

The State of Working Alabama

*A Report and Agenda for Preserving and Growing
Good Jobs*

By Jeff Rickert & Howard Wial



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Executive Summary

This report takes an in-depth look at the economic situation of Alabama's working people, its key industries and major regions and the workings of its state economic development policies. It recommends public policies that can improve the competitiveness of the state's key industries and the economic well-being of its working people.

- Alabama workers made important gains in the late 1990s, but the recent recession and current jobless recovery may reverse those gains and economic trends over the last two decades were not always favorable.
 - Alabama workers had a median wage of \$11.50 per hour in 2001. This was \$1.56 per hour below the overall U.S. median hourly wage of \$12.56.
 - Alabama's median wage increased by \$1.98 per hour, or 5.8 percent, between 1995 and 2001. The national median wage increased by \$1.08 per hour, or 0.6 percent, during that time.
 - The median hourly wage of African American men rose from \$8.65 per hour in 1995 to \$10.28 per hour in 2000 but fell back to \$10.14 in 2001. For African American women, the median hourly wage rose from \$7.05 in 1995 to \$8.74 in 2000 but fell back to \$8.25 in 2001. In contrast, the wages of white men and women rose from 1995-2000 and continued to rise in 2001.
 - The median hourly wages of men with a high school diploma but no further schooling rose from \$10.38 in 1995 to \$12.23 in 2000 but fell back to \$12.00 in 2001. For women with this level of schooling, the median hourly wage increased from \$7.23 in 1995 to \$8.43 in 2000 to \$9.00 in 2001. For men with college degrees, the median hourly wage rose from \$19.72 in 1995 to \$22.10 in 2000 but dropped back to \$21.14 in 2001. Women with college degrees saw their median hourly wage rise from \$15.68 in 1995 to \$16.33 in 2000 to \$16.75 in 2001.
 - The wage gap between high- and low-wage workers has narrowed since 1995 but is higher than it was two decades ago. In 1995, Alabama's high-wage workers earned 410 percent of what the state's low-wage workers earned. By 2001, this wage gap fell to 389 percent. But the gap in 1979 was only 338 percent.
 - The share of Alabama workers earning poverty-level wages fell from 34.5 percent in 1979 to 29.5 percent in 2001. Nationwide, the corresponding percentages were 26.6 percent in 1979 and 25.5 percent in 2001.
- Alabama is a major manufacturing state, but it has lost manufacturing jobs in recent years. The loss of these jobs has meant that workers with low levels of schooling have lost an important source of good jobs.

- In 2000, 19.3 percent of Alabama's jobs were in manufacturing, compared with 14.2 percent for the nation as a whole.
- While the state gained more than 94,000 jobs from 1995-2000 (a 5.3 percent increase), it lost more than 34,000 manufacturing jobs (an 8.6 percent loss). From 2000-2002, Alabama lost 12.5 percent of its manufacturing jobs from 2000-2002, while the nation as a whole lost 9.5 percent of its manufacturing jobs.
- In 2001, 61.7 percent of Alabama's manufacturing workers had a high school diploma or less formal schooling, compared with 45.7 percent of all Alabama workers.
- Key Alabama manufacturing industries that pay high wages and are important to the economic competitiveness of the state as a whole or its major metropolitan areas include the paper industry (which paid an average weekly wage of \$1,121 per week in Mobile in 2000), the auto industry (average weekly wage of \$890 statewide), the aerospace industry (\$1,193 in Huntsville), iron and steel foundries (\$1,051 in Birmingham), and non-ferrous metal manufacturing (\$737 in Huntsville). Average weekly wages in all these industries were higher than the 2000 statewide average weekly wage of \$575.
- Most of the state's key manufacturing industries have lost jobs in recent years. Each faces important challenges to its competitiveness and ability to stem job losses and maintain high wages.
 - From 1993-2000, Alabama's paper industry lost nearly 3,000 jobs. Major economic challenges for the industry and its workers include outsourcing, domestic and foreign competitors with lower labor costs or more advanced technologies, and high energy costs due to energy-inefficient production processes.
 - Alabama's auto industry gained more than 3,000 jobs from 1993-2000, in part as a result of state economic development incentives to auto assemblers, who brought new auto parts suppliers to the state. Major economic challenges for suppliers and their workers include the need for auto suppliers to shift from standardized to more specialized products and to adapt to the changing demands of auto assemblers.
 - The Huntsville-area aerospace industry lost more than 700 jobs from 1995-2000. The industry's specialization in military production is an important source of competitive advantage but leaves it dependent on a single customer.
 - The state's steel industry lost more than 2,000 jobs from 1989-2000 and the Birmingham area lost more steel jobs than the state as a whole. Major economic challenges for the state's integrated steel mills and their workers include competition from mini-mills, worldwide excess capacity in an internationally

competitive steel market, high costs of environmental compliance, and high “legacy costs” of pensions and retiree health benefits.

- The nonferrous metal industry lost jobs from 1993-2000, but some subsectors gained jobs. Major economic challenges for the industry and its workers include outsourcing and the challenges of shifting to more specialized products and adopting technologies that raise labor productivity.
- The state’s current economic development policies emphasize subsidies to companies that can bring new jobs to Alabama. They do little to assist firms in the state’s already established key industries in retaining good jobs while remaining competitive.
- Alabama can reorient its public policies, especially economic development policies, to improve the competitiveness of the state’s key industries and the economic well-being of its working people. To do so, the state should:
 - **reorient its economic development programs toward retaining jobs rather than attracting them, by**
 - providing economic development assistance to firms that offer high-quality jobs and are in industries that are key to regional economies in the state;
 - investing in targeted research and development support for key industries in the state;
 - providing education and training to support the adoption of new technologies and the implementation of new product lines by firms in the state’s key industries;
 - opening access to the power grid to allow companies that produce their own energy to sell excess power to utilities or to obtain credits for reducing their burden on the public grid;
 - providing incentives and support for companies to adopt energy-efficiency measures, including investments in technology, training and operation and maintenance;
 - providing targeted assistance to help displaced workers secure high-quality jobs; and
 - providing support to multi-employer partnerships which work to eliminate common problems that hamper the vitality of a key regional industry;

- **link economic development resources to job quality** by
 - instituting “clawback” provisions or other protections which guarantee that firms receiving economic or workforce development assistance deliver on job quality or job quantity standards and
 - extending “anti-piracy” provisions to economic development incentives that do not now have such provisions;
- **make economic development activity more transparent** by
 - instituting job quality standards in the current economic development system and
 - strengthening and enforcing company-specific subsidy disclosure laws;
- **raise minimum job quality standards** by
 - rationalizing health care via a state-sponsored health plan through which all Alabama employers would provide coverage for their employees and
 - setting a state minimum wage.

Introduction

During the late 1990s, when Alabama's economy produced good times for the state's working people, public policymakers paid little attention to the economic problems of the state's major industries and the effects of public policy on those industries. Changes in state policy did not seem to be needed to keep unemployment low, wages rising and jobs growing. But in the wake of the recent recession and the jobless recovery, there is room for state policy to play an important role in restoring prosperity.

This report takes an in-depth look at the economic situation of Alabama's working people, its key industries and major regions, and the functioning of its state economic development policies. It recommends public policies that can improve the competitiveness of the state's key industries and regions and improve the economic well-being of its working people. The report begins with a statistical portrait of Alabama's jobs and workers, both statewide and in the state's four largest metropolitan areas. Drawing on the results of interviews with employers and union leaders as well as on published sources, it then describes the economic problems facing the state's key manufacturing industries, industries that are crucial to the prosperity of the state as a whole and especially to that of Alabama workers with little formal schooling. The report then describes Alabama's economic development policies, illustrating the ways in which they fail to meet the needs of workers and employers in key manufacturing industries. The report concludes with recommendations for improving state economic policy, especially economic development policy.

Alabama's Jobs and Workers

This section provides a statistical overview of the economic status of Alabama's working people. It focuses on wages, wage inequality, employment, unemployment and workforce characteristics. To put Alabama's economic situation in perspective, the report compares today's Alabama with Alabama at various times over the last two decades and it sometimes compares Alabama's economic performance with that of the entire nation and with that of surrounding states. We rely mainly on data from the Bureau of Labor Statistics (BLS) and the Census Bureau, especially the joint BLS-Census Current Population Survey (CPS). Throughout the report, dollar amounts are adjusted for inflation and expressed in 2001 dollars (i.e., the buying power of wages at 2001 prices) using the CPI-U-RS, a consumer price index developed by BLS.

Alabama workers made substantial gains during the late 1990s—in overall wages; low unemployment; narrowing wage gaps between high- and low-wage earners; and rapid wage growth for women, African Americans and workers without college degrees. As Alabama and the nation entered the recession that began in March 2001, unemployment rose and African American workers' wages fell, but other economic gains continued. However, these gains were probably due in large measure to extremely tight labor markets, especially for low-wage workers. Such tight labor markets are unusual even during periods of economic growth and probably did not continue as the recession deepened. They are unlikely to persist during the slow, jobless economic recovery that the state and nation are now experiencing. Moreover, Alabama has been losing jobs in manufacturing, a sector that has historically provided good jobs for workers without college degrees. Wages in manufacturing have also grown slowly during

the 1990s. Without public policies and employer and union strategies to preserve high-wage jobs in manufacturing and other key industries, the gains made by Alabama’s workers in the late 1990s may not continue and could even be reversed.

Alabama Wage Growth Remained Strong Even As Recession Began

The median wage—the wage that falls in the middle of those of all workers—is the best measure of the overall economic well-being of Alabama’s workers. (Half the state’s workers earn more than the median wage, while half earn less.) By this measure, Alabama’s workers became much better off during the late 1990s; the state’s median wage rose by more than 20 percent from 1995 through 2001, from \$9.52 per hour to \$11.50 per hour (table 1). The wage growth of the late 1990s, which was probably due to an extremely tight labor market, more than made up for a decade and a half of declining wages during the 1980s and early 1990s. Even as Alabama and the nation entered the recession in 2001, Alabama workers’ wages continued to grow relatively rapidly, rising by 5.8 percent from 2000 to 2001.

Wages in Alabama remain below wages nationwide. The wage gap between Alabama and the nation as a whole was similar in 2001 to what it was in 1979. In 1979, Alabama’s median wage was about 91 percent of the U.S. median wage. In 2001, the corresponding figure was about 92 percent. Alabama’s workers took bigger wage cuts in the 1980s and early 1990s than those in the United States as a whole, but they also received larger raises since 1995 than their U.S. counterparts.

Table 1. Median Hourly Wages in Alabama and United States, 1979-2001 (2001 dollars)

	All workers		Men		Women	
	AL	U.S.	AL	U.S.	AL	U.S.
1979	10.50	11.64	13.30	14.37	7.81	9.14
1989	10.04	11.57	11.74	13.93	8.28	9.94
1995	9.52	11.48	11.58	13.10	8.11	10.16
2000	10.87	12.49	12.64	14.08	9.47	10.96
2001	11.50	12.56	13.02	14.25	10.13	11.12
Percent change						
1979-2001	9.5	7.9	-2.1	-0.8	29.7	21.7
1989-2001	14.5	8.6	10.9	2.3	22.3	11.9
1995-2001	20.8	9.4	12.4	8.8	24.9	9.4
2000-2001	5.8	0.6	3.0	1.2	7.0	1.5

Source: WAI analysis of CPS outgoing rotation groups.

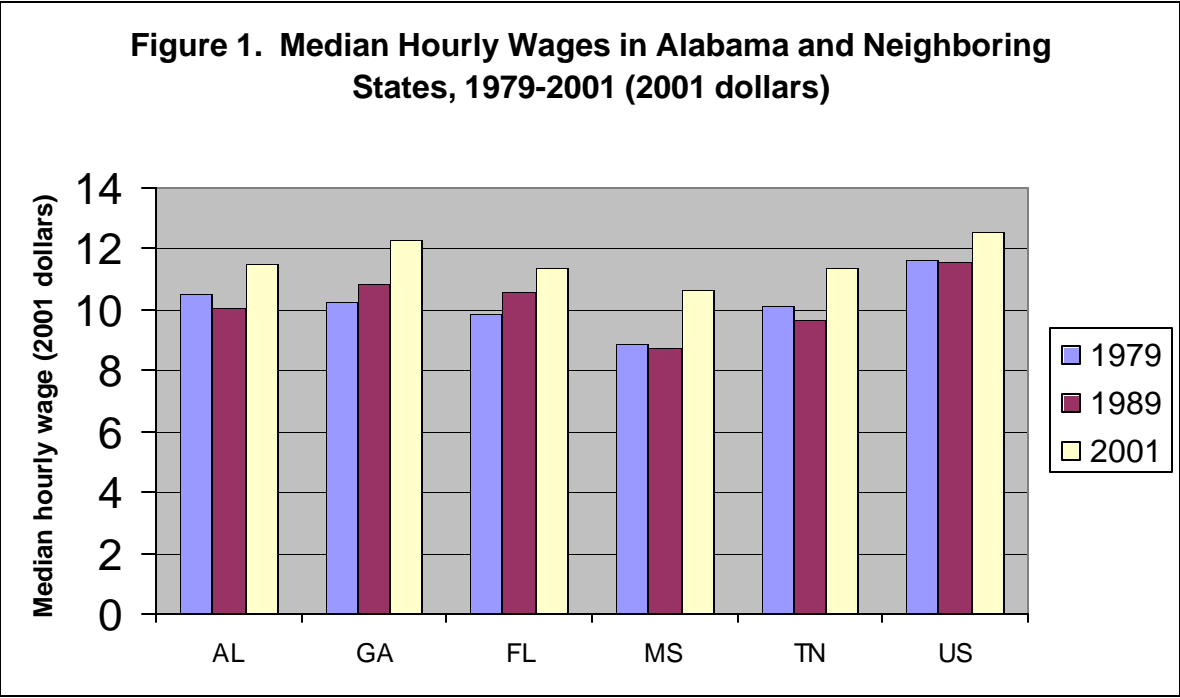
Women’s Wages Grew Rapidly, Men’s Remained Below 1979 Level

The state’s recent strong wage growth is due mainly to extremely rapid increases in women’s wages (table 1). Alabama women earned nearly 25 percent more per hour in 2001 than in 1995 and 7 percent more in 2001 than in 2000. Men’s wages grew much more slowly than women’s. Alabama men earned just over 12 percent more in 2001 than in 1995 and 3 percent more in 2001

than in 2000. Men’s wages in 2001 were still about 2 percent below their 1979 level, while women’s were almost 30 percent above their 1979 level.

Alabama Wages Slipped from Highest to Second Highest in Region Since 1979

Alabama’s workers have lost ground compared with those of neighboring states. In 1979, Alabama’s median wage was higher than that of any of its neighboring states (figure 1). By 1989, though, it had slipped to third highest in its region, below the median wages in Georgia and Florida. By 2001, Alabama had moved ahead of Florida but remained behind Georgia.



Source: WAI analysis of CPS outgoing rotation groups.

Alabama’s wage advantage over lower-wage neighboring states has also shrunk over the last two decades. In 1979, Alabama’s median wage was about 18 percent (or \$1.60 per hour) higher than that of its lowest-wage neighbor, Mississippi. By 1989, Alabama’s wage advantage over Mississippi had shrunk to 15 percent (\$1.30 per hour) and by 2001 it was down to only 8 percent (88 cents per hour).

Wages Stagnate for African Americans, Reversing Late 1990s Trend

The recession that began in March 2001 reversed the late 1990s trend of wage growth for African American men and women in Alabama. Black workers’ wages overall were unchanged from 2000 to 2001, while white workers received a 5.8 percent raise in that year (table 2). Both black men and black women took wage cuts, with black women’s wages falling by a greater percentage than black men’s. In contrast, both white men and white women received raises, and white women received a larger raise than white men.

