIA

4.04 43

Philadelphia's low rank of 43 overall is a result of its poor government and fiscal policy and inadequate human resources. High unemployment and strong unions should be the focus of reforms to human resources. An evident strength in technology should be nurtured to capitalize on this metro area's strength.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank		
Government and fiscal policy subindex	3.80	44	Government and fiscal policy subindex	3.80	44		
			Taxes as a % of current GSP	4.64	35		
			Bond rating: S&P's/Moody's composite	3.01	47		
			Unemployment payments per unemployed worker	3.59	45		
Security subindex	4.61	36	Security subindex	4.61	36		
Thefts per 100,000 inhabitants	5.59	18	Crime index change 1999-2000, %	4.24	37		
			Violent crimes per 100,000 inhabitants	4.55	37		
			Murders per 100,000 inhabitants	4.69	34		
Infrastructure subindex	4.47	38	Infrastructure subindex	4.47	38		
Mass transit availability	5.23	15	Travel time to work	4.15	42		
			Median household gross rent	4.81	30		
Human resources subindex	4.28	41	Human resources subindex	4.28	41		
% of population without health insurance	6.15	7	High school finishers as % of 18-year olds	4.67	30		
Nonfederal physicians per 100,000 inhabitants	5.71	9	% of population that graduated from high school	4.80	34		
			% of labor force represented by unions	4.23	41		
			Unemployment rate	4.01	42		
			Enrollment in degree-granting institutions per capita	4.29	39		
			% of adults in the labor force	4.33	38		
			Infant mortality rate, deaths per 1000 live births	4.47	36		
Technology subindex	4.98	20	Technology subindex	4.98	20		
NIH support to institutions per capita	5.19	19					
New patents issued per 100,000 inhabitants	5.02	15					
High-tech payroll as % of total payroll	4.96	19					
Finance and cost subindex	5.04	23	Finance and cost subindex	5.04	23		
Bank deposits per capita	6.22	7	Cost of living	4.08	40		
Openness subindex	4.53	32	Openness subindex	4.53	32		
			Air passengers per capita	4.54	30		
Domestic competition subindex	4.42	36	Domestic competition subindex	4.42	36		
New publicly traded companies	5.00	12	Net firm creation per 100,000 inhabitants	4.50	32		
			Cognetics entrepreneurial hot spot index	4.24	40		
Environmental policy subindex	4.82	32	Environmental policy subindex	4.82	32		
Toxic release, pounds per capita	5.21	19	Electricity prices, \$ per mbtu	4.38	40		

PHOENIX 1.80 Overall Rank
27

Ranking 27 overall, Phoenix's advantages lie in low unionization, high college attendance, and a focus on entrepreneurs. Phoenix lacks solid environmental policies, has a high cost of living and low bank deposit rate. While it has high crime rates, placing well for the crime index change shows improvements are underway in this area.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index Rank		Subindex/Variable	Index	Rank		
Government and fiscal policy subindex	5.47	19	Government and fiscal policy subindex	5.47	19		
Bond rating: S&P's/Moody's composite	5.71	13	Workers' compensation collections per employee	4.69	42		
Unemployment payments per unemployed worker	6.17	4	State bond rating	4.73	33		
Security subindex	4.79	30	Security subindex	4.79	30		
Crime index change 1999-2000, %	5.73	9	Violent crimes per 100,000 inhabitants	4.99	30		
			Thefts per 100,000 inhabitants	4.03	44		
			Murders per 100,000 inhabitants	4.74	31		
Infrastructure subindex	4.74	28	Infrastructure subindex	4.74	28		
% of households with computers	5.43	15	Mass transit availability	4.44	35		
			Travel time to work	4.81	34		
			Median household gross rent	4.67	34		
Human resources subindex	5.11	22	Human resources subindex	5.11	22		
% of labor force represented by unions	6.15	6	% of population without health insurance	4.44	35		
Unemployment rate	5.66	15	High school finishers as % of 18-year olds	3.95	44		
Enrollment in degree-granting institutions per capita	6.90	3	% of population that graduated from high school	4.80	33		
% of population born abroad	5.46	12	% of adults in the labor force	3.90	46		
Technology subindex	4.51	34	Technology subindex	4.51	34		
New patents issued per 100,000 inhabitants	5.01	17	Academic R&D funding relative to employment	4.46	39		
High-tech payroll as % of total payroll	5.32	16	NIH support to institutions per capita	4.16	41		
			Science & engineering grad. students per capita	4.35	37		
			Scientists and engineers in the labor force	4.63	34		
Finance and cost subindex	3.97	41	Finance and cost subindex	3.97	41		
			Bank deposits per capita	4.33	37		
			Cost of living	4.57	34		
Openness subindex	5.42	15	Openness subindex	5.42	15		
Air passengers per capita	5.66	12					
Domestic competition subindex	6.46	6	Domestic competition subindex	6.46	6		
Net firm creation per 100,000 inhabitants	5.65	15					
Cognetics entrepreneurial hot spot index	7.65	1					
Environmental policy subindex	3.69	43	Environmental policy subindex	3.69	43		
			Electricity prices, \$ per mbtu	4.69	39		
			Toxic release, pounds per capita	4.73	49		
			Pollution standards index	2.84	49		

4.94 23

With a strong showing in security and finance, Pittsburgh ranks 23 overall. Infrastructure is solid with the lowest housing rental cost. Areas in need of improvement are the domestic competition and government and fiscal policy subindexes, which come in at 47 and 45 respectively.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank		
Government and fiscal policy subindex	3.74	45	Government and fiscal policy subindex	3.74	45		
			Taxes as a % of current GSP	4.55	36		
			Workers' compensation collections per employee	5.37	30		
			Bond rating: S&P's/Moody's composite	3.65	44		
			State bond rating	4.73	33		
			Unemployment payments per unemployed worker	3.17	48		
Security subindex	6.36	3	Security subindex	6.36	3		
Violent crimes per 100,000 inhabitants	6.12	6	Crime index change 1999- 2000, %	4.74	31		
Thefts per 100,000 inhabitants	6.55	3	g, ,-	7.77	01		
Murders per 100,000 inhabitants	5.86	11					
warders per 100,000 illiabitants	3.00	11					
Infrastructure subindex	5.04	22	Infrastructure subindex	5.04	22		
Mass transit availability	5.62	10	% of households with computers	4.45	37		
Median household gross rent	6.68	1	% of adults online	3.31	48		
ŭ	0.00		Travel time to work	5.01	30		
				0.01	00		
Human resources subindex	5.22	19	Human resources subindex	5.22	19		
% of population without health insurance	6.57	3	% of labor force represented by unions	4.28	40		
High school finishers as % of 18- year olds	6.60	5	Unemployment rate	3.96	43		
% of population that graduated from high school	5.68	10	Enrollment in degree- granting institutions per capita	4.53	32		
Nonfederal physicians per 100,000 inhabitants	5.75	8	% of adults in the labor force	4.71	31		
			% of population born abroad	3.99	49		
			Infant mortality rate, deaths per 1000 live births	4.80	30		
Technology subindex	4.96	23	Technology subindex	4.96	23		
Academic R&D funding relative to employment			Scientists and engineers in the labor force				
NIH support to institutions per capita	5.13	11	High- tech payroll as % of total payroll	4.41	37		
	5.73	6	High- tech payroll as % of total payroll	4.38	35		
Science & engineering grad. students per capita	5.27	16					
Finance and cost subindex	6.09	8	Finance and cost subindex	6.09	8		
Bank deposits per capita	6.71	5					
Openness subindex	4.66	29	Openness subindex	4.66	29		
Air passengers per capita	5.10	18	Exports per capita	4.43	36		
Domestic competition subindex	3.69	47	Domestic competition subindex	3.69	47		
			Net firm creation per 100,000 inhabitants	4.07	44		
			Cognetics entrepreneurial hot spot index	3.53	47		
			New publicly traded companies	4.58	34		
Environmental policy subindex	4.99	26	Environmental policy subindex	4.99	26		
Serious pollution days p.a.	5.51	20	Electricity prices, \$ per mbtu	5.04	30		
			Toxic release, pounds per capita	4.78	48		
	1]	Pollution standards index	4.69	34		

With a high bond rating, many computers in households and overall solid environmental polices, Portland lands a spot at number 9. Finance is a weak area, especially the high cost of living. Improvements could also be made with attention to workers' compensation collections and unemployment payments.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank		
Government and fiscal policy subindex	4.82	29	Government and fiscal policy subindex	4.82	29		
Taxes as a % of current GSP	5.79	10	Workers' compensation collections per employee	3.42	45		
Bond rating: S&P's/Moody's composite	6.19	1	State bond rating	4.85	31		
			Unemployment payments per unemployed worker	4.25	40		
Security subindex	5.51	18	Security subindex	5.51	18		
Violent crimes per 100,000 inhabitants	5.67	12	Thefts per 100,000 inhabitants	4.16	41		
Murders per 100,000 inhabitants	6.26	2					
Infrastructure subindex	7.02	3	Infrastructure subindex	7.02	3		
Mass transit availability	5.67	8	Median household gross rent	4.70	33		
% of households with computers	6.89	3					
% of adults online	5.88	11					
Travel time to work	5.52	16					
Human resources subindex	5.66	10	Human resources subindex	5.66	10		
High school finishers as % of 18- year olds	5.69	14	% of labor force represented by unions	4.43	32		
% of population that graduated from high school	6.01	6	Unemployment rate	4.68	33		
% of adults in the labor force	5.89	8					
% of population born abroad	5.06	19					
Infant mortality rate, deaths per 1000 live births	6.05	7					
Technology subindex	4.84	29	Technology subindex	4.84	29		
NIH support to institutions per capita	5.24	17	Academic R&D funding relative to employment	4.60	34		
New patents issued per 100,000 inhabitants	5.20	11	Science & engineering grad. students per capita	4.04	38		
Scientists and engineers in the labor force	5.44	15					
Finance and cost subindex	3.62	46	Finance and cost subindex	3.62	46		
Venture capital as % of GMP	4.96	11	Bank deposits per capita	4.29	39		
			Cost of living	3.91	41		
Openness subindex	5.55	14	Openness subindex	5.55	14		
Exports per capita	6.01	5					
Domestic competition subindex	4.57	29	Domestic competition subindex	4.57	29		
New publicly traded companies	5.03	11	Cognetics entrepreneurial hot spot index	4.17	41		
Environmental policy subindex	7.16	2	Environmental policy subindex	7.16	2		
Electricity prices, \$ per mbtu	6.41	3					
Pollution standards index	6.42	3					
Serious pollution days p.a.	5.92	3					
				1	l		

PROVIDENCE

Providence receives high marks in security, infrastructure and human resources. It also has the number 1 ranking in health insurance coverage and the lowest infant mortality rates. Improvements can be made in both the government and fiscal policy and openness subindexes.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank		
Government and fiscal policy subindex	3.55	46	Government and fiscal policy subindex	3.55	46		
			Taxes as a % of current GSP	3.93	42		
			Bond rating: S&P's/Moody's composite	4.07	41		
			State bond rating	4.00	43		
			Unemployment payments per unemployed worker	3.48	46		
Security subindex	6.18	8	Security subindex	6.18	8		
Violent crimes per 100,000 inhabitants	6.33	4					
Thefts per 100,000 inhabitants	5.96	8					
Murders per 100,000 inhabitants	5.62	15					
Infrastructure subindex	5.85	9	Infrastructure subindex	5.85	9		
% of households with computers	5.07	18					
Travel time to work	5.71	12					
Median household gross rent	6.04	8					
Human resources subindex	5.91	9	Human resources subindex	5.91	9		
% of population without health insurance	6.81	1	High school finishers as % of 18-year olds	4.00	43		
Enrollment in degree-granting institutions per capita	7.66	2	% of population that graduated from high school % of labor force represented by unions	3.15	48		
% of population born abroad	5.19	16	· · · · · · · · · · · · · · · · · · ·	4.32	38		
Infant mortality rate, deaths per 1000 live births Nonfederal physicians per 100,000 inhabitants	6.90 6.76	1 7	Unemployment rate % of adults in the labor force	4.76 3.95	31 44		
Technology subindex	5.34	13	Technology subindex	5.34	13		
Academic R&D funding relative to employment	5.00	15	New patents issued per 100,000 inhabitants	4.56	32		
NIH support to institutions per capita	6.60	3	High-tech payroll as % of total payroll	3.69	49		
Science & engineering grad. students per capita	6.14	7					
Scientists and engineers in the labor force	5.43	16					
Finance and cost subindex	4.86	29	Finance and cost subindex	4.86	29		
Bank deposits per capita	6.49	6	Cost of living	3.27	48		
Venture capital as % of GMP	5.04	8	3	0.27	10		
Openness subindex	3.95	43	Openness subindex	3.95	43		
			Exports per capita	4.25	38		
			Air passengers per capita	4.32	38		
Domestic competition subindex	4.32	39	Domestic competition subindex	4.32	39		
New publicly traded companies	5.00	13	Cognetics entrepreneurial hot spot index	4.01	45		
Environmental policy subindex	4.99	27	Environmental policy subindex	4.99	27		
Toxic release, pounds per capita	5.24	6	Electricity prices, \$ per mbtu	3.69	41		
Pollution standards index	5.96	7	,	3.00	''		

6.25 7

Raleigh ranks very high in four subindexes, technology, government and fiscal policy, domestic competition and finance, resulting in a rank of 7 overall. The security and infrastructure subindexes have room for improvement, especially in mass transit and percentage of households with a computer.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank		
Government and fiscal policy subindex	6.23	6	Government and fiscal policy subindex	6.23	6		
Taxes as a % of current GSP	5.64	11	Unemployment payments per unemployed worker	5.12	30		
Workers' compensation collections per employee	5.56	1					
Bond rating: S&P's/Moody's composite	6.19	1					
State bond rating	5.94	11					
Security subindex	4.65	35	Security subindex	4.65	35		
Violent crimes per 100,000 inhabitants	5.40	20	Crime index change 1999-2000, %	4.44	34		
			Thefts per 100,000 inhabitants	4.37	36		
Infrastructure subindex	4.01	43	Infrastructure subindex	4.01	43		
% of adults online	5.53	16	% of households with computers	3.85	45		
			Mass transit availability	4.01	46		
			Median household gross rent	4.55	36		
			-				
Human resources subindex	5.21	21	Human resources subindex	5.21	21		
% of labor force represented by unions	6.49	1	% of adults in the labor force	4.62	33		
% of population that graduated from high school	5.77	9	High school finishers as % of 18-year olds	3.42	49		
Unemployment rate	6.58	3	Infant mortality rate, deaths per 1000 live births Nonfederal physicians per 100,000 inhabitants	4.53	34		
Technology subindex	7.46	2	Technology subindex	7.46	2		
Academic R&D funding relative to employment	10.00	1	Science & engineering grad. students per capita	4.69	33		
High-tech payroll as % of total payroll	7.16	4					
New patents issued per 100,000 inhabitants	6.52	4					
NIH support to institutions per capita	5.59	9					
Scientists and engineers in the labor force	6.37	4					
Finance and cost subindex	6.26	4	Finance and cost subindex	6.26	4		
Cost of living	6.11	6	Bank deposits per capita	4.55	33		
Venture capital as % of GMP	5.99	5					
Openness subindex	5.15	20	Openness subindex	5.15	20		
Exports per capita	5.03	20					
Air passengers per capita	5.17	17	Domostic competition subjects		_		
Domestic competition subindex	6.42	7	Domestic competition subindex	6.42	7		
Net firm creation per 100,000 inhabitants Cognetics entrepreneurial hot spot index	6.60	4					
Cognetics entrepreneunal not spot index	6.68	4					
	4.89	31	Environmental policy subindex	4.89	31		
Environmental policy subindex	5.04	4.0	Dellution standards index	4 00			
Environmental policy subindex Toxic release, pounds per capita	5.21	18	Pollution standards index Serious pollution days p.a.	4.80 4.59	30 36		

