

1. An Overview of the Iowa Economy

As a necessary backdrop (and because this is the first installment in the *State of Working Iowa* series), this chapter offers a basic sketch of Iowa's economic structure of its economic performance in recent years. What are our strengths and what are our weaknesses? How has Iowa fared against both national averages and states in the surrounding region?

Iowa and its Region

Throughout this report, we compare Iowa both to national averages and to a set of states that we call our regional peers. While it is important to assess Iowa against national trends or figures, the peer states offer the more important point of comparison. These states have similar economic and demographic profiles (see Table 1.1 below) and often stand apart as a group against national measures. Ranking Iowa among its peers offers a more telling measure of the state's economic standing or performance.

Table 1.1
Iowa and its Regional Peers: Demographic and Economic Comparisons

	2000 Popu- lation (mill.)	Percent of Population		Percent of those age 25 or older, 2000		Percent of Total Employment (1999)					
		Urban (1990)	White, non- Hispanic (2000)	At least high school educ.	College grad (4-yr.)	Farm	Manu- facturing	Trade	Ser- vices	Govern- ment	Other
Illinois	12.4	84.6%	67.8%	85.5%	27.1%	1.4%	13.3%	20.7%	32.0%	12.1%	20.5%
Indiana	6.1	64.9	85.8	84.6	17.1	2.2	19.3	22.1	26.8	11.6	18.1
Iowa	2.9	60.6	92.6	89.7	25.5	5.7	13.9	21.8	27.4	12.9	18.3
Kansas	2.7	69.1	83.1	88.1	27.3	4.6	12.3	21.6	27.0	15.5	19.1
Minnesota	4.9	69.8	88.2	90.8	31.2	3.1	13.8	21.7	31.2	11.7	18.6
Missouri	5.6	68.7	83.8	86.6	26.2	3.6	12.2	21.4	29.3	13.1	20.4
Nebraska	1.7	66.1	87.3	90.4	24.6	5.9	10.3	21.7	28.5	13.7	20.0
South Dakota	0.8	50.0	88.0	91.8	25.7	7.6	10.3	21.6	28.1	13.6	18.8
Wisconsin	5.4	65.7	87.3	86.7	23.8	3.0	18.7	21.5	27.6	11.7	17.4
Mean	4.7	66.6	84.9	88.2	25.4	4.1	13.8	21.6	28.6	12.9	19.0
Iowa's rank	6	7	1	4	5	3	3	2	6	5	6
United States		75.2	69.1	84.1	25.6	1.9	11.8	21.0	31.5	13.6	20.2

Source: U.S. Census, Bureau of Labor Statistics

As a region, for example, the upper Midwest has (in recent years) enjoyed very low rates of unemployment. On this score, Iowa's low rate of unemployment is both a reflection of the regional economy and a measure of how well (at least on this measure) the state is doing within it. As a region, to offer one more example, the upper Midwest enjoys a cost-of-living that runs slightly below the national average. Iowa's cost of living appears to be similar to its regional peers. Cost of living differences, therefore, do not explain Iowa's position among its peer states on measures of wages and income.

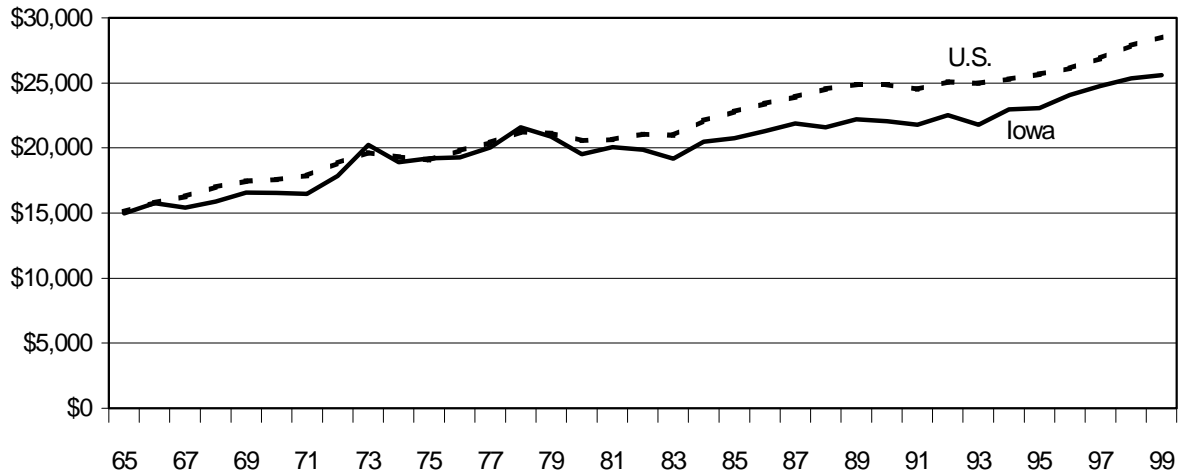
The peer group used throughout this report includes the six states that border Iowa—Illinois and Wisconsin to the East, Missouri to the South, Nebraska and South Dakota to the West, and Minnesota to the North. We have also included Kansas to the Southwest because, while not bordering Iowa, it occupies a geographic position essentially similar to that of South Dakota to the Northwest. These seven states are typically used in state policy discussions for comparison purposes. We have extended the region east to encompass Indiana as well; Indiana is in many respects more like Iowa than is Illinois, and it falls within the same geographic area as the other peer states (that is, a circle centered in Iowa that includes Missouri and Minnesota would include most of Indiana as well). As Table 1.1 suggests, Iowa sits close to regional means for urban settlement and educational attainment and employment distribution by sector, but is significantly less racially diverse than its peers. On these and other measures, Illinois (as a relatively populous and urbanized state) and South Dakota (as a relatively poor and rural state) tend to be the statistical outliers.

