

Iowa's Metropolitan County & Metropolitan City Economies in 2010

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Introduction

This is an evaluation of the size and major characteristics of Iowa's metropolitan city economies. Two levels of analysis are employed. National economic data are typically organized at the county level. Accordingly, the first step in this assessment involves determining the total economic activity attributable to Iowa's 10 core metropolitan counties.¹

Iowa's core metropolitan counties in this analysis are Black Hawk, Dallas, Dubuque, Johnson, Linn, Polk, Pottawattamie, Scott, Story, and Woodbury.

The second level of analysis involves imputing the county level findings to the metropolitan cities. Nationally collected economic data are not well-organized at the community level. To translate county level data to the metropolitan cities, Zip Code Business Patterns data were obtained from the U.S. Census Bureau. That data set allowed the compilation of an estimate of all payroll employment, payroll, and business establishments within the zip codes that served Iowa's metropolitan cities for 2009. That compilation, along with separately obtained data on total population and total taxable retail sales for the metropolitan cities and the core counties, was used to apportion the county level findings to the metropolitan cities in instances where city data were unknown.

Iowa's metropolitan cities are Ames, Cedar Rapids, Council Bluffs, Davenport, Des Moines, Dubuque, Iowa City, Sioux City, Waterloo, and West Des Moines.

The primary size-of-the-economy data source for this evaluation is the 2010 input-output data set for Iowa's metropolitan counties obtained from MIG, Inc.² That data set allows for an estimate of the total

¹ In this case, a core metropolitan county is the county within which all or a substantial portion of the actual metropolitan city resides. There are 10 metropolitan cities in Iowa, cities with an urbanized population of 50,000 or more. The most recently designated metro, West Des Moines, is located in both Polk County and Dallas County. Thus, Dallas County, for this study, is treated as a core metropolitan county. In all, there are 20 counties in Iowa classified as either metropolitan core counties or metropolitan dependent counties because large fractions of their workforces rely on employment in nearby metropolitan cities.

² MIG, Inc. is a private firm that has produced county, state, and national input-output accounts for decades, and it is the major source of input-output data utilized by university and government researchers. ISU has used MIG, Inc., data for the past 25 years to construct input-output accounts and to conduct economic impact studies. The MIG, INC., data development process relies heavily on a wide array of existing secondary data compiled primarily by the

number of jobs, labor incomes, and value added (or gross domestic product) located within Iowa's core metropolitan counties. Jobs include all full and part time jobs of wage and salary workers and proprietors. As employed persons can have more than one job, there are always more jobs in an economy than employed persons. Labor income is composed of the wages, salaries, and benefits received by employees plus proprietors' payments to themselves for the management of their businesses. Value Added is composed of labor income, returns to investors, and indirect taxes on business production and operations. Nationally, value added and gross domestic product (GDP) are equal; therefore, the calculation of value added for our metropolitan core counties is an estimate of metropolitan county contributions to state and national GDP.

Additional analysis relies on U.S. Census data on population and businesses along with Quarterly Census of Employment and Wages data compiled by the U.S. Bureau of Labor Statistics. Separately, Census data on commuting into the metropolitan communities was obtained from U.S. Census's Employment Dynamics Data program. Finally, fiscal 2010/2011 Iowa Department of Revenue data on taxable retail sales and services were compiled for the metropolitan counties and for the metropolitan cities.

Jobs, Labor Income, and Value Added (GDP)

Metropolitan Core Counties

Table 1 lists the individual core metropolitan county jobs, labor income, and value added (GDP) results. There were 1,055,774 full and part time jobs in Iowa's metropolitan core counties in 2010 who earned a total of \$50.75 billion in labor incomes, and collectively produced \$79.463 billion in value added (GDP).