Index Overall Rank
5.27 16

RICHMOND

Richmond comes in at 16 overall by having high rankings for finance and government and fiscal policy. A 3 rank in the finance subindex would have been even higher if not for low marks in venture capital. A poor showing in infrastructure, especially mass transit and percentage of adults online kept Richmond from ranking higher overall.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank		
Government and fiscal policy subindex	6.30	5	Government and fiscal policy subindex	6.30	5		
State bond rating	6.34	1	Bond rating: S&P's/Moody's composite	4.92	30		
Taxes as a % of current GSP	5.63	14					
Unemployment payments per unemployed worker	6.21	3					
Workers' compensation collections per employee	5.56	18					
Security subindex	4.45	39	Security subindex	4.45	39		
Violent crimes per 100,000 inhabitants	5.51	16	Murders per 100,000 inhabitants	3.45	48		
Infrastructure subindex	3.77	47	Infrastructure subindex	3.77	47		
% of households with computers	5.51	12	% of adults online	2.39	49		
Travel time to work	5.44	19	Mass transit availability	4.26	42		
			,	25			
Human resources subindex	5.40	15	Human resources subindex	5.40	15		
% of labor force represented by unions	6.16	5	% of adults in the labor force	4.77	30		
% of population without health insurance	5.29	19	% of population born abroad	4.23	42		
Enrollment in degree-granting institutions per capita	5.14	20	% of population that graduated from high school	5.00	30		
High school finishers as % of 18-year olds	5.72	12	Infant mortality rate, deaths per 1000 live births	3.87	46		
Technology subindex	5.13	17	Technology subindex	5.13	17		
Academic R&D funding relative to employment	5.26	9	New patents issued per 100,000 inhabitants	4.26	43		
High-tech payroll as % of total payroll	5.67	10	NIH support to institutions per capita	4.41	38		
Science & engineering grad. students per capita	5.46	11					
Scientists and engineers in the labor force	5.47	14					
Finance and cost subindex	6.29	3	Finance and cost subindex	6.29	3		
Bank deposits per capita	6.75	3	Venture capital as % of GMP	4.50	46		
Cost of living	5.44	18					
Openness subindex	5.15	21	Openness subindex	5.15	21		
Exports per capita	6.25	4	Air passengers per capita	3.95	47		
Domestic competition subindex	4.32	40	Domestic competition subindex	4.32	40		
			Net firm creation per 100,000 inhabitants	4.47	33		
			Cognetics entrepreneurial hot spot index	4.70	31		
			New publicly traded companies	4.36	43		
Environmental policy subindex	5.33	20	Environmental policy subindex	5.33	20		
			Serious pollution days p.a.	4.40			
Electricity prices, \$ per mbtu	5.62	12	Serious poliution days p.a.	4.12	44		
	5.62 5.87	12 13	Toxic release, pounds per capita	4.12 5.03	44		

ROCHESTER

Index Overall Rank

4.14 41

With finance and domestic competition ranked at 48 and government and fiscal policy at 49, Rochester faces many disadvantages. The tax burden, unionization, and a high cost of living are all particular problem areas. Advantages include number 1 rankings for patents and for low violent crime rate.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank		
Government and fiscal policy subindex	3.25	49	Government and fiscal policy subindex	3.25	49		
			Taxes as a % of current GSP	2.60	49		
			Workers' compensation collections per employee	4.43	43		
			Bond rating: S&P's/Moody's composite	4.71	37		
			State bond rating	3.51	44		
0 " 1" 1			Unemployment payments per unemployed worker	4.83	34		
Security subindex	6.33	5	Security subindex	6.33	5		
Murders per 100,000 inhabitants	5.41	18					
Crime index change 1999-2000, %	5.85	8					
Violent crimes per 100,000 inhabitants	6.66	1					
Infrastructure subindex	3.87	45	Infrastructure subindex	3.87	45		
Median household gross rent	5.37	19	Mass transit availability	4.18	43		
Travel time to work	6.51	2	% of households with computers	4.50	35		
			% of adults online	2.38	50		
Human resources subindex	5.11	23	Human resources subindex	5.11	23		
% of population that graduated from high school	5.48	16	% of labor force represented by unions	2.79	49		
Enrollment in degree-granting institutions per capita	5.28	18	% of population born abroad	4.39	32		
High school finishers as % of 18-year olds	5.84	10	% of population without health insurance	4.67	32		
Infant mortality rate, deaths per 1000 live births	5.45	16	Unemployment rate	4.09	41		
Nonfederal physicians per 100,000 inhabitants	7.36	2		4.00	71		
Technology subindex	6.51	5	Technology subindex	6.51	5		
Academic R&D funding relative to employment	5.13	11					
NIH support to institutions per capita	5.67	7					
New patents issued per 100,000 inhabitants	8.48	1					
Science & engineering grad. students per capita	6.21	4					
Scientists and engineers in the labor force	5.98	8					
Finance and cost subindex	3.38	48	Finance and cost subindex	3.38	48		
Venture capital as % of GMP	4.80	19	Bank deposits per capita	4.65	30		
			Cost of living	3.39	45		
Openness subindex	4.81	26	Openness subindex	4.81	26		
Exports per capita	5.82	9	Air passengers per capita	3.92	48		
Domostic competition subindex	0.70		Domestic competition subindex	0.70			
Domestic competition subindex	3.58	48	•	3.58	48		
			Net firm creation per 100,000 inhabitants	4.31	37		
			Cognetics entrepreneurial hot spot index	2.88	48		
Environmental policy subindex	4.58	38	Environmental policy subindex	4.58	38		
Pollution standards index	6.19	5	Electricity prices, \$ per mbtu	2.84	47		

Index Overall Rank
4.08 42

SACRAMENTO

Sacramento with an overall ranking of 42 garners low marks for finance, openness to business, and environmental policy. It has a strong showing in both the security and infrastructure subindexes. Sacramento also boasts strong high school graduation rates and a significant college population.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank		
Government and fiscal policy subindex	4.45	34	Government and fiscal policy subindex	4.45	34		
Bond rating: S&P's/Moody's composite	5.34	19	State bond rating Workers' compensation collections per employee	3.11 4.99	46 36		
Security subindex	5.74	11	Security subindex	5.74	11		
Murders per 100,000 inhabitants	5.40	19					
Crime index change 1999-2000, %	5.60	10					
Thefts per 100,000 inhabitants	5.62	16					
Infrastructure subindex	5.48	12	Infrastructure subindex	5.48	12		
% of adults online	5.62	13	Mass transit availability	4.46	34		
% of households with computers	6.03	7	Median household gross rent	4.60	35		
Human resources subindex	5.21	20	Human resources subindex	5.21	20		
% of population born abroad	5.51	11	% of adults in the labor force	4.59	34		
% of population that graduated from high school	5.54	15	% of labor force represented by unions	4.33	34		
Enrollment in degree-granting institutions per capita	5.92	7	% of population without health insurance	3.94	41		
High school finishers as % of 18-year olds	6.08	7	Unemployment rate	4.45	35		
Infant mortality rate, deaths per 1000 live births	5.39	17	, , , , , , , , , , , , , , , , , , , ,	1.10	00		
Nonfederal physicians per 100,000 inhabitants	5.08	11					
Technology subindex	5.03	19	Technology subindex	5.03	19		
Academic R&D funding relative to employment	5.00	15	High-tech payroll as % of total payroll	4.64	30		
NIH support to institutions per capita	5.43	11	New patents issued per 100,000 inhabitants	4.51	34		
Science & engineering grad. students per capita	5.20	17			٠.		
Scientists and engineers in the labor force	5.35	17					
Finance and cost subindex	3.11	50	Finance and cost subindex	3.11	50		
			Bank deposits per capita Cost of living	3.48 4.32	49 39		
Openness subindex	3.92	45	Openness subindex	3.92	45		
			Exports per capita	4.23	39		
			Air passengers per capita	4.31	40		
Domestic competition subindex	4.83	24	Domestic competition subindex	4.83	24		
Net firm creation per 100,000 inhabitants	5.99	11	Cognetics entrepreneurial hot spot index New publicly traded companies	4.17 4.48	41 40		
Environmental policy subindex	3.35	47	Environmental policy subindex	3.35	47		
Toxic release, pounds per capita	5.25	2	Electricity prices, \$ per mbtu	3.64	42		
	1	1	1 B # #				
			Pollution standards index Serious pollution days p.a.	3.39 4.81	46 34		

SALT LAKE CITY

Index Overall Rank
5.89 10

Breaking into the top 10, Salt Lake City possesses quality infrastructure and human resources, with a high percentage of college students. Areas that need improvement are the environmental policy subindex, where the metro area ranks last, and the finance subindex, which scores no competitive advantages.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable		dex Rank Subindex/Variable		Index	Ran		
Government and fiscal policy subindex	5.67	17	Government and fiscal policy subindex	5.67	17		
Bond rating: S&P's/Moody's composite	5.56	14	Workers' compensation collections per employee	4.75	41		
State bond rating	6.34	1					
Security subindex	4.69	33	Security subindex	4.69	33		
Violent crimes per 100,000 inhabitants	6.07	7	Crime index change 1999-2000, %	3.84	44		
Murders per 100,000 inhabitants	5.94	6	Thefts per 100,000 inhabitants	3.40	48		
Infrastructure subindex	8.10	1	Infrastructure subindex	8.10	1		
Mass transit availability	5.44	12					
% of households with computers	7.86	1					
% of adults online	6.17	5					
Travel time to work	6.12	6					
Human resources subindex	7.13	3	Human resources subindex	7.13	3		
% of adults in the labor force	5.72	12	Nonfederal physicians per 100,000 inhabitants	4.02	43		
% of labor force represented by unions	5.94	11					
% of population that graduated from high school	6.36	3					
Enrollment in degree-granting institutions per capita	7.91	1					
High school finishers as % of 18-year olds Infant mortality rate, deaths per 1000 live births	6.95 6.11	3 6					
Unemployment rate	5.42	19					
Technology subindex	5.23	15	Technology subindex	5.23	15		
Academic R&D funding relative to employment	5.80	5					
Science & engineering grad. students per capita	5.69	10					
Finance and cost subindex	3.69	45	Finance and cost subindex	3.69	45		
			Bank deposits per capita	4.02	44		
			Cost of living	4.59	33		
Openness subindex	5.57	40	Venture capital as % of GMP Openness subindex	4.64	30		
Air passengers per capita	6.29	12 6	Exports per capita	5.57 4.48	12 35		
	0.29	0		4.40	33		
Domestic competition subindex	5.74	13	Domestic competition subindex	5.74	13		
Net firm creation per 100,000 inhabitants	5.71	13					
Cognetics entrepreneurial hot spot index	6.15	6					
Environmental policy subindex	2.92	50	Environmental policy subindex	2.92	50		
Electricity prices, \$ per mbtu	6.29	4	Pollution standards index	4.15	43		
Serious pollution days p.a.	5.85	6	Toxic release, pounds per capita	0.00	50		

advantage in its government and fiscal policy subindex, where it ranks 3.

With a rank of 38, San Antonio shows poor human resources performance, sluggish entrepreneurial activity and a weak high-tech sector. Computer usage and internet access are also vulnerabilities. The metro area has a strong competitive

Index

4.29

1				
Index	Rank	Subindex/Variable	Index	Rank
6.34	3	Government and fiscal policy subindex	6.34	3
6.60	3			
5.56	8			
	14			
	20			
		Security subindex	4 66	34
6.91	3	Violent crimes per 100,000 inhabitants Thefts per 100,000 inhabitants	4.84 2.51	34 50
4.89	26	Infrastructure subindex	4.89	26
5.57	11	% of households with computers	4.35	38
5.74	12	% of adults online	3.82	47
3.92	47	Human resources subindex	3.92	47
6.11	7	% of population without health insurance	3.10	47
	17	% of population that graduated from high school		46
		Enrollment in degree-granting institutions per capita		33
			-	43
				45
4.35	39	Technology subindex	4.35	39
		1	4.59	31
		1 ' '	4.30	38
		_	4.64	30
		High-tech payroll as % of total payroll	4.17	41
4.72	34	Finance and cost subindex	4.72	34
6.33	3	Bank deposits per capita	3.69	47
		Venture capital as % of GMP	4.59	33
3.89	46	Openness subindex	3.89	46
		Exports per capita	4.19	42
		Air passengers per capita	4.31	39
4.12	45	Domestic competition subindex	4.12	45
		Net firm creation per 100,000 inhabitants	4.10	43
		Cognetics entrepreneurial hot spot index	4.65	33
		New publicly traded companies	4.36	43
5.13	22	Environmental policy subindex		22
	17	Serious pollution days p.a.		43
5.23	12			1
5.43	20			
	6.60 5.56 5.56 5.13 5.92 4.66 6.91 4.89 5.57 5.74 3.92 6.11 5.39 4.72 6.33 3.89 4.12	6.60 3 5.56 8 5.56 14 5.13 20 5.92 6 4.66 34 6.91 3 4.89 26 5.57 11 5.74 12 3.92 47 6.11 7 5.39 17 4.72 34 6.33 3 3.89 46 4.12 45	6.60 5.56 8 5.56 14 5.13 20 5.92 6 4.66 34 Security subindex Violent crimes per 100,000 inhabitants Thefts per 100,000 inhabitants Thefts per 100,000 inhabitants 4.89 26 Infrastructure subindex 5.57 11 % of households with computers % of adults online 3.92 47 Human resources subindex 6.11 7 % of population without health insurance % of population that graduated from high school Enrollment in degree-granting institutions per capita % of adults in the labor force Nonfederal physicians per 100,000 inhabitants Scientists and engineers in the labor force High-tech payroll as % of total payroll 4.72 34 Finance and cost subindex Scientists and engineers in the labor force High-tech payroll as % of GMP 3.89 46 Openness subindex Exports per capita Venture capital as % of GMP 4.12 45 Domestic competition subindex New publicly traded companies Environmental policy subindex New publicly traded companies Environmental policy subindex Serious pollution days p.a.	6.60

<u>Index</u> 4.85

25

SAN DIEGO

Falling in the middle of the overall ranking, San Diego places 49 in the finance and cost subindex with a low level of bank deposits and high cost of living. This metro area performs well on both the technology and domestic competition subindexes.

Competitive Advantages			Competitive Disadvantages				
Subindex/Variable	Index Rank		Subindex/Variable	Index	Ranl		
Government and fiscal policy subindex	4.63	32	Government and fiscal policy subindex	4.63	32		
Bond rating: S&P's/Moody's composite	5.56	14	Workers' compensation collections per employee	4.99	36		
Unemployment payments per unemployed worker	5.45	19	State bond rating	3.11	46		
Security subindex	5.60	15	Security subindex	5.60	15		
Thefts per 100,000 inhabitants	6.49	5	Crime index change 1999-2000, %	3.75	45		
Murders per 100,000 inhabitants	5.86	10					
Infrastructure subindex	5.40	16	Infrastructure subindex	5.40	16		
Mass transit availability	5.21	16	Median household gross rent	3.62	48		
% of households with computers	6.03	7					
% of adults online	5.69	12					
Human resources subindex	5.34	16	Human resources subindex	5.34	16		
Unemployment rate	5.70	14	% of population without health insurance	3.94	41		
Enrollment in degree-granting institutions per capita	5.92	7	% of population that graduated from high school	4.99	31		
% of population born abroad	6.42	5	% of labor force represented by unions	4.33	34		
Infant mortality rate, deaths per 1000 live births	5.98	8	% of adults in the labor force	4.06	42		
Technology subindex	5.54	10	Technology subindex	5.54	10		
Academic R&D funding relative to employment	5.13	11	-				
NIH support to institutions per capita	5.43	11					
New patents issued per 100,000 inhabitants	5.78	7					
Science & engineering grad. students per capita	5.20	17					
Scientists and engineers in the labor force	5.35	17					
High-tech payroll as % of total payroll	5.38	13					
Finance and cost subindex	3.23	49	Finance and cost subindex	3.23	49		
Venture capital as % of GMP	5.61	7	Bank deposits per capita Cost of living	3.67 3.36	48 47		
Openness subindex	4.89	24	Openness subindex	4.89	24		
Exports per capita	5.31	15					
Domestic competition subindex	5.89	12	Domestic competition subindex	5.89	12		
Net firm creation per 100,000 inhabitants	6.08	9					
Cognetics entrepreneurial hot spot index New publicly traded companies	5.35	18					
Environmental policy subindex	5.49	7	Environmental policy subindex	2.00			
Toxic release, pounds per capita	3.86	41	Electricity prices, \$ per mbtu	3.86	41		
Toxio Tolease, poullus per capita	5.25	1	Pollution standards index	3.64 3.60	42 45		
			1 Ollulion Standards Index	3.00	40		

SAN FRANCISCO

7.44

2

San Francisco ranks 2 for overall competitiveness. The metro area owes its position to very high rankings for domestic competition, finance and cost, technology and openness. Its few weaknesses are high housing cost, long commuting time and overall weak fiscal policy.

