

Welcome to the Real World: Educators in Industry

By Carol Conway, Southern Growth Policies Board
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In Southern Growth Policies Board's 2002 Report on the Future of the South, *The Mercedes and The Magnolia*, one of the recommendations for creating a knowledge-economy workforce was, "to create a self-directed workforce with the attitudes, learning habits, and decision tools necessary for making wise career choices throughout life." The recommendation was in part the result of deep concern over the lack of real world relevance in public schools' instructional and guidance counselor systems.

When teachers are out of touch with market realities, students, businesses, and the entire community suffer from lower productivity, which can lead to job loss and business relocation or closing. Newspaper accounts of a plant closure typically include quotes such as this one from a Town Manager in rural North Carolina, "The plant has been terminally ill for years. But it's still a shock when the end comes." Laid off workers are caught by surprise, "Everybody thought the mill would be there forever."¹ This paper begins Southern Growth's effort to identify and develop strategies that will help communities stay ahead of market changes.

Five programs are profiled here, and several others briefly noted. The programs are designed to give teachers first-hand experience in industry. All the programs claim they get rave reviews by participating teachers, and all but one of the programs are relatively easy to implement.

The history of these "Educators in Industry" programs is a bit murky, but it appears there are a number of them scattered across the country, each pretty much unaware of the others.

Arkansas' Educators-in-Industry

Teachers have been gaining industry experience for years...just not enough. One popular program—Educators-in-Industry—goes back more than three decades, when General Electric (GE) officials realized that schools weren't turning out enough engineers. Kids were not interested in science and math, partly because the subjects seemed to have little bearing on daily life.

GE devised a program to expose teachers to the inner-workings of their industry, bringing them to the plant and having GE personnel "teach the teachers." Later, at a GE Foundation-sponsored institute at Ohio University, educators from several states were exposed to the method and encouraged to take it home.

A team from Arkansas did just that. The Arkansas version of Educators-in-Industry went statewide in the mid-1980s, expanding to involve 23 cities and seven state universities. It continues today in several Arkansas locations, as well as in other cities in the U.S.

In Arkansas, Educators-in-Industry (EI) is a career awareness class for prospective or incumbent educators teaching Kindergarten through college. EI is usually delivered as a three-hour graduate course at a local college, but it is flexible enough to also be delivered in as an intensive one- or two-week course. Participants get graduate credits

or Continuing Education Units (CEUs) for their effort. A class usually consists of 15-20 people. Some of the characteristics of the Arkansas EI program are:

- Educators visit a different business each week, often in the evening, to see aspects of the occupations first-hand. They visit manufacturing plants, hospitals, newspaper offices, engineering firms, government agencies, small businesses. One group even went to the Oaklawn Race Track in Hot Springs, where teachers saw great jobs for students not interested in an office or factory job.
- At the businesses, company representatives conduct a plant tour and describe their particular industry, as well as types of jobs and needed skills. They follow an outline provided by the course coordinator; this standardization permits the educators to compare the occupations and opportunities.
- Each educator is required to go through one or two days of job shadowing.
- The educators are required to develop a project detailing how they will bring their new knowledge to the classroom.
- In addition to the on-site sessions, the class includes a beginning orientation session and a wrap-up session at the college.
- Often the end of the course is marked by a banquet where both teachers and employers talk about what they learned and show appreciation for each other's efforts.

In Arkansas, the state economic development department coordinated the program for many years, and still offers assistance when called upon. Chambers of commerce have often adopted EI as a project for their education committees, handling the logistics of lining up industry sites and coordinating the concluding banquet. Several universities and school districts currently offer the course, and school-to-work and "tech prep" coordinators have been important partners.

According to Jan Partain at the Arkansas Department of Economic Development, "One of the best selling points about the program is it's a package deal." Time-crunched chambers of commerce are often looking for solid activities for their education committees, and this program fits the bill. Companies also appreciate the meaningful contribution they can make in such a short period of time, exposing educators to elements they feel are important to ensuring a well-prepared workforce. And university instructors find the syllabus substantial and flexible enough to meet their academic requirements. It still takes a lot of work, but there's a tried-and-true formula to follow."