Table 1

Estimated Jobs, Labor Income, and GDP in Iowa's Core Metropolitan Counties in 2010

	Jobs	Labor Income	Value Added (GDP)
Black Hawk	89,559	4,009,100,318	6,186,261,685
Dallas	46,334	2,319,518,343	3,831,618,422
Dubuque	66,752	2,838,719,779	4,345,178,670
Johnson	98,512	4,472,601,732	6,600,157,016
Linn	149,635	7,469,529,711	12,830,252,416
Polk	332,002	17,861,379,773	27,878,293,531
Pottawattamie	49,124	1,884,134,663	3,095,707,509
Scott	106,032	4,743,779,821	7,170,487,398
Story	55,478	2,514,959,675	3,523,859,492
Woodbury	62,344	2,636,419,742	4,001,053,242
Metro Counties	1,055,774	50,750,143,557	79,462,869,381
State of Iowa	1,956,661	\$97,491,186,797	\$136,762,952,001

Source: MIG, Inc., 2010 data for Iowa counties, and Department of Economics, Iowa State University

Bureau of Labor Statistics and by the Bureau of Economic Analysis to provide an estimate of industrial activity across several pertinent measures, in this case at the county level, at very high levels of industrial and economic component detail.

Figure 1 illustrates their respective shares of state totals. Iowa's metropolitan core counties accounted for 54 percent of the state's 1.957 million jobs, 60 percent of its \$97.5 billion in labor income, and 58 percent of its 136.76 billion in value added (GDP).³

Figure 1

Core Metropolitan County Shares of State Totals, 2010

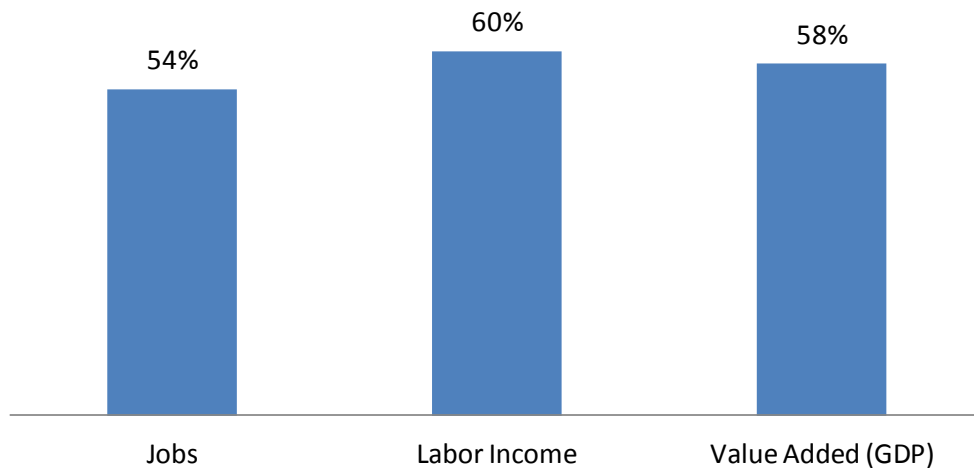


Table 2 shows the distributions of jobs, labor incomes, and value added (GDP) for all metropolitan core counties. Service sector jobs account for 560,930 of the jobs, 53 percent of the total, while agriculture and mining jobs combined are only 1.6 percent. Wholesale and retail trade constitutes the second largest group followed by federal, state, and local government employment.

³ Modeled total statewide value added (GDP) (the denominator) is lower than official U.S. estimates as the modeling data account for just labor income when compiling Iowa government sector value added and not the full cost of government spending and investment by those institutions in the state of Iowa.