Competitive Advantages	Competitive Disadvantages				
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex	4.38	36	Government and fiscal policy subindex	4.38	36
			Workers' compensation collections per employee State bond rating	4.99 3.11	36 46
Security subindex	5.01	25	Security subindex	5.01	25
Thefts per 100,000 inhabitants	5.88	11	Crime index change 1999-2000, %	3.37	49
Murders per 100,000 inhabitants	5.54	16			
Infrastructure subindex	4.78	27	Infrastructure subindex	4.78	27
Mass transit availability	6.59	3	Travel time to work	3.69	46
% of households with computers	6.03	7	Median household gross rent	1.23	50
% of adults online	7.07	-			
Human resources subindex	6.19	8	Human resources subindex	6.19	8
% of population that graduated from high school	opulation that graduated from high school 5.36 20 % of population without health insurance		3.94	41	
mployment rate 6.01 9 % of labor force represented by unions		4.33	34		
Enrollment in degree-granting institutions per capita	5.92	7			
% of adults in the labor force	5.64	13			
% of population born abroad	7.12	3			
Infant mortality rate, deaths per 1000 live births	6.31	5			
Nonfederal physicians per 100,000 inhabitants	5.08	11			
Technology subindex	6.66	4	Technology subindex	6.66	4
Academic R&D funding relative to employment	5.00	15			
NIH support to institutions per capita	5.43	11			
New patents issued per 100,000 inhabitants	8.21	3			
Science & engineering grad. students per capita	5.20	17			
Scientists and engineers in the labor force	5.35	17			
High-tech payroll as % of total payroll	7.81	1			
Finance and cost subindex	8.31	1	Finance and cost subindex	8.31	1
Bank deposits per capita Venture capital as % of GMP	5.71 10.00	11 1	Cost of living	3.66	43
Openness subindex	6.99	3	Openness subindex	6.99	3
Exports per capita	7.50	2			
Air passengers per capita	5.19	16	2 4 44 44		
Domestic competition subindex	7.42	1	Domestic competition subindex	7.42	1
Net firm creation per 100,000 inhabitants New publicly traded companies	5.66 9.70	14 1			
Environmental policy subindex	5.48	14	Environmental policy subindex	5.48	14
Toxic release, pounds per capita	5.24	9	Electricity prices, \$ per mbtu	3.64	42
Pollution standards index	6.18	6			
Serious pollution days p.a.	5.85	8		1	

SEATTLE

Overall Rank

<u>Index</u> 7.48

1

Seattle owes its first place to its strength in environmental policy, degree of openness, infrastructure and domestic competition. An area for further improvement is government and fiscal policy, where weakness is caused largely by workers' compensation collections and unemployment payments.

Competitive Advantage	s	Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank
Government and fiscal policy subindex	4.11	40	Government and fiscal policy subindex	4.11	40
Bond rating: S&P's/Moody's composite	5.98	8	Taxes as a % of current GSP	4.75	34
State bond rating	5.53	14	Workers' compensation collections per employee Unemployment payments per unemployed worker	2.86 3.36	46 47
Security subindex	5.19	22	Security subindex	5.19	22
Violent crimes per 100,000 inhabitants	5.64	14	Crime index change 1999-2000, %	4.51	33
Murders per 100,000 inhabitants	5.92	7	Thefts per 100,000 inhabitants	4.38	35
Infrastructure subindex	7.34	2	Infrastructure subindex	7.34	2
Mass transit availability	7.38	2	Travel time to work	4.34	39
% of households with computers	lds with computers 6.82 4 Median household gross rent		4.06	42	
% of adults online	6.66	3	·		
Human resources subindex	5.46	13	Human resources subindex	5.46	13
igh school finishers as % of 18-year olds 5.05 20 % of labor force represented by unions		4.01	45		
% of population that graduated from high school	6.92	2	Unemployment rate	4.17	39
% of population born abroad	5.15	18			İ
Technology subindex	5.61	9	Technology subindex	5.61	9
NIH support to institutions per capita	6.09	5	Science & engineering grad. students per capita	3.95	45
New patents issued per 100,000 inhabitants	5.09	13			İ
Scientists and engineers in the labor force	6.06	7			İ
High-tech payroll as % of total payroll	6.47	6			
Finance and cost subindex	5.75	13	Finance and cost subindex	5.75	13
Venture capital as % of GMP	7.51	2	Cost of living	3.77	42
Openness subindex	8.05	1	Openness subindex	8.05	1
Exports per capita	9.15	1			1
Air passengers per capita	4.99	19			
Domestic competition subindex	6.53	4	Domestic competition subindex	6.53	4
Net firm creation per 100,000 inhabitants New publicly traded companies	5.12 9.00	18 2	Cognetics entrepreneurial hot spot index	4.17	41
Environmental policy subindex	7.38	1	Environmental policy subindex	7.38	1
Electricity prices, \$ per mbtu	6.87	1			ĺ
Toxic release, pounds per capita	5.23	13			1
Pollution standards index	6.21	4			ĺ
Serious pollution days p.a.	6.00	2		1	İ

<u>Index</u> <u>Overall Rank</u>

5.37 **13**

ST. LOUIS

Infrastructure and finance measures are St. Louis' bright spots. Low housing cost and significant available R&D funding are among the competitive advantages. High toxic release and pollution, a poor metro area bond rating and slow entrepreneurial activity count as disadvantages.

Competitive Advantages			Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank	
Government and fiscal policy subindex	5.34	22	Government and fiscal policy subindex	5.34	22	
Taxes as a % of current GSP	5.57	17	Bond rating: S&P's/Moody's composite	3.65	44	
State bond rating	5.97	10				
Security subindex	5.48	19	Security subindex	5.48	19	
Violent crimes per 100,000 inhabitants	5.48	17				
Crime index change 1999-2000, %	5.47	14				
Infrastructure subindex	5.47	13	Infrastructure subindex	5.47	13	
% of households with computers	5.15	17	% of adults online	4.80	30	
Median household gross rent	6.11	7	Travel time to work	4.98	31	
Human resources subindex	4.93	26	Human resources subindex	4.93	26	
population without health insurance 5.65 17 Unemployment rate		4.21	37			
High school finishers as % of 18-year olds	5.37 16 % of population born abroad		4.05	47		
Enrollment in degree-granting institutions per capita % of adults in the labor force	5.62	14	Infant mortality rate, deaths per 1000 live births Nonfederal physicians per 100,000 inhabitants	4.80	30	
Technology subindex	5.05	18	Technology subindex	5.05	18	
Academic R&D funding relative to employment	5.67	6	Science & engineering grad. students per capita	4.81	30	
NIH support to institutions per capita	5.23	18				
Finance and cost subindex	5.57	14	Finance and cost subindex	5.57	14	
Bank deposits per capita	5.27	17				
Cost of living	5.62	16				
Venture capital as % of GMP	4.86	15	Opennose subindex	5.05	10	
Openness subindex Air passengers per capita	5.25	18 9	Openness subindex Exports per capita	5.25	18 32	
	5.78	9		4.56	32	
Domestic competition subindex	4.39	38	Domestic competition subindex	4.39	38	
			Net firm creation per 100,000 inhabitants	4.33	35	
			Cognetics entrepreneurial hot spot index	4.70	31	
Fundamental malian and in-de-			New publicly traded companies	4.66	30	
Environmental policy subindex	5.08	24	Environmental policy subindex Toxic release, pounds per capita	5.08	24	
Serious pollution days p.a.	5.59	18	Pollution standards index	5.00 4.26	44 40	

4.01 44

Tampa's low ranking of 44 points to many problems: a high tax burden, high crime rates, low level of exports and a poor technology sector. Poor infrastructure is also a disadvantage. The metro area scores moderately well for the finance and environmental subindexes.

Competitive Advantages			Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank	
Government and fiscal policy subindex	5.18	24	Government and fiscal policy subindex	5.18	24	
Workers' compensation collections per employee	5.56	12	Taxes as a % of current GSP	4.53	37	
State bond rating	5.13	20	Bond rating: S&P's/Moody's composite	4.71	36	
Unemployment payments per unemployed worker	5.58	17				
Security subindex	3.90	43	Security subindex	3.90	43	
Murders per 100,000 inhabitants	5.40	20	Crime index change 1999-2000, %	4.35	36	
			Violent crimes per 100,000 inhabitants	3.24	46	
			Thefts per 100,000 inhabitants	4.37	37	
Infrastructure subindex	4.22	39	Infrastructure subindex	4.22	39	
		Mass transit availability	4.38	38		
			% of adults online	4.19	40	
Human resources subindex	4.73	28	Human resources subindex	4.73	28	
% of labor force represented by unions		13	% of population without health insurance	4.73	36	
Unemployment rate		17	High school finishers as % of 18-year olds	4.04	41	
% of adults in the labor force	1 5.5.		4.67	35		
Nonfederal physicians per 100,000 inhabitants	5.07	15	Enrollment in degree-granting institutions per capita	3.85	45	
			Infant mortality rate, deaths per 1000 live births	4.53	34	
Technology subindex	4.04	41	Technology subindex	4.04	41	
			NIH support to institutions per capita	3.96	44	
			New patents issued per 100,000 inhabitants	4.32	37	
			Science & engineering grad. students per capita	4.00	39	
			Scientists and engineers in the labor force	3.85	42	
Finance and cost subindex	5.03	24	Finance and cost subindex	5.03	24	
Bank deposits per capita	5.11	20	Venture capital as % of GMP	4.58	35	
Openness subindex	4.13	41	Openness subindex	4.13	41	
			Exports per capita	4.06	43	
Domestic competition subindex	4.54	31	Domestic competition subindex	4.54	31	
			Net firm creation per 100,000 inhabitants	4.51	30	
			New publicly traded companies	4.58	34	
Environmental policy subindex	5.08	23	Environmental policy subindex	5.08	23	
Serious pollution days p.a.	5.84	9	Electricity prices, \$ per mbtu	4.95	32	
	1]	Pollution standards index	4.21	41	

11

WASHINGTON

Ranking 11 for overall competitiveness, Washington's advantages are the human resources and technology subindexes. Domestic competition is relatively robust and the metro area also benefits from improving crime rates. Among the weak spots are long commuting time and low export level.

Competitive Advantages			Competitive Disadvantages			
Subindex/Variable	Index	Rank	Subindex/Variable	Index	Rank	
Government and fiscal policy subindex	5.24	23	Government and fiscal policy subindex	5.24	23	
State bond rating	5.82	13	Taxes as a % of current GSP	4.86	32	
Unemployment payments per unemployed worker	5.77	11	Workers' compensation collections per employee	5.30	32	
			Bond rating: S&P's/Moody's composite	3.92	42	
Security subindex	5.64	13	Security subindex	5.64	13	
Crime index change 1999-2000, %	7.69			4.43	38	
			Murders per 100,000 inhabitants	4.06	46	
Infrastructure subindex	4.57	35	Infrastructure subindex	4.57	35	
Mass transit availability	5.67	7	Travel time to work	2.83	49	
% of households with computers	5.36	16			47	
% of adults online	6.58	4				
Human resources subindex	6.33	5	Human resources subindex	6.33	5	
% of population without health insurance	5.71	15	Infant mortality rate, deaths per 1000 live births	4.27	37	
High school finishers as % of 18-year olds	5.97	8				
% of population that graduated from high school	5.64	11				
Unemployment rate	5.42	20				
Enrollment in degree-granting institutions per capita	5.71	12				
% of population born abroad	5.31	13				
Nonfederal physicians per 100,000 inhabitants	7.07	4				
Technology subindex	6.78	3	Technology subindex	6.78	3	
Academic R&D funding relative to employment	6.07	3	New patents issued per 100,000 inhabitants	4.63	31	
NIH support to institutions per capita	7.38	2	High-tech payroll as % of total payroll	4.00	46	
Science & engineering grad. students per capita	7.72	2				
Scientists and engineers in the labor force	7.68	2				
Finance and cost subindex	4.21	39	Finance and cost subindex	4.21	39	
Venture capital as % of GMP	4.97	10	Bank deposits per capita	4.45	35	
			Cost of living	4.52	35	
Openness subindex	4.29	38	Openness subindex	4.29	38	
			Exports per capita	4.20	41	
Domestic competition subindex Net firm creation per 100,000 inhabitants	5.27 4.97	17 20	Domestic competition subindex	5.27	17	
Cognetics entrepreneurial hot spot index	4.97 5.67	10				
New publicly traded companies	4.93	18				
Environmental policy subindex	4.93	29	Environmental policy subindex	4.93	29	
	7.00		Pollution standards index	4.74	32	
			Serious pollution days p.a.	4.94	32	

WEST PALM BEACH

Index Overall Rank
4.76 30

Strong domestic competition and good environmental policy are West Palm Beach's strongest competitive advantages. A high crime rate, expensive housing and high taxes keep the overall ranking at a below average 30. A lackluster technology sector is another disadvantage.

Competitive Advantages	Competitive Disadvantages				
Subindex/Variable	Index	Rank			Rank
Government and fiscal policy subindex	5.68	16	Government and fiscal policy subindex	5.68	16
Workers' compensation collections per employee	5.56	12	Taxes as a % of current GSP	4.53	37
Bond rating: S&P's/Moody's composite	6.19	1			
State bond rating	5.13	20			
Unemployment payments per unemployed worker	5.49	18			
Security subindex	3.95	42	Security subindex	3.95	42
			Crime index change 1999-2000, %	4.77	30
			Violent crimes per 100,000 inhabitants	4.02	42
			Thefts per 100,000 inhabitants	3.62	46
Infrastructure subindex	3.82	46	Infrastructure subindex	3.82	46
			% of adults online	4.22	39
			Median household gross rent	3.90	44
Human resources subindex	4.00	20	Human resources subindex	4.00	20
% of labor force represented by unions	4.60	30	% of population without health insurance	4.60	30
% of population born abroad	, , ,		4.14	36	
Nonfederal physicians per 100,000 inhabitants	5.09	/ 15	Unemployment rate	4.09 4.28	39 36
Nonederal physicians per 100,000 illiabitants	3.07	13	Enrollment in degree-granting institutions per capita	3.85	45
Technology subindex	4.45	37	Technology subindex	4.45	37
New patents issued per 100,000 inhabitants	5.01	16	Academic R&D funding relative to employment	4.33	42
High-tech payroll as % of total payroll	6.53	5	NIH support to institutions per capita	3.96	44
			Science & engineering grad. students per capita	4.00	39
			Scientists and engineers in the labor force	3.85	42
Finance and cost subindex	5.16	18	Finance and cost subindex	5.16	18
Cost of living	5.62	13	Venture capital as % of GMP	4.64	30
Openness subindex	3.84	47	Openness subindex	3.84	47
			Exports per capita	3.97	46
			Air passengers per capita	4.46	32
Domestic competition subindex	6.48	5	Domestic competition subindex	6.48	5
Net firm creation per 100,000 inhabitants	6.64	3			
Cognetics entrepreneurial hot spot index	5.24	19			
New publicly traded companies	6.31	3			
Environmental policy subindex	6.03	6	Environmental policy subindex	6.03	6
Toxic release, pounds per capita	5.24	8	Electricity prices, \$ per mbtu	4.95	32
Pollution standards index	5.79	15			
Serious pollution days p.a.	5.91	4	1		

Data Charts



Real GMP, \$ per capita, 2001

Real personal income, \$ per capita, 2000

Rank	Metro	\$	
1	Hartford	53,722	
2	Charlotte	47,889	
3	Houston	47,377	
1	Richmond	47,083	
5	Atlanta	47,067	
3	San Francisco	47,048	
7	Boston	46,346	
3	Dallas	45,913	
)	Denver	43,266	
0	Washington	43,255	
11	Minneapolis	42,990	
12	Jacksonville	42,925	
13	Greensboro	42,545	
14	Louisville	42,374	
15	Raleigh	42,274	
16	Austin	42,068	
17	Seattle	41,869	
18	Grand Rapids	41,847	
9	Columbus	41,692	
20	Sacramento	41,408	
21	Nashville	41,062	
22	Rochester	40,173	
23	Buffalo	40,173	
23 24		39,897	
2 4 25	Kansas City New York	•	
		39,763	
26	Chicago	39,758	
27	Memphis	39,496	
28	Los Angeles	39,402	
29	Orlando	39,134	
30	Indianapolis	38,789	
31	San Antonio	38,542	
32	Cincinnati	38,124	
33	Tampa	37,987	
34	Philadelphia	37,696	
35	St. Louis	37,455	
36	San Diego	37,429	
37	Milwaukee	37,413	
38	Cleveland	37,197	
39	New Orleans	37,035	
40	Pittsburgh	36,441	
11	Salt Lake City	36,050	
12	Las Vegas	35,362	
13	Phoenix	35,348	
14	Detroit	35,281	
45	Norfolk	35,202	
46	Portland	34,696	
47	Miami	32,937	
48	Oklahoma City	32,813	
49	West Palm Beach	32,784	
50	Providence	26,606	

Rank	Metro	\$	
1	San Francisco	44,625	
2	West Palm Beach	43,491	
3	Atlanta	37,972	
4	Minneapolis	37,249	
5	New York	37,219	
6	Washington	37,203	
7	Houston	37,069	
8	Boston	36,409	
9	Denver	36,372	
10	Austin	35,557	
11	Raleigh	35,527	
12	Dallas	35,021	
13	Seattle	34,552	
14	Chicago	34,257	
15	Hartford	34,107	
16	Charlotte	33,710	
17	Nashville	33,450	
18	Detroit	33,196	
19	St. Louis	33,134	
20	Kansas City	32,934	
21	Louisville	32,899	
22	Milwaukee	32,843	
23	Richmond	32,825	
24	Philadelphia	32,594	
25	•	32,160	
26	Indianapolis Cincinnati		
	Memphis	31,808	
27	•	31,592	
28	Pittsburgh	31,378	
29	Columbus	31,306	
30	Cleveland	31,226	
31	Greensboro	31,025	
32	San Diego	30,749	
33	Jacksonville	30,142	
34	Sacramento	29,753	
35	Grand Rapids	29,606	
36	Portland	29,558	
37	Los Angeles	29,551	
38	Tampa	29,451	
39	San Antonio	28,379	
40	Orlando	28,202	
41	New Orleans	28,006	
42	Miami	27,891	
43	Las Vegas	27,789	
44	Phoenix	27,771	
45	Oklahoma City	27,578	
46	Norfolk	27,444	
47	Providence	26,980	
48	Rochester	26,813	
49	Salt Lake City	26,166	
50	Buffalo	25,292	

Source: US Conference of Mayors, adjusted for cost of living index based on data from Statistical Abstract of the United States and Taubman Center at Harvard University.