And what about the teachers who've taken the course? They've said it's the best course they've ever had.

For more information, contact Jan Partain at the Arkansas Department of Economic Development at jpartain@1800arkansas.com, or 1-800-ARKANSAS.

The H.O.W.E. Program of Huntsville/Madison County, Alabama

Teachers are practically beating down the doors of the Huntsville/Madison County Chamber of Commerce (HMCCC). They want in...to industry, that is. The Huntsville/Madison County Chamber of Commerce's School To Career Program has created H.O.W.E. (Hands On Workplace Experience), a program that allows teachers to spend one week in an area business, learning the ropes first-hand. For this they are paid \$500, half from a School To Career grant and half from local business. They also earn 40 Continuing Education Units (CEUs).

The program began in 1999, when HMCCC received a four-year, School To Career grant from the Alabama Department of Economic and Community Affairs (ADECA). The funds originated from the U.S. Department of Education under the federal School-to-Work Opportunities Act. One of the goals of that program is to provide staff development to help teachers show real world applications of the subject being taught. The H.O.W.E. program does just that. The purpose of the program is to create synergy between business and education, expose educators to the business world and business leaders to the world of education, as well as help establish the relevance between the "world of work" and academics. Findings from a recent study by the National Association of Manufacturers suggest this is a strategy that works. The report shows that high school juniors and seniors view teachers as the most helpful in career guidance (outside of parents), even edging out school guidance counselors.ⁱⁱ

The program is structured as follows:

- A H.O.W.E. committee works with the chamber's School To Career coordinator to recruit host businesses. All businesses are eligible, and range from aerospace contractors to hospitals, and from manufacturers to law firms.
- Participating schools are from five school systems that have a partnership with the HMCCC School to Career program.
- Participating teachers can come from any field in grades 6-12. Guidance counselors are also recruited.
- Teachers are recruited through the HMCCC's School To Career Resource Specialists, a person designated by the principal at each participating school who serves as the conduit for information of School To Career grant-related programs. Most of the Specialists are guidance counselors, partly because they have the flexibility to attend a fall debriefing at the Chamber of Commerce. HMCCC keeps the school superintendents, principals and teachers informed of their School to Career programs by publishing a newsletter three times a year.
- After the week internship is over, the teachers are required to write a lesson plan incorporating what they learned. These, in turn, are posted on the HMCCC's School To Career Program's Web site, www.careers4you.org, to allow non-participating teachers to benefit from the experience as well.

The program has been a hit, with more teachers applying than there have been business hosts available. In its first four years, the program has placed more than 220 teachers.

Continuation beyond the fourth year of the grant will be a challenge, but HMCCC is optimistic that it will find a way to make it work. From a staffing standpoint at the Chamber, the project takes no more than 10 hours a week during the three months it is most active. And, given its popularity and benefits to the teachers, they may be able to drop their portion of the stipend with no effect on requests to participate.

It should be noted that the HMCCC's School To Career program has also developed a unique career video series used for grades 1-6 in all their partner schools. The School To Career program has produced six career videos, each with information on eight career clusters, all geared to a particular age group. First graders, for instance, get just a short, light dose of information. The HMCCC is considering making these videos available to others. The School To Career program also coordinates industry tours for middle school students and job shadowing experiences for high school juniors.

For more information about HMCCC's School To Career initiatives, contact Dorothy Bridges, Huntsville Chamber of Commerce, 256-535-2012, dbridges@hsvchamber.org.

The ADP Program of Hattiesburg, Mississippi

The idea of exposing teachers to industry is equally popular in Mississippi. Over the past five years, the Area Development Partnership (ADP), which is the Chamber of Commerce and Economic Development entity for the Greater Hattiesburg area in South Mississippi, has placed 84 teachers in area businesses for one week during the summer break.

The program, Educators in Business and Industry, is done in partnership with the University of Southern Mississippi (USM). Teachers are charged \$519 in tuition to participate—the same as for other classes granting CEU credits. Teachers going through the industry program earn their choice of four CEU credits or three credits towards a Master's degree at USM. Like the Alabama program, teachers rave about its value and are the program's best marketers.