Table 2

Estimated Jobs, Labor Income, and GDP by Major Industrial Sector for Iowa's Core Metropolitan Counties in 2010

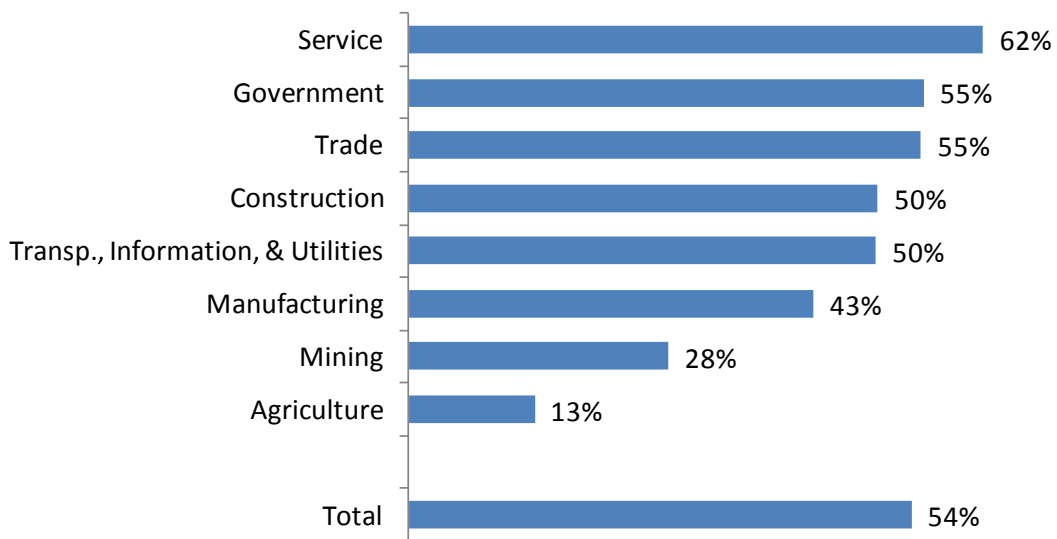
	Jobs	Labor Income	Value Added (GDP)
Total	1,055,774	\$50,750,143,557	\$79,462,869,381
Agriculture	16,056	631,033,781	907,907,897
Mining	1,149	52,447,782	121,202,237
Construction	48,893	2,548,405,100	3,046,583,547
Manufacturing	87,601	6,467,279,221	10,761,991,723
Transp., Information, & Utilities	38,316	2,231,662,614	3,923,460,634
Trade	155,240	5,975,670,178	9,119,072,606
Service	560,930	24,360,713,206	42,090,970,134
Government	147,589	8,482,931,674	9,491,680,603

Source: MIG, Inc., 2010 data for Iowa counties, and Department of Economics, Iowa State University

Figure 2 reveals the concentration of the state's jobs in the metropolitan core counties. While they have 54 percent of all state jobs, they account for 62 percent of service jobs, and 55 percent of both government and trade jobs. As would be expected, their shares of agricultural and mining jobs are significantly lower than the overall average. Some readers might be surprised to find that a full 43 percent of all manufacturing jobs are in Iowa's metropolitan core counties.

Figure 2

Core Metropolitan County Shares of State Job Totals, 2010



Metropolitan Cities

Table 3 lists jobs, labor income, and value added (GDP) for Iowa's 10 metropolitan cities. In all, they contained 702,231 jobs, \$33.6 billion in labor income, and \$52.76 billion in value added (GDP) in 2010.

Table 3

Estimated Jobs, Labor Income, and GDP in Iowa's Metropolitan Cities in 2010

	Jobs	Labor Income	Value Added (GDP)
Ames	40,693	1,839,854,094	2,599,555,329
Cedar Rapids	104,185	5,222,040,630	8,974,406,625
Council Bluffs	39,090	1,486,417,031	2,447,902,554
Davenport	75,269	3,375,627,678	5,101,647,781
Des Moines	159,199	8,561,124,041	13,369,796,432
Dubuque	51,744	2,228,346,295	3,386,641,181
Iowa City	48,503	2,209,025,485	3,252,093,687
Sioux City	53,699	2,282,470,522	3,469,420,370
Waterloo	57,162	2,565,064,022	3,955,221,969
West Des Moines	72,686	3,828,333,145	6,201,236,054
All Metro Cities	702,231	33,598,302,943	52,757,921,981
State of Iowa	1,956,661	\$ 97,491,186,797	\$136,762,952,001

Source: MIG, Inc., 2010 data for Iowa counties, and Department of Economics, Iowa State University

Figure 3 displays the metropolitan city shares of these key variables. They house 36 percent of the state's jobs, 40 percent of its labor incomes, and 39 percent of its value added (GDP).