Source: Bureau of Economic Analysis, adjusted for cost of living index based on data from Statistical Abstract of the United States and Taubman Center at Harvard University.

Taxes as a % of current GSP, fiscal year 1998-99

Workers' compensation collections, \$ per employee, fiscal year 1998-99

Rank Metro W
2 Memphis 7.6 1 Denver 0.0 3 Austin 7.6 1 Greensboro 0.0 3 Dallas 7.6 1 Indianapolis 0.0 3 Houston 7.6 1 Nashville 0.0 3 San Antonio 7.6 1 Raleigh 0.0 4 Las Vegas 8.3 7 Milwaukee 0.2 8 New Orleans 8.4 8 Austin 0.4 9 Atlanta 8.4 8 Dallas 0.4 10 Portland 8.4 8 Austin 0.4 11 Greensboro 8.6 8 San Antonio 0.4 11 Greensboro 8.6 8 San Antonio 0.4 11 Raleigh 8.6 12 Jacksonville 0.4 11 Raleigh 8.6 12 Jacksonville 0.4 12 Rishin
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37 Jacksonville 9.7 36 Sacramento 107.3
37 Miami 9.7 36 San Diego 107.3
37 Orlando 9.7 36 San Francisco 107.3
37 Tampa 9.7 40 New York 136.5
37 West Palm Beach 9.7 41 Salt Lake City 152.8
42 Providence 10.2 42 Phoenix 163.9
43 Detroit 10.3 43 Rochester 212.0
43 Grand Rapids 10.3 44 Buffalo 212.0
45 Hartford 10.4 45 Portland 402.9
46 Minneapolis 10.6 46 Seattle 507.6
47 New York 11.0 47 Cincinnati 571.3
48 Milwaukee 11.0 48 Las Vegas 582.7
49 Buffalo 11.6 49 Cleveland 698.0
49 Rochester 11.6 49 Columbus 698.0

Source: US Census Bureau and Bureau of Economic Analysis. Estimated as a weighted average of the component state data.

Source: US Census Bureau and Bureau of Labor Statistics. Estimated as a weighted average of the component state data.

Bond rating: composite of Standard & Poor's and Moody's, 2000

State bond rating, 2001

Rank	Metro	Index
1	Charlotte	25.0
1	Columbus	25.0
1	Indianapolis	25.0
1	Portland	25.0
1	Raleigh	25.0
1	West Palm Beach	25.0
7	Minneapolis	24.5
8	Grand Rapids	24.5
8	Seattle	24.5
10	Dallas	24.3
11	Cincinnati	24.0
11	Greensboro	24.0
13	Phoenix	23.9
14	Austin	23.5
14	Denver	23.5
14	Salt Lake City	23.5
14	San Antonio	23.5
14	San Diego	23.5
19	Jacksonville	23.0
19	Memphis	23.0
19	Milwaukee	23.0
19	Nashville	23.0
19	Oklahoma City	23.0
19	Sacramento	23.0
25	Los Angeles	23.0
26	Norfolk	23.0
27	San Francisco	22.6
28	Atlanta	22.5
28	Kansas City	22.5
30	Boston	22.0
30	Houston	22.0
30	Las Vegas	22.0
30	Louisville	22.0
30	Orlando	22.0
30	Richmond	22.0
36	Tampa	21.5
37	Rochester	21.5
38	Cleveland	21.1
39	Chicago	21.0
39	Hartford	21.0
41	Providence	20.0
42	Washington	19.6
43	New York	19.5
44	Pittsburgh	19.0
44	St. Louis	19.0
46	Detroit	18.5
47	New Orleans	17.5
47 47	Philadelphia	
		17.5
49 50	Buffalo Miami	17.0 15.0
50	iviiaifil	10.0

Rank	Metro	Index	
1	Atlanta	25.0	
1	Detroit	25.0	-
1	Grand Rapids	25.0	-
1	Richmond	25.0	
1	Salt Lake City	25.0	-
6	Norfolk	25.0	
7	Minneapolis	24.9	
8	Kansas City	24.6	
9	Charlotte	24.6	
10	St. Louis	24.5	
11	Greensboro	24.5	
11	Raleigh	24.5	
13	Washington	24.4	
14	Cleveland	24.0	
14	Columbus	24.0	
14	Denver	24.0	
14	Indianapolis	24.0	
14	Seattle	24.0	
19	Cincinnati	23.9	
20	Austin	23.5	
20	Dallas	23.5	
20	Houston	23.5	
20	Jacksonville	23.5	
20	Miami	23.5	
20	Orlando	23.5	
20	San Antonio	23.5	
20	Tampa	23.5	
20	West Palm Beach	23.5	
29	Philadelphia	23.3	
30	Louisville	23.2	
31	Portland	23.2	
32	Chicago	23.1	
33	Hartford	23.0	
33	Las Vegas	23.0	
33	Nashville	23.0	
33	Phoenix	23.0	
33	Pittsburgh	23.0	
38	Memphis	23.0	
39	Boston	22.6	
40	Milwaukee	22.5	
40	Oklahoma City	22.5	
42	New York	22.3	
43	Providence	22.1	
44	Buffalo	21.5	-
44	Rochester	21.5	-
44	Los Angeles	21.0	
46	Sacramento	21.0	
46	San Diego	21.0	
46	San Francisco	21.0	
50	New Orleans	20.0	1
50	1 TOW OHIGHIS	20.0	

Source: Calculated based on data from Statistical Abstract of the United States. Bond ratings were scaled from 1 to 25.

Source: Statistical Abstract of the United States and Census of Population. Estimated as a weighted average of the component state data. Bond ratings were scaled from 1 to 25.

Unemployment payments per unemployed worker, 2000

Crime index change, 1999-2000

Rank	Metro	\$	Rank	Metro	%	
1	New Orleans	1,673	1	Washington	-16.3	
2	Atlanta	1,931	2	Memphis	-15.5	
3	Richmond	1,942	3	San Antonio	-11.8	
4	Phoenix	2,001	4	Kansas City	-11.2	
5	Orlando	2,344	5	Buffalo	-8.2	
6	San Antonio	2,382	6	Oklahoma City	-8.0	
7	Norfolk	2,406	7	Austin	-6.1	
8	Jacksonville	2,475	8	Rochester	-5.8	
9	Denver	2,490	9	Phoenix	-5.1	
10	Austin	2,531	10	Sacramento	-4.3	
11	Washington	2,604	11	Hartford	-4.2	
12	Los Angeles	2,651	12	Columbus	-3.9	
13	Houston	2,699	13	Denver	-3.9	
14	Oklahoma City	2,780	14	St. Louis	-3.6	
15	Miami	2,791	15	Louisville	-3.5	
16	Memphis	2,798	16	Las Vegas	-3.5	
17	Tampa	2,891	17	Jacksonville	-3.3	
18	West Palm Beach	3,023	18	Boston	-2.8	-
19	San Diego	3,097	19	Houston	-2.3	
20	Cincinnati	3,132	20	Nashville	-2.2	
21	Cleveland	3,171	21	Los Angeles	-2.0	
22	Columbus	3,196	22	Portland	-1.8	
23	Indianapolis	3,283	23	Dallas	-1.1	
24	Salt Lake City	3,307	24	Grand Rapids	-1.0	
25	St. Louis	3,383	25	Richmond	-1.0	
26	Kansas City	3,404	26	Cincinnati	-0.9	
27	Dallas	3,525	27	Minneapolis	-0.8	
28	Sacramento	3,546	28	Greensboro	-0.7	ı
29	San Francisco	3,576	29	Providence	-0.6	
30	Raleigh	3,586	30	West Palm Beach	0.3	ı
31	Charlotte	3,689	31	Pittsburgh	0.5	ı
32	Louisville	3,741	32	Indianapolis	1.1	ı
33	Buffalo	3,895	33	Seattle	1.9	
34	Rochester	4,027	34	Raleigh	2.3	
35	Greensboro	4,124	35	Norfolk	2.5	
36	Nashville	4,162	36	Tampa	2.7	
37	Chicago	4,377	37	Philadelphia	3.4	
38	Las Vegas	4,612	38	Miami	3.4	
39	Minneapolis	4,824	39	New York	3.5	
40	Portland	4,910	40	Atlanta	3.6	
41	Milwaukee	4,937	41	Milwaukee	4.0	
42	Grand Rapids	4,956	42	Cleveland	4.6	
43	New York	4,989	43	Charlotte	5.2	
44	Detroit	5,154	44	Salt Lake City	5.6	
45	Philadelphia	5,909	45	San Diego	6.1	_
46	Providence	6,074	46	Detroit	6.4	_
47	Seattle	6,252	47	New Orleans	6.4	
48	Pittsburgh	6,543	48	Chicago	6.6	_
49	Hartford	8,291	49	San Francisco	8.3	
50	Boston	8,568	50	Orlando	9.4	

Source: Calculated based on data from Bureau of Economic Analysis and Bureau of Labor Statistics.

Source: Calculated based on data from US Department of Housing and Urban Development.

Violent crimes per 100,000 inhabitants, 2000

Thefts per 100,000 inhabitants, 2000

1,448.7

Metro Chicago

Rank	Metro	#	
1	Rochester	228.9	
2	Hartford	276.2	
3	Cincinnati	285.6	
4	Providence	293.7	
5	Denver	330.8	
6	Pittsburgh	333.0	
7	Salt Lake City	342.4	
8	Minneapolis	353.7	
9	Austin	365.3	
10	Cleveland	365.8	
11	Grand Rapids	414.8	
12	Portland	420.6	
13	Milwaukee	424.3	
14	Seattle	426.3	
15	Boston	445.7	
16	Richmond	450.5	
17	St. Louis	455.5	
18	Buffalo	458.4	
19	Norfolk	472.4	
20	Raleigh	472.6	
21	Columbus	478.6	
22	San Diego	485.1	
23	San Francisco	505.0	
24	Indianapolis	506.9	
25	Oklahoma City	513.3	
26	Louisville	515.7	
27	Sacramento	517.8	
28	Greensboro	546.4	
29	New York	549.2	
30	Phoenix	550.4	
31	Las Vegas	550.5	
32	=	550.6	
33	Kansas City	557.1	
34	Chicago San Antonio	578.8	
35	Atlanta		
		578.9	
36 37	Dallas Philadalphia	585.0	
	Philadelphia Washington	635.5	\equiv
38 39	Washington	657.5	\equiv
	Houston Detroit	675.0	\equiv
40		688.1	
41	Los Angeles West Palm Beach	721.7	
42		737.5	
43	New Orleans	737.9	
44	Charlotte	763.1	
45	Orlando	876.4	
46	Tampa	886.9	
47	Jacksonville	942.2	
48	Nashville	961.2	
49	Miami	962.7	
50	Memphis	1,001.7	

		.,	
2	Boston	1,609.6	
3	Pittsburgh	1,655.7	
4	New York	1,692.0	
5	San Diego	1,700.5	
6	Los Angeles	1,700.9	
7	Hartford	2,044.7	
8	Providence	2,084.5	
9	Indianapolis	2,087.7	
10	Louisville	2,096.0	
11	San Francisco	2,148.2	
12	Cleveland	2,191.0	
13	Las Vegas	2,204.1	
14	Buffalo	2,283.2	
15	Detroit	2,316.3	
16	Sacramento	2,336.7	
17	Cincinnati	2,350.0	
18	Philadelphia	2,360.2	
19	Grand Rapids	2,452.2	
20	Denver	2,499.2	
21	Washington	2,535.2	
22	St. Louis	2,589.8	
23	Rochester	2,599.8	
24	Houston	2,716.7	
25	Milwaukee	2,823.0	
26	Minneapolis	2,848.7	
27	Kansas City	2,864.4	
28	Norfolk	2,998.9	
29	Richmond	2,999.3	
30	Atlanta	3,000.8	
31	Austin	3,091.7	
32	Dallas	3,138.0	
33	Greensboro	3,153.7	
34	New Orleans	3,170.4	
35	Seattle	3,245.9	
36	Raleigh	3,255.5	
37	Tampa	3,258.3	
38	Memphis	3,272.1	
39	Orlando	3,363.4	
40	Charlotte	3,404.3	
41	Portland	3,414.4	
42	Jacksonville		
42		3,473.9	
	Nashville	3,497.3	
44	Phoenix	3,506.3	
45	Columbus	3,671.3	
46	West Palm Beach	3,808.6	
47	Miami	3,833.7	
48	Salt Lake City	3,972.1	
49	Oklahoma City	4,259.6	
50	San Antonio	4,623.5	

Source: Calculated based on data from US Department of Housing and Urban Development and Census of Population.

Source: Calculated based on data from US Department of Housing and Urban Development and Census of Population.

Murders per 100,000 inhabitants, 2000

Mass transit availability, 2000

Rank	Metro	#	Rank	Metro	Index
1	Boston	1.84	1	New York	62.9
2	Portland	2.15	2	Seattle	39.4
3	Grand Rapids	2.30	3	San Francisco	31.4
4	Hartford	2.44	4	Boston	27.4
5	Cincinnati	2.84	5	Chicago	26.5
6	Salt Lake City	3.20	6	Denver	24.3
7	Seattle	3.25	7	Washington	22.0
8	Denver	3.26	8	Portland	21.9
9	Austin	3.44	9	Miami	21.5
10	San Diego	3.45	10	Pittsburgh	21.4
11	Pittsburgh	3.46	11	San Antonio	20.9
12	Minneapolis	3.55	12	Salt Lake City	19.5
13	Buffalo	3.79	13	Los Angeles	18.9
14	Cleveland	3.90	14	Austin	18.1
15	Providence	4.26	15	Philadelphia	17.4
16	San Francisco	4.50	16	San Diego	17.2
17	Oklahoma City	4.62	17	Atlanta	16.7
18	Rochester	4.94	18	Cleveland	16.4
19	Sacramento	4.95	19	Las Vegas	15.4
20	Tampa	4.97	20	Houston	15.1
21	New York	5.00	20	Milwaukee	15.1
22	Orlando	5.05	22	New Orleans	13.9
23	Columbus	5.31	23	Hartford	13.7
24	Greensboro	5.88	24	West Palm Beach	13.3
25	West Palm Beach	6.07	25	Louisville	13.2
26	Raleigh	6.43	26	St. Louis	13.2
27	St. Louis	6.54	27	Orlando	13.1
28	San Antonio	6.56	28	Dallas	12.6
29	Miami	6.71	29	Providence	12.2
30	Louisville	6.76	30	Cincinnati	12.0
31	Phoenix	7.14	31	Minneapolis	10.9
32	Kansas City	7.21	32	Detroit	10.3
33	Houston	7.28	33	Norfolk	9.6
34	Philadelphia	7.28	34	Sacramento	9.5
35	Dallas	7.47	35	Phoenix	9.3
36	Charlotte	7.58	36	Columbus	9.0
37	Indianapolis	7.68	37	Buffalo	8.9
38	Nashville	7.88	38	Tampa	8.7
39	Milwaukee	7.88	39	Jacksonville	8.6
40	Atlanta	7.91	40	Memphis	8.0
41	Las Vegas	8.00	41	Kansas City	7.8
42	Los Angeles	8.00	42	Richmond	7.5
43	Norfolk	8.17	43	Rochester	6.7
44	Chicago	8.19	44	Indianapolis	6.3
45	Jacksonville	8.99	45	Nashville	5.4
46	Washington	9.35	46	Raleigh	4.9 ■
47	Detroit	9.90	47	Grand Rapids	4.8 ■
48	Richmond	11.36	48	Charlotte	3.9 ■
49	Memphis	14.88	49	Oklahoma City	3.6 ■
50	New Orleans	20.36	50	Greensboro	2.2

Source: Calculated based on data from US Department of Housing and Urban Development and Census of Population.

