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# Flint, Michigan Dashboard Indicators Report

**Final Report** 

August 16, 2007

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### Introduction

This report provides a Dashboard of Economic Indicators for the Flint, Michigan MSA. This report will assist economic stakeholders in directing their limited resources toward activities that are statistically related to economic performance. The Dashboard is composed of 1) economic growth factors that are statistically derived from an intensive data analysis of 113 metropolitan areas nationwide, and 2) local indicators that are not available in other areas.

The comparison analysis focuses strategically on only those growth factors that are statistically correlated with economic growth and that can be impacted by local activity. The Dashboard's local indicators track trends in the area that are either shown by the comparison analysis to be important to economic performance and/or are of local concern to area economic development stakeholders.

## **Executive Summary**

This report presents a Dashboard of Economic Indicators for the Flint, Michigan MSA which is built, in part, by the construction of statistically significant growth factors. Seven growth factors, which are constructed from 30 economic and social variables collected on 113 Metropolitan Statistical Areas (MSAs), are found to be statistically related to employment and /or per capita income growth. In other words, these growth factors matter.

Of the seven growth factors, the following five can be impacted by policies on the local level:

- Manufacturing and Lack of Industrial Diversity
- Small Business Environment
- Professional Workers and Research and Development Activities
- Poverty, Income Inequality, and Racial Isolation
- Quality of Life

Following is a summary of the Flint MSA's recent economic performance based on these factors.

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	Factor F	Rankings	
Growth Factors	2000	2005	Significant impact on:
			Per capita income &
Manufacturing & lack of diversity	110	110	Employment growth (neg)
Small business environment	66	33	Employment growth (pos)
Professional and research & development activities	103	103	Per capita income (pos)
Poverty, racial isolation, & income inequality	94	83	Employment growth (neg)
Quality of life	31	66	Per capita income (pos)

Summary Findings of the Growth Factor Analysis

A region's concentration in manufacturing and lack of industry diversity statistically relate negatively to its employment and per capita income growth. It is the only growth factor that impacts both per capita income and employment growth and clearly stresses the importance of a region's need to have a strong, balanced, and diversified economic base. Unfortunately, the Flint MSA ranked near the bottom for this factor in 2000 and in 2005.

The Flint MSA also ranks near the bottom regarding the presence of professional and research and development activities which impacts the region's per capita growth. In addition, its quality of life ranking, which excludes climate, deteriorated during this period. Both point to the challenge facing the area in attracting and retaining professional workers.

Poverty, racial isolation, and income inequality remain difficult issues for the Flint MSA to address and are likely slowing its employment growth. The MSA rankings rose on this negative factor from 94<sup>th</sup> to 83<sup>rd</sup>.

On the plus side, the Flint MSA's small business environment is improving which has a positive impact on employment trends. The MSA rankings rose from  $66^{th}$  to  $33^{rd}$ .

The findings of this report suggest that area economic development stakeholders have two options. While the choice is not exclusionary, the two growth objectives respond to separate policy actions.

- To pursue employment growth, area economic developers should explore ways to improve the area's environment for small business development and work with area community developers and social service agencies to address employment barriers that may exist due to economic isolation and poverty.
- To pursue income growth, area economic developers should focus their efforts on improving the area's quality of life, attracting professional workers, and encouraging more R& D activities in its universities and its private companies.

It is important to note that one strategy -- industrial diversification -- crosses over both options and has the potential of impacting both objectives. If the area is able to grow its base service sectors while maintaining its manufacturing base, this study's findings suggest that it would likely impact both the area's employment and income growth.

In conclusion, this report supports several strategic directions:

- 1. Continue to provide support to the area's manufacturing base and, at the same time, strive to develop a stronger service-based economy.
- 2. Provide assistance to small businesses that are scalable and hold the promise of becoming part of the area's diversified economic base.

#### **Benchmarking Economic Performance**

The Flint MSA (Genesee County) faces serious economic challenges due to strong adverse economic forces that are largely outside of its control. Michigan's long-standing dominance in the North American auto industry is being seriously threatened by foreign nameplates. The traditional Big Three continue to lose market share as they are challenged to 1) bring the right products to the market and 2) keep their costs and productivity levels competitive. The Big Three's market share dropped from 56.4 percent in the first quarter of 2006 to 53.5 during first quarter of 2007. General Motors' share fell from 24.1 to 23.2 percent during the period.

In addition, Flint's historical role in the auto industry has "branded" it as an auto town which may be slowing its revitalization efforts. In addition, Flint shares with almost all similar-sized metro areas the disadvantage of size. Surprisingly, in this age of advanced communication technology, face-to-face networking still reigns supreme and the nation's larger metro areas have the edge.

Current trends are not positive. From 1996 to 2006, employment in the Flint MSA fell by 13.4 percent—a loss of 23,600 jobs—while nationwide employment was up by a similar 13.7 percent. During that period, manufacturers cut 25,700 workers from their payrolls 23,400 of which were released from the area's transportation equipment makers. As shown in Chart 1, the MSA's employment trends break sharply from the nation's during that time.



Chart 1: Employment Trends: Flint MSA vs. U.S. 100 = 1996 Employment level

The lack of job growth is also reflected in the MSA's high unemployment rate which stood at 8.2 percent in 2006, up from 4.4 percent in 2000—the peak of the previous expansion (Table 1). In addition, not surprisingly, the area's unemployed residents are highly concentrated in the city of Flint, which is suffering from an estimated 14.5 percent jobless rate.

TableT. Annual Onemployment Nates							
	2000	2001	2002	2003	2004	2005	2006
Flint MSA	4.4%	6.0%	7.3%	8.3%	8.2%	7.8%	8.2%
Flint City	8.1%	10.8%	13.1%	14.6%	14.4%	13.8%	14.5%
Michigan	3.7%	5.2%	6.2%	7.1%	7.0%	6.8%	6.9%
U.S.	4.0%	4.7%	5.8%	6.0%	5.5%	5.1%	4.6%
-	-						

#### Table1: Annual Unemployment Rates

Source: BLS

The economic performance of the Flint MSA is best illustrated by comparing it to that of its peers: the 113 other mid-sized metropolitan areas with populations of more than 300,000 and less than 1 million. Unfortunately, the analysis was not favorable (Tables 2 and 3).

Rank	MSA	%change
1	Naples-Marco Island, FL	64.1%
2	McAllen-Edinburg-Pharr, TX	51.8%
3	Cape Coral-Fort Myers, FL	50.5%
4	Sarasota-Bradenton-Venice, FL	45.6%
5	Port St. Lucie-Fort Pierce, FL	42.1%
109	Youngstown-Warren-Boardman, OH-PA	-2.0%
110	Dayton, OH Metropolitan	-3.0%
111	New Orleans-Metairie-Kenner, LA	-7.5%
112	Hickory-Lenoir-Morganton, NC	-7.8%
113	Flint, MI	-11.5%

#### Table 2: Percent Change in Employment 1995-2005

Source: Economy.com

The Flint MSA was dead last among the 113 metro areas in both employment and per capita income growth from 1995 to 2005. The faster-growing MSAs in regard to employment were located in the southern states of Florida and Texas, while the MSAs which enjoyed strong per capita income growth were more scattered (Table 3).

Rank	MSA	%change
1	Salt Lake City, UT	59.9%
2	Charleston-North Charleston, SC	59.4%
3	Omaha-Council Bluffs, NE-IA	59.1%
4	Colorado Springs, CO	58.2%
5	Manchester-Nashua, NH	56.8%
109	Fort Wayne, IN	32.2%
110	Youngstown-Warren-Boardman, OH-PA	32.2%
111	Honolulu, HI	32.1%
112	Rockford, IL	25.2%
113	Flint, MI	17.2%
<u> </u>		

Table 3: Percen	t Change in	Per Capita	a Income	1994-2004
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Source: Economy.com

From 2005 to 2015, employment in the Flint MSA is projected to increase by less than 2.0 percent. Again, the attraction of sun seekers and retirees is expected to keep southern metro areas in Florida on the top of the rankings (Table 4).

While this forecast paints a rather bleak picture for Flint, it is important to remember that it is not carved in stone. Although faced with serious challenges because of the changing fortune of General Motors, demographic trends, and the current advantage of larger metro areas to attract knowledge-based activities, local economic development stakeholders still have the means to impact Flint's future course. However, to do so they must be very prudent and act strategically when investing their limited resources. This Dashboard study is meant to provide the data and analysis to assist in the allocation of these limited resources.

		2010
Rank	MSA	%change
1	Sarasota-Bradenton-Venice, FL	53.8%
2	Cape Coral-Fort Myers, FL	50.6%
3	Port St. Lucie-Fort Pierce, FL	43.0%
4	Austin-Round Rock, TX	41.5%
5	McAllen-Edinburg-Pharr, TX	41.4%
109	Fayetteville, NC	2.2%
110	Hickory-Lenoir-Morganton, NC	2.0%
111	Youngstown-Warren-Boardman, OH-PA	1.7%
112	Flint, MI	1.6%
113	New Orleans-Metairie-Kenner, LA	-2.0%

#### Table 4: Projected Percent Change in Employment 2005-2015

Source: Economy.com

When the comparison group is limited to Michigan's MSAs, Flint's economic performance has been sub par (Table 5). Among the 14 MSAs in the state, it was last in per capita income growth and employment growth—the two measures of economic performance used in this report. It ranks eighth in terms of population growth. This is likely due to Genesee County becoming more integrated into the greater Detroit urbanized area. If these trends continue the county will benefit from greater personal income growth, growing consumer-related business activity, and an expanding labor market.

Per Capita Income Population Employment %change 1994 2004 %change Rank 1994 2004 Rank 1994 2004 %change Rank Metro area Flint \$24,007 \$28,130 17.2% 14 430,742 443,497 3.0% 8 169,500 155,700 -8.1% 14 2 Ann Arbor \$27,437 \$39,528 44.1% 4 293,671 338,782 15.4% 178,900 202,800 13.4% 5 9 6 Battle Creek \$20,198 \$27,601 36.7% 137,910 139,505 1.2% 11 57,200 63,000 10.1% Bay City \$20,198 \$27,658 36.9% 8 112,025 109,139 -2.6% 14 37.000 39.900 7.8% 7 \$25,222 4,365,423 4,489,412 Detroit-Warren-Livonia \$36,650 45.3% 1 2.8% 10 1,988,300 2,048,000 3.0% 11 Grand Rapids-Wyoming \$21,550 \$30,739 42.6% 5 690,351 766,202 11.0% 4 339,100 388,500 14.6% 4 Holland-Grand Haven \$22,632 \$29,720 206,800 95,100 115,200 2 31.3% 13 252,945 22.3% 1 21.1% Jackson \$19,268 \$26,902 39.6% 6 152,288 162,653 6.8% 5 58,400 61,100 4.6% 10 Kalamazoo-Portage \$21,554 \$30,070 39.5% 7 304,355 318,272 4.6% 7 136,900 144.600 5.6% 8 Lansing-East Lansing \$29,588 \$21,832 35.5% 10 442,671 455,594 2.9% 9 220,100 230,400 4.7% 9 \$22,522 Monroe \$30,320 34.6% 136,783 152,451 11.5% 3 36,400 44,300 21.7% 1 11 Muskegon-Norton Shores \$17,506 \$25,406 45.1% 2 174,146 6.4% 6 56,000 66,400 3 163,678 18.6% Niles-Benton Harbor \$19,859 \$28,684 3 0.3% 12 67,900 64,400 44.4% 162,353 162,825 -5.2% 13 Saginaw-Saginaw Township \$26,416 \$19,762 33.7% 12 212,262 209,249 -1.4% 13 92,600 93,800 1.3% 12

 Table 5:
 Economic Performance Relative to Other State MSAs in Michigan

Source: BEA-REIS.

## Competitiveness Analysis of Economic Base Firms

The health of a region's economy depends upon the competitiveness of its businesses that sell their goods or services to customers located outside of the region. The revenues from these "economic base" firms are then re-circulated throughout the region through business and consumer expenditures.

A region's economic base can grow in three general ways. The first way that a region can expand its economic base is to nurture the growth of new base industries. Indeed, as will be shown, the development of a small business environment is a key factor for employment growth. However, this is a challenging route because it is very difficult to determine whether the new business will become a significant part of the region's economic base.

A region's economic base can grow in two additional ways that focus on the health of its existing base firms. The first and easiest way for a region to grow is to be fortunate enough to have its economic base firms in industries that are experiencing strong national and international markets. In fact, this was the case with Flint during the 1950s through the 1970s. This is not to imply that all regions with base industries that are enjoying rapid national and international growth "lucked out." This may be the case for some, but others worked hard to develop a nurturing environment for these successful businesses. The point is that once the businesses are in operation and as long as their industry markets continue to expand, the region will benefit.

On the other hand, if an area's base firms are facing highly competitive and/or stagnant national and international markets, only the third and final route to growth is available to them. The region's economic base firms must be more lean and competitive than their rivals. If the market pie is not expanding, growth can only occur if the region's business can successfully carve out a bigger slice.

In Chart 2, Flint's base industries<sup>1</sup> are located on a grid where the strength of its national market is measured on the horizontal axis and its competitiveness is measured on the vertical axis. Each industry is represented by a bubble, the size of which is based on its employment concentration relative to the nation: the larger the bubble, the greater that industry's relative importance to the local economy. The strength of the industries' national market is measured by the difference between each industry's national employment growth and the overall average for the nation. This measure is not without its problems. A robust industry that is growing due to outstanding productivity gains could be mistakenly seen as facing a weak national market, if it is measured by its employment growth relative to the nation's. On the other hand, if employment growth is the goal of the area's economic development program, then this is the right metric because it indicates whether employment growth can be expected based on national growth alone.

