

K-12 Reform? No, Make That K-16 Reform

For Pete Butler, engineering manager at Procter & Gamble's largest manufacturing facility, qualified technical workers are so scarce that the company fears "we will just flat run out of people."

The 2,600 technicians who make Pampers, Luvs and Charmin operate highly automated equipment and monitor complex processes. They need solid math, science, communication and technical skills to recognize and solve problems together quickly — or else the botched run costs Procter & Gamble a significant sum.

Finding people with these skills has become a critical business challenge, not just for Procter & Gamble in the mountains of northeastern Pennsylvania, but for thousands of businesses across the country.

A Needle in a Haystack

"One of the things that has been alarming to us is the number of folks we have to look at before we find qualified employees," Butler says. "We recently hired about 400 technicians. We screened over 6,000 people to find them."

The typical new hire at the plant is a 30-year-old who has spent 10 years working and picking up skills elsewhere. "We lose 10 years of productivity," as Butler figures it. Even then, he estimates that Procter & Gamble invests \$100,000 over eight to 10 years in new employees before



Industry involvement in technical training increasingly is becoming a major affair. Here, students Matt Zurn, Boyd Semken and Tony Josephite from Lackawanna Trail High School in northeastern Pennsylvania prepare a robot for the S. First competition in New Jersey. Light manufacturers in the Northern Tier Industry Education Consortium advised the students.

they become top-producing master technicians.

Post-Secondary Schools Don't Measure Up

"We'd like to find a 20-year-old with strong math, science and reading skills and a two-year technical degree," Butler says.

But the typical 20-year-olds fresh out of the local trade, proprietary or

continued on page 4

See Inside

Learn How Local
Businesses Help Schools

2

A Year After the Summit,
Businesses Help Students Achieve

3

Viewpoint



Although a number of factors will influence the degree to which American businesses prosper in the increasingly competitive global marketplace, two in particular demand our attention.

The key to our success, both domestically and internationally, is the skill level of U.S. workers. American businesses must ensure that all our employees possess communications and computational capabilities as well as solid core competencies, a commitment to the value of work and the relational skills necessary to contribute to the team's common objectives.

Fortunately, this nation is home to the best business practices in the world. Through benchmarking, we have the rare opportunity to learn from each other. We can create a repository for pertinent information and shorten our learning curves by adapting those practices to enhance our competitive advantage.

But business cannot achieve this alone. Government policy supportive of upgrading worker skills in ways that foster the success of American business must be put in place at the federal, state and local levels. Our challenge is to address the needs of entry-level workers as well as mid-career hires, and to make the wise use of technology the catalyst for achieving our new environment.

Never have our needs in the area of worker skills and supportive public policy been greater — nor have the solutions to these needs ever been so close at hand.

Richard C. Notebaert
Chairman and CEO, Ameritech

(Dick Notebaert is leading a Council on Competitiveness study due out in April.)

Learn How Local Businesses Help Schools

In 1992, a majority of Delaware employers reported that high school graduates performed inadequately in several basic areas. One local firm found that 564 of 684 applicants for entry-level jobs — more than 82 percent — couldn't fill out the application form.

So Delaware businesses began working with educators, parents, students and community leaders to close the gap between current student skills and the demands of the workplace.

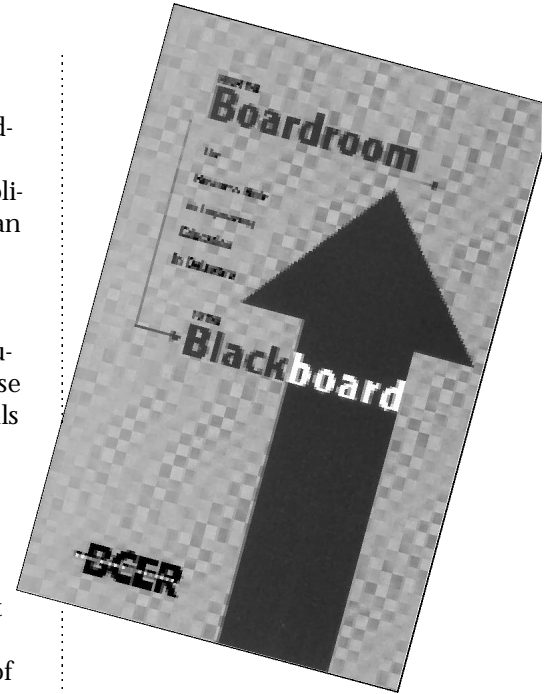
From the Boardroom to the Blackboard, a new brochure from the Business Coalition for Education Reform (BCER), chronicles businesses' role in Delaware's effort to improve education. BCER, managed by the Alliance, is a coalition of