The measure of economic performance by nation and region and state allows us to consider both economic boundaries and political boundaries. The modern economy is a densely interwoven fabric of metropolitan and regional dimensions—defined more by economic characteristics (labor or product markets, resource distribution, transportation networks, etc) than by state or national boundaries. The economic life of Davenport and Bettendorf in eastern Iowa, for example, is shaped more by the Illinois cities (Moline and Rock Island) they border than it is by the rest of Iowa. At the same time, political boundaries remain important because cities, counties, states and nations make the rules for the economy even as it spills across and beyond their borders. On some issues, national politics and comparisons are most relevant. On other issues, state politics and regional comparisons are most relevant.

Iowa's Economic Growth

The Iowa economy has grown less rapidly than the U.S. economy as a whole since the mid-1960s. Real per capita income (which echoes the more conventional measures of gross product) in the United States has grown by nearly 90% since 1965. Real per capita income in Iowa has grown just over 70% over the same span. As Figure 1.1 suggests, the trajectory of growth in per capita income in Iowa fell off during the recession of the early 1980s and has never fully recovered.

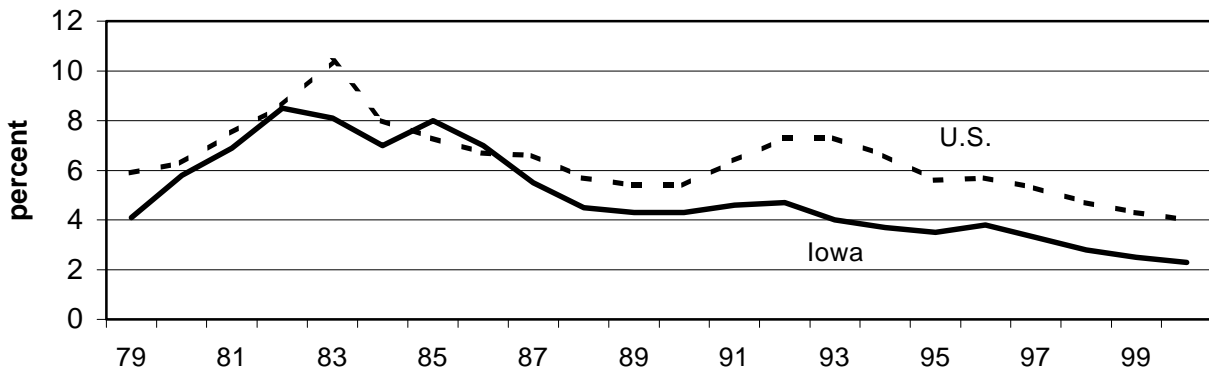
Figure 1.1
Per Capita Personal Income: U.S. and Iowa, 1965-1999
 (1999 dollars)



Source: Bureau of Economic Analysis; Bureau of Labor Statistics

Employment offers another measure of recent economic growth. Employment grew almost 20% in Iowa from 1989 to 1999. Because this growth in jobs was accompanied by sluggish population growth (just 5.4%, the lowest in the region), Iowa led the region with a historically low unemployment rate of just 2.3% in 2000 (annual average rate). The unemployment rate in Iowa stands at about two percentage points below the national rate, an advantage, as Figure 1.2 suggests, the state has enjoyed since 1991. While the unemployment rates in more urban and industrial Midwestern states are higher, the entire region has boasted steady job growth—led by Minnesota, Iowa and Wisconsin with job growth of 20% or more (slightly ahead of the 18% national growth) since 1989.

Figure 1.2
Unemployment Rate: Iowa and U.S., 1979-2000



Source: Bureau of Labor Statistics

Iowa's low unemployment rate, a product of slow population growth and steady economic growth, is also a recipe for a labor shortage. In the last section of this chapter, we examine this issue, and find that the shortage is likely to be much smaller than some have predicted. We also argue, in Chapter 4, that the problem is best addressed by making Iowa a better place for workers and that immigration should not become a tool for reintroducing labor surpluses.

Iowa's Population

Iowa's population grew modestly between 1990 and 2000 (about 150,000 new residents). As Table 1.2 shows, this rate of growth lagged significantly behind both the national rate and the growth of Iowa's regional peers; Iowa ranked 43rd among all states in percentage population growth in the 1990s, and last in the region. Iowa's population growth in the 1990s was the result of about 101,000 more births than deaths, plus a net migration into the state of about 49,000. The growth rate, while lowest in the region, was higher than anticipated by the U.S. Census Bureau, which had projected a net migration of only about 6,000. (It is not yet clear whether analysts underestimated the extent of in-migration or overestimated the extent of out-migration, or both.) Furthermore, the growth rate was an historic high; not since the 1910s has Iowa grown this fast, and in the intervening decades we grew 3.3% or less every decade but the 1950s (5.2%).