The chart's competitive measure is calculated by taking the difference between the area's and the nation's industry growth. In other words, it determines whether the area's firms in a particular industry are doing better or worse than their national rivals.

<sup>&</sup>lt;sup>1</sup> We used location quotients to identify the region's base industries. An industry's location quotient is calculated by dividing the industry's share of the region's total employment by its share of national employment. We included only those industries that have a location quotient of greater than 1.5, in other words, industries that are 50 percent more concentrated in the region than nationwide.



As can be seen in the chart, the competitive analysis of Flint's base industries shows a mixed bag. Area firms in medical and diagnostic laboratories are facing strong national markets and are doing better than their competition. On the other hand, firms in the area's large auto supplier sector are facing stagnant market conditions and are losing share to their competitors.

# Construction of an Economic Dashboard for the Flint MSA

The key objective of the Dashboard Indicators Project is to assist Flint economic development stakeholders in allocating their limited funds and activities toward factors which are statistically related to economic growth. An economic dashboard takes its lead from the dashboard of an automobile. It shows only those key indicators that the driver needs in order to go forward safely. This is in sharp contrast to many benchmarking studies that provide metrics on many separate indicators and generate results that are more similar to the environment of a cockpit in a plane, rather than that of a dashboard in an automobile.



Moreover, the construction of an economic dashboard depends upon the development of a regional framework for economic growth. The framework is important to identify what factors are important to economic growth. The steps involved in creating a regional framework are shown in Chart 3.

The first step is to identify the important variables—economic, community, and structural—that area economic development stakeholders and economic development literature find to be significant to economic growth. Table 6 shows the polling results of area economic development stakeholders. Employment opportunities rank the highest on the list, suggesting that it should be one of the economic performance measures incorporated into the analysis. Next on the list is the awareness that the area's economy lacks industrial diversification. Concern about the quality of the county's public services—government efficiencies, quality of the public schools, and the financial condition of the local governments—grabbed three of the next four spots. The survey provided the starting point in selecting the variables to include in the analysis.

Many analyses stop at this initial step and use these variables as benchmark variables. Unfortunately, such an approach can generate an excessive number of variables to monitor. In addition, it provides little evidence showing that these variables are statistically tied to economic growth. The next two steps in the process address these concerns. In fact, we gather more than 50 variables in an attempt to capture the concerns tallied in the survey.

		% with Ranking
		of 5 (most
	Score	important)
Too few job opportunities	80	70.6
Economic dependence on a small number of industries	79	70.6
Too many local government entities or lack of cooperation	71	58.8
Quality of local public K-12 schools	70	47.1
Environment for new business start-ups	73	41.2
Financial condition for local governments	69	41.2
Poor condition of urban downtown area	67	41.2
Ability of employers to find and attract qualified workers	62	41.2
Area is not open to new ideas, people, cultures	68	35.3
Race relations or diversity issues	70	29.4
Population moving out of the area	69	29.4
Increasing local income disparity	60	29.4
Condition or age of infrastructure	63	23.5
Education and technical skill level of local workforce	63	23.5
Legacy cost of old manufacturing facilities	61	11.8
A lack of cultural & recreational activities	45	0
A lack of education opportunities for adults	35	0

 Table 6: Areas of Concern

Score = the additive score from 1 = no concern to 5 = very important

The second step in the creation of a regional framework is to determine if any of the identified variables share common characteristics that would allow them to be grouped into "factors." Factor analysis is used for this task. Factor analysis statistically finds common traits shared by variables and then groups into "factors" those variables that share strong statistical relationships. A sample of 113 metropolitan areas is included in the analysis (listed in Appendix A) ranging in population from 300,000 to one million. As shown in Table 7, in the final analysis, 30 variables are entered into the factor analysis and 26 of those are grouped into eight recognizable factors. It is important to note that labeling factors is a subjective exercise and is solely based on the variables that "load" onto that factor. Variables load onto the factors based on how interrelated they are with the other factors.

The factor loadings shown in Table 7 describe the correlations between the variables (rows) and the factors (columns). The percentage of the variable's variance explained by the factor is calculated by the squared factor loading. For example, the factor Professional workers and research and development activity explains 89 percent of the variance in the percentage of area workers in management and professional services (0.9458\*0.9458=0.89).

As shown in Table 7, the eight recognizable factors are the following:

• *Professional workers and research and development activities.* This factor reflects the presence of knowledge-based activities in the metro area. The variables that load onto

this factor are listed in Appendix B and include the percent of residents with bachelor's and graduate degrees, research activity (public and private), employment in high-tech industries, and patent activity. In addition, the size of the area's dependent population (percent of residents who are younger than 16 years or older than 65 years) loads negatively. It is strongly argued in the literature and by most economic developers that an area's economic performance rests heavily upon the ability to expand its knowledge-based activities.

- *Poverty, racial isolation, and income inequality.* Five variables were grouped into this factor which is strongly associated with issues of social and economic justice: income inequality, percent of children going to schools where 70 percent of the student body takes free or reduced lunches, poverty rate, percent of African Americans, and racial isolation (a measure of the concentration of blacks into black neighborhoods). This factor, which is high on the agenda of a community's neighborhood organizations and social service organizations, rarely reaches a high priority for the community's economic development organization because it is not perceived to be a factor that affects economic performance. As will be shown, this is not correct.
- *Small business environment.* The three variables that load onto this factor are clearly associated with the strength of the area's small business sector. The percent of residents who are self-employed, the percent of proprietors who make up the area's total employed workforce, and the percent of all establishments employing fewer than 20 workers are all variables that are directly associated with the small business environment. As will be shown, this factor, not surprisingly, is strongly related to economic performance.
- *Manufacturing and industry diversity*. The two variables that load onto this factor are percent of an area's workers in manufacturing and the percent of workers in industries that are highly concentrated in the area (industries which are ten times more concentrated in the area than in the nation as a whole).
- *Quality of life*. The variables that load onto this factor are themselves composite indicators constructed by Sperling and Sanders in 2005 and by Savageau in 2000 to measure the availability and quality of the area's recreation, health care, and cultural and arts opportunities. It is important to note that climate which is a highly valued quality of life attribute is not included in this factor. Therefore, this factor captures the components of an area's quality of life that may be improved through policy decisions.
- *Crime*. Violent crime and property crime rates make up this factor. Crime is a top community and neighborhood concern; everyone wants to feel safe in their surroundings and homes. The key question is whether crime is a factor to economic performance.
- *North vs. South.* Climate and the percent of housing units built before 1939 are the two variables that load onto this factor and reflect the fact that new residential construction, nationwide, is occurring in areas with warmer climates—the southern and western regions of the nation.
- *Immigration.* The variables that load onto this factor—percent foreign born, percent Hispanic, the negative loading of racial isolation, and percent of African Americans—reflect recent immigration patterns. It should be noted that hispanics and other cultural groups immigrating into the nation are not moving into areas that have a large and established African American community.

		Tuble	T. Tuotor Analy					
	Professional	Poverty, racial						
	workers and R&D	isolation and	Small business	Mfg & Industry				
Variable	activities	income inequality	enviroment	Diversity	Quality of Life	Crime	North vs. South	Immigration
Pct. with professional and managerial occupation	0.947	-0.058	-0.060	-0.111	0.110	-0.030	-0.040	-0.068
Pct. With graduate or professional degree	0.938	-0.059	0.016	-0.093	0.071	-0.052	-0.096	-0.066
Pct. With bachelor's degree	0.806	-0.286	0.072	-0.128	0.210	0.048	0.161	-0.168
Private R&D 3 year average per employee	0.786	0.001	-0.002	0.167	-0.042	-0.095	-0.095	0.120
Pct working in high-tech industries	0.614	-0.062	0.030	0.489	-0.048	0.023	-0.028	-0.129
Venture capital per employee	0.560	-0.036	0.054	0.118	0.279	-0.220	0.027	0.129
University R&D 3 year average per employee	0.553	0.034	-0.109	0.039	0.072	0.133	0.027	0.042
Number of patents per thousand employee	0.503	-0.174	0.099	0.286	0.010	-0.225	-0.152	0.069
Population dependency	-0.629	0.092	0.318	-0.083	0.006	-0.054	-0.153	0.307
Income inequality	-0.073	0.898	0.041	-0.068	0.036	0.107	0.188	0.100
Pct. students at schools with 70%+ free lunches	-0.198	0.822	-0.071	-0.031	-0.054	0.105	0.011	0.083
Poverty rate	-0.233	0.717	-0.016	-0.049	-0.181	0.127	0.105	0.438
Pct. of blacks	0.089	0.559	-0.334	-0.071	0.029	0.099	0.335	-0.576
Isolation index for the black population	0.081	0.453	-0.373	-0.045	0.087	0.065	0.004	-0.669
Self employed all industries except ag & mining	0.001	-0.050	0.854	-0.112	0.077	0.009	0.256	0.157
Pct of workforce who are proprietors	-0.057	-0.107	0.793	-0.055	-0.143	-0.068	0.132	0.326
Share of firms with under 20 workers	0.001	-0.016	0.562	-0.047	-0.188	0.007	0.039	0.138
Pct. of manufacturing employment	-0.173	-0.298	-0.346	0.648	0.087	-0.080	-0.241	-0.150
Pctl of workers in highly concentrated industries	-0.198	-0.013	-0.157	0.545	-0.251	-0.016	0.194	0.053
Arts index	0 440	-0 135	-0 165	-0.014	0.654	0.051	-0 166	-0 137
Recreation index	0.198	-0.066	0.061	-0.078	0.552	0.047	-0.005	-0.266
Health index	0.398	0.093	-0.108	-0.008	0.530	-0.019	-0.038	-0.323
Property Crime per 100 000 population	-0.073	0 348	-0 105	-0.009	0.015	0.676	0.205	-0.093
Violent Crime per 100,000 population	-0.119	0.460	-0.045	-0.096	0.109	0.589	0.153	-0.096
Climate	-0.096	0.263	0 380	-0.058	0.025	-0.060	0.684	0 299
Pct. of houses built before 1939	0.012	-0.247	-0.273	0.042	0.145	-0.322	-0.745	-0.086
Pct of hispanic	-0 135	0 306	0 107	-0.034	-0 117	0.042	0 101	0.882
Pct of foreign born	0.010	0.300	0.186	-0.081	-0.041	-0.076	0.209	0.848
Pct of blacks	0.010	0.559	-0.334	-0.071	0.041	0.070	0.335	-0.576
Isolation index for the black population	0.081	0.453	-0.373	-0.045	0.087	0.065	0.004	-0.669
Pct of asians	0.078	-0.078	-0.080	-0 134	0.072	-0 024	0 183	0 203
City poverty relative to the MSA	0 105	-0 214	-0 245	-0.005	0.091	-0.376	-0 422	-0.203
Births over deaths of businesses	0.265	-0.210	0.143	-0.062	-0.045	-0.063	-0.023	0.200
Pct of total income earned by proprietors	-0.108	0.198	0.303	-0.055	0.098	-0.043	-0.021	0.282

Table 7: Factor Analysis Results

Factor analysis is helpful in reducing the number of indicators (factors) since more than one variable typically loads onto each factor. However, it does not address the key step that determines if these factors are statistically related to economic performance. In other words, do these factors matter to economic performance?

This step, as shown in Chart 3, is completed by regression analysis which determines whether the identified factors are statistically correlated to the two measures of economic growth— employment growth and per capita income growth. The dependent variable for the regression analysis is the percent change in employment from 1995 to 2005 and the percent change in per capita income from 1994 to 2004. The independent variables, the factors derived through the factor analysis, are based on 2000 data. In the ideal situation, the factor analysis would have used 1995 data, but these data were not available. Since the factors are based on variables that were collected during and not before the period under examination, there is a possibility that the problem of simultaneous causality exists: the growth rate could be impacting the factor scores.

Only those factors that are found to be statistically significant in the regression analysis are accepted. Employment is an often-used measure of economic performance and, as shown in Table 6, is of top concern to the area's economic development stakeholders. Per capita income is the preferred measure for many because it addresses economic well-being, recognizing that job growth can result from the creation of low-paying, and often part-time, positions.

#### **Employment Growth**

Small business environment, north vs. south, and immigration factors were all found to be significant and positive (Table 8). These findings support numerous previous studies that have found that small businesses are job creators, immigration is a major economic force, and households and jobs are moving to warmer climates. What may be more surprising is that crime, professional workers and research and development activities, and quality of life are not related to job growth. The level of crime activity is not associated with growth; fast-growing MSAs can suffer from high levels of criminal activity while declining areas can be among the safest in the country.