In Delaware, businesses helped develop statewide academic standards, assessment methods and accountability strategies.

12 business groups working together to improve public education.

In Delaware, businesses helped develop statewide academic standards, assessment methods and accountability strategies. They also helped educators integrate the new standards into high school curricula and find more efficient ways to operate schools.

In addition to offering time and expertise, the Delaware business community has made a long-term financial commitment to education reform. Businesses donated \$6 million in start-up funding for a research center on education at the University of Delaware and loaned the governor's



office an executive for two years. Businesses also donated fax machines to high school guidance departments so schools can respond quickly when businesses need to review student transcripts as part of their hiring process.

The business community's involvement is coordinated by Delaware's Business/Public Education Council, which includes CEOs from the state's major corporations and key members of the public education community. ●

To Order

For copies of *From the Boardroom to the Blackboard: The Business Role in Improving Education in Delaware*, contact the Alliance's Member Service Center at 800/787-2848.

Brave New World ●

A Year After the Summit, Businesses Help Students Achieve

A year after the 1996 National Education Summit, hosted by IBM CEO Lou Gerstner and Wisconsin Gov. Tommy Thompson, states and businesses are using their skills and resources to help students achieve at higher levels. These efforts are described in the annual report published by Achieve, A Resource Center on Standards, Assessments, Accountability, and Technology. The Achieve organization was created by summit participants to help governors and business leaders establish

Any Washington Mutual employee who works more than 20 hours a week is paid to spend four hours a month volunteering in local schools.

higher academic standards, assessments and accountability systems and improve the use of technology as an educational tool.

During the past year, 12 states held their own education summits, and 32 states and Guam report that they are developing higher academic standards. Some states also improved teacher certification requirements, and even more made substantial investments in technology.

Businesses have done their part to promote academic achievement in a variety of ways. As part of the hiring process, businesses are reviewing applicants' school records. Delta and Pine Land Company in Mississippi, for example, requires applicants to show proof of high school graduation or a college transcript. The company also provides adult education classes to help their existing employees who didn't finish high school attain at least a high school diploma.

When making location decisions,

businesses are taking into account the quality of area schools. A subsidiary of Florida Progress Corporation recently relocated a number of employees from St. Petersburg to Orlando. To alleviate employee concerns about schools, the company invited the local school districts to make presentations about their programs and students' academic achievements.

Companies such as Washington Mutual Inc. have established policies to help employees become involved in their children's education. Any Washington Mutual employee who works more than 20 hours a week is paid to spend four hours a month volunteering in local schools. At Arco Alaska, employees are given alter-

nating Fridays off so they can participate regularly in school activities.

To help teachers use technology in their classrooms, companies such as Ameritech have worked to provide inexpensive support products, services or software. Ameritech and Impact II — The Teachers' Network have created the Teachers' Guide to Cyberspace, which details classroom projects using the Internet and steps for creating a Web page.

Businesses are now building on this progress. By supporting or running educational programs, developing software and attending regional summits, business leaders will continue the push for developing standards to help children achieve at higher levels. ●

Goldberg's Role at Alliance Expands



Milton Goldberg — classroom teacher, school administrator and education advocate — now is the Alliance's executive vice president. Goldberg has served at the Alliance as senior vice president for education since 1995.

"Milt Goldberg plays a pivotal role in our continuing efforts to build partnerships among business leaders, educators, policymakers and the public," says Alliance President and CEO Roberts T. Jones. "These types of partnerships are the wave of the future."

