

ADVANCED EDUCATION AND GLOBIZATION IN THE GREATER QUAD-CITIES AREA

After reading Richard Longworth's book, "Caught in the Middle", our group decided to focus on the greater Quad-Cities area/State of Iowa and the need to provide the necessary education for the future workforce in order to remain competitive in a global economy. We focused specifically on area high schools and the preparation they are receiving for Advance Education and the future needs of the QCA employers.

Insanity: "Doing the same thing over and over again and expecting different results."

Albert Einstein

Focusing on the high school institutions in the QCA and whether they are providing the necessary foundation to our students gave us insight into whether current and future industries will be drawn to and remain in the QCA based on the availability of an educated and skilled work force. This is not limited to Executive/Managerial/Technical advanced degrees, but also the necessary skills needed for production, support, clerical and service occupations.

The United States is in a period of transition. Globalization is changing how all nations view economic development, how and where businesses seek talent and offer services and products across borders. Globalization has also changed personal advancement opportunities. As other nations challenge us in the technological, scientific, and economical arenas, the U.S. is realizing that we can no longer be passive about globalization. "While other nations are making significant gains in educating their populations, educational achievement in the United States has stagnated over the last two decades. If we do not address this issue in the next few years, the educational advancement of other nations compared with the United States may change both the way we live and the freedoms we enjoy."¹

The American culture sends our children signals as to what society values in life. The blend of media, government, family expectations, community values, and behavioral norms are decidedly NOT academic or intellectual achievement. When it comes to school, America is a sports and extracurricular culture and our students are getting the message.²

¹ Gordon K. Davies, Setting a Public Agenda for Higher Education in the States, Dec. 2006

² 2 Million Minutes: Lesson Plan – Action Steps for Cultural and Educational Change

Young Americans who graduate from high school on time are now more likely to take courses that prepare them for college and to enroll in college, compared with earlier this decade or in the 1990s. But far too many graduates leave high school unprepared to succeed in college-level courses and need remediation when they enroll. In addition, larger proportions than in the past fail to graduate from high school; some eventually receive alternative high school certification, principally the GED, but they do not enroll in college in large numbers. The reduced high school graduation rate decreases the pool of potential college graduates and college-educated workers.

The problem we face now is that a lot of young Americans really don't want to go into the math and science fields because it is more difficult than some of the other subject areas. They simply don't want to take the tough subjects and struggle through them and parents don't want to see their children struggle that hard. Over one third of our children that start ninth grade do not finish high school. We must find ways to keep these children interested in learning. In this information age challenges that require STEM skills will only increase in the years to come. And if American students aren't equipped to do the work, there are tens of millions of workers in Asia who will step in and take those jobs. And the next generation of American workers will become service workers.

Overall, the pattern of readiness for college coursework is similar across the five high growth career fields: Student preparation is highest for English and social sciences, and much lower for math and science. The lower levels of preparation among graduating high school students is alarming, given the high demand for science and math-intensive careers such as computer programming, nursing, and teaching.

As rising unemployment and layoffs beset workers around the country, Iowa faces a different problem: a surplus of jobs. Or to put it another way: a shortage of workers. A survey of companies by Iowa Workforce Development, a state agency, found as many as 48,000 job vacancies, in industries including financial services — Des Moines trails only Hartford as the nation's insurance capital — health care and skilled manufacturing. One estimate projects the job surplus to reach 198,000 by 2014, with vacancies increasingly in professional positions. Greater Des Moines alone faces a shortfall of 60,000 workers in the next decade.

The state provides a small, advanced view of what some economists predict will be a broader shortage of skilled workers in the next 20 or 30 years, as tens of millions of baby boomers retire from the workplace, and the economy produces more new jobs than workers. Potential consequences include slower economic growth and competitiveness, as well as higher wages for skilled workers and greater inequality.

Iowa's labor force and economy are strengthened when the state's high school graduates are prepared for college and are interested in pursuing available jobs in Iowa. Academic preparation is critical, given that many of the projected high growth job openings in Iowa will require a 2-year college degree or more. In Iowa, five of the expected highest growth career fields will be education, management, marketing & sales, computer specialties, and health care. Do Iowa's future workers have the necessary skills to fill positions in these high-growth careers? Are Iowa's future workers interested in jobs in these fields? Using 2008 ACT results for 13,519 Iowa high school graduates with career interest information, and 2004-2014 Iowa state long-term occupational projections (based on job growth and job replacement); here is what we know so far.