Table 2. Median Hourly Wages in Alabama by Race and Sex, 1979-2001 (2001 dollars)

	1979	1989	1995	2000	2001	Percent change			
						1979-2001	1989-2001	1995-2001	2000-2001
WHITE	11.30	10.72	10.81	11.82	12.50	10.6	16.6	15.6	5.8
White men	14.12	13.07	12.94	13.50	14.42	2.1	10.3	11.4	6.8
White women	8.31	8.62	8.65	9.88	11.06	33.1	28.3	27.9	11.9
BLACK	7.46	7.58	7.79	9.25	9.25	24.0	22.0	18.7	0.0
Black men	9.04	8.96	8.65	10.28	10.14	12.2	13.2	17.2	-1.4
Black women	6.78	6.89	7.06	8.74	8.25	21.7	19.7	16.9	-5.6

Source: WAI analysis of CPS outgoing rotation groups.

Over the last two decades as a whole, African American workers made substantial economic progress. For black men, however, this progress was due entirely to a \$1.63 per hour wage increase between 1995 and 2000, which more than made up for earlier wage declines. During the periods 1979-2001, 1989-2001 and 1995-2001, wages rose for black and white men and women. In those periods, the wages of blacks overall and of black men, rose faster than those of their white counterparts. Black women's wages rose more slowly than those of white women, although women of both races had faster wage growth than their male counterparts during most of these time periods.

Although Non-College Workers Received Bigger Raises Than College-Educated in Recent Years, College-Non-College Wage Gap Is Larger Than Two Decades Ago

Over the last two decades as a whole, Alabama followed the national pattern of widening wage gaps between college-educated and non-college workers. Men with less than a college degree took substantial wage cuts during this period, while college-educated men received a 13.4 percent raise (table 3). Women of all educational levels received raises since 1979, but those with more schooling received larger raises.

Table 3. Median Hourly Wages in Alabama by Education Level and Sex, 1979-2001 (2001 dollars)

	1979	1989	1995	2000	2001	Percent change			
						1979-2001	1989-2001	1995-2001	2000-2001
MEN									
Less than high school	10.03	8.37	8.07	8.22	8.80	-12.3	5.1	9.0	7.1
High school diploma	14.12	11.03	10.38	12.23	12.00	-15.0	8.8	15.6	-1.9
Some college	14.12	13.65	12.69	11.82	13.00	-7.9	-4.8	2.4	10.0
College degree	18.64	20.68	19.72	22.10	21.14	13.4	2.2	7.2	-4.3
WOMEN									
Less than high school	6.55	6.00	6.00	6.17	6.75	3.1	12.5	12.5	9.4
High school diploma	8.09	7.58	7.21	8.43	9.00	11.2	18.7	24.8	6.8
Some college	8.47	8.62	8.22	9.77	10.00	18.1	16.0	21.7	2.4
College degree	13.1	15.32	15.68	16.33	16.75	27.9	9.3	6.8	2.6

Source: WAI analysis of CPS outgoing rotation groups.

Since 1995, however, both men and women with a high school diploma or less generally received larger raises, in percentage terms, than those with college degrees (table 3). From 1995-2001, the median wage for men with less than a high school diploma increased by 7.1 percent and that of men with a high school diploma rose by 15.6 percent, while college-educated men’s median wage rose by only 7.2 percent. The median wage for women with less than a high school diploma rose by 12.5 percent and that of women with a high school diploma increased by 24.8 percent, but college-educated women’s median wage increased by only 6.8 percent. From 2000-2001, men with a high school diploma took a wage cut of 1.9 percent, but men with college degrees took an even bigger wage cut of 4.3 percent, while the wages of men with less than a high school diploma rose by more than 7 percent. Women with less than a high school diploma received the largest percentage raises from 2000-2001, and the wages of women with high school diplomas rose faster than those of college-educated women.

The recent wage gains of non-college workers are probably due to the extremely tight labor market for those workers in the late 1990s, which persisted during the early part of the recession. Such conditions are unusual even during periods of economic growth, so progress for workers with low levels of schooling may not continue. Nevertheless, because Alabama has a higher percentage of non-college educated workers than the nation as a whole (as shown in table 5 below), these wage gains are particularly important to the state’s economy.

Table 4. Hourly Wages of High- and Low-Wage Earners* in Alabama and United States, 1979-2001 (2001 dollars)

	High-Wage Earners		Low-Wage Earners		High-Wage Earners’ Wage as Percent of Low-Wage Earners’ Wage	
	AL	US	AL	US	AL	US
1979	21.49	22.78	6.36	6.61	338	345
1989	21.42	24.87	5.12	5.59	418	445
1995	22.05	25.62	5.25	5.89	420	435
2000	23.60	27.72	5.86	6.24	403	444
2001	23.67	28.85	6.08	6.42	389	449
Percent change						
1979-2001	10.1	26.6	-4.4	-2.9		
1989-2001	10.5	16.0	18.8	14.8		
1995-2001	7.3	12.6	15.8	9.0		
2000-2001	0.3	4.1	3.8	2.9		

* High-wage earners are those who earn more than 90 percent of all workers and less than the other 10 percent. Low-wage earners are those who earn more than 10 percent of all workers and less than the other 90 percent. Source: WAI analysis of CPS outgoing rotation groups.

Gap Between High and Low Wages Grew Over Two Decades but Declined Since 1995

Table 4 shows what has happened to the gap between the wages of high-wage and low-wage earners in Alabama and the United States as a whole. We define high-wage earners as those who earn more than 90 percent of all workers and less than the other 10 percent. Low-wage earners are those who earn more than 10 percent of all workers and less than the other 90 percent.

The high-wage/low-wage gap has been smaller in Alabama than in the nation as a whole during the last two decades. That gap has widened in Alabama since 1979, although by less than it has nationwide. While the gap got larger nationwide during all of the 1979-2001 period except for the early 1990s, the gap in Alabama widened from 1979-1995 but narrowed since 1995.

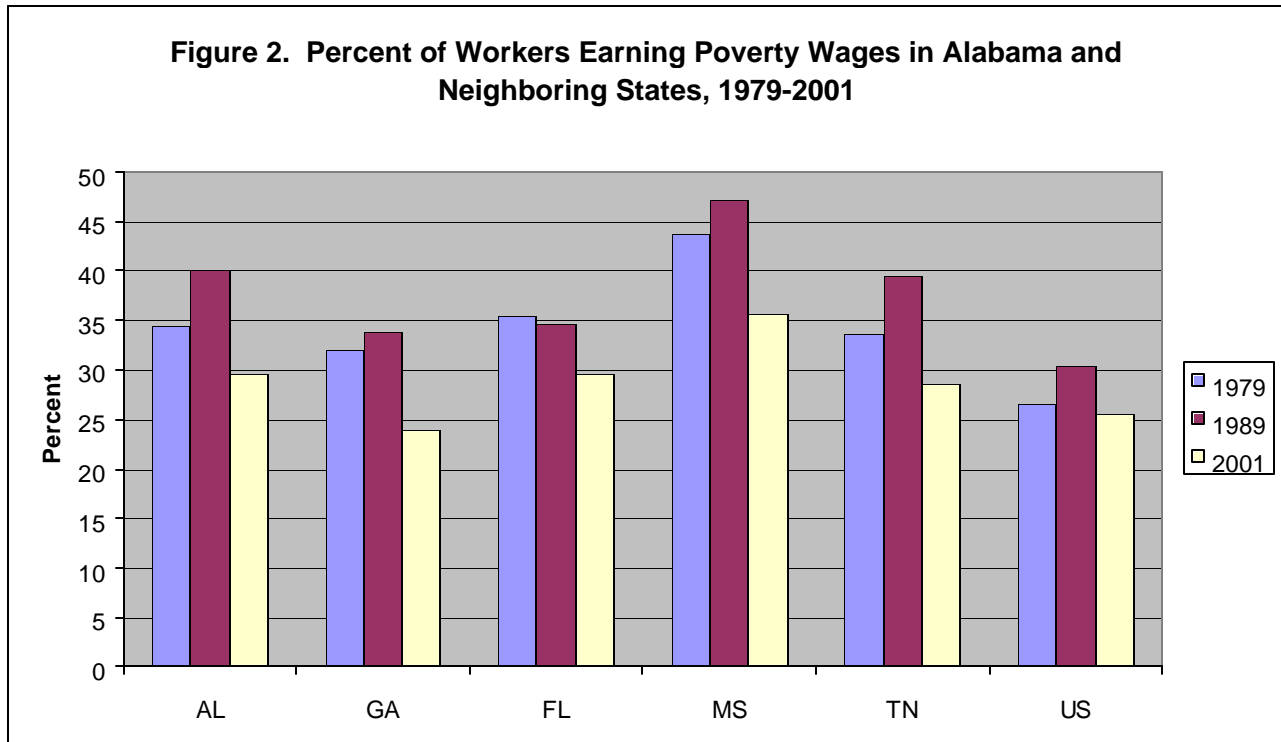
Low-wage earners in Alabama earned 4.4 percent (or 28 cents per hour) less in 2001 than in 1979. In contrast, the state's high-wage earners earned 10.1 percent (or \$2.18 per hour) more in 2001 than in 1979. The recent narrowing of the high-wage/low-wage gap in Alabama is due to the fact that wages rose more rapidly for high-wage than for low-wage earners. From 2000-2001, for example, Alabama's low-wage earners received a 3.8 percent raise, while the state's high-wage earners received a raise of 0.3 percent. Even as Alabama entered the recession along with the rest of the nation, labor markets for low-wage earners in much of Alabama remained tight enough to enable them to receive larger percentage raises than their high-wage counterparts. The unusual tightness of low-wage labor markets in the late 1990s is unlikely to continue even as economic growth resumes, so the recent decline in the state's gap between high and low wages may not continue.

Despite Drop, Poverty Wages Remain More Common in Alabama Than Nationwide

One way to evaluate the adequacy of wages is to determine whether a worker's earnings would exceed the federal poverty level for a two-adult, two-child family if that worker were employed full time for a full year. In 2001, the wage that would enable a worker to meet this standard was \$8.64 per hour. We refer to workers earning less than this amount as "poverty wage" earners, regardless of how many hours per week or weeks per year they work. (Not all workers earning poverty wages necessarily lived in poverty, since some may have worked more than a standard full-time workweek or relied on other sources of income to lift their incomes above the poverty level.)

The percentage of Alabama workers earning poverty wages has exceeded the corresponding percentage of all U.S. workers, although the gap between the poverty wage share in Alabama and that in the nation as a whole has been shrinking (figure 2).

In 1979, 34.5 percent of all Alabama workers and 26.6 percent of all U.S. workers earned less than this "poverty wage" level. By 1989, the percentage had risen to 40.1 percent in Alabama and 30.5 percent nationwide. By 2001, it dropped to 29.5 percent in Alabama and 25.5 percent nationwide.



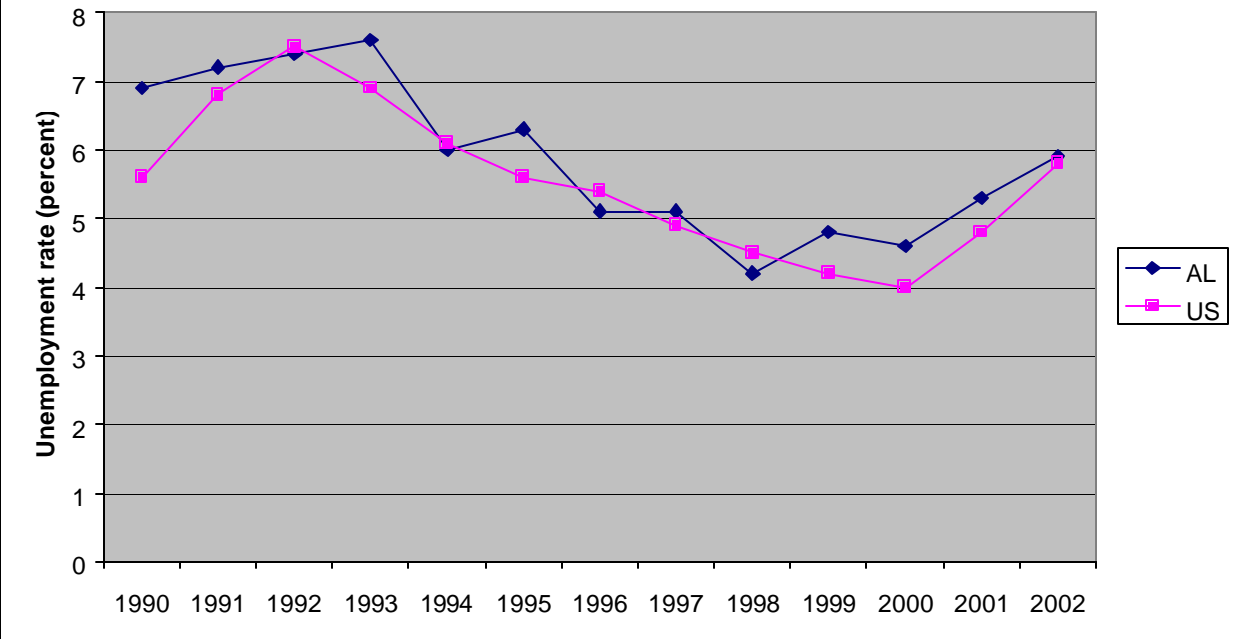
Source: WAI analysis of CPS outgoing rotation groups.

Compared to neighboring states, Alabama has consistently ranked in the middle in its share of workers earning poverty wages during the last two decades. In 2001, Mississippi and Florida had higher percentages of workers earning poverty wages than does Alabama, while Tennessee and Georgia had lower poverty wage shares.

Alabama Unemployment Was Above National Rate Though 2002

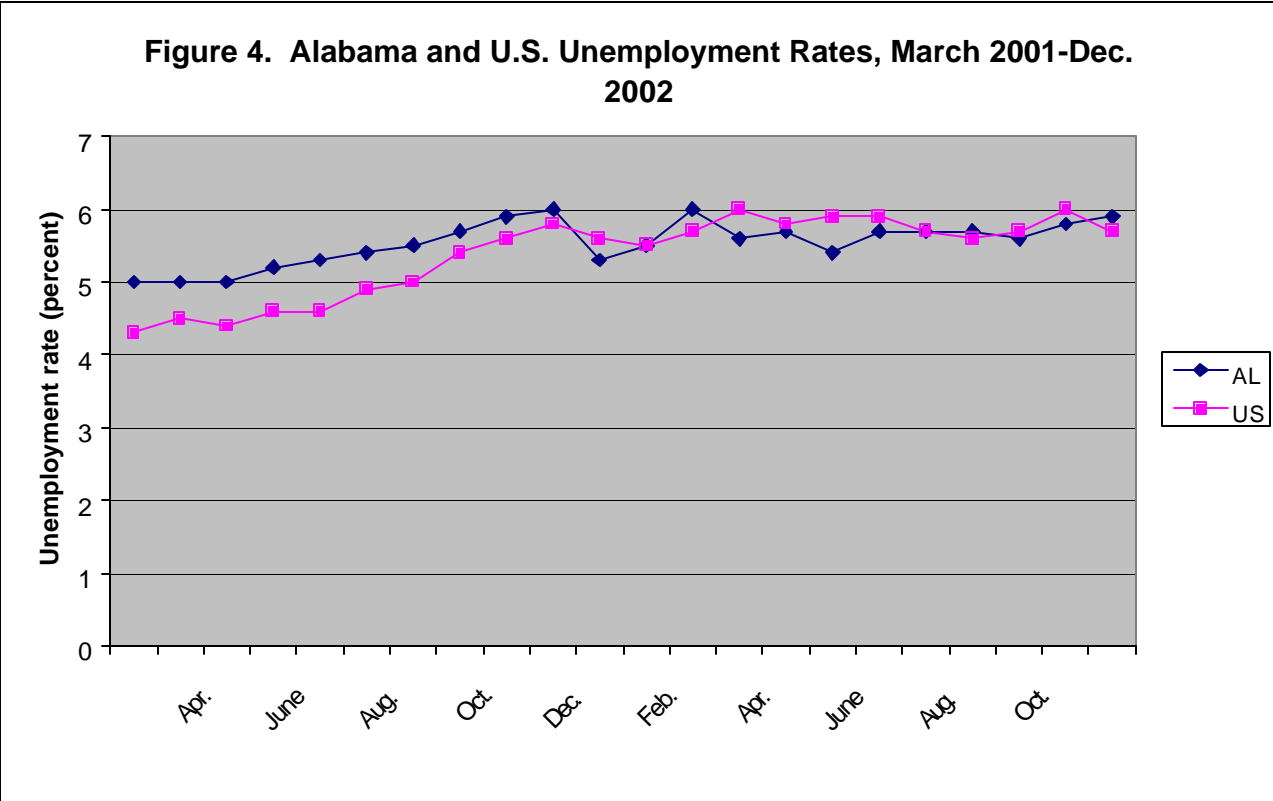
Alabama's unemployment problem was worse than that of the nation as a whole during most of the 1990s. Although Alabama's unemployment rate generally followed the same pattern as the national unemployment rate, the state's unemployment rate was higher than that of the nation as a whole in nine of the 13 years between 1990 and 2002 (figure 3). Unemployment in Alabama dropped below 5 percent only from 1998-2000, while the national unemployment rate was below 5 percent from 1997-2001. The state's unemployment rate took a year longer to recover from the effects of the recession of the early 1990s than did the national unemployment rate.