The ADP has also structured the course in a different fashion from Alabama. Instead of placing teachers in one industry for the whole week, the Mississippi teachers tour eight businesses for a few hours each, and attend class to discuss and develop a career development project to implement in their school. Because small businesses cannot handle large tours, the ADP breaks the trainees up into two groups of 12 teachers each.

The teachers can be from any grade in the K-12 system, including special education. (Special education teachers are particularly attuned to industry relevance since, for some of their students, the classroom experience is geared primarily towards helping them become work-ready.) The ADP encourages small teams of teachers from the same school to apply jointly. USM instructors grade the teachers based on the quality of their project presentations. It should be noted that the course is treated and graded as a fall course, not a summer course, since the project presentations occur well after the week is over. The ADP believes a vital component of the program is to maintain good relations with superintendents to ensure they will support their teachers in the follow up projects. Therefore, although only 84 of the region's 1,600 teachers have been trained, those going through the program produce a ripple effect through the school on their return.

For example, one elementary school teacher came back from training and had her kids start a business. The idea was to get them thinking in an entrepreneurial fashion, and to recognize they must be accountable for their performance. Two examples include a doll babysitting business organized by a little girl and a little boy who earned money catching and selling bugs.

Teachers tell the ADP that their exposure to industry has made their teaching much more relevant, and that they now have contacts with local CEOs to whom they can turn with questions or to find a guest speaker.

The Educators in Business and Industry Program was created after ADP president Gray Swoope arrived from Arkansas, where he had seen a similar program in operation. ADP members agreed such a program would benefit the area's six school districts and established a committee to develop the program. To help support the course, the ADP makes use of its "capital campaign fund," which consists of business donations over and above their membership dues.

Teachers cover their tuition in various ways. Several of the schools have School-to-Career grants from the state, and use some of the funds to pay for teachers to take the course. Businesses can also sponsor an individual teacher. The ADP picks up the tab for the remainder of the teachers.

In the future, the ADP will survey participating businesses to see if there has been a noticeable effect from the program. Meanwhile the ADP has established a Speakers Bureau consisting of more than 100 business people willing to talk to a class.

For more information on the Educators in Business and Industry Program, contact Susan Walker, ADP's Vice President of the Chamber of Commerce Division, at 601-296-7518 or s.walker@theadp.com.

The Polymer Program of Hattiesburg, Mississippi

Few U.S. high schools have industry-relevant, state-of-the-art science labs and curricula. The science and math departments of the University of Southern Mississippi (USM), together with Hattiesburg industries and schools, are doing something about it. For several years, USM's Polymer Institute has paid teachers \$500 each to spend two weeks at a summer program learning about general science and its application to the polymer industry. The Polymer Institutes gives them access to their labs, and area industries donate funds and materials to support the effort. Two NSF funded high school teachers spend eight weeks in the summer involved in more extensive research activities that they translate into education materials.

At the end of the session, teachers are expected to develop a learning module around their experience, such as teaching kids how to make rubber balls. The Institute also provides participants with science education materials, multimedia presentations, and Web support, all ready-to-use in the classroom with only minor adaptations. A workshop teaches them how to adapt the materials using animation and web-delivery. For instance, the Institute has developed several virtual field trips, videotaping visits to industry.

The Institute has contacted school districts to alert them to the program, but word-of-mouth is a strong source of referrals. Support to pay the teachers has come from industry donations and grants from private foundations. The Polymer Science Learning Center runs 2-3 sessions over the summer, of no more than 10 teachers each. The groups are kept small since the instruction is very labor intensive. The Center estimates that it has trained some 30-40 teachers over the last three years.

