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ABSTRACT

This report examines career development approaches and practices implemented at six West Virginia school-to-work (STW) sites. The sites were the original local partnerships funded by the state's federal STW implementation grant in 1996. Site visits gathered information needed for development of a comprehensive career development self-assessment instrument and for implementing the career development component of the state STW initiative. All study sites were predominately rural and predominately white, and had a per capita income below the national average. It appears that the West Virginia STW Office has communicated the basic requirements and operating procedures of the integrated approach to the study sites. STW coordinators were successfully integrating the STW model into the total curriculum. Job shadowing was the most used and most successful career development practice at the sites, followed by two career development classes on career clusters and career majors. The sites delivered career development experiences from kindergarten through postsecondary level. Many practices were technology-driven. Results point to the importance of parent involvement, extensive multidirectional communication, administrative leadership, and school and community willingness to change. Appendices include findings from each of the sites and provide brief descriptions of best practices and essential terms. (CDS)

A Report on

Career Development Approaches

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Six West Virginia School-To-Work Sites

prepared by

AEL, Inc.

with assistance from

Staats and Associates, Inc.

for

The West Virginia School-To-Work Steering Committee

and the

Executive Director of the Office of School-To-Work

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AEL's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology in Education Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Center and operates the ERIC Clearinghouse on Rural Education and Small Schools.

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CONTENTS

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Staff of AEL were instrumental in conceptualizing the study, conducting background research, assisting with the study of selected sites, and writing and editing this report. Dr. Hobart Harmon conceptualized and organized the study. Without his vision, leadership, and hard work this study would not have happened. Dr. Ben Dickens and Dr. Charles Smith conducted literature searches and conducted site visits. Greg Leopold contributed his valued expertise to the shaping and revising of the document. Kim Cook and Penny Sebok provided excellent assistance in typing and proofreading the text of this report. Carla McClure copyedited the report and offered suggestions for improving the document.

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Keith C. Smith, Ph.D.

EXECUTIVE SUMMARY

This report describes what AEL researchers and interviewers from Staats and Associates learned in spring 1998 about implementation of the comprehensive career development component from site visits at the original six school-to-work (STW) local partnerships funded by the state's federal STW implementation grant in 1996.

The purpose of this study was to gather information needed by AEL researchers and the West Virginia School-To-Work Steering Committee for development of a comprehensive career development self-assessment instrument and for implementing the career development component of the state school-to-work initiative.

Following the introduction and rationale for the study that are presented in Section I, Section II describes the six study sites and design of the study. Section III provides a general summary regarding implementation of a comprehensive career development STW component in the six study sites. Conclusions are provided in Section IV and references in Section V. An appendix includes findings from each of the six sites.

Goals and Objectives

The goals of this study were (1) to identify career development approaches and practices being implemented in the local STW partnerships, and (2) to inform design and development of a comprehensive career development self-assessment instrument for use by the local STW partnerships.

The objectives of this study were

- to describe the overall career development approach being implemented at the sites
- to summarize the career development practices being implemented at the sites
- to summarize the most successful career development practices at the sites
- to describe the implementation impediments at the sites

Study Design

AEL and Staats and Associates conducted case studies in the six selected sites. The researchers held interviews, facilitated focus group sessions with parents, and reviewed important documents as integral parts of this study. Throughout this study, the researchers gathered data and information that can be used to help inform decisions about design of the comprehensive career development self-assessment instrument and better understand the implementation of career development in the STW local partnership's system-building effort. Local and state stakeholders were involved at every stage in the development of the study design.

Conclusions

The overall career development approach being implemented at the six STW sites visited in this study is based upon the West Virginia STW framework. It is an integrated approach, not an add-on to the existing curriculum. It appears that the West Virginia STW Office has communicated the basic requirements and operating procedures for this approach to these sites.

The job shadowing practice was mentioned as the most used and most successful career development practice at the sites. Job shadowing provides an opportunity for students to acquire career information beyond the regular classroom and gives greater relevance to other elements of the career development opportunities such as introductory classes for career clusters and career majors. Additional exploration of career clusters is implemented through the second and third most frequently reported successful practices, two career development classes: Introduction to Career Clusters and Introduction to Career Majors. (See Appendix F for descriptions of terms and best practices.)

In addition to these three practices, this study found that the sites visited are using a variety of career development practices that are aligned and consistent with the career development framework established by the West Virginia STW Office. Those practices deliver career development experiences from kindergarten through postsecondary education.

Many of the current practices are technology driven. According to persons interviewed at the six sites, it is reasonable to expect that the number, variety, and quality of technology-driven practices will increase and improve. In consideration of the extensive infusion of technology into West Virginia's schools, there may be merit to purchasing of commonly used career development technology packages on a statewide basis.

To achieve the maximum benefit from the knowledge and expertise that have emerged among the practitioners who have provided the leadership, a means of informal networking and formal exchange of information needs to be organized. Evolving STW sites would be able to accelerate their implementation of the career development component of their programs if they had the opportunity to learn from staff at more mature sites. Staff at mature STW sites will also need help adjusting and improving their practices.

One specific practice identified within the West Virginia STW career development framework is the Responsible Students Program (RSP). RSP is a school-developed program that teaches students responsible behaviors. This program assists students in becoming organized and dependable individuals capable of making good judgments for themselves. While no person interviewed at the sites visited mentioned RSP as a career development practice, it was later determined that several of the schools in these local STW partnerships were implementing RSP. RSP was apparently viewed by those interviewed as a program that had broader purpose and impact than career development.

While schools across the country are struggling with the need to create a new relational structure for engaging parents in their children's education, this study shows that career development activities provide substantial and compelling opportunities for positive involvement of parents. The effective and full implementation of most career development practices is dependent upon parent support and involvement. One can readily conclude that parent involvement is both an imperative and an opportunity that must be efficiently and effectively addressed at all levels of implementation.

A related conclusion is that for parent involvement and the involvement of business and other elements of the community to be achieved, effective communication mechanisms must be in place. Communication is critical to all aspects of planning and implementing successful career development practices. The sites emphasized and reemphasized the power of good communication and the frustration and futility that flourish in its absence.

In the short period of time since the inception of the STW program in West Virginia, the importance of a comprehensive career development component has come to be recognized by students, parents, business people, and educators. They understand the complexity and magnitude of the process of career decision making that every student must experience. The school is in a unique position to be a valuable partner that, like the parents, has a long-term impact and investment in the career development of each child.

Local STW partnership leaders emphasized that expansion and improvement of the comprehensive career development component was, in large part, a result of clear direction, aggressive leadership, and financial support from the federal school-to-work grant. Studies show that the institutionalization of such changes in education usually requires an eight- to ten-year period; STW partnerships were initiated only three years ago, in 1996. As federal funding for the West Virginia school-to-work project nears its end, questions of sustaining and continuing the state and local leadership that fueled successful career development practices need to be given serious consideration.

SECTION I: INTRODUCTION

Rationale for Study

One of the major challenges confronting the education system in West Virginia is more closely aligning educational opportunities with current and future realities of the modern workplace. West Virginia governors, legislators, education officials, and other interested entities have called for an education system that better meets the potential career interests of students and the related local, state, national, and global economic environments. New education reform laws, state board policies, state department of education regulations, and a federal school-to-work (STW) implementation grant have propelled the state forward in addressing this challenge. Major efforts are in progress to build and enhance a STW system in the state that meets the career development needs of students in West Virginia's schools.

As a key partner in the state's STW initiative, AEL focused its research and development project in West Virginia on the career development component of the state's STW initiative and related comprehensive evaluation plan. One of the primary goals of the AEL project is to describe career development approaches and practices being implemented in the local STW partnerships. The other primary goal is to develop an instrument for local STW partnerships to use in assessing implementation of career development practices.

West Virginia School-To-Work Opportunities System

With strong bipartisan support in the United States Congress, the School-To-Work Opportunities Act was passed in April 1994. The Act provided a limited investment of federal funds to develop and implement practices that will smooth the transition of students from high school to college, other postsecondary education, and employment in occupations that support a good standard of living. In 1996, the West Virginia Legislature enacted SB300. It includes some of the same goals for the full preparation of all students and for improving student success in the transition to college, other postsecondary education, and employment.

The West Virginia STW opportunities system includes a comprehensive career development component. Elements of this component include

1. Career awareness in grades K-5 helps all students develop an awareness and appreciation of the broad concept of work and careers and recognize how the work tasks they perform in school relate to the world of work.

2. Career exploration in grades 6-8 helps students explore multiple career clusters, conduct self-assessment, access career information systems, and initiate education planning based on a tentative career focus. At the end of the eighth grade, students work with their parents and a school counselor to develop the first component (grades 9 and 10) of a five-year individualized educational plan that helps them prepare for life after high school.

3. Career planning and decision making in grades 9-10 include career exploration in six cluster areas and structured opportunities to participate in formal job shadowing in a career cluster area. The five-year individualized plan is revised to specify a career major at the end of the tenth grade and the education pathway the student will follow.

4. Career preparation in grades 11-adult focuses on studies and experiences to prepare for a chosen career major.

The state STW Steering Committee recommended that a study be undertaken to inform the STW Steering Committee and AEL staff (who will jointly develop a comprehensive career development self-assessment instrument) about implementation of the career development component of the STW program. The goals and objectives of the study are presented below.

Goals and Objectives

The goals of this study were (1) to identify career development approaches and practices being implemented in the local STW partnerships, and (2) to inform the design and development of a comprehensive career development self-assessment instrument for use by the local STW partnerships.