Source: Money Magazine.

% of households with computers, 2000

% of adults online, 1999

Rank	Metro	%		Rank	Metro	%	
1	Salt Lake City	66.1		1	San Francisco	56.1	
2	Denver	62.6		2	Austin	55.5	
3	Portland	61.0		3	Seattle	53.3	
4	Seattle	60.7		4	Washington	52.8	
				5	•		
5	Hartford	60.4		5 6	Salt Lake City	50.0	
6 7	Minneapolis	56.8		7	Dallas	49.6	
	Los Angeles	56.6			Denver	49.0	
7	Sacramento	56.6	_	8	Houston	48.8	
7	San Diego	56.6	_	9	Los Angeles	48.7	
7	San Francisco	56.6		10	Norfolk	48.5	
11	Boston	54.5		11	Portland	48.1	
12	Richmond	53.9		12	San Diego	46.8	
13	Kansas City	53.8		13	Sacramento	46.3	
14	Norfolk	53.8		14	Kansas City	46.1	
15	Phoenix	53.5		15	Boston	46.0	
16	Washington	53.1		16	Raleigh	45.7	
17	St. Louis	52.1		17	Atlanta	45.1	
18	Providence	51.6		18	Minneapolis	45.0	
19	Detroit	51.5		19	Chicago	44.8	
19	Grand Rapids	51.5		20	New York	43.7	
21	New York	51.5		21	Phoenix	43.4	
22	Philadelphia	51.0		22	Jacksonville	43.1	
23	Milwaukee	50.9		23	Indianapolis	42.3	
24	Chicago	50.1		24	Providence	42.2	
25	Jacksonville	50.1		25	Las Vegas	41.8	
25	Miami	50.1		25	Miami	41.8	
25	Orlando	50.1		27	Philadelphia	41.5	
25	Tampa	50.1		28	Columbus	41.1	
25	West Palm Beach	50.1		29	Hartford	40.9	
30	Cleveland	49.5		30	St. Louis	40.8	
30	Columbus	49.5		31	Grand Rapids	40.5	
32	Las Vegas	49.4		31	New Orleans	40.5	
33	Cincinnati	49.0		33	Orlando	40.3	
34	Indianapolis	48.8		34	Greensboro	39.7	
35	Buffalo	48.7		34	Oklahoma City	39.7	
35	Rochester	48.7		36	Milwaukee	38.9	
37	Pittsburgh	48.4		37	Detroit	38.8	
38	Austin	47.9		38	Cleveland	37.3	
38	Dallas	47.9		39	West Palm Beach	36.9	
38	Houston	47.9		40	Charlotte	36.7	
38	San Antonio	47.9		40	Tampa	36.7	
42	Atlanta	47.1		42	Memphis	36.1	
43	Louisville	46.8		43	Buffalo	35.9	
44	Nashville			44	Cincinnati		
44 45	Greensboro	45.7 45.3		44	Nashville	35.8	
45 47	Raleigh	45.3		46	Louisville		
47	Charlotte	45.1		47	San Antonio		
48	Memphis	44.6		48	Pittsburgh		
49	Oklahoma City	41.5		49	Richmond		
50	New Orleans	41.2		50	Rochester	24.5	

Source: National Telecommunications and Information Administration and Census of Population. Estimated as a weighted average of the component state data.

Source: Progressive Policy Institute and Center for Regional Economic Issues.

Average travel time to work, minutes per day, 2000

Rank	Metro	mins	
1	Grand Rapids	21.5	
2	Rochester	22.1	
3	Buffalo	22.2	
4	Oklahoma City	22.8	
5	Milwaukee	23.1	
6	Salt Lake City	23.2	
7	Greensboro	23.2	
8	Louisville	23.7	
9	Kansas City	23.7	
10	Hartford	23.9	
11	Columbus	24.1	
12	Providence	24.3	
13	Minneapolis	24.5	
14	Indianapolis	24.6	
15	Norfolk	24.8	
16	Portland	24.8	
17	Cleveland	24.9	
18	Las Vegas	25.0	
19	Richmond	25.1	
20	Cincinnati	25.2	
21	San Antonio	25.3	
22	Memphis	25.4	
23	Raleigh	25.5	
24	San Diego	25.7	
25	Sacramento	25.8	
26	West Palm Beach	25.9 ■	
27	Tampa	26.2	
28	Austin	26.2	
29	Denver	26.2	
30	Pittsburgh	26.2	
31	St. Louis	26.3	
32	Nashville	26.4	
33	Charlotte	26.8	
34	Phoenix	26.8	
35	Detroit	27.0	
36	Jacksonville	27.2	
37	New Orleans	27.4	
38	Orlando	27.6	
39	Seattle	28.1	
40	Dallas	28.2	
41	Boston	28.6	
42	Philadelphia	28.6	
43	Los Angeles	29.6	
44	Houston	29.6	
45	Miami	29.7	
46	San Francisco	29.9	
47	Atlanta	31.6	
48	Chicago	31.8	
49	Washington	32.3	
50	New York	34.6	

Source: Calculated based on data from US Census Bureau.

Median household gross rent, \$/month, 2000

Rank	Metro	\$
1	Pittsburgh	480.0
2	Oklahoma City	485.0
3	Louisville	495.0
4	Buffalo	514.0
5	Cincinnati	519.8
6	New Orleans	522.0
7	St. Louis	533.0
8	Providence	540.0
9	Greensboro	548.0
10	Cleveland	557.6
11	Grand Rapids	559.0
12	San Antonio	568.0
13	Memphis	569.0
14	Indianapolis	584.0
15	Kansas City	586.0
16	Milwaukee	590.2
17	Columbus	594.0
18	Detroit	594.9
19	Rochester	602.0
20	Houston	606.0
21	Nashville	613.0
22	Tampa	618.0
23	Jacksonville	620.0
24	Norfolk	620.0
25	Richmond	621.0
26	Charlotte	628.0
27	Salt Lake City	632.0
28	Minneapolis	645.0
29	Hartford	646.0
30	Philadelphia	653.8
31	Dallas	656.3
32	Chicago	660.6
33	Portland	663.9
34	Phoenix	667.0
35	Sacramento	673.1
36	Raleigh	678.0
37	Orlando	691.0
38	Miami	695.1
39	Las Vegas	701.0
40	Denver	708.5
41	Austin	721.0
42	Seattle	723.6
43	Boston	732.8
44	West Palm Beach	738.0
45	Los Angeles	744.5
46	Atlanta	745.0
47	Washington	749.7
48	San Diego	764.0
49	New York	768.9
50	San Francisco	986.3

Source : Calculated based on data from US Department of Housing and Urban Development.

% of population without health insurance, 2000

High school finishers as % of 18-year olds, school year 1999-00

Memphis	Rank	Metro	%	
Pittsburgh 7.6 Hartford 7.9 Minneapolis 8.9 Boston 9.2 Philadelphia 9.3 Grand Rapids 9.9 Detroit 9.9 Mashville 10.3 Memphis 10.7 Cleveland 10.9 Columbus 10.9 Kansas City 11.0 Washington 11.0 Cincinnati 11.2 St. Louis 11.3 Indianapolis 12.1 Richmond 12.7 Norfolk 12.7 Charlotte 12.9 Greensboro 13.0 Raleigh 13.0 Chicago 13.3 Benver 13.3 Satt Lake City 13.4 Portland 13.6 New York 13.7 Atlanta 14.6 Buffalo 15.2 Rochester 15.2 Action to the complete of the complete of the complete of the		Providence	6.6	
Hartford 7.9 Minneapolis 8.9 Boston 9.2 Philadelphia 9.3 Grand Rapids 9.9 Detroit 9.0 Detroit 9.0 De	!	Milwaukee	7.1	
Minneapolis 8.9 Boston 9.2 Philadelphia 9.3 Grand Rapids 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Description 10.3 Memphis 10.7 Cleveland 10.9 Ecolumbus 10.9 Mashington 11.0 Golomore 11.0 Golomore 11.0 Golomore 11.0 Golomore 11.0 Golomore 11.0 Golomore 11.0 Golomore 11.0 Golomore 11.0 Golomore 11.0 Golomore 11.0 Golomore 11.0 Golomore 11.0 Golomore 11.0 Golomore 11.0 Golomore 11.0 Golomore 12.1 Golomore 12.1 Golomore 12.7 Golomore 12.7 Golomore 13.0	;	Pittsburgh	7.6	
Boston		Hartford	7.9	
Philadelphia 9.3 Grand Rapids 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 10.3 Detroit 10.3 Dever 11.0 Detroit 11.0 Detroit 11.0 Detroit 11.0 Detroit 11.0 Detroit 11.1 Detroit 11.3 Detroit 12.1 Detroit 12.7 Detroit 13.0 Detroit 13.0 Detroit 13.0 Detroit 13.3 <t< td=""><td>i</td><td>Minneapolis</td><td>8.9</td><td></td></t<>	i	Minneapolis	8.9	
Grand Rapids 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 9.9 Detroit 10.3 Description 10.7 Description 10.7 Description 11.0 Description 11.0 Description 11.0 Description 11.0 Description 11.0 Description 11.0 Description 11.0 Description 11.0 Description 11.0 Description 11.3 Description 11.3 Description 11.3 Description 12.1 Description 12.1 Description 12.7 Description 12.7 Description 13.0 Description 13.0 Description 13.0 Description 13.3 Descript	i	Boston	9.2	
Detroit 9.9 Nashville 10.3 Memphis 10.7 Cleveland 10.9 Kansas City 11.0 Washington 11.0 Cincinnati 11.2 St. Louis 11.3 Indianapolis 12.1 Richmond 12.7 Norfolk 12.7 Louisville 12.7 Charlotte 12.9 Greensboro 13.0 Raleigh 13.0 Chicago 13.3 Denver 13.3 Scattle 13.3 Salt Lake City 13.4 Portland 13.6 New York 13.7 Atlanta 14.6 Buffalo 15.2 Rochester 15.2 Las Vegas 15.6 Phoenix 16.1 Jacksonville 17.3 Jacksonville 17.3 Jacksonville 17.3 Jacksonville 17.3	•	Philadelphia	9.3	
Detroit 9.9 Nashville 10.3 Memphis 10.7 Cleveland 10.9 Kansas City 11.0 Washington 11.0 Cincinnati 11.2 St. Louis 11.3 Indianapolis 12.1 Richmond 12.7 Norfolk 12.7 Louisville 12.7 Charlotte 12.9 Greensboro 13.0 Raleigh 13.0 Chicago 13.3 Denver 13.3 Scattle 13.3 Salt Lake City 13.4 Portland 13.6 New York 13.7 Atlanta 14.6 Buffalo 15.2 Rochester 15.2 Las Vegas 15.6 Phoenix 16.1 Jacksonville 17.3 Miami 17.3 Jacksonville 17.3 Miami 17.3	3	Grand Rapids	9.9	
Memphis	;		9.9	
Memphis	0	Nashville	10.3	
2 Cleveland 10.9 2 Columbus 10.9 4 Kansas City 11.0 5 Washington 11.0 6 Cincinnati 11.2 7 St. Louis 11.3 8 Indianapolis 12.1 9 Richmond 12.7 10 Norfolk 12.7 11 Louisville 12.7 12 Charlotte 12.9 13 Greensboro 13.0 14 Louisville 12.7 15 Charlotte 12.9 16 Greensboro 13.0 17 Raleigh 13.0 18 Raleigh 13.0 19 Portland 13.3 10 Chicago 13.3 13 Salt Lake City 13.4 14 Portland 13.6 15 Portland 13.6 16 New York 13.7 17 Atlanta 14.6 18 Buffalo 15.2	1	Memphis		
2 Columbus 10.9 4 Kansas City 11.0 5 Washington 11.0 6 Cincinnati 11.2 7 St. Louis 11.3 8 Indianapolis 12.1 9 Richmond 12.7 10 Norfolk 12.7 11 Louisville 12.7 12 Charlotte 12.9 13 Greensboro 13.0 14 Louisville 12.7 15 Chicago 13.3 16 Chicago 13.3 17 Seattle 13.3 18 Salt Lake City 13.4 19 Portland 13.6 10 New York 13.7 11 Atlanta 14.6 12 Rochester 15.2 13 Las Vegas 15.6 14 Las Vegas 15.6 15 Phoenix 16.1 16 Jacksonville 17.3 17 Jacksonville 17.3 </td <td>2</td> <td>•</td> <td>10.9</td> <td></td>	2	•	10.9	
4. Kansas City 11.0 5. Washington 11.0 6. Cincinnati 11.2 7. St. Louis 11.3 8. Indianapolis 12.1 9. Norfolk 12.7 10. Norfolk 12.7 11. Louisville 12.7 12. Charlotte 12.9 13. Greensboro 13.0 14. Raleigh 13.0 15. Chicago 13.3 16. Chicago 13.3 17. Seattle 13.3 18. Salt Lake City 13.4 19. Portland 13.6 10. New York 13.7 11. Atlanta 14.6 12. Rochester 15.2 13. Atlanta 14.6 14. Las Vegas 15.6 15. Phoenix 16.1 16. Jacksonville 17.3 17. Jacksonville 17.3 18. Jacksonville 17.3 19. Los Angeles 18.1 19. San Francisco 18.1 19. San Francisco 18.1 19. New Orleans 19.1	2			
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Rank	Metro	%	
1	Hartford	81.5	
2	Cleveland	78.4	
3	Salt Lake City	77.6	
4	Minneapolis	76.1	
5	Pittsburgh	75.1	
6	Kansas City	72.9	
7	Sacramento	71.4	
8	Washington	70.6	
9	Milwaukee	69.9	
10	Rochester	69.7	
11	Boston	68.9	
12	Richmond	68.8	
13	Indianapolis	68.8	
14	Portland	68.7	
15	Norfolk	67.7	
16	St. Louis	66.4	
17	Houston	66.1	
18	Buffalo	65.6	
19	Columbus	64.8	
20	Seattle	64.1	
21	San Antonio	64.1	
22	Louisville	63.7	
23		63.4	
	Grand Rapids		
24	San Francisco	63.1	
25	San Diego	63.1	
26	Oklahoma City	62.8	
27	Detroit	62.3	
28	Chicago	62.2	
29	Dallas	61.6	
30	Philadelphia	61.4	
31	Charlotte	61.3	
32	Denver	61.2	
33	Las Vegas	61.0	
34	Los Angeles	60.8	
35	New York	60.5	
36	Orlando	60.3	
37	Cincinnati	59.7	
38	Atlanta	59.4	
39	West Palm Beach	57.3	
40	New Orleans	57.3	
41	Tampa	57.0	
42	Memphis	56.9	
43	Providence	56.7	
44	Phoenix	56.3	
45	Austin	56.2	
46	Jacksonville	55.1	
47	Greensboro	53.9	
48	Miami	53.6	
49	Raleigh	52.5	
50	Nashville	48.8	!

Source: US Census Bureau. Estimated as a weighted average of the component state data.

Source: Calculated based on data from National Center for Education Statistics and US Census Bureau.

