

**Programs of Study as a State Policy Mandate:
A Longitudinal Study of the South Carolina Personal Pathways to Success Initiative**

**Technical Appendix A:
Implementation of the Education and Economic Development Act**

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April 2013

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Funding Information

Project Title: National Research Center for Career and Technical Education
Grant Number: VO51A070003

Act Under Which Funds Administered: Carl D. Perkins Career and Technical Education Act of 2006

Source of Grant: Office of Vocational and Adult Education
U.S. Department of Education
Washington, D.C. 20202

Grantees: University of Louisville
National Research Center for Career and Technical Education
354 Education Building
Louisville, KY 40292

Project Director: James R. Stone III

Percent of Total Grant Financed by Federal Money: 100%

Dollar Amount of Federal Funds for Grant: \$4,500,000

Disclaimer: The work reported herein was supported under the National Research Center for Career and Technical Education, PR/Award (No. VO51A070003) as administered by the Office of Vocational and Adult Education, U.S. Department of Education.

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List of Acronyms Used in This Report

AED	Academy for Educational Development
AP	Advanced Placement
ASCA	American School Counseling Association
CAP	Course Alignment Project

CATE	Career and Technology Education
CCTI	College and Career Transitions Initiative
CDF	Career Development Facilitator
CHE	Commission on Higher Education
CS	Career Specialist
CIP	Classification of Instructional Programs
CTE	Career and Technical Education
EEDA	Education and Economic Development Act
EEDACC	EEDA Coordinating Council
EOC	Education Oversight Committee (South Carolina)
eIGP	Electronic Individual Graduation Plan
GC	Guidance Counselor
GCDF	Global Career Development Facilitator
HSAP	High School Assessment Program (South Carolina)
HSTW	High Schools That Work
IB	International Baccalaureate
ICP	Individual Career Plan
IEP	Individualized Education Program
IGP	Individual Graduation Plan
JAG-SC	Jobs for America's Graduates – South Carolina
LHSAP	Longitudinal HSAP (SC high school exit exam) variable
LOI	EEDA Level of Implementation
NASDCTEc	National Association of State Directors of Career and Technical Education Consortium
NCD	National Career Development, from National Career Development Association
NCES	National Center for Education Statistics
NCLB	No Child Left Behind Act of 2001
NDPC	National Dropout Prevention Center
NRCCTE	National Research Center for Career and Technical Education
OVAE	Office of Vocational and Adult Education
PACT	Palmetto Achievement Challenge Test (South Carolina)
PLTW	Project Lead The Way
POS	Programs of Study
POS1	Programs of Study, Concept 1, for analysis of student-level data from the statewide longitudinal data system (SLDS)
POS2	Programs of Study, Concept 2, for analysis of numbers and participation in state-defined CTE programs
POS3	Programs of Study, Concept 3, for analysis of POS Student Engagement Survey, CTE and non-CTE student groupings for student-level analyses
POS4	Programs of Study, Concept 4, study-defined, Perkins IV Program of Study
POS5	Programs of Study, Concept 5, study-defined, District Perkins IV Program of Study
POS6	Programs of Study, Concept 6, sample school identified programs with the strongest secondary-postsecondary linkages
POV	Research Variable: Level of Community Poverty
PSLOI	Preliminary Selection Level of Implementation
REC	Regional Education Center
RECAP	Regional Education Center Advisory Panel
SC CAP	South Carolina Course Alignment Project
SCOIS	South Carolina Occupational Information System
SC TRAC	South Carolina Transfer and Articulation Center
SDE	South Carolina Department of Education
SEI	Socioeconomic Indicator Flag, SLDS
SLDS	Statewide Longitudinal Data System

SLICE	South Carolina Longitudinal Information Center for Education
SLOI	Site Selection Level of [EEDA] Implementation
STEM	Science, Technology, Engineering and Mathematics
TAP	Technical Advance Placement
TRAC	Transfer and Articulation Center
WBL	Work-based Learning
WIA	Workforce Investment Areas

Chapter 1: State and Federal Policy Framework

The South Carolina Education and Economic Development Act (EEDA), passed in 2005, and the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV) have highly similar goals. The major difference between them is that EEDA addresses all secondary students whereas Perkins IV applies only to those students in programs that receive federal funding from this act. The passage of the two acts only 15 months apart provided the opportunity to examine Perkins IV implementation in the context of highly aligned and supportive state policy. In this report, we present the results of our study of EEDA implementation from a variety of perspectives. We pay particular attention to how EEDA affected the delivery of guidance and counseling services designed to facilitate the career development of high school students. (A list of acronyms used in this report follows the Table of Contents.)