			R-squared	. 0.6336
Factor	Coefficient	Std. Err	T-statistic	
Small business environment	0.065	0.0072	9.03	Significant & Positive
Poverty, racial isolation, & income inequality	-0.019	0.0071	-2.64	Significant & Negative
Manufacturing & lack of diversity	-0.041	0.0078	-5.23	Significant & Negative
Crime	0.007	0.0080	0.88	Insignificant
Professional and research &				
development activities	0.005	0.0069	0.68	Insignificant
Quality of life	-0.007	0.0078	-0.86	Insignificant
North v South	0.052	0.0075	7.00	Significant & Positive
Immigration	0.034	0.0070	4.82	Significant & Positive
Constant	1.156	0.0067	171.28	

Table 8: I	mpact on	Employme	ent Growth	1995 to	2005
	inpuot on	Linploying		1000 10	2000

In addition, the regression results suggest that an area's employment growth is impacted in a significant and negative way by poverty, income inequality, and racial isolation characteristics. Areas of poverty, income inequality, and racial isolation suffer from poor job networks—job seekers isolated by race or income are less likely to find suitable employment opportunities due to the lack of social networks and, possibly, discrimination. In addition, these areas can generate a social uneasiness that can impact its perceived quality of life.

Areas with a large manufacturing base and with top employers (regardless of industry) who employ a larger-than-average percentage of the area's workforce experience slower growth than other areas. This is not surprising; manufacturers are becoming more and more productive and, therefore, create fewer and fewer jobs. Second, areas that are dominated by one or two industries can be "captured" by these industries meaning that other firms are less likely to move in, and entrepreneur opportunities can be neglected. Furthermore, the area is vulnerable to the business swings of the dominant firms or to possible corporate restructurings.

The lack of evidence regarding the employment impact of professional workers and research and development activities and an area's quality of life does not mean that they are insignificant, but rather, that their effect on economic performance is felt in other ways such as per capita income growth.

			R-squared	0.2498
	Coefficient	Std. Err	T-statistic	
Quality of life	0.020	0.007	2.84	Significant & Positive
Professional and research & development activities	0.019	0.006	3.03	Significant & Positive
Manufacturing & lack of diversity	-0.032	0.007	-4.57	Significant & Negative
Poverty, racial isolation, & income inequality	0.001	0.006	0.15	Insignificant
Small business environment	-0.004	0.006	-0.58	Insignificant
Crime	-0.005	0.007	-0.78	Insignificant
North v South	0.006	0.007	0.87	Insignificant
Immigration	0.001	0.006	0.24	Insignificant
Constant	1.457	0.006	242.76	

#### Table 9: Impact on Per Capita Income Growth 1994 to 2004

### Per Capita Income Growth

The results of the regression analysis on per capita income are shown in Table 9. Areas that have a large manufacturing base and lack industrial diversity are again found to lag other areas. On the plus side, quality of life (excluding climate) and the presence of professional workers and research and development activity have a positive impact on per capita income growth. In other words, attracting high-skilled/educated workers will enhance productivity and generate high value-added services. Both impacts will have a positive effect on the area's per capita income.

However, these activities generally have low employment multiplier impacts. Productivity growth can, in fact, lower employment. Second, professional services such as architecture, engineering, and design buy little from local suppliers; therefore, their employment multiplier is small.

Since professionals can locate almost anywhere, it is not surprising that quality of life is equally important in per capita income growth.

All other factors had no impact on per capita income growth. Of particular note, whereas a small business environment was found to have a statistically significant impact on employment growth, it has no impact on per capita income growth. This supports the findings from numerous studies that while small businesses do generate employment opportunities, many offer relatively low-paying jobs.

In summary, this methodology establishes eight factors. The next question is which of these factors should populate an economic dashboard. Two criteria should be used in making this selection decision:

- the factor must have a significant impact on the area's economic performance, and
- local policy actions can have a reasonable probability of moving the indicator in a positive direction.

Using these criteria, the crime factor should be removed because it is not statistically related to economic performance. Second, the *Immigration* and *North vs. South* factors should be removed as they are unlikely to be impacted by local policymakers.

This leaves the following five factor indicators:

- Manufacturing and Lack of Industrial Diversity
- Small Business Environment
- Professional Workers and Research and Development Activities
- Poverty, Income Inequality, and Racial Isolation
- Quality of Life

The next step is the development of metropolitan rankings for each of the five factors. For each of the five factors, a factor score is determined for each of the 113 MSAs in the sample. These factor scores were used in the regression model described above. It is acceptable to also use these scores, which are calculated based on all 30 variables included in the analysis, to derive the relative ratings of the metro areas.<sup>2</sup> Upon inspection, it was found that variables that did not load substantially onto certain factors still had sizeable impacts on that factor score. For instance, factors not directly related to quality of life were having substantial impacts on the quality of life ranking of several MSAs. It was then decided to base factor scores on only those variables that loaded significantly onto the factors.

<sup>&</sup>lt;sup>2</sup> This was the procedure followed when the study's preliminary findings were reviewed on May 22, 2007.

For example, instead of the area's ranking on Manufacturing and Lack of Diversity being calculated on all 30 variables, it was based on only two—the percent of employed workers in manufacturing and the percent of area employees working in industries that are 10 times more concentrated in the area than in the nation as a whole. The rankings derived by both methodologies are very similar; however, the latter methodology is clearer and less subject to the influence of variables that are not directly tied to the factor.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Researchers at Cleveland State University made the same decision in updating their region's Dashboard.

# **Report Findings**

This section highlights Flint's 2005 relative performance in these indicators and compares it to the area's 2000 ranking. In addition, it introduces suggested local indicators that can also be useful in monitoring the MSA's performance in these key areas.

The advantage of this methodology is that it generates a limited set of five identifiable factors that are statistically-related to economic performance and that have the potential to be impacted by local policies. More importantly, the regional framework which was used offers statistical evidence that these five growth factors monitor economic aspects of the area's economy that are associated with growth. This means that it is reasonable to populate the Dashboard with other indicators if they also address important elements of change in these five areas.

#### Manufacturing and Lack of Industrial Diversity

This indicator is the only one that significantly impacts both employment and per capita income growth. It also monitors one of the major challenges facing the Flint metro area as its 2000 and 2005 rankings remained near the bottom in both years. In 2005, 20.1 percent of the metro area's employed workforce worked in manufacturing compared to 11.7 percent for the 113 metro areas. In addition, 10.2 percent of its workers worked in an industry that was at least 10 times more concentrated in the metro area than in the nation.



Chart 4: Manufacturing and Lack Industry Diversity

The key is not to step away from manufacturing or the area's top employers but to augment these important community assets with additional firms in other industries. The goal is to gain diversity through growth, not decline. Through the attraction and expansion of new non-

manufacturing base industries, the area can achieve stronger employment and per capita income growth. With this in mind, a local indicator that monitors the percent of metro area workers who are in service industries that have the potential of serving customers located outside of the metro area—professional and management services, financial, health care, and information—is added to the Dashboard. A word of caution must be given: while these sectors have the potential of serving out-of-the-region customers, many firms in these sectors are primarily focused on meeting the needs of local customers.

The problems facing areas that are heavily dependent on manufacturing and on one or two firms are well known. Manufacturers who are battling global competition by becoming leaner and more productive cannot be expected to generate job growth. Second, areas that are overly dependent on one or two firms, regardless of the industry, become vulnerable to the market conditions facing those firms. Corporate buyouts and changing market share can cause serious pain to a metro area in this position. Moreover, areas that are dominated by one or two firms, can find it more difficult to attract new firms since they are sometimes challenged to offer the wage and benefit packages offered by the dominant company.

#### Small Business Environment—Statistically Significant for Employment Growth

The Flint MSA small business environment improved dramatically from 2000 to 2005, relative to the other 113 MSAs in the sample (Chart 5). The indicator climbed 27 places to 33rd in the ranking in 2005. The percent of workers (by place of residence) who are self-employed is the variable that carries the most weight, followed by the percent of all workers (by place of work) who are proprietors.



# Chart 5: Small Business Environment

This factor is significantly related to employment growth but is not correlated with per capita income growth. Numerous studies have shown that small businesses do create a large portion of

all new jobs. However, many of these jobs are short-lived since the survival rate of new start-ups is low. Second, many of the jobs are low-paying and part-time. Most new firms do not make it to their fifth year. In addition, most small businesses only serve the local market and do not attract new revenue into the metro area.

Still for all their faults, small businesses are a large piece of the revitalization puzzle. Small business development programs can be successful if they focus their efforts on businesses with the following characteristics:

- The business owner has a commitment to growth.
- The business has the potential to sell its goods or services to customers outside the metro area.
- The business activity is scalable.
- The business generates good-paying, high-skilled jobs.

The location of the small business growth also matters. Revitalization plans would be more assured if the City of Flint saw faster growth in entrepreneurship and became the center of small business activity in the county. For this reason, a local indicator—the percent of all workers living in Flint who are self-employed—is added to the Dashboard. This indicator has the added benefit of being a quality of life monitor as well since successful entrepreneurs can live anywhere.

#### **Professional Workers and Research and Development Activities**

The presence of professional workers and research and development activities is significantly related to per capita income growth for metro areas. Since the publication of Richard Florida's *The Rise of the Creative Class (2002)*, metro areas across the country have been trying to find the right set of public policies that will make their metro areas attractive to professional workers. At this time, the Flint metro area has not been successful in this arena, ranking 103rd among the study's 113 metro areas in 2000 and 2005 (Chart 6).



While this indicator factor also includes variables associated with research and development, nearly three-fourths of its value is determined by the presence of professional and management occupations and the percent of residents holding graduate or professional degrees.

Almost all metro areas are searching for the "glue" that will get professional workers to stick to their area in an increasingly slippery world, but no one has found it. A university's presence is helpful. Larger metro areas (over one million people) may have a better chance than smaller areas because they offer greater career opportunities and more varied and abundant cultural and entertainment opportunities.

Clearly quality of life is strongly associated with an area's ability to attract and retain professional workers, and in this account the Flint MSA's future looks more promising as shown later in Chart 8.

#### Poverty, Racial Isolation, and Income Inequality

Poverty, racial isolation and income inequality are topics rarely discussed by the economic development community. They are issues left to the concerns of social service agencies and community development initiatives. This report offers evidence that suggests that this should change. Poverty, racial isolation, and income inequality can have negative effects on an area's economic performance. In particular, they can negatively impact the area's employment growth.



Chart 7: Poverty, Racial Isolation and Income Inequality

The Flint metro area is facing a challenge regarding these issues (Chart 7). In 2000, it ranked 94<sup>th</sup> among the 113 metro areas in the report's sample. In 2005, its ranking improved to 79<sup>th</sup>. Income inequality, as measured by the ratio of the metro area's top 10 percent income earners to its bottom 10 percent, accounts for 40 percent of the factor's score. The weights of the other four variables are roughly equal.

There are several reasons why poverty, racial isolation, and income inequality can have negative impacts on employment growth. One of the reasons is that racial isolation can severely limit employment networking opportunities for African Americans. This can significantly harm the efficiency of local labor markets, which can make it difficult for employers to find the workers they need. Another reason is that areas with high income inequality can generate an unstable and uncomfortable environment for new residents. Also, poverty has a well-documented impact on the quality of the area's public schools.

### **Quality of Life**

This has been the most difficult growth factor to measure due to methodological changes that have occurred in the source data.

The factor is based on three variables: museums and cultural activities, heath care, and recreation. The weights of the three variables are based on the data and methodology used by Savageau in *Places Rated Almanac*. However, the methodology used in the report was discontinued in 2000. Two other researchers, Sperling and Sanders, published their *Cities Ranked and Rated* the following year. To ensure that the factor is as consistent as possible, we based both the 2000 and 2005 factor scores on Sperling and Sanders' methodology. Their analyses included the following variables:

- The museums and cultural activities variable includes information on the number of art museums, annual museum attendance, and per capita museum attendance. The lively arts calendar category includes information on annual ballet performances, touring artist bookings, opera performances, professional theater performances, and symphony performances.
- The health care variable includes data on the number of general and family doctors per 100,000 population, medical specialists per 100,000 population, the number of surgical specialists per 100,000 population, the number of accredited general hospital beds, and the number of hospitals with physician residency programs.
- The recreation index includes information on good restaurants, professional and college sports, zoos and aquariums, amusement and theme parks, movie theaters, gambling facilities, golf courses, skiing facilities, protected recreation areas, water areas, and auto racing.

As shown on Chart 8, the Flint MSA ranking fell from 31<sup>st</sup> to 49<sup>th</sup> during the period. In light of the methodology issues of this measure, two local indicators are added to the Dashboard to monitor the area's quality of life: the percent of persons living in the city of Flint who work in professional and management positions and the percent of persons residing in the city of Flint who earned more than \$100,000 in 2005. These two local indicators indirectly measure the city's quality of life because these individuals and households have the resources to move into or out of the city, if its quality of life changes.



Regardless of the difficulty in measurement, quality of life is an increasingly important economic factor for growth. While it does not significantly impact employment growth, it has a significant impact on per capita income growth.

# Conclusion

This report provides a dashboard of economic indicators which includes five growth factors based on a data-intensive analysis including 30 data series collected on 113 metropolitan areas (Chart 10). For three of these growth factors additional local indicators were also developed to monitor more specific changes in the City of Flint that cannot be collected for all 113 metro areas at this time.



In addition, nine more local indicators were added to the Dashboard to monitor trends in three other areas of regional concern: economic and social conditions in the city of Flint, the financial soundness and quality of the area's public schools, and the fiscal stability of the City of Flint (Table 11). These indicators are included in a separate report entitled *Economic Dashboard Supplemental Report - Other Social and Economic Indicators*.

The economic development community in the Flint MSA faces numerous challenges which are beyond its control. The area's economy not only lags the nation's, it also ranks last among the state's other MSAs in terms of employment and per capita income growth.

