

# **Skilled Workers, Quality Jobs:**

## **Meeting the Needs of Wisconsin's**

### **Workers and Businesses**

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## **About COWS**

The Center on Wisconsin Strategy (COWS) is a nonprofit, nonpartisan “think-and-do tank” dedicated to improving economic performance and living standards in the state of Wisconsin and nationally. Based at the University of Wisconsin-Madison, COWS works to promote “high road” strategies that support living wages, environmental sustainability, strong communities, and public accountability.

## **Acknowledgements**

This report was produced by COWS as part of the Working Poor Families Project (WFPF), a national initiative launched in 2002 to strengthen state policies to better prepare America's working families for a more secure economic future. WFPF is active in 23 states and the District of Columbia; COWS leads the project in Wisconsin. The project is managed by Brandon Roberts & Associates and supported by the Annie E. Casey, Ford, Joyce, and Mott Foundations. More information on the project can be found online at: <http://www.workingpoorfamilies.org/index.html>.

Much of the data in this report was made available through federal census surveys, particularly the American Community Survey (ACS) and the Current Population Survey (CPS). Special thanks goes to the Working Poor Families Project for their compilation of updated outcome and policy indicators drawn from these and other sources. We also make extensive use of *The State of Working Wisconsin 2006*, produced by COWS.

# Skilled Workers, Quality Jobs:

## Meeting the Needs of Wisconsin's Workers and Businesses



- Percent of WI working families that are low-income: **23%**
- Percent of WI minority working families that are low-income: **43%**
- Number of WI adults without a high school credential and not in school: **295,431**
- Number of WI adults who speak English less than very well: **120,169**

### Introduction

In Wisconsin and nationwide, quality of life is intimately linked to one's place of work. Despite our state's high labor force participation rates and strong work ethic, nearly one-quarter of working families in Wisconsin are low-income, and thousands of residents work in jobs that don't provide family-supporting wages and benefits. Many of these working families struggle to pay the bills, do not have enough money for food at the end of pay periods, and have no money for the emergencies that can arise. The situation is particularly dire for Wisconsin's minority working families, a much larger percentage of whom are struggling to make ends meet.

At the same time, Wisconsin is facing a series of demographic and workforce shifts that are threatening the future of our state's economy. An aging and increasingly diverse population, combined with growing education and skills shortages, pose tremendous challenges to the future productivity and success of Wisconsin's workforce. Too many Wisconsin workers don't receive the education and training necessary to land a decent job with family-sustaining wages. At the same time, skill shortages threaten to hobble the state's high-wage industries. This "skills mismatch" is undermining regional economies in the Midwest and across the country. Improving outcomes for Wisconsin's economically disadvantaged working families is central to addressing these workforce challenges.

This policy brief addresses these two interconnected and inseparable challenges facing our state. We start with some basic data on Wisconsin families in economic distress, then highlight key challenges on the horizon for Wisconsin's workforce and economy. The report concludes with key policy levers that can address Wisconsin's workforce challenges while helping to improve outcomes for our state's working families. Particular focus is given to policies that can improve state education and training systems to build the skills of our current workforce, an area where Wisconsin's equity and economic concerns intersect.

### Still Working Hard, Still Falling Short

In October 2004, the Working Poor Families Project issued a national report, *Working Hard, Falling Short: America's Working Families and the Pursuit of Economic Security*, which showed how working families across the country were struggling to make ends meet. In the same year, the Center on Wisconsin Strategy (COWS) issued a policy brief highlighting the Wisconsin findings contained in this national report. We showed how low-income working families in the state were doing relative to our neighbors and the rest of the nation, and we evaluated the effectiveness of some of the work supports—such as employee tax credits and education and training programs—in place to help these families.

This section provides an update to the 2004 report on the status of working families in Wisconsin. Table 1 provides information on how low-income working families in the state are faring relative to neighboring states and the nation. On many measures, Wisconsin performs better than the nation, and better than several states in the region. Notably, Wisconsin ranks sixth in the nation for the share of unemployed workers receiving Unemployment Insurance (UI). Wisconsin also ranks sixth for the percent of low-income working families that have health insurance (78 percent), and for its relatively generous extension of Medicaid benefits to working parents.

## Low-Income Working Families: A Definition

*Low-income* families are defined as those earning less than 200 percent of the federal poverty threshold. According to 2005 Census Bureau federal guidelines, a family of four was officially living in poverty if its annual income was less than \$19,971. Using the 200 percent gauge, that family is considered low-income if its earnings were less than \$39,942.

A family is defined as a married-couple or single-parent family with at least one child under 18 years of age. A family is considered to be a *working family* if, in the last 12 months, family members aged 15 and older show combined work effort of at least 39 weeks—or combined work effort of at least 26 weeks, plus one unemployed parent actively looking for work in the past four weeks.

Despite this good news, too many working families are fighting to get by. Nearly 150,000 working Wisconsin families (23 percent) are low-income, and nearly one-fifth of Wisconsin jobs are in occupations with median annual pay below the poverty threshold for a family of four. Close to six in 10 of the state's unemployed workers do not receive unemployment insurance, and more than 20 percent of low-income working families have a parent without health insurance.

Of even more concern, Wisconsin performs worse than the nation and its neighbors on certain measures. Most notably, while Wisconsin's share of working families that are low-income (23 percent) is the 12th best in the nation, fully 43 percent of minority working families in the state are low-income, putting Wisconsin *behind* 23 other states on this measure. Wisconsin consistently generates high levels of racial disparity (see COWS report *The State of Working Wisconsin 2006* for more evidence). This negative outcome for minority working families calls for increased attention to racial inequality in Wisconsin.