South Carolina has a history of low student achievement, high dropout rates, and a modest number of adults holding university, community college, and technical degrees and certifications. In 2005, with the strong backing of the state's business community, the state's legislature passed a school reform package, the EEDA, that is intended to increase student achievement and graduation rates and improve college and career readiness. The EEDA was designed to achieve these results through a focus on high academic standards, career awareness and exploration at all school levels, and the creation of locally relevant career pathways and programs of study in high schools.

The South Carolina EEDA legislation was created in response to the need to address the changing demands of the workplace. The legislation was designed to “set high standards for all students and include courses that prepare all for postsecondary education at some level, as well as provide preparation for satisfying professions” (South Carolina Technical College System, 2006a, p. 3). A primary goal was to lay a broad foundation in career planning across school levels through a variety of supporting initiatives at all school levels, from kindergarten through postsecondary education. EEDA legislation was designed to be implemented in stages across several years starting in 2006-2007 and ending with full implementation in 2010-2011 (South Carolina Technical College System, 2006a).

This study was designed to assess the extent to which a statewide reform mandate like the EEDA facilitates the creation of quality Programs of Study (POS), as defined by Perkins IV, in various high school contexts and whether this reform and POS influence students' engagement, achievement, and preparation and plans for postgraduation education and/or employment in eight sample high schools. This study also explored the influence of the availability of school and community resources and local/regional employment opportunities—whether substantial or limited—on the development of POS and the outcomes of students enrolled in them.

Although EEDA preceded Perkins IV, it required South Carolina schools to implement reforms that incorporate nearly all of the basic and supporting components considered necessary for the successful development of a Perkins IV-funded POS as well as additional elements that could support and sustain the implementation of POS. For example, EEDA components include the organization of high school curricula around at least three career clusters per school, an enhanced role for school counselors, and extra assistance for high-risk students. Further, the law mandates

evidence-based high school reform, regional education centers charged with facilitating business-education partnerships, and greater articulation between secondary and postsecondary education.

Project researchers studied how eight South Carolina high schools implemented EEDA and how the policy's provisions impacted both students and the development of POS. The sample schools were selected to include diversity in local economic conditions and industries, the degree of initial levels of policy implementation, and levels of school and community resources. Diversity in school size, location, and demographic characteristics of students were also taken into consideration in site selection (see Sharp et al., 2012). We collected data from two cohorts of students with different levels of exposure to the reforms mandated by EEDA: the Class of 2009 (which had little exposure to EEDA) and the Class of 2011 (with moderate exposure to EEDA).

Based on guidelines provided to school personnel (South Carolina Technical College System 2006a, 2006b) the study team identified the most salient initiatives for high schools (our focus in this study) and grouped them into six key facets to construct our conceptualization of how EEDA would be operationalized in high schools. For a full discussion of how we developed and measured the following facets, see Technical Appendix B: EEDA Level of Implementation (LOI) for School-level Analyses.

Facet 1: Identification of and assistance for high-risk students. All schools are required to identify students at risk of dropping out of school using the criteria defined by the State Board of Education, and to adopt one or more of the evidence-based strategies identified by the Board to assist identified students.

Facet 2: Integration of rigorous academic and career-focused curricula, organized into career clusters and majors. High schools must implement at least three career clusters (which may be chosen from the 16 federally defined career clusters), organize curricula around these three clusters, and create majors within them. All students are required to take 17 core academic courses. Students should meet these requirements with courses that best fit their selected major/career cluster. School districts must provide work exploration guidance activities and career awareness programs that combine counseling on career options and experiential learning with academic planning to assist students throughout their high school years in fulfilling their IGPs. Every eighth grader will design an Individual Graduation Plan (IGP) that will serve as a guide for academic, career, and postgraduation transition planning. The IGP will be developed with input from guidance personnel, parents, and students.

Facet 3: Increased counselor role in education and career planning. School counselors are seen as key players in the implementation of EEDA. EEDA requires the implementation of an approved career guidance program model in high school. All middle and high schools must provide students with the services of either a counselor with a Global Career Development Facilitator (GCDF) certification or a career specialist with a bachelor's degree and GCDF certification to facilitate activities such as helping students select majors, develop and revise IGPs and arrange for work exploration and work-based learning activities. The student-to-guidance personnel ratio at every middle and high school cannot exceed 300 to 1. Professional development related to career development must be provided for all school counselors.