Figure 3. Alabama and U.S. Unemployment Rates, 1990-2002



Source: BLS.

Since the beginning of the recession in March 2001, Alabama's unemployment rate has generally followed the national pattern (figure 4). The state's unemployment rate was below the national rate in every month of 2001, but was slightly below the national rate in nine of 12 months in 2002. However, Alabama's unemployment rate has remained above 5 percent in every month since July 2001 and shows no sign yet of any sustained improvement.



Note: Monthly data are seasonally adjusted.
 Source: BLS.

Alabama Workers Are Older and Less Likely to Have College Education Than U.S. Workers Overall

During the last two decades, Alabama’s workforce has become much better educated in terms of formal schooling, but it still lags the national workforce as a whole in college education. In 1979, about 69 percent of Alabama workers aged 25 or older had a high school diploma or less, compared with about 59 percent for the nation as a whole (table 5). In 2001, about 46 percent of the state’s workforce aged 25 or older had no more than a high school diploma, compared with about 41 percent for the nation as a whole. Workers with less than a high school diploma were less common in Alabama than nationally in 2001, while the opposite was true in 1979. Workers with college degrees were more common in Alabama in 2001 (25.4 percent of the state’s workforce) than in 1979 (when they made up only 15 percent of the state’s workforce), but were still less common in 2001 than in the nation as a whole (when they made up 30.8 percent of the nation’s workforce).

Table 5. Demographic Characteristics of Alabama and U.S. Workers, 1979-2001
(Percent of all workers who are in each demographic category)

Education of workers aged 25 or older						
	1979		1989		2001	
	AL	US	AL	US	AL	US
Less than high school	30.5	22.1	20	13.8	9.1	9.7
High school diploma	38.7	36.4	40.2	36.4	36.6	31.1
Some college	15.7	19.8	21.1	23.1	28.9	28.4
College degree	15.0	21.6	18.6	26.6	25.4	30.8
Race of workers aged 16 or older						
White	78.6	83.5	80.5	79.6	73.9	72.2
Black	20.4	9.4	18.7	10.0	24.3	11.7
Hispanic or other races*	1.0	7.1	0.9	10.4	1.9	16.1
Age of workers aged 16 or older						
16-20	9.2	10.9	7.7	7.7	7.1	7.6
21-24	12.5	11.8	7.9	9.1	9.0	8.8
25-34	25.4	26.8	30.1	29.0	22.3	23.0
35-44	19.8	19.1	22.9	25.1	26.5	26.6
45-54	17.6	16.6	18.1	16.4	23.2	21.9
55+	15.5	14.8	13.3	12.7	11.8	12.1
Sex of workers aged 16 or older						
Women	39	41.7	44.4	45.2	48.5	48.1

*White and black categories do not include Hispanics. This differs from Census Bureau practice, under which Hispanics may be of any race.

Source: WAI analysis of CPS outgoing rotation groups.

Alabama workers are somewhat more racially diverse than they were two decades ago and considerably more so than they were a decade ago, but they are slightly more likely to be white or black than are workers in the United States as a whole. Hispanics and persons of other races make up a much smaller percentage of Alabama workers than of U.S. workers overall. In 2001, 73.9 percent of Alabama workers were white, 24.3 percent were black and 1.9 percent were Hispanic or of other races; in 1979, the corresponding percentages were 78.6, 20.4, and 1.0. Nationwide in 2001, 72.2 percent of workers were white, 11.7 percent were black and 16.1 percent were Hispanic or of other races.

Like that of the United States as a whole, Alabama’s workforce has aged over the last two decades, reflecting the aging of the Baby Boom generation. Middle-aged workers (ages 35-54) made up 49.7 percent of Alabama workers in 2001, up from 37.4 percent in 1979. Alabama’s workforce is slightly older than that of the nation as a whole, with a notably higher percentage of middle-aged workers or older and a notably lower percentage of workers under age 21. However, Alabama has a slightly smaller percentage of workers aged 55 or older than does the United States as a whole.

Women made up 48.5 percent of Alabama workers in 2001, a slightly higher percentage than in the United States overall. In 1979, women made up a smaller percentage of Alabama workers

than of all U.S. workers. This means that women's representation in the workforce has grown faster in Alabama than in the nation as a whole over the last two decades.

Despite Significant Manufacturing Job Loss, Alabama's Economy Continues a Greater Than U.S. Average Reliance on Manufacturing

In most respects, the industrial composition of employment in Alabama resembles that in the United States as a whole. Our analysis of BLS ES-202 employment data for the year 2000 shows that, for almost all major industries, the industry's percentage of Alabama jobs is within one percentage point of its percentage of all U.S. jobs. The major differences are:

- Manufacturing is much more important in Alabama, where it accounts for 19.3 percent of all jobs, than in the entire United States, where it accounts for 14.2 percent of all jobs.
- Services are less important in Alabama (32.9 percent of all jobs) than in the entire United States (37.5 percent of all jobs).
- Finance, insurance, and real estate are less important in Alabama (4.7 percent of all jobs) than in the entire United States (5.8 percent of all jobs).

Manufacturing accounts for a larger percentage of jobs in Alabama than in three of its four neighboring states: Florida (where manufacturing makes up 6.9 percent of all jobs), Georgia (15.0 percent) and Tennessee (18.9 percent). Of Alabama's neighboring states, only Mississippi has a higher percentage of its jobs in manufacturing (20.5 percent).

Alabama lost more jobs in manufacturing between 1995 and 2000 than in any other major industry. During those five years, the state lost more than 34,000 manufacturing jobs, or 8.6 percent of all its manufacturing jobs (table 6). Among major industries, only agriculture and mining lost a greater percentage of their jobs during that period (although the number of jobs lost in those industries was much smaller than in manufacturing). The state's manufacturing job losses reduced manufacturing's share of Alabama's jobs from 22.3 percent in 1995 to 19.3 percent in 2000.

Since 2000, Alabama has continued to lose manufacturing jobs. From 2000-2002, the state lost a higher percentage of its manufacturing jobs than did the nation as a whole. BLS ES-202 data show that Alabama lost 12.5 percent of its manufacturing jobs from 2000-2002; the corresponding figure for the entire nation was 9.5 percent.

Table 6. Employment in 2000 and Employment Change 1995-2000 in Major Industries in Alabama

	Employment in 2000	Change 1995-2000	Percent Change
Total, all industries	18,77601	94,292	5.3
Agriculture	19,565	-7,342	-27.3
Mining	8,380	-3,146	-27.3
Construction	105,632	17,934	20.4
Manufacturing	362,971	-34,097	-8.6
Transportation, communication, utilities	11,2651	6,402	6.0
Wholesale trade	98,146	5,137	5.5
Retail trade	350,045	27,277	8.5
Finance, insurance, real estate	88,281	11,279	14.6
Services	617,552	61,976	11.2
Public administration	114,359	-2,568	-2.2

Source: WAI analysis of BLS ES-202 data obtained from Alabama Department of Industrial Relations website <http://www2.dir.state.al.us/aclmisdirect.asp>.

Overall, the state gained more than 94,000 jobs (a 5.3 percent increase) from 1995-2000. The fastest-growing sectors were construction and finance/insurance/real estate; the sectors that added the most jobs were services and retail trade.

Table 7. Median Hourly Wages in Major Industries in Alabama, Late 1980s and Late 1990s

	Late 1980s*	Late 1990s*	Percent change, late 1980s-late 1990s
All industries statewide	10.15	10.62	4.6
Agriculture, forestry, fisheries	6.23	7.6	22.0
Mining	**	**	**
Construction	11.42	11.31	-1.0
Manufacturing	10.34	10.50	1.5
Transportation, communication, utilities	13.78	13.45	-2.4
Wholesale trade	10.78	11.75	9.0
Retail trade	6.46	7.01	8.5
Finance, insurance, real estate	10.88	12.26	12.7
Services	9.69	10.86	12.1
Public administration	14.54	13.81	-5.0

*Late 1980s=1985-89. Late 1990s=1996-2000. Data for multiple years are combined to produce more reliable estimates.

**Sample size too small to produce a reliable estimate.

Source: WAI analysis of CPS outgoing rotation groups.

Manufacturing Wages Near Statewide Median, Grew Slowly in 1990s

Table 7 shows the median wage in each major industry in Alabama in the late 1980s (1985-89) and the late 1990s (1996-2000). (We combine several years of data because our CPS sample for

a single year is too small to produce reliable wage estimates.) Among major industries, public administration, transportation/communication/utilities, finance/insurance/real estate, wholesale trade, construction and services had median wages above the statewide median of \$10.62 per hour in the late 1990s. Agriculture and retail trade had the lowest median wages.

Manufacturing's median wage in the late 1990s, \$10.50 per hour, was slightly below the statewide median in the late 1990s (in contrast to the late 1980s, when the manufacturing median wage was slightly above the statewide median). However, as we will show later in this report, there are some industries within manufacturing that pay very high wages.

Median wages in most major industries grew more rapidly than the 4.6 percent increase in the statewide median between the late 1980s and late 1990s. Agriculture, finance/insurance/real estate and services had double-digit rates of wage growth, while workers in public administration, transportation/communication/utilities and construction took wage cuts. Manufacturing wage growth was a slow 1.5 percent from the late 1980s to the late 1990s.

Manufacturing Workers Are Older Than State's Workforce Overall

Because most of the key industries on which we focus later in this report are manufacturing industries, it is worth examining the characteristics of Alabama's manufacturing workers. A comparison of table 8 with table 5 shows that Alabama's manufacturing workers are considerably older than the state's workforce overall. In 2001, 40.6 percent of the state's manufacturing workers were at least 45 years old, compared with 35 percent of all Alabama workers. Only 9.6 percent of manufacturing workers were under age 25, compared with 16.1 percent of all the state's workers. The manufacturing workforce aged faster during the 1990s than the state's workforce overall. Between 1989 and 2001, workers aged 45 or older went from 31.3 percent to 40.6 percent of Alabama's manufacturing workforce, while they went from 31.4 percent to 35 percent of all Alabama workers. Although the state's key manufacturing industries do not currently face problems recruiting or training workers because they are doing little hiring, the continued aging of the manufacturing workforce may cause such problems in the long term if the state is successful in reversing the loss of manufacturing jobs in the state.

Alabama's manufacturing workers have more formal education than they did a decade ago, but less than the state's workforce overall. The major improvements in manufacturing workers' levels of schooling from 1989-2001 came from a nearly 12 percentage point drop in the percentage of workers without high school diplomas and a nearly 9 percentage point increase in the percentage with some college (a category that includes community college education). Compared with all Alabama workers, the state's manufacturing workforce in 2001 had a considerably higher percentage of workers with no schooling beyond high school and a considerably lower percentage with college degrees. This underscores the need to preserve jobs in the state's key high-wage manufacturing industries as a source of high-paying jobs for the higher than average percentage of Alabama workers without college degrees.

The state's manufacturing workers were less likely to be white and slightly less likely to be women in 2001 than in 1989. Compared to the state's workforce overall, manufacturing workers were considerably less likely to be women and slightly less likely to be white.

**Table 8. Demographic Characteristics of Alabama Manufacturing Workers, 1989-2001
(percent of workers who are in each demographic category)**

Education of workers aged 25 or older		
	1989	2001
Less than high school	23.5	11.8
High school diploma	47.3	49.9
Some college	17.2	25.9
College degree	12.0	12.5
Race of workers aged 16 or older		
White	78.7	71.3
Black	20.6	25.9
Hispanic or other races*	0.6	2.8
Age of workers aged 16 or older		
16-20	3.7	3.5
21-24	8.3	6.1
25-34	33.1	22.2
35-44	23.6	27.6
45-54	18.6	28.2
55+	12.7	12.4
Sex of workers aged 16 or older		
Women	32.5	31.3

*White and black categories do not include Hispanics. This differs from Census Bureau practice, under which Hispanics may be of any race.

Source: WAI analysis of CPS outgoing rotation groups.

Jobs In Alabama’s Major Metropolitan Areas

This section describes jobs and joblessness in Alabama’s four largest metropolitan areas: Birmingham, Huntsville, Montgomery, and Mobile. According to BLS ES-202 employment data, these areas contain about 53 percent of the state’s jobs and 36 percent of its manufacturing jobs. Manufacturing wages in these areas are far above the statewide averages. For these reasons, most of the remainder of our report, including our interviews with stakeholders in key industries and our public policy recommendations, is oriented around these four regions. In describing the jobs in each region, we examine major industry categories. We also examine the key industries that we have identified (to the extent that data are available) in the regions where those industries are of major importance to the regional economy.

The CPS, our major data source for describing the characteristics of jobs and workers in the state as a whole, is not representative of Alabama’s metropolitan areas. Therefore, we rely on BLS ES-202 data for information about wages as well as numbers of jobs and numbers of establishments, and are unable to provide information about the workforce in metropolitan areas. The ES-202 data include information about average wages but not median wages. The average wage is a less accurate measure of the earnings of a typical worker because the average, unlike

the median, can be influenced by the wages of a few very high-wage workers. For this reason, the average wage usually overstates the typical worker's wage.

In assessing the importance of an industry to a metropolitan area's economy, we sometimes use the concept of a "location quotient." The location quotient for an industry in a region is the ratio of the industry's share of total employment in the region to its share of total employment nationwide. A location quotient greater than 1 indicates that the industry makes up a higher percentage of jobs in the region than in the nation as a whole, while a location quotient less than 1 indicates the opposite. An industry with a location quotient greater than 1 is typically an "export industry," whose products are consumed by many people outside the region. Such an industry is a foundation of the region's economic prosperity. The higher the location quotient, the more important the industry to the economic health of the region.