Table 1

### Low-Income Families in Wisconsin, U.S., and Peer States

	Wisconsin	Rank	U.S.	Illinois	Indiana	Iowa	Michigan	Minnesota	Ohio
% of working families that are low-income	23%	12	29%	25%	27%	26%	25%	20%	26%
% of jobs in occupations with median annual pay below poverty threshold for family of four	19	16	22	20	23	26	22	16	20
% of workers not fully employed	8	28	8	8	8	7	12	8	9
% of minority working families that are low-income	43	24	42	39	42	45	37	43	42
% of unemployed not receiving unemployment insurance	57	6	67	63	71	64	64	69	74
% of low-income working families with housing more than 1/3 of income	55	28	58	65	51	43	60	58	55
% of income paid by lowest quintile families to state taxes	10	16	11	13	11	11	13	11	11
% of low-income working families with parent without health insurance	22	6	39	31	32	32	28	27	28
% of poverty threshold up to which State provides Medicaid for working parents	192	4		192	27	77	61	275	90

**Sources:**

Working Poor Families Project, data generated by the Population Reference Bureau from American Community Survey (2005) and Current Population Survey (2004-2006)  
 Department of Labor (2006)  
 Kaiser Commission on Medicaid and the Uninsured (2006)  
 Bureau of Labor Statistics Occupational Employment Statistics (2006)  
 Institute of Taxation and Economic Policy (2003)

Low-income families in the state are also challenged by high housing costs, with Wisconsin performing relatively worse than many its neighbors on this measure. More than half of all low-income working families in the state have housing costs that are considered “unaffordable”—that is, they require more than one-third of a family’s income.

When families are economically stressed, the results for children can be devastating. Parents don’t have the time or energy to look at homework. Parents don’t have the flexibility to attend parent/teacher conferences. Parents don’t have the money to invest in quality child care. Parents must choose between food for their children and rent or utility payments. Children may arrive at school with serious learning and language deficits from the start.

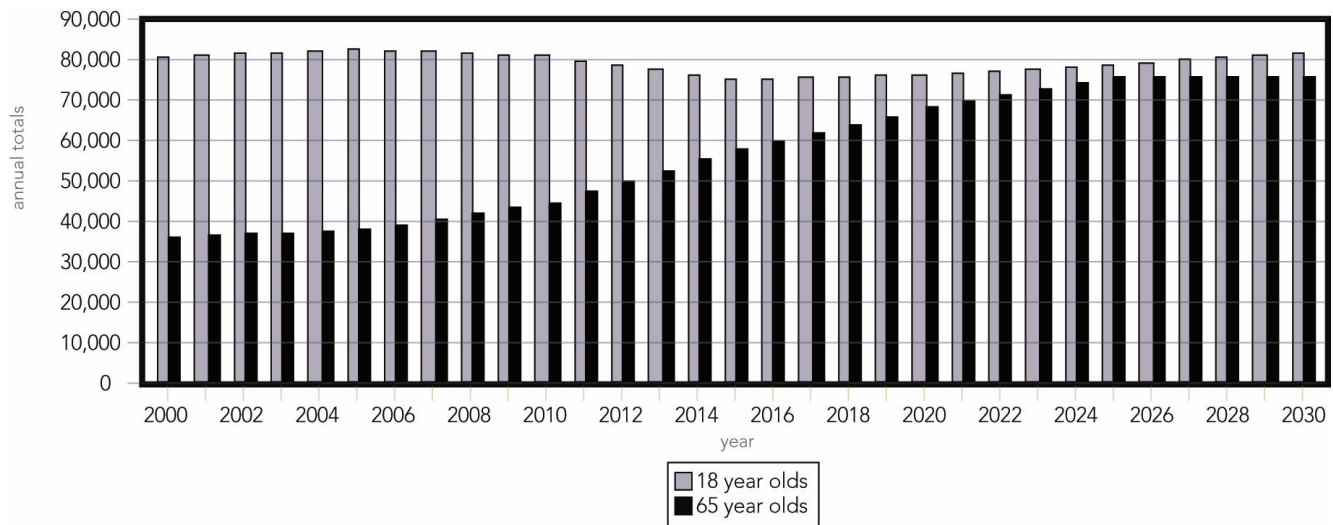
The wasted potential for the economy is devastating as well. As the following sections will show, Wisconsin faces a skills shortage, with future job growth and retirements in certain industries far outstripping the numbers that will be entering the labor market with the required skills. In order to ensure that Wisconsin workers can fill skill shortages—and in order to ensure that Wisconsin’s workers can support their families as their reward for work—we must build an economy based on high skill levels and high productivity, and we must help both workers and firms to make the transitions required to get there.

## Dramatic Demographic Shifts Ahead

Demographic and economic trends will converge over the next decade, challenging Wisconsin workers and employers. Low unemployment and high rates of labor force participation mean that Wisconsin is already feeling the pinch of a tight labor market. Employers report having trouble finding skilled workers to fill critical positions, even as workers are having trouble finding jobs that pay family-supporting wages. These troubles can only be expected to intensify as the population ages and baby boomers begin to retire, taking their skills with them. As shown in Figure 1, the number of 65-year olds in the state is estimated to approach the number of 18-year olds within the next 15 years.

Figure 1

### Population of 18- and 65-Year Olds, Wisconsin, 2000-2030



**Source:**

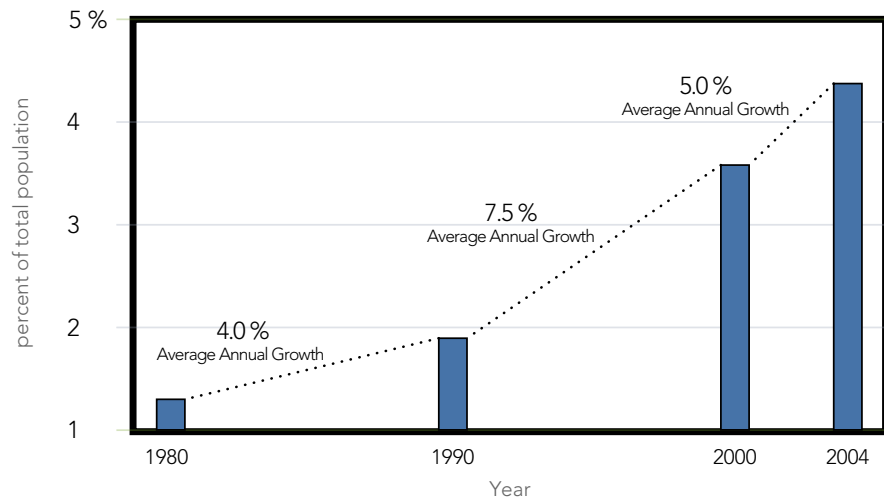
Wisconsin Department of Workforce Development, *State of Wisconsin Workforce Profile*, Office of Economic Advisors, 2006, citing WI Department of Administration, Demographic Services data (2004). [http://dwd.wisconsin.gov/oea/county\\_profiles/archived/2006/wisconsin\\_profile\\_2006.pdf](http://dwd.wisconsin.gov/oea/county_profiles/archived/2006/wisconsin_profile_2006.pdf).