The objectives of this study were

- to describe the overall career development approach being implemented at the sites
- to summarize the career development practices being implemented at the sites
- to summarize the most successful career development practices at the sites
- to describe the implementation impediments at the sites

Audience for This Report

The primary audience for this report consists of the West Virginia School-To-Work Steering Committee, the Steering Committee's Comprehensive Career Development Advisory Group, the Executive Director and staff of the West Virginia School-To-Work Office, and AEL staff who are developing the Comprehensive Career Development Self-Assessment instrument. Other parties that may have an interest in this report include the West Virginia Board of Education, the West Virginia Department of Education, the West Virginia Governor's Office, the Senate Education Committee, the House Education Committee, the West Virginia Caucus of the AEL Board of Directors, and other local STW partnership sites in West Virginia.

SECTION II: PROCEDURES

Selection and Description of the Six Study Sites

For the purposes of this study, a "site" refers to the local STW partnership, not just the county school district. However, some information about each county is provided to present the context of the partnerships. These sites were in the initial group of partnerships funded by the state STW initiative in 1996 and were considered to have the most mature career development delivery systems.

One can make several generalizations about the sites. All are predominately rural. The population is predominately white. All sites have a per capita income below the national average, and five of the six counties have a per capita income below the state average of $18,225. All sites have an unemployment rate higher than the national average, and four sites have an unemployment rate higher than the state average of 5.9 percent. In two of the six sites, over one-half of the residents work in other counties or other states. Only one county has a television station; however, all counties have one to three newspapers. All have at least one public library. Three of the six counties do not have cellular phone service. Two counties have no hospital; one county has only one medical doctor and one dentist.

With regard to state accreditation, all six sites have a student attendance rate above the state average; five of the six have a student drop-out rate below the state average of 2.9 percent. Five of the six have a per pupil expenditure that exceeds the state average of $5,992. All score above the 50th percentile at grades 3 through 11 on the Stanford Achievement Test (9th Edition, 1997-98). With regard to state averages on this test, five of the six sites are below the state average at grades 3 and 8. Four score below the state average at grades 10 and 11. Three sites score below the state average at grades 5, 6, and 9. Two score below the state average at grade 4. All are above the state average at grade 7.

Study Design

AEL and Staats and Associates, of Mineral Wells, West Virginia, conducted case studies in the six selected sites. The researchers held interviews, facilitated focus group sessions with parents, and reviewed important documents as integral parts of this study. Throughout this study, the researchers gathered data and information that can be used (1) to help inform decisions about design of the self-assessment instrument and (2) to better understand the implementation of career development in the STW partnership's system-building effort. Local and state stakeholders were involved at every stage in the development of the study design. This report presents summaries and lessons learned from these case studies. To provide anonymity for the participants, the names of the sites have been replaced by numbers and the names of the participants and local STW partnerships have been deleted.

To achieve the project goal of describing the career development approaches and practices being implemented in local STW partnerships in West Virginia, AEL and Staats and Associates conducted case studies in six mature STW partnership sites in West Virginia. A two- or three-member team visited each site for the primary purpose of collecting information and data to describe the overall approach to career development and how this approach was being implemented. During a two-day visit, each team conducted interviews with the following persons at an elementary school, middle/junior high school, and high school at each site:

1. a counselor
2. two or three teachers
3. two or three students

In addition to the above, the team interviewed professionals and other persons from the central office as follows:

1. school-to-work coordinator
2. adult basic education coordinator
3. county curriculum director
4. tech-prep coordinator
5. building coordinator
6. special education transitions person (if available)
7. director of vocational-technical education
8. local partnership committee person representing employment programs or health and human services

In some sites, one person was assigned multiple roles and provided the research team with information and data for each area of interest. Approximately 12 parents (four each from the elementary, middle/junior, and high school level) were interviewed in a group on the evening of the first day of the site visit.

Site Visit Description

A STW site coordinator was identified at each site and was contacted by AEL staff or representatives from Staats and Associates concerning the site visit. The purpose of the site visit was described as gathering information from interviews with selected professional staff and students, conducting a focused discussion with selected parents, and reviewing documents relevant to the local career development program. Coordinators were reminded that the information was to be used to describe their overall approach to career development and how it was being implemented in their county. The coordinators were also assured that the study *was not* an evaluation of the program, personnel, school, or district. The local STW coordinators made all the arrangements for this event, as well as interviews.

The site visits were conducted on the following dates:

- April 20-22, 1999—Site 5
- April 22-23, 1999—Site 2
- April 23-24, 1999—Site 3
- April 27-28, 1999—Site 4
- April 28-29, 1999—Site 6
- April 29-30, 1999—Site 1

Instrumentation

Each teacher or administrator was interviewed individually or in a small group, as schedules permitted, using an interview protocol for administrators and teachers developed by AEL rural specialty staff (see Appendix B). Two or three students from a middle/junior high school at each site were interviewed as a group using an interview protocol for students developed by AEL staff (see Appendix C).

In the evening, a focus group discussion was held with a group of approximately 12 parents (four each with children in elementary, middle, and high school) at each site selected by the local STW coordinators. A focus group protocol developed by AEL staff (see Appendix D) was used for these discussions, which lasted approximately one and one-half to two hours.

Analysis

All interview data were summarized by members of the site visit team. Data were summarized by objective and collapsed across sites to provide lessons learned.

SECTION III: SUMMARY OF FINDINGS

This section presents the summary of the information collected from the six sites visited. The information is aggregated across the six sites for each of the questions around which data and information were collected to achieve the objectives of the study. (See Appendix E for individual site visit findings.)

Subsection A: Overall Career Development Approach Being Implemented

There are similarities in the career development approaches being implemented at all six STW sites reported in this study. The overall approach is based on the West Virginia STW model, with portions of the High Schools That Work program incorporated in some sites. In most sites, an integrated and broad-based approach has been implemented. The STW initiative at all sites addresses all grades, K-adult. Teachers relate their subject matter to careers. The career development approach used in most of the STW sites is not an add-on. It is an integrated component of instruction at the elementary, middle, and high school levels. In some instances, the STW initiative has become the driving force for a more relevant curriculum. Career awareness activities, career exploration, job shadowing, advisor/advisee programs, career clusters, and career majors are being used extensively in the implementation of career development in the six sites visited. Although all sites had established career development elements at each level of their education program, none of the programs could be considered comprehensive at the time of the visits.

Strong community involvement exists in the STW sites in general and, more specifically, in the delivery of career development practices. The business communities and institutions of higher education (IHEs) are extensively involved in the career development approaches at most of the sites.

To coordinate the implementation of the STW program, county boards of education and superintendents have supported the program by providing part-time and, in some instances, full-time professional staff who work with this program inside and outside the school districts. Overall, county boards and administrators were reported to be supportive of the career development component of STW.

The counties are providing career development opportunities for all students. Specific strategies and practices have been implemented to address the career development needs of special education students.

Although there are similarities in the approaches being used to implement career development practices at the different sites, unique features may be attributed to the geographic location and access to internal and external resources needed to implement high quality career development programs.

Subsection B: Career Development Practices Being Implemented

Job shadowing and the Introductions to Career Clusters classes were reported as having been used at all sites. Other career development practices that were reported to have been implemented in at least four sites included the Introduction to Career Majors classes, advisor/advisee programs, Career Education Responsive to Every Student (CERES), the American College Testing (ACT) Explore materials, student portfolios, and Classroom Inc. (job simulation software).

Career development practices that were reported at three sites included career fairs/days, career speakers, field trips, relating subject matter to careers, occupational interest/preference inventories, and articulation practices/agreements with local colleges and universities. A variety of career-relevant videotapes, CD-ROMs, and computer software was used by students, advisors, teachers, and counselors.

Other career development practices reported at one or two sites included job internships; student leadership programs; senior projects; work-based mentors; work transition programs; visits to vocational schools; the use of parents and community agencies for resources; Tech-Prep Pathways; ACT Discover materials; Careers, Opportunities, Planning, Education (COPE); Career Explorer (a computer-delivered career information/exploration service); the Armed Services Vocational Aptitude Battery (ASVAB); Practical Assessment Evaluation System (PAES); and learning style inventories. This listing of implemented practices includes most of the practices reported.

It is important to note that some of the practices reported by individuals interviewed at the STW sites were not career development practices and, therefore, do not appear in the lists presented above. However, those practices, more appropriately described as actions that support and/or enable career development activities to be implemented, can be found in the individual site visit findings located in Appendix E. A few of the more frequently reported support/enabling practices were

- staff development to inform, engage, and prepare teachers to implement career development practices and activities
- extra help for students (summer academies, tutoring, after-school sessions) to enable them to catch up in their academic achievement
- job shadowing experiences for teachers
- development of training, handbooks, and other materials to help teachers and work site personnel understand and become more effective in delivering career development practices

The distribution of the reported career development practices across the early, middle, and high school levels was, as might have been expected, unequal. There were 27 career development practices reported at the early education level. The middle education level sites reported 54 practices, while at the high school level 52 practices were reported. The career

development practices referred to in the two preceding sentences represent some duplicated practices. The duplication may be the result of a practice implemented at multiple grade levels and/or the same practice implemented at different STW sites. The difference in the relative number of practices reported at the three programmatic levels indicates clearly there are more practices implemented in middle schools and high schools than in elementary schools.