There is some interest among Iowa high school students in pursuing these high-growth career fields, but not enough to meet the demand. Of Iowa students expressing interest in most of these high-growth career fields, nearly three-quarters or more are ready for first-year college English courses, while less than two-thirds are prepared for college-level social science courses. Of Iowa students expressing interest in most of these high-growth career fields, less than one-half are ready for college-level math or science courses.

Iowa educators should continue to encourage their students to pursue high growth Iowa career fields.

The gaps between expected jobs and interested students are apparent for careers in education (secondary teachers, administrators, etc.), management (convention planners, hotel/restaurant managers, etc.), marketing & sales (insurance agents, buyers, etc.), and computer specialties (computer programmers, database administrators, etc.), with more jobs expected than students interested in jobs in these fields (Figure 4). Iowa may be faced with potential labor shortfalls in fields where skilled individuals are most needed.

Although the gap between students interested in the health care field (nurses, occupational therapists, etc.), and the jobs that will be available in this field is more narrow, many of these students are not ready to meet or exceed one or more of ACT's College Readiness Benchmarks in English, reading, mathematics, or science (Figure 2). Students who are interested and college ready are more likely to be successful in the coursework needed to enter this high-growth career field.

Students are ready to succeed in entry-level college courses if they meet ACT's College Readiness Benchmarks. In Iowa, nearly three-quarters or more of students are prepared for first-year college coursework in English for four of the five high growth career fields. Fewer students interested in these high-growth fields are prepared to succeed in college-level social science courses (indicated by ACT Reading Benchmark), with students pursuing health care careers being the least prepared and students pursuing computer specialties careers being the most prepared. One-half or more of students wanting to enter computer specialties are ready for college-level math or science courses. Less than one-half of students pursuing careers in education, management, marketing & sales, and health care are ready for college-level math or science.³

Iowa's surplus arises from colliding trends: the exodus of young college graduates, a state economy that adds 2,000 jobs a month, low immigration and birth rates, and an image problem that makes it difficult to recruit workers from out of state. Iowans' median age is nearly two years above the national figure, and the state is near the top in the rates of women in the workforce and workers with multiple jobs — further shrinking the pool of people who might be drawn into the market. The state remains a tough sell with young Iowans. For Jessamyn Thomas, 18, a high school senior who hopes to move to Chicago after she graduates from [Iowa State University](#), life in an economic bubble is not enough. "There are opportunities here," she said. "But it's also the same place you've lived all your life, and it's Iowa, so it's not very exciting." Her classmate Tucker Slauson, 17, agreed. "There are jobs here," he said, "because everybody leaves."⁴

³ College and Workforce Training Readiness Act – 2008 ACT, Inc

⁴ As Iowa Job Surplus Grow, Workers Call the Shots – NY Times.com 5/31/08

In fact, Skills 2010 showed that the employers believe the availability of skilled workers is the No. 1 factor impeding their ability to grow. In both the 2010 and the 2006 Skills reports, the top three were: availability of skilled workers, quality of workforce and labor attitude.⁵ In its Blueprint 2010 economic growth strategy, the Illinois Quad-City Chamber of Commerce identified two workforce goals: talent attraction and retention as well as business retention and attraction. In 2006 the United States had 1.3 million college graduates; India had 3.1 million, and China 3.3 million. In India 100% of those college graduates speak English.

The likelihood that a high school freshman will enroll in college by age 19 has improved modestly in this decade, from 39% to 42%, and the proportion of 18- to 24-year-olds enrolled in college has grown even more modestly. Meanwhile, the enrollment of working-age adults in college level education or training has been declining since the early 1990s. Overall, the *Measuring Up* indicators show that access to college is fairly flat in the United States, with mostly small improvements in some states and declines in others.

The nation's colleges and universities have become less affordable for students and their families since the early 1990s. This year continues the trend in deteriorating college affordability in the majority of states. Although many states increased their investment in need-based financial aid, tuition increases outpaced growth in financial aid. In all but two states, the percentage of family income, after financial aid, needed to pay for a public four-year college has increased since 2000. On average, students from working and poor families must pay 40% of family income to enroll in public four-year colleges. Students from middle-income families and upper-income families must pay 25% and 13% of family income, respectively, to enroll in public four-year colleges.⁶

For students who enroll in college, rates of completion of certificate, associate, and baccalaureate programs are poor and have improved only slightly. These low college completion rates — as with the declining rates of high school completion — are depriving the nation of college-educated and trained workers needed to keep the American workforce competitive globally.