General Motors, the area's largest employer, faces a great challenge in its efforts to enhance productivity and retain share in a highly competitive North American auto market. Second, Flint is a victim of the "winner's curse." For several decades, Flint was the envy of almost all of the other communities because of its good-paying jobs and the strong tax base it enjoyed when General Motors was in the industry's commanding position. The presence of the auto industry made it difficult to attract other industries into the county because of the automotive stronghold on workforce supply and compensation. In addition, entrepreneurship and advanced education were neglected because good-paying auto jobs were available. Finally, the city was branded as a hard-working auto town, not an environment attractive for knowledge-based workers.

Overall, the findings of this report suggest that area economic development stakeholders have two options: to pursue an employment growth strategy or an income growth strategy. While the choice is not exclusionary, the two growth objectives respond to separate policy actions:

- To pursue employment growth, area economic developers should explore ways to improve the area's environment for small business development and work with area community developers and social service agencies to address employment barriers that may exist due to segregation and poverty.
- To pursue income growth, area economic developers should focus their efforts on improving the area's quality of life, attracting professional workers, and encouraging more R& D activities in its universities and its private companies.



One strategy -- industrial diversification -- has the potential of impacting both objectives. If the area is able to grow its base service sectors and, thereby, become less dependent on manufacturing and on General Motors in particular, this study's findings suggest that it would likely impact both the area's employment and income growth.

The findings of this Dashboard Indicators report support several strategic directions:

1. Continue to provide support to the area's manufacturing base, but strive to develop a stronger service-based economy. Diversification does not have to mean deindustrialization. For

the Flint area manufacturing workers the best outcome would be for them to stay in manufacturing, if they lose their current jobs. Moving out of manufacturing would force them to lose the value of their workplace experience and know-how. At the same time, it is important to cultivate more knowledge-based activity.

2. Provide assistance to small businesses that are scalable and hold the promise of being part of the area's diversified economic base. Small business development has a place on the economic development agenda. However, not all small businesses are equal. While a standard package of assistance could be offered to all individuals interested in opening a business, more specific services could be offered to those small businesses that do have potential for growth and sales reach. The problem lies in the fact that it is difficult to detect scaleable small businesses from those that will remain small. The owner's aspirations, the quality of the firm's product or service, as well as the firm's industry and markets all play a role in determining its potential in becoming a future component of the area's economic base.

Appendix A: Metropolitan Areas in the Sample						
METRO	State	METRO	State			
Akron,	OH	Madison,	WI			
Albany-Schenectady-Troy,	NY	Manchester-Nashua,	NH			
Albuquerque,	NM	McAllen-Edinburg-Pharr,	ТХ			
Allentown-Bethlehem-Easton,	PA-NJ	Memphis,	TN-MS-AR			
Anchorage,	AK	Mobile,	AL			
Ann Arbor	MI	Modesto,	CA			
Asheville,	NC	Montgomery,	AL			
Augusta-Richmond County	GA-SC	Naples-Marco Island	FL			
Austin-Round Rock	ТХ	Nashville-DavidsonMurfreesboro,	TN			
Bakersfield,	CA	New Haven-Milford	СТ			
Baton Rouge	LA	New Orleans	LA			
Beaumont-Port Arthur	ТХ	Ogden-Clearfield,	UT			
Birmingham-Hoover,	AL	Oklahoma City	OK			
Boise City Nampa	ID	Omaha-Council Bluffs	NE-IA			
Brownsville-Harlingen,	ТХ	Oxnard-Thousand Oaks Ventura	CA			
Buffalo-Niagara Falls	NY	Palm Bay- Melbourne	FL			
Canton-Massillon,	OH	Pensacola-FerryPass	FL			
Cape Coral-Fort Myers	FL	Peoria,	IL			
Charleston,	WV	Port St.Lucie-Fort Pierce	FL			
Charleston-North Charleston	SC	Portland-South Portland	ME			
Charlotte-Gastonia-Concord,	NC-SC	Poughkeepsie-Newburgh-Middletown,	NY			
Chattanooga,	TN-GA	Provo-Orem,	UT			
Colorado Springs	CO	Raleigh-Cary,	NC			
Columbia,	SC	Reading,	PA			
Corpus Christi	ТХ	Reno-Sparks,	NV			
Davenport-Moline-Rock Island	IA-IL	Richmond,	VA			
Dayton,	OH	Rochester,	NY			
Deltona-Daytona Beach	FL	Rockford,	IL			
Des Moines	IA	Salem,	OR			
Durham,	NC	Salinas,	CA			
El Paso	ТХ	Salt Lake City	UT			
Eugene-Springfield,	OR	Santa Barbara-San Maria	CA			
Evansville,	IN-KY	Santa Rosa- Petaluma	CA			
Fayetteville,	NC	Sarasota-Bradenton-Venice,	FL			
Fayetteville-Springdale-Rogers,	AR-MO	Savannah,	GA			
Flint,	MI	ScrantonWilkes-Barre,	PA			
Fort Wayne	IN	Shreveport-Bossier City	LA			
Fresno,	CA	South Bend	IN-MI			
Grand Rapids-Wyoming	MI	Spokane,	WA			
Greensboro-High Point	NC	Springfield,	MO			
Greenville,	SC	Springfield,	MA			
Harrisburg-Carlisle,	PA	Stockton,	CA			
Hartford-West Hartford	СТ	Syracuse,	NY			
Hickory-Lenoir-Morganton,	NC	Tallahassee,	FL			
Honolulu,	HI	Toledo,	OH			
Huntsville,	AL	Trenton-Ewing,	NJ			
Jackson,	MS	Tucson,	AZ			
Jacksonville,	FL	Tulsa,	OK			
Kalamazoo-Portage,	MI	Vallejo-Fairfield,	CA			
Killeen-Temple-Fort Hood	TX	Visalia-Porterville,	CA			
Knoxville,	TN	Wichita,	KS			
Lakeland,	FL	Wilmington,	NC			
Lancaster,	PA	Winston-Salem,	NC			
Lansing-East Lansing	MI	Worcester,	MA			
Lexington-Fayette,	KY	York-Hanover,	PA			
Little Rock-North Little Rock	AR	Youngstown-Warren-Boardman,	OH-PA			
Louisville,	KY-IN					

# APPENDIX A METROPOLITAN AREAS IN THE SAMPLE

# APPENDIX B VARIABLES AND DATA SOURCES

VARIABLES	DATA SOURCE
	Economic Growth Variables
Per capita income	Bureau of Economic Analysis (BEA)
Employment	Economy.com
P	rofessional Workers and R&D Activites
Pct. with professional and managerial occupation	U.S. Census, American Community Survey (ACS)
Pct. with graduate or professional degree	U.S. Census, American Community Survey (ACS)
Pct. with bachelor's degree	U.S. Census, American Community Survey (ACS)
Private R&D 3-year average per employee	Economy.com
Venture capital per employee	Thomson Financial Venture Economics
Pct working in high-tech Industries	County Business Patterns
Number of patents per thousand employees	U.S. Patent and Trademark Office
Population dependency	American Community Survey (ACS) 2005
University R&D 3-year average per employee	National Science Foundation, Economy.com
	North vs. South
Climate	Places Rated Almanac (Savageau, D. 2000)
Pct. of houses built before 1939	U.S. Census, American Community Survey (ACS)
Pct. of manufacturing employment	Economy.com
	Immigration
Pct. of Hispanic	U.S. Census, American Community Survey (ACS)
Pct. of foreign born	U.S. Census, American Community Survey (ACS)
Pct. of Black or African American alone	U.S. Census, American Community Survey (ACS)
Isolation index for Black population	National Center for Educaton Statistics
Pove	rty, Racial Isolation andlincome inequality
Pct. of Black or African American alone	U.S. Census, American Community Survey (ACS)
Isolation index for Black population	National Center for Educaton Statistics
Poverty rate	U.S. Census, American Community Survey (ACS)
Income inequality	Housing and Urban Development
Pct. students at schools with 70%+ free lunches	National Center for Educaton Statistics
	Quality of Life
Arts index	Places Rated Almanac (Savageau, 2000), Cities Ranked and Rated (Sperling and Sander, 2004)
Recreation index	Places Rated Almanac (Savageau, 2000), Cities Ranked and Rated (Sperling and Sander, 2004)
Health index	Places Rated Almanac (Savageau, 2000), Cities Ranked and Rated (Sperling and Sander, 2004)
	Crime
Property Crime per 100,000 population	Federal Bureau of Investigation, States of the Cities Data System
Violent Crime per 100,000 population	Federal Bureau of Investigation, States of the Cities Data System
Man	ufacturing and Lack of Industrial Diversity
Pct. of manufacturing employment	Economy.com
Pct working in high-concentrated industries	County Business Patterns
	Small Business Environment
Self employed all industries except agric. & mining	U.S. Census, American Community Survey (ACS)
Pct. of workforce who are proprietors	Bureau of Economic Analysis (BEA)
Share of business establishments with under 20 workers	U.S. Census, County Business Pattern

### APPENDIX C RANKING OF FLINT MSA COMPARED TO 113 OTHER MSAS

Appendix C1: 2000 Manufacturing & Lack of Industrial Diversity									
Ranking	METRO	State	Score	Ranking	METRO	State	Score		
1	Naples-Marco Island	FL	-1.10	58	Savannah,	GA	-0.11		
2	Tallahassee,	FL	-1.05	59	Springfield,	MA	-0.10		
3	Honolulu,	HI	-1.05	60	Salem,	OR	-0.09		
4	Anchorage,	AK	-0.99	61	Lansing-East Lansing	MI	-0.08		
5	Cape Coral-Fort Myers	FL	-0.97	62	Poughkeepsie-Newburgh-Middletown,	NY	-0.08		
6	Port St.Lucie-Fort Pierce	FL	-0.81	63	Mobile,	AL	-0.02		
7	Salinas,	CA	-0.80	64	Portland-South Portland	ME	-0.01		
8	Pensacola-FerryPass	FL	-0.75	65	Buffalo-Niagara Falls	NY	0.00		
9	McAllen-Edinburg-Pharr,	ТΧ	-0.73	66	New Haven-Milford	СТ	0.01		
10	Jacksonville,	FL	-0.73	67	Palm Bay- Melbourne	FL	0.02		
11	Albany-Schenectady-Troy,	NY	-0.70	68	Fayetteville,	NC	0.04		
12	Deltona-Daytona Beach	FL	-0.66	69	Reno-Sparks,	NV	0.06		
13	Sarasota-Bradenton-Venice,	FL	-0.64	70	Charlotte-Gastonia-Concord,	NC-SC	0.08		
14	Des Moines	IA	-0.61	71	Durham,	NC	0.09		
15	Killeen-Temple-Fort Hood	ТХ	-0.59	72	Baton Rouge	LA	0.10		
16	Bakersfield,	CA	-0.58	73	Louisville,	KY-IN	0.12		
17	Fresno,	CA	-0.57	74	Modesto,	CA	0.14		
18	Santa Barbara-San Maria	CA	-0.56	75	El Paso	TX	0.15		
19	Corpus Christi	TX	-0.56	76	Brownsville-Harlingen,	TX	0.16		
20	Jackson,	MS	-0.55	77	Eugene-Springfield,	OR	0.17		
21	Omaha-Council Bluffs	NE-IA	-0.54	78	ScrantonWilkes-Barre,	PA	0.19		
22	Tucson.	AZ	-0.53	79	Lexington-Favette.	ΚY	0.23		
23	New Orleans	LA	-0.52	80	Boise City Nampa	ID	0.24		
24	Albuqueraue.	NM	-0.52	81	Ann Arbor	MI	0.30		
25	Spokane,	WA	-0.52	82	Dayton,	OH	0.31		
26	Trenton-Ewing,	NJ	-0.50	83	Asheville,	NC	0.36		
27	Vallejo-Fairfield,	CA	-0.49	84	Worcester,	MA	0.36		
28	Charleston-North Charleston	SC	-0.45	85	Allentown-Bethlehem-Easton,	PA-NJ	0.37		
29	Colorado Springs	CO	-0.44	86	Toledo,	OH	0.38		
30	Lakeland,	FL	-0.43	87	Beaumont-Port Arthur	ТΧ	0.38		
31	Little Rock-North Little Rock	AR	-0.43	88	Akron,	ОН	0.41		
32	Oklahoma City	OK	-0.42	89	Davenport-Moline-Rock Island	IA-IL	0.43		
33	Montgomery,	AL	-0.42	90	Manchester-Nashua,	NH	0.47		
34	Salt Lake City	UT	-0.41	91	Huntsville,	AL	0.50		
35	Harrisburg-Carlisle,	PA	-0.39	92	Augusta-Richmond County	GA-SC	0.54		
36	Memphis,	TN-MS-AR	-0.38	93	Winston-Salem,	NC	0.56		
37	Birmingham-Hoover,	AL	-0.37	94	Peoria,	IL	0.57		
38	Charleston,	WV	-0.35	95	South Bend	IN-MI	0.59		
39	Shreveport-Bossier City	LA	-0.32	96	Chattanooga,	TN-GA	0.63		
40	Provo-Orem,	UT	-0.31	97	Lancaster,	PA	0.66		
41	Visalia-Porterville,	CA	-0.30	98	Kalamazoo-Portage,	MI	0.66		
42	Richmond,	VA	-0.30	99	Evansville,	IN-KY	0.66		
43	Springfield,	MO	-0.28	100	Rochester,	NY	0.72		
44	Wilmington,	NC	-0.26	101	Fort Wayne	IN	0.75		
45	Columbia,	SC	-0.25	102	Fayetteville-Springdale-Rogers,	AR-MO	0.81		
46	Raleigh-Cary,	NC	-0.23	103	Youngstown-Warren-Boardman,	OH-PA	0.85		
47	Madison,	WI	-0.23	104	Greenville,	SC	0.90		
48	Santa Rosa- Petaluma	CA	-0.20	105	Grand Rapids-Wyoming	MI	0.98		
49	Stockton,	CA	-0.18	106	York-Hanover,	PA	0.98		
50	Tulsa,	OK	-0.18	107	Canton-Massillon,	OH	1.06		
51	Ogden-Clearfield,	UT	-0.17	108	Greensboro-High Point	NC	1.06		
52	Syracuse,	NY	-0.17	109	Reading,	PA	1.09		
53	Austin-Round Rock	TX	-0.17	110	Flint,	MI	1.21		
54	Oxnard-Thousand Oaks Ventura	CA	-0.15	111	Wichita,	KS	1.44		
55	Nashville-DavidsonMurfreesboro,	IN	-0.14	112	ROCKTORD,	IL	1.46		
56	Hartford-West Hartford	CT	-0.12	113	Hickory-Lenoir-Morganton,	NC	3.49		
51	INIOAVIIIG,	LIN	-0.11	4					