Metropolitan Birmingham: Diversified Prosperity, But Steel Industry Losses Could Hold Back Progress

With 453,189 jobs (nearly one out of every four Alabama jobs) in 2000, metropolitan Birmingham (including Blount, Jefferson, St. Clair, and Shelby counties) has more jobs than any other metropolitan area in the state. The region's wages are relatively high overall compared to those in other parts of the state. They are also relatively high in most major industries compared to those in other parts of the state. Three large major industries—finance/insurance/real estate, transportation/communication/utilities and wholesale trade—plus the smaller mining and steel industries—both pay high wages and are of major economic importance to the region. The region's diverse combination of high-wage, economically important industries provides a foundation for continued prosperity. However, job losses in the steel industry, if not reversed, could put a brake on its economic progress.

The region's industrial composition differs considerably from that of Alabama as a whole. Compared to the entire state, the Birmingham area in 2000 had:

- a much lower percentage of its jobs in manufacturing (11.4 percent in metropolitan Birmingham, compared with 19.3 percent in all of Alabama),
- a higher percentage of its jobs in transportation, communication, and utilities (7.4 percent in metropolitan Birmingham, 6.0 percent statewide),
- a higher percentage of its jobs in wholesale trade (7.2 percent in metropolitan Birmingham, 5.2 percent statewide),
- a much higher percentage of its jobs in finance, insurance, and real estate (7.6 percent in metropolitan Birmingham, 4.7 percent statewide),
- a higher percentage of its jobs in services (36.4 percent in metropolitan Birmingham, 32.9 percent statewide), and

- a lower percentage of its jobs in public administration (4.7 percent in metropolitan Birmingham, 6.1 percent statewide).

Major industries with location quotients greater than 1 were mining (location quotient 1.34), wholesale trade (1.34), finance/insurance/real estate (1.31), transportation/communication/utilities (1.16), and construction (1.15). Although manufacturing as a whole has a location quotient less than 1 in Birmingham, iron and steel foundries (included in part in the steel industry, which we have identified as a key industry for Alabama), have a location quotient of 11.48 in the region, which indicates their extreme importance to the metropolitan area.

The Birmingham area gained more than 29,000 jobs (more than 30 percent of all jobs gained in the state) between 1995 and 2000 (table 9). Its job growth rate during that period, 7 percent, exceeded the state's 5.3 percent job growth rate but was the lowest among Alabama's major metropolitan areas. The fastest-growing industries were construction and finance/insurance/real estate; the industries adding the most jobs were services and retail trade. The latter two industries had average wages below the overall regional average in 2000.

In contrast, manufacturing lost more than 2,600 jobs (4.9 percent of its manufacturing jobs) from 1995-2000, more than any other major industry. Agriculture and mining suffered greater percentage losses but lost far fewer jobs than manufacturing.

Within manufacturing, iron and steel foundries lost 317 jobs (6 percent of their jobs) during this period, bringing their 2000 employment level to 4,939 jobs. Those 4,939 jobs accounted for 9.6 percent of all manufacturing jobs in the region in 2000.

Table 9. Employment in 2000 and Employment Change 1995-2000 in Major Industries and Selected Key Industries in Metropolitan Birmingham

	Employment in 2000	Change 1995-2000	Percent change
Total, all industries	453,189	29,574	7.0
Agriculture	3,492	-563	-13.9
Mining	2,515	-670	-21.0
Construction	27,482	5,438	24.7
Manufacturing	51,678	-2,659	-4.9
Iron & steel foundries	4,939	-317	-6.0
Transportation, communication, utilities	33,310	137	0.4
Wholesale trade	32,686	1,204	3.8
Retail trade	81,551	5,540	7.3
Finance, insurance, real estate	34,248	5,060	17.3
Services	165,128	10,835	7.0
Public administration	21,099	1,197	6.0

Source: WAI analysis of BLS ES-202 data obtained from Alabama Department of Industrial Relations website <http://www2.dir.state.al.us/aclmisdirect.asp>.

The number of manufacturing plants declined along with manufacturing jobs. From 1995-2000, manufacturing suffered a net loss of eight of its 1,259 plants in the metropolitan area. Of these eight net losses, one was an iron or steel foundry. There were 18 iron and steel foundries in the area in 2000.

Metropolitan Birmingham’s average weekly wage in 2000 was \$658 (in 2001 dollars), well above the statewide average weekly wage of \$575. The industries with the highest wages in 2000 were mining, transportation/communication/utilities, finance/insurance/real estate, wholesale trade, and manufacturing (table 10). The average weekly wage in every major industry in the metropolitan area was higher than the statewide average weekly wage in that industry. In all major industries except manufacturing, services, and public administration, the region’s average wage is also higher than that of any other large metropolitan area in the state. The region’s average manufacturing wage, \$729 per week, was well above the statewide manufacturing average of \$665 per week. Its average weekly wage in iron and steel foundries was even higher, \$1,022, well above the statewide average of \$861 for iron and steel foundries.

From 1995-2000, the region’s average weekly wage increased by 40.1 percent, which was slightly more than the 37.3 percent increase in the statewide average during that period. The greatest percentage wage growth occurred in mining and construction, the smallest in wholesale trade and agriculture. The region’s manufacturing average wage increased by 43.3 percent, more than the percentage increase in the region’s overall average wage and slightly more than the 42.1 percent increase in the statewide manufacturing average.

Table 10. Average Weekly Wages in Major Industries and Selected Key Industries in Metropolitan Birmingham, 1995-2000 (2001 dollars)

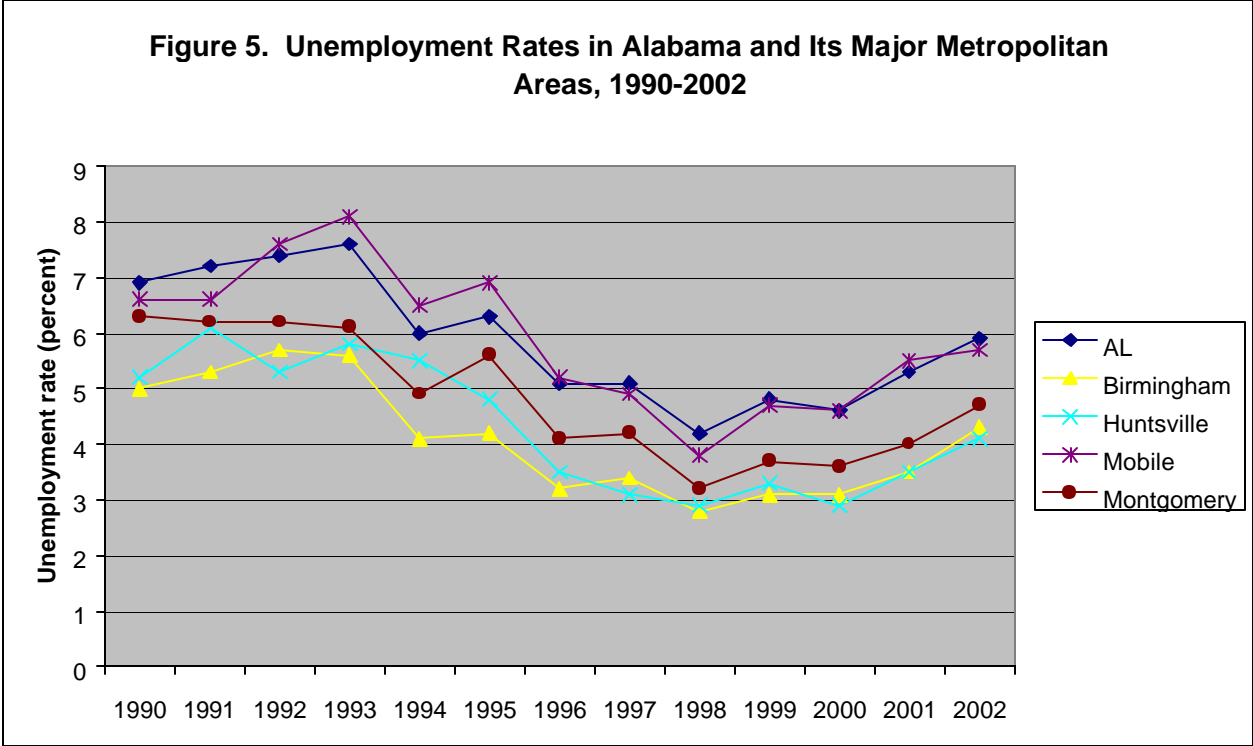
	1995	2000	Percent change 1995-2000
All industries	469	658	40.1
Agriculture	318	433	35.9
Mining	859	1,248	45.2
Construction	460	668	45.2
Manufacturing	509	729	43.3
Iron & steel foundries	634	1,022	61.1
Transportation, communication, utilities	685	957	39.7
Telephone	NA	1,131	NA
Wholesale trade	600	814	35.7
Retail trade	247	351	42.0
Finance, insurance, real estate	580	864	49.0
Services	459	642	39.9
Public administration	498	697	39.9

NA=not available.

Source: WAI analysis of BLS ES-202 data obtained from Alabama Department of Industrial Relations website <http://www2.dir.state.al.us/acImisdirect.asp>.

The region’s average weekly wage in iron and steel foundries rose from \$634 in 1995 to \$1,022 in 2000, a 61.1 percent increase. (Statewide, the average in iron and steel foundries increased by 55 percent during that period.)

The region’s unemployment rate was well below the statewide rate from 1990-2001 and below 5 percent from 1993-2002 (figure 5). For most of the early 1990s, metropolitan Birmingham had the lowest unemployment rate of any major metropolitan area in the state. In the late 1990s, its unemployment rate was similar to that of the Huntsville area and below that of the other two major metropolitan areas.



Source: BLS Local Area Unemployment Statistics.

The Birmingham metropolitan area has been hurt by the recession and is still suffering from its continuing impact, but the region’s unemployment rate remains relatively low. During the last two years, BLS data show that the metropolitan area’s unemployment rate (not seasonally adjusted) went from 2.4 percent in December 2000 to 3.8 percent in December 2001 to 4.3 percent in December 2002, the latest month for which data were available when this report was written. The continuing increase in the unemployment rate suggests that the metropolitan area has not yet begun to recover from the effects of the recession.

Metropolitan Huntsville: Prosperity Threatened by Job Losses in Manufacturing and Government

Metropolitan Huntsville (including Limestone and Madison counties) had 175,723 jobs in 2000, the third-largest number of jobs of any Alabama metropolitan area. The region’s overall wages are higher than those of other major metropolitan areas in the state, but its prosperity may be

fragile because that prosperity depends heavily on a few sectors that are losing jobs. Those industries—manufacturing (including the key aerospace industry) and public administration—are the only ones that both pay high wages and are of major economic importance to the region. Job losses in these industries, if not reversed, could reverse the region’s economic fortunes.

The region’s industrial composition differs considerably from that of Alabama as a whole. Compared to the entire state, the Huntsville area in 2001 had:

- a lower percentage of its jobs in construction (3.6 percent in metropolitan Huntsville, compared with 5.6 percent in all of Alabama),
- about the same percentage of its jobs in manufacturing (20.2 percent in metropolitan Huntsville, 20.3 percent statewide),
- a lower percentage of its jobs in transportation/communication/utilities (4.1 percent in metropolitan Huntsville, 6.0 percent statewide),
- a lower percentage of its jobs in wholesale trade (3.4 percent in metropolitan Huntsville, 4.2 percent statewide),
- a lower percentage of its jobs in finance/insurance/real estate (3.0 percent in metropolitan Huntsville, 4.7 percent statewide),
- a higher percentage of its jobs in services (37.3 percent in metropolitan Huntsville, 32.9 percent statewide) and
- a higher percentage of its jobs in public administration (9.7 percent in metropolitan Huntsville, 6.1 percent statewide),

Major industries with location quotients greater than 1 were public administration (location quotient 1.81) and manufacturing (1.42). Within manufacturing, guided missiles/space vehicles/parts (part of the aerospace industry, which we have identified as a key industry for Alabama) had a location quotient of 33.83 in the region, which indicates its extreme importance to the metropolitan area.

The Huntsville area gained nearly 15,000 jobs (almost 16 percent of all jobs gained in the state) between 1995 and 2000 (table 11). Its job growth rate during that period, 9.2 percent, exceeded the state’s 5.3 percent job growth rate and was the highest among Alabama’s major metropolitan areas. The fastest-growing industries were services, agriculture, construction, finance/insurance/real estate; the industries adding the most jobs were services and retail trade.

However, manufacturing lost more than 2,500 jobs (6.6 percent of its manufacturing jobs) from 1995-2000, more than any other major industry. Mining suffered a greater percentage loss but lost far fewer jobs than manufacturing. The large public administration sector also lost jobs.

Within manufacturing, guided missiles/space vehicles/parts lost 711 jobs (15.3 percent of their jobs) during this period, bringing their 2000 employment level to 3,926 jobs. Those 3,926 jobs accounted for 11 percent of all manufacturing jobs in the region in 2000.

Table 11. Employment in 2000 and Employment Change 1995-2000 in Major Industries and Selected Key Industries in Metropolitan Huntsville

	Employment in 2000	Change 1995-2000	Percent change
Total, all industries	175,723	14,816	9.2
Agriculture	1,798	253	16.4
Mining	60	-39	-39.4
Construction	6,268	883	16.4
Manufacturing	35,531	-2,518	-6.6
Guided missiles, space vehicles, parts	4,637	3,926	-15.3
Transportation, communication, utilities	7,244	896	14.1
Wholesale trade	5,974	48	0.8
Retail trade	30,957	4,231	15.8
Finance, insurance, real estate	5,246	735	16.3
Services	65,550	9,688	17.3
Public administration	17,095	-906	-5.0

Source: WAI analysis of BLS ES-202 data obtained from Alabama Department of Industrial Relations website <http://www2.dir.state.al.us/aclmisdirect.asp>.

From 1995-2000, the number of manufacturing plants in the region actually increased by 25, from 428 to 453, even as the number of manufacturing jobs fell. The number of guided missile/space vehicle/parts plants remained unchanged at 22.

Metropolitan Huntsville's average weekly wage in 2000 was \$702 (in 2001 dollars), the highest in any of the state's four major metropolitan areas and well above the statewide average weekly wage of \$575. However, the region depends heavily on its relatively large but declining manufacturing and public administration sectors for its high overall average wage. The industries with the highest wages in 2000 were public administration, manufacturing, wholesale trade, and mining (table 12). However, only in manufacturing, public administration, wholesale trade, and services was the average weekly wage in the metropolitan area higher than the statewide average weekly wage in that industry. The region's average manufacturing wage, \$915 per week, was well above the statewide manufacturing average of \$665 per week. Its average weekly wage in guided missiles/space vehicles/parts was even higher, \$1,161, slightly higher than the statewide average of \$1,145 for that industry.

From 1995-2000, the region's average weekly wage increased by 31.2 percent, which was less than the 37.3 percent increase in the statewide average during that period. The greatest percentage wage growth occurred in mining and wholesale trade, the smallest in transportation/communication/utilities and public administration. The region's manufacturing

average wage increased by 37.5 percent, more than the percentage increase in the region’s overall average wage but less than the 42.1 percent increase in the statewide manufacturing average. The region’s average weekly wage in guided missiles/space vehicles/parts rose from \$803 in 1995 to \$1,161 in 2000, a 44.3 percent increase. (Statewide, the average wage in guided missiles/space vehicles/parts increased by 55 percent during that period.)

Table 12. Average Weekly Wages in Major Industries and Selected Key Industries in Metropolitan Huntsville, 1995-2000 (2001 dollars)

	1995	2000	Percent change 1995-2000
All industries	535	702	31.2
Agriculture	264	382	44.8
Mining	421	808	91.9
Construction	359	522	45.6
Manufacturing	666	915	37.5
Guided missiles, space vehicles, parts	803	1,161	44.3
Transportation, communication, utilities	660	687	4.1
Wholesale trade	574	869	51.2
Retail trade	228	309	35.5
Finance, insurance, real estate	450	659	46.5
Services	502	705	40.5
Public administration	833	1,055	26.6

Source: WAI analysis of BLS ES-202 data obtained from Alabama Department of Industrial Relations website <http://www2.dir.state.al.us/aclmisdirect.asp>.