Although not large enough in number to offset the retiring baby boomers, a growing immigrant population is contributing to the changing face of Wisconsin's workforce. Between 1980 and 2004, the Hispanic population in Wisconsin grew by 176 percent (see Figure 2); Hispanics now account for 4.4 percent of the state's population. The Asian share, now 1.6 percent, more than doubled between 1990–2005.

As Wisconsin's labor force ages and diversifies, we must work hard to build the skills and productivity of our existing workforce. This becomes particularly important when considering Wisconsin's high labor force participation rates (see Table 2). Compared to the national average and to most of our neighboring states, Wisconsin exhibits a very high rate of total labor force participation, at 72 percent. Wisconsin ranks sixth in the nation for total labor force participation, and ranks fifth in the nation for the labor force participation rate of women. Given these already high labor force participation rates, where will the workers of Wisconsin's future come from? In order to keep its economy strong, Wisconsin needs to look to its current workforce and upgrade the training and skills of its already hard-working residents.

Figure 2

**Growth in Wisconsin's Hispanic Population, 1980-2004**



**Source:**  
Center on Wisconsin Strategy, *The State of Working Wisconsin 2006*.

Table 2

**Labor Force Participation Rates, 2004**

	Wisconsin	Rank	U.S.	Illinois	Indiana	Iowa	Michigan	Minnesota	Ohio
Total labor force participation rate	72%	6	66%	66%	67%	70%	66%	75%	67%
Labor force participation rate for women	67	5	59	60	61	65	60	69	60
Labor force participation rate for men	77	9	73	73	73	75	73	80	74
Labor force participation rate for non-whites	66	21	n/a	63	64	68	63	73	66

**Source:**  
Bureau of Labor Statistics, *Geographic Profile of Employment and Unemployment, 2004*

## Skill & Occupational Shortages Emerge

Serious skill shortages are emerging in key industries as Wisconsin's older, highly skilled workers begin to retire. The occupational and skill shortages Wisconsin faces are projected to be strongest in jobs not requiring four years of college education. In fact, Wisconsin's Department of Workforce Development projects that 77 percent of all job openings in the state between 2004 and 2014 will not require a four-year college degree. This includes jobs in the better-paid, more highly skilled jobs in the health care, advanced manufacturing, information technology, and construction sectors (see box). While workers might not need a four-year degree for these jobs, they will need technical expertise and solid academic skills to succeed in these positions.

We need to prepare today's workers to fill shortages that are emerging in these key, high-skill industries. In order to help identify key Wisconsin occupations for building career pathways and connections, COWS screened state occupational projections data to produce a list of promising emerging industries. We identified Wisconsin occupations where skill shortages are projected to emerge in upcoming years, and which hold promise for workers without a four-year college degree (see Appendix A).

### Labor Shortages in Wisconsin's High-Skill Sectors

- **Health Care:** A July 2002 report from the Health Resource Service Administration (HRSA) estimates that Wisconsin will face a shortage of registered nurses starting in 2015. In addition, the Wisconsin Department of Workforce Development (DWD), in its statewide long-term projections, estimates that 15 of the 30 fastest growing occupations in the state between 2004 and 2014 will be in health care; twelve of these 15 occupations require post-secondary vocational training, associate degree or higher.
- **Manufacturing:** In a 2007 survey conducted by Wisconsin Manufacturers and Commerce, 58 percent of surveyed chief executives at Wisconsin manufacturers reported that they were unable to find workers for skilled production jobs.
- **Information Technology:** Jim Rice, president and CEO of the Information Technology Association of Wisconsin, worries that an IT labor shortage could be developing in the state. According to Rice, the number of IT workers employed in Wisconsin has fallen flat, with our universities and technical colleges graduating fewer students in many IT fields than they did in the early 2000s. As a result, employers may struggle to fill positions as baby-boomer retirements kick in and the number of IT jobs grows. DWD projects that six computer-related jobs will be among Wisconsin's 30 fastest-growing occupations between 2002 and 2012.
- **Construction:** In its 2005 publication *Construction in Wisconsin: An Industry Perspective*, the DWD projects that employment in all construction jobs will increase by 21 percent between 2004 and 2012. Among the construction jobs expected to grow the fastest are carpenters, electricians, plumbers, and pipefitters—jobs on the upper end of the industry pay scale that require substantial training and skills development.

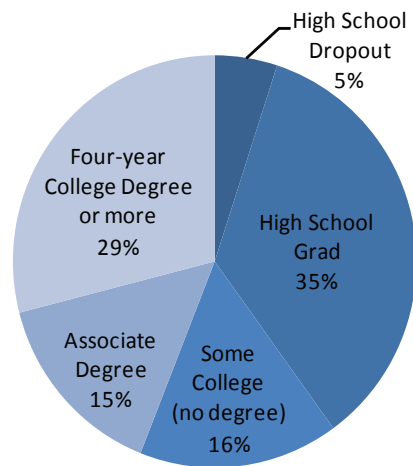
## Limited Education Hinders Workforce

Our economy cannot prosper without an educated and skilled workforce. And our workers cannot get ahead in the workplace without higher-level training and skills. Wisconsin has a strong K-12 system with excellent completion rates relative to the nation. For example, five percent of the state’s workforce aged 26 and older has dropped out of high school, compared with 10 percent of the national workforce. Wisconsin also benefits from a very strong two-year technical college system, with the state churning out a higher percentage of workers with associate degrees than most of the country.

Despite these solid systems in place, and despite growth in the educational attainment of the state’s labor force over the last decade and a half, many Wisconsin workers possess no more than a high school degree (see Figure 3). This is troublesome given that high school completion alone brings little reward in Wisconsin’s current labor market. In fact, as Table 3 shows, even taking some college courses doesn’t attract wages much above those of a high school graduate; it is only the possession of an associate degree or higher that bumps wages significantly above those of a high school graduate.