The United States' world leadership in college access has eroded steadily, as reflected in the international comparisons of the proportion of 18- to 24-year-olds enrolled in college. In college completion, which has never been a strength of American higher education, the U.S. ranks 15th among 29 countries compared. The U.S. adult population ages 35 and older still ranks among the world leaders in the percentage who have college degrees — reflecting the educational progress of earlier times. Among 25- to 34-year-olds, however, the U.S. population has slipped to 10th in the percentage that have an associate degree or higher. This relative erosion of our national “educational capital” reflects the lack of significant improvement in the rates of college participation and completion in recent years.⁷

* Net college costs equal tuition, room, and board, minus financial aid. The numbers may not add exactly due to rounding. Source: *Measuring Up 2008*. Third, students who do enroll in college are

⁵ Skills 2010 - A Study of Employment Needs for Eastern Iowa

⁶ Measuring Up 2008 – The National Report Card on Higher Education – The National Report Card For Public Policy and Higher Education.

⁷ Measuring Up 2008 – The National Report Card on Higher Education – The National Report Card For Public Policy and Higher Education.

taking on more debt to maintain their college access. More students are borrowing, and they are borrowing more. Over the last decade, student borrowing has more than doubled.

Since the early 1990s, most states have increased the number of students earning certificates and degrees as a proportion of state residents without a college degree. However, overall rates of completion have remained fairly low and even the performance of the best states in this area is not impressive. For example, in the top states only 68% of students at four-year institutions complete a bachelor's degree within six years of enrolling.

Education has not changed, but this new generation of kids has, and they are bored, and they are dropping out. We need to adapt our educational system to this new generation of kids. If ever there was a time for us to act, it is now. We as leaders in business, government, education, and the community must redouble our efforts toward educating our kids.

Ways we can increase our efforts are to keep students informed of skill demand and opportunities, and increase student awareness of declining earning potential due to lack of higher education. Employers, Staffing Services and Educators need to increase partnerships.

Implementation of this change depends heavily on the government. Consider the Soviet Union's launch of Sputnik. Our country was shocked! We suddenly realized that if the Soviets could put a satellite in orbit, they use their nuclear weapons against us at the press of a button. The country mobilized. Congress mobilized. They passed the **National Defense Education Act**, and President Eisenhower signed it in 1958.

It gave money and grants to universities, high schools, middle schools, even private schools, to get involved with more science and math and to fund research labs. It poured money into our school systems to stimulate teaching and interest in engineering.

Kids were going off to college like they were going off to war and as a result of this major emphasis on science and math the United States produced more technological advancements in the history of man.

We need to create the same sense of urgency and competitiveness today!

Parents and students must also take a leading role. We need to encourage more academic achievement as opposed to extra curricular activities – help children prioritize. They need to regain control and limit wants and prioritize needs. Help instill a sense of responsibility, accountability and discipline as well as the seriousness of the current state of our education system.

Business Leaders, the education system and the community also need to support this and be involved.

As Richard Longworth stated, “The economy is shifting from rewarding muscle and sweat to valuing brain and knowledge.” We must step up and regain control of education in order to remain competitive in a globalizing economy. The Midwest is losing their once respected academic values and places too much emphasis on extra curricular areas. We need to bring our children back to the books and increase their sense of responsibility in a changing world. With the globalization of the economy, higher education has a direct impact on the lifestyle and well-being of the American public.

The Midwest cannot wait, we need to lead the charge. If ever there was a time for us to act, it is now. We as leaders in business, government, education, and the community must increase our efforts toward educating our kids.