The region’s unemployment rate was below the statewide rate from 1990-2002 and below 5 percent from 1995-2002 (figure 5). For most of the early 1990s, metropolitan Huntsville had the second-lowest unemployment rate of any major metropolitan area in the state. In the late 1990s, its unemployment rate was similar to that of the Birmingham area and below that of the other two major metropolitan areas.

The Huntsville metropolitan area has been hurt by the recession and is still suffering from its continuing impact, but the region’s unemployment rate remains relatively low and is below that of Alabama’s other major metropolitan areas. During the last two years, BLS data show that the metropolitan area’s unemployment rate (not seasonally adjusted) went from 2.4 percent in December 2000 to 4 percent in December 2001 to 4.1 percent in December 2002, the latest month for which data were available when this report was written. The continuing increase in the unemployment rate suggests that the metropolitan area has not yet begun to recover from the effects of the recession.

Metropolitan Mobile: Low-Wage Growth

Metropolitan Mobile (including Baldwin and Mobile counties) had 218,508 jobs in 2000, the second-largest number of jobs of any Alabama metropolitan area. The region’s overall wages are below those of the state as a whole, and its growth seems to be based mainly on low-wage

jobs. The only major industry that is growing, pays high-wages (compared to other industries in the region) and is of major economic importance to the local economy is transportation/communication/utilities. Portions of manufacturing, notably transportation equipment (a growing industry) and paper—also pay high wages and are economically significant regionally. However, manufacturing as a whole is losing jobs. The metropolitan area's generally low-wage growth pattern underscores the need to preserve the high-wage jobs that remain.

The region's industrial composition differs considerably from that of Alabama as a whole. Compared to the entire state, the Mobile area in 2001 had:

- a higher percentage of its jobs in construction (7.4 percent in metropolitan Mobile, compared with 5.6 percent in all of Alabama),
- a much lower percentage of its jobs in manufacturing (11.7 percent in metropolitan Mobile, 19.3 percent statewide),
- a higher percentage of its jobs in retail trade (21.1 percent in metropolitan Mobile, 18.6 percent statewide),
- a higher percentage of its jobs in services (36.5 percent in metropolitan Mobile, 32.9 percent statewide) and
- a lower percentage of its jobs in public administration (4.5 percent in metropolitan Mobile, 6.1 percent statewide).

Major industries with location quotients greater than 1 were construction (location quotient 1.41), retail trade (1.17), and transportation/communication/utilities (1.10). Although manufacturing as a whole had a location quotient less than 1 in Mobile, the paper industry had a location quotient of 2.70 and the transportation equipment industry (within which are the auto parts and aerospace industries, which we have identified as key industries for Alabama), had a location quotient of 1.10 in the region, which indicates their importance to the metropolitan area.

The Mobile area gained more than 17,000 jobs (almost 19 percent of all jobs gained in the state) between 1995 and 2000 (table 13). Its job growth rate during that period, 8.7 percent, exceeded the state's 5.3 percent job growth rate. The fastest-growing industries were mining, construction, agriculture, and services; the industries adding the most jobs were services, retail trade, and construction.

Manufacturing was the only major industry to lose jobs. Manufacturing in metropolitan Mobile lost 1,700 jobs (6.3 percent of the region's manufacturing jobs) from 1995-2000.

Within manufacturing, transportation equipment gained 391 jobs (12.5 percent of their jobs) during this period, bringing their 2000 employment level to 3,511 jobs. Those 3,511 jobs accounted for 13.8 percent of all manufacturing jobs in the region in 2000. The paper industry had 2,975 jobs (11.7 percent of all manufacturing jobs in the region) in 2000, but data are not

available to enable us to determine what happened to the number of paper manufacturing jobs in the late 1990s.

Table 13. Employment in 2000 and Employment Change 1995-2000 in Major Industries and Selected Key Industries in Metropolitan Mobile

	Employment in 2000	Change 1995-2000	Percent change
Total, all industries	218508	17527	8.7
Agriculture	3188	386	13.8
Mining	647	115	21.6
Construction	16215	2542	18.6
Manufacturing	25495	-1700	-6.3
Paper	2975	NA	NA
Transportation equipment	3120	391	12.5
Transportation, communication, utilities	15199	425	2.9
Wholesale trade	11986	202	1.7
Retail trade	46190	2897	6.7
Finance, insurance, real estate	9985	1014	11.3
Services	79742	8593	12.1
Public administration	9862	252	2.6

NA=not available.

Source: WAI analysis of BLS ES-202 data obtained from Alabama Department of Industrial Relations website <http://www2.dir.state.al.us/aclmisdirect.asp>.

The number of manufacturing plants in the region declined along with the number of manufacturing jobs. From 1995-2000, the number of manufacturing plants in the region fell by 35, from 698 to 663. The number of transportation equipment plants fell by 14, from 84 to 70, even as the number of transportation equipment jobs rose. The region had 12 paper manufacturing plants in 2000, but data are not available to enable us to determine what happened to the number of paper manufacturing plants from 1995-2000.

Metropolitan Mobile is a relatively low-wage region, although not in manufacturing. The area's average weekly wage in 2000 was \$540 (in 2001 dollars), below the statewide average weekly wage of \$575. The industries with the highest wages in 2000 were mining, manufacturing, transportation/communication/utilities, finance/insurance/real estate, and wholesale trade (table 14). The average weekly wage in every major industry in the metropolitan area except for manufacturing and retail trade was below than the statewide average weekly wage in that industry. The region's average manufacturing wage, \$757 per week, was above the statewide manufacturing average of \$665 per week. Its average weekly wage in transportation equipment was similar, \$752, below the statewide average of \$873 for transportation equipment. The paper industry in the Mobile area paid a much higher average weekly wage, \$1,121, which exceeded the statewide average of \$1,069 for that industry.

From 1995-2000, the region’s average weekly wage increased by 34.1 percent, which was less than the 37.3 percent increase in the statewide average during that period. The greatest percentage wage growth occurred in mining and finance/insurance/real estate, the smallest in public administration. The region’s manufacturing average wage increased by 33 percent, slightly below the percentage increase in the region’s overall average wage and well below the 42.1 percent increase in the statewide manufacturing average. The region’s average weekly wage in transportation equipment rose from \$477 in 1995 to \$752 in 2000, a 57.9 percent increase. (Statewide, the average wage in transportation equipment increased by 43.2 percent during that period.)

Table 14. Average Weekly Wages in Major Industries and Selected Key Industries in Metropolitan Mobile, 1995-2000 (2001 dollars)

	1995	2000	Percent change 1995-2000
All industries	403	540	34.1
Agriculture	273	375	37.2
Mining	516	1,016	97.0
Construction	411	574	39.7
Manufacturing	569	757	33.0
Paper	NA	1121	NA
Transportation Equipment	477	752	57.9
Wholesale trade	476	649	36.2
Retail trade	234	316	34.8
Finance, insurance, real estate	458	656	43.2
Services	389	528	35.9
Public administration	478	600	25.7

NA=not available.

Source: WAI analysis of BLS ES-202 data obtained from Alabama Department of Industrial Relations website <http://www2.dir.state.al.us/aclmisdirect.asp>.

In recent years, the region’s unemployment rate has been the highest of any major metropolitan area in the state. It exceeded 5 percent during all of the 1990s except 1997-2000 and was above 6 percent from 1990-93. It was above the statewide rate from 1992-96 and again in 2001 and 2002; during the rest of the 1990s it was generally only slightly below the statewide rate (figure 5).

The recession hit the Mobile metropolitan area harder than it hit any other major metropolitan area in the state. During the last two years, BLS data show that the region’s unemployment rate (not seasonally adjusted) went from 3.7 percent in December 2000 to 5.7 percent in both December 2001 and December 2002, the latest month for which data were available when this report was written.

Metropolitan Montgomery: Government and Financial Services Anchor a Mostly Low-Wage Region

Metropolitan Montgomery (including Autauga, Elmore, and Montgomery counties) had 156,452 jobs in 2000, the fourth-largest number of jobs of any Alabama metropolitan area. The region's overall wages are below those of the state as a whole. Public administration and finance/insurance/real estate are the only major industries that both pay high-wages and are of major economic importance to the local economy.

The region's industrial composition differs considerably from that of Alabama as a whole in a few major industries. Compared to the entire state, the Montgomery area in 2001 had:

- a much lower percentage of its jobs in manufacturing (11.6 percent in metropolitan Montgomery, compared with 19.3 percent in all of Alabama),
- a higher percentage of its jobs in finance/insurance/real estate (6.5 percent in metropolitan Montgomery, 4.7 percent statewide), and
- reflecting its role as the state capital, a much higher percentage of its jobs in public administration (13.4 percent in metropolitan Montgomery, 6.1 percent statewide).

Major industries with location quotients greater than 1 were public administration (location quotient 2.50), finance/insurance/real estate (1.12), and retail trade (1.05). None of the key industries we identified had a location quotient greater than 1.

The Montgomery area gained more than 11,000 jobs (almost 12 percent of all jobs gained in the state) between 1995 and 2000 (table 15). Its job growth rate during that period, 7.7 percent, exceeded the state's 5.3 percent job growth rate. The fastest-growing industries were finance/insurance/real estate, agriculture, transportation/communication/utilities and mining; the industries adding the most jobs were services, finance/insurance/real estate and retail trade.

Manufacturing lost jobs but was less hard-hit than in other parts of the state. Manufacturing suffered a net loss of 250 jobs (1.4 percent of its manufacturing jobs) from 1995-2000. This was the largest percentage job loss of any major industry in the region, but the percentage was much smaller than the percentage of manufacturing jobs lost statewide or in any of the other three major metropolitan areas we examined. Moreover, public administration lost more jobs than manufacturing in the Montgomery area. Wholesale trade had a small job loss.

The number of manufacturing plants in the region declined along with the number of manufacturing jobs. From 1995-2000, the number of manufacturing plants in the region fell by 8, from 384 to 376. The available data do not permit us to determine what happened to the number of jobs or establishments in any key manufacturing industry between 1995 and 2000.

Metropolitan Montgomery is a relatively low-wage region. The area's average weekly wage in 2000 was \$556 (in 2001 dollars), below the statewide average weekly wage of \$575. The

industries with the highest wages in 2000 were finance/insurance/real estate, public administration, transportation/communication/utilities, and wholesale trade (table 16). The

Table 15. Employment in 2000 and Employment Change 1995-2000 in Major Industries in Metropolitan Montgomery

	Employment in 2000	Change 1995-2000	Percent change
Total, all industries	156,452	11,158	7.7
Agriculture	1,692	265	18.6
Mining	180	20	12.5
Construction	7,799	589	8.2
Manufacturing	18,218	-250	-1.4
Transportation, communication, utilities	8,529	1,017	13.5
Wholesale trade	7,724	-24	-0.3
Retail trade	29,656	1,728	6.2
Finance, insurance, real estate	10,166	1,917	23.2
Services	51,486	4,753	10.2
Public administration	21,004	-282	-1.3

Source: WAI analysis of BLS ES-202 data obtained from Alabama Department of Industrial Relations website <http://www2.dir.state.al.us/acImisdirect.asp>.

average weekly wage in every major industry in the metropolitan area except for retail trade, finance/insurance/real estate, and public administration was below the statewide average weekly wage in that industry. The region’s average manufacturing wage, \$632 per week, was slightly below the statewide manufacturing average of \$665 per week. The key auto parts manufacturing industry is in a larger industry, transportation equipment, whose 1995 average wages was below the 1995 manufacturing average for metropolitan Montgomery and below the statewide averages for that industry.

For most of the early 1990s, metropolitan Montgomery had the second-highest unemployment rate of any major metropolitan area in the state. Nevertheless, the region’s unemployment rate was below the statewide rate from 1990-2001 and below 5 percent in 1994 and from 1996-2002 (figure 5). It stayed below 5 percent for most of 2002, but hit 5 percent and 5.1 percent respectively in October and November.

The Montgomery metropolitan area has been hurt by the recession and is still suffering from its continuing impact. During the last two years, BLS data show that the metropolitan area’s unemployment rate (not seasonally adjusted) went from 3.1 percent in 2000 to 4.3 percent in December 2001 to 4.6 percent in December 2002, the latest month for which data were available when this report was written. The continuing increase in the unemployment rate suggests that the metropolitan area has not yet begun to recover from the effects of the recession.

Table 16. Average Weekly Wages in Major Industries in Metropolitan Montgomery, 1995-2000 (2001 dollars)

	1995	2000	Percent change 1995-2000
All industries	409	556	35.8
Agriculture	272	405	48.8
Mining	394	562	42.5
Construction	369	530	43.7
Manufacturing	448	632	41.3
Transportation, communication, utilities	496	666	34.3
Wholesale trade	479	665	38.9
Retail trade	233	311	33.7
Finance, insurance, real estate	534	759	42.0
Services	411	542	31.9
Public administration	518	712	37.5

Source: WAI analysis of BLS ES-202 data obtained from Alabama Department of Industrial Relations website <http://www2.dir.state.al.us/aclmisdirect.asp>.

Key Industries in Alabama

The public policy recommendations in this report are designed to help Alabama retain high-wage jobs in key manufacturing industries. Manufacturing has long been a source of good jobs for Alabama workers without college educations. Although Alabama manufacturing overall pays slightly less than the state median wage, the manufacturing subsectors that are important to the state’s major metropolitan areas pay well above the average wage.

The issues on which this section focuses are more relevant to economic development policy than to workforce development policy. Management and union representatives in the state’s key manufacturing industries told us that workforce training and recruitment were low priorities for them at this time. Through the course of our interviews, it became clear that the need for traditional workforce development interventions was not as pressing as the need for economic development strategies.

Training was a low priority in many business establishments because the workforce had long tenures and a great deal of experience, and the production process had not changed enough to warrant in-depth retraining. Other employers told us that because of the loose labor market, there were many highly skilled workers available and they were able to hire employees with higher qualifications. One employer explained that the company’s primary strategy for increasing the skill of its workforce was to recruit new employees with higher levels of education than those in the current workforce. Workers at another firm reported that they already received training and education benefits as part of a national collective bargaining agreement, although this training is not necessarily directed at advancement within the firm.

Labor market conditions also made recruitment a low priority. For most employers we interviewed, recruitment was not a problem because they were not hiring. Other employers

stated that they had long waiting lists of applicants for job openings. One employer told us that the company had over two hundred applications on file. In unionized firms that had experienced layoffs, collective bargaining agreements specified that laid-off workers had recall rights, creating a ready pool of experienced labor.

The one exception to the idea that workforce development policy and program is not important to manufacturing in Alabama at this time is the need for more and better dislocated worker programs to serve the large numbers of laid-off manufacturing workers. Although many of the plants where we conducted interviews had downsized through retirement or attrition, dislocated worker programs are still needed. As workforce practitioners in the state know, mass dislocations (layoffs of more than 50 employees) are very much a reality in this manufacturing recession.

This section focuses on issues where state economic development policy can intervene to make companies more competitive and preserve high-quality jobs in the state for those with less than college degrees. Employers, unions, communities, and public agencies can work together on these issues to put Alabama on a better footing to compete in domestic and international markets.

Identifying Key Industries

Our descriptions of key industries are based on both ES-202 data and interviews with union and/or management representatives at 12 firms in six different industries. We also relied on secondary sources, including academic and industry periodicals.