Table 1.2
Population Growth: U.S., Iowa, and Peer States

	1990	2000	Change	Percent Change
United States	248,709,873	281,421,906	32,712,033	13.2%
Minnesota	4,375,099	4,919,479	544,380	12.4
Indiana	5,544,159	6,080,485	536,326	9.7
Wisconsin	4,891,769	5,363,675	471,906	9.6
Missouri	5,117,073	5,595,211	478,138	9.3
Illinois	11,430,602	12,419,293	988,691	8.6
Kansas	2,477,574	2,688,418	210,844	8.5
South Dakota	696,004	754,844	58,840	8.5
Nebraska	1,578,385	1,711,263	132,878	8.4
Iowa	2,776,755	2,926,324	149,569	5.4

Source: U.S. Census

Even more striking is the regional variation in population and population growth. Of Iowa's 99 counties, 54 gained population in the 1990s and 45 lost population. Growth was concentrated in a small number of urban counties; 86% of the growth occurred in just ten counties. In fact, 46% of the growth is accounted for by Polk County and three adjoining counties (Dallas, Warren and Story) and another 25% occurred in Johnson and Linn Counties. Population decline, on the other hand, was common among the rural counties. Such trends have substantial social, economic and political implications not only for the retention and recruitment of labor, but also for regional equity and (especially in the state's rural counties) community survival.

In part, this is a reflection of agricultural economics and agricultural policy. Iowa and other midwestern states have experienced a long-term decline in the population base of the agricultural economy spurred by technological advances, increased agricultural productivity, and low commodity prices. At the same time, such losses have been exacerbated by policies such as the 1996 “Freedom to Farm” Act that have hastened (or even embraced) corporate consolidation while doing little to sustain the independent or family farm—a trend underscored in Iowa by the collapse of independent hog production.

In part, this is a reflection of broader economic development policies. Even in the most rural counties, less than a quarter of the workforce works directly in the agricultural sector. But non-agricultural employment in these counties offers little relief. Indeed the state and these counties, desperate to diversify local economies, have subsidized and encouraged low-wage economic development as a solution. Such development did little to provided sustained economic opportunity. And, by encouraging the in-migration of new (often new immigrant) workers, it creates new political and cultural challenges for communities already under stress.

Despite dramatic growth in minority populations over the last decade, Iowa remains predominantly—even overwhelmingly—white in its racial composition (see Table 1.3). According to the 2000 census, over 92.6% of Iowans are non-Hispanic whites, as against 82% nationally. This too creates substantial challenges for local and state public policy—in rural counties, in schools, and in the workplace. Increasing racial, ethnic and cultural diversity will demand new attention to civil rights law, resources for public education, and sustained efforts to accommodate both professionals and the lesser skilled among our new immigrants.

Table 1.3
Iowa’s Population by Race and Ethnicity, 1990 and 2000

	1990 Population	1990 Share	2000 Population	2000 Share
Non-Hispanic (by Race)				
White	2,663,840	95.9%	2,710,344	92.6%
Black or African American	47,493	1.7	60,744	2.1
American Indian or Alaskan Native	6,765	0.2	7,955	0.3
Asian or Pacific Islander	24,926	0.9	37,233	1.3
Other Race	1,084	0.0	2,103	0.1
Two or more races	NA		25,472	0.9
Hispanic Origin (any race)	32,647	1.2	82,473	2.8
Total	2,776,755	100.0	2,926,324	100.0

Source: U.S. Census

Changing Patterns of Employment

There were just over 1.9 million jobs in Iowa in 1999; about 1.5 million were wage and salary jobs and about 400,000 represented self-employment. Although by character and history Iowa is an agricultural state, fewer than 6% of the state’s jobs (109,000) are in farming, down from 11%

in 1979. Table 1.4 shows the distribution of jobs by economic sector, and the growth in jobs since 1979. These figures represent the total number of jobs, part-time and full-time, in Iowa. Note the slow growth of manufacturing and government, two sources of historically high-wage employment. Overall, employment has grown 24% since 1979. Over the same period, manufacturing employment tailed off dramatically in the 1980s, and by 1999 had recovered to just above its 1979 level. Government employment also shrank as a share of total employment. Another high-wage sector, construction, is highly cyclical; employment fell dramatically during the slow years of the 1980s and rose dramatically in the boom of the late 1990s, but the sector ended the twenty-year period with about the same share of total jobs as it began. Enthusiasm for the new “high-tech” economy overstates its contribution to the employment base. Fewer than 40,000 Iowans (2-3% of the workforce) work in high-tech industries.¹