% of population aged 25 and over that graduated from high school, 2000

% of labor force represented	l by	unions
2001		

Rank	Metro	%	
1	Minneapolis	90.6	
2	Seattle	89.5	
3	Salt Lake City	87.5	
4	Kansas City	86.7	
5	Denver	86.6	
6	Portland	86.2	
7	Columbus	85.8	
8	Boston	85.7	
9	Raleigh	85.4	
10	Pittsburgh	85.1	
11	Washington	84.9	
12	Austin	84.8	
13	Norfolk	84.7	
14	Grand Rapids	84.6	
15	Sacramento	84.6	
16	Rochester	84.4	
17	Milwaukee	84.3	
18	Atlanta	84.0	
19	Indianapolis	84.0	
20	San Francisco	83.9	
21	Oklahoma City	83.6	
22	Jacksonville	83.6	
23	West Palm Beach	83.6	
24	Hartford	83.6	
25	Cleveland	83.5	
26	St. Louis	83.4	
27	Detroit	83.0	
28	Buffalo	83.0	
29	Orlando	82.8	
30	Richmond	82.6	
31	San Diego	82.6	
32	Cincinnati	82.6	
33	Phoenix	81.9	
34	Philadelphia	81.9	
35	Tampa	81.5	
36	Nashville	81.4	
37	Louisville	81.3	
38	Chicago	81.1	
39	Charlotte	80.5	
40	Dallas	79.9	
41	Memphis	79.8	
42	New York	79.4	
43	Las Vegas	79.2	
44	Greensboro	78.6	
45	New Orleans	77.7	
46	San Antonio	77.3	
47	Houston	76.4	
48	Providence	76.0	
49	Miami	73.9	
50	Los Angeles	73.0	'

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	Miami	8.5		
	Orlando	8.5		
13	Tampa	8.5		
13	West Palm Beach	8.5		
18	Memphis	8.7		
19	Nashville	8.7		
20		9.4		
	Oklahoma City			
21	Denver	10.1		
21	New Orleans	10.1		
23	Louisville	13.1		
24	Kansas City	13.8		
25	Washington	14.0		
26	Boston	15.3		
27	Indianapolis	15.3		
28	St. Louis	16.2		
29	Hartford	16.7		
30	Milwaukee	17.2		
31	Las Vegas	17.3		
32	Portland	17.4		
33	Cincinnati	18.0		
34	Los Angeles	18.0		
34	Sacramento	18.0		
34	San Diego	18.0		
34	San Francisco	18.0		
38	Providence	18.0		
39	Minneapolis	18.3		
40	Pittsburgh	18.3		
41	Philadelphia	18.6		
42	Chicago	19.1		
43	Cleveland	19.1		
43	Columbus	19.1		
45	Seattle	20.0		
46	Detroit	22.6		
46	Grand Rapids	22.6		
48	New York	25.2		
49	Buffalo	27.7		
49	Rochester	27.7		

Source: Calculated based on data from Census of Population.

Source: Bureau of Labor Statistics and Census of Population. Estimated as a weighted average of the component state data.

Unemployment rate, December 2000

Enrollment in degree-granting institutions, per 1000 inhabitants, 1999

Rank	Metro	%
1	Hartford	1.6
2	Austin	1.6
3	Raleigh	1.6
4	Richmond	1.8
5	Denver	1.9
6	Boston	1.9
7	Indianapolis	2.0
8	Minneapolis	2.1
9	San Francisco	2.1
10	Oklahoma City	2.1
11	Columbus	2.2
12	Orlando	2.3
13	Norfolk	2.3
14	San Diego	2.4
15	Phoenix	2.4
16	Atlanta	2.4
17	Tampa	2.4
18	Dallas	2.5
19	Salt Lake City	2.6
20	Washington	2.6
21	San Antonio	2.7
22	Nashville	2.8
23	Greensboro	2.8
24	Jacksonville	2.8
25	Kansas City	2.9
26	Cincinnati	2.9
27	Grand Rapids	2.9
28	Detroit	3.0
29	Louisville	3.0
30	Milwaukee	3.0
31	Providence	3.1
32	Charlotte	3.2
33	Portland	3.2
34	Houston	3.2
35	Sacramento	3.4
36	West Palm Beach	3.5
37	St. Louis	3.6
38	New York	3.6
39	Seattle	3.6
40	Memphis	3.6
41	Rochester	3.7
42	Philadelphia	3.8
43	Pittsburgh	3.8
44	Las Vegas	4.0
45	Cleveland	4.0
46	Los Angeles	4.1
47	Chicago	4.2
48	Miami	4.2
49	New Orleans	4.7
4 9	Buffalo	4.7
50	Dullaio	4.3

Rank	Metro	#	
1	Salt Lake City	75.9	
2	Providence	74.0	
3	Phoenix	68.3	
4	Boston	65.8	
5	Denver	64.5	
6	Kansas City	61.5	
7	Los Angeles	60.9	
7	Sacramento	60.9	
7	San Diego	60.9	
7	San Francisco	60.9	
11	Chicago	59.8	
12	Washington	59.3	
13	Minneapolis	59.2	
14	St. Louis	58.6	
15	Milwaukee	58.0	
16	Detroit	56.7	
16	Grand Rapids	56.7	
18	Buffalo	56.1	
18	Rochester	56.1	
20	Richmond	55.0	
21	Norfolk	55.0	
22	Oklahoma City	53.3	
23	Seattle	53.3	
24	Portland	53.0	
25	Greensboro	51.7	
25	Raleigh	51.7	
27	Las Vegas	51.4	
28	Indianapolis	51.3	
29	Charlotte	51.3	
30	New Orleans	50.6	
31	New York	50.5	
32	Pittsburgh	50.5	
33	Austin	49.4	
33	Dallas	49.4	
33	Houston	49.4	
33	San Antonio	49.4	
37	Cleveland	48.7	
37	Columbus	48.7	
39	Philadelphia	48.6	
40	Cincinnati	48.4	
41	Hartford	47.8	
42	Louisville	47.0	
43	Memphis	46.3	
44	Nashville	46.1	
45	Jacksonville	45.3	
45	Miami	45.3	
45	Orlando	45.3	
45	Tampa	45.3	
45	West Palm Beach	45.3	
50	Atlanta	40.0	
		13.0	

Source: US Bureau of Labor Statistics.

Source: Department of Education and US Census Bureau. Estimated as a weighted average of the component state data.

% of adults in the labor force, 2000

% of population born abroad, 2000

1 Grand Rapids 87.4 2 Minneapolis 85.2 3 Kansas City 85.0 4 Louisville 83.3 5 Austin 82.8 6 Tampa 82.8 7 Orlando 81.6 8 Portland 81.2 9 Columbus 81.0 10 Milwaukee 80.9 11 Dallas 80.7 12 Salt Lake City 80.5 13 San Francisco 80.2 14 St. Louis 79.9 15 Cincinnati 79.9 16 Indianapolis 79.5 17 Atlanta 79.1 18 Denver 79.0 19 Detroit 79.0 20 Charlotte 78.7 21 Washington 78.2 22 Seattle 78.0 22 Seattle 78.0 23	Rank	Metro	%	
2 Minneapolis 85.2 3 Kansas City 85.0 4 Louisville 83.3 5 Austin 82.8 6 Tampa 82.8 7 Orlando 81.6 8 Portland 81.2 9 Columbus 81.0 10 Milwaukee 80.9 11 Dallas 80.7 12 Salt Lake City 80.5 13 San Francisco 80.2 14 St. Louis 79.9 15 Cincinnati 79.9 16 Indianapolis 79.5 17 Atlanta 79.1 18 Denver 79.0 19 Detroit 79.0 20 Charlotte 78.7 21 Washington 78.2 22 Seattle 78.2 23 Rochester 78.0 24 Cleveland 78.0 25				
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OU INCOVICATIO UU.L	50	New Orleans	68.2	

Rank	Metro	%
1	Miami	40.2
2	Los Angeles	30.9
3	San Francisco	27.0
4	New York	24.4
5	San Diego	21.5
6	Houston	19.2
7	West Palm Beach	17.4
8	Las Vegas	16.5
9	Chicago	16.0
10	Dallas	15.0
11	Sacramento	14.5
12	Phoenix	14.1
13	Washington	12.9
14	Boston	12.4
15	Austin	12.2
16	Providence	12.0
17	Orlando	12.0
18	Seattle	11.7
19	Portland	11.0
		10.7
20	Denver	
21	Atlanta	10.3
22	Hartford	10.2
23	San Antonio	10.2
24	Tampa	9.8
25	Raleigh	9.2
26	Salt Lake City	8.6
27	Minneapolis	7.1
28	Detroit	7.0
29	Philadelphia	7.0
30	Charlotte	6.7
31	Greensboro	5.7
32	Rochester	5.7
33	Oklahoma City	5.7
34	Jacksonville	5.4
35	Milwaukee	5.3
36	Grand Rapids	5.2
37	New Orleans	4.8
38	Nashville	4.7
39	Columbus	4.6
40	Cleveland	4.6
41	Kansas City	4.5
42	Richmond	4.5
43	Norfolk	4.5
44	Buffalo	4.4
45	Indianapolis	3.4
46	Memphis	3.3
47	St. Louis	3.1
48	Louisville	2.7
49	Pittsburgh	2.6
50	Cincinnati	2.6

Source: Calculated based on data from Bureau of Labor Statistics and Census of Population.

Source: US Census Bureau.

Infant mortality rate, deaths per 1000 live births, 1994

Nonfederal physicians per 100,000 inhabitants, 2000

1 Providence 5.2 2 Austin 5.3 3 Boston 5.7 4 Seattle 6.0 5 San Francisco 6.1 6 Salt Lake City 6.4 7 Portland 6.5 8 San Diego 6.6 9 Dallas 6.8 10 Denver 6.9 10 Los Angeles 6.9 10 Los Angeles 6.9 12 Minneapolis 7.0 13 Orlando 7.1 14 Jacksonville 7.2 15 Oklahoma City 7.3 16 Rochester 7.4 17 Las Vegas 7.5 17 Sacramento 7.5 17 San Antonio 7.5 20 Kansas City 7.6 21 Columbus 7.8 23 New York 7.9 25 Buffalo 8.0 26 Houston 8.0	
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37 Washington 9.2	
40 Charlotte 9.3	
40 Cincinnati 9.3	
40 Hartford 9.3	
43 Detroit 9.5	
43 New Orleans 9.5	
45 Chicago 9.7	
46 Richmond 9.8	
47 Greensboro 9.9	
47 Milwaukee 9.9	
49 Cleveland 10.1	
50 Memphis 14.0	

Rank	Metro	#	
1	Boston	423.6	
2	Rochester	408.6	
2	Buffalo	408.6	
4	Washington	392.0	
5	Hartford	384.5	
6	New York	379.4	
7	Providence	374.8	
8	Pittsburgh	318.0	
9	Philadelphia	315.9	
10	Minneapolis	283.4	
11	Los Angeles	280.6	
11	Sacramento	280.6	
11	San Francisco	280.6	
11	San Diego	280.6	
15	Jacksonville	280.0	
15	Miami	280.0	
15	West Palm Beach	280.0	
15	Orlando	280.0	
15	Tampa	280.0	
20	Chicago	279.7	
21	Seattle	274.1	
22	Richmond	272.0	
23	Norfolk	271.8	
24	New Orleans	268.0	
25	Portland	266.3	
26	Denver	263.4	
27	Nashville	262.8	
28	Cleveland	262.0	
28	Columbus	262.0	
30	Milwaukee	256.5	
31	Cincinnati	256.2	
32	Greensboro	255.2	
32	Raleigh	255.2	
34	St. Louis	255.1	
35	Charlotte	252.9	
36	Memphis	252.6	
37	Grand Rapids	250.6	
37	Detroit	250.6	
39	Kansas City	241.4	
40	Phoenix	229.8	
41	Louisville	227.3	
42	Atlanta	225.3	
43	Salt Lake City	220.7	
44	Indianapolis	218.4	
45	Austin	217.3	
45	Houston	217.3	
45	San Antonio	217.3	
45	Dallas	217.3	
49	Las Vegas	198.3	
50	Oklahoma City	184.1	
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Source: US Census Bureau.

Source: Morgan Quitno Corporation. Estimated as a weighted average of the component state data.

Academic R&D funding relative to employment, 1997

Rank	Metro	%
1	Raleigh	14.5
2	Boston	11.1
3	Washington	10.8
4	Austin	10.7
5	Salt Lake City	10.6
6	St. Louis	10.5
7	Columbus	10.3
7	Greensboro	10.3
9	Atlanta	10.2
9	Richmond	10.2
11	Buffalo	10.1
11	Pittsburgh	10.1
11	Rochester	10.1
11	San Diego	10.1
15	Cincinnati	10.0
15	Houston	10.0
15	Miami	10.0
15	Providence	10.0
15	Sacramento	10.0
15	San Francisco	10.0
21	Detroit	9.9
21	Hartford	9.9
21	Minneapolis	9.9
21	New York	9.9
21		9.9
21	Philadelphia	9.9
21	Seattle	9.9
	Tampa	
28	Chicago	9.8
28	Denver	9.8
28	Nashville	9.8
28	New Orleans	9.8
28	Oklahoma City	9.8
28	San Antonio	9.8
34	Cleveland	9.7
34	Los Angeles	9.7
34	Louisville	9.7
34	Norfolk	9.7
34	Portland	9.7
39	Dallas	9.6
39	Milwaukee	9.6
39	Phoenix	9.6
42	Kansas City	9.5
42	Las Vegas	9.5
42	Memphis	9.5
42	Orlando	9.5
42	West Palm Beach	9.5
47	Charlotte	9.4
47	Grand Rapids	9.4
47	Indianapolis	9.4
47	Jacksonville	9.4

Source: Progressive Policy Institute and Center for Regional Economic Issues.

National Institutes of Health support to institutions, \$ per capita, 2001

Rank	Metro	\$	
1	Boston	214.1	
2	Washington	135.8	
3	Providence	108.2	
4	Hartford	94.6	_
5	Seattle	90.0	
6	Pittsburgh	77.1	_
7	Buffalo	75.0	_
7	Rochester	75.0	_
9	Greensboro	72.2	_
9	Raleigh	72.2	_
11	Los Angeles	66.4	_
11	Sacramento	66.4	_
11	San Diego	66.4	-
11	San Francisco	66.4	-
15	Charlotte	66.0	
16	New York	60.0	-
17	Portland	59.8	
18	St. Louis	59.3	—
19	Philadelphia	58.0	
20	Minneapolis	56.9	\rightarrow
21	Denver	56.7	
22	Salt Lake City	51.2	
23	Kansas City	47.4	
24	Milwaukee	47.2	
25	Nashville	40.3	
26	Grand Rapids	39.2	
26	Detroit	39.2	_
28	Cleveland	39.1	_
28	Columbus	39.1	
30	Chicago	37.2	
31	Houston	36.7	_
31	Austin	36.7	
31	San Antonio	36.7	
31	Dallas	36.7	-
35	Memphis	36.2	_
36	Cincinnati	36.0	_
37	Norfolk	30.6	
38	Richmond	30.1	
39	Atlanta	28.7	
40	Indianapolis	23.2	
41	Phoenix	21.3	
42	Louisville	21.2	
43	New Orleans	17.5	
44	Jacksonville	14.1	
44	West Palm Beach	14.1	
44	Miami	14.1	
44	Orlando	14.1	
44	Tampa	14.1	
49	Oklahoma City	12.9	
50	Las Vegas	9.0	1
50	Las vogas	9.0	-

Source: National Institutes of Health and US Census Bureau. Estimated as a weighted average of the component state data.

New patents issued per 100,000 inhabitants, 1999

Rank	Metro	#	
1	Rochester	145.3	
2	Austin	137.1	
3	San Francisco	136.8	
4	Raleigh	84.9	
5	Minneapolis	75.9	
6	Boston	64.5	_
7	San Diego	62.0	_
8	Cincinnati	48.4	_
9	Denver	47.3	_
10	Detroit	46.4	_
11	Portland	44.2	_
12	Hartford	43.5	
13	Seattle	40.9	
14	Dallas	39.3	
15	Philadelphia	38.8	
16	West Palm Beach	38.4	
17	Phoenix	38.2	
18	Houston	38.1	
19	Milwaukee	37.9	
20	New York	37.8	
21	Salt Lake City	37.2	
22	Cleveland	36.8	
23	Indianapolis	35.4	
24	Grand Rapids	35.4	
25	Pittsburgh	34.7	
26	Chicago	34.3	
27	Buffalo	30.3	
28	St. Louis	28.9	
29	Los Angeles	28.1	
30	Atlanta	27.1	
31	Washington	26.8	
32	Providence	24.3	
33	Columbus	23.1	
34	Sacramento	22.9	
35	Greensboro		
36		19.0 18.3	
37	Charlotte Tampa		
3 <i>1</i> 38	San Antonio	16.9 16.4	
39	Miami	16.2	
40	Louisville	16.1	
41	Kansas City	15.8	-
42	Memphis	15.2	
43	Richmond	15.2	
44	Oklahoma City	14.0	
45	Orlando	13.0	
46	Jacksonville	12.4	
47	Nashville	11.9	
48	Las Vegas	11.9	
49	New Orleans	10.4	
50	Norfolk	8.4	

Source: Calculated based on data from Patent and Trademark Office and US Census Bureau.