These efforts will be bolstered by two other programs on campus. One beginning in late 2002 pairs graduate students in science with K-12 classrooms of local school districts. The graduate students will work with teachers and help them with their lab curricula. The other, even more exciting project, is the imminent creation of The Education Power House, which will bring students, teachers and the general public to a large facility crammed with lab space, science exhibits, computers for Web access, and space for workshops. Students will be able to use the equipment for their class lab experiments, and graduate students will be on hand to run the labs and otherwise assist the teachers and students. Four USM science and math centers are involved in this project, with the Polymer Science Learning Center being one of them. For more information, visit their Web site at www.pslc.ws or contact Dr. Lon Mathias, Professor, Polymer Science Department, School of Polymers and High Performance Materials, University of Southern Mississippi, Hattiesburg, MS 39406, Lon.Mathias@usm.edu (601-266-4607).

Greater Richmond Business-Education Partnership

Richmond, Virginia, is building a reputation as a world-class high tech center. But no region can become a high tech center without a workforce competent in technology and specialized skills. Therefore, three years ago, the Greater Richmond Partnership, Inc., a public-private nonprofit that helps recruit industry to the region, and the Greater Richmond Chamber of Commerce began an initiative to integrate private sector practices into the regions high school curriculum. Steering Committee members believed that the effort had to be directed from a neutral forum where educators and business could come together as equals. The decision was to create a separate partnership, the Business-Education Partnership (BEP), run by a volunteer board of officials from three large industries, the Greater Richmond Chamber of Commerce, a representative from each of the 13 participating high schools, and two area community colleges. It was further decided that the initiative should build on an existing program already in place at a local community college. That program had been successful but small; BEP's objective was to take it up to scale.

The BEP was launched with seed funding from the Greater Richmond Chamber of Commerce and area schools with significant in-kind support from the Greater Richmond Partnership. Its goals are:

1. Improve the integration of economically relevant technology into curricula;
2. Provide innovative business-related professional development for educators;
3. Improve parental and community involvement; and
4. Develop and support initiatives that ensure a qualified and educated workforce.

The BEP initiative was built in stages. In the summer of 2000, the BEP created a network of high school math teachers and gave them several weeks of training. The

following summer, BEP selected a science teacher from each participating high school to join the network. The network of BEP teachers will eventually consist of five teachers from each school, four representing the content areas of math, science, English and social studies plus one additional teacher/guidance counselor.

For the past three summers, teachers have been brought together for training designed to:

- Build technology skills;
- Provide real world experiences;
- Develop best practices for integrating technology instruction in specific classroom subject areas; and,
- Develop leadership and mentoring abilities.

In the standard program, each teacher gets two weeks of real world training in the private sector at an assigned place of business. Specifically, teachers spend six days in three different local area businesses (2 days each) learning about current and future science, mathematics, and technology skill needs in the workforce. Another four days are spent at the Mathematics & Science Center to learn how to integrate business and technology-related information into lesson plans. Meetings each semester, and a year-end conference, are designed to strengthen the network and foster the exchange of innovative ideas. Educators are paid a stipend in the range of \$800 to participate.

Future plans call for providing teachers with additional technology training, web-based lesson plans, training in leadership, and techniques for working with adult learners. BEP also hopes to replace its seed funding with ongoing corporate support. However, the recent downturn in the economy has put the BEP on hold. As it was, the summer 2002 program could only afford to take on 20 teachers. A skeleton board remains in place with the hope that the future upturn in the economy will allow them to bring the program back up to scale.

For more information about the BEP, contact its founder, John Sydnor, at 804-722-0200 or jsydnor@args.K12.va.us.

Seven Other Programs of Note

1. In 2001, a School To Work grant written by the West Kentucky Technical College (WKTC) was approved to establish greater collaboration between business and education in the area. To oversee the project, WKTC set up within the Paducah Chamber of Commerce a committee called BEP (Business and Education Partnership). The BEP committee is composed of local educators and representatives from business, labor and community agencies. A Chamber staff person manages a web site (www.paducahchamber.org/bep/) that provides educators with access to a variety of volunteer services. The types of services include apprenticeships, internships, classroom presentations, field trips, job shadowing, mock interviews, scholarships, mentoring, and community service opportunities. The Chamber recruits businesses and local agencies to participate. Nearly 100 institutions have volunteered so far. The internships for educators can vary from three to six days. School To Work (federal funding) or School To Careers

(state funding) grants pay the teachers a stipend of \$150 for every seven-hour day spent with the business outside their regular school day. The goal of BEP is to show the relevance between what is taught in the classroom and what is needed in the world of work. By accessing the website, teachers can make requests directly to businesses that offer the type of volunteer service they are looking for. One teacher said, "I used the Web site to contact businesses for a career day we were organizing. It made the process so much easier and less time consuming than it would have been otherwise."