We selected key industries on the basis of two criteria. First the industry had to pay wages higher than the Workforce Investment Boards' adopted self-sufficiency standard, which we estimate at about \$563 per week for a family of three.¹ Second, we chose sectors in which Alabama's major metropolitan areas enjoyed some kind of competitive advantage over other regions, as measured by location quotients. Once we determined the industries, we interviewed at least one labor or management representative from the industry who helped to explain some of the industry's product and labor market trends. Table 17 shows the industries that we identified.

Paper Industry

Alabama has long been one of the centers of papermaking for the United States. The statewide average wage of \$1,040 in the industry is well above the statewide average for all industries, at \$575 dollars. In Mobile, where the industry is especially important, the average wage in the industry is \$1,121, compared to \$540 for the metropolitan area overall. Union representatives and managers in unionized firms told us that employees at their firms had health benefits, pensions and other employee benefits. In addition, the establishments we visited were characterized by low turnover and an average worker age of between 47 and 48 years old.

Table 17. Key Industries in Alabama

Industry	Region where the industry is important	Average Weekly Wage in Region, 2000 (in 2001 dollars)	Location Quotient in Region, 2000
Paper	Mobile	\$1,121	2.11
Automotive	Statewide	\$890	1.02
Tires and Inner Tubes	Statewide	\$950	6.68
Aerospace (Guided Missiles, Space Vehicles, Parts)	Huntsville	\$1,193	33.83
Iron and Steel Foundries	Birmingham	\$1,051	11.48
Non-Ferrous Metal Manufacturing	Huntsville	\$737	1.69

Source: WAI analysis of BLS ES-202 data obtained from Alabama Department of Industrial Relations website <http://www2.dir.state.al.us/aclmisdirect.asp>.

From 1993 to 2000, however, the industry was steadily losing jobs. In 1993, there were 21,821 workers employed in 150 firms in Alabama’s paper and allied products industry. By 2000, the number had dropped to 18,939 employees in 130 firms. This meant the loss of nearly three thousand good jobs to the state.

Since the beginning of the recession, this trend has continued. Between December 2000, just before the recession started, and December 2002, employment in the paper sector dropped by 2,100 jobs. Managers and union officials at one plant explained that when the economy slows, paper, particularly cardboard, is one of the first industries affected because shipments requiring packaging that the industry produces decline.

The industry, however, was steadily losing jobs over the course of the economic boom of the mid- and late-1990s. This suggests that other forces have been at work to cause the loss of jobs. Those factors may have included outsourcing and the declining ability of plants in Alabama to hold their own against domestic and international competitors.

Outsourcing Practices Have Contributed to the Decline of Jobs in the Sector

Following a trend common in manufacturing, paper companies in Alabama have been outsourcing important parts of the papermaking process. In much of manufacturing, foreign competition has increased since the 1970s. To compete with foreign firms entering the United States market, firms had to be able to get products to customers faster and at lower costs. Outsourcing allows the companies to shed assets in hopes of achieving this goal by becoming more flexible. It also allows them to refocus capital toward higher value-added products that may allow them to secure premium prices.

Companies that we interviewed confirmed this trend and the motivations behind it. One establishment we visited informed us that it had closed its pulp mill and was now importing pulp from outside the country. The costs associated with operating the plant, particularly energy

costs, were greater than the costs of purchasing and transporting pulp processed in Canada. Representatives from another paper company reported that their plant had closed its paper mill because the company changed product lines. The company wanted to focus its operations on higher end products for commercial companies. The products required a different kind of wood than the southern pine that the mill could most readily process. The company began to bring in stock from other facilities and turned the plant toward finishing processes. Therefore, it became more cost-effective for the company to shed its pulp operation and rely on other firms to produce that input.

Domestic Competitors, Including Other Plants in the Same Company, Challenge Alabama's Paper Plants; Low-Cost Foreign Competitors Are Also a Challenge

Most of the respondents pointed to domestic competition as more intense than international competition, although many pointed to Canada as the chief international competitor. Because of the national character of most paper companies, the most intense competition for Alabama plants often comes from other plants within the company. Many respondents identified other plants in the same company, including plants in the south, that were now performing work they had previously done. Sometimes this move was based strictly on labor costs, but in many cases the plants receiving work were technologically more advanced and could handle the process more efficiently.

Although our interviewees pointed to domestic pressures, one respondent also emphasized pressures from international trade. He described a number of recent layoffs due to the importation of pulp from Indonesia and Brazil, in particular. He noted that the price of a ton of pulp produced in the United States costs approximately \$800, as opposed to \$300 from those countries. He also noted that the larger paper companies own mills overseas and force their domestic operations to compete with their foreign ones.

Paper mills, a subsector that pays an average weekly wage of \$1,267, have experienced a loss of nearly 4,000 jobs from the state between 1993 and 2000. The state lost two of its six pulp mills as well. State economic development policy aimed at making plants more efficient could help Alabama's plant compete more effectively against plants elsewhere, including against plants in the same company. A program that supported technological innovation and improved efficiency would help to undercut the technological advantage of other plants that produce the same product.

Investing in Energy Efficiency Can Reduce Environmental Compliance Costs

Much of the paper industry produces its own energy to power its mills. In Alabama, we found plants that used only coal. These plants have made major investments in complying with clean water and clean air regulations. These expenditures have come mostly in the form of capital investments in new technologies for processing the coal. It was the opinion of one union representative that the costs of environmental compliance are probably more of a problem for the smaller companies than for the larger ones. He stated that most of the larger companies have complied.

The costs of energy production can be reduced by providing incentives for firms to make changes to power generation practices. At many plants throughout the nation, power is generated from a mix of coals and wood scrap from the mills, and byproducts of the papermaking process such as black liquors. These “biomass” fuels make the plant more energy-efficient and reduce carbon emissions from energy generation. Producing energy in this way is more efficient because it utilizes waste from the papermaking process and reduces the need to rely on technology to make coal generation cleaner. Paper facilities can often become net energy generators, supplying clean power back to the public power grid. Public policies should support new investment to spread this practice, thereby improving both environmental and industrial performance.

Substantial improvements in the environmental performance of industrial boilers can often be made through changes in operation and maintenance procedures to improve energy efficiency and reduce combustion byproducts. Economic development incentives should be used to encourage new investment in existing facilities and the skills of current workers, not only to attract new facilities. Incentives such as the accelerated depreciation of capital investments or workforce training for environmental management and efficient facility operations can reduce the costs of environmental compliance. Increasing investment in efficient operations and facility retrofits can also raise labor productivity.

Automotive and Automotive Supply (Tiremaking)

The automotive industry is a growing industry in Alabama. In 2000, the state employed 14,931 in the motor vehicles and equipment industry, which has added more than 3,000 jobs since 1993. The industry at the state level pays an average weekly wage of \$890, up 50 percent from 1993.

Smaller Firms, More Suppliers

Nationwide, the automotive industry has been undergoing widespread restructuring. Auto assembly plants that produce fewer parts on-site have replaced the large, vertically integrated firms of the postwar period. Increasingly auto assemblers are purchasing not only parts but also sub-assemblies that are simply integrated at the assembler’s plant. This shift has been motivated in part by increased competition in domestic markets from foreign automakers. The entry of new competitors in the 1970s upset the relatively stable markets enjoyed by American auto producers in the postwar period. The new competitive conditions required that firms be more flexible in responding to market demand by producing a wider variety of products to meet consumer tastes that were more diverse and changed more rapidly. To achieve this flexibility, assembly firms trimmed assets and increasingly relied on other firms for major parts of the production process. This change shifted employment away from large firms and toward smaller and more numerous suppliers.

In the late 1990s, Alabama undertook an aggressive program to recruit auto assembly plants to the state, particularly plants owned by foreign automakers. Part of the motivation was the belief that a large assembly plant would also bring with it suppliers, who would provide equally good jobs. As described later, this program involved a menu of state subsidies designed to lower the costs of manufacturers who wanted to open new plants.

Increased Competition From Foreign Firms Led Alabama Tire Suppliers to Make Specialized Products

Data are not available to examine trends in a number of key auto supply sectors in the state to see whether the state's gamble paid off. However, we examined tiremaking in the state, for which data were available. This sector may provide key insights into the business pressures facing other auto parts suppliers.

Alabama's location quotient in the tires and inner tubes industry is 6.68, an extremely high ratio that indicates industry's important position in the state's economy. The average wage in 2000 was \$950 (2001 dollars) per week, a wage well above the state average for all industries. The number of tire-producing establishments in the state grew from 10 to 14 between 1993 and 2000. At the same time, the number of employees in the industry dropped by more than 1,800. This is consistent with an industrywide trend toward smaller plants.

The tire industry is a competitive one, with both international and domestic competition. The industry went through a period of restructuring in the 1980s and 1990s and has seen a increase in imports, which created more competition for domestic tire-makers. The effects of imports have led Alabama tire makers to move from the basic, cheaper car tire to specialty tires. Because domestic plants cannot compete with foreign firms making low-end tires, they have switched to light truck and high-performance truck tires and racing tires.

As in the paper industry, respondents described competition from other plants in the same firm as a major factor in job loss at the Alabama plants. They explained that they had lost business to other plants in the company in New York, Texas, Tennessee, and Quebec. Some of this can be explained by the company's interest in making excess capacity productive in expensive areas such as New York and Quebec, but much is due to the lower costs of producing in Texas and Tennessee. At present, Alabama plants function as "overflow" producers rather than primary producers for high-end tires. Their costs are too high to enable them to compete in the low-end tire market.

Aerospace Industry

As demonstrated by its extremely high location quotient in Huntsville of 33.83, the guided missiles, space vehicles and parts industry holds a unique advantage for the state of Alabama. In Alabama, the sector is driven almost entirely by contracting to the United States Department of Defense and NASA. Its most recent projects included the Delta IV Rocket and projects for the International Space Station. The industry is anchored by the presence of the Army's Redstone Arsenal and NASA's Marshall Space Flight Center.

The Huntsville-area industry is one of the oldest in the nation, dating back more than forty years. The region has built up a unique cluster of firms that complement each other's work, providing mutual advantage for both military and scientific pursuits. Several research and design operations operated by the Army and NASA have attracted numerous contractors. The industry

has also specialized in technologies that are important to new defense initiatives, such as missile-to-missile interception, a technology first tested in Huntsville.²

Alabama Aerospace Industry Has Advantages in Military Production

The industry is still relatively sheltered from international competition by virtue of its tight connection to United States national security. This connection, however, means that the industry's survival in the region depends almost entirely on its ability to win government contracts in competition with other areas of the country.

While the rest of the aerospace industry, particularly commercial airplanes, goes through turbulent times, the defense side of the sector appears to be set to grow. This is largely due to the heavy focus of American defense policy on air- and space-based defense strategies. The successful launch of the Delta IV rocket in November 2002 also solidified Huntsville's position in producing other rocket-driven aircraft and satellite delivery systems. It increases the likelihood that Boeing's Huntsville business will remain in operation to produce more Delta IV rockets.

Possible Base Closures Reveal Vulnerabilities of Military As Sole Customer

Even with regional advantage and an apparent track record of success, the Huntsville industry is vulnerable because of its heavy reliance on government contracts.

The U.S. Department of Defense has identified the Redstone Arsenal as a base under review in the Army Base Realignment and Closure (BRAC) process, next slated to take place in 2005. Closure would be devastating to the industry because much of the work done in the industry supports the missile programs at the base. However, the BRAC process is potentially a boon for the local industry; the last time the process was conducted, a number of new functions were moved to the base.³

The Delta IV rocket test generated a great deal of anxiety for the Huntsville Boeing plant. Its failure would have almost certainly guaranteed the loss of future contracts to build Delta IV rockets. Additionally, nearly all of the original commercial customers for the rocket, mostly satellite phone and Internet companies, have either filed for bankruptcy or suspended plans for launching more satellites. This development leaves the military as the only potential customer for the rocket, which is designed to deliver satellites into space. In this market, Boeing faces stiff competition from other defense contractors.⁴

Steel Industry

In 1988, the steel industry in Alabama employed 11,171 workers. By 2000, that number had dropped to 8,992, a loss of 2,179 jobs. The Birmingham metropolitan area took the brunt of the hit, seeing local employment in the industry fall by 2,445 jobs, a number greater than the state's total steel-industry job loss during that same period. This has translated into the disappearance of thousands of high-wage jobs, many of which provided necessary benefits such as health care coverage and pensions.

We focused primarily on integrated steel mills because they have been the primary type of plant in Birmingham's steel industry. Integrated mills use blast furnaces to smelt iron ore into steel. The steel product is then rolled into steel plates or rods, which are moved along to finishing processes where they are made into products for use by other industries.

Despite the decline in employment, the wages in the industry are still quite high. (See table 17). Workers at the firms we visited described labor turnover as very low. They also told us that all employees at their firms enjoyed health benefits, pensions, and, in some firms, educational benefits.

Integrated mills face competition from a number of sources, both domestic and international. In many cases, these are beyond the influence of state intervention.

Integrated Mills Are Threatened by Domestic Competition From Mini-Mills

Domestically, the introduction of mini-mills has been the major source of competitive pressure for integrated mills. In the past three decades, the introduction of mini-mills into the industry has steadily eroded the percentage of domestic demand satisfied by integrated mills. According to the Steel Manufacturers Association, mini-mills have increased their market share from 10 percent in 1970 to 55 percent by 2001.⁵ Integrated mills create steel products from iron ore, while mini-mills create steel products by reclaiming iron scrap.

Instead of using blast furnaces, mini-mills use electric arc furnaces to turn scrap into steel products. The mini-mill process is much less energy- and resource-intensive. The process relies on electricity rather than energy from coal, which makes its production process cheaper and cleaner. Mini-mills also utilize scrap, which is easier to acquire and cheaper to process than iron ore. Smelting steel product from scrap does not require the high heats required to produce it from ore. These aspects of the process create cost advantages for mini-mills.

Alabama is home to a number of mini-mills. But the newest projects are being built in Alabama regions other than Birmingham, which dilutes the concentration of Birmingham's strength in the steel industry. Although the construction of mini-mills has offset some of the Alabama steel industry's job losses, this has happened at the expense of good jobs in the Birmingham region's steel industry. Mini-mills have cut into the market for Birmingham steel and have been partially responsible for the dramatic reduction in jobs in the Birmingham area.

Both Integrated Mills and Mini-Mills Are Being Squeezed By Foreign Competition

The trade and academic press, trade associations, and unions point to international competitive pressures as the single biggest factor for the US industry's decline. Unfortunately, these forces seem to be beyond the influence of state-level interventions.

Worldwide over-capacity in the steel industry has created a situation where steel producers in every country are being forced to sell steel at prices below the cost of production. There is no mechanism for sharing the pain of shutting down plants, so competitors attempt to cut prices to

sell what they make to cover variable costs and pay down some of their fixed costs in plants. American steel producers charge that many foreign governments are subsidizing firms in their countries, enabling them to sell steel in American markets with less pain than that endured by American firms. Especially in the last five years, steel from low-cost foreign producers has flooded the domestic market.

American producers say that they are further handicapped by the strong American dollar. Many industry sources blame the strong dollar for their inability to sell products in Western Europe and Japan. The strong dollar prices them out of foreign markets, especially in the presence of low-cost rivals.

Environmental Regulation Is Costly For Integrated Mills

Integrated steel mills are energy-intensive, relying on coal for most of their energy needs. As a result, costs of complying with environmental regulations to which they are subject are often high. The steel production process discharges a wide array of air and water pollutants. Compliance with the federal Clean Air and Clean Water Acts requires that firms in the industry invest in making their production processes cleaner, reducing carbon emissions and preventing discharge of other wastes into water systems and the air. Up until now, pollution reduction has been capital-intensive and expensive for steel mills. It adds another disadvantage to domestic steel producers relative to their competitors in Eastern Europe and Asia.