Appendix C2: 2005 Manufacturing & Lack of Industrial Diversity										
Ranking	METRO	State	Score	Ranking	METRO	State	Score			
1	Naples-Marco Island	FL	-1.16	58	Montgomery,	AL	-0.11			
2	Tallahassee,	FL	-1.02	59	Baton Rouge	LA	-0.10			
3	Honolulu,	HI	-1.01	60	Oxnard-Thousand Oaks-Ventura	CA	-0.09			
4	Cape Coral-Fort Myers	FL	-0.99	61	Charlotte-Gastonia-Concord,	NC-SC	-0.06			
5	Anchorage,	AK	-0.98	62	Santa Rosa-Petaluma	CA	-0.06			
6	McAllen-Edinburg-Pharr,	ТХ	-0.88	63	New Haven-Milford	СТ	-0.05			
7	Deltona-Daytona Beach	FL	-0.78	64	Lansing-East Lansing	MI	-0.05			
8	Salinas,	CA	-0.77	65	Nashville-DavidsonMurfreesboro,	TN	-0.05			
9	Port St.Lucie-Fort Pierce	FL	-0.73	66	Springfield,	MA	-0.04			
10	Albuquerque,	NM	-0.73	67	Ogden-Clearfield,	UT	-0.04			
11	Jacksonville,	FL	-0.72	68	Buffalo-Niagara Falls	NY	-0.04			
12	Reno-Sparks,	NV	-0.67	69	Hartford-West Hartford	СТ	-0.03			
13	Albany-Schenectady-Troy,	NY	-0.66	70	Brownsville-Harlingen,	ТΧ	-0.02			
14	Wilmington,	NC	-0.65	71	Knoxville,	TN	0.00			
15	Killeen-Temple-Fort Hood	ТХ	-0.64	72	Ann Arbor	MI	0.01			
16	Shreveport-Bossier City	LA	-0.62	73	Salem,	OR	0.02			
17	Durham,	NC	-0.60	74	Tulsa,	OK	0.05			
18	Oklahoma City	OK	-0.57	75	Modesto,	CA	0.10			
19	Sarasota-Bradenton-Venice,	FL	-0.57	76	Asheville,	NC	0.10			
20	Pensacola-Ferry Pass	FL	-0.55	77	ScrantonWilkes-Barre,	PA	0.18			
21	Des Moines	IA	-0.55	78	Boise City-Nampa	ID	0.19			
22	Bakersfield.	CA	-0.55	79	Allentown-Bethlehem-Easton.	PA-NJ	0.24			
23	Fresno.	ĊA	-0.54	80	Worcester.	MA	0.26			
24	Spokane	WA	-0.54	81	Louisville	KY-IN	0.31			
25	Omaha-Council Bluffs	NE-IA	-0.48	82	Lexington-Fayette,	KY	0.34			
26	Colorado Springs	CO	-0.48	83	Palm Bay-Melbourne	FI	0.38			
27	Corpus Christi	тх	-0.48	84	Akron	OH	0.00			
28	Jackson	MS	-0.46	85	Manchester-Nashua	NH	0.10			
29	Lakeland	FI	-0.45	86	Davton	OH	0.42			
30	Charleston-North Charleston	SC	-0.41	87	Winston-Salem,	NC	0.51			
31	Richmond	VA	-0 41	88	Eugene-Springfield	OR	0.52			
32	Little Rock-North Little Rock	AR	-0.40	89	Beaumont-Port Arthur	тх	0.52			
33	Valleio-Eairfield	CA	-0.40	90	Huntsville	ΔΙ	0.52			
34	New Orleans		-0.40	01	l ancaster		0.52			
35	Santa Barbara-Santa Maria	CA	-0.38	92	Augusta-Richmond County	GA-SC	0.58			
36	Charleston	\\/\/	-0.36	03	Davennort-Moline-Rock Island	14-11	0.60			
37	Birmingham-Hoover	ΔI	-0.30	0/	South Bend-Misbawaka		0.00			
38	Memphis	TN-MS-AR	-0.34	95	Peoria		0.65			
20	El Daço		-0.34	06	Kalamazoo Portago	MI	0.00			
40	Tucson,	AZ	-0.32	90 97	Toledo,	OH	0.00			
11	Syracuso	NV	0.20	08	Pochostor	NV	0.76			
42	Austin-Round Rock	TY	-0.23	00	Greenville	SC	0.70			
42	Relaide Cany	NC	-0.20	100	Chattanooga		0.00			
43	Salt Lako City		0.20	100	Canton Massillon		0.01			
44	Harrisburg-Carlisle,	PA	-0.28	101	Reading,	PA	0.85			
16	Stockton	C^	-0.25	103	Fort Wayne	INI	0 02			
40	Slockion, Mobile		-0.25	103	York Hanavar		0.92			
47	Modicon		-0.24	104	Forettovillo Springdolo Bogoro		0.97			
40	Mauson,	00	-0.23	105	Caracachers List Drint		0.99			
49	Courribuid,	SU	-0.23	106	Greensboro-Hign Point		1.00			
50	Springheia,	NO	-0.23	107	roungstown-warren-Boardman,	UH-PA	1.07			
51	Trenton-Ewing,	NJ	-0.21	108	Grand Rapids-Wyoming	MI	1.09			
52	Savannah,	GA	-0.18	109	Evansville,	IN-KY	1.20			
53	Provo-Orem,	UT	-0.15	110	Flint,	MI	1.27			
54	Visalia-Porterville,	CA	-0.15	111	Rockford,	IL	1.44			
55	⊢ayetteville,	NC	-0.15	112	Wichita,	KS	1.47			
56	Portland-South Portland	ME	-0.13	113	Hickory-Lenoir-Morganton,	NC	3.01			
57	Poughkeepsie-Newburgh-Middletown,	NY	-0.12							

	Appendix C3: 2000 Small Business Environment									
Ranking	METRO	State	Score	Ranking	METRO	State	Score			
1	Santa Rosa-Petaluma	CA	2.97	58	Charleston-North Charleston	SC	-0.27			
2	Naples-Marco Island	FL	2.93	59	Savannah,	GA	-0.27			
3	Santa Barbara-Santa Maria	CA	2.20	60	Flint,	MI	-0.28			
4	Sarasota-Bradenton-Venice,	FL	2.02	61	Worcester,	MA	-0.30			
5	Port St Lucie- Fort Pierce	FL	1.92	62	Little Rock-North Little Rock	AR	-0.31			
6	Oxnard-Thousand Oaks-Ventura	CA	1.85	63	Hartford-West Hartforc	СТ	-0.32			
7	Cape Coral-Fort Myers	FL	1.78	64	Beaumont-Port Arthur	ТХ	-0.32			
8	Wilmington,	NC	1.77	65	Wichita,	KS	-0.33			
9	Eugene-Springfield,	OR	1.69	66	Winston-Salem,	NC	-0.33			
10	Asheville,	NC	1.35	67	Birmingham-Hoover,	AL	-0.39			
11	Salinas,	CA	1.29	68	El Paso	ТХ	-0.40			
12	Portland-South Portland	ME	1.17	69	Mobile,	AL	-0.43			
13	McAllen-Edinburg-Pharr,		1.07	70	Allentown-Betnlenem-Easton,	PA-NJ	-0.46			
14	Anchorago		1.03	71	Hunisville, Kalamazoo Portago		-0.47			
15	Anchorage,	AK	0.93	12	Kalamazoo-Fonaye,	IVII	-0.40			
16	Provo-Orem,	UT	0.92	73	Shreveport-Bossier City	LA	-0.49			
17	Salem,	OR	0.80	74	Akron,	OH	-0.50			
10	Colorado Springs		0.77	75	Albany-Scheneclady-110y,		-0.51			
20	Springheid, Palm Bay-Melbourne	FI	0.76	70	Charlotte-Gastonia-Concord		-0.51			
20	r ann bay-meibourne		0.75			10-00	-0.52			
21	Tucson,	AZ	0.69	78	Youngstown-Warren-Boardman,	OH-PA	-0.53			
22	Deltona-Daytona Beach	FL	0.62	79	Rochester,	NY	-0.54			
23	Tulsa,	OK	0.61	80	Peoria,	IL	-0.56			
24	Nashville-DavidsonMurfreesboro,	ΤN	0.52	81	ScrantonWilkes-Barre,	PA	-0.58			
25	Oklahoma City	OK	0.49	82	York-Hanover,	PA	-0.59			
26	Bakersfield,	CA	0.48	83	Greensboro-High Point	NC	-0.59			
27	Albuquerque,	NM	0.46	84	Louisville,	KY-IN	-0.60			
28	Corpus Christi	ΤX	0.45	85	Montgomery,	AL	-0.61			
29	Visalia-Porterville,	CA	0.43	86	Columbia,	SC	-0.62			
30	Modesto,	CA	0.41	87	Lexington-Fayette,	KY	-0.64			
31	Fayetteville-Springdale-Rogers,	AR-MO	0.39	88	Lansing-East Lansing	MI	-0.64			
32	Ogden-Clearfield,	UT	0.37	89	Augusta-Richmond County	GA-SC	-0.65			
33	Knoxville,	TN	0.36	90	Grand Rapids-Wyoming	MI	-0.65			
34	Austin-Round Rock	ТΧ	0.33	91	Baton Rouge	LA	-0.65			
35	Brownsville-Harlingen,	ТХ	0.32	92	Des Moines	IA-IL	-0.66			
36	Spokane,	WA	0.28	93	Davenport-Moline-Rock Island	IA-IL	-0.66			
37	Reno-Sparks,	NV	0.19	94	Rockford,	IL	-0.67			
38	Pensacola-Ferry Passs	FL	0.19	95	Syracuse,	NY	-0.69			
39	Poughkeepsie-Newburgh-Middletown,	NY	0.17	96	Omaha-Council Bluffs	NE-IA	-0.73			
40	Fresno,	CA	0.15	97	Greenville,	SC	-0.73			
41	New Orleans	LA	0.05	98	Charleston,	WV	-0.76			
42	Lancaster,	PA	0.04	99	Madison,	WI	-0.77			
43	Salt Lake City	UT	0.00	100	Ann Arbor	MI	-0.84			
44	Manchester-Nashua,	NH	-0.02	101	Hickory-Lenoir-Morganton,	NC	-0.87			
45	Raleigh-Cary,	NC	-0.02	102	Memphis,	TN-MS-AR	-0.87			
46	Springfield,	МО	-0.11	103	South Bend Mishawka	IN-MI	-0.88			
47	Stockton,	CA	-0.13	104	Evansville,	IN-KY	-0.89			
48	Lakeland,	FL	-0.15	105	Trenton-Ewing,	NJ	-0.92			
49	Honolulu,	HI	-0.15	106	Harrisburg-Carlisle,	PA	-0.92			
50	New Haven-Miliford	СТ	-0.17	107	Killeen-Temple-Fort Hood	ТХ	-0.95			
51	Jacksonville,	FL	-0.17	108	Fort Waynue	IN	-0.96			
52	Vallejo-Fairfield,	CA	-0.18	109	Toledo,	OH	-0.99			
53	Chattanooga,	TN-GA	-0.19	110	Dayton,	ОН	-1.00			
54	Reading,	PA	-0.23	111	Buffalo-Niagara Falls	NY	-1.13			
55	Canton-Massillon,	OH	-0.24	112	Fayetteville,	NC	-1.14			
56	Jackson,	MS	-0.24	113	Richmond,	VA	-1.33			
57	Durham,	NC	-0.27							