Appendix

Figure 1

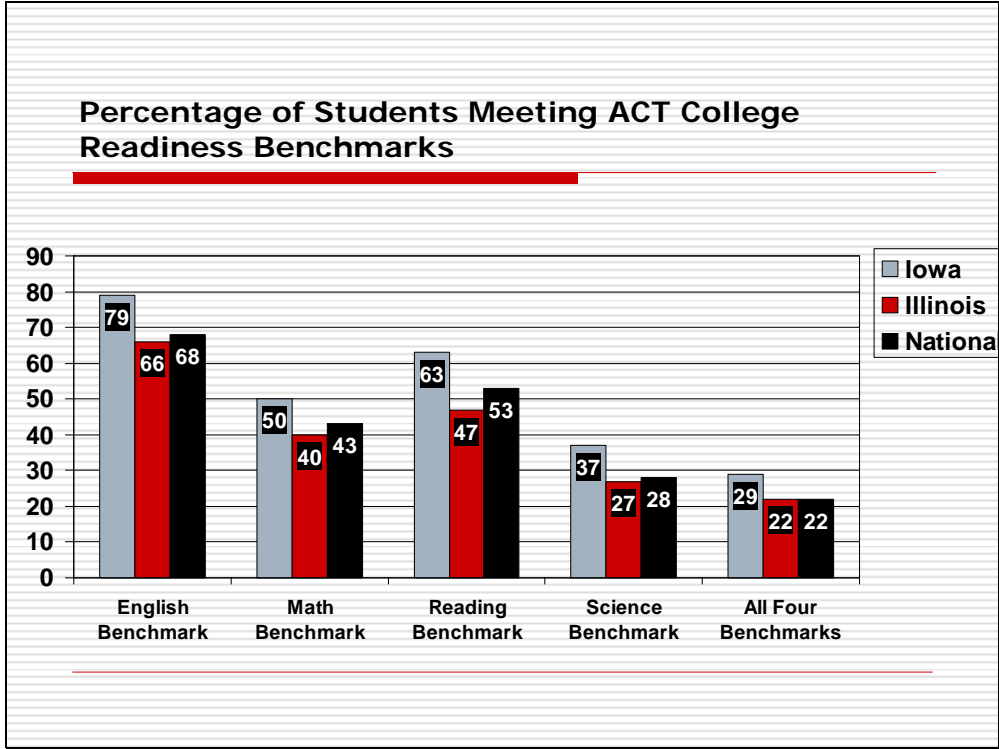


Figure 2

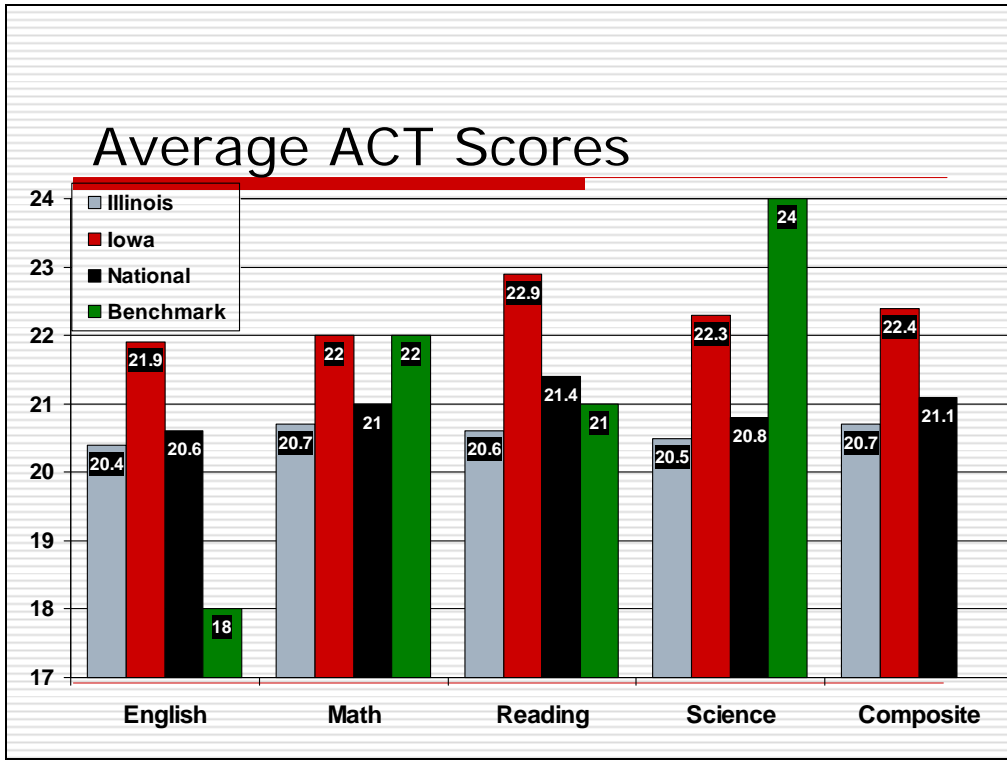


Figure 3

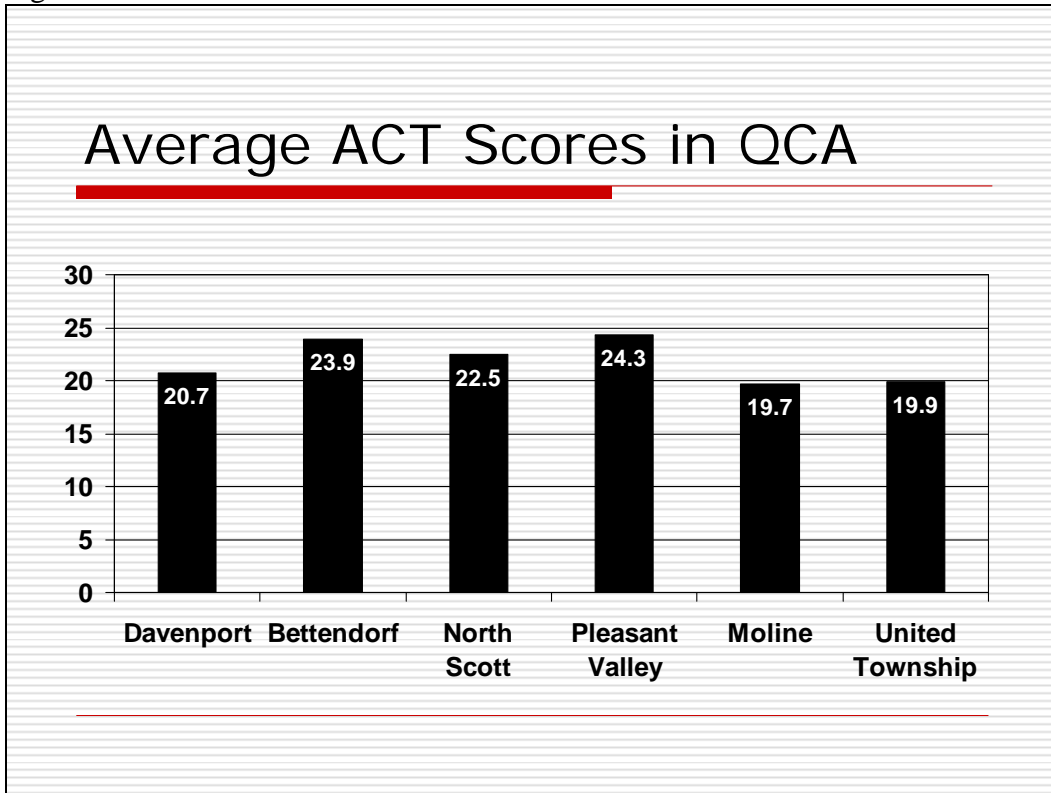


Figure 4

Current Skills Needed vs. Interest

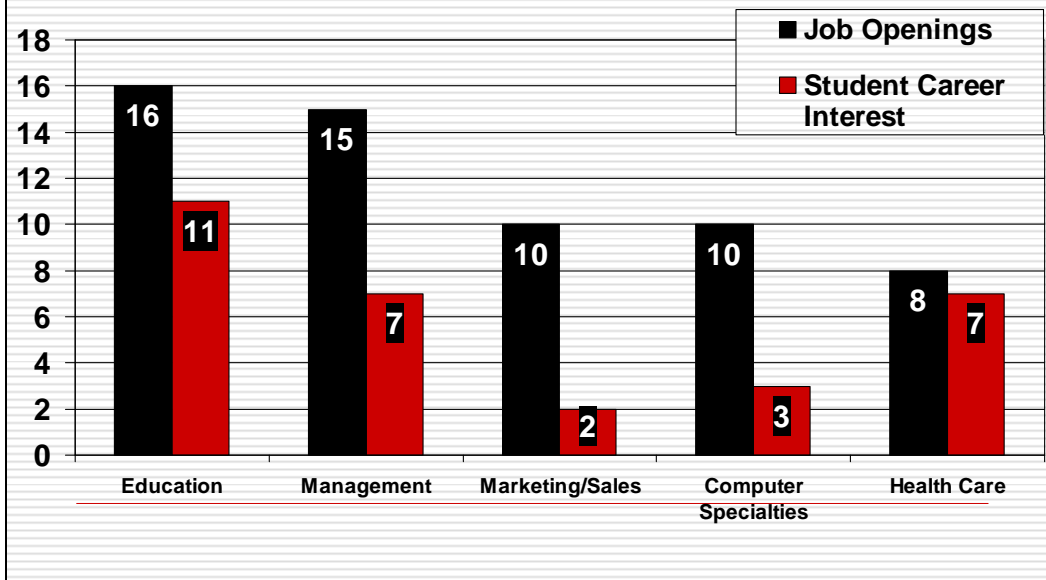


Figure 5

QUAD CITY FEDERATION CHAMBER OF COMMERCE

ADVANCED EDUCATION SURVEY – 2008

City: _____ Name of School: _____

Address: _____

Current Enrollment: _____ Teacher/Student Ratio: _____

Enrollment by Grade Level: 9th _____ 10th _____ 11th _____ 12th _____

Absence Percentage: _____ Percentage of 9th Graders Who Graduate: _____

Percentage of student population that drop out of school: _____

To help us in our White Paper concerning advanced education please list the required courses for graduation and semesters for the following areas:

English: _____

Math: _____

Sciences: _____

Social Studies: _____

Literature: _____

Business: _____

Language: _____

Please list all advance classes or college prep classes offered at your location:

Percentage of graduates that go to college: _____

Percentage that complete college, if known: _____

Please list the average ACT/SAT/PSAT test scores for your location:

Do you currently have manual arts classes available: _____?