Before joining the Alliance,

Goldberg was executive director of the National Education Commission on Time and Learning, which published *Prisoners of Time*. Prior to that, he was director of the Office of Research for the U.S. Department of Education and played a key role in developing the national goals that emerged from the 1989 Education Summit. In 1983, Goldberg served as executive director of the National Commission on Excellence in Education, which issued the landmark report *A Nation At Risk*.

Goldberg's education experience has roots in Philadelphia's public schools, where he was a teacher and administrator. He also taught at Temple University and Chestnut Hill College.

K-12 continued from page 1

community colleges don't measure up, Butler says, because these schools are out of step with the changing needs of business.

At one local two-year program, for example, students can earn a certificate as an electronics technician or a mechanical technician.

"The person we're looking for," Butler says, "would have a grounding in both." The real problem is that people are no longer working in narrow silos of technology. Their jobs require them to have working knowledge in several technical areas and to apply these integrated competencies in everyday situations on the job. But schools are still imparting knowledge in isolated pockets of specialization.

Procter & Gamble's requirements are not unique, Butler stresses: "All the major employers in this area — DuPont, Ingersoll Rand, Osram Sylvania — have almost identical needs."

Out of Sync With Business

The disconnection between what business wants and what post-secondary schools are producing poses a "tremendous education challenge," Butler says.

Indeed, at a time when skill requirements constantly are increasing, studies show that the business community is more and more disillusioned with post-secondary education.

In a report released last month by the Business-Higher Education Forum, *Spanning the Chasm: Corporate and Academic Cooperation to Improve Work-Force Preparation*, business leaders are blunt about the shortcomings of higher education institutions, saying they:

- are unwilling to change in any time frame;
- have narrow views of disciplines;
- fail to consider career needs; and
- are inefficient.

Business leaders also cite several areas in which they believe recent graduates are deficient:



Christina Ivanitch, a youth apprentice at Procter & Gamble, tests materials in the environmental services area of the firm's northeastern Pennsylvania manufacturing plant.

- communication skills;
- the ability to work in teams;
- flexibility;
- the ability to accept ambiguity comfortably;
- the ability to work with people from diverse backgrounds;
- understanding of globalization and its implications; and
- adequate ethics training.

The National Science Foundation found similar business dissatisfaction with post-secondary schools in a recent report, *Shaping the Future: New Expectations for Undergraduate Education*

A National Priority

These findings are particularly timely now. President Clinton underscored the importance of post-secondary education in two of the 10 education priorities announced in his recent State of the Union address. "We must make the 13th and 14th years of education — at least two years of college — just as

universal in America by the 21st century as a high school education is today," he said, "and we must open the doors of college to all Americans. ...

"In the 21st century, we must expand the frontiers of learning across a lifetime. All our people, of whatever age, must have a chance to learn new skills. Most Americans live near a community college. The roads that take them there can be paths to a better future."

Clinton proposed two years of a \$1,500 tax credit for college tuition, enough to pay for the typical community college; a tax deduction of up to \$10,000 a year for all tuition after high school; an expanded IRA for education; and the largest increase in Pell grant scholarships in 20 years. He also proposed a "G.I. Bill for America's Workers," a skill grant to go directly to eligible workers.

Clearly, increasing access and funding so more Americans can benefit from post-secondary training is imperative. At the same time, we

must take steps to improve the quality of technical training — and its relevance to today's rapidly changing workplaces.

Urgent Need Spawns Innovations

The growing demand for flexibility and responsiveness from post-secondary training is spawning innovations in places and industries where the need for skilled workers is acute.

For instance, more businesses are doing their own training. In a national survey of 1,100 households conducted by the Social & Economic Sciences Research Center at Washington State University, more than 75 percent of family members reported receiving job-related education or training from their employer in the last three years.

In addition, more than 1,000 companies have bypassed higher education to create their own corporate universities to train people.

Industry trade groups, too, are developing their own state-of-the-art training that meets specific business needs.

The California Restaurant Association, for example, has teamed with GuestWare, an interactive software company, to train restaurant and entertainment managers and employees in liability issues. Employees use desktop or laptop PCs to learn about food safety, sanitation and responsible service of alcohol.

And the American Ceramic Society, faced with rapid changes in ceramic science and technology, offers "short courses" for ceramic technicians, production workers, scientists and engineers to keep them abreast of developments in a brief, "just-in-time" fashion.