Facet 4: Implementation of evidence-based high school reform. High schools must organize their programs around the 10 key practices outlined in the High Schools That Work model or another similar model approved by the South Carolina Department of Education.

Facet 5: Facilitation of local business-education partnerships and resource dissemination. Regional Education Centers (RECs) are being developed in the 12 designated Local Workforce Investment Areas in accordance with the South Carolina Workforce Investment Act. They will serve as the focal point for each region’s training and education resources, helping to facilitate business-education partnerships, coordinate workforce education programs, and promote community involvement. This facet also includes each school’s efforts to disseminate information on CTE and build and/or enhance school/business partnerships.

Facet 6: Articulation between K-12 and higher education or employment. Colleges must find ways to articulate with the K-12 career clusters and make sure dual enrollment credits are accepted and college curricula continue the career pathways. Articulation agreements, guidelines, and policies for dual enrollment coursework will be reviewed at the state level and recommendations made for providing seamless pathways for students from high school into postsecondary education.

See Technical Appendix B for a discussion of how these facets were measured.

Comparisons of EEDA and Perkins IV

The six facets, along with additional elements of EEDA, help support and sustain the implementation of programs of study and closely match many of the basic requirements of the Perkins IV legislation. Table 1.1 contains a listing of the four core requirements of Perkins IV POS in the left-hand column. To the right of each of the Perkins IV core requirements is a listing of correspondingly similar requirements from the EEDA law.

Although it predated Perkins IV by one year, EEDA also focused on the integration of academic and career and technical content and emphasized academic rigor across all coursework. Both EEDA and Perkins emphasize the development of coherent programs of study for students to help them plan for their future careers and to assist with seamless transitions between secondary and postsecondary education. To assist with this transition, both require an alignment between secondary and postsecondary elements.

Programs of study under EEDA are referred to as “career majors.” Although career majors and the Perkins IV-defined POS share several characteristics, they also differ in several ways. In the South Carolina policy, career majors are considered areas of academic focus and include “a sequence of four elective courses leading to a specified career goal” (South Carolina Department of Education, 2006, p.3). Elective courses for career majors can include both CTE and academic courses. In contrast, POS, as defined in the Perkins IV legislation, include a sequence of three related CTE courses. Perkins IV places greater emphasis on a structured sequence of courses and requires a direct link to a postsecondary level credential. EEDA does not emphasize the direct link to a credential, only that the career major courses must help prepare students for success in

postsecondary education or a particular field.

Table 1.1
Perkins IV Program of Study Core Elements and EEDA Career Major Components

Perkins IV - CTE Programs of Study ^a	EEDA - SC Personal Pathways Career Major ^b
<ul style="list-style-type: none"> • Incorporates secondary education and postsecondary elements 	<ul style="list-style-type: none"> • Incorporates career education in grades K-12 with emphasis on seamless transition after graduation to career-related entry-level employment, further training, or postsecondary study
<ul style="list-style-type: none"> • Includes coherent and rigorous content aligned with challenging academic standards and relevant career and technical content in a coordinated non-duplicative progression of courses that align secondary education to adequately prepare students to succeed in postsecondary education 	<ul style="list-style-type: none"> • Includes curricula that meets state content standards in a coordinated, non-duplicative progression of courses that align with postsecondary education and work • Offers curricula that not only provide academic rigor but real-world problem-solving to adequately support successful completion of IGPs (Rigor and Relevance) • Requires that each student’s Individual Graduation Plan (IGP) include academic, career and postgraduation transition planning • Emphasizes career plans that: <ul style="list-style-type: none"> ○ are realistic and achievable ○ reflect a student’s skills, abilities, and interests • Provides opportunities to students to participate in out-of-classroom experiences
<ul style="list-style-type: none"> • May include the opportunity for secondary education students to participate in dual or concurrent enrollment programs or other ways to acquire postsecondary education credits 	<ul style="list-style-type: none"> • Offers opportunities for participation in dual or concurrent enrollment for postsecondary education credits - Extended Learning Opportunities
<ul style="list-style-type: none"> • Leads to an industry-recognized credential or certificate at the postsecondary level, or an associate’s degree or baccalaureate degree 	<ul style="list-style-type: none"> • Results in a seamless transition after graduation to career-related entry-level employment, further training, or postsecondary study

^a Adapted from *Draft Guidelines for Expert Panel Review of POS* (AED working document), Academy for Educational Development, 2009. Washington, DC: Author. ^b Adapted from the South Carolina Technical College System series, *How EEDA Works for South Carolina*, including: *An Educator’s Guide to Develop and Implement the EEDA Curriculum Framework and Individual Graduation Plan* (2006a) and *An Educator’s Orientation Guide to the Education and Economic Development Act* (2006b).