During the process of reviewing information from the six STW sites, questions surfaced about the role of school counselors in implementing career development practices. Based on telephone conversations with individuals most directly responsible for planning, coordinating, and implementing the STW program, it was reported that in five of the six sites studied, counselors play a major role in the career development programs. Counselors were reported to have played major roles in planning, coordinating, training, and implementing key components of the career development program at the local STW sites. STW coordinators saw the counselors' knowledge and expertise as important to successful implementation of career development in their schools.

Subsection C: Most Successful Career Development Practices

Job shadowing was the most successful career development practice, according to school personnel. The Introduction to Career Clusters and Career Majors classes and the advisor/advisee program were also among the most successful practices reported by the sites visited. Other successful career development practices identified included career days/fairs, Classroom Inc. (job simulation software), ACT Explore test information, the direct involvement of parents in education/career planning, Take a Student to Work Day, career-related curriculum research projects, COPE, and the PAES lab.

A substantial number of responses identified as most successful career development practices were, in reality, among the structure and enabling practices that are needed to implement and sustain a comprehensive career development program. Many could be categorized as staff development; these included opportunities for teachers to job shadow; training teachers to team across program areas; and participation in national STW conferences by teachers, administrators, and county board of education members. Other structure and enabling practices included academic coaches at each school, county industry/business/labor/education partnerships, use of STW coordinators at each school, dual credit county-university programs, and elementary and secondary STW summer academies.

The distribution pattern of the most successful career development practices among the programmatic levels is similar to that reported above in Subsection B. At the early education level, four practices were identified as most successful. Thirteen career development practices at the middle level and 20 at the high school level were identified as the most successful practices by the six sites.

Subsection D: Implementation Impediments

The implementation of a substantive change such as improving the career development component of the STW initiative can encounter a variety of impediments. Based on the review of information collected from the six STW sites, the impediments these sites have experienced relate to communication, resistance to change, limited resources, and coping with change.

Communication is vital to most aspects of improving career development implementation, according to the individuals interviewed. If parents, teachers, students, administrators, business people, and community leaders were not kept informed about the why, what, who, when, and where of the project, implementation was impeded. Involvement and communication with parents were noted by several sites as both important and problematic. In one case, the difficulty of involving parents of high school students was particularly troublesome. The students, it seems, did not want their parents involved in school activities. Vertical communication among the schools, county school district, the state department of education, and the state STW office must also function effectively. If communication is inadequate or otherwise ineffective at any point, implementation of the project can, and probably will, experience problems. Communication is also a key to achieving good collaboration and coordination of job shadowing and other work-site-related activities.

There tended to be some normal and expected resistance to change on the part of those most affected by change: the teachers. Interviews at the STW sites indicated that many of the teachers who were nearing retirement exhibited strong resistance to making changes in their instructional practices and curriculum.

Another impediment identified by this study was the restriction imposed by the lack of resources such as time and/or people, finances, and, in the case of the more rural counties, lack of an adequate number of work sites. The time demands were experienced as a result of the need to conduct and attend staff development; the expanded number and depth of communications with businesses; and the intensity and quality of communications required to inform and involve parents, teachers, and other school staff. Time, in some cases, translated to the expressed need for a staff person to do the communications and coordination for STW.

The lack of funds to purchase materials and to pay for staff training to help teachers and counselors implement the new and expanded career development practices were cited as impediments in financially strapped counties. The cost of transporting students to work sites was also identified as an impediment in some counties.

Several of the impediments cited by the interviewees could be categorized as inherent to the process of learning to implement change. Learning to initiate contacts with businesses, nurture relationships with parents, and develop business directories are tasks that have to be addressed and worked out. Furthermore, the issue of involving parents is bigger than career development or STW. Schools across the country are struggling in their attempts to acquire the knowledge, skills, and attitudes necessary for meaningful and productive parent involvement.

Subsection E: Student Comments and Parent Perceptions

Students said that the job shadowing experience was the best part of the career development component of the STW program and they wanted more shadowing opportunities. Students also said they would like to have more classes like the Introduction to Career Clusters and Career Majors. Some students indicated that they liked the half-day job placement program.

Parents wanted more communication with the school, especially with regard to college admission, financial aid, and testing programs. Many parents had not attended college and wanted this information. Parents at most of the sites expressed a need for more opportunities to be involved in the education of their children. Some parents had great anxiety about whether their children would be able to complete core major electives and still meet other graduation requirements. Parents suggested that the core major requirements begin earlier than the junior year. There seemed to be a prevailing misconception among parents at one site that any changes in career majors would require an additional year at the high school level. Parents consider formally scheduled parent-teacher conferences for developing and reviewing/revising their children's education/career plans as very valuable and appreciate this opportunity to have direct dialogue with the teachers. Parent conferences, however, did not appear among the list of the most successful career development practices identified by school personnel at the six sites.

Some parents felt that all parents should be required to attend these conferences at the school. Parents realized their responsibility to help with the career development plans for their children. Parents recognized the value of their children's job shadowing experiences and wanted these expanded. While some parents believed that schools should concentrate on the basics to the fullest extent possible before getting into careers, others believed it would be more helpful for students to receive direct experience at job sites and receive more information about more jobs. Parents at one site felt that schools should not only teach about job requirements and benefits, but also the importance of job satisfaction.

Students said that parents should help educate their children about the steps needed to be prepared for the jobs they prefer. Parents and students expressed a positive view about the communication, social skills, and work ethics that they were receiving from the career development component of the STW program, but believed that it could be even better.

Subsection F: Lessons Learned about Career Development Implementation

The lessons learned from the interviews and other information collected through this study of career development implementation at six mature STW sites will be of value to AEL staff who will prepare the Comprehensive Career Development Self-Assessment instrument, as well as to practitioners. The salient lessons learned have been grouped under the following headings:

- emergence of new and successful practices
- parent involvement in the education and career planning process
- the importance of communications
- leadership and support for change
- a willingness to change

These five areas overlap in several ways.

The emergence of new and successful practices was readily discernable from the comments of individuals interviewed and the career development practices that were identified as the most successful by school personnel. Job shadowing, Introduction to Career Clusters and Career Majors classes, ACT Explore and Discover materials, CERES, Classroom Inc., and other technology-delivered practices have been introduced to schools in West Virginia in the past four years. These new practices have not only been accepted and implemented, they were the most popular with students, parents, and educators. This clearly shows that, given the right circumstances, new career development practices can be embraced and used in evolving STW sites.

Parent involvement in the education and career planning process is both needed and desired by parents and school personnel. The direct and real involvement of parents in planned conferences that allow them to understand career development and to take an active role with their children, teachers, and counselors was endorsed by parents at all sites. Parent involvement requires that parents be informed in a meaningful way so they can function in the career development process. Parent interest and the unique nature of a child's career development afford school the opportunity to demonstrate capability and caring that can make a positive impact in the lives of the parent and the child.

The importance of communication in establishing and maintaining high-quality career development was reported in almost every aspect of the program and at all sites. Extensive communication, in a variety of forms, must be used to inform, involve, and secure buy-in and support for STW and the career development component of the program. Teachers, administrators, students, parents, business people, and the community need to know about and understand the value of STW and career development if they are going to participate in and contribute to the changes that effective program implementation demands. Extensive multidirectional communication must continue to flow among the West Virginia STW Office, county boards of education, county office staff, school building staff, parents, business, and the

community to continue and improve the progress that has been made in implementing high-quality career development in STW sites.

Leadership and support for change are essential for the implementation of high-quality, successful, and sustainable career development practices. Administrative support is a must for any change to occur in a school or a school system. The county board of education, the county school superintendent, and the building principals have to make it clear that they support the concept of comprehensive career development and will make the needed resources (time, assigned personnel, staff development, and materials) available. Given that all resources are of critical importance, time was the resource that surfaced repeatedly in interviews. Time for planning, collaborating, revising curriculum, conferencing with students and parents, and evaluating was seen as the most valuable resource. While allocation of resources and establishing direction are the prerogative of administration, the leadership can come from administration or from other individuals or groups that have the requisite knowledge and leadership ability, as well as acknowledgment by the administration.

A willingness to change must be present within the staff, parents, and the community for a school system to implement a high-quality comprehensive career development component of the STW program. Some sites reported that staff who were nearing retirement were unwilling to make changes in their instruction, content, and/or materials. In the event that groups of teachers or influential individuals oppose change or are unwilling to change, effective strategies must be implemented to overcome or circumvent the resistence to change. One strategy is to appropriately address the four areas cited above. Resistance to change, both within the school and from parents and the community, is less likely when the change involves successful instructional practices, parent involvement in career planning, communication, and leadership.

SECTION IV: CONCLUSIONS

The overall career development approach being implemented at the six STW sites visited in this study is based upon the West Virginia STW framework. It is an integrated approach, not an add-on to the existing curriculum. It appears that the West Virginia STW Office has communicated the basic requirements and operating procedures for this approach to the sites that were visited. Site leaders, especially the STW coordinators, are successfully integrating the STW model into the total curriculum. County boards of education and superintendents are supporting the career development component of the STW program by allocating resources such as staff, staff development, and logistical support. There are some differences in site implementation strategies because of differences in geographic location and the available resource base. It appears that the West Virginia STW Office is flexible and encourages the sites to adjust approaches to meet their unique circumstances and existing needs. The result is that with direction, assistance, and a small amount of funding from the West Virginia STW Office, the six sites have implemented career development practices they believe are successful.