In addition to pollution control measures, the industry also faces cost pressure from its energy consumption. The steel industry accounts for between 2 and 3 percent of domestic energy consumption, and 10 percent of domestic industrial energy consumption. Its primary source of energy is coal, which generates about 60 percent of the energy the industry uses. The industry's dependence on coal and coke, a by-product of coal necessary to achieve the high heat required for blast furnaces to create steel from iron, has both energy-cost and environmental implications. Because of the industry's energy-intensiveness, energy costs provide another cost disadvantage for steel producers. This disadvantage is especially large for integrated mills, whose blast furnaces use more energy than mini-mills' electric arc furnaces. In addition, the use of coal and coke produces a number of pollutants that affect air quality, including ozone and nitrogen oxide.⁶

Costs of Pensions and Health Benefits for Retirees Are Another Source of Disadvantage for Integrated Steel Mills

One of the major challenges facing the integrated steel operations, and a source of competitive advantage for both mini-mills and foreign producers, are the industry's "legacy costs." These consist mostly of pensions and retirement health benefits for the industry's thousands of retirees. Employers operating mini-mills do not offer defined-benefit pensions or retiree health benefits. Even if they were to offer these benefits, they would not be experiencing the same kind or cost pressures now because their workforces are younger. Foreign producers in many countries enjoy the support of a public health care system that relieves them of the burden of retiree health care costs. The breakdown of employer support for these benefits increases pressure on the government to provide health care for retirees.

Aluminum Industry

To describe employment in the aluminum sector, we used the four standard industrial classifications for non-ferrous metal manufacturing. Table 18 shows employment and wages for those subsectors in Alabama.

Table 18. Employment and Wages in Nonferrous Metal Manufacturing in Alabama, 1993-2000

	1993 Employment	2000 Employment	Percentage Change 1993- 2000	2000 Weekly Wage (2001 Dollars)
Primary Nonferrous Metals	170	228	34.1%	\$834
Secondary Nonferrous Metals	632	876	38.6	\$654
Nonferrous Rolling And Drawing	5,841	5,138	-12.0	\$800
Nonferrous Foundries (castings)	1,058	1,662	57.1	\$575

Source: WAI analysis of BLS ES-202 data obtained from Alabama Department of Industrial Relations website <http://www2.dir.state.al.us/aclmisdirect.asp>.

The highest-paying subsector, primary nonferrous metals, has seen moderate growth, but is the smallest sector in the industry, employing only 228 workers. It also has the smallest statewide location quotient, 0.45, a number that implies that it is not very important to the state's economy.

The other three classifications, however, are much more important. The secondary nonferrous metals subsector has the highest statewide location quotient, 3.73, but pays a lower average weekly wage, \$654. It only employed 876 people in 2000, but had added nearly 250 jobs since 1993. Firms in this subsector are primarily engaged in recovering recycled aluminum and copper and smelting them into new product.

Nonferrous rolling and drawing lost the most jobs, shedding 703 jobs from 1993 to 2000. Its relatively high location quotient of 2.00 and relatively high average weekly wage of \$800 indicate its importance to the state's economy and the quality of its jobs. It is also the largest subsector, employing 5,138 in 2000. Its 1993-2000 job losses represent about 12 percent of the employees that it employed in 1993.

The fastest growing subsector is nonferrous foundries (castings), the lowest paying of the subsectors. It added more than 600 jobs between 1993 and 2000. This subsector now employs 1,662 workers, a 57 percent increase from its 1993 employment level.

Domestic Competition Has Increased the Need to Develop New Products and Adopt New Technologies

The increasing employment in castings and the rapid movement away from the capital-intensive processes of rolling suggest a shift in the industry toward finishing and higher value-added

products that can draw a premium from customers. According to industry representatives, however, the decline in employment in the rolling and drawing subsector may reflect the use of new technologies and production processes. The new technologies have made the process more productive. Because the product market is not growing this means that fewer workers are required. Management at one firm suggested that this change had now stabilized and his company was now planning to add employees.

Representatives of the firm we visited emphasized that they had turned toward creating value in their rolling and finishing processes to compete with other domestic firms. The establishment we visited had developed a new rolling process that allowed it to put out a product to be used as a finished good in automotive production.

This kind of shift can improve the competitive position of a firm. The shift toward specialty products away from simple commodity production allows firms to distinguish themselves in the market. Some finishing also replaces operations that would be performed by the customer. This savings adds to the attractiveness of the product. The distinctiveness of its products allows the firm to draw higher prices than its competitors because its competitors do not have the ability to perform the finishing operation on the product.

International Competition Possibly Less of a Factor for Aluminum Producers

An industry representative to whom we spoke said that his firm felt little pressure from international competition. He felt that the size and weight of aluminum that it was producing made transportation costs to import aluminum prohibitively expensive. He also mentioned that in the face of the weakening dollar relative to the Euro, the firm had begun to receive interest from European firms, opening the prospect of selling its product in Europe for the first time. This stands in contrast to the situation in steel. One reason for the difference may be that the aluminum industry is not characterized by the same over-capacity in production as the steel industry.

Outsourcing Costs Some Jobs

The plant we visited had only two significant areas of outsourcing. First, like many firms we visited in other industries, it had begun to outsource its maintenance and repair operations. Sometimes it did this by using outside contractors. In other instances, it relied more heavily on machine manufacturers to install and maintain much of the production equipment that it bought from them.

The second major area shed by the company was warehousing of materials. The company sold off its own warehousing assets and contracted with another company to transport, store, and deliver aluminum rods and scrap for use in production. Employees of the firm previously did this work. We have no data on the quality of the contractor's jobs, but jobs in the public warehousing and storage sector in Alabama paid an average weekly wage of \$499, about 34 percent less than the average weekly wage for the aluminum sector. The company maintained warehouse operations for its own finished goods. In the current manufacturing environment,

customers upstream have increasingly pushed the costs of warehousing onto the supplier, explained one manager.

Alabama's Economic Development System

This report is informed in part by the perception of employers and unions in Alabama that the state's economic development system is focused on recruiting new business to the state at the expense of the state's existing manufacturing base. Nothing in the Alabama system appears to render the state's existing firms ineligible for funding through the system. But job quantity performance targets associated with the state's grants and subsidies exclude many of the Alabama firms that need them most, because they require that firms benefiting from them create new jobs. Many of these subsidies require that a firm create a certain number of jobs in the state in order to qualify for the funding. For instance, a \$2 million tax credit under the state's capital credit program requires that a firm produce 20 jobs.. This makes firms that are attempting to retain existing jobs ineligible for the credit.

This report has highlighted key industries that give Alabama a unique position in the domestic economy. These industries have been present in the state for many years and provide jobs of the caliber that the state aimed to attract with subsidy packages described below. However, recent economic development activity has focused on new employers, even as the state's existing key industries suffer job losses. Although economic development subsidies are bringing new jobs to the state, many of the good jobs in other industries are going away. In high-wage industries where the state enjoys an advantage, it is a worthwhile investment for the state to maintain that advantage. In those industries, the state already has demonstrated competitive advantage. Starting with new industries requires that the state make potentially costlier initial investments with a less certain payoff. The payoff from attracting a new industry is less certain because it is more difficult to build a regional industry cluster from scratch than to maintain an existing cluster, and it is regional industry clusters that provide the state's regions with their competitive advantages.

The state participates in a number of federal economic development programs and augments them with state programs. In some cases, localities provide other resources, most often in the form of tax abatements for particular employers. Through these programs, the state provides four basic kinds of assistance for businesses that qualify.

- 1) *Improving public infrastructure to support new plants or expansions of existing plants.* The state participates in the federally funded Appalachian Regional Commission, which undertakes economic and community development activities in Alabama and 12 other states. A portion of the funds allotted to the state by the commission can be applied to building access roads, rail spurs and dock facilities and installing water and sewer systems,. The state is also able to provide support for infrastructure projects through its Infrastructure Grant Program. This program allows localities to apply for grants to support infrastructure development for new or expanding businesses. The state also uses its federal Community Development Block Grant for infrastructure projects.

- 2) *Providing financial assistance for capital expenditures.* The state administers five programs that provide financial assistance with capital expenditures for firms relocating to or expanding in the state. The state's Income Tax Capital Credit program provides firms with a 5 percent tax credit on expenditures over \$2 million. Other programs provide low-interest financing for capital purchases. These include three other state programs (the Economic Development Revolving Loan Fund, Industrial Revenue Bonds and Linked Deposits), and the federal Tennessee Valley Authority Economic Development Loan Fund.
- 3) *Providing tax abatements.* The state's Tax Incentive Reform Act of 1992 gives cities, counties and public authorities the ability to abate non-educational state, county, and city taxes. Eligibility for the program is limited to industrial or research enterprises. For an expansion, the investment must be the lesser of 30 percent of the original capital investment or \$2 million. For sales and use taxes, abatements must be granted before any purchases of equipment or construction material are made.
- 4) *Providing training for workers.* Since 1971, the state has offered a job-training program called Alabama Industrial Development Training (AIDT). AIDT was established to build a healthy state economy by recruiting and training a skilled workforce to attract new industries and expand existing ones. AIDT provides job-specific pre-employment and on-the-job training programs. The program provides a full range of customized technical training and assessment programs that are free to both employers and trainees. Employers can also receive tax credits for training if they are located in an enterprise zone.

Economic development assistance is generally provided in a package of financial incentives, direct public subsidies and other benefits that are assembled on a site-specific, case-by-case basis. Frequently, the Legislature will assemble a package of economic development incentives that are customized for a specific project – at least that is what has happened with the “mega-projects” reviewed below. The state also coordinates the assembly of these packages, which usually combine federal, state and local resources, through two state agencies: Alabama Department of Economic and Community Affairs (ADECA) and the Alabama Development Office (ADO). By coordinating economic development programs across the different level of government, the state is able to assemble huge economic incentives to lure employers.

The following examples show how the state has been able to do this in some high-profile cases.

- In a special session of the 2002 Legislature, Alabama developed a massive incentive package to recruit the auto manufacturer Hyundai to a location south of Montgomery. The total cost of the economic development subsidy package was estimated at \$253 million. The package included \$75 million for construction of a training facility and \$43 million for operation and maintenance of the training facility. The Montgomery Industrial Development Board purchased the 1,600-acre site for the project with resources from the City of Montgomery and Montgomery County. The project is expected to cost \$1 billion, create 2,000 jobs and

produce 300,000 cars annually. The plant is expected to be operation in 2005. The project carries with it a minority participation goal of 30 percent.

- To site a steel mini-mill in Mobile, state and local economic governments offered a Canadian steel operation \$90 million in tax incentives, including \$30 million to \$45 million in capital credits. The state also spent \$3 million to upgrade a pier that could be used for freight shipments associated with the new mini-mill. The entire project was expected to cost \$425 million. The mini-mill will produce discrete plate, coiled hot rolled plate and near plate used in such diverse applications as building and construction, bridges, barges, railcars, storage tanks, machinery and equipment, agricultural implements and pipe-making. The owner expects to hire 250 workers. The capital credit alone amounts to between \$120,000 and \$180,000 per job, excluding the worker-hours required for construction.
- In September 1993, DaimlerChrysler announced its decision to locate its new American manufacturing plant outside of Birmingham. Alabama offered about \$253 million, although some estimates put the total, including assistance provided by local governments, closer to \$300 million. State and local governments offered \$77.5 million in sewer, water and other utility improvements, \$92.2 million to buy and develop the site, and about \$5 million annually for employee training and other programs. The state also agreed to buy the output of the plant: it agreed to purchase a fleet of 2,500 Mercedes-Benz sport utility vehicles, for use by state officials, at an expense of about \$75 million. This element of the subsidy package was later the subject of a legal dispute, which resulted in the elimination of the fleet purchase.⁷
- In 1994, state and local governments offered Trico Steel, an independent company formed by three of the largest steel manufacturers in the world – LTV, Sumitomo, and British Steel – a 20-year tax abatement, job training, infrastructure grants and other tax credits to support development and construction of a plant in Decatur. LTV has since gone bankrupt and the Decatur mini-mill was sold to Nucor Steel. In mid-2002, Nucor received a tax abatement from the Decatur City Council that amounts to \$5.7 million over 10 years.

These examples demonstrate the huge amount of money the state is willing to invest in individual firms. They also illustrate the kinds of assistance the state provides through its economic development programs. These same kinds of assistance would be useful to the state's existing industries. The state should help industries that provide jobs with high wages and benefits, and that offer a competitive advantage for the state or a region of the state. It should help businesses solve concrete problems, shared across many plants in an industry, that affect the ability of the industry as a whole to retain and expand jobs. Research and development, process innovation, and investment in new technology and equipment are examples of such problems.

Recommendations for Public Policy

Despite the current challenges that face firms in Alabama, especially in manufacturing, there are measures that can be taken to strengthen the economy. This section suggests a number of policies that may help companies in the current economic environment. It also suggests

examples where businesses and unions have successfully worked together with government to help reduce job losses in manufacturing. Although many of the firms that have provided good jobs in key Alabama industries are not specifically excluded from access to economic development funds, job-quantity performance targets make them ineligible for a number of programs. Job quantity targets are a partial measure of the value secured by the state from economic development investments. However, they exclude existing Alabama firms that are attempting to improve their ability to compete in product markets and, in so doing, to prevent or stabilize job loss. The policy recommendations below have been grouped into four sections: 1) to reorienting economic development toward retaining jobs rather than attracting them, 2) linking economic development resources to job quality, 3) making economic development activity more transparent, and 4) raising minimum job quality standards.

Reorienting Economic Development Programs Toward Retaining Jobs Rather than Attracting Them

- *Adapt the economic development system to support job retention-focused economic development* by providing assistance to firms that 1) currently provide jobs meeting a certain job quality standard and 2) are in industries that are key to regional economies as measured by location quotient or share of the economy.

Forms of assistance to which these criteria could be applied include, but are not limited to, capital credits for new equipment or improvements to facilities, low-interest financing for new equipment or improvements, and assistance to upgrade public infrastructure to reflect competitive dynamics of the industry.

Companies pursue economic incentives from states to reduce their costs of capital investment. This allows them to expand capacity, invest in new technologies or both. With the state's assistance, companies are able to improve their competitive position by shifting part of the cost of the investment onto the state. Firms that are able to convince the state that they will add jobs are able to secure the subsidies.

Many of the plants in the state's key industries are not in a position to guarantee job growth, but they provide quality jobs. Firms in these industries could benefit from the kinds of state assistance that reduce the costs of improving their products and processes. This assistance can also be used to reduce the Alabama- or United States-specific costs that may create competitive disadvantages for these plants, such as federal environmental regulation to which foreign competitors are not subject.

The paper and steel industries are primary examples of why economic development resources should be available to certain categories of existing business that are not planning expansions. Many large employers in these industries provide jobs that pay well above the state average wages and also provide benefits. Facing highly competitive markets for their products, they are not able to expand. Investment in making their processes more productive and plants more competitive could allow them to maintain employment levels and position them to capture larger market share and expand in the future.

- *Invest in targeted research and development support for key industries in the state.*

To adapt to the new manufacturing environment, Alabama's older firms often must develop new products and manufacturing processes to compete. Alabama's growing auto industry illustrates the importance of this. Auto assemblers are attractive economic development targets because they not only bring the jobs at their own plants, but often bring suppliers to Alabama with them. Assemblers bring new suppliers rather than rely on existing Alabama suppliers because they often use new plants to implement new production practices, such as just-in-time production. Suppliers that build new plants will build their production processes around the assembler's new design.

The state's existing auto suppliers could provide parts to the new assembler, but to do so, they may need help in changing their production processes or products. The introduction of the new plant is also an opportunity for these suppliers. With assistance from the state through ADECA, AIDT, or the Alabama Technology Network (the state's manufacturing extension partnership), existing auto suppliers can adopt processes and products that respond to the demands of assemblers.