As implied above, EEDA is a much broader, all-encompassing reform of high school curricula than Perkins IV, because it goes beyond traditional CTE courses and programs. The policy

differs from Perkins IV in that it (1) attempts to implement a system spanning all schooling, from kindergarten through college, postsecondary career preparation and entry into and advancement in the labor force; (2) includes CTE for all students, not just those taking traditional CTE courses; (3) focuses on dropout prevention; (4) attempts whole school reform, where career pathways can potentially shape the entire high school curriculum, not just CTE, by enhancing contextualized learning; (5) increases the role of school guidance counselors in career planning; (6) increases business community involvement in development and implementation; and (7) emphasizes the role of parents in educational planning.

Special Emphasis on Career and Counseling Services

The third study identified facet of EEDA, described above, is a key component and centers on the role of guidance in policy implementation. EEDA includes a comprehensive and sequential school guidance and counseling program designed to support career-focused education, including career awareness at the elementary school level, career exploration at the middle school level, and career preparation at the high school level (South Carolina Technical College System, 2006a). Guidance personnel are required to limit their school duties to guidance and counseling and should no longer perform many administrative tasks, such as administering standardized tests or developing the master class schedule.

Guidance staff must help all middle and high school students to select majors, develop and revise their IGPs, and arrange out-of-classroom learning experiences. Each high school is required to implement a career guidance program model that includes annual career guidance counseling for each student to help further define career goals; review and update an individualized IGP; and, during tenth grade, declare a major (i.e., an academic focus) within a cluster of study. Both middle and high schools are required to reduce their student-to-guidance personnel ratio to 300-to-1 or lower (South Carolina Technical College System, 2006b).

To help foster a connection between what students are learning in school and their future career plans, all middle and high schools are required to have either a counselor with a special career development certification or to gain access to services of a career specialist with that certification (South Carolina Technical College System, 2006b). These specialists are to deliver career awareness, development, and exploration activities to students and teachers, and to assist students in setting up work-based learning (WBL) experiences (South Carolina Department of Education, 2006).

The development of IGPs is a key component of the EEDA. IGPs are designed to be organizing tools that show links between a student's high school coursework and plans for the future and "list courses required for graduation, electives that focus on students' individual interests, their postgraduation plans, and their professional goals" (South Carolina Technical College System, 2006b, p. 3). Every eighth grader is required to develop an IGP during a conference with a counselor and parents or guardians (South Carolina Technical College System, 2006a). As part of IGP development, each student selects a cluster of study to explore, and course schedules are then built around the choice of cluster.

This report is organized as follows. Chapter 2 reports on the implementation of the six facets of EEDA as reflected in publications and reports issued by the South Carolina State Department of Education (SDE) and the EEDA Coordinating Council (EEDACC) and as observed in our eight sample schools from our various data sources. Chapter 3 examines the foundation for POS, as set forth in Perkins IV and OVAE's design framework, and the extent to which EEDA has contributed to the development of that foundation. Chapter 4 focuses on the guidance and counseling services, how these have been affected by EEDA and any evidence of the effects of these services on student outcomes. Chapter 5 summarizes the information in the previous chapters, presents our overall assessment of the impact of EEDA implementation, and notes the cutbacks in implementation caused by the financial recession that began in 2008.

Chapter 2: Implementation of the Six Facets

The EEDA was designed to be implemented in several stages beginning in 2006-2007 and be fully implemented by July 1, 2011. Our study period thus encompassed much of the beginning years of EEDA implementation, starting during the second year of the phased in implementation, 2007-2008, and going one year past full policy implementation, through the end of the 2011-2012 school year.

In this chapter, we describe background on implementation of the EEDA policy statewide prior to and during our study period as reported in various publications from the SDE and the EEDA Coordinating Council (EEDACC). To supplement this perspective, we summarize our observations of implementation in the eight sample schools we studied. Because of the emphasis in EEDA on career and counseling services, we present our observations on changes in the delivery of these services obtained from interviews, focus groups and surveys of counseling personnel, and our findings on the impact of these services as reported in surveys of students.