The job shadowing practice was mentioned as the most used and most successful career development practice at the sites. Job shadowing provides an opportunity for students to acquire career information beyond the regular classroom and gives greater relevance to other elements of the career development opportunities. Additional exploration of careers is implemented through the second and third most frequently reported successful practices, Introduction to Career Clusters and Introduction to Career Majors. In-depth information about career majors is made available to students in the Introduction to Career Majors class. The application of these practices assures that students have a basic knowledge and work-based experience to help them make informed education and career decisions. All of the groups that were interviewed expressed interest in students having more opportunities for work-based experiences as part of the career development process that schools offer their students. If this is to happen, schools must find creative ways to provide the experiences without consuming large blocks of instructional time.

In addition to these three practices, this study found that the sites visited are using a variety of career development practices that are aligned and consistent with the career development framework established by the West Virginia STW Office. Those practices deliver career development experiences that span the gamut from kindergarten through postsecondary education. The information presented earlier in this document revealed that the number of practices is skewed toward the middle and high school levels. However, with more time, experience, networking among sites, and continued support, this imbalance can be adjusted and the overall quality of the practices will improve.

Many of the current practices are technology driven. According to persons interviewed at the six sites, it is reasonable to expect that the number, variety, and quality of technology-driven practices will increase and improve. In consideration of the extensive infusion of technology into West Virginia's schools, there may be merit to purchasing commonly used career development technology packages on a statewide basis.

To achieve the maximum benefit from the knowledge and expertise that has emerged among the practitioners who have provided the leadership, a means of informal networking and formal exchange of knowledge needs to be organized. Evolving STW sites would be able to accelerate implementation of the career development component of their programs if they had the opportunity to learn from staff at more mature sites. Staff at mature STW sites will also need help in adjusting and improving their practices. The context of all the sites is dynamic and therefore requires modification for subsequent groups of students. The career development of a group of seventh-graders who have been involved in intensive career development activities for three years will differ markedly from previous groups that have not had those same opportunities. The sequence and content of the career development practices will have to adjust to the changes in the clientele these practices are designed to serve. A networking mechanism would enhance the capabilities of practitioners to make adjustments in their practices.

One specific practice that was prescribed within the West Virginia STW career development framework was the Responsible Students Program (RSP). RSP is a school-developed program that teaches students responsible behaviors. This program assists students in becoming organized and dependable individuals capable of making good judgments for themselves. While no person interviewed at the sites visited mentioned RSP as a career development practice, it was later determined that several of the schools in these local STW partnerships were implementing RSP. RSP was apparently seen as a program that had broader purpose and impact than career development.

While schools across the country are struggling with the need to engage parents in their children's educations, this study shows that career development activities provide substantial and compelling opportunities for positive involvement of parents. The effective and full implementation of most career development practices is dependent upon parent support and involvement. One can readily conclude that parent involvement is both an imperative and an opportunity that must be efficiently and effectively addressed at all levels of implementation.

A related conclusion is that for parent involvement and the involvement of business and other elements of the community to be achieved, effective communication mechanisms must be in place. Communication is critical to all aspects of planning and implementing successful career development practices. People interviewed at the sites emphasized and reemphasized the power of communication, and the frustration and futility that flourish in its absence.

In the short period of time since the inception of the STW program in West Virginia, the importance of a comprehensive career development component has come to be recognized by students, parents, business people, and educators according to their comments. The school is in a unique position to be a valuable partner that, like the parents and the community, has a long-term impact on and investment in the career development of each child. The increasing level of knowledge, skills, materials, technological capabilities, communication, collaboration, and commitment are all expanding and improving the capability and capacity of schools, communities, and businesses to collectively provide high-quality career development opportunities for students at all levels of the school system.

During interviews, local STW partnership leaders emphasized that expansion and improvement of the comprehensive career development component was, in large part, a result of clear direction, aggressive leadership, and financial support from the federal school-to-work grant. The institutionalization of changes in education occurs over an eight- to ten-year period. Recognizing that the end of federal funding for the West Virginia STW system-building initiative is rapidly approaching after only four years, questions of sustaining and continuing the state and local leadership that have been important to the implementation of successful career development practices needs to be given serious consideration.

SECTION V: BACKGROUND RESOURCES

Guba, E. G., & Lincoln, Y. S. (1989). *Fourth generation evaluation.* Newbury Park, CA: Sage Publications.

Harvey, T. R. (1990). *Checklist for change.* Boston: Allyn and Bacon.

Payne, D. A. (1989). *Designing educational project and program evaluations.* Boston: Kluwer Academic Publishers.

West Virginia blue book. (1998). Charleston: State of West Virginia.

West Virginia Bureau of Employment Programs. (1998). Charleston: State of West Virginia.

West Virginia economic summary. (1998). Charleston: State of West Virginia.

West Virginia report card. (1997-98). Charleston: West Virginia Department of Education.

Wiersma, William. (1995). *Research methods in education: An introduction.* Boston: Allyn and Bacon.

APPENDIXES

Appendix A

Instructions for Career Development Site Visit Events

Instructions for Career Development Site Visit Events

AEL researchers or their representatives will be contacting the STW coordinator to prepare for the site visit and to arrange interviews to be held during the visit. As mentioned at the meeting in Flatwoods, West Virginia, on March 13, 1998, the purpose of the site visit is to learn about the overall approach to career development being implemented at each site. Interviews with key persons should also reveal specific practices, strategies, and activities that are working. Included during the site visit is a *focused conversation* with parents who are familiar with the career development approach and practices (e.g., have good experience in helping their son/daughter complete the career development plan and know what clusters are offered).

The West Virginia School-To-Work Office is asking the local STW coordinator to be the local contact and plan the interviews and focused conversation with parents that will make this important effort a success. Lessons learned and best practices will be shared with others in the state.

Part I: Persons to be Interviewed at the Central Office

1. school-to-work partnership coordinator
2. tech-prep coordinator
3. county vocational director
4. district curriculum specialist
5. district special education transition coordinator
6. adult basic education/adult education coordinator
7. school partnership committee member representing employment programs or health and human services
8. building level principal (principal most knowledgeable about STW and career development approach and practices being implemented)

Part II: Persons to be Interviewed at One Middle School and One High School

1. group of three students
2. two teachers most informed about STW career development approach and practices
3. a guidance counselor

Part III: Focused Conversation with Parents

On the evening of the first day, site visitors will conduct a *focused conversation* with a group of 12 parents. AEL will provide dinner. This will be followed by the focused conversation. The 12 *parents* must include four parents with children in elementary school, four parents with children in middle school, and four parents with children in high school. One parent (either mother or father) will attend (preferably the parent who is most knowledgeable about the child's career development plan and/or career development activities being conducted at his/her child's school). Parents must not be teachers in the school system. The session should last approximately one and one-half to two hours.

Appendix B

Administrator and Teacher Questions

Administrator and Teacher Questions

1. What is the overall career development approach being implemented in your local school-to-work system?

2. Why is this being used?

3. What career development practices are being implemented?

4. What career development practices/activities/strategies are most successful?

5. What is not working in your career development approach? Why?

6. What *lessons learned* would you like to share concerning implementation of the career development component of your local school-to-work system?

Appendix C

Student Questions

Student Questions

1. How is your school helping you learn about choosing and preparing for a career in the modern workplace? Probes:

   a. What information have you received from the school that informs you about _____ ?

   b. How has the school involved your parents in selecting or preparing you for a career?

2. What should be the role of your school in helping you select and prepare for a career?

   Probes:

   a. What experiences in elementary school helped you think about a career?

   b. What experiences in middle school helped you think about a career?

   c. What experiences in high school helped you think about a career?

   d. What personal experiences outside school helped you think about your career?

3. What school experience do you think worked best to help you decide about a career?

4. What could schools do to help parents be more involved in your career decision-making process from elementary school through high school?

Appendix D

Parent Focus Group Protocol

Parent Focus Group Protocol

1. How is the school helping your child learn about choosing and preparing for a career in the modern workplace?

   a. What information have you received from the school that informs you about the local school-to-work initiative?

   b. How has the school asked you to help your child in selecting or preparing for a career?

2. What should be the role of the school in helping your child to prepare for a career?

   a. What is the role of the elementary school?

   b. What is the role of the middle school?

   c. What is the role of the high school?

3. What practices do you think work best to help students decide on a career?

   a. What experiences offered by the school encourage your child to think about a career?

   b. What experiences have you had with your child that seem to get both of you to think about your child's future career?

4. What strategies could be used to help parents become more involved in the career decision-making process of a son or daughter from elementary school through high school?

   a. What could the school do to help parents?

   b. What could employers of parents do to help parents?

   c. What could social service agencies do to help parents?

Appendix E

Individual Site Visit Findings

Individual Site Visit Findings

To describe the context of the sites selected for this study, the research team compiled the following data and information about education, communications, medical services, economic indicators, and general information from the sources listed in the references. One can make several generalizations about the sites. All sites are predominately rural. The population is predominately white. All sites have a per capita income below the national average, and five of the six counties have a per capita income below the state average of $18,225. All sites have an unemployment rate higher than the national average, and four sites have an unemployment rate higher than the state average of 5.9 percent. In two of the six sites, over one-half of the residents work in other counties or other states. Only one county has a television station; however, all counties have one to three newspapers. All have at least one public library. Three of the six counties do not have cellular phone service. Two counties have no hospital; one county has only one medical doctor and one dentist.

With regard to state accreditation, all six sites have a student attendance rate above the state average; five of the six have a student drop-out rate below the state average of 2.9 percent. Five of the six have a per pupil expenditure more than the state average of $5,992. All score above the 50th percentile at grades 3 to 11 on the Stanford Achievement Test, 9th Edition, 1997-98. With regard to state averages on this test, five of the six sites are below the state average at grades 3 and 8. Four score below the state average at grades 10 and 11.