Table 1.4
Employment Change in Iowa by Sector, 1979-1999

	Employment (thousands)			Percent Change		Percent of Total	
	1979	1989	1999	1979-89	1989-99	1979	1999
Total employment	1,557.0	1,611.1	1,928.9	3.5%	19.7%	100.0%	100.0%
Farm employment	172.0	136.6	109.8	-20.6	-19.6	11.0	5.7
Farm proprietors	126.0	109.7	96.6	-12.9	-12.0	8.1	5.0
Non-farm employment	1,385.0	1,474.5	1,819.1	6.5	23.4	89.0	94.3
Non-farm proprietors	198.1	221.0	288.2	11.6	30.4	12.7	14.9
Non-farm wage & salary	1,186.9	1,253.5	1,530.8	5.6	22.1	76.2	79.4
Non-farm sectors*							
Agricultural services	9.8	17.5	24.0	78.2	37.1	0.6	1.2
Mining	3.4	2.8	2.8	-17.3	-1.9	0.2	0.1
Construction	83.6	65.8	101.4	-21.3	54.2	5.4	5.3
Manufacturing	264.9	240.7	267.4	-9.1	11.1	17.0	13.9
Transport. & utilities	69.5	68.6	88.4	-1.2	28.8	4.5	4.6
Wholesale trade	83.9	84.7	91.5	0.9	8.0	5.4	4.7
Retail trade	256.8	273.4	329.0	6.4	20.3	16.5	17.1
FIRE	102.6	104.9	137.2	2.3	30.8	6.6	7.1
Services	293.8	386.7	527.6	31.6	36.4	18.9	27.4
Government	216.7	229.4	249.8	5.9	8.9	13.9	12.9

*Includes proprietors and wage and salary employment

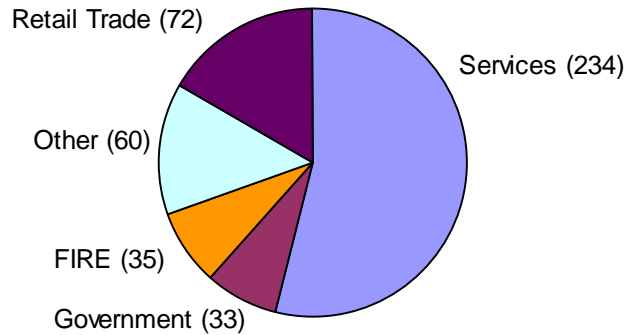
Source: Bureau of Economic Analysis

The leading sectors of the Iowa economy, in terms of their contribution to job growth, are the services—especially business and health services—followed by retail trade. These two sectors both grew substantially even in the 1980s, and together accounted for 71% of the total growth in non-farm employment from 1979 to 1999. Their share of the Iowa economy grew from 35% to 44% over that 20-year period. The FIRE (Finance, Insurance and Real Estate) sector also increased its share of employment slightly. Note that even though the growth rate of the retail sector in the 1990s was just 20%, which is less than the overall rate of growth in non-farm

¹ Iowa Workforce Development, *Condition of Employment 2000*, pp. 25-27. "High-tech" here refers to the 10 industrial classifications defined by the Bureau of Labor Statistics (based on employment of technical, scientific, and engineering personnel) as "high-technology" employers.

employment, the sector is so large that this growth represented a substantial share of the total increase in jobs. Figure 1.3 below shows which sectors accounted for most of the growth in non-farm employment from 1979 to 1999.

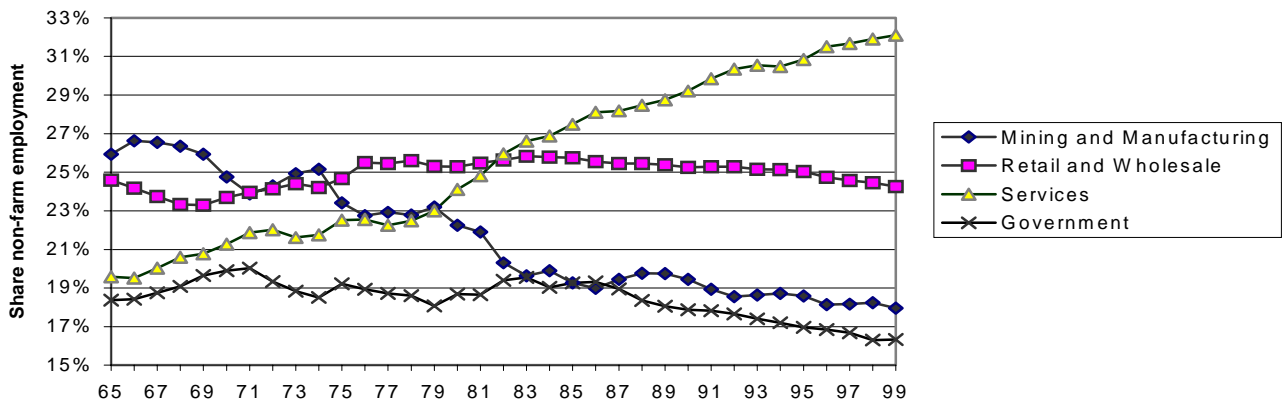
Figure 1.3
Growth in Non-Farm Employment in Iowa, 1979-1999
 (Thousands of Jobs)



Source: Bureau of Economic Analysis

The changing structure of the Iowa economy is apparent in Figure 1.4, which shows employment in the four largest sectors as a share of total non-farm employment. Service employment has increased its share dramatically, while the trade share has remained about the same and the other two sectors—manufacturing and, to a much lesser extent, government—have declined. The prominence of retailing and services is reflected in the list of the state’s ten leading private employers: three are retail stores (Hy-Vee, Wal-Mart, and Fareway), two are hospitals (Mercy Medical and Central Iowa Health Systems), and one is a telemarketing firm (APAC Teleservices).