Please indicate with and "X" the ones currently offered:

Drafting: _____ Welding: _____ Machine Shop: _____ Auto: _____

Electrical: _____ Wood Shop: _____

Do you have an intern type program with local businesses for students in manual arts?

_____.

If you do, please list the QC employers who use these programs:

Are you in partnership with any of the QC employers to train students in manual arts? If so, please list these employers:

Do you work with any local organized labor (unions) to provide training in manual arts? If so, please list: _____

Do you work with local community colleges and technical schools on providing manual arts training for high school students? If so, please list:

Do you sponsor job fairs at your location?

What percentage(s) of graduates attend a local Quad City college in either Illinois or Iowa?

RESULTS

	United Township	Davenport	Pleasant Valley	North Scott	Bettendorf	Moline
Population	1718	15967	1128	990	1400	2166
Teacher/Student Ratio	15.2 : 1	13:01	17:01	16.5:1	20:01	22:01
9th	395	1432	276	221	360	544
10th	399	1271	278	245	365	567
11th	453	1029	272	268	370	552
12th	469	1052	302	255	305	503
Absence %	7.2	6.55	10.67	10.67	5	6
% of 9th grade graduates	85	74.92*	92.7	92.7	94	85
Drop out rate	4.5	3.72	1.8	2.1	6	15
English	3.5 - 4 credits	4 years	4 years	4 years	4	4 years
Math	3 credits	3 years	3 years	3 years	3	3 years
Sciences	1-2 credits	3 years	3 years	3 years	3	2 years
Social Studies	2.5 credits	3.5 years	3 years	3 years	3	3 years
Literature	same as english	same as english	same as english	same as english	1	n/a
Business	7-8 units	no	no	no	no	.5 years
Language	n/a	n/a	23 credits	54 credits	no	n/a
College prep classes	yes	yes	yes	yes	yes	yes
% of grads attend 2-yr college	49					
% of grads attend 4-yr college	27	76.11	79	76.8	65	66
% complete college	n/a	n/a	n/a	n/a	n/a	n/a
Average ACT/SAT/PSAT	19.9	20.7	24.3	22.5	23.9	19.7
Manual arts	yes	yes	yes	yes	yes	yes
Drafting	yes	yes	yes	yes	yes	yes
Welding	yes	yes	yes	yes	yes	yes
Machine Shop	yes	yes	yes	yes	yes	yes
Auto	yes	no	yes	yes	yes	no
Electrical	yes	yes	no	yes	yes	no
Wood Shop	yes	yes	yes	yes	yes	yes
Intern program	yes	yes	yes	yes	no	yes
Employer partnerships	yes	yes	yes	yes	no	no
Unions	yes	yes	no	yes	no	minimal
Community College partners	yes	yes	yes	yes	yes	no
Job Fair sponsorship	yes	yes	no	yes	yes	yes
% graduates attend local univ/coll	n/a	n/a	n/a	n/a	10	n/a

* overall district graduation rate