Figure 3

**Share of Wisconsin Workers Ages 26 and Over, by Education, 2005**



**Source:**  
Center on Wisconsin Strategy analysis of CPS ORG data.

Table 3

**Median Wages for Workers Ages 26 and Over, by Education (WI and the U.S., 2005)**

	Wisconsin	United States
High School Dropout	\$11.07	\$ 9.83
High School Grad	14.23	13.11
Some College (no degree)	14.70	14.83
Associate Degree	16.94	16.17
Occupational/Vocational	16.93	15.95
Academic	16.95	16.55
Four-year College Degree or more	22.65	23.32

**Source:**  
Center on Wisconsin Strategy analysis of CPS ORG data.

At \$16.94, the median wage for holders of associate degrees in Wisconsin is better than the national average. An occupational associate degree is worth almost a dollar more per hour in Wisconsin than the U.S. median. Furthermore, Wisconsin produces twice as many occupational associate degrees than other states; one in 10 workers possesses these degrees in Wisconsin, compared to one in 20 for all U.S. workers. Still, just 15 percent of Wisconsin workers hold a valuable associate degree. And only 29 percent of Wisconsin workers possess a four-year college degree or more—where, as Table 3 makes clear, the pay-off in the labor market is strongest.

## Inequality in Educational Attainment

Among minority populations in Wisconsin, educational attainment tends to be disproportionately low, which—in addition to posing obvious equity concerns—is significant given that our workforce is becoming increasingly diverse. Table 4 provides data on educational attainment by race for prime working-aged adults in Wisconsin. The disparities between white and minority adults with respect to educational attainment are alarming: six percent of white adults in this age category have no high school degree or equivalent, while nearly one-quarter of minority adults don't possess a high school degree. At the other end of the spectrum, 40 percent of whites versus only 26 percent of non-whites possess an associate degree or higher.

African American educational performance in Wisconsin consistently ranks low. High school graduation rates of African Americans in the state are well below those of white students. According to the Black Alliance for Educational Options, Wisconsin recorded the worst graduation rate in the nation (50th out of 50 states) for African Americans in 1998. COWS' analysis shows that in the 2003–04 school year, the high school graduation rate for black students in the state was only 66 percent, compared to 95 percent for whites. Prime working-aged black adults in Wisconsin are more than twice as likely as whites to have no high school diploma. Moreover, although a relatively high proportion of working-aged blacks have accessed the post-secondary education system (nearly one-third have received some post-secondary education), black adults are dramatically less likely than whites to have attained an associate degree or higher (see Table 4). In other words, the systems in place to support post-secondary completion are not working well for many black students in Wisconsin.

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Table 4

### Educational Attainment of Adults Ages 25-54 by Race, Wisconsin, 2005

	White	Non-white	Black	Latino
No high school diploma or equivalent	6%	24%	15%	40%
High school diploma/GED only	32	28	32	27
Some post-secondary education (no degree)	22	22	31	14
Associate degree or higher	40	26	22	18

**Source:**

Working Poor Families Project, data generated by Population Reference Bureau from American Community Survey, 2005.  
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Educational attainment also tends to be low among Wisconsin's immigrant populations. This is particularly notable for Wisconsin's fast-growing Latino population. Four out of every 10 Latinos of prime working age in Wisconsin hold no high school degree, performing more than twice as poorly on this measure compared to African Americans and nearly eight times worse than whites. They are also less likely than both whites and blacks to hold an associate degree or higher (see Table 4). Many immigrants come to Wisconsin lacking a high school credential from their home country and unable to speak English well, if at all. According to Working Poor Families Project data generated by the Population Reference Bureau, nearly half (45 percent) of Latino adults in Wisconsin speak English less than very well, and 12 percent of low-income working families have a parent that doesn't speak English very well. Little education and limited English skills are serious impediments to immigrants' meaningful participation in Wisconsin's economy.

## Addressing Wisconsin's Workforce Challenges: Policies to Improve Outcomes for Working Low-Income Adults Are Key

Too many workers lack the education necessary to land good jobs and fill employers' critical skill shortages. These shortages can only be expected to increase as our workforce ages and becomes more diverse, threatening the success of Wisconsin's business community and our state's economic progress. At the same time, too many Wisconsin workers are getting stuck in low-wage, low-benefit careers, unable to make their way towards family-sustaining work. Fortunately, Wisconsin has a strong network of education and training programs in place to help workers—be they high school dropouts, laid-off workers in need of re-training, or immigrants with limited English abilities—obtain requisite skills. Our technical college system's associate degree programs are a particular strength, as noted previously.

We need, however, to find ways for more Wisconsinites to access these and other key programs. Table 5 displays the gap between the number of people who could potentially benefit from various education and training services, and the number actually receiving them. For instance, 143,987 Wisconsin workers were unemployed in 2005, but only 3,320 unemployed adults received training through the state's Workforce Investment Act programs. And, just a small fraction (nine percent) of Wisconsinites eligible for Adult Basic Education services received them over the 2005-06 program year. Moreover, despite nearly 120,169 working-aged adults reporting that they speak English less than very well, only 7,248 individuals were enrolled in English Language Learner (ELL) courses in 2005-2006.

Table 5

### Education and Training Gap in Wisconsin

	Education & Training Pool		Number Served
Number unemployed (2005)	143,987	Number of unemployed adults and dislocated workers receiving training through Workforce Investment Act services (2005)	3,320
Number of adults without a High School credential & not in school (2006)	295,431	Number receiving Adult Basic Education services (2005-06)	26,803
Number of adults who speak English less than very well (2005)	120,169	Number of individuals enrolled in ELL courses (2005-06)	7,248

#### Sources:

Row 1 - Wisconsin Department of Workforce Development 2006, WIASRD 2005-2006.

Row 2 - COWS analysis of 2006 American Community Survey data, Wisconsin Technical College System 2006.

Row 3 - Working Poor Families Project, data generated by Population Reference Bureau from 2005 American Community Survey, Wisconsin Technical College System 2006.

To help hardworking families in the state to achieve economic security, Wisconsin needs to expand on its successes and work hard to overcome its deficiencies, especially where our minority populations are concerned. The following key policy changes are crucial to ensuring a more equitable and economically prosperous Wisconsin.

### Strengthen and improve access to Wisconsin's education and training systems

Strengthening Wisconsin's education and training systems is crucial if we are to help low-income working families succeed in today's labor market. This need is especially acute for the 23 percent of low-income working families in Wisconsin that include a parent without a high school degree.