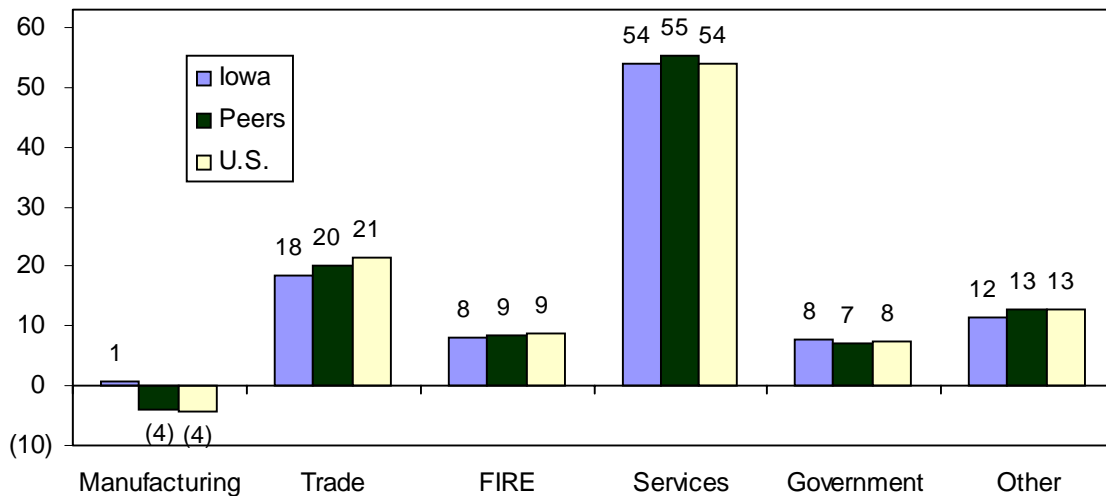
Figure 1.4
State Employment Trends, 1965-1999



Source: Iowa Department of Economic Development

This changing distribution of jobs in Iowa mirrors national and regional trends, for the most part, as shown in Figure 1.5. The only exceptions are that, for the country and for Iowa’s peer states, manufacturing employment declined, while it increased slightly in Iowa, and the growth of retail and wholesale trade employment in Iowa lagged slightly behind that of the region and the nation.

Figure 1.5
**Sectoral Employment Growth as a Percent of Total Growth
 in Non-Farm Employment, 1979-1999**



Source: Bureau of Economic Analysis

There are many explanations for the long-term shift in employment in the U.S. economy from manufacturing to trade and services. Many manufacturing jobs have been moved to low-wage locations overseas; the nature of retail trade and most services makes job exporting impossible. Productivity gains are easier to come by in manufacturing, so that over time fewer jobs are needed to produce a given output. Increasing affluence and greater labor force participation of women has meant that we are more likely to pay other people to provide services that we used to do ourselves. And some of the shift is a statistical artifact: as manufacturing firms outsource things like custodial services, the statistics record a decline in manufacturing employment and an increase in service employment.

This pattern of “deindustrialization” is important for a number of reasons. As we shall see in Chapter 2, the fruits of job growth and low unemployment depend a great deal on the kinds of jobs being created. As service employment crowds out manufacturing it also tends to crowd out “good” jobs. Service workers are paid less, they receive fewer benefits, and they are less likely (outside the public sector) to enjoy union representation.

Service workers are also, for a variety of reasons, much more likely to be women. Service sector growth has meant greater job opportunities for women but it has not challenged—and in some respects has reinforced—patterns of occupational segregation and persistent wage inequity. This process has often been helped along by economic development strategies (such as property tax abatements and tax increment financing) that subsidize low-wage, part-time, no-benefit employment.

The stagnation of Iowa's industrial base should also be considered across industries. As Table 1.5 suggests, only a few of the state's leading industries can boast of meaningful growth in the long-term (since 1979) or in the short-term (since 1994). Wood products (lumber, wood and furniture), transportation equipment, and a few others have done well since 1979; metal fabrication, wood products, transportation equipment, and a few others have done well since 1994. At the same time, employment in many of the state's core industries—including food products, farm machinery, meatpacking, and grain processing—has shown either negligible growth or (sometimes dramatic) decline.

Table 1.5
Manufacturing Growth and Decline in Iowa
 Wage and salary employment in thousands; ranked by 1999 share of manufacturing jobs