Figure 3

Metropolitan City Shares of State Totals, 2010

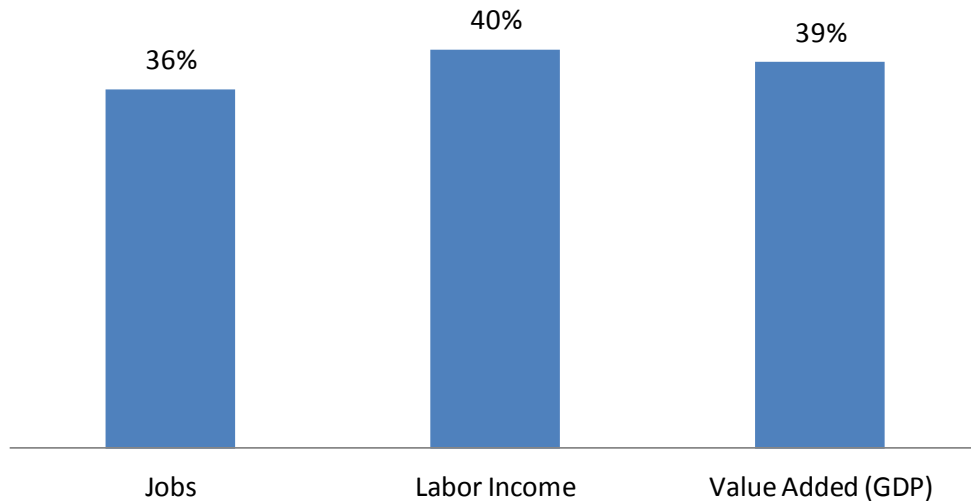


Table 4 shows the distribution of jobs, labor income, and value added (GDP) by major industry group. As with the counties, the service sector accounts for the plurality of jobs, followed by trade, and government. In this estimation, agriculture and mining are very small components of employment.⁴

Table 4

Estimated Jobs, Labor Income, and GDP by Major Industrial Sector for Iowa's Metropolitan Cities in 2010

	Jobs	Labor Income	Value Added (GDP)
Total	702,231	\$33,598,302,943	\$52,757,921,981
Agriculture	316	12,831,243	18,722,085
Mining	390	17,268,723	41,038,247
Construction	33,691	1,760,097,263	2,103,385,381
Manufacturing	61,314	4,535,291,393	7,514,713,480
Transp., Information, & Utilities	26,268	1,538,002,447	2,760,211,759
Trade	107,449	4,148,161,897	6,343,882,685
Service	380,761	16,328,079,049	28,090,513,051
Government	92,358	5,271,402,170	5,904,177,378