**Increase investment in adult basic education.** For many working adults, lack of basic math, literacy, and computer skills stand in the way of any opportunity to move toward family-supporting work. The state should invest more heavily in building this first

run toward decent jobs. Wisconsin spends about \$10.5 million on adult basic education (ABE) annually, far less than many other states. As a result, the number of adults we serve through ABE programs, and the amount we spend per pupil, are relatively low. For each basic education student enrolled in 2005, Wisconsin spent approximately \$360 per pupil—investing less than the national average (\$597) and considerably less than some of our neighbors in the Midwest. Minnesota, for example, spends about \$778 on each of its 44,220 ABE students.

*Increase overall spending.* A sizeable increase over current spending is needed to reach more individuals eligible for basic skills instruction in the state. Washington, with approximately the same number of adults eligible for ABE programs as Wisconsin, served roughly 11,000 more people than we did in 2003. It did so, in part, by investing over \$15 million more on its ABE programs than did Wisconsin.

*Increase per-pupil spending.* Success in adult education programming is better guaranteed by spending more money per pupil. Evidence suggests that low-cost, low-intensity education and training programs are less effective than their higher-cost, more comprehensive counterparts. If Wisconsin were to serve double the number of adults it does now at Minnesota’s investment level (\$778 per student), we would need to contribute approximately \$45 million annually.



For more information on how to improve access to Wisconsin’s education and training systems, go to [http://www.cows.org/pdf/bp-adultlearners\\_032907.pdf](http://www.cows.org/pdf/bp-adultlearners_032907.pdf).

**Improve access to education and training for low-income working adults.** As opposed to “traditional students” (young adults without children, financial obligations, or jobs), working adults, many of them parents, must fit school in between work and family. When these non-traditional students are also low-income, other barriers to education may exist—transportation limitations, multiple jobs, and out-of-reach child care expenses. More flexibility in the way technical colleges deliver instruction, and more and better support services targeted toward these students, can help ease this crunch.

*More workplace education.* One way to ensure that those who do not have the time or means to pursue skills development outside of work is to deliver technical college instruction at the workplace. This is also beneficial because instructors work with firms to link the instruction to actual jobs, so it is viewed by employers and workers as particularly relevant and practical.

*More affordable.* Wisconsin’s major financial aid programs are designed to benefit students who attend our colleges and universities at least half time. For many working adults, especially those with children, carrying a half-time load is simply impossible. By making less-than-half-time students eligible for financial aid, and expanding financial aid to students pursuing short-term, non-degree courses, we will help low-income working adults access and complete valuable training and programs at our technical colleges. In addition to expanding the pool of applicants eligible for financial aid, we must also increase the overall amount of aid. According to the 2006 study *Measuring Up* by the National Center for Public Policy and Higher Education, low-income families in Wisconsin need to spend over one-fifth (21 percent) of their income on tuition, and this analysis considers only the lowest-priced colleges. Wisconsin ranks behind 29 other states in this measure. Clearly, working families need more adequate support if they are to be able to pursue the skills training that our economy so direly needs.

The provision of Opportunity Grants of up to \$1,000 annually to train low-wage workers not currently eligible for financial aid—part of the state’s 2008 Grow Wisconsin plan—is a positive step towards reaching these students most in need.

**Focus on transitions from basic education to and through post-secondary training.** For many workers, the road to quality jobs is not just about acquiring the right technical skills; it's also about mastering fundamental math, language, or computer skills. Typically, workers with these skills deficits must take adult basic education (ABE) courses before enrolling in degree or certificate programs—minimizing the likelihood that they will ever pursue the kinds of occupational training that pay off well in the labor market.

*Promote integrated curriculum.* Integrating basic education and vocational training is one way to promote successful transitions of adult education students. By allowing students to pursue basic education and occupational training simultaneously, co-taught by an ABE instructor and vocational trainer, we stand to greatly increase the number of workers who graduate with a valuable associate degree in hand. The Skills Jump Start Pilot Training Grants, part of the 2008 Grow Wisconsin plan and the Regional Industry Skills Education (RISE) initiative, will support the state's technical colleges to pursue these integrated approaches.

*Measure outcomes for success.* Tracking transition rates of basic education students to and through post-secondary education are crucial to setting goals and evaluating success. Wisconsin can measure performance outcomes using the wealth of data available through the technical college system and other state system data.

### **RISE Partnership for Wisconsin**

Improving educational and occupational transitions for Wisconsin's low-income working adults is a central focus of the RISE Partnership, a collaboration led by the Wisconsin Technical College System and the Wisconsin Department of Workforce Development. RISE (Regional Industry Skills Education) promotes stronger state policies to support career pathways in the state. For more information on the RISE Partnership, go to <http://www.risepartnership.org/>.

### **Pursue a policy agenda for stronger jobs**

As stated earlier in this report, we need to prepare today's workers to fill shortages that are emerging in certain high-skill industries. However, in addition to projected growth in these high-skill, high-paying jobs, the low-paying service sector is also projected to continue growing at a rapid rate in the state. Given that these low-end jobs are not expected to go away anytime soon, and that Wisconsin residents will inevitably be filling them, we need to continue to build a stronger, high-wage, high job quality, high road economy. Wisconsin can do the following to help close off the low road economy.

**Raise and index the minimum wage.** At the state level, a strong minimum wage is part of the solution. Wisconsin's minimum wage is currently \$6.50 per hour, and it will increase to \$7.25 in July 2009 due to federal law. Despite incremental increases, inflation consistently erodes the value of the minimum wage. Wisconsin should consider joining other states that have indexed their minimum wage to inflation.



For more on raising Wisconsin's minimum wage, go to [http://www.cows.org/pdf/bp-minimumwage\\_041607.pdf](http://www.cows.org/pdf/bp-minimumwage_041607.pdf).

**Put job quality first in state and local economic development.** At all levels of government, from local to the state, elected and administrative leaders should focus on building stronger job quality. State grants, loans, tax credits, training, and other supports should promote the creation and viability of jobs which provide a decent standard of wages and benefits. And the state should follow up to make sure that promised wage and benefit standards are being met, and that these jobs are accessible to Wisconsin's most economically-disadvantaged populations. Wisconsin is taking steps to improve the accountability of its economic development programs: in the 2007 legislative session,

a bill to clean up and consolidate Department of Commerce economic development programs, establishing comprehensive annual reporting requirements and requiring development of accountability measures for economic development grants and loans, was passed by the Senate and Assembly (Assembly Bill 741). This bill responds to many issues raised by a 2007 COWS policy brief on Accountable Economic Development (see link below).