Business Pushes Reform Past High School

In what may be the beginning of the next wave of education reform, businesses also are stepping up to help improve post-secondary schools.

Procter & Gamble, for example, is part of the Northern Tier Industry Education Consortium in Mehoopany, Pa. Started four years ago, the consortium at first focused narrowly on youth apprenticeship programs to funnel high school students into workplaces.

Today, business involvement in K-12 schools includes a three-week program that puts teachers in workplaces and provides internships for students and teachers as well as job shadowing for middle school students. With help from the National Alliance of Business and funding from the National Science Foundation, Procter & Gamble and the consortium are working on an integrated school-to-career curriculum and strategies to deliver advanced technological education.

Now, the consortium is turning its attention to the inner workings of post-secondary education. Companies are helping two of six local community colleges develop an industry-prep curriculum that reflects the skill needs of area businesses.

Butler suspects that when businesses guarantee jobs to graduates of these two programs, the other four community colleges will sit up and take notice.

Across the country in the Maricopa Community College District in Phoenix, Ariz., 10 community colleges already make a practice of responsiveness and flexibility to serve business needs. They provide tailored services, including distance learning and customized courses, to businesses constantly in flux, such as America West, Intel, Sun Microsystems and Motorola.

The concern of companies with technical needs is so great that CEOs of major corporations are coming together to address post-secondary education as a competitiveness issue. Richard C. Notebaert, chairman and CEO of Ameritech, is heading a Council on Competitiveness Task Force that, with assistance from the National Alliance of Business, will recommend public policies that will improve the post-secondary education system. ●



Jack Traver, a youth apprentice at Procter & Gamble, monitors process controls for the pulp-making operation at the firm's northeastern Pennsylvania manufacturing plant.

Teens Want to Be Pushed in School — But Many Still Don't See the Relevance

Business leaders, parents, teachers, the public and policy-makers have long agreed that a top priority for improving public schools is to raise academic standards.

Now a group that tends to be ignored in these debates — students themselves — has weighed in. And they agree with the adults, at least to a point. Three-quarters of the teenagers surveyed by New York-based Public Agenda believe they would work harder in school if educators expected more of them. Two-thirds

admitted they could do better in school if they tried harder. *Getting By: What American Teenagers Really Think About Their Schools* was based on a telephone survey of 1,000 randomly selected public high school students.

No Curiosity, No Relevance

Not surprisingly, the students see little connection between their schoolwork and jobs or careers. Most teenagers see little reason to study academic subjects such as history, science and literature. They view most

of what they learn — except for “the basics” — as boring and irrelevant, the study found.

“The vast majority [of students surveyed and in focus groups] showed little curiosity or sense of wonder about the subjects they studied in schools,” the report noted. “Instead the youngsters slogged through their academic courses, clearing the hurdles adults put in their way, but viewing them as utterly inconsequential to their current or future lives. They found adult insistence that they study them — usually in the form of graduation or college entrance requirements — altogether mystifying.”