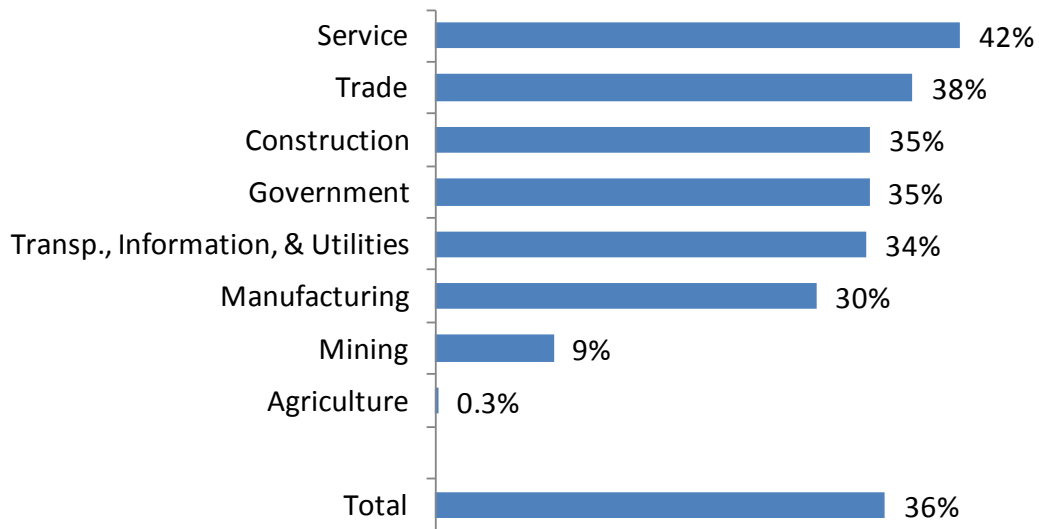
Source: MIG, Inc., 2010 data for Iowa counties, and Department of Economics, Iowa State University

⁴ Agricultural employment was apportioned by calculating the share of agricultural land and agricultural buildings taxable valuations within the metropolitan cities as a percentage of the counties' totals. Mining (primarily gravel and sand) values were estimated using one-half of the factor used to apportion all other non-agricultural industries.

Figure 4 shows the statewide concentration of jobs in metropolitan cities by major industrial group. A full 42 percent of service sector jobs and 38 percent of all trade jobs are found in the state's metropolitan cities. The estimation process determined that 30 percent of the state's manufacturing jobs were located in the state's largest cities, but only 9 percent of mining jobs, and a mere .3 percent of all agricultural-related employment.

Figure 4

Iowa Metropolitan City Shares of State Job Totals, 2010



Other Measures of Economic Importance

Retail Sales

Table 5 displays metropolitan county and metropolitan city taxable retail and service sales for fiscal 2011. Iowa's core metropolitan counties accounted for \$21.1 billion (64 percent) of the state's \$32.9 billion in sales. Its cities accounted for \$15.41 billion (47 percent of the state total).

Table 5

Fiscal 2011 Taxable Retail and Services Sales			
	Taxable Sales		Taxable Sales
Black Hawk	1,710,560,724	Ames	733,291,102
Dallas	946,448,054	Cedar Rapids	2,862,052,345
Dubuque	1,162,499,417	Council Bluffs	905,082,718
Johnson	1,587,451,852	Davenport	1,929,768,329
Linn	3,425,263,882	Des Moines	3,195,128,388
Polk	6,563,580,934	Dubuque	1,014,284,468
Pottawattamie	997,225,688	Iowa City	741,407,021
Scott	2,379,338,801	Sioux City	1,371,700,292
Story	857,329,183	Waterloo	1,112,230,001
Woodbury	1,450,964,146	West Des Moines	1,541,230,798
Metropolitan Core Counties	21,080,662,681	Metropolitan City	15,406,175,462
State of Iowa	\$ 32,904,016,683	State of Iowa	\$ 32,904,016,683

Source: Iowa Department of Revenue and the Department of Economics, ISU

In-Commuting

Table 6 demonstrates the importance of the metropolitan core counties and the metropolitan cities as locations of employment. A full 41 percent of the jobs in Iowa's core metropolitan counties are staffed by persons living outside of those counties. Dallas County had the highest fraction at 72 percent (owing significantly to its proximity to the large Polk County labor force), and Dubuque County had the lowest at 34 percent.

Among the metropolitan cities, 62 percent of jobs are filled by non-residents of the cities. The highest fraction was West Des Moines at 84 percent, and the lowest share of out-of-city workers was Sioux City at 46 percent.