2. In Virginia, the Wytheville Community College, the Crossroads Tech Prep Educational Consortium, and the Southwestern Virginia Regional Office of Apprenticeship have started a joint "Educators in Industry" program. In August 2001, more than 35 teachers, counselors, and administrators from Wytheville Community College (WCC) and each Tech Prep Consortium school system in the WCC service region moved out of the office or classroom and into regional industries. During this daylong work site visit, participants collected data and gave area educators a look into the region's educational and economic profile. For more information, see www.wcc.vccs.edu/conted/news/edindustry.asp
3. In Santa Clarita Valley (SCV), California, there is a SCV School & Business Alliance that offers a wide range of options for teachers and students to interact with business. The SCV Alliance is a nonprofit, started in June 2001, but it existed before as a collaborative effort between business, educators, and parents. The Web site is a very comprehensive tool for accessing the services. The site map is at www.scvalliance.org/looks/sitemap.nhtml.
4. A similar program is the Work Based Learning Resource Center at Cabrillo College in California. "We help students, educators and employers bridge the classroom and the workplace." See <http://www.cabrillo.cc.ca.us/affiliate/worklearn/> or go right to their Educators in Industry Web site at www.cabrillo.cc.ca.us/affiliate/worklearn/EII/EII_teamroster_F02.html.
5. Also in California, the education committee of the Greater Santa Cruz Area Chamber of Commerce started a service, reaching at least two communities, called *Your Future Is Our Business*. It began with a pilot at San Lorenzo Valley High School in 1994, with the program adding at least one high school each year. During 1998-99 school year, more than 1,100 students met with 216 business speakers through 43 Career Panels. In addition, more than 300 students and 11 teachers completed job shadowing, with a kick-off during the national Groundhog Job Shadow Day. Today, *Your Future Is Our Business* is an integral part of the Monterey Bay Regional Partnership, a school-to-career collaborative that includes K-16 schools, community-based organizations, business and industry. Its non-profit status is allowing tax-deductible support to expand the program to other communities.

6. Another interesting service is a virtual mentoring program, started by Hewlett Packard, now run by Agilent Technologies, focusing on science education. The HP E-Mail Mentoring Program matches students and teachers to business volunteers, all over the world. Although the interaction is text-based, it nonetheless provides students and educators access to an expert. The Web site also offers teachers access to teaching materials and science-oriented links. The Web site can be found at www.educatorscorner.com/tools/references/newsletters/archives/Oct98/campus_hpoct98.shtml
7. Finally, it may be worth a quick look at the Web site of the Division of Workforce and Career Preparation of the South Dakota Department of Economic and Community Development (www.state.sd.us.dcea/DWCP). The site includes a section on “career guidance programs.” Although they do not seem to have an Educators in Industry program, the site does provide information on a wide range of efforts.

Conclusion

Teacher exposure to industry is a win-win play. For the price of a regular class, teachers get CEU or graduate degree credits, classroom materials that are more on-target and more likely to capture the kids’ attention, and a chance to interact directly with business leaders in their community. For their part, businesses get a better-prepared workforce, the chance to invest in the community’s future, and enjoyment from interacting with the educators. The Educators-in-Industry programs also combine well with other initiatives, such as student internships and industry visits.

Surprisingly these programs are not in wide practice. States might take the initiative, as did Arkansas, to promote the concept with chambers of commerce, superintendents, and technical colleges and universities, and to lend personnel support in getting the programs organized.

ⁱ From a series published by the Raleigh News & Observer, “The High Price of Free Trade,” Saturday August 17 through Tuesday August 20.

ⁱⁱ *Decisions Without Direction: Career Guidance and Decision-Making Among American Youth*, Ferris State University and the National Association of Manufacturers, May 2002.