	Employment (thousands)				Percent Change		
	1979	1989	1994	1999	79-89	94-99	79-99
Food Products	48.9	46.9	50.9	51.1	-4	0	4
<i>Meat</i>	24.4	24.9	26.9	26.0	2	-3	6
<i>Grain</i>	11.5	9.8	9.7	9.6	-17	-1	-20
Machinery	68.4	43.8	42.6	43.6	-56	2	-57
<i>Construction Equipment</i>	23.2	10.6	10.1	12.2	-119	17	-90
<i>Farm Machinery</i>	28.8	15.6	13.8	10.6	-85	-30	-172
Fabricated Metals	20.4	18.2	15.9	20.7	-12	23	1
Printing & Publishing	17.7	21.3	20.9	20.5	17	-2	14
Lumber, Wood & Furniture	10.2	13.0	15.3	20.4	22	25	50
Electrical Equipment	26.0	16.2	19.6	18.3	-60	-7	-42
Transportation Equipment	10.1	12.2	13.9	17.4	17	20	42
Instruments & Miscellaneous	11.1	17.3	15.8	16.5	36	4	33
Rubber & Plastics	11.6	13.8	14.4	16.5	16	13	30
Primary Metals	9.2	7.7	7.8	8.6	-19	9	-7
Stone, Clay & Glass	7.8	5.7	6.3	7.7	-37	18	-1
Chemicals	8.1	6.4	7.6	7.3	-27	-4	-11
Paper	4.1	5.4	6.2	6.7	24	7	39
Apparel	4.2	5.2	5.7	4.0	19	-43	-5
Other Nondurables	2.3	1.7	2.2	2.1	-35	-5	-10

Note: Rows in italics are sub-categories.

Source: Iowa Department of Economic Development

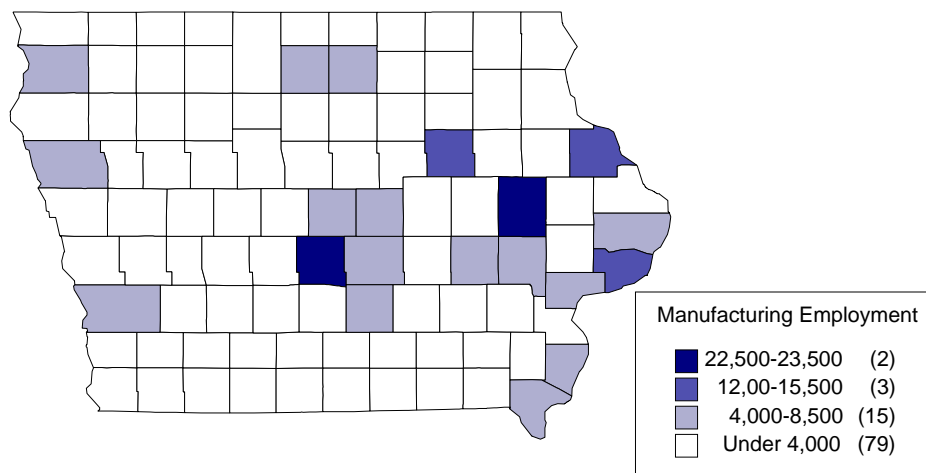
Finally, we need to recognize that the quality of jobs can change dramatically within an economic sector or industry. For example, average hourly earnings of manufacturing production workers in Iowa peaked at \$18.35 (in year 2000 dollars) in 1981, and then fell by 20% in the next 10 years. (They have remained about the same since then.) The decline in the 1980s can be attributed to (among other factors) the collapse of “master contract” bargaining and high-wage employment in meatpacking, and the loss of jobs in some of the other higher wage manufacturing industries, most notably farm machinery and construction equipment.

The combination of growing service sector employment and declining manufacturing earnings, in turn, helps to explain Iowa's high rate of female labor force participation. Women are both "pulled" into the labor force by the gender-specific opportunities of the service economy and "pushed" into the labor force by the familial pressures of declining male earnings.

Statewide measures of manufacturing employment conceal significant in-state variation. Manufacturing employment is concentrated in the eastern half of the state, from the I-80 corridor north to Black Hawk and Dubuque counties (see Figure 1.6). Five counties account for one-third of the jobs in manufacturing, and the next 15 counties contain almost another third.

Through the national employment boom of 1994-1999, the state's 11 most rural counties netted barely 2000 new jobs (1.4% of the state total). By contrast, nearly half of the state's 1994-1999 total job growth occurred in its five most urban and industrial counties (Polk, Scott, Johnson, Linn, and Black Hawk). Growth in manufacturing jobs in these counties varied, ranging from 11% (Johnson) to -4% (Polk), while each showed steady growth in trade and services. Service, wholesale/retail, and government employment are more evenly distributed, although they are more prominent in the local economies of the state capital (Des Moines) and the homes of the three state universities (Iowa City, Ames, Cedar Falls).

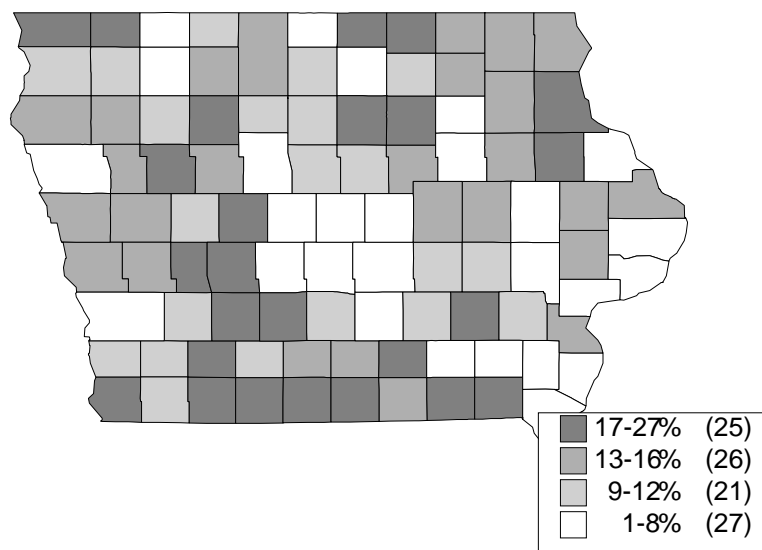
Figure 1.6
The Geography of Manufacturing Employment, 1999
(Jobs in manufacturing in Iowa's 99 counties)