Science and engineering graduate students, per 100,000 inhabitants, 2000

Rank	Metro	#
1	Boston	338.5
2	Washington	298.2
3	Hartford	235.8
4	Buffalo	227.6
4	Rochester	227.6
6	Denver	227.4
7	Providence	224.4
8	Chicago	209.7
9	New York	204.1
10	Salt Lake City	203.2
11	Richmond	192.2
12	Norfolk	191.8
13	Grand Rapids	190.1
13	Detroit	190.1
15	Kansas City	189.6
16	Pittsburgh	183.5
17	Los Angeles	180.1
17	Sacramento	180.1
17	San Diego	180.1
17	San Francisco	180.1
21	Milwaukee	178.3
22	Philadelphia	176.1
23	Columbus	169.9
23	Cleveland	169.9
25	Minneapolis	168.8
26	Austin	162.6
26	Dallas	162.6
26	Houston	162.6
26	San Antonio	162.6
30	St. Louis	162.1
31	Cincinnati	160.7
32	New Orleans	157.7
33	Greensboro	156.5
33		156.5
35	Raleigh	152.3
36	Indianapolis Charlotte	149.6
37	Phoenix	149.6
38	Portland	125.9
39	Miami	124.3
39	Jacksonville	124.3
39	Orlando	124.3
39	Tampa	124.3
39	West Palm Beach	124.3
44	Atlanta	122.6
45	Seattle	122.1
46	Louisville	118.3
47	Oklahoma City	117.4
48	Nashville	115.1
49	Memphis	113.9
50	Las Vegas	85.1

Source: National Science Foundation and US Census Bureau. Estimated as a weighted average of the component state data.

% of scientists and engineers in the labor force, 1999

Rank	Metro	%	
1	Boston	17.6	
2	Washington	17.2	
3	Denver	14.7	
4	Greensboro	13.3	
4	Raleigh	13.3	
6	Charlotte	12.7	
7	Seattle	12.4	
8	Buffalo	12.2	
8	Rochester	12.2	
10	Hartford	11.8	
11	New York	11.1	
12	Minneapolis	10.8	
13	Norfolk	10.7	
14	Richmond	10.6	
15	Portland	10.6	
16	Providence	10.5	
17	Los Angeles	10.3	
17	Sacramento	10.3	
17	San Diego	10.3	
17	San Francisco	10.3	
21	Kansas City	9.8	
22	Detroit	9.1	
22	Grand Rapids	9.1	
24	St. Louis	8.9	
25	Salt Lake City	8.7	
26	Philadelphia	8.5	
27	Atlanta	8.5	
28	Oklahoma City	8.5	
29	Chicago	8.2	
30	Austin	8.2	
30	Dallas	8.2	
30	Houston	8.2	
30	San Antonio	8.2	
34	Phoenix	8.2	
35	Cleveland	7.6	
35	Columbus	7.6	
37	Pittsburgh	7.5	
38	Indianapolis	7.5 7.4	
39	Cincinnati	7.4	
40	Nashville	6.7	
41			
	Memphis	6.5	
42	Jacksonville Mismi	5.9	
42	Miami	5.9	
42	Orlando	5.9	
42	Tampa	5.9	
42	West Palm Beach	5.9	
47	Louisville	5.6	
48	Milwaukee	5.1	
49	New Orleans	5.0	
50	Las Vegas	4.3	

Source: National Science Foundation and Bureau of Labor Statistics. Estimated as a weighted average of the component state data.

High-tech payroll as % of total payroll, 2000

Rank	Metro	%	_
1	San Francisco	10.4	
2	Austin	9.8	
3	Denver	9.3	
4	Raleigh	9.1	
5	West Palm Beach	7.7	
6	Seattle	7.6	
7	Boston	6.8	
8	Dallas	6.4	
9	Atlanta	6.3	
10	Richmond	5.9	
11	Hartford	5.4	
12	Columbus	5.4	
13	San Diego	5.2	
14	Minneapolis	5.2	
15	Kansas City	5.1	
16	Phoenix	5.1	
17	Jacksonville	4.7	
18	Charlotte	4.6	
19	Philadelphia	4.4	
20	Houston	4.4	
21	New York	4.3	
22	Tampa	4.3	
22 23	St. Louis	4.2	
23 24		4.2	
2 4 25	Chicago Rochester	4.2	
26 26	Orlando	4.1	
	Portland		
27		4.0	
28	Detroit	3.8	
29	Salt Lake City	3.7	
30	Sacramento	3.7	
31	Indianapolis	3.6	
32	Cincinnati	3.5	
33	Los Angeles	3.5	
34	Milwaukee	3.2	
35	Pittsburgh	3.1	
36	Louisville	2.9	
37	Norfolk	2.8	
38	Greensboro	2.8	
39	Cleveland	2.7	
40	Memphis	2.7	
41	San Antonio	2.7	
42	Miami	2.7	
43	Nashville	2.6	
44	Buffalo	2.4	
45	Oklahoma City	2.3	
46	Washington	2.3	
47	New Orleans	2.0	
48	Grand Rapids	1.7	
49	Providence	1.6	
50	Las Vegas	1.6	

Source: Calculated based on data from Bureau of Labor Statistics.

Bank deposits per capita, 1996

Cost of living, 2000

Rank	Metro	\$	
1	New York	19,945.9	
2	Hartford	17,652.2	
3	Richmond	16,264.8	
4	Boston	16,161.1	
5	Pittsburgh	16,121.4	
6	Providence	15,438.5	
7	Philadelphia	14,572.4	
8	Greensboro	13,555.6	
9	Chicago	13,510.5	
10	Charlotte	13,154.3	
11	San Francisco	12,992.1	
12	Buffalo	12,474.4	
13	Miami	12,381.0	
14	Milwaukee	12,328.1	
15	Louisville	12,217.9	
16	Nashville	11,833.3	
17	St. Louis	11,591.7	
18	Columbus	11,474.2	
19	Atlanta	11,285.7	
20	Tampa	11,079.1	
21	Kansas City	10,838.5	
22	Cincinnati	10,807.2	
23	West Palm Beach	10,571.5	
24	Minneapolis	10,382.8	
25	Cleveland	10,203.6	
26	Grand Rapids	10,040.3	
27	Dallas	9,787.7	
28	Seattle	9,783.7	
29	Indianapolis	9,745.5	
30	Rochester	9,638.1	
31			
32	Memphis New Orleans	9,612.4	
		9,523.3	
33	Raleigh	9,338.7	
34	Detroit	9,153.1	
35	Washington	9,014.8	
36	Houston	8,649.6	
37	Phoenix	8,623.2	
38	Denver	8,604.4	_
39	Portland	8,513.2	_
40	Jacksonville	8,393.0	_
41	Oklahoma City	8,263.3	
42	Orlando	8,082.1	
43	Los Angeles	7,822.3	
44	Salt Lake City	7,665.7	
45	Las Vegas	6,789.2	
46	Austin	6,648.0	_
47	San Antonio	6,618.6	_
48	San Diego	6,545.8	_
49	Sacramento	5,954.5	
50	Norfolk	5,466.0	

Rank	Metro	#	
1	Atlanta	87.6	
2	Houston	89.5	
3	Austin	91.1	
3	San Antonio	91.1	
5	Louisville	91.9	
6	Charlotte	92.2	
6	Greensboro	92.2	
6	Raleigh	92.2	
9	Oklahoma City	92.4	
10	Memphis	92.9	
10	Nashville	92.9	
12	New Orleans	93.0	
13	Jacksonville	94.7	
13	Orlando	94.7	
13	West Palm Beach	94.7	
16	St. Louis	94.7	
17	Grand Rapids	94.7	
18	Norfolk	95.6	
18	Richmond		
20	Dallas	95.6	
		95.6	
21	Cincinnati	95.7	
22	Tampa	96.1	
23	Indianapolis	96.4	
24	Kansas City	96.7	
25	Miami	97.4	
26	Cleveland	97.6	
26	Pittsburgh	97.6	
28	Milwaukee	97.9	
29	Columbus	98.1	
30	Detroit	98.6	
31	Minneapolis	98.8	
32	Los Angeles	99.7	1
33	Salt Lake City	99.9	
34	Phoenix	100.0	
35	Washington	100.3	
36	Las Vegas	100.4	
37	Denver	100.6	
38	Chicago	100.9	
39	Sacramento	101.3	
40	Philadelphia	102.5	
41	Portland	103.4	
42	Seattle		
43	San Francisco	104.6	
44	New York	106.0	
45	Buffalo	106.0	
45	Rochester	106.0	
47	San Diego	106.2	
48	Hartford	106.6	
48	Providence	106.6	
50	Boston	106.6	
30	DOSION	0.001	_

Source: Calculated based on data from Census Bureau.

Source: Calculated based on data from Statistical Abstract of the United States and Taubman Center at Harvard University.

Venture capital as % of GMP, 1999

Exports per capita, 1999

Rank	Metro	%	Rank	Metro	\$
1	San Francisco	5.50	1	Seattle	9,708.6
2	Seattle	2.71	2	San Francisco	6,912.8
3	Austin	1.83	3	Detroit	5,653.2
4	Boston	1.53	4	Richmond	4,771.3
5	Raleigh	1.35	5	Portland	4,377.5
6	Denver	1.20	6	Minneapolis	4,317.8
7	San Diego	1.01	7	Austin	4,303.0
8	Providence	0.50	8	Houston	4,220.9
9	Grand Rapids	0.49	9	Rochester	4,049.9
10	Washington	0.44	10	Miami	3,862.8
11	Portland	0.43	11	Greensboro	3,657.1
12	Atlanta	0.42	12	Cincinnati	3,513.7
12	Minneapolis	0.42	13	Hartford	3,377.3
14	Los Angeles	0.36	14	Indianapolis	3,375.5
15	Orlando	0.34	15	San Diego	3,177.7
15	St. Louis	0.34	16	Grand Rapids	3,094.4
17	New York	0.33	17	Memphis	2,837.1
18	Las Vegas	0.30	18	Boston	2,816.4
19	Miami	0.29	19	Cleveland	2,783.5
19	Rochester	0.29	20	Raleigh	2,696.7
21	Nashville	0.24	21	New York	2,538.2
22	Chicago	0.23	22	Chicago	2,507.6
22	Philadelphia	0.23	23	Phoenix	2,499.1
24	Phoenix	0.22	24	Dallas	2,476.7
25	Dallas	0.20	25	Milwaukee	2,403.1
26	Sacramento	0.18	26	Louisville	2,378.8
27	Pittsburgh	0.17	27	Philadelphia	2,362.1
28	Hartford	0.16	28	Los Angeles	2,299.9
28	Louisville	0.16	29	Atlanta	1,963.8
30	Salt Lake City	0.14	30	Buffalo	1,948.5
30	West Palm Beach	0.14	31	Charlotte	1,941.1
32	Houston	0.13	32	St. Louis	1,899.2
33	Charlotte	0.10 ।	33	Kansas City	1,882.9
33	San Antonio	0.10 ।	34	New Orleans	1,845.3
35	Cincinnati	0.09	35	Salt Lake City	1,772.4
35	Oklahoma City	0.09	36	Pittsburgh	1,690.2
35	Tampa	0.09	37	Nashville	1,567.4
38	Buffalo	0.08	38	Providence	1,380.9
38	Milwaukee	0.08	39	Sacramento	1,342.7
40	New Orleans	0.07	40	Columbus	1,320.3
41	Cleveland	0.04	41	Washington	1,296.6
41	Columbus	0.04	42	San Antonio	1,280.4
41	Detroit	0.04	43	Tampa	1,055.1
41	Jacksonville	0.04	44	Orlando	977.2
41	Kansas City	0.04	45	Denver	957.1
46	Norfolk	0.02	46	West Palm Beach	903.7
46	Richmond	0.02	47	Norfolk	889.6
48	Indianapolis	0.01	48	Jacksonville	754.4
49	Greensboro	0.00	49	Oklahoma City	502.7 ■
49	Memphis	0.00	50	Las Vegas	500.0

Source: Progressive Policy Institute and Center for Regional Economic Issues.

Source: Calculated based on data from International Trade Administration and US Census Bureau.

Air passengers per capita, 2000

Net firm creation per 100,000 inhabitants, 1998-99

Rank	Metro	#	Rank	Metro	#	
1	Las Vegas	11.3	1	Las Vegas	92.1	
2	Miami	10.5	2	Boston	55.1	
3	Atlanta	9.6	3	West Palm Beach	54.2	
4	Orlando	9.3	4	Raleigh	53.3	
5	Charlotte	7.6	5	Atlanta	50.0	
6	Salt Lake City	7.1	6	Charlotte	46.8	
7	Denver	7.1	7	Denver	44.1	
8	Dallas	6.1	8	Minneapolis	43.3	
9	St. Louis	5.9	9	San Diego	40.6	
10	Minneapolis	5.7	10	Orlando	39.3	
11	Cincinnati		11	Sacramento	38.3	
12	Phoenix	5.6	12	Austin	35.2	
13			13	Salt Lake City	31.3	
14	Memphis	4.5	14	San Francisco	30.1	
15	Chicago		15	Phoenix	30.0	
16	Houston San Francisco	4.4		Los Angeles	27.7	
			16	=		
17	Raleigh	4.4	17	Kansas City	22.0	
18	Pittsburgh	4.2	18	Seattle	16.9	
19	Seattle	3.9	19	Jacksonville	14.5	
20	New Orleans	3.7	20	Washington	13.2	
21	Nashville	3.6	21	Chicago	12.7	
22	Washington	3.5	22	Greensboro	12.5	
23	Tampa	3.3	23	Houston	12.3	
24	Kansas City	3.3	24	Portland	10.9	=
25	Portland	3.3	25	New York	10.2	=
26	Detroit	3.3	26	Dallas	4.3	"
27	Hartford	3.1	27	Norfolk	4.2	"
28	Austin	2.9	28	Columbus	2.7	1
29	San Diego	2.8	29	Providence	2.1	1
30	Philadelphia	2.8	30	Tampa	1.9	1
31	Boston	2.6	31	Grand Rapids	1.8	I
32	West Palm Beach	2.6	32	Philadelphia	1.8	I
33	Indianapolis	2.4	33	Richmond	0.8	I
34	Jacksonville	2.4	34	Milwaukee	-1.4	1
35	Columbus	2.3	35	St. Louis	-2.5	1
36	Los Angeles	2.3	36	Indianapolis	-2.6	1
37	Cleveland	2.3	37	Rochester	-3.0	1
38	Providence	2.3	38	Detroit	-6.2	
39	San Antonio	2.2	39	Cleveland	-6.5	
40	Sacramento	2.2	40	Cincinnati	-6.8	-
41	New York	2.0	41	Miami	-7.4	-
42	Louisville	1.9	42	Oklahoma City	-7.6	
43	Buffalo	1.8	43	San Antonio	-8.2	=
44	Milwaukee	1.8	44	Pittsburgh	-8.9	=
45	Oklahoma City	1.6	45	Nashville	-9.5	-
46	Greensboro	1.5	46	New Orleans	-12.5	=
47	Richmond	1.3	47	Hartford	-14.0	_
48	Rochester	1.2	48	Memphis	-15.2	_
49	Norfolk	1.1	49	Louisville	-17.2	_
50	Grand Rapids	0.9	50	Buffalo	-28.6	

Source: Calculated based on data from Federal Aviation Administration and Census Bureau.

Source: Calculated based on data from US Census Bureau.