Appendix C4: 2005 Small Business Environment									
Ranking	METRO	State	Score	Ranking	METRO	State	Score		
1	Brownsville-Harlingen,	ТΧ	4.77	58	Raleigh-Cary,	NC	-0.12		
2	Santa Rosa-Petaluma	CA	2.13	59	Hartford-West Hartford	СТ	-0.13		
3	Naples-Marco Island	FL	1.62	60	Durham,	NC	-0.14		
4	Sarasota-Bradenton-Venice,	FL	1.54	61	Salt Lake City	UT	-0.14		
5	Port St.Lucie-Fort Pierce	FL	1.43	62	Hickory-Lenoir-Morganton,	NC	-0.14		
6	Santa Barbara-Santa Maria	CA	1.23	63	Jackson,	MS	-0.17		
7	Asheville,	NC	1.08	64	Honolulu,	HI	-0.24		
8	Wilmington,	NC	1.06	65	Lansing-East Lansing	MI	-0.25		
9	Oxnard-Thousand Oaks-Ventura	CA	1.01	66	Augusta-Richmond County	GA-SC	-0.25		
10	Cape Coral-Fort Myers	FL	0.92	67	Winston-Salem,	NC	-0.27		
11	Provo-Orem,	UT	0.91	68	Reading,	PA	-0.27		
12	Anchorage,	AK	0.90	69	Killeen-Temple-Fort Hood	ТХ	-0.27		
13	Portland-South Portland	ME	0.85	70	Montgomery,	AL	-0.29		
14	Boise City-Nampa	ID	0.83	71	Mobile,	AL	-0.30		
15	Eugene-Springfield,	OR	0.73	72	Youngstown-Warren-Boardman,	OH-PA	-0.31		
16	Salinas,	CA	0.70	73	Savannah,	GA	-0.33		
17	Colorado Springs	CO	0.67	74	Shreveport-Bossier City	LA	-0.34		
18	McAllen-Edinburg-Pharr.	ТХ	0.61	75	Birmingham-Hoover.	AL	-0.34		
19	Tulsa.	OK	0.60	76	Tallahassee.	FL	-0.38		
20	Austin-Round Rock	ТХ	0.58	77	Allentown-Bethlehem-Easton,	PA-NJ	-0.38		
21	Springfield	MO	0.57	78	Charlotte-Gastonia-Concord	NC-SC	-0.39		
22	Deltona-Davtona Beach	FI	0.07	79	Akron	OH	-0.40		
23	Tucson	Δ7	0.40	80	Grand Rapids-Wyoming	MI	-0.41		
20	Orden-Clearfield	I IT	0.40	81	Lexington-Eavette	KY	-0.42		
25	Oklahoma City	OK	0.36	82	Rockford,	IL	-0.43		
						ND/	0.40		
26	Pensacola-Ferry Pass		0.34	83	Rocnester,	NY	-0.43		
27	Nashville-DavidsonMurreesboro,		0.33	84	Louisville,	KY-IN	-0.44		
28	Palm Bay-Melbourne	FL	0.30	85	Greenville,	SC	-0.48		
29	Salem,		0.28	86	Little Rock-North Little Rock	AR	-0.51		
30	Corpus Crinsti	17	0.23	07	Kalamazoo-Ponage,	IVII	-0.52		
31	Poughkeepsie-Newburgh-Middletown,	NY	0.20	88	Davenport-Moline-Rock Island	IA-IL	-0.54		
32	Bakersfield,	CA	0.16	89	Madison,	WI	-0.55		
33	Flint,	MI	0.14	90	Charleston,	WV	-0.57		
34	Visalia-Porterville,	CA	0.12	91	York-Hanover,	PA	-0.60		
35	Knoxville,	TN	0.10	92	Des Moines	IA	-0.61		
36	Jacksonville,	FL	0.09	93	Baton Rouge	LA	-0.63		
37	Reno-Sparks,	NV	0.09	94	Peoria,	IL	-0.63		
38	Lancaster,	PA	0.07	95	Syracuse,	NY	-0.65		
39	Springfield,	MA	0.05	96	Columbia,	SC	-0.66		
40	Vallejo-Fairfield,	CA	0.05	97	Omaha-Council Bluffs	NE-IA	-0.66		
41	Fayetteville-Springdale-Rogers,	AR-MO	0.04	98	Richmond,	VA	-0.67		
42	Spokane,	WA	0.01	99	Fayetteville,	NC	-0.68		
43	Albuquerque,	NM	0.00	100	Ann Arbor	MI	-0.68		
44	Canton-Massillon,	OH	-0.01	101	Albany-Schenectady-Troy,	NY	-0.69		
45	Charleston-North Charleston	SC	-0.01	102	Memphis,	TN-MS-AR	-0.69		
46	Stockton,	CA	-0.04	103	ScrantonWilkes-Barre,	PA	-0.73		
47	Fresno,	CA	-0.04	104	Greensboro-High	Point,	-0.74		
48	New Orleans	LA	-0.04	105	Huntsville,	AL	-0.74		
49	New Haven-Milford	СТ	-0.05	106	South Bend-Mishawaka	IN-MI	-0.77		
50	Lakeland,	FL	-0.06	107	Toledo,	OH	-0.78		
51	Wichita,	KS	-0.07	108	Fort Wayne	IN	-0.79		
52	Chattanooga,	TN-GA	-0.09	109	Dayton,	OH	-0.86		
53	Beaumont-Port Arthur	TX	-0.09	110	Trenton-Ewing,	NJ	-0.87		
54	Worcester,	MA	-0.11	111	Evansville,	IN-KY	-0.87		
55	El Paso	ТΧ	-0.11	112	Harrisburg-Carlisle,	PA	-0.92		
56	Manchester-Nashua	NH	-0 11	113	Buffalo-Niagara Falls	NY	-0 95		
57	Modesto,	CA	-0.12		Landio Magara Fallo		0.00		

	Appendix C5: 2000 Professional Workers & R&D Activities									
Ranking	METRO	State	Score	Ranking	METRO	State	Score			
1	Ann Arbor	MI	4.84	58	Greenville,	SC	-0.22			
2	Durham,	NC	3.62	59	Wilmington,	NC	-0.23			
3	Trenton-Ewing,	NJ	2.82	60	Fort Wayne	IN	-0.26			
4	Austin-Round Rock	ТΧ	2.18	61	Allentown-Bethlehem-Easton,	PA-NJ	-0.26			
5	Madison,	WI	2.13	62	Savannah,	GA	-0.29			
6	Raleigh-Cary,	NC	2.01	63	Sarasota-Bradenton-Venice,	FL	-0.30			
7	Tallahassee,	FL	1.81	64	Augusta-Richmond County	GA-SC	-0.30			
8	Albany-Schenectady-Troy,	NY	1.60	65	Jacksonville,	FL	-0.30			
9	Huntsville,	AL	1.59	66	South Bend-Mishawaka	IN-MI	-0.34			
10	Colorado Springs	CO	1.49	67	Naples-Marco Island	FL	-0.36			
11	New Haven-Milford	СТ	1.45	68	Louisville,	KY-IN	-0.37			
12	Hartford-West Hartford	CT	1.41	69	Tulsa,	OK	-0.37			
13	Manchester-Nashua,	NH	1.16	70	Asheville,	NC	-0.38			
14	Albuquerque,	NM	1.14	71	Salinas,	CA	-0.38			
15	Santa Barbara-Santa Maria	CA	1.13	72	Peoria,	IL	-0.38			
16	Lexington-Fayette,	KY	1.01	73	Memphis,	TN-MS-AR	-0.40			
1/	Rochester,	NY	0.96	74	Pensacola-Ferry Pass	FL	-0.40			
18	Worcester,	MA	0.90	75	l oledo,	OH	-0.46			
19	Tucson,	AZ	0.82	76	Reno-Sparks,	NV	-0.47			
20	Lansing-East Lansing	MI	0.76	77	Charleston,	WV	-0.48			
21	Provo-Orem,	UT	0.67	78	Greensboro-High	Point,	-0.48			
22	Oxnard-Thousand Oaks-Ventura	CA	0.61	79	Grand Rapids-Wyoming	MI	-0.54			
23	Santa Rosa-Petaluma	CA	0.56	80	Vallejo-Fairfield,	CA	-0.54			
24	Portland-South Portland	ME	0.54	81	Favetteville-Springdale-Rogers.	AR-MO	-0.55			
25	Poughkeepsie-Newburgh-Middletown,	NY	0.51	82	Salem,	OR	-0.59			
26	Syracuse,	NY	0.48	83	Springfield,	MO	-0.68			
27	Anchorage,	AK	0.45	84	Chattanooga,	TN-GA	-0.69			
28	Richmond,	VA	0.45	85	Killeen-Temple-Fort Hood	TX	-0.72			
29	Springfield,	MA	0.36	86	Lancaster,	PA	-0.76			
30	Buffalo-Niagara Falls	NY	0.35	87	Reading,	PA	-0.77			
31	Columbia,	SC	0.35	88	Rockford,	IL	-0.77			
32	Kalamazoo-Portage,	MI	0.32	89	Davenport-Moline-Rock Island	IA-IL	-0.78			
33	Dayton,	OH	0.30	90	Cape Coral-Fort Myers	FL	-0.79			
34	Palm Bay-Melbourne	FL	0.29	91	Mobile,	AL	-0.79			
35	Salt Lake City	UT	0.28	92	Corpus Christi	ТХ	-0.82			
36	Des Moines	IA	0.26	93	Shreveport-Bossier City	LA	-0.84			
37	Eugene-Springfield,	OR	0.25	94	Evansville,	IN-KY	-0.84			
38	Knoxville,	TN	0.22	95	Port St.Lucie-Fort Pierce	FL	-0.85			
39	Charlotte-Gastonia-Concord,	NC-SC	0.22	96	Deltona-Daytona Beach	FL	-0.91			
40	Omaha-Council Bluffs	NE-IA	0.21	97	York-Hanover,	PA	-0.93			
41	Honolulu,	н	0.17	98	Fresno,	CA	-0.93			
42	Jackson,	MS	0.15	99	ScrantonWilkes-Barre,	PA	-0.93			
43	Nashville-DavidsonMurfreesboro,	TN	0.13	100	El Paso	ТХ	-0.96			
44	Montgomery,	AL	0.07	101	Fayetteville,	NC	-0.97			
45	Harrisburg-Carlisle,	PA	0.07	102	Canton-Massillon,	OH	-1.00			
46	Boise City-Nampa	ID	0.06	103	Flint,	MI	-1.10			
47	Charleston-North Charleston	SC	0.01	104	Beaumont-Port Arthur	ТХ	-1.27			
48	Spokane,	WA	0.00	105	Youngstown-Warren-Boardman,	OH-PA	-1.28			
49	Little Rock-North Little Rock	AR	-0.01	106	Brownsville-Harlingen,	ТХ	-1.32			
50	New Orleans	LA	-0.12	107	Bakersfield,	CA	-1.34			
51	Winston-Salem,	NC	-0.12	108	Stockton,	CA	-1.37			
52	Birmingham-Hoover,	AL	-0.12	109	Lakeland,	FL	-1.40			
53	Oklahoma City	OK	-0.12	110	Modesto,	CA	-1.44			
54	Wichita,	KS	-0.14	111	McAllen-Edinburg-Pharr,	ТХ	-1.51			
55	Akron,	OH	-0.15	112	Visalia-Porterville,	CA	-1.68			
56	Baton Rouge	LA	-0.20	113	Hickory-Lenoir-Morganton,	NC	-1.90			
57	Ogaen-Clearrield,	UI	-0.21							