Source: Bureau of Economic Analysis

While farm employment accounts for less than 6% of total state employment, it accounts for over 20% of employment in 11 counties and over 17% in 25 counties, especially in the south and southwest of the state (see Figure 1.7). These rural counties, as we discuss elsewhere, tend to have lower median wages, higher rates of poverty, and persistent population losses.

Figure 1.7
The Geography of Farm Employment
 (Farm employment as a percentage of County employment, 1999)



Source: Bureau of Economic Analysis

In all, the unevenness or weakness of employment in Iowa reflects a number of factors. Job quality is worse in the service sector than it is in manufacturing. It is worse for women than it is for men. It is worse in rural counties than it is in urban counties. And it is much worse (as is the case for rural women, for example) when these factors overlap.

The Labor Shortage

Much has been made of the labor shortage in Iowa in the 1990s and of projections of increasing shortages in the coming decade. Some have called for policies to expand the labor force through increased in-migration from other states and from abroad. Let us look closely at the projections of future employment and population growth, and at the assumptions behind the claims that the state must do something to increase the number of working age Iowans.

Labor shortage estimates are based on a comparison of projected jobs with the projected labor force. It is important to understand, however, that there is not a one-to-one correspondence between jobs and workers. All of the employment figures cited thus far in this report are based on data from Iowa establishments; they show the number of jobs of all kinds—full and part-time, permanent and temporary, wage and salary jobs, and self-employment—located in the state of Iowa. The data on the Iowa labor force, on the other hand, come from surveys of Iowa residents. The Iowa labor force represents the number of civilian Iowa residents age 16 and older who are employed or looking for work. The labor force is much smaller than the number of jobs for several reasons, including: (1) many members of the labor force hold more than one job, (2) jobs

held by 14-15 year olds are counted as jobs, but 14-15 year olds are not counted as part of the labor force, (3) employment figures include the military while the labor force is civilian only. In Iowa in 2000, the resident labor force was 82.9% of the total number of jobs in the state.

According to the most recent population projections available, Iowa's working age population will grow in the coming decade. The U.S. Bureau of the Census in 1995 projected a 3.5% increase in Iowans age 18 to 64 between 2000 and 2010, while the Woods and Poole Economics projections released in 2001 show a 6.9% increase in the population age 20 to 64. There are two reasons to give more weight to the Woods and Poole forecast. First, it is much more recent than the census projection. Second, since both these projections were prepared before the 2000 census results were available, results that showed a larger population growth in Iowa than anticipated, it is likely that they err on the low side. A reasonable assumption, then, would be that the working age population will grow between 4% and 8% between 2000 and 2010.

It is also reasonable to assume that the labor force will grow at about the same rate as the working age population (that is, we assume that labor force participation rates will stay roughly the same). Applying a growth rate of 4% to 8% to the actual resident labor force in Iowa in 2000 yields a projected increase in the labor force of 63,000 to 126,000 for the decade (see Table 1.6). Note that even the higher figure is below the growth of about 130,000 in the decade of the 1990s.

Table 1.6
**Projections of Growth in Jobs and in the
 Labor Force: 2000 – 2010**

Jobs and Labor Force, 2000	
Actual resident labor force ¹	1,579,000
Approximate total jobs in Iowa ²	1,904,000
Labor force as a percent of jobs	82.9%
Growth in Labor Demand, 2000 - 2010	
Projected net increase in jobs 2000-2010 ³	262,000
Times labor force as a percent of jobs	X .829
Equals net increase in labor force needed by 2010	217,000
Projected Labor Force Growth, 2000 - 2010	
Low estimate:	1,579,000 X 4.0% = 63,000
High estimate:	1,579,000 X 8.0% = 126,000
Projected Labor Shortage	
Low estimate:	217,000 - 126,000 = 91,000
High estimate:	217,000 - 63,000 = 154,000

¹ Civilian Iowa residents age 16 and over who are employed or looking for work.

² Jobs by place of employment; includes all full-time and part-time jobs and the self-employed, but excludes the military and those under 16.

³ From Iowa Workforce Development.

Will 63,000 to 126,000 additional workers be enough to fill the new jobs expected to be created by 2010? Probably not. Iowa Workforce Development projected a net increase in jobs of about 19,800 per year based on their 1996 survey of employers; this led to projections of 198,000 new

jobs over the decade 2000-2010. This is the figure used in the Governor's New Economy paper of 2000, for example. More recently, based on the 1998 biennial employer survey, Iowa Workforce Development projections were increased to 26,200 per year. These projections (unpublished as of this writing) were relied upon by the Iowa Business Council in their report "A Case for Change" in April of 2001. Here we use these more recent estimates of annual job growth, which imply net job growth of 262,000 over the decade 2000-2010. These projections are still below the actual annual job growth we saw from 1990 to 1999 (about 31,800 annually).