The presence of a research and development operation is one of the key indicators associated with high labor productivity. Helping existing firms innovate on products and the manufacturing process can improve the competitive position of industries in which the state already enjoys an advantage.

- *Provide education and training to support the adoption of new technologies and the implementation of new product lines by firms in the state's key industries.*

New processes and products will require that establishments invest in training their workforce to use new technologies and methods of work organization. The state already offers training assistance to the firms it has attracted. Innovation by older firms will demand new skills from the workforce. Training a workforce already familiar with the production process would likely be cheaper than training the workforce for a plant new to a labor market. Focusing on existing plants has the possibility of making the state's limited resources go farther.

- *Open access to the power grid to allow companies that produce their own energy to sell excess power to utilities or to obtain credits for reducing their burden on the public grid, especially recognizing the potential for biomass cogeneration in the paper industry.*

Many manufacturing plants produce their own power. The state should adopt policies that encourage those with power plants to keep them operational. Industries such as the paper industry consume large amounts of energy to create their products. Having their own generators reduces their consumption of power from public energy grid. It also creates an opportunity for these manufacturers to increase their revenues by selling excess energy to utilities. Up to 70 percent of the energy created in a traditional manufacturing power plant can be lost. Capturing this energy through industrial co-generation and trading it to energy companies provides a new source of energy for utilities and yields efficiency returns for both the utility and the manufacturing plants.

The paper industry is one of the industries that can benefit the most from policies and subsidies related to power generation. Nationwide it is one of the largest consumers of energy. It is also one of the largest producers in manufacturing. Power plants are often coal-fired, but many plants cut the coal with wood scrap and byproducts from the papermaking process. This “biomass” generation makes for a more energy-efficient process that also produces fewer carbon emissions.

The state can also assist manufacturing plants that continue to purchase energy. With state assistance, these plants can cut their costs by implementing energy-saving technologies: replacing motors, upgrading boilers and chillers, or installing modern control technologies. Incentives can also be used to encourage co-generation where process steam is already produced. Addition of turbines to the production process can result in new generation capacity from existing manufacturing capacity. Financial incentives are key to influencing investment decisions to drive new capital into existing facilities, upgrading their energy and environmental performance, and improving labor productivity. These investments reduce the burden on the public electricity grid. They also reduce the carbon and other pollutants produced from electricity overall.

- *Provide incentives and support for companies to adopt energy-efficiency measures, including investments in technology, training, and operation and maintenance.*

All the industries profiled in this report must spend a great deal in complying with environmental regulations governing air and water emissions. Providing assistance in complying with these regulations can create jobs in two ways. First, it would reduce the burden of compliance on firms, enabling them to expand their output and employment by lowering their production costs. In many cases, plants are required to install expensive equipment in order to reduce their emissions. In some instances, plants must make expensive adjustments to the infrastructure that supports them, e.g., improve sewage and wastewater systems.

Second, these investments are opportunities for creating good jobs because environmental remediation requires new technology, training, and new investment. Installation of new equipment and infrastructure construction are projects that require a skilled workforce and new capital investment. The process of implementing new environmental control equipment can protect Alabama’s natural resources while creating skilled jobs to install and maintain this equipment. Workforce training investments for improved operations and maintenance of facilities often provides very high yields in both economic and energy efficiency terms. However, businesses often do not make these investments without public subsidies. Employers do not want to invest in training for their employees, because they believe that once they do, the employee will be hired away by a competitor, who will then reap the benefit of that investment. Rather than invest money that may help competitors, employers try instead to manage around the problem, even if it is more costly or keeps the firm at a lower level of performance. Subsidies can induce employers to provide the necessary training.

- *Provide targeted assistance to help displaced workers secure high-quality jobs.*

Since August 2000, the state of Alabama has funded the Alabama Labor Institute for Training (LIFT) to provide support to workers laid off in plant closings and major downsizing. Through

this program, Alabama LIFT has assisted more than 11,000 workers in more than 250 firms in accessing resources available to them through a variety of public programs. Because the economic condition of manufacturing remains uncertain, the state should continue to fund these services. It should also integrate dislocated worker programs into economic development programs such as the education and training program suggested above.

- *Provide support to multi-employer partnerships that work to eliminate common problems that hamper the vitality of a key regional industry.*

In a number of regions around the country, stakeholders are responding to job loss in key industries by developing multi-employer partnerships to help alleviate common problems that affect firms' ability to compete. These partnerships convene labor unions, employers, community-based organizations, educational institutions and state and local agencies to identify issues that limit firms' ability to remain competitive and while providing good jobs. Firms are often unwilling to invest in solving those problems because they believe that their competitors in the region will take advantage of that investment. By bringing together all the stakeholders, a multi-employer partnership allows the problem to be identified as a public issue in a way that does not favor one employer over another. The partnership levels the playing field so that all participating employers share equitably in the cost of solving the problem. Energy and environmental retrofit training, discussed above, is an example of such a problem.

The Wisconsin Regional Training Partnership is an example of program that has been effective in retaining jobs in the Milwaukee metropolitan area by helping employers meet their staffing needs. The partnership works with unions and employers to recruit and place workers, provide the necessary training, and assist with modernization projects. More than 100 employers and unions participate.

Linking Economic Development Resources to Job Quality

- *Institute “clawback” provisions or other protections that guarantee that firms receiving economic or workforce development assistance deliver on job quality or job quantity standards.*

Alabama should require that each development agreement, local ordinance establishing a tax abatement, and contractual agreements with an employer for a tax subsidy contain provisions to recapture—or “claw back”—taxpayer money if a project fails to achieve job quality or quantity standards, dollar-investment obligations, or other performance standards.

Vermont is one state that has implemented “clawback” rules. Companies in that state that receive loans from the Vermont Industrial Development Authority are required to pay back that loan in full if they move out of the state or transfer more than 50 percent of their employees out of the state.⁸

- *Extend “anti-piracy” provisions to economic development incentives that do not currently have such provisions.*

The Enterprise Zone Act contains a provision to prohibit employers from moving into an enterprise zone simply to obtain enterprise zone tax credits while displacing jobs in another area within Alabama. This “anti-piracy” provision should be extended to other state programs that could induce a business to relocate within the state. Virtually all local economic development incentives should also carry such a provision. The Cater Act and the Wallace Act, for example, both of which authorize municipalities to engage in economic development, should both contain anti-piracy provisions. These laws were passed in the post-World War II era and need to be amended to include recent best practices. Many federal laws, including the Workforce Investment Act, carry such provisions, which extend across the whole country. Alabama should put a policy in place that prohibits a “beggar thy neighbor” approach to economic development within state lines.

Making Economic Development Activity More Transparent

- *Institute job quality standards in the current economic development system.*

A job quality standard now exists only in the capital credit program. To benefit from the capital credit, an employer must pay its employees at least \$10 per hour if the employer does not provide health benefits or \$8 per hour if the employer provides health benefits. Other economic development programs (the tax abatement program, for example) should also carry with them the requirement that companies receiving public subsidies pay family-sustaining wages to their employees. As in the capital credit program, job quality standards should require that employers that do not provide health coverage for their workers pay a higher wage than those that do provide health coverage.⁹

Even the existing job quality standard is inadequate because it does not sustain families. As mentioned earlier in this report, a full-time, full-year worker supporting a family of two adults and two children in 2001 needed to make more than \$8.64 an hour to rise above the federal poverty level. In order to be “self-sufficient,” according to the Economic Policy Institute, such a worker in one of Alabama’s four large metropolitan areas needs to earn between \$17.04 and \$17.29 per hour, depending on the metropolitan area, to sustain a family of two adults and two children.¹⁰ The capital credit program’s wage requirements fall far short of these wage levels.

- *Strengthen and enforce company-specific subsidy disclosure laws.*

In the mid-1990s, the state Department of Revenue issued a one-time list of economic development subsidies, by county, in response to a legislative effort to overhaul economic development programs in the state. Unfortunately, the disclosure was only required once. Now, the Department of Revenue issues a terse rundown of companies eligible for the capital credit. Alabama should implement two policies in the area of economic development disclosure. First, it should require company-specific disclosure of economic development assistance packages both prior to their development and after their execution. Second, the state should require a “unified budget.” A unified budget, which identifies all the economic development subsidies that Alabama companies have received at various levels of government, enables policymakers to see the big picture and decide whether spending priorities are correctly balanced.

Alabama allows companies to claim corporate income tax credits for investing in new equipment or creating jobs. These foregone revenues will never be fully accounted for unless the data are systematically collected and reported at the state level. The same is true for the revenue lost due to tax abatements.

Raising Minimum Job Quality Standards

- *Rationalize health care.*

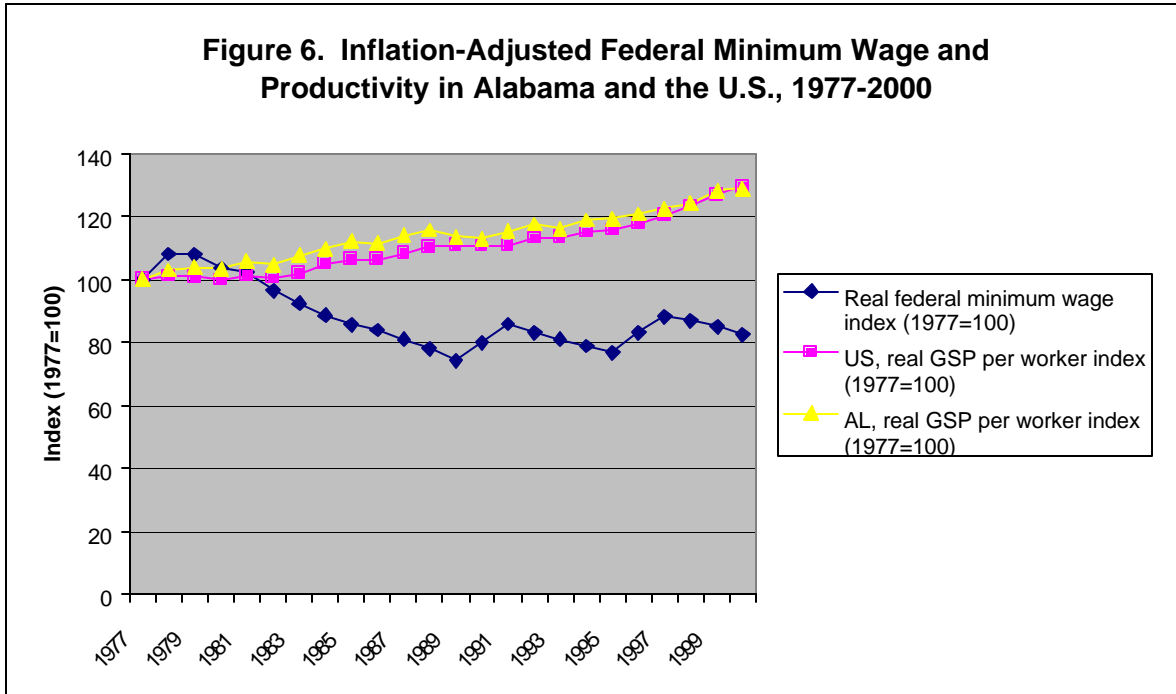
For employers in a wide range of sectors, and particularly for the steel industry, the cost of providing affordable health care coverage has become a major burden, one that affects the ability of employers to compete. If employers cannot afford to provide health care coverage, the burden shifts to the workers. When they cannot meet the ever-increasing cost of coverage, much of that cost is ultimately shifted to taxpayers.

To avoid a health care crisis that further strains the state's fiscal health and economic well being, the state should explore alternatives to the current health care arrangements. One promising model has recently been proposed in Wisconsin. Under this model, the state would appoint a bipartite (business-labor) commission to decide on the price and coverage of a good health plan. This plan, which the state would administer, would cover everyone who worked in the state, plus his or her family. (Unemployed people would continue to be covered for a specified amount of time after becoming unemployed.) All employers would be required to pay a specified and uniform amount per employee to have their employees covered under the plan. Employers would be allowed to offer additional health coverage, at their own and/or their employees' expense, on top of the state plan, but they would not be allowed to opt out of the state plan. This proposal would level the playing field on health care costs and would level it upward by setting up a good plan as the minimum for all employees. It would also aggregate the health care purchases of all employers together (via the state plan), thereby giving the state more bargaining power over health care costs than would be possible for any single employer. Finally, by putting all employees and their families in a single plan, this proposal would avoid providing employers with incentives to drop (or not provide) coverage for workers who are costly to insure.

- *Set a state minimum wage.*

Unlike many other states, Alabama has no state minimum wage. The only legislated wage floor for Alabama's working people is the federal minimum wage, which has been \$5.15 per hour since September 1997. From 1977-2000, the federal minimum wage declined by 17.5 percent after adjusting for inflation (figure 6) despite occasional increases enacted by Congress. During the same period, however, productivity (measured as inflation-adjusted gross state product per worker—a measure of the total value of goods and services produced per worker) grew by 29.3 percent in the nation as a whole and 28.8 percent in Alabama.

Figure 6. Inflation-Adjusted Federal Minimum Wage and Productivity in Alabama and the U.S., 1977-2000



Sources: WAI analysis of Economic Policy Institute data on federal minimum wage (from www.epinet.org) and Bureau of Economic Analysis data on gross state product and employment (from www.bea.gov).

The long-term decline in the inflation-adjusted value of the federal minimum wage is one of the reasons why low-wage earners in both Alabama and the nation as a whole earn less than they did two decades ago. More recent wage gains for these workers resulted from tight labor markets, which are unlikely to persist if unemployment continues to remain high. By enacting a state minimum wage that is higher than the federal minimum wage, preferably one that is indexed to state-level productivity, Alabama can ensure that low-wage workers in the state do not suffer further wage declines if the labor market slackens. And recent economic research has shown that modest increases in the minimum wage do not cause low-wage workers to lose jobs¹¹. If Alabama's minimum wage were set within a dollar per hour above the federal minimum wage—well within the range of modest increases that have recently been proposed for the federal minimum wage itself—then low-wage workers would receive a substantial pay raise without an increase in unemployment.

FOOTNOTES

¹ The state of Alabama's Workforce Investment Boards adopted a WIA self-sufficiency standard of 200 percent of the U.S. Department of Health and Human Services 2001 Poverty Guideline. We used the weighted-average poverty guideline for a family of three, \$29,260, and divided by 52 weeks to obtain \$562.69.

² Shelby Spires, "The Battle of Redstone Arsenal," *Huntsville Times*, January 19, 2003.

³ Shelby Spires, "The Battle of Redstone Arsenal," *Huntsville Times*, January 19, 2003.

⁴ Darrell Hassler, "Boeing Says Inaugural Launch Of Delta IV Rocket is a Success," *Bloomberg News*, November 20, 2002.

⁵ Steel Manufacturers Association, "The Future of American Steel," http://www.steelnet.org/public_policy/index.html.

⁶ American Iron and Steel Institute, "Policy Position: Energy," <http://www.steel.org/policy/energy/background.asp>.

⁷ Allen R. Myerson, "O Governor, won't you buy me a Mercedes plant?" *New York Times*, September 1, 1996.

⁸ Greg LeRoy, *No More Candy Store*, (Washington, DC: Good Jobs First, 1997).

⁹ Federal law prohibits states other than Hawaii from requiring that employers provide health insurance to their employees.

¹⁰ Heather Boushey et al., *Hardships in America: The Real Story of Working Families* (Washington, DC: Economic Policy Institute, 2001).

¹¹ David Card and Alan Krueger, *Myth and Measurement: The New Economics of the Minimum Wage* (Princeton: Princeton University Press, 1995).