Appendix C6: 2005 Professional Workers & R&D Activities									
Ranking	METRO	State	Score	Ranking	METRO	State	Score		
1	Ann Arbor	MI	4.90	58	Jacksonville,	FL	-0.18		
2	Durham,	NC	3.59	59	Reno-Sparks,	NV	-0.22		
3	Trenton-Ewing,	NJ	2.39	60	Savannah,	GA	-0.22		
4	Madison,	WI	2.31	61	Fayetteville-Springdale-Rogers,	AR-MO	-0.23		
5	Raleigh-Cary,	NC	2.06	62	Wichita,	KS	-0.25		
6	Austin-Round Rock	тх	1.98	63	Tulsa.	ОК	-0.25		
7	Huntsville.	AL	1.82	64	Winston-Salem.	NC	-0.28		
8	New Haven-Milford	СТ	1.76	65	Charleston.	WV	-0.28		
9	Tallahassee	FI	1 47	66	Asheville	NC	-0.29		
10	Albany-Schenectady-Troy,	NY	1.43	67	Ogden-Clearfield,	UT	-0.29		
11	Hartford-West Hartford	СТ	1 27	68	Louisville	KY-IN	-0.33		
12	Manchester-Nashua	NH	1 22	69	Augusta-Richmond County	GA-SC	-0.37		
13	Colorado Springs	CO	1 12	70	Sarasota-Bradenton-Venice	FI	-0.39		
14	Worcester	MA	1 07	71	Baton Rouge	IA	-0.42		
15	Lexington-Fayette,	KY	1.06	72	Davenport-Moline-Rock Island	IA-IL	-0.42		
16	Santa Barbara-Santa Maria	CA	0.94	73	South Bond-Mishawaka	INI-MI	-0.43		
10	Albuquorquo		0.94	73	Chattanooga		-0.43		
10	Abuqueique, Pochostor		0.91	74	Pooria	IN-GA	-0.44		
10	Tucson	111	0.90	76	Tolodo		-0.45		
19	Tucson, Kalamazaa Dartaga		0.05	70	Vallaia Eairfield		-0.40		
20	Kalamazoo-Fonage,	IVII	0.04		vallejo-raimelu,	CA	-0.40		
21	Santa Rosa-Petaluma	CA	0.79	78	Grand Rapids-Wyoming	MI	-0.46		
22	Oxnard-Thousand Oaks-Ventura	CA	0.61	79	Memphis,	TN-MS-AR	-0.51		
23	Portland-South Portland	ME	0.55	80	Springfield,	MO	-0.55		
24	Anchorage,	AK	0.52	81	Killeen-Temple-Fort Hood	ТХ	-0.56		
25	Poughkeepsie-Newburgh-Middletown,	NY	0.47	82	Pensacola-Ferry Pass	FL	-0.56		
26	Lansing-East Lansing	MI	0.44	83	Greensboro-High	Point.	-0.57		
27	Dayton,	OH	0.40	84	Naples-Marco Island	FL	-0.58		
28	Palm Bay-Melbourne	FL	0.40	85	Lancaster,	PA	-0.62		
29	Richmond,	VA	0.38	86	Salem,	OR	-0.68		
30	Des Moines	IA	0.37	87	Evansville,	IN-KY	-0.76		
31	Omaha-Council Bluffs	NE-IA	0.36	88	Deltona-Daytona Beach	FL	-0.77		
32	Provo-Orem.	UT	0.34	89	Mobile.	AL	-0.78		
33	Svracuse.	NY	0.32	90	Salinas.	CA	-0.79		
34	Jackson.	MS	0.29	91	Reading.	PA	-0.79		
35	Harrisburg-Carlisle,	PA	0.28	92	Corpus Christi	ТХ	-0.84		
36	Springfield	МА	0 24	93	ScrantonWilkes-Barre	PA	-0.88		
37	Columbia	SC	0.22	94	Cape Coral-Fort Myers	FI	-0.89		
38	Buffalo-Niagara Falls	NY	0.18	95	Port St Lucie-Fort Pierce	FI	-0.95		
30	Eugene-Springfield	OR	0.10	96	Favetteville	NC	-0.97		
40	Honolulu,	HI	0.17	97	York-Hanover,	PA	-0.98		
41	Nachvilla Davidaan, Murfraachara	TN	0.14	09	Shravapart Passiar City	1.0	0.00		
41	Nasriville-Davidsonividineesboro,		0.14	90	Conton Massillan		-0.90		
42	Montgomory	NC-3C	0.13	99 100	Caritori-Massillori,		-1.00		
43	Monigomery,		0.12	100	Flesho,	CA	-1.08		
44 45	Knoxville,	TN	0.12	101	El Paso	TX	-1.10		
	· · · · · · · · · · · · ·								
46	Charleston-North Charleston	SC	0.10	103	Flint,	MI	-1.17		
47	Spokane,	WA	0.10	104	Stockton,	CA	-1.22		
48	Akron,	OH	0.10	105	Beaumont-Port Arthur	TX	-1.28		
49	Little Rock-North Little Rock	AR	0.09	106	Lakeland,	FL	-1.28		
50	New Orleans	LA	0.07	107	McAllen-Edinburg-Pharr,	ТХ	-1.34		
51	Greenville,	SC	0.01	108	Youngstown-Warren-Boardman,	OH-PA	-1.35		
52	Boise City-Nampa	ID	0.01	109	Hickory-Lenoir-Morganton,	NC	-1.36		
53	Allentown-Bethlehem-Easton,	PA-NJ	-0.04	110	Bakersfield,	CA	-1.45		
54	Birmingham-Hoover,	AL	-0.07	111	Modesto,	CA	-1.46		
55	Oklahoma City	OK	-0.09	112	Brownsville-Harlingen,	ТХ	-1.64		
56	Wilmington,	NC	-0.16	113	Visalia-Porterville,	CA	-1.90		
57	Fort Wayne	IN	-0.17				-		

	Appendix C7: 2000 Poverty, Income Inequality, and Racial Isolation								
Ranking	METRO	State	Score	Ranking	METRO	State	Score		
1	Manchester-Nashua,	NH	-1.36	58	Port Lucie-Fort Piece	FL	-0.07		
2	Salt Lake City	UT	-1.34	59	Akron,	OH	-0.06		
3	Lancaster,	PA	-1.32	60	Rochester,	NY	-0.05		
4	Madison,	WI	-1.28	61	Syracuse,	NY	-0.05		
5	York-Hanover,	PA	-1.25	62	Nashville-DavidsonMurfreesboro,	TN	-0.04		
6	Portland-South Portland	ME	-1.20	63	Youngstown-Warren-Boardman,	OH-PA	-0.04		
7	Ogden-Clearfield,	UT	-1.20	64	Chattanooga,	TN-GA	0.00		
8	Boise City Nampa	ID	-1.19	65	Tulsa,	OK	0.01		
9	Des Moines	IA	-1.18	66	Greensboro-High Point	NC	0.03		
10	Colorado Springs	СО	-1.11	67	Winston-Salem,	NC	0.04		
11	Santa Rosa-Petaluma	CA	-1.10	68	Louisville,	KY-IN	0.05		
12	Provo-Orem,	UT	-1.09	69	Tucson,	AZ	0.05		
13	Hickory-Lenoir-Morganton,	NC	-1.05	70	Dayton,	OH	0.07		
14	Reading,	PA	-1.05	71	Santa Barbara-Santa Maria	CA	0.08		
15	Allentown-Bethlehem-Easton,	PA-NJ	-1.01	72	Lexington-Fayette,	KY	0.09		
16	Worcester,	MA	-0.97	73	Modesto,	CA	0.11		
17	Fort Wayne	IN	-0.97	74	Charleston,	WV	0.14		
18	Anchorage,	AK	-0.95	75	Albuquerque,	NM	0.17		
19	Reno-Sparks,	NV	-0.91	76	Jacksonville	FL	0.17		
20	ScrantonWilkes-Barre,	PA	-0.90	77	Naples-Marco Island	FL	0.22		
21	Springfield.	MA	-0.87	78	Sprinafield.	МО	0.24		
22	Favetteville-Springdale-Rogers.	AR-MO	-0.84	79	Richmond.	VA	0.26		
23	Wichita.	KS	-0.83	80	Little Rock- North Little Rock	AR	0.29		
24	Spokane.	WA	-0.81	81	Oklahoma City	OK	0.32		
25	Asheville,	NC	-0.79	82	Buffalo-Niagara Falls	NY	0.35		
26	Poughkeepsie-Newburgh-Middletown.	NY	-0.74	83	Huntsville.	AL	0.39		
27	Palm Bva-Melbourne	FL	-0.70	84	Favetteville	NC	0.40		
28	Omaha-Council Bluffs	NE-IA	-0.70	85	Wilmington.	NC	0.40		
29	Valleio-Fairfield.	CA	-0.69	86	Toledo.	OH	0.50		
30	Rockford,	IL	-0.67	87	Durham,	NC	0.51		
31	Oxnard-Thousand Oaks-Ventura	СА	-0.66	88	Trenton-Ewing.	NJ	0.55		
32	Canton-Massillon.	OH	-0.65	89	Pensacola-Ferry Pass	FL	0.60		
33	Evansville.	IN-KY	-0.63	90	Columbia.	SC	0.61		
34	Eugene-Springfield.	OR	-0.63	91	Stockton.	CA	0.65		
35	Davenport-Moline-Rock Island	IA-IL	-0.62	92	Greenville,	SC	0.80		
36	Salem.	OR	-0.61	93	Corpus Christi	тх	0.84		
37	Grand Rapids-Wyoming	MI	-0.60	94	Flint.	MI	1.00		
38	Harrisburg-Carlisle.	PA	-0.59	95	Charleston-North Charleston	SC	1.12		
39	Cape Coral-Fort Myers	FL	-0.58	96	Birmingham-Hoover.	AL	1.13		
40	Lansing-East Lansing	MI	-0.56	97	Brownsville-Harlingen,	ТХ	1.18		
41	Honolulu,	н	-0.55	98	Augusta-Richmond County	GA-SC	1.26		
42	Sarasota-Bradenton-Venice.	FL	-0.51	99	Visalia-Porterville.	CA	1.29		
43	Killeen-Temple-Fort Hood	ТХ	-0.48	100	Savannah.	GA	1.33		
44	Ann Arbor	MI	-0.47	101	El Paso	ТХ	1.35		
45	South Bend-Mishawka	IN-MI	-0.47	102	Bakersfield,	CA	1.38		
46	Albany-Schenectady-Troy,	NY	-0.46	103	McAllen-Edinburg-Pharr,	тх	1.57		
47	Deltona-Davtona Beach	FL	-0.41	104	Fresno.	CA	1.59		
48	Kalamazoo-Portage.	MI	-0.30	105	Tallahassee.	FL	1.65		
49	Peoria.	IL	-0.29	106	Montaomery.	AL	1.67		
50	Lakeland,	FL	-0.27	107	Beaumont-Port Arthur	ТХ	1.67		
51	Austin-Round Rock	тх	-0.24	108	Baton Rouge	LA	1.89		
52	Hartford-West Hartford	СТ	-0.22	109	Mobile,	AL	2.03		
53	Knoxville,	TN	-0.19	110	Shreveport-Bossier City	LA	2.22		
54	New Haven-Milford	СТ	-0.15	111	Memphis,	TN-MS-AR	2.23		
55	Raleigh-Cary,	NC	-0.12	112	Jackson,	MS	2.48		
56 57	Salinas, Charlotte-Gastonia-Concord.	CA NC-SC	-0.11 -0.09	113	New Orleans	LA	2.88		

Appendix C8: 2005 Poverty, Income Inequality, and Racial Isolation									
Ranking	METRO	State	Score	Ranking	METRO	State	Score		
1	Santa Rosa-Petaluma	CA	-1.61	58	Killeen-Temple-Fort Hood	ТΧ	-0.02		
2	Ogden-Clearfield	UT	-1.33	59	Buffalo-Niagara Falls	NY	-0.01		
3	Worcester	MA	-1.33	60	Toledo	OH	-0.01		
4	Salt Lake City	UT	-1.23	61	Fresno	CA	0.00		
5	Manchester-Nashua	NH	-1.22	62	Little Rock-North Little Rock	AR	0.00		
c	Handulu	ш	1 20	62	Albuquerque	NIM	0.01		
0			-1.20	03			0.01		
1	Lancaster Boughkoopoin Nowburgh Middletown		-1.06	04	Charlesten North Charlesten	NC SC	0.03		
0			-0.92	60	Charleston-North Charleston	30	0.04		
9	Vallejo-Falffield	CA	-0.90	66	Peoria	IL II	0.07		
10	Harrisburg-Carlisle	PA	-0.88	67	Rockford	IL	0.07		
11	Oxnard-Thousand Oaks-Ventura	CA	-0.87	68	South Bend-Mishawaka	IN-MI	0.08		
12	Naples-Marco Island	FL	-0.87	69	Pensacola-Ferry Pass-Brent	FL	0.09		
13	Fort Wayne	IN	-0.78	70	Durham	NC	0.11		
14	Portland-South Portland-Biddeford	ME	-0.77	71	Nashville-DavidsonMurfreesboro	TN	0.12		
15	Salem	OR	-0.74	72	Columbia	SC	0.16		
16	Cape Coral-Fort Myers	FL	-0.74	73	Allentown-Bethlehem-Easton	PA-NJ	0.22		
17	Des Moines	IA	-0.72	74	McAllen-Edinburg-Pharr	IX	0.23		
18	Madison	WI	-0.70	75	Rochester	NY	0.25		
19	Colorado Springs	CO	-0.70	76	Dayton	OH	0.26		
20	Santa Barbara-Santa Maria-Goleta	CA	-0.70	77	Visalia-Porterville	CA	0.28		
21	Palm Bay-Melbourne-Titusville	FI	-0.69	78	Omaha-Council Bluffs	NF-IA	0.29		
22	Provo-Orem	UT	-0.69	79	Flint	MI	0.31		
23	Louisville	KY-IN	-0.68	80	Evansville	IN-KY	0.31		
24	Reading	PA	-0.68	81	Canton-Massillon	OH	0.32		
25	Lakeland	FI	-0.67	82	New Haven-Milford	CT	0.33		
20	Landiana		0.07	02		01	0.00		
26	Fayetteville-Springdale-Rogers	AR-MO	-0.67	83	Lansing-East Lansing	MI	0.33		
27	Salinas	CA	-0.65	84	Huntsville	AL	0.41		
28	Eugene-Springfield	OR	-0.62	85	Spokane	WA	0.46		
29	York-Hanover	PA	-0.58	86	Davenport-Moline-Rock Island	IA-IL	0.46		
30	Deltona-Daytona Beach-Ormond Beach	FL	-0.58	87	Albany-Schenectady-Troy	NY	0.47		
21	Tuloo	OK	0.56	00	Austin Dound Dook	TV	0.40		
20	Tuisa Hiskory Longir Morgonton		-0.50	00		1.7	0.49		
32	Hickory-Lenoir-Worganton		-0.51	89	Tucson Manager Manager Baseder an		0.51		
33	Port St. Lucie-Fort Pierce	FL	-0.46	90	Youngstown-warren-Boardman		0.50		
34	Springheid		-0.46	91	Chattanooga	TN-GA	0.59		
35	Grand Rapids-wyoming	IVII	-0.45	92	Stockton	CA	0.64		
36	ScrantonWilkes-Barre	PA	-0.45	93	Charleston	WV	0.66		
37	Ann Arbor	MI	-0.44	94	Birmingham-Hoover	AL	0.80		
38	Greenville	SC	-0.42	95	Svracuse	NY	0.80		
39	Wilmington	NC	-0.42	96	Brownsville-Harlingen	ТХ	0.81		
40	Reno-Sparks	NV	-0.41	97	Augusta-Richmond County	GA-SC	1.02		
41	Hartford-West Hartford-East Hartford	СТ	-0.38	98	Beaumont-Port Arthur	ТХ	1.04		
42	Boise City-Nampa	ID	-0.33	99	Montgomery	AL	1.05		
43	Wichita	KS	-0.31	100	Savannah	GA	1.06		
44	Asheville	NC	-0.30	101	Baton Rouge	LA	1.09		
45	Raleigh-Cary	NC	-0.30	102	Trenton-Ewing	NJ	1.09		
46	Oklahoma City	OK	-0 20	103	Kalamazoo-Portage	М	1 1/		
_+0 ⊿7	Modesto	CA	-0.29	103	FI Paso	TX	1.14		
10	Levington-Favette	KY	-0.29	104	Shreveport-Bossion City		1 20		
40	Akron		-0.27	100	Favetteville		1.30		
49 50	Corpus Christi	тх	-0.23	100	New Orleans-Metairia-Konnor		1.32		
50			-0.21	107			1.00		
51	Greensboro-High Point	NC	-0.16	108	Mobile	AL	1.43		
52	Anchorage	AK	-0.14	109	Bakersfield	CA	1.44		
53	Charlotte-Gastonia-Concord	NC-SC	-0.10	110	Tallahassee	FL	1.49		
54	Knoxville	TN	-0.09	111	Jacksonville	FL	1.53		
55	Sarasota-Bradenton-Venice	FL	-0.06	112	Jackson	MS	1.81		
56	Springfield	MA	.0.05	110	Momphis		1 07		
00 57	Pichmond		-0.05	113	wemphis	IN-IVIS-AR	1.97		
51	Noninonu	٧A	-0.02						