Three sites score below the state average at grades 5, 6, and 9. Two score below the state average at grade 4. All are above the state average at grade 7.

Site #1

Located 90 miles from the nearest city in the central part of the state, Site #1 is 342.4 square miles in size. Its leading industries and chief agricultural products are petroleum, natural gas, coal, timber, hay and grain, livestock, and poultry. In 1990, the population was 7,669. Site #1 has six schools.

Subsection A: Overall Career Development Approach Being Implemented

The overall approach has followed the state regulations and the guidelines that STW has provided. Within the school system, emphasis is placed on the West Virginia model for career awareness as an extension of the High Schools That Work Program that was in place in the county. There is cooperation in career awareness between the county system, the college, and the local Tech Prep consortium. In general, the process being implemented is well respected. Students and teachers feel comfortable with it. Portfolio development and job shadowing are probably the most well-known components.

Subsection B: Career Development Practices Being Implemented

Students begin to receive career information at the elementary level through classroom work and field trips. At the seventh-grade level, students begin career portfolio development. At the eighth-grade level, students are introduced to career clusters. There are six adopted career clusters.

In the tenth grade, students are introduced to career majors. As they progress through the next grades, they begin an advisor/advisee program and become involved in job shadowing. The twelfth-grade experience is a work-based program in which students prepare for job searches, interviews, teaming, writing resumes, and looking for resources. Senior students complete internships and mentorship. Students must keep their time sheets and go through an employee evaluation on the job.

Subsection C: Most Successful Career Development Practices

Job shadowing appears to be the most appealing and successful of the career development practices. Positive comments were also made about portfolio development and the advisor/advisee program. ACT Explore tests given to eighth-grade students and interpreted to students and parents were reported to be successful. Summer academies are available for the purpose of shoring up basic skills and, therefore, become integral to the development of career goals.

Subsection D: Impediments to Implementation

The implementation of the career development component of the STW program requires a great amount of time for communicating with all those who will be involved. Coordination is difficult to accomplish because of the different numbers of people and different groups that have to be kept abreast of the others' activities.

The director should be allowed to delegate authority and select people to be involved. Adult basic education and vocational technical units, in particular, must be included in communication and coordination improvement efforts.

Locating workplaces is difficult in rural counties. Transportation to workplaces and the liability for businesses are problems. In addition, some STW committees seem not to be functional or do not have the opportunity to have input into the STW program.

STW is not seen as a systemic initiative and much of the focus has been placed on High Schools That Work. There is a lack of the K-6 career development system. Materials and support for elementary teachers are lacking.

Parents must have information about the career development process. This should start, at the latest, in the sixth grade. Schools, students, and parents should meet to discuss career decisions at least once a year and preferably more often. All groups must be kept informed.

Site #2

The leading industries and agricultural products in Site #2 are electric power, coal, polyester resins, plastic film, jet aircraft lubricants, salt and brine, tobacco, poultry, fruit, and vegetables. In 1990, 25,178 people resided on 445.7 square miles. This site is located in the southwestern part of the state, approximately 43 miles from the nearest city. There are 14 schools in this county.

Subsection A: Overall Career Development Approach Being Implemented

The County Industry/Business Labor/Education Partnership is actively involved in planning and implementing the STW initiative. More than 60 local leaders have been active in the partnership committee and serve as career cluster chairpersons. The partnership meets monthly to review and evaluate the K-12 STW program.

The county supports technology in teaching for students' careers and has an active technology committee that meets monthly to support the STW system. The committee looks at technology needs of K-12 classrooms and works with the Partnership Committee to provide and enhance the goals of STW.

The county established a STW Summer Academy for all professional staff in 1996 and brings in nationally known speakers. The academy is held Monday through Friday in August before the opening of school.

Career development opportunities for special-needs students are aligned with general population students. Special-needs students are expected to meet the same standards as the general population with high expectations for all students.

Parents at the secondary level have organized and are active in the total school environment.

Subsection B: Career Development Practices Being Implemented

Elementary school. A six-year career awareness plan exposes all elementary students to 100 different careers. CERES (Career Education Responsive to Every Student) is used in all

elementary schools. Extra Help/Extra Time is provided for all elementary students who do not demonstrate grade-level skills. Parents of elementary students are sent a monthly newsletter.

Middle school. Enter-Here videos are used in the Introduction to Career Clusters class. This class lasts nine weeks, and shadowing is planned for one-half day each for nine weeks. Teachers team teach the Introduction to Career Clusters class and coordinate the job shadowing experience. Implementation of block scheduling assisted the career development program.

ACT Explore is given to all eighth-graders.

The county adopted Career Aptitude Placement Survey (CAPS); Career Occupational Preference System (COPS); and Careers, Opportunities, Planning, Education (COPE) for use in the middle schools. Results are given to students after completion of the program.

A tutor-supervised study block is provided for students who score below the 40th percentile on the Stanford Achievement Tests (SAT-9).

The middle school counselor is responsible for the two-year plans.

The Chamber of Commerce and the Area Roundtable provide shadowing opportunities for students. Job shadowing criteria include grades, attendance, behavior, and attitude. Students who do not meet this criteria will not job shadow until improvement is documented. Work-based learning (shadowing) is a graduation requirement.

The State Board of Risks provides liability insurance for students who participate in job shadowing.

Parents are involved as career speakers, and they provide transportation for job shadowing and participate in Parent-Teacher Organization (PTO) presentations about school-to-work programs.

Eighth-grade girls participate in a Non-Traditional Career Day for Females at the vocational center. The girls are introduced to careers in the engineering/technology cluster at the vocational center. An eighth-grade Career Day featuring parents and community representatives is held at the middle schools.

High school. All tenth-graders are required to take the one-semester Speech/Introduction to Career Majors class taught by the speech teachers. Classroom, Inc. Chelsea Bank software is used in the Speech/Introduction to Career Majors class. Enter-Here videos are shown, work sheets are used, and students research, write a report, and give an oral presentation on their career major. An interest inventory is given to all tenth-graders in the class.

Tech Prep Pathways have been established with a nearby technical college so students can make a seamless transition to the technical college after high school graduation. Dual credit has

been established with a nearby Institution of Higher Education (IHE) for juniors and seniors with a 3.0 grade-point average. The cost to students is $35 per course. The county board of education pays the remaining tuition and book expenses for students who qualify.

Advisor/advisee class handles the two-year and three-year plans. Individualized Transition Plans (ITP) are available for special-needs students who are 14 years of age and older.

The Armed Services Vocational Aptitude Battery (ASVAB) is given to all eleventh-graders. The test is administered by regular educators and results are interpreted to students. All grades participate in the Stanford Achievement Test (SAT-9).

Job shadowing for tenth-graders is being developed. The new county-level school-to-work coordinator for all work-based learning will have responsibility for all job shadowing programs in the county.

Special education students are included in the above opportunities. Some mentally impaired populations will be assessed using the Life Centered Career Education curriculum.

Parents appreciated the career education opportunity because it widened their childrens' knowledge of careers before they had to make a decision concerning a cluster or major. Parents and students enjoyed the senior project requirement for graduation. Parents and students were involved and appreciated the results.

Subsection C: Most Successful Career Development Practices

Successful aspects included Introduction to Career Clusters and Introduction to Career Majors classes, Elementary STW Summer Academy, Secondary STW Summer Academy, Elementary Career Fair, Eighth Grade Career Day, and Classroom, Inc. computer software programs. All were deemed valuable practices by practitioners. In addition to having STW site coordinators at each school, holding monthly meetings of all site coordinators, monthly meetings of the County Industry/Business/Labor/Education Partnership, and the County Technology Committee/ County Board of Education monthly planning meeting were seen as important activities.

The dual credit delivered through the County Board of Education and an IHE, as well as the new graduation requirements for the class of 2000, were identified as a successful part of the program.

Students enjoyed job shadowing. They would like to have more opportunities to shadow. Students enjoy the Introduction to Career Clusters and Career Majors classes. They would like to have more classes where they learn about themselves and careers.

Subsection D: Impediments to Implementation

There is a need to computerize the scoring of CAPS, COPS, and COPE. Career development activities should expand to all classes, not just to Introduction to Career Clusters and Career Majors classes. All schools should be on block scheduling; otherwise, there is not enough time for planning and conducting career development activities and evaluation.

There are limited numbers of teachers and time available in small school settings. A county-level work-based learning coordinator is needed to lead the STW initiative.

More communication is needed. Students and parents are concerned that students cannot change majors without spending more time in school. Parents are also concerned about career decision making before the junior year. For example, can students complete core major requirements in the junior and senior year? Should students begin major requirements before the junior year?

Improved communication with parents, between state STW and county STW coordinators, and between the state STW office and the State Department of Education is needed.

Site #3

Site #3 is located in the southern part of the state, approximately 96 miles from the nearest city. It has 423.9 square miles. The leading industries and agricultural products are coal, lumber manufacturing, hay and grain, livestock, dairying, and poultry. The population was recorded at 64,980 in 1990. This county has 30 schools and is the largest of the study sites in terms of number of schools.

Subsection A: Overall Career Development Approach Being Implemented

This site received an Urban Rural School-To-Work Initiative Opportunities Grant, which purchased many curricular supplies used in the program. Career awareness, career development, career exploration, job shadowing, advisor/advisee programs, and career clusters are being implemented. Connections with businesses are coordinated through the STW office at the county level to reduce the number of contacts made by various school personnel and/or schools. School administrators indicated that STW is driving the curriculum and increasing the number of students seeking higher-level courses.

