“I’m announcing a new challenge to redesign America’s high schools so they better equip graduates for the demands of a high-tech economy. And we’ll reward schools that develop new partnerships with colleges and employers, and create classes that focus on science, technology, engineering and math—the skills today’s employers are looking for to fill the jobs that are there right now and will be there in the future.” Remarks of President Barack Obama–As issued, State of the Union Address; February 12, 2013

What is Work-Based Learning?

Work-based learning (WBL) is defined by the National Research Center for Career and Technical Education as “learning technical, academic, and employability skills by working in a real work environment” (Alfeld, Charner, Johnson, & Watts, 2013, p. 2). The WBL concept derives from the 1994 School to Work Opportunities Act (STWOA), which provided a temporary financial platform for high schools to develop programs to create or expand sustainable career preparation activities (Halperin, 1994; Hughes, Bailey, & Karp, 2002). Under STWOA provisions, all high school students were afforded an opportunity to engage in career exploration programs regardless of parental income; an assertion was offered that learning takes place in many different settings, including schools, local communities, and the workplace. Career programs would provide a two-pronged focus on preparation for education in colleges and universities and additional pathways such as technical career training for those students who would not attend college (Halperin, 1994). The STWOA was pivotal initial legislation, motivating educators to consider the educational futures of all students within the schools. The Carl D. Perkins Vocational and Technical Education Act of 2006 built upon STWOA, requiring states to “provide students with strong experience in and understanding all aspects of an industry, which may include work-based learning” (Brustein, 2006, p. 86). By implementing WBL programs, there is implicit acknowledgment that not all students will attend a 2- or 4-year college or university: Some may acquire skills and industry credentials through high school and/or postsecondary training that enable them to transition immediately into career/technical occupations or enter the military.

During the period between 2004 and 2013, the percentage of high school graduates who subsequently enrolled in 2- or 4-year colleges and universities held steady at around 66% (U.S. Bureau of Labor Statistics, 2005, 2014). However, high school graduates who do not enroll in postsecondary institutions have experienced higher unemployment rates, increasing from 20% in 2004 to 31% in 2013 (U.S. Bureau of Labor Statistics, 2014). This growing unemployment rate, subsequent connection to the disparity between employment opportunities for college attendees and non-attendees, and need for school systems to provide multiple career pathways for students based on the types of occupations available in the labor market requiring varied amounts of education and skill levels (Symonds, Schwartz, & Ferguson, 2011) have spurred research on comprehensive approaches for career preparation (Ferguson & Lambeck, 2014; Malin, 2014; Taylor et al., 2009). Regardless of their ultimate career decisions, all students must be afforded opportunities to select a pathway that will be most beneficial for them. By connecting secondary schools with postsecondary institutions, businesses, and industries, work-based learning offers students experiences and preparation in multiple learning pathways.
Benefits Associated with WBL Programs

Many youths in the United States are faced with the prospects of joblessness and challenges to obtain well-paying jobs as they transition into adulthood (Holzer & Lerman, 2014). Work-based learning offers multiple benefits to high school students who participate in these activities, which may increase opportunities for employment. For students, primary advantages include linkage of current content and related workforce information they learn in school to the skills and knowledge needed for real-world careers (Holzer & Lerman, 2014; Rogers-Chapman & Darling-Hammond, 2013), exposure to occupations and career opportunities that might be otherwise unknown to them (Luecking & Gramlich, 2003), and assistance in defining career goals (Hughes et al., 2002). WBL provides a “social and cultural context” (Davis & Snyder, 2009, p. 2) for the professional development of students, giving them an opportunity to develop cognitively, and also helps develop soft skills (e.g., problem-solving skills and conflict management) that are needed within the workplace (Organisation for Economic Co-operation and Development, 2011). Students have the opportunity to engage in both academic skills development and work experiences non-competitively as they are immersed in their WBL activities (Holzer & Lerman, 2014). Educators also benefit from professional development opportunities that may arise through WBL partnerships (Darche, Nayar, & Reeves-Bracco, 2009), which assists them in making the curriculum and classroom learning activities relevant for students. Employers benefit from collaborative partnerships, “generate their own highly skilled workers internally” (Holzer & Lerman, 2014, p. 22), and have a decreased likelihood that their trained workers will be displaced.

Types of Work-Based Learning

Creating quality WBL experiences requires school systems to use community resources in efforts to provide all students with the opportunity to learn workforce skills for success. There are numerous ways to expose students to WBL opportunities beginning at an early age, including the following:

- **Business/Industry field trips and Job shadowing**: students observe daily job functions within a workplace environment for a short period of time to learn more about the occupation (Stone & Aliaga, 2003).