### Grow Wisconsin—The Next Steps

In January 2008, Governor Doyle released Grow Wisconsin—The Next Steps, a comprehensive plan to grow Wisconsin’s economy while pursuing opportunities to support Wisconsin workers. This plan includes important policy proposals that are in line with the recommendations of this report, including:

- \$1.5 million in **Opportunity Grants** to provide low-wage adults with extra support to access post-secondary education. Grants of up to \$1,000 annually will be made available to adults not currently eligible for technical college financial aid for technical training in high-demand occupations.
- \$240,000 directed towards **Skills Jump Start Pilot Training Grants**. These grants will support creation of pilot curricula at technical colleges to promote occupationally contextualized adult basic education.
- \$3 million for expansion of **Worker Training Partnerships** between Wisconsin Technical College System and area businesses to train an estimated 30,000 workers over the next two years.
- Support for an **increase in Wisconsin’s minimum wage** from \$6.50 per hour to the July 2009 scheduled federal rate of \$7.25 per hour.

The full report can be accessed at <http://www.wisgov.state.wi.us/docview.asp?docid=12933>.

**Focus purchasing power on job quality.** Public sector purchasing power should also enforce and support job quality in the state. As the public sector seeks competitive bids for the provision of services, we should pay careful attention to the job quality offered by prospective providers. A low bid from a provider who’s workers are likely to end up on Medicaid may actually cost the state more than a higher bid from an employer offering better jobs. Further, the state should never contract with chronic violators of basic labor law. At the local level, living wage laws require that government service contracts go only to firms which pay workers at a specific level. These policies prevent the use of taxpayer dollars to subsidize poverty jobs.



For more on ensuring accountable economic development in Wisconsin, go to [http://www.cows.org/pdf/bp-accountabledevelopment\\_032907.pdf](http://www.cows.org/pdf/bp-accountabledevelopment_032907.pdf).

Implementing these strategies will require the concerted effort and genuine commitment of government, business, labor, community organizations, and other concerned groups. Doing so will not be easy. But given the clear economic need for better jobs and higher skills in the Wisconsin economy, these steps are critical for families, for businesses, and for our state.

## Appendix A

# Key Middle-Skill Opportunities in Wisconsin

In the following table, COWS screened state occupational projections data to produce a list of promising emerging industries. We identified Wisconsin occupations where skill shortages are projected to emerge in upcoming years, and which hold promise for workers without a four-year college degree. All of the jobs listed are projected to have a minimum of 50 total openings per year between 2004-2014, pay an entry-level hourly wage of at least \$10, and do not typically require a four-year college degree or experience in a related occupation (excluding almost all supervisory and management positions).

### SUMMARY

Industry	Number of Occupations	Estimated Annual Openings
Construction and Utilities	22	4,520
Manufacturing	30	4,690
Logistics	9	3,390
Clerical/Sales	22	7,490
Health Care	17	5,270
Other	5	900
<b>Total</b>	<b>105</b>	<b>26,260</b>

### DETAIL

SOC Code	Occupational Title	Average Annual Openings <sup>1</sup>	Typical Education and Training Path <sup>2</sup>	Average Annual Salary <sup>3</sup>	Entry Level Wage <sup>4</sup>	Exper. Hourly Wage <sup>5</sup>
<b>Construction and Utilities</b>						
47-2031	Carpenters	1,150	Long-term on-the-job training, apprenticeship	\$38,602	\$12.93	\$21.37
47-2111	Electricians	480	Long-term on-the-job training, apprenticeship	\$47,298	\$16.27	\$25.97
47-2152	Plumbers, pipefitters, and steamfitters	430	Long-term on-the-job training, apprenticeship	\$52,075	\$17.49	\$28.81
47-2073	Operating engineers and other construction equipment operators	320	Moderate-term on-the-job training	\$43,669	\$15.38	\$23.80
47-2061	Construction laborers	310	Moderate-term on-the-job training	\$33,988	\$10.76	\$19.13
47-2141	Painters, construction, and maintenance	250	Moderate-term on-the-job training	\$34,948	\$10.42	\$19.99
49-9021	Heating, air conditioning, and refrigeration mechanics and installers	240	Long-term on-the-job training, apprenticeship	\$39,795	\$13.04	\$22.18
47-2051	Cement masons and concrete finishers	190	Moderate-term on-the-job training	\$37,515	\$12.61	\$20.75
47-2181	Roofers	150	Moderate-term on-the-job training	\$34,180	\$11.41	\$18.94
49-9099	Installation, maintenance, and repair workers, all other	140	Moderate-term on-the-job training	\$35,523	\$10.83	\$20.20
47-2021	Brickmasons and blockmasons	130	Long-term on-the-job training, apprenticeship	\$48,083	\$16.55	\$26.40
49-9052	Telecommunications line installers and repairers	110	Long-term on-the-job training, apprenticeship	\$37,089	\$12.21	\$20.64
17-3023	Electrical and electronic engineering technicians	80	Associate degree	\$45,020	\$16.10	\$24.41
49-9051	Electrical power-line installers and repairers	80	Long-term on-the-job training, apprenticeship	\$52,326	\$19.85	\$27.81
49-2022	Telecommunications equipment installers and repairers, except line installers	70	Post-secondary vocational training	\$48,174	\$18.03	\$25.73
47-2081	Drywall and ceiling tile installers	60	Moderate-term on-the-job training	\$41,030	\$12.53	\$23.32
47-2221	Structural iron and steel workers	60	Long-term on-the-job training, apprenticeship	\$42,998	\$12.68	\$24.67
47-3011	Helpers: brickmasons, blockmasons, stonemasons, and tile and marble setters	60	Short-term on-the-job training	\$29,300	\$10.02	\$16.12
49-3042	Mobile heavy equipment mechanics, except engines	60	Post-secondary vocational training	\$40,309	\$15.74	\$21.20
17-3022	Civil engineering technicians	50	Associate degree	\$42,505	\$15.39	\$22.96
17-3029	Engineering technicians, except drafters, all other	50	Associate degree	\$46,429	\$16.43	\$25.27
47-2041	Carpet installers	50	Moderate-term on-the-job training	\$37,408	\$11.10	\$21.43