Cognetics entrepreneurial hot spot index, 2001

Rank	Metro	#
1	Phoenix	100.0
2	Las Vegas	90.0
3	Atlanta	86.0
4	Raleigh	82.0
5	Austin	73.0
6	Salt Lake City	72.0
7	Charlotte	71.0
8	Indianapolis	67.0
9	Jacksonville	64.0
10	Washington	63.1
11	Louisville	62.0
12	Dallas	61.0
12	Memphis	61.0
14	Denver	59.0
15	Columbus	58.0
15	Kansas City	58.0
15	Miami	58.0
18	San Diego	57.0
19	Orlando	55.0
19	West Palm Beach	
		55.0
21	Houston	53.0
21	Milwaukee	53.0
21	Nashville	53.0
24	Chicago	52.0
25	Minneapolis	50.0
26	Tampa	49.0
27	Cincinnati	48.0
27	New Orleans	48.0
27	San Francisco	48.0
30	Oklahoma City	46.0
31	Richmond	45.0
31	St. Louis	45.0
33	San Antonio	44.0
34	Grand Rapids	43.0
35	Boston	42.3
36	Los Angeles	42.0
37	Detroit	42.0
38	Greensboro	41.0
39	Norfolk	40.0
40	Philadelphia	36.3
41	Cleveland	35.0
41	Portland	35.0
41	Sacramento	35.0
41		
45	Seattle Providence	35.0
46	New York	28.0
47	Pittsburgh	23.0
48	Hartford	11.0
48	Rochester	11.0
50	Buffalo	10.0

Source: "Corporate Demographics" by Cognetics Inc.

New publicly traded companies per 10 billion dollars of GMP, average of 1999 and 2000

Rank	Metro	#
1	San Francisco	32.3
2	Seattle	28.1
3	West Palm Beach	11.8
4	Boston	10.0
5	Austin	9.4
6	Denver	7.5
7	San Diego	6.9
8	Atlanta	5.5
9	Oklahoma City	5.1
10	New York	4.5
11	Portland	4.1
12	Philadelphia	3.9
13	Providence	3.9
14	Miami	3.8
15	Houston	3.6
16	Minneapolis	3.6
17	Chicago	3.5
18	Washington	3.5
19	Kansas City	3.4
20	Dallas	3.3
21	Phoenix	
22	Los Angeles	
23	Raleigh	
23 24	Nashville	
25	Cincinnati	
26	Rochester	2.4
26	Salt Lake City	2.4
28	Greensboro	2.3
29	Las Vegas	2.1
30	St. Louis	1.8
31	Hartford	1.7
32	Louisville	1.4
33	Memphis	1.4
34	Pittsburgh	1.4
34	Tampa	1.4
36	Indianapolis	1.0
37	Charlotte	0.9
38	Columbus	0.9
39	Milwaukee	0.9
40	Sacramento	0.8
41	Detroit	0.6
42	Cleveland	0.5
43	Buffalo	0.0
43	Grand Rapids	0.0
43	Jacksonville	0.0
43	New Orleans	0.0
43	Norfolk	0.0
43	Orlando	0.0
43	Richmond	0.0
43	San Antonio	0.0

Source: Progressive Policy Institute and Center for Regional Economic Issues.

Electricity prices, \$ per mbtu, 1999

Toxic release, pounds per capita, 2000

Rank	Metro	\$	Rank	Metro
1	Seattle	11.8	1	San Di
2	Lousiville	13.0	2	Sacrar
3	Portland	13.8	3	Austin
4	Salt Lake City	14.3	4	Miami
5	Indianapolis	15.6	5	New Y
6	Oklahoma City	15.8	6	Provid
7	Milwaukee	16.3	7	Los Ar
8	Nashville	16.5	8	West F
9	Memphis	16.5	9	San Fr
10	Minneapolis	17.1	10	Denve
11	New Orleans	17.2	11	Dallas
12	Richmond	17.2	12	San Aı
13	Norfolk	17.2	13	Seattle
14	Denver	17.5	14	Bostor
15	Cincinnati	17.8	15	Hartfor
16	Las Vegas	17.8	16	Oklaho
17	Austin	17.9	17	Orland
17	Dallas	17.9	18	Raleig
17	Houston	17.9	19	Philade
17	San Antonio	17.9	20	Kansa
21	Kansas City	18.0	21	Colum
22	Atlanta	18.3	22	Tampa
23	St. Louis	18.4	23	Washi
24	Charlotte	18.6	24	Milwau
25	Cleveland	18.8	25	Minnea
25	Columbus	18.8	26	Chicag
27	Greensboro	18.9	27	Roche
27	Raleigh	18.9	28	Norfoll
29	Washington	19.7	29	Portlar
30	Pittsburgh	19.7	30	Atlanta
31	Chicago	20.0	31	Indiana
32	Jacksonville	20.1	32	Clevel
32	Miami	20.1	33	Mempl
32	Orlando	20.1	34	Jackso
32	Tampa	20.1	35	Nashv
32	West Palm Beach	20.1	36	Cincin
37	Detroit	20.9	37	Greens
37	Grand Rapids	20.9	38	Charlo
39	Phoenix	21.2	39	Buffalo
40	Philadelphia	22.5	40	Detroit
41	Providence	25.5	41	Grand
42	Los Angeles	25.7	42	Lousiv
42	Sacramento	25.7	43	Richm
42	San Diego	25.7	44	St. Lou
42	San Francisco	25.7	45	Housto
46	Boston	27.4	46	New O
47	Buffalo	29.2	47	Las Ve
47	Rochester	29.2	48	Pittsbu
49	New York	29.2	49	Phoen
50	Hartford	29.2	50	Salt La
l				

Source: Energy Information Administration and Censu	s Bureau. Estimated as a
weighted average of the component state data.	

Rank	Metro	#	
1	San Diego	0.5	
2	Sacramento	0.5	
3	Austin	0.9	
4	Miami	0.9	
5	New York	1.3	
6	Providence	1.4	
7	Los Angeles	1.4	
8	West Palm Beach	1.5	
9	San Francisco	1.7	
10	Denver	1.9	
11	Dallas	2.0	
12	San Antonio	2.0	
13	Seattle	2.2	
14	Boston	2.3	
15	Hartford	2.4	
16	Oklahoma City	2.4	
17	Orlando	4.0	
18	Raleigh	4.3	
19	Philadelphia	4.4	
20	Kansas City	5.3	
21	Columbus	5.6	
22		6.2	
23	Tampa Washington	6.4	
	Washington		
24	Milwaukee	6.9	
25	Minneapolis	7.0	
26	Chicago	7.4	
27	Rochester	7.6	
28	Norfolk	7.7	
29	Portland	8.4	
30	Atlanta	9.9	
31	Indianapolis	10.7	
32	Cleveland	11.0	
33	Memphis	11.2	
34	Jacksonville	11.7	
35	Nashville	12.9	
36	Cincinnati	14.4	
37	Greensboro	14.6	
38	Charlotte	14.9	
39	Buffalo	16.3	
40	Detroit	16.5	
41	Grand Rapids	18.8	
42	Lousiville	19.5	
43	Richmond	21.2	
44	St. Louis	23.7	
45	Houston	27.8	
46	New Orleans	30.1	
47	Las Vegas	31.6	
48	Pittsburgh	44.5	I
49	Phoenix	49.0	ı
50	Salt Lake City	666.7	
55	Jan Lano Ony	000.7	

Source: Calculated based on data from the Environmental Protection Agency and Census Bureau.

Pollution standards index, 2000-01

Serious pollution days per annum, 1999

Rank	Metro	#	 Rank	Metro	#		
1	Grand Rapids	29.6	1	Minneapolis		0.0	
2	Milwaukee	31.6	2	Seattle		0.0	
3	Portland	33.3	3	Portland		0.1	
4	Seattle	35.0	4	West Palm Beach		0.1	
5	Rochester	35.1	5	Denver		0.2	
6	San Francisco	35.2	6	Salt Lake City		0.2	
7	Providence	36.9	7	Jacksonville		0.2	
8	Boston	37.2	8	San Francisco		0.2	
9	Columbus	37.2	9	Tampa		0.2	
10	Detroit	37.4	10	Kansas City		0.2	
11	Norfolk	37.4	11	Chicago		0.3	
12	Indianapolis	37.5	12	Miami		0.3	
13	Richmond	37.6	13	Las Vegas		0.3	
14	Minneapolis	38.0	14	Orlando		0.3	
15	West Palm Beach	38.3	15	Boston		0.4	
16	Miami	39.5	16	Buffalo		0.4	
17	Hartford	39.8	17	Detroit		0.5	
18	Buffalo	40.2	18	St. Louis		0.5	
19	Austin	40.5	19	Oklahoma City		0.6	
20	San Antonio	41.1	20	Pittsburgh		0.6	
21	Greensboro	42.5	21	San Diego		0.6	
22	Jacksonville	43.2	22	Phoenix		0.7	
23	Cincinnati	43.5	23	Indianapolis		0.8	
24	Oklahoma City	44.3	24	Milwaukee		0.8	
25	Charlotte	44.8	25	Philadelphia		0.9	
26	New York	45.2	26	Los Angeles		0.9	
27	Kansas City	45.4	27	Providence		1.1	
28	Philadelphia	45.8	28	Rochester		1.1	
29	Chicago	46.0	29	Cincinnati		1.2	
30	Raleigh	46.0	30	Hartford		1.2	
31	Louisville	46.1	31	Cleveland		1.2	
32	Washington	46.5	32	Washington		1.3	
33	Orlando	46.6	33	Norfolk		1.3	
34	Pittsburgh	46.9	34	Sacramento		1.5	
35	Memphis	47.3	35	Louisville		1.7	
36	Nashville	47.9	36	Raleigh		1.7	
37	New Orleans	48.0	37	Charlotte		1.8	
38	Atlanta	48.6	38	New Orleans		1.8	
39	Cleveland	49.7	39	New York		1.9	
40	St. Louis	50.3	40	Greensboro		1.9	
41	Tampa	50.7	41	Columbus		2.1	
42	Dallas	51.0	42	Nashville		2.1	
43	Salt Lake City	51.2	43	San Antonio		2.3	
44	Denver	51.3	44	Richmond		2.3	
45	San Diego	55.5	45	Grand Rapids		2.3	
46	Sacramento	57.2	46	Houston		2.3	
47	Las Vegas	57.6	47	Memphis		2.6	
48	Houston	60.4	48	Atlanta		3.8	
49	Phoenix	61.5	49	Dallas		3.9	
50	Los Angeles	64.8	50	Austin		6.3	
	-						

Source: US Environmental Protection Agency.

Source: US Environmental Protection Agency.

Rank	Area Name	BHI Abbreviation	Populatio
1	New York-Northern New Jersey-Long Island, NY-NJ-CT-PA	New York	21,199,86
2	Los Angeles-Riverside-Orange County, CA	Los Angeles	16,373,64
3	Chicago-Gary-Kenosha, IL-IN-WI	Chicago	9,157,54
4	Washington-Baltimore, DC-MD-VA-WV	Washington	7,608,07
5	San Francisco-Oakland-San Jose, CA	San Francisco	7,039,36
6	Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD	Philadelphia	6,188,46
7	Boston-Worcester-Lawrence, MA-NH-ME-CT	Boston	5,819,10
8	Detroit-Ann Arbor-Flint, MI	Detroit	5,456,42
9	Dallas-Fort Worth, TX	Dallas	5,221,80
10	Houston-Galveston-Brazoria, TX	Houston	4,669,57
11	Atlanta, GA	Atlanta	4,112,19
12	Miami-Fort Lauderdale, FL	Miami	3,876,38
13	Seattle-Tacoma-Bremerton, WA	Seattle	3,554,76
14	Phoenix-Mesa, AZ	Phoenix	3,251,87
15	Minneapolis-St. Paul, MN-WI	Minneapolis	2,968,80
16	Cleveland-Akron, OH	Cleveland	2,945,83
17	San Diego, CA	San Diego	2,813,8
18	St. Louis, MO-IL	St. Louis	2,603,60
19	Denver-Boulder-Greeley, CO	Denver	2,581,50
20	Tampa-St. Petersburg-Clearwater, FL	Tampa	2,395,99
21	Pittsburgh, PA	Pittsburgh	2,358,6
22	Portland-Salem, OR-WA	Portland	2,265,2
23	Cincinnati-Hamilton, OH-KY-IN	Cincinnati	1,979,20
24	Sacramento-Yolo, CA	Sacramento	1,796,8
25	Kansas City, MO-KS	Kansas City	1,776,0
26	Milwaukee-Racine, WI	Milwaukee	1,689,5
27	Orlando, FL	Orlando	1,644,5
28	Indianapolis, IN	Indianapolis	1,607,48
29	San Antonio, TX	San Antonio	1,592,3
30	Norfolk-Virginia Beach-Newport News, VA-NC	Norfolk	1,569,5
31	Las Vegas, NV-AZ	Las Vegas	1,563,28
32	Columbus, OH	Columbus	1,540,1
33	Charlotte-Gastonia-Rock Hill, NC-SC	Charlotte	1,499,29
34	New Orleans, LA	New Orleans	1,337,7
35	Salt Lake City-Ogden, UT	Salt Lake City	1,333,9
36	Greensboro-Winston-Salem-High Point, NC	Greensboro	1,251,50
37	Austin-San Marcos, TX	Austin	1,249,70
38	Nashville, TN	Nashville	1,231,3
39	Providence-Fall River-Warwick, RI-MA	Providence	1,188,6
40	Raleigh-Durham-Chapel Hill, NC	Raleigh	1,187,9
41	Hartford, CT	Hartford	1,183,1
42	Buffalo-Niagara Falls, NY	Buffalo	1,170,1
43	Memphis, TN-AR-MS	Memphis	1,135,6
44	West Palm Beach-Boca Raton, FL	West Palm Beach	1,131,18
45	Jacksonville, FL	Jacksonville	1,100,49
46	Rochester, NY	Rochester Crand Banids	1,098,20
47	Grand Rapids-Muskegon-Holland, MI	Grand Rapids	1,088,5
48	Oklahoma City, OK	Oklahoma City	1,083,34
49	Louisville, KY-IN Richmond-Petersburg, VA	Louisville Richmond	1,025,59 996,5

The State Competitiveness Index 2002

	Index, 2002	Rank, 2002	Rank, 2001
Delaware	7.37	1	1
Massachusetts	7.36	2	2
Washington	6.77	3	4
Colorado	6.47	4	6
Connecticut	6.33	5	8
Wyoming	6.19	6	3
Vermont	6.15	7	5
New Hampshire	6.10	8	7
Minnesota	6.07	9	9
Oregon	5.88	10	13
Idaho	5.67	11	12
lowa	5.65	12	16
Utah	5.62	13	11
		13	23
Kansas Virginia	5.59 5.57	15	23 14
California Nebraska	5.51	16	10
	5.48	17	15
North Dakota	5.34	18	21
Maryland	5.29	19	20
Missouri	5.10	20	24
Indiana -	5.10	20	27
Tennessee	5.01	22	30
South Dakota	4.97	23	17
Maine	4.94	24	19
Wisconsin	4.92	25	18
New Jersey	4.84	26	29
Pennsylvania	4.79	27	37
Texas	4.73	28	33
Rhode Island	4.72	29	25
Michigan	4.70	30	26
Montana	4.68	31	31
New York	4.64	32	34
Illinois	4.59	33	39
Alaska	4.58	34	22
North Carolina	4.56	35	28
Ohio	4.51	36	32
Kentucky	4.49	37	38
South Carolina	4.48	38	40
Florida	4.47	39	36
Georgia	4.28	40	35
New Mexico	4.11	41	42
Arizona	4.02	42	41
Alabama	4.02	42	45
Oklahoma	3.90	44	44
Hawaii	3.88	45	43
Nevada	3.58	46	46
Louisiana	3.57	47	48
West Virginia	3.27	48	49
Arkansas	3.22	49	47
Mississippi	2.94	50	50

BHI's first competitiveness study, the *State*Competitiveness Report, 2001, estimated an index of competitiveness for the 50 states. The 2002
State Competitiveness Index replicates the methodology of that 2001 study with updated data.¹ As the results presented in tables 4 and table 5 (inside back cover) show, there have been only minor shifts in the rankings for the top and bottom ten states. California has dropped from a rank of 10th to 16th, allowing Oregon into the top ten. None of the states that ranked among the bottom 10 in 2001 have significantly improved their standing.

Pennsylvania showed the most improvement, from 37th to 27th. Other upward bound states are Indiana, Tennessee, Kansas and Wisconsin. Alaska suffered the most deterioration from 22nd to 34th. South Dakota and North Carolina also slipped in the ranking.

^{*} Readers interested in detailed data charts should visit www.beaconhill.org.

¹ Complete methodology is available in the State Competitiveness Report, 2001.



About the Beacon Hill Institute

Founded in 1991, BHI is an independent, nonpartisan economic research organization, located within Suffolk University in Boston, that applies a market-clearing approach to the analysis of tax, fiscal and regulatory issues. In addition to analyzing tax policy, we study issues including education spending, charitable tax incentives, universal health care, tort reform and economic competitiveness. BHI develops innovative solutions and applies economic analysis to public-policy issues affecting the states and the nation.

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