- **Service learning**: students provide a series of voluntary-based community service activities, increasing knowledge and skills while making a contribution to their communities (Darche et al., 2009).

- **School-based enterprise**: students, operating in managerial positions within the enterprise, produce goods or offer services to others for purchase or use (Darche et al., 2009).

- **Mentorship**: students are paired with a business/industry employee and are provided direct feedback on specific work-related products (Darche et al., 2009) increasing their development of job-related knowledge and skills.

- **Cooperative education**: an academic partnership in which the high school and employer collaborate to provide learning that integrates work experience and classroom instruction (Alfeld et al., 2013).

- **Internships**: students work with an employer for an extended amount of time to enrich learning in the field. May be for or without pay (Darche et al., 2009).

- **Apprenticeships**: contractual arrangements between private employers and workers to attain mastery of the skills necessary for the occupation (Holzer & Lerman, 2014).
Creating pathways for success through work-based learning requires a shift in traditional paradigms with respect to when these experiences are provided for students: Waiting until high school would be too late for career exploration and to disseminate information about course requirements for certain careers. Exposing students to information on careers beginning in the early elementary grades, continuing career exploration into the middle grades, expanding into career preparation in the early high school years, and providing specific career training in the late high school years and beyond are essential in providing high quality preparation for college and careers. The Linked Learning Alliance (2012) has illustrated how work-based learning experiences are provided on a continuum from the early elementary years through high school graduation and beyond (Figure 1).

**Figure 1. PK-12 Work Based Learning Options**

- **Career Awareness (Early years)**
  - Students are made aware of the various career options that are available and are exposed to some of those options, including career fairs, guest speakers, and bring your child-to-work days.

- **Career Exploration (Middle Years)**
  - Options for career and education are explored by students at a more in-depth level. Surveys may be provided in which students identify career pathways of interest. Experiences may include field-interest interviews, job shadowing, and service learning projects.

- **Career Preparation (Early High School)**
  - Students are immersed in practical experiences that are connected with classroom learning. They have interactions with industrial partners over an extended period of time and are engaged in encounters such as school-based enterprises, service learning projects, internships, and cooperative-based learning.

- **Career Training (Late High School and Beyond)**
  - Specific training for a specific occupational range is provided in either postsecondary education or through employment. Experiences may include apprenticeships, internships, and work-experience.

Township High School District 214 Internship Program

Encompassing eight diverse communities in the Chicago, Illinois suburbs, Township High School District No. 214 enrolls over 12,000 students in its six high schools and four alternative schools. District 214 students have the opportunity to gain WBL experiences through the district’s highly regarded internship program. This program was initiated several years ago, according to District Coordinator Krista Paul, “as a grass roots effort to have an external experience embedded in the learning process.” Dan Weidner, district Career and Technical Education director, explained that several business/industry partners had expressed a desire to increase the local applicant job pool, and the internship program provided an opportunity to meet industry needs while simultaneously providing rich learning experiences for students.

Through either 1-3 week “micro” internships or traditional 16-week internships, students work alongside industry partners in District 214 communities in real-world learning environments, garnering information that will assist them in making career pathway decisions. Building an exemplary internship program takes time and substantial effort, and Ms. Paul and Mr. Weidner noted that the program’s success is due in part to the district administration: student transportation, resources, and commitment to future planning of the program are supports that are in place to ensure the viability of the program. Industry partners are also pivotal in program implementation, offering internships, serving on district advisory boards, and delivering mini-lessons within classrooms. Whether on site, in classrooms conducting mini-lessons, or working with staff to better support the curriculum, the strength of industrial partnerships add increased value to student learning. Over 600 students have participated in internship experiences over the past five years, and the district has a goal to serve at least 3,000 District 214 within the next five years. Noted Mr. Weidner: “Our strength is our ability to provide a unique and customized experience for all of our students, whether they are attending a 4-year college or going straight into a career field.”


Research on WBL Effectiveness

WBL programs received national attention from President Barack Obama in his 2013 State of the Union address. He outlined his support of evidence-based work-based learning programs through Youth CareerConnect grants, which provide federal funding for high schools that partner with postsecondary institutions and employers to better equip high school graduates for careers. However, relatively few empirical studies have investigated WBL programs and their effectiveness relative to academic performance and college and career outcomes for students enrolled in such programs (Griffith, 2006; Welsh, Appana, Anderson, & Zierold, 2013). This paucity of research is partially attributed to variations in how WBL programs are implemented (Griffith & Wade, 2001).