<b>Manufacturing</b>						
49-9042	Maintenance and repair workers, general	830	Post-secondary vocational training, apprenticeship	\$34,576	\$11.49	\$19.19
51-4041	Machinists	420	Post-secondary vocational training, apprenticeship	\$36,206	\$12.79	\$19.72
51-4121	Welders, cutters, solderers, and brazers	400	Post-secondary vocational training	\$33,618	\$12.69	\$17.90
51-4031	Cutting, punching, and press machine setters, operators, and tenders, metal and plastic	270	Moderate-term on-the-job training	\$28,868	\$10.00	\$15.82
51-5023	Printing machine operators	230	Moderate-term on-the-job training	\$35,902	\$11.99	\$19.90
51-4072	Molding, coremaking, and casting machine setters, operators, and tenders, metal and plastic	210	Moderate-term on-the-job training	\$28,838	\$10.23	\$15.68
47-2211	Sheet metal workers	190	Long-term on-the-job training, apprenticeship	\$44,323	\$13.55	\$25.19
51-9196	Paper goods machine setters, operators, and tenders	180	Moderate-term on-the-job training	\$34,522	\$11.89	\$18.95
49-9041	Industrial machinery mechanics	160	Post-secondary vocational training, apprenticeship	\$42,137	\$15.37	\$22.70
51-4011	Computer-controlled machine tool operators, metal and plastic	130	Moderate-term on-the-job training	\$34,853	\$11.82	\$19.22
51-4081	Multiple machine tool setters, operators, and tenders, metal and plastic	130	Post-secondary vocational training	\$33,487	\$11.90	\$18.20
51-9121	Coating, painting, and spraying machine setters, operators, and tenders	130	Moderate-term on-the-job training	\$31,670	\$11.01	\$17.33
17-3013	Mechanical drafters	110	Post-secondary vocational training	\$42,888	\$14.93	\$23.47
51-2041	Structural metal fabricators and fitters	110	Moderate-term on-the-job training	\$34,877	\$13.63	\$18.34
51-4033	Grinding, lapping, polishing, and buffing machine tool setters, operators, and tenders, metal and plastic	110	Moderate-term on-the-job training	\$31,653	\$10.81	\$17.42
51-9023	Mixing and blending machine setters, operators, and tenders	110	Moderate-term on-the-job training	\$31,952	\$11.05	\$17.52
51-4111	Tool and die makers	100	Post-secondary vocational training, apprenticeship	\$44,111	\$16.56	\$23.53
51-9032	Cutting and slicing machine setters, operators, and tenders	90	Moderate-term on-the-job training	\$31,979	\$10.99	\$17.57
51-4021	Extruding and drawing machine setters, operators, and tenders, metal and plastic	80	Moderate-term on-the-job training	\$29,125	\$10.01	\$16.00
51-4032	Drilling and boring machine tool setters, operators, and tenders, metal and plastic	70	Moderate-term on-the-job training	\$31,403	\$10.35	\$17.47
51-5021	Job printers	70	Long-term on-the-job training	\$34,741	\$11.51	\$19.30
51-5022	Prepress technicians and workers	70	Post-secondary vocational training	\$35,447	\$11.84	\$19.64
51-4122	Welding, soldering, and brazing machine setters, operators, and tenders	70	Moderate-term on-the-job training	\$32,175	\$11.09	\$17.66
51-9012	Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders	70	Moderate-term on-the-job training	\$35,536	\$12.18	\$19.54
17-3026	Industrial engineering technicians	60	Associate degree	\$40,798	\$15.12	\$21.86
49-9043	Maintenance workers, machinery	60	Short-term on-the-job training	\$34,730	\$11.36	\$19.37
49-9044	Millwrights	60	Post-secondary vocational training, apprenticeship	\$49,479	\$18.22	\$26.57
51-4034	Lathe and turning machine tool setters, operators, and tenders, metal and plastic	60	Moderate-term on-the-job training	\$32,667	\$11.48	\$17.82
51-4199	Metal workers and plastic workers, all other	60	Moderate-term on-the-job training	\$47,269	\$13.56	\$27.31
51-2031	Engine and other machine assemblers	50	Short-term on-the-job training	\$38,051	\$12.52	\$21.18
<b>Logistics</b>						
53-3032	Truck Drivers, heavy and tractor-trailer	1,570	Moderate-term on-the-job training	\$36,797	\$12.60	\$20.24
49-3023	Automotive service technicians and mechanics	630	Post-secondary vocational training	\$33,749	\$10.35	\$19.16
53-7051	Industrial truck and tractor operators	430	Short-term on-the-job training	\$29,323	\$10.62	\$15.83
49-3031	Bus and truck mechanics and diesel engine specialists	230	Post-secondary vocational training	\$36,184	\$12.86	\$19.66
47-4051	Highway maintenance workers	140	Moderate-term on-the-job training	\$32,034	\$11.41	\$17.40
53-3021	Bus drivers, transit and intercity	140	Moderate-term on-the-job training	\$34,154	\$10.59	\$19.34
49-3021	Automotive body and related repairers	110	Long-term on-the-job training	\$34,394	\$11.31	\$19.15
43-5032	Dispatchers, except police, fire, and ambulance	90	Moderate-term on-the-job training	\$33,733	\$10.78	\$18.94
49-3041	Farm equipment mechanics	50	Post-secondary vocational training	\$30,386	\$10.96	\$16.43