Extensive and intensive professional development opportunities are provided for the staff. Job shadowing and a handbook of career development are also provided for the staff.

There are strong community involvement, ample resources, and training provided by the STW director. A full-time staff of two STW support persons and a director make possible many

resources that would not otherwise be possible due to the high degree of organization, implementation, and planning required.

Subsection B: Career Development Practices Being Implemented

Elementary schools are using Project CERES and receiving career information through classroom work and field trips. Career cluster classes are offered in the eighth grade, and every eighth-grade student must participate. A curriculum handbook for all activities; instructional goals and objectives that include suggestions for teachers, suggestions for student work, and guidance in utilizing outside speakers; and other resources have been developed and distributed.

Classroom, Inc. is used in the seventh and eighth grades. PAES Labs are also used. The high school is utilizing Discovery Kits, Enter-Here videotapes, Career Majors Notebooks, Take This Job and Love It, and CD-ROMs about careers.

A job shadowing handbook contains information, materials, assignments, and evaluation forms for student activities. Businesses also evaluate the students. A job internship is being started, in which students will receive scholarship monies for use after graduation. It is emphasized that this is not a summer job; it is a learning experience.

At the elementary level, career development is provided through laboratory experiences. Teachers may take five to eight students into the laboratory for hands-on simulation of occupations. One teacher provides the major emphasis on career development by integrating it extensively into his classes. He also involves the students in development of a play related to careers, which is presented to the student body.

At the high school, a very extensive career development program is in place. Each day students meet with their advisors for 25 minutes. This time is used to view videos that are broadcast schoolwide and to discuss career concerns and organizational matters relating to career development. Job shadowing is highly valued by the students as a means of career development. Extensive support from the local STW staff makes the program available to all students.

CD-ROM programs relating to careers are used extensively in addition to many other materials. Computer simulations of occupations and careers are provided. Group presentations relating to careers are developed and presented by the students. Guest speakers on a wide range of careers visit classes throughout the school term.

Students create portfolios to prepare themselves for job application and career planning. Coordination and cooperation with the vocational center provides additional career development opportunities.

Subsection C: Most Successful Career Development Practices

Job shadowing is considered one of the most successful practices. Also considered important were staff development at all levels, the availability of funds to purchase multiple materials that reach all the different students, and student learning styles.

The training of a teacher/trainer at each school, to understand and implement new career development practices, has been successful. The development of source notebooks and curriculum materials has also been of great value. Technology and career majors notebooks have been very beneficial.

Transportation has been provided for students to attend an after-school tutoring program in every school. Certified teachers work with students. Before the students arrive on the job, businesses are trained in how to work with students. This approach has been successful.

The PAES Lab is the most successful practice at the elementary/middle level. The students especially enjoy the hands-on experiences and the simulations.

At the high school, job shadowing is a very successful practice. The advisor program provides students with daily career development experiences. The advisor program provides for extensive career exploration and student involvement in what is required to prepare for a career. Students desire more hands-on experiences and actual site experience.

Subsection D: Impediments to Implementation

The career cluster program is being used in an inappropriate manner at one school. It is difficult to get and keep parents involved beyond the elementary school level. Several students who failed to go to their job shadowing sites have underestimated the importance of job shadowing.

Resistance to change is one of the biggest problems. Teachers who are three years away from retirement don't want change at this point. Teachers tend to think all kids need to go to college even though that is not what our culture is reflecting. Communication about, and understanding of, the importance of school-to-work have not been firmly established in the school culture.

There is a need for teachers to get out of the building and into the vocational-technical center, for businesses to see change, and for cooperation between academic teachers and vocational teachers. At the elementary/middle school levels, the lack of additional personnel to supervise the PAES Lab prevents full utilization of a program that is enthusiastically received by the students. Lack of additional materials also impedes the staff's efforts to implement career development. At the high school, the time required and a demanding career development program have generated resistance from some of the staff members.

Some parents feel the school needs to be a resource center and create awareness of occupational opportunities, yet they are not comfortable with the school guiding their child into a career. Others think the schools should concentrate on the basics and provide students the fullest academic program possible before getting into careers. There are parents who think students are locked in when they sign up for classes.

Site #4

Located in the eastern panhandle of the state, Site #4 has a population of 26,697, according to the 1990 census. It has 330 square miles. The leading industries and agricultural products in this county are coal, glass, lumber, fruit, hay and grain, livestock, dairying, buckwheat, and maple sugar. This county has 11 schools.

Subsection A: Overall Career Development Approach Being Implemented

Career awareness is being emphasized at the primary level. On-site and exploration activities are being carried out at the middle school level. The program has been developed over a five-year period with extensive input from many teachers, principals, counselors, administrators, and community representatives. Work-training experiences are provided for adults through the vocational-technical center. Community leaders and educators have had an opportunity to recommend changes in the career development process. Educators concluded that block scheduling at the high school level enhanced the opportunities for career development experiences.

An integrated, systemwide approach is also crucial to success. The involvement of a large number of people in the process leads to ownership and success of the program.

Subsection B: Career Development Practices Being Implemented

Guest speakers, field trips, and a portfolio project are started at the primary level. Job shadowing is focused on eighth and tenth grades. COPE is offered in middle school. Students are divided into groups that rotate each six weeks through the various career clusters. An eighth-grade banquet is held for all students and parents, ACT Explore results are explained, and ninth- and tenth-grade schedules are discussed.

Teachers of elective classes at the high school level visit the middle school and explain classes to students. Individual conferences are held with students and parents to plan high school schedules. The job shadowing program is very popular among eighth- and tenth-grade students, staff, and the community.

A community speakers' bureau has been established. Radio spots and newspaper articles announce and publicize STW efforts. There is full inclusion of special education students in the vocational-technical program.

Subsection C: Most Successful Career Development Practices

Successful aspects of career awareness are Career Day speakers, the COPE program at the middle school level, and curriculum research projects that deal with jobs. Job shadowing was very popular.

The eighth-grade banquet for all students and parents, where test results and high school schedules are discussed, and the parent/student meeting, where tenth-grade schedules for grades 11 and 12 and post high school are discussed, were deemed of benefit.

Subsection D: Impediments to Implementation

Not enough parent meetings are held at the high school level. More PTA-type meetings are needed. There is a need to improve communication with parents. Often information does not get home. There is not enough parent involvement. One hundred percent involvement is the school's goal.

It would be of benefit for employers to provide employees time off to attend school functions. Flexible/compensatory time could be scheduled. Expanded job shadowing opportunities for all students are recommended. Not enough work sites are available for placement of students. School career development activities are often not scheduled at optimal motivational times during the school day.

Activities should be scheduled early in the day, and time should be provided for planning, coordinating, and implementing the program. Staff members with delineated responsibilities should be provided adequate released time to carry out designated activities. The job shadowing activities should be scheduled early in the day.

Students at the high school level indicate there are not enough meetings with parents. Students are also concerned that they are being asked to make career choices too early in their life.

Parents would like to see more information about additional occupations made available to their children. Parents also feel that increased standards and emphasis on career development plans have made it more difficult for students to succeed without additional support.

Site #5

Site #5 consists of 517.8 square miles located in the southwestern part of the state. It has a population of 41,636. Its leading industries and agricultural products are coal, natural gas, lumber, cement and concrete, hay and grain, tobacco, livestock, poultry, fruit, vegetables, and sorghum. Twenty-four schools are located in this county.

Subsection A: Overall Career Development Approach Being Implemented

Teachers at all grade levels are encouraged and assisted in relating subject matter to careers. The ultimate goal of the county schools is to prepare students academically and technically for professional, skilled, and entry-level careers. The schools use site-based teaming to focus students on academics and work-readiness skills. Counselors serve as resource facilitators to all teachers and students. The county has established a seamless transition to postsecondary education with a nearby IHE.

Subsection B: Career Development Practices Being Implemented

Elementary. Teacher job shadowing is used. CERES focuses on improving students' basic skills, acquiring work attitudes, and developing knowledge of careers and the U.S. economic system.

Career awareness field trips related to the six career clusters are as follows:

1. Kindergarten—Human Services
2. First grade—Health
3. Second grade—Arts/Humanities
4. Third grade—Business/Marketing
5. Fourth grade—Science/Natural Resources

A Junior Achievement program is used to educate and inspire children to value free enterprise, understand business and economics, and develop positive attitudes about the world of work. Students participate in field trips and career fairs; they also listen to career speakers.

Middle school. The Introduction to Career Cluster class is provided for all eighth-graders. Classroom, Inc., Green Mountain Paper Company software, engages students in productive learning experiences that will help them in their learning. The portfolio begins for all sixth-graders. Enter-Here videos are used in the Career Cluster classes (100 careers). One Faculty Senate day each year is used for teachers to job shadow.

A color-coded two-year plan for all eighth graders includes

1. Human Services Cluster—Orange
2. Science/Natural Resources Cluster—Green
3. Health Cluster—Pink
4. Arts/Humanities Cluster—Gold
5. Business/Marketing Cluster—Blue
6. Engineering/Technical Cluster—Yellow

ACT Explore is given to all eighth-graders. All eighth-graders participate in Shadowing Day on the national Take a Daughter to Work Day. Boys are included.

High school. An Introduction to Career Majors class is provided for all ninth-graders. Classroom, Inc., Chelsea Bank software, engages students in productive learning experiences that will help them in their transition from school to the "real world" of work. Career Explorer, an on-line career information service course, focuses on the ins and outs of teaching career development curriculum.