Yet, research does confirm that students who participate in WBL programs have improved school attendance and higher graduation rates when these experiences are coupled with transition planning from secondary to postsecondary institutions (Colley & Jamison, 1998). Additionally, WBL experiences appear to be accessed in greater proportions by some student subgroups over others. For example, students participating within WBL programs are 75% more likely to be male, and Black students are more likely than their White classmates to
engage in specific WBL programs (cooperative experiences, job shadowing, mentoring school enterprises, and internships/apprenticeships) (Stone & Aliaga, 2003). Many students engaged in WBL activities are enrolled in Career and Technical Education (CTE) programs of study, although WBL experiences appear to be gaining acceptance for all students, regardless of whether or not they may be enrolled in CTE coursework (Stone & Aliaga, 2003).

National statistics regarding student enrollment in WBL programs are lacking and there are variations in programming quality (Alfeld et al., 2013). Additionally, access is not universally provided for all students in U.S. school systems who wish to participate in these experiences (Alfeld et al., 2013). The lack of national data regarding student WBL participation makes it difficult to determine the effectiveness of these programs on improving the academic performance of students.

Considerations and Recommendations for Implementation

For high school educators who are interested in implementing work-based learning programs, emphasis should be placed on building high quality student experiences (Alfeld, 2015; Rodgers-Chapman & Darling-Hammond; 2013). Quality WBL programs include the following attributes: (a) educators are committed to providing students with access to rigorous academic coursework that connects to vocational experiences and opportunities (Rogers-Chapman & Darling-Hammond, 2013), (b) strong community partnerships in which the goals for all parties are aligned (Alfeld, 2015; Rodgers-Chapman & Darling-Hammond, 2013), (c) built-in and regular opportunities for student reflection are provided (Alfeld, 2015), and (d) programming is well integrated with the school curriculum and includes an assessment that demonstrates learning (Alfeld, 2015). Systematic implementation of WBL programs will allow for uniformity of student experiences and more accurate measures of program effectiveness.

The following recommendations are presented for both practitioners and policymakers as they contemplate implementing or expanding WBL programs:

1. **Program investment.** Widespread adoption of work-based learning programs requires a shift in the school’s culture by placing an equal emphasis on the entire high school curriculum, including core academic coursework and CTE courses (Darche et al., 2009), and securing commitment of all stakeholders to highlight the importance of such programs. Thus, it is critical for school leaders to take a central role in serving as champions of WBL programming and facilitating the reculturing of the organization to ensure the successful development and implementation of WBL programs. Additionally, through use of guiding principles and a standardization of statewide practices (Darche et al., 2009), researchers and policymakers can utilize empirical data to examine the effectiveness of work-based learning programs on student academic success.

2. **Strengthen programs of study.** Well-designed work-based learning experiences are one component of robust career pathways and programs of study. The Office of Community College and Research and Leadership at the University of Illinois has outlined six guiding principles that promote effective programs of study (Kirby & Fox, 2014): (a) leadership and support; (b) access, equity and opportunity; (c) alignment and transition; (d) enhanced curriculum and instruction; (e) professional preparation and development; and (f) program improvement. These principles may serve as a guiding framework for school leaders who wish to enhance their programs of study, while also developing or restructuring their work-based learning programs to ensure student success.

3. **Provide guidelines for student learning.** It is important to ensure that students learn concepts and skills from in-class learning activities, apply and acquire these skills in the workplace, and develop the ability to
transfer that knowledge between contexts (Alfeld, 2015). By establishing uniform guidelines for student
learning at the school level and also through state policies, it is more likely that students will be effectively
prepared for their careers. In addition, there will be an increased likelihood of aligned data systems, which
will facilitate research on the academic effectiveness of WBL programs. Clearly articulated guidelines also
may promote more equitable student access and participation in WBL.

4. Professional development and resource supports. Educators undoubtedly would benefit from continuing
professional development, including providing opportunities to explore business/industry programs
and to develop curriculum and learning activities that are aligned to programs within the community
(Rodgers-Chapman & Darling-Hammond; 2013). Creating resources and developing guidelines that
facilitate employer mentor selection and subsequent development (Alfeld, 2015) and reflection also
would be beneficial. It also is important for school leaders to provide sufficient funding and time support
so that educators and business/industry partners can work collaboratively to build strong WBL programs.

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