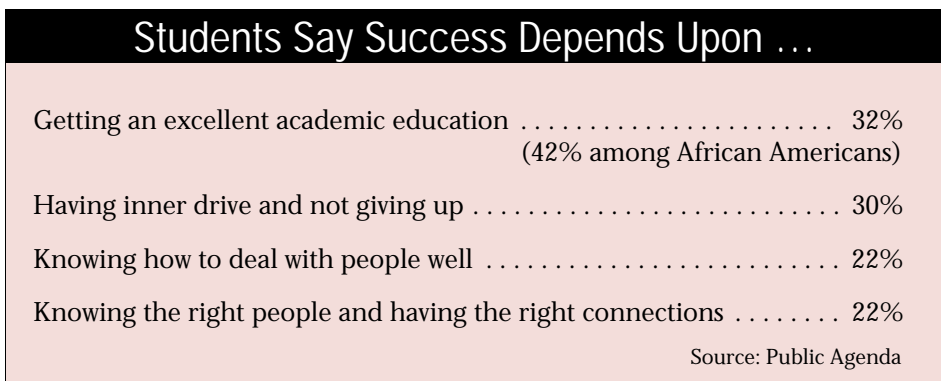
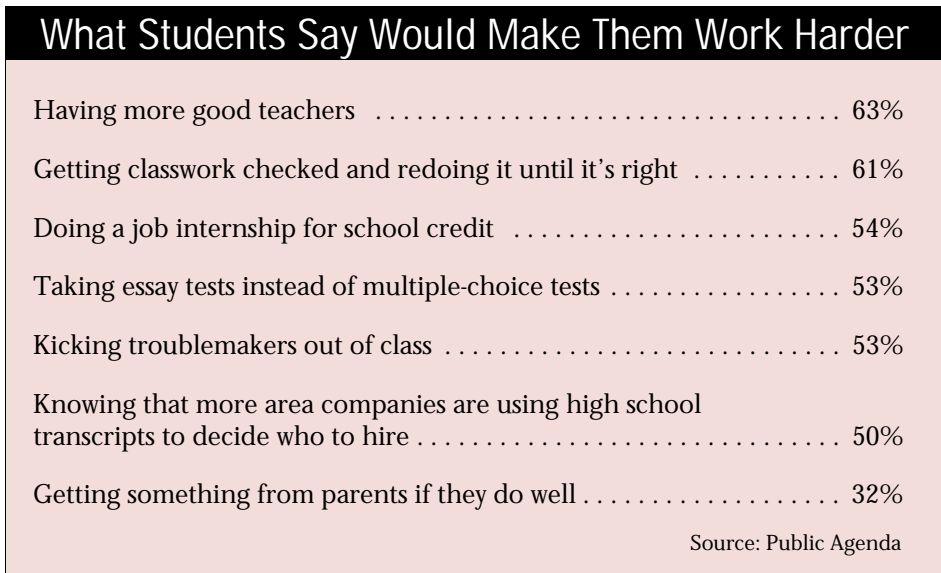
Tough Communications Challenge

To help students see the relevance of their schoolwork, the Alliance and other business leaders are making a concerted effort to communicate clearly to students that academics count (see charts). These new research findings suggest how tough this communications challenge might be.

For instance, when asked what would actually help them work harder and learn more, only about half the high school students cited job internships or having employers ask for transcripts. One explanation might be that 96 percent of those surveyed believe they will go on to college, a bit of wishful thinking for many of them since only about half of high school graduates pursue post-secondary education.

Students also are split on what they think is the “most important thing” that could determine their success in a job or a career.

For copies of the report, call 212/686-6610. ●



Facts & Figures

Student Achievement Inching Up in Math

Math performance for the nation's fourth-, eighth- and 12th-grade students improved between 1992 and 1996, according to the NAEP 1996 Mathematics Report Card for the Nation and the States. Overall results also showed improvement from 1990 to 1996.

The National Assessment of Educational Progress (NAEP), which tracks educational achievement and progress, is the only continuing, nationally representative assessment of what America's students know and can do in various subject areas. Since 1969, NAEP has conducted periodic assessments of fourth-, eighth- and 12th-graders' performance in math, reading, writing, science, history/geography and other subjects. At least one assessment is scheduled each year.

In addition to rating students' proficiency on a 0-500 scale, NAEP reports results for each grade according to three achievement levels developed by the National Assessment Governing Board: basic, proficient and advanced. Basic denotes partial mastery of knowledge and skills that are fundamental for proficient work at each grade. Proficient presents solid

academic performance. Advanced signifies superior performance.

The 1996 Math Report Card shows:

- Higher math scores. The national average score for fourth-graders was 224 in 1996, 11 points higher than the 1990 national average; for eighth-graders, the 1996 national average was 272, a nine-point increase; 12th-graders' average score increased by 10 points to 304 in 1996.

- Higher achievement levels. In 1996, 64 percent of fourth-graders performed at or above the basic level, up from only 50 percent in 1990; for eighth-graders, performance at or above the basic level increased from 52 percent in 1990 to 62 percent in 1996; for 12th the figure increased from 58 percent in 1990 to 69 percent in 1996.

The most recent reading assessment was conducted in 1994. Its most striking finding is that average reading proficiency of 12th-grade students declined significantly from 1992 to 1994.