These job projections, like other employment estimates based on surveys of Iowa establishments, include all jobs located in the state, including part time jobs and self-employment. In 2000, the labor force was 82.9% of the number of jobs. If we assume that this ratio will continue to hold, then 82.9% of 262,000 is 217,000, the net increase in the labor force needed to fill the 262,000 jobs. Based on all the above assumptions, the labor shortage by the year 2010 will probably be in the range of 91,000 to 154,000.

Even using the more recent, higher job projections, our estimates of the labor shortage are much smaller than the figures of "310,000 working people" needed in this decade according to the Iowa 2010 report, or the 450,000-worker gap between job openings and population growth according to the governor's office. Apparently, the issue became clouded early on when discussion focused on the large projected "attrition" (people exiting the workforce due primarily to retirement or out-migration) without recognizing the offsetting effect of thousands of young Iowans entering the labor force each year. Even the census projections showing very slow overall population growth in Iowa from 2000 to 2010 indicate that more than 40,000 18-year-olds will be added to the working age population each year, compared to job attrition of about 37,000 per year previously forecast by Iowa Workforce Development (recently revised to 38,600). The error has been compounded as figures get bandied about; the Iowa Business Council, for example, in the report *A Case for Change*, asserts that "the Governor's Strategic Planning Council report shows the state's population needs to increase by 310,000 in the next 10 years just to replace workers who have left the workplace." (Please refer to the appendix for a more complete discussion of the attrition issue and why previous estimates were too high.)

Even careful estimates of worker shortages should be viewed with considerable caution. The population projections now available were made without benefit of detailed 2000 census data showing the age distribution of the population and migration patterns. It will be some time before these data are released and revised projections can be made. In the meantime, the 2000 census population totals indicate that recent population and migration estimates for Iowa were off by a considerable margin (total population growth and net migration being much larger than anticipated) casting doubt on projections based in part on such estimates. In particular, the census projections for net out-migration of 12,000 in this decade might well change in light of the 49,000 net in-migration we actually experienced in the 1990s. Furthermore, the projections of job growth are based on employer surveys conducted during the boom of the late 1990s. Employer projections of job needs may change dramatically during the slowdown of 2001.

Whatever the actual "need" for additional workers over the next ten years, we should ask where these workers might come from. There are only a limited number of possibilities: (1) reduced mortality rates, (2) increased domestic and/or international in-migration, (3) reduced out-

migration, (4) higher labor force participation rates (that is, a larger share of the population is actually working or seeking work), including higher participation rates of women or of those over 65, (5) lower unemployment rates among certain population subgroups, or (6) continued movement from farm to non-farm employment.²

We assume that state policy will not be able to affect mortality rates sufficiently to have an impact on the size of the labor force, though certainly health policies and workplace safety are important issues. As for migration, the census projections for Iowa for 2000-2010 show domestic in-migration of about 750,000, international immigration of about 35,000, and total out-migration of 804,000. To gain 91,000 to 154,000 more workers we must gain about 165,000 to 290,000 total population, with a middle estimate of 227,000 (the labor force was about 54% of the total population in 2000). A population gain of 227,000 would require a 30% increase in domestic in-migration, a 28% reduction in out-migration, or a 649% increase in international immigration (or some combination of the three), compared to the projections. Put another way, net in-migration would have to be 4.5 times as large as the 49,000 we saw in the 1990s.

There may still be room to increase the extent of labor force participation, particularly for women, who are much more likely than men to work part time. As for drawing labor from the farm population, the job projections already assume a continued steady decrease in the number of farmers in Iowa. However, the dwindling numbers remaining on the farm may become even more dependent on off-farm employment, increasing the participation of farmers and farm spouses in the non-farm labor market. Finally, it may be possible to reduce the unemployment rate among population subgroups such as the disabled.

So the questions become: What could the state do to make Iowa a more appealing destination for in-migrants? What could the state do to retain its working age population and stem out-migration? How can we increase rates of labor force participation? We can adopt family friendly workplace policies that make it easier to balance work and family, including affordable day care that makes it easier for parents to enter the labor force and makes it easier for women to move from part-time to full-time work. We can try to expand the employment opportunities for adults with disabilities, who face an exceptionally high unemployment rate. We can work to reduce the incidence of workplace accidents that produce disabilities. Higher wages, of course, may be the most effective tool for increasing labor force participation and keeping Iowans at home.

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By most aggregate measures (including job growth, income growth, and unemployment), Iowa seems to be doing quite well. But such measures tell only part of the story. They tell us very little, for example, about the quality and the security of jobs being created; about the circumstances and experiences of the working families collected in statistical averages and aggregates; or about the ways in which the benefits of economic growth are distributed across regions or occupations or incomes. In the next two chapters, we look at these and other questions in some detail.

²The labor force consists of persons age 16 or over who are working or actively seeking work. The labor force participation rate is the labor force divided by the civilian, non-institutionalized population age 16 or over. The unemployment rate is the number of unemployed divided by the labor force.