Health Care						
29-1111	Registered nurses	2,610	Associate or Bachelor's degree <sup>6</sup>	\$55,060	\$21.53	\$28.94
29-2061	Licensed practical and licensed vocational nurses	400	Post-secondary vocational training	\$36,842	\$14.81	\$19.16
31-9092	Medical assistants	390	Moderate-term on-the-job training	\$27,441	\$10.98	\$14.30
31-9091	Dental assistants	330	Moderate-term on-the-job training	\$28,602	\$10.78	\$15.23
29-2021	Dental hygienists	210	Associate degree	\$54,203	\$23.01	\$27.58
29-2034	Radiologic technologists and technicians	210	Associate degree	\$46,916	\$17.91	\$24.88
31-9094	Medical transcriptionists	210	Post-secondary vocational training	\$29,857	\$11.83	\$15.62
43-6013	Medical secretaries	180	Post-secondary vocational training	\$28,471	\$10.89	\$15.09
29-2012	Medical and clinical laboratory technicians	110	Associate degree	\$34,900	\$13.37	\$18.48
19-4099	Life, physical, and social science technicians, all other	100	Associate degree	\$35,981	\$13.15	\$19.37
29-1126	Respiratory therapists	100	Associate degree	\$47,309	\$18.81	\$24.71
29-2055	Surgical technologists	100	Post-secondary vocational training	\$40,055	\$15.38	\$21.20
29-2099	Health technologists and technicians, all other	100	Post-secondary vocational training	\$36,103	\$11.98	\$20.04
29-2056	Veterinary technologists and technicians	60	Associate degree	\$27,233	\$10.00	\$14.64
31-2021	Physical therapist assistants	60	Associate degree	\$38,342	\$14.75	\$20.28
29-2032	Diagnostic medical sonographers	50	Associate degree	\$66,410	\$25.54	\$35.12
29-9099	Healthcare practitioners and technical workers, all other	50	Post-secondary vocational training	\$38,363	\$11.90	\$21.72
Clerical/Sales						
43-4051	Customer service representatives	1,560	Moderate-term on-the-job training	\$30,262	\$10.03	\$16.81
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	1,320	Moderate-term on-the-job training	\$57,978	\$15.20	\$34.21
43-6011	Executive secretaries and administrative assistants	980	Moderate-term on-the-job training	\$34,427	\$12.03	\$18.81
43-6014	Secretaries, except legal, medical, and executive	860	Post-secondary vocational training	\$27,426	\$10.06	\$14.75
41-4011	Sales representatives, wholesale and manufacturing, technical and scientific Products	310	Moderate-term on-the-job training	\$67,950	\$19.44	\$39.28
15-1041	Computer support specialists	270	Associate degree	\$38,897	\$13.43	\$21.34
43-3011	Bill and account collectors	260	Short-term on-the-job training	\$28,586	\$10.63	\$15.30
41-3099	Sales representatives, services, all other	250	Moderate-term on-the-job training	\$56,183	\$13.10	\$33.97
43-5061	Production, planning, and expediting clerks	230	Short-term on-the-job training	\$38,840	\$13.45	\$21.28
43-3021	Billing and posting clerks and machine operators	200	Moderate-term on-the-job training	\$28,135	\$10.87	\$14.86
43-3051	Payroll and timekeeping clerks	180	Moderate-term on-the-job training	\$30,645	\$10.74	\$16.73
43-9041	Insurance claims and policy processing clerks	170	Moderate-term on-the-job training	\$29,410	\$10.99	\$15.72
13-1031	Claims adjusters, examiners, and investigators	160	Long-term on-the-job training	\$45,741	\$14.14	\$25.92
43-4161	Human resources assistants, except payroll and timekeeping	140	Post-secondary vocational training	\$32,795	\$12.00	\$17.65
43-6012	Legal secretaries	130	Post-secondary vocational training	\$32,816	\$11.44	\$17.94
41-3011	Advertising sales agents	90	Moderate-term on-the-job training	\$41,833	\$10.89	\$24.73
23-2011	Paralegals and legal assistants	80	Associate degree	\$41,414	\$13.81	\$22.96
41-9022	Real estate sales agents	70	Post-secondary vocational training	\$51,163	\$13.57	\$30.11
43-9022	Word processors and typists	70	Moderate-term on-the-job training	\$29,444	\$10.92	\$15.77
43-4131	Loan interviewers and clerks	60	Short-term on-the-job training	\$29,870	\$10.76	\$16.16
43-4031	Court, municipal, and license clerks	50	Short-term on-the-job training	\$32,571	\$10.69	\$18.15
43-9011	Computer operators	50	Moderate-term on-the-job training	\$34,500	\$11.56	\$19.10
Other						
33-3051	Police and sheriff's patrol officers	350	Long-term on-the-job training	\$44,433	\$16.09	\$24.00
43-5052	Postal service mail carriers	220	Short-term on-the-job training	\$43,255	\$15.63	\$23.38
33-3012	Correctional officers and jailers	140	Moderate-term on-the-job training	\$35,074	\$14.23	\$18.18
43-5053	Postal service mail sorters, processors, and processing machine operators	100	Short-term on-the-job training	\$41,705	\$14.76	\$22.70
13-1041	Compliance officers, except agriculture, construction, health and safety, and transportation	90	Long-term on-the-job training	\$52,524	\$16.84	\$29.46

## NOTES

(1) **Total openings** are the sum of new jobs and replacements, and indicate how many new people are needed to enter a given occupation. Replacements are an estimate of the number of job openings expected because people have permanently left a given occupation. Permanent exits occur if someone dies, retires, or otherwise leaves the labor force. Openings resulting from people changing employers, but staying in the same occupation, are not included. Permanent exits also include openings resulting from someone permanently changing occupations. For example, a person leaves their job as a cashier and becomes a truck driver.

(2) **Typical Education and Training Path** gives a general indication of the education or training typically needed in a given occupation. There may be other pathways into the occupation, as well as additional educational, training, or licensing requirements. In those set off by italics, the Wisconsin case differs from the standard BLS description by including post-secondary vocational training and/or apprenticeship.

**Short-Term On-the-Job Training:** These occupations require no more than one month of on-the-job training, and the training usually happens at the workplace.

**Moderate-Term On-the-Job Training:** Training for these occupations usually occurs at the workplace and lasts from one to twelve months.

**Long-Term On-the-Job Training:** These occupations require more than one year of on-the-job training, or combined work experience and classroom instruction.

**Post-secondary Vocational Training:** These formal training programs last from a few weeks to more than a year, and are offered at vocational or technical schools.

**Associate Degree:** This degree requires two years of full-time academic work beyond high school.

(3) **Average Annual Salary:** An occupation's average hourly wage is calculated by summing the wages of all employees in a given occupation and then dividing by the total number of employees in that occupation. In most cases, the annual average salary is equal to the average hourly wage multiplied by 2,080.

(4) **Entry Level Hourly Wage** is the average of the lower third of wages that are paid in a given occupation.

(5) **Experienced Hourly Wage** is the average of the upper two-thirds of wages that are paid in a given occupation.

(6) Depending upon the specific position and employer either an Associate or Bachelor's degree are most common.