Table 6

Percentage of Payroll Employment Filled by In-Commuters, 2009

	Percent from Non-Resident Workers		Percent from Non-Resident Workers
Black Hawk	42%	Ames	63%
Dallas	72%	Cedar Rapids	59%
Dubuque	34%	Council Bluffs	62%
Johnson	45%	Davenport	63%
Linn	37%	Des Moines	62%
Polk	37%	Dubuque	50%
Pottawattamie	50%	Iowa City	65%
Scott	45%	Sioux City	46%
Story	45%	Waterloo	64%
Woodbury	38%	West Des Moines	84%
Metropolitan Core Counties	41%	Metropolitan Cities	62%

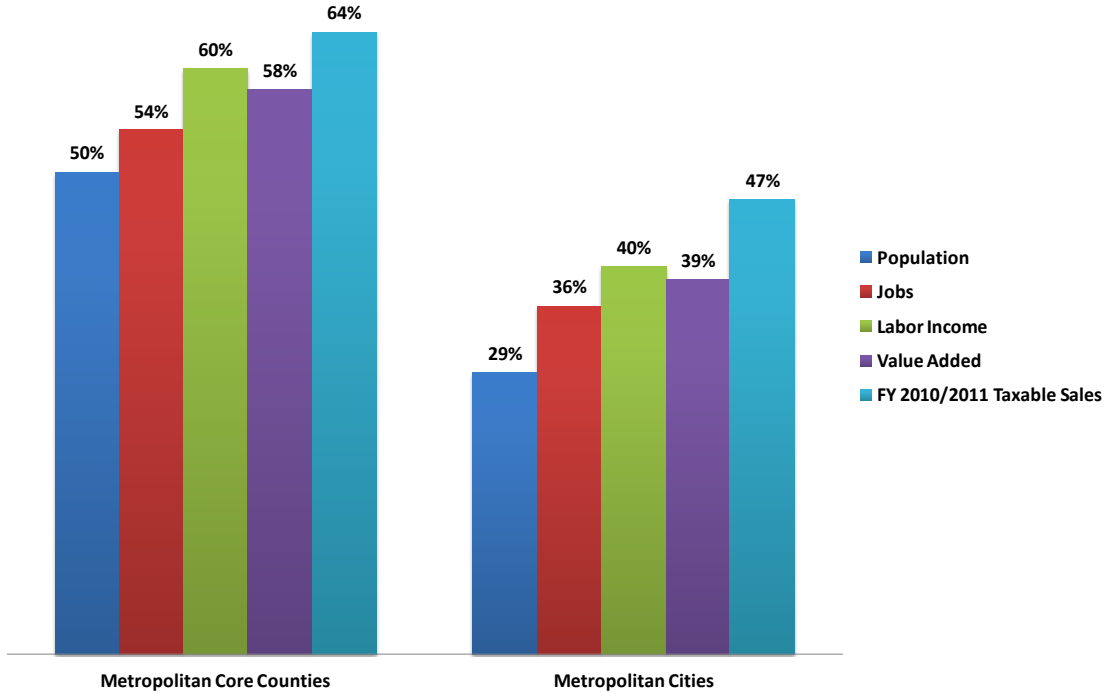
Source: Local Employment Dynamics, U.S. Census Bureau.

Conclusion

Figure 5 compares the populations of the metropolitan core counties and the metropolitan cities to their respective shares of economic variables measured in this report. It is clearly evident that the overall economic importance of Iowa's metropolitan areas exceeds their demographic strengths. Core urban economies depend heavily on an external labor supply, and a substantial portion of the labor incomes that are generated within the metropolitan economies are exported to suburban and exurban areas.

Figure 5

Metropolitan Core County and Metropolitan City Shares of State Totals in 2010



Primary Data Sources

Iowa input-output model. Department of Economics, Iowa State University.

MIG, Inc., State of Iowa county level input-output data set, 2010.

Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics

Zip Code Business Patterns, U.S. Bureau of the Census.

Iowa Department of Management, City and County Taxable Valuations, January 2010.

Taxable Retail Sales, Iowa Department of Revenue; the Iowa Department of Economics, Iowa State University.

Local Employment Dynamics, U.S. Bureau of the Census.