The original EEDA legislation stipulated that full implementation of the policy should occur by July 1, 2011. To that end, in September 2005, EEDACC was established to support policy implementation. The Council is comprised of members of 12 different organizations, chosen to represent the geographic regions of South Carolina and be representative of the ethnic, gender, rural, and urban diversity of the state. In 2006, the SDE established six committees to oversee EEDA implementation: Articulation, Dual Enrollment, High School Graduation and Postsecondary Education Alignment Committee; At-Risk Student Committee; Communications and Marketing Committee; Curriculum Frameworks and Individual Graduation Plan Committee; Information Technology Committee; and Regional Education Centers Committee.

In that first year, the EEDACC initiated the development of a comprehensive marketing and communications plan for the Personal Pathways to Success Initiative. This plan was comprised of an extensive advertising campaign, media relations, an online presence, special events and promotions, and the development of promotional materials. The Committee also commissioned research on the extent to which this campaign reached educators, business partners, and parents.

Below we summarize statewide progress on implementing initiatives for the six study-defined EEDA facets, as reported by SDE in its annual EEDA reports and any evidence of the influence of EEDA on student outcomes gleaned from these reports. We also present our observations of implementation in our sample schools. A summary of our overall assessment of implementation is presented in Figure 2.1. (See Technical Appendix B, Constructed Contextual and Analysis Variables, for a description of the methods used to measure Level of Implementation [LOI].) Initial differences in levels of implementation were built into sample selection to ensure a sample with a range in levels of implementation of EEDA. At the time of site selection visits in the middle of the 2008-2009 school year, two of the sample schools had a relatively low level of policy implementation, three schools had moderate levels of policy implementation, and three schools had relatively high levels of policy implementation (for more information on sample selection and collection of data and findings on policy implementation, please see Sharp et al., 2012 and Smink et al., 2010). In addition, selected schools varied in implementation along all of the six relevant facets of the South Carolina policy