	Appendix C9: 2000 Quality of Life									
Ranking	METRO	State	Score	Ranking	METRO	State	Score			
1	Madison	WI	1.141	58	ScrantonWilkes-Barre	PA	0.044			
2	Buffalo-Niagara Falls	NY	1.122	59	South Bend-Mishawaka	IN-MI	0.01			
3	Ann Arbor	MI	1.054	60	Pensacola-Ferry Pass-Brent	FL	0.01			
4	Richmond	VA	1.048	61	Tulsa	OK	-0.003			
5	Albany-Schenectady-Troy	NY	1.01	62	Reading	PA	-0.025			
6	Hartford-West Hartford-East Hartford	СТ	0.991	63	Fresno	CA	-0.057			
7	New Haven-Milford	СТ	0.973	64	Little Rock-North Little Rock	AR	-0.063			
8	Lansing-East Lansing	MI	0.908	65	Canton-Massillon	OH	-0.099			
9	Trenton-Ewing	NJ	0.884	66	Wilmington	NC	-0.101			
10	Dayton	OH	0.864	67	Santa Barbara-Santa Maria-Goleta	CA	-0.109			
11	Salt Lake City	UT	0.827	68	Baton Rouge	LA	-0.119			
12	Greenville	SC	0.813	69	Reno-Sparks	NV	-0.142			
13	Nashville-DavidsonMurfreesboro	TN	0.786	70	Memphis	TN-MS-AR	-0.148			
14	Raleigh-Cary	NC	0.777	71	Montgomery	AL	-0.15			
15	Knoxville	TN	0.758	72	Corpus Christi	ТХ	-0.151			
16	Honolulu	HI	0.725	73	Savannah	GA	-0.166			
17	Omaha-Council Bluffs	NE-IA	0.722	74	Manchester-Nashua	NH	-0.181			
18	Syracuse	NY	0.719	75	Chattanooga	TN-GA	-0.187			
19	Rochester	NY	0.681	76	Jackson	MS	-0.225			
20	Springfield	MA	0.648	77	Rockford	IL	-0.255			
21	Portland-South Portland-Biddeford	ME	0.615	78	Beaumont-Port Arthur	ТХ	-0.258			
22	Springfield	MO	0.564	79	Stockton	CA	-0.287			
23	Tucson	AZ	0.548	80	Santa Rosa-Petaluma	CA	-0.307			
24	Allentown-Bethlehem-Easton	PA-NJ	0.541	81	El Paso	ТХ	-0.312			
25	Harrisburg-Carlisle	PA	0.511	82	Evansville	IN-KY	-0.322			
26	Lexington-Fayette	KY	0.501	83	Sarasota-Bradenton-Venice	FL	-0.346			
27	Toledo	OH	0.5	84	Fayetteville-Springdale-Rogers	AR-MO	-0.358			
28	Akron	OH	0.476	85	Naples-Marco Island	FL	-0.361			
29	New Orleans-Metairie-Kenner	LA	0.46	86	Deltona-Daytona Beach-Ormond Bea	FL	-0.398			
30	Albuquerque	NM	0.453	87	Vallejo-Fairfield	CA	-0.412			
31	Flint	MI	0.42	88	Palm Bay-Melbourne-Titusville	FL	-0.424			
32	Kalamazoo-Portage	MI	0.374	89	Cape Coral-Fort Myers	FL	-0.437			
33	Charlotte-Gastonia-Concord	NC-SC	0.374	90	Killeen-Temple-Fort Hood	ТХ	-0.455			
34	Boise City-Nampa	ID	0.37	91	Mobile	AL	-0.498			
35	Peoria	IL	0.364	92	Shreveport-Bossier City	LA	-0.533			
36	Charleston	W V	0.353	93	Durham	NC	-0.541			
37	Spokane	WA	0.351	94	Oxnard-Thousand Oaks-Ventura	CA	-0.542			
38	Des Moines	IA	0.329	95	Lakeland	FL	-0.574			
39	Youngstown-Warren-Boardman	OH-PA	0.319	96	Oklahoma City	OK	-0.588			
40	Eugene-Springfield	OR	0.316	97	Huntsville	AL	-0.59			
44	Broug Orom	117	0 000	00	Dovopport Moline Deals Island	1.4 11	0.004			
41	Provo-Orem	UI	0.299	98	Davenport-Moline-Rock Island	IA-IL	-0.661			
42	worcester	MA	0.296	99	Salinas	CA	-0.681			
43	Grand Rapids-Wyoming	MI	0.264	100	Hickory-Lenoir-Morganton	NC	-0.698			
44	Asheville	NC	0.259	101	York-Hanover	PA	-0.853			
45	Greensboro-High Point	NC	0.255	102	Augusta-Richmond County	GA-SC	-0.859			
40	Oshurshia	00	0.054	400	Martin Dantan illa	<u></u>	4 4 0 7			
46		SC	0.251	103		CA	-1.167			
4/	wichita	KS TV	0.239	104	Jacksonville	FL FA	-1.17			
48		IX	0.216	105		PA	-1.214			
49	Anchorage	AK	0.208	106	Pougnkeepsie-Newburgh-Middletown	NY	-1.306			
50	Unarieston-North Charleston	SC	0.172	107	Ugaen-Cleameld	UI	-1.347			
E1	Fort Wayno	INI	0 470	109	Winston Solom	NC	1 2 4 7			
51			0.172	108	winston-Salem Medeete		-1.347			
52		κĭ-IN	0.126	109	NODESTO	CA	-1.349			
53	Colorado Springs		0.103	110			-1.38			
54	Birmingham-Hoover	AL	0.076	111	Brownsville-Harlingen	IX	-1.442			
55	Salem	OR	0.066	112	Fayetteville	NC	-1.501			
FC	Tallahassaa	E1	0.054	110	McAllon Edinburg Dharr	т∨	1 665			
50	I dilallassee		0.054	113	wcAllen-Eulidurg-Pharr	IĂ	-1.002			
- 57	FUIL SL LUGE-FUIL FIELCE	r L	0.053							

Appendix C10: 2005 Quality of Life									
Ranking	METRO	State	Score	Ranking	METRO	State	Score		
1	Worcester	MA	1.24	58	Jackson	MS	0.09		
2	Ogden-Clearfield	UT	1.17	59	Asheville	NC	0.08		
3	Ann Arbor	MI	1.16	60	Anchorage	AK	0.08		
4	Durham	NC	1.14	61	Columbia	SC	0.08		
5	Salt Lake City	UT	1.14	62	Des Moines	IA	0.04		
6	Tucson	AZ	1.05	63	South Bend-Mishawaka	IN-MI	0.03		
7	Nashville-DavidsonMurfreesboro	TN	1.01	64	Savannah	GA	0.02		
8	Trenton-Ewing	NJ	0.98	65	Peoria	IL	0.00		
9	Syracuse	NY	0.94	66	Oklahoma City	OK	0.00		
10	New Haven-Milford	СТ	0.93	67	ScrantonWilkes-Barre	PA	-0.03		
11	Richmond	VA	0.93	68	Boise City-Nampa	ID	-0.06		
12	Rochester	NY	0.86	69	Tulsa	OK	-0.08		
13	Albany-Schenectady-Troy	NY	0.84	70	Davenport-Moline-Rock Island	IA-IL	-0.09		
14	Hartford-West Hartford-East Hartford	CI	0.83	/1	Shreveport-Bossier City	LA	-0.13		
15	Grand Rapids-Wyoming	MI	0.76	72	Springfield	MO	-0.14		
40	Developencie Neudowels Middletow		0.75	70	Michita	KC	0.47		
16	Pougnkeepsie-Newburgn-Wilddietow	IN Y	0.75	73		KS	-0.17		
17	New Orleans-Metairle-Kenner	LA	0.71	74	Evansville		-0.20		
18	loledo	OH	0.70	75	Youngstown-Warren-Boardman	OH-PA	-0.22		
19	Knoxville	IN	0.66	76	Salinas	CA	-0.23		
20	Oxnard-Thousand Oaks-Ventura	CA	0.65	11	Greenville	SC	-0.32		
21	Ometer Council Bluffe		0.64	70	Spekene	14/4	0.22		
21	Onana-Council Biulis		0.04	70	Spokane Becument Dort Arthur		-0.32		
22	Dayton Harriahurg Carliala		0.03	79	Freene		-0.33		
23	Hamsburg-Canisie	PA	0.63	80	Fresho Fugene Caringfield		-0.33		
24	Bullaio-Niagara Fails		0.62	81	Eugene-Springheid	UR AL	-0.36		
25	Raleign-Cary	NC	0.62	82	MODIIE	AL	-0.46		
26	Chattanooga		0.60	83	Canton-Massillon	ОН	-0.46		
27	Honolulu	н	0.00	84	Reading		-0.50		
28	Little Rock-North Little Rock	AR	0.00	85	Corous Christi	тх	-0.51		
20	Manchester-Nashua		0.54	86	Salem	OR	-0.51		
30	Allentown-Bethlehem-Easton		0.54	87	Charleston	WW	-0.52		
50	Allentown-Dethienenn-Laston	I A-ING	0.52	07	Chaneston	** *	-0.55		
31	Lansing-Fast Lansing	МІ	0.52	88	El Paso	тх	-0.58		
32	Charleston-North Charleston	SC	0.49	89	Pensacola-Ferry Pass-Brent	FL	-0.60		
33	Charlotte-Gastonia-Concord	NC-SC	0.48	90	Naples-Marco Island	FI	-0.60		
34	Memphis	TN-MS-AR	0.44	91	Sarasota-Bradenton-Venice	FL	-0.61		
35	Santa Barbara-Santa Maria-Goleta	CA	0.44	92	Lakeland	FL	-0.62		
		-							
36	Colorado Springs	со	0.44	93	Deltona-Daytona Beach-Ormond Beach	FL	-0.64		
37	Akron	ОН	0.41	94	Augusta-Richmond County	GA-SC	-0.64		
38	Albuquerque	NM	0.41	95	Bakersfield	CA	-0.69		
39	Springfield	MA	0.40	96	Wilmington	NC	-0.73		
40	Greensboro-High Point	NC	0.40	97	Palm Bay-Melbourne-Titusville	FL	-0.78		
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41	Lexington-Fayette	KY	0.36	98	Cape Coral-Fort Myers	FL	-0.88		
42	Provo-Orem	UT	0.34	99	Stockton	CA	-0.90		
43	Tallahassee	FL	0.33	100	Rockford	IL	-0.92		
44	Jacksonville	FL	0.29	101	Hickory-Lenoir-Morganton	NC	-1.04		
45	Kalamazoo-Portage	MI	0.23	102	Lancaster	PA	-1.12		
46	Birmingham-Hoover	AL	0.22	103	Port St. Lucie-Fort Pierce	FL	-1.19		
47	Louisville	KY-IN	0.20	104	Modesto	CA	-1.20		
48	Vallejo-Fairfield	CA	0.20	105	Fayetteville	NC	-1.21		
49	Flint	MI	0.19	106	Huntsville	AL	-1.22		
50	Montgomery	AL	0.19	107	⊢ayetteville-Springdale-Rogers	AR-MO	-1.31		
E 4	Austin Dound Dock	TV	0.47	100	Brownoville Herlinger	TV	4.04		
51	Austin-Kound Kock		0.17	108			-1.31		
52	Portiand-South Portland-Biddeford		0.16	109			-1.40		
53	Keno-Sparks		0.16	110		PA TV	-1.49		
54	Santa Rosa-Petaluma	CA	0.16	111	Nicalien-Edinburg-Pharr	IX	-1.51		
55	Fort wayne	IIN	0.13	112	winston-Salem	NC	-1.72		
56	Baton Bouge	١Δ	0 10						
50	Madison		0.10						
57	IVIAUISUII	VVI	0.09						