Summer teacher internships are provided. A Chamber of Commerce teacher academy is available. TRAC, a hands-on software package, is used to teach students about engineering. The Eagle's Nest Program is a leadership training program that trains high school students to become mentors for elementary and middle school children. Students continue Junior Achievement. The Travel West Virginia course is offered to all students.

The County Career Fair and career speakers are implemented. Senior Project, an activity that demonstrates a senior's ability to write, speak, and apply knowledge and skills, is conducted. Dual credit classes in English, history, biology, chemistry, French, geography, and medical terminology are coordinated with a local IHE. LINKAGES 97 is an initiative with the local Tech Prep Consortium that explains the dramatic changes taking place in the public school system with a focus toward school-to-work, High Schools That Work, and the Tech Prep Initiative.

The color-coded three-year plan is completed for all tenth-graders with parental involvement. A speakers' bureau is being developed with business and industry. A handbook for work-based mentors is being developed. Required core classes for majors are in place for the class of 2000.

Special education. An interest inventory is used with special needs students in the eighth and tenth grades. Job shadowing is implemented at the eighth and tenth grades. PAES class is offered for special needs students. The Work Transition Program helps special needs students stay in school. Project Hire is a community landscaping program for special needs students. They design, plant, and maintain landscaping for the community.

Subsection C: Most Successful Career Development Practices

Successful practices are job shadowing, technology development (including computerized curriculum programs), and Introduction to Career Clusters and Introduction to Career Majors classes.

Of benefit in the area of parental career involvement were two-year and three-year educational plans with parent participation, Take A Student to Work Day with parent participation, and parent-student survey sheets completed each year. Excellent feedback from parents and students was reported, particularly concerning the survey sheets.

Several successful practices involving faculty and community members were mentioned: Faculty Senate day for teachers to do job shadowing; academic coaching in each school for extra pay; teaming in middle and high school; academic, vocational, and special education teachers working together for "kids"; and teachers attending national STW conventions with administrators and members of the board of education.

Also considered successful were the Eagle's Nest leadership program to promote volunteers in the schools and monthly round table meetings of business, industry, and community leaders, and educators.

Subsection D: Impediments to Implementation

Better communication is needed with parents and students, and among elementary, middle, and high schools. There is a lack of parent participation at the high school level. Transportation is needed for work-based experience. This is an area in which families (e.g., parents, and grandparents) can participate. High school students preferred that the parents not be more involved. They wanted more freedom.

Business and industry need a county contact person to arrange job shadowing for all schools so that they aren't contacted individually by each school. A county-level job shadowing day each semester is preferred to job shadowing every day all year long.

Parents had great anxiety about whether children would be able to complete core major electives and meet other graduation requirements. Parents suggested that core major requirements begin earlier than the junior year. There seemed to be a prevailing misconception that students are locked into clusters and any changes in majors would require an additional year at the high school level.

Parents at the high school level wanted more communication with the school. Most parents had never attended college and needed more information about college admission, financial aid, and testing programs. High schools need to provide additional opportunities for parents to be involved in the education of their children.

Site #6

The leading industries and agricultural products in Site #6 are coal, natural gas, lumber, livestock, poultry, hay, and grain. This site has a population of 28,996 and is located in the southern part of the state, approximately 93 miles from the nearest city. It has 507.3 square miles and 18 schools.

Subsection A: Overall Career Development Approach Being Implemented

The program was started at the secondary level in grade 9, moved to the middle school in grade 8, and was then incorporated at the elementary school. It now covers kindergarten through adults.

This site uses the Multi-Service Team approach. The team meets monthly. Members of the team are the STW coordinator from the central office, school-based STW site coordinators, the vocational director, the administrator of curriculum and instruction, the director of special education, the Adult Basic Education coordinator, a vocational rehabilitation representative, JTPA (Job Training Partnership Act), Health & Human Services, the local community college, and a West Virginia University extension agent.

Each school has a curriculum team with representation from all academic disciplines. Vocational education is a strong supporter of the STW initiative. Principals receive a full report on the STW initiative at monthly meetings. Bimonthly counselor meetings for all levels are held at the vocational school; these are chaired by the counselor at that school.

The career development curriculum used is

- K-6 Project CERES (Career Education Responsive to Every Student)
- 7-8 Enter-Here Videos/ACT Explore/Introduction to Career Clusters/Classroom, Inc.
- 9-12 Introduction to Career Majors/ACT/Discover/Classroom, Inc.

Subsection B: Career Development Practices Being Implemented

Elementary school. Mandated continuing education on STW is provided for every teacher. K-4 career awareness is provided through job shadowing, career speakers, and field trips. A school career fair is held at each elementary school. Parents and community agencies are used as career resources.

Middle school. A three-day career fair is held for all eighth-graders at a local community college. Coordinators are school counselors, West Virginia University extension agents, and the vocational director. The Introduction to Career Clusters class is required for all eighth-graders. The eighth-grade students visit the vocational school.

Free summer school is available at the vocational school. For middle school, this includes exploration of programs. Seniors can make up contact hours for certification. Adults may engage in a full day of retraining.

Junior Achievement, which formed a dinner theater company, is available. A learning style inventory is implemented for all eighth-graders. This project is self-scored. An interest inventory is conducted. ACT Explore is used for all eighth-graders.

High school. The ACT Discover curriculum is used with all tenth-grade students. The Introduction to Career Majors class is offered to tenth graders and is a graduation requirement. During the tenth-grade visit to the vocational school, students are enrolled in vocational programs.

The vocational school has 14 high school programs, 3 certificate programs, and 1 adult program. Teen Issues Day for all ninth-graders is held at the high school and involves community resources and parents.

Peer Shadowing Day is held at the vocational school for elementary and middle school students. Vocational students serve as guest speakers in the elementary and middle schools. Vocational school and Tech-Prep cooperative programs are available in cooperation with the local community colleges. Dual-credit classes are coordinated with a local college for eleventh- and twelfth-graders.

Special education. Special education teachers are assigned to vocational school with one classroom teacher and two resource teachers. The goal is to prevent dropouts, provide career awareness for ninth- and tenth-graders, and to teach life skills. They also take eleventh- and twelfth-graders on a field trip to the Vocational Rehabilitation Center at Institute.

Aptitude testing is required for all special education students. Vocational rehabilitation acts as a resource to all special education students. Free vocational summer school is available, and transportation to and from home is provided.

Subsection C: Most Successful Career Development Practices

Among the beneficial practices were eighth- and tenth-grade visits to vocational school, release time for all teachers at all levels to shadow vocational teachers, and school communication to parents mailed in monthly bank statements at no cost to school system.

Also listed as successful practices were job shadowing, Introduction to Career Clusters and Introduction to Career Majors class, Classroom, Inc. curriculum in tenth-grade social studies classes, written and oral reports on career majors with parent participation, and written communication to three in-state and three out-of-state colleges as a part of classes within the students' selected majors.

Subsection D: Impediments to Implementation

A full-time STW coordinator with no other responsibilities is needed at the central office. Medical insurance coverage through the State Board of Risk is needed in addition to the liability insurance presently being offered for STW work-based learning opportunities. A business directory listing job shadowing opportunities and career speakers for the schools would be beneficial. A job shadowing brochure for businesses is needed. Scheduling should be done by clusters rather than by classroom. More parent participation is necessary with the two-year and three-year educational plans.

Appendix F

Brief Descriptions of Best Practices and Essential Terms

Brief Descriptions of Best Practices and Essential Terms

ACT Explore - ACT Explore is a commercial product of the American College Testing program designed to help eighth-graders explore a broad range of options. The program prepares students not only for their high school course work, but for their post-high school choices as well. It gives educators a means to structure high school planning and career exploration for students and parents and serves as a baseline to monitor academic progress.

Advisor—Advisee Program - An Advisor/Advisee Program promotes systematic planning of occupational and educational goals by providing students with direct guidance in selecting courses and activities to meet their interest, abilities, and career objectives. Counselors serve as program administrators; teachers as the advisors of students. Teachers are trained in the program. Students select their advisors. Stages of implementation and development involve staff training sessions, revision of the student checklist to allow for individual differences, an orientation for freshmen, selection of advisors by freshmen and new students, revision of a student needs assessment, a maintenance period, and program evaluation by staff and students.

Armed Services Vocational Aptitude Battery (ASVAB) - The ASVAB is a multi-aptitude test battery that is designed to measure aptitudes at the time of administration. It consists of ten short individual tests covering Word Knowledge, Paragraph Comprehension, Arithmetic Reasoning, Mathematics Knowledge, General Science, Auto & Shop Information, Mechanical Comprehension, Electronics Information, Numerical Operation, and Coding Speed. There are scores for each individual test, and several individual test results are combined to yield three academic composite scores: Verbal, Math and Academic Ability.

Articulation - Articulation is a process of adjusting postsecondary entrance requirements to take into account school-to-work initiatives. Programs must provide assurance that high school courses cover exactly the same material as the college courses for which students seek articulation credits. Articulation agreements are intended to produce great benefits: faster progress for students pursuing a technical career; increased motivation because students can get high-wage jobs sooner if they use articulation credits; savings for students and training providers; increased enrollment in community colleges; and increased communication between high school and community college educators, resulting in higher-quality instruction for students.

Block Scheduling - Block scheduling is a means of reconfiguring the school day. The traditional school day is typically divided into six or seven classes, each lasting from 45 to 55 minutes. With few exceptions, classroom instruction begins and ends within the allotted time periods. Blocked courses may be scheduled for the equivalent of two or more continuous class periods or days to allow students greater time for laboratory or project-centered work, field trips or work-based learning, and special presentations or speakers. Four 90-minute classes per day is the most commonly used block schedule in West Virginia.