The percentage of 12th-graders at or above the basic level declined five percentage points, from 80 percent to 75 percent. The percentage at or above the proficient level dropped four points, from 40 percent to 36 percent. The national population of fourth- and eighth-graders showed no significant changes in average proficiency.

Reading and writing will be tested next in 1998. The next math and science assessments are scheduled for 2000.

Sample Math Question

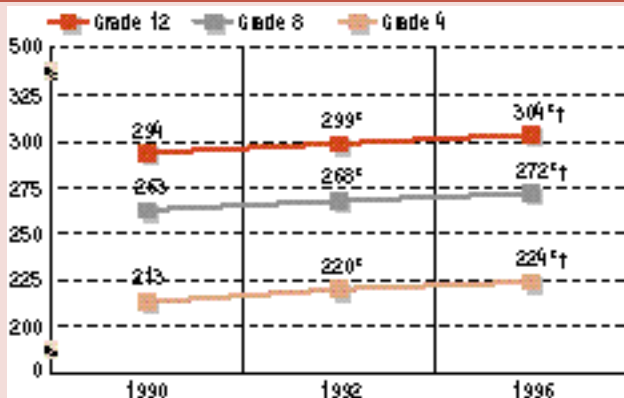
12th Grade:

Luis mixed 6 ounces of cherry syrup with 53 ounces of water to make a cherry-flavored drink. Martin mixed 5 ounces of the same cherry syrup with 42 ounces of water. Who made the drink with the stronger cherry flavor? Give mathematical evidence to justify your answer.

23 percent of 12th graders tested gave the correct answer, Martin.

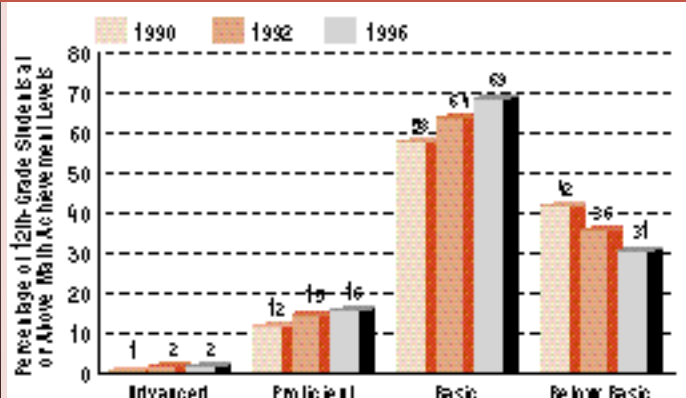
Source: NAEP 1996 Mathematics Report Card for the Nation and the States

Math Scores Improve for All Grades



Source: NAEP 1996 Mathematics Report Card for the Nation and the States

More Students Achieve at Higher Levels



Source: NAEP 1996 Mathematics Report Card for the Nation and the States

Work•America

WorkAmerica is published monthly by the National Alliance of Business, 1201 New York Avenue, NW, Suite 700, Washington, DC 20005. For more information, contact the National Alliance of Business Member Service Center at 800/787-2848.

The National Alliance of Business is the only national, nonprofit, business-led organization focused solely on human resource issues. The Alliance and its member companies are leading efforts to improve American education, build bridges from school to work, expand life-long learning opportunities for all workers, and implement workforce development and job-placement systems that meet the needs of employers and job seekers.

Chairman: James F. Orr III
Chairman and CEO
UNUM Corporation

President and CEO: Roberts T. Jones
Editorial and Design: KSA Group, Inc.

Questions or comments? Send e-mail
to info@nab.com



Work•America

National Alliance of Business
1201 New York Avenue NW
Suite 700
Washington, DC 20005

Visit Our Web Site!

Find out more about the National Alliance of Business and get the latest information on the workforce issues you care about:

- Improving Our Schools
- Workplace Learning
- From School to Work
- Re-entering the Workforce
- Workforce Economics
- Legislation & Policy

You'll find us on the
World Wide Web.

<http://www.nab.com>

NON-PROFIT
ORG.
U.S. POSTAGE
PAID
MERRIFIELD, VA
PERMIT 1287