Career Abilities Placement Survey (CAPS) - The CAPS is a group or individually administered assessment that can be hand scored. Its results help examinees to make more informed, effective, and personally relevant educational choices with a long-range goal in mind. The CAPS data/information may be used in curriculum planning in the areas of (1) career development in the school, (2) early career awareness, (3) assessment at the college level, and (4) career development in the employment setting.

Career Awareness - Career awareness activities generally take place at the elementary level. They are designed to make students aware of the broad range of careers and/or occupations that may not be traditional for their gender, race, or ethnicity. Career awareness activities range from limited exposure to the world of work, through occasional field trips and classroom speakers, to comprehensive exposure. The latter may involve curriculum redesign, introduction of students to a wide span of career options, and integration with other academic activities at the middle school level.

Career Days/Career Fairs - Career day activities are designed to help students think about their interests and abilities in relation to potential careers and to meet people who can assist them in getting the necessary skills and experience for workforce success. Special events are typically held to allow students to meet with employers, employees, postsecondary educators, or human resource professionals to learn about education and work opportunities. Information may be distributed through brochures that students receive from visiting firms or school representatives, via formal or informal discussions held in the classroom, or during tours of a business or college.

Career Development - Career development is the process through which an individual comes to understand his or her interests, knowledge, skills,and aspirations and begins to make informed career decisions. The process consists, at a minimum of (1) career awareness, (2) career exploration, (3) career planning/decision-making, and (4) career preparation. Students develop through a continuum of career awareness, career exploration, and work exposure activities that help them discern their own career path. Career development encompasses an individual's education and career related choices and the outcome of those choices.

Career Explorer - The Career Explorer Online information service, available at http://careerexplorer.com, features up-to-date resources that help young people and adults in transition prepare for the future. Sixteen different types of articles are updated daily and focus on career information, self-assessment, skill development, and the labor markets. The on-line service provides current information about emerging employment opportunities and the skills required to access the opportunities.

Career Education Responsive to Every Student (CERES) - CERES is a career education infusion program for grades K-12. The purpose is to provide students with the basic academic and employability skills necessary for competent, productive performance both in school and after leaving school. The program is tailored to the developmental ages of students at the different grade levels. The objectives are that students will (1) identify and practice responsible

work habits, (2) acquire knowledge of diverse occupations (training preparation and job duties), and (3) apply basic skills to career decisions and actions (job seeking and job retention).

Career Orientation Placement Evaluation Survey (COPES) - The COPES is an untimed 168-item assessment that can be completed in 20-50 minutes. It is a paper and pencil assessment and may be group or individually scored. The COPES helps examinees to make more informed, effective, personally relevant educational choices with a long-range goal in mind. It focuses on work values and work environments in which examinees will feel comfortable.

Career Occupational Preference Survey (COPS) - The COPS is an interest inventory that can be administered to a group or individual in 20-30 minutes. The COPS system helps examinees to make a more informed, effective, and personally relevant educational choice with a long-range goal in mind. The COPS system may be used in curriculum planning in the areas of (1) career development in school, (2) early career awareness, (3) assessment at the college level, and/or (4) career development in the employment setting.

Career Portfolio - A career portfolio is a collection of work that documents a student's educational performance over time. While there is no standard format that a portfolio must take, it typically includes a range of materials (e.g., reports, photographs) selected by the student. A brief introduction and summary statement may describe how the portfolio was assembled and what was learned in the compilation process. Portfolios may be used for a variety of purposes including increasing student learning opportunities, helping students demonstrate a wide variety of skills, and assisting students in recognizing their own learning and development. Teachers report that the portfolio process can increase collaboration with students, provide an alternative means of observing students' cognitive and academic progress, help drive program improvement, and foster professional development by helping teachers organize and manage their curriculum.

Classroom Inc. - Classroom Inc. is a commercial career development tool that uses computer simulations to provide an interactive learning environment of a workplace. These learning experiences will help students transfer math, science, social studies, and English skills into a real-life context as they make decisions in their simulated workplace.

Direct Parent Involvement - Parents and family members are among the most important partners to ensuring that all students are benefitting from and successful in their school-to-work experiences. Involved parents can help children learn in the home, monitor school assignments, and encourage career-related activities after school, on weekends, and in the summer. An involved parent is a teacher's ally, coordinating learning in the home with school work, helping the child stay on track in school, and cooperating with teachers to resolve problems encountered along the way. A strong relationship between parent and career counselor can help students select, develop, and follow through on their educational and career goals. Parents co-sign training agreements, a step which initiates communication between parents and employers. Some parents serve on advisory committees and governance structures and are in a position to advocate and

work for better information, services, and other resources for their children and to become leaders and catalysts for other parents.

Enter Here - Enter Here is a video-based encyclopedia of career opportunities featuring actual employees in a wide range of challenging jobs filmed at actual work sites across the country. The 100 videos bring the world of work into the classroom and introduce all students to real job opportunities, show the relationship between school and work, support career pathway choices, encourage continuing education and training, and motivate students.

Field Trips - Field trips are supervised class visits to workplaces that have specific educational value. Trips are planned to correspond with instructional goals and learning objectives

High Schools That Work - An initiative of the Southern Regional Education Board, *High Schools That Work* is the nation's first large-scale effort to combine challenging academic and technical courses to raise the achievement of high school students. The initiative provides a framework for high schools to examine their current practices and policies in view of ten Key Practices and five Key Conditions that have been identified as being essential for continuous improvement.

Integrated Curriculum - Integrated curriculum is the combined teaching of academic and occupational or career subject matter, normally offered in separate courses, in a manner that emphasizes relationships among the disciplines. Integrated curriculum may take many forms, ranging from the simple introduction of academics into traditional occupational courses to comprehensive programs that organize all instruction around career major themes.

Introduction to Career Clusters - Introduction to career clusters is a class centered around explaining and exploring the career clusters. Six clusters are suggested: (1) health, (2) human services, (3) science/natural resources, (4) engineering/technical, (5) business/marketing, and (6) fine arts/humanities.

Introduction to Career Majors - Introduction to career majors is in-depth career exploration focused on specific majors identified by the local school board within each career cluster. The course usually focuses on acquisition of process workplace skills identified by state board policy.

Job Shadowing - Job shadowing is typically a part of career exploration activities in late middle school and early high school. A student follows an employee at a workplace for one or more days to learn about a particular occupation or industry. Job shadowing can help students explore a range of career objectives and select a career major for the later part of high school.

Junior Achievement - Junior Achievement is a private non-profit organization formed to inspire and educate young people to value free enterprise, understand business and economics, and be workforce ready. This organization has K-12 curriculum activities which integrate academic skills with business skills.

On-the Job Training - On-the-job training is hands-on training in specific occupational skills that students receive as part of their workplace experience.

Practical Assessment Evaluation System (PAES) - The PAES is a hands-on curriculum for students in middle and high school. It is set up as a simulated work environment where students become employees, and teachers become supervisors. Strict rules are followed, so students get the feel of real work as they are learning and exploring new vocational areas.

Registered Apprenticeships - Registered apprenticeships describe those programs that meet specific federally approved standards designed to safeguard the welfare of apprentices. The programs are registered with the Bureau of Apprenticeship and Training (BAT), U.S. Department of Labor, or one of 27 State Apprenticeships Agencies or Councils approved by BAT. Apprenticeships are relationships between an employer and employee during which the worker, or apprentice, learns an occupation in a structured program sponsored jointly by employers and labor unions or operated by employers and employee associations.

Service Learning - Service learning is an instructional method that combines community service with a structured school-based opportunity for reflection about that service, emphasizing the connections between service experiences and academic learning. Although service learning activities vary by educational purpose, most programs balance students' need to learn with recipients' need for service. Students benefit by acquiring skills and knowledge, realizing personal satisfaction, and learning civic responsibility, while the community benefits by having a local need addressed.

Student Internships - Student internships are structured to allow students to work for an employer for a specific period of time to learn about a particular industry or occupation. Students' workplace activities may include special projects, a sample of tasks from different jobs, or tasks from a single occupation. Internships may or may not include financial compensation.

Take a Student to Work Day - School-to-work practitioners can encourage employers to support Take A Student to Work Day. Children of employees accompany their parents on the job and benefit from the real workplace experience. This gives the student the opportunity to observe the skills and requirements of the job, a chance to engage in interaction with workers, and relate what they are learning in school to employment.

Teacher Internships - Teacher internships provide workplace experiences of at least two weeks' duration for teachers. During this time, teachers work at a particular job at the firm to learn about specific skills required for that job, or rotate throughout the firm to learn about many aspects of the industry. This may or may not include financial compensation.

Work-Based Learning - Work-based learning experiences are activities at the high school level that involve actual work experience or connect classroom learning to work. The least intensive

level of exposure to work-based learning might occur in traditional work experience and vocational programs (including cooperative education, distributive education, or vocational courses) that do not offer workplace experience. The next level of exposure may entail the integration of academic and vocational/occupational curricula, as in the case of Tech Prep programs, but would not include workplace experience. At the highest level, there is full integration of academic and vocational/occupational curriculum with work-site experience.

Youth Apprenticeships - Youth apprenticeships are typically multi-year programs that combine school- and work-based learning in a specific occupational area or occupational cluster and are designed to lead directly into a related postsecondary program, an entry level job, or a registered apprenticeships program. Youth apprenticeships may or may not include financial compensation.

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