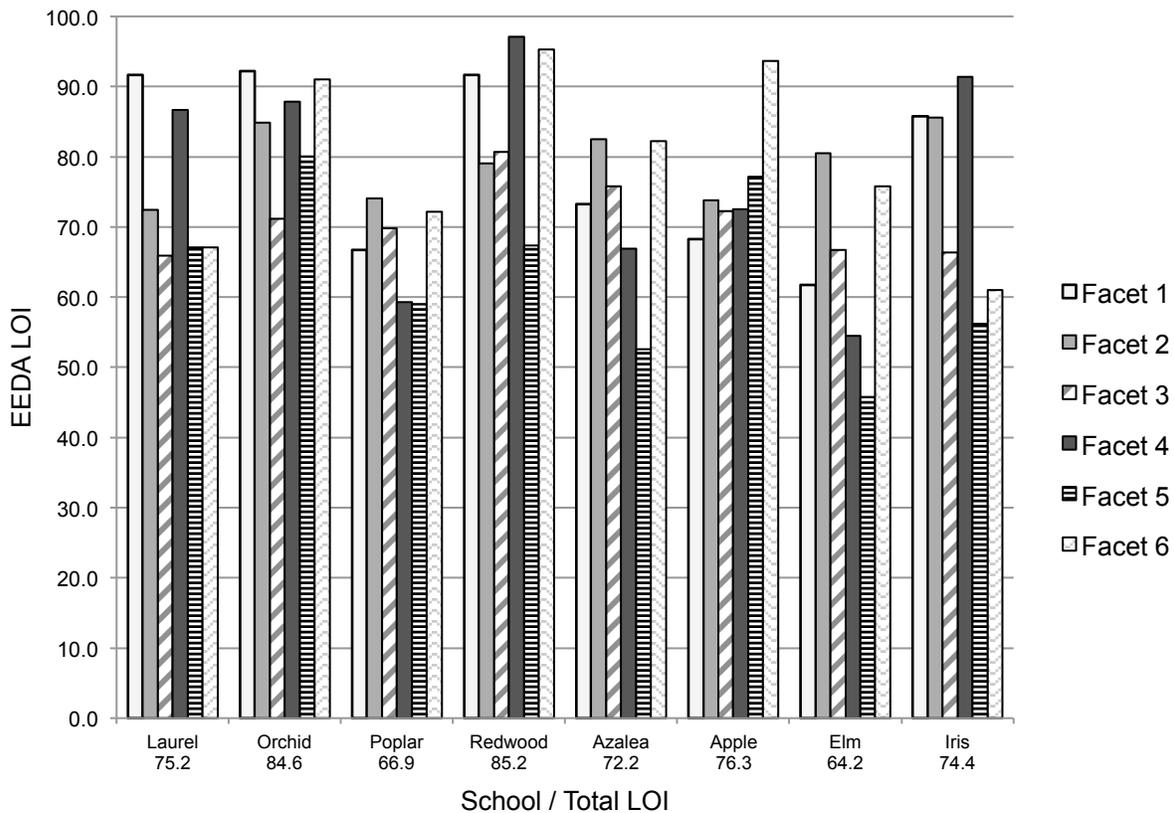


FIGURE 2.1. EEDA level of implementation (LOI) scores by facet by school. *Note.* Facet 1: Assist high-risk students; Facet 2: Career-focused curricula integration; Facet 3: Increased counselor role; Facet 4: High school reform; Facet 5: Partnerships and resource dissemination; and Facet 6: K-20 articulation.

EEDA Facet 1: Identification of and Assistance for High-Risk Students

Reported by SDE. Programs for at-risk students have been a central EEDA focus since the inception of the policy. According to the SDE, by December 2006, evidence-based at-risk programs had been implemented in a majority of the school districts across the state (EEDACC, 2006); by 2008-2009, 100% of schools across the state had initiated such programs to address the needs of students at risk of dropping out (EEDACC, 2009). The At-Risk Student Intervention Implementation Guide lists 50 evidenced-based models approved by the General Assembly. In 2006-2007, 40 high schools received funding to implement an evidence-based at-risk student intervention model. The most frequently implemented programs were High Schools that Work, Jobs for South Carolina Graduates, and Star Academies. As reported in the 2008 EEDA annual report, thirty-nine schools sites reported implementing particularly innovative programs for the at-risk component of HSTW (EEDACC, 2008).

In December 2007, the EEDACC reported that 40 high schools would receive funding to implement an evidence-based intervention program for at-risk students. For the 2008-2009 school year, 79 schools representing 43 districts received innovation funding to implement such

programs whereas 68 schools, representing 30 school districts, received supplemental funding to support existing programs. Additional funding was received in 2008 to support the implementation of Jobs for America's Graduates – South Carolina (JAG-SC) programs (EEDACC, 2008). In 2009-2010, 133 schools (representing 24 school districts) received innovation funding to implement an evidence-based at-risk student intervention model; 55 schools (representing 26 school districts) received supplemental grants for existing programs. By 2010-11, 46 schools representing 24 school districts received innovation funding to implement an evidence-based at-risk student intervention model; 42 schools representing 29 districts received supplemental funding for existing programs.

By the 2008-2009 school year, nearly 33,000 students were reportedly participating in EEDA-funded evidenced-based programs designed to reduce the risk of dropping out of school, an increase over the approximately 21,000 students who were participating in such programs in the previous year. However, in the following two years, the SDE reported a slight decline in the number of students participating in such programs.

Our observations. Schools varied in our first site visits in the extent to which they had implemented special programs to identify and assist high-risk students. Some were in the early stages of tracking the performance and outcomes for high-risk students and others were further along in their efforts.

It is important to note that only during 2006-2007 (\$504,000) and 2007-2008 (\$4,500,000) were at-risk programs fully funded (i.e., funded at the level of the SDE's original funding request). In December 2009, the EEDA Coordinating Council (EEDACC) expressed concern that budget cuts would negatively impact the progress made in implementing EEDA for at-risk students.

EEDA Facet 2: Integration of Rigorous Academic and Career-Focused Curricula, Organized into Career Clusters and Majors

Reported by SDE. All high schools in South Carolina were required to organize high school curricula around at least three clusters of study and cluster majors. According to a November 2006 survey of district superintendents, the majority of school districts had identified, or were in the process of identifying, a minimum of three clusters of study and majors around which to organize their curricula (EEDACC, 2006). By Year 2 (2006-2007), the status on this item was reported as "completed" with nearly 90% of high schools reporting organizing their curricula around at least three clusters of study; over 50% reported having implemented at least ten of the sixteen national career clusters (EEDACC, 2007). By 2009-2010, 84% of schools districts offered at least ten of the sixteen career clusters; the remaining 16% offered between four and nine of the career clusters (EEDACC, 2010).

Academic and career and technical education templates were developed by 2005-2006 (EEDACC, 2006). By the following year, and in subsequent years (2007-2008; 2008-2009), middle schools and high schools received funding to purchase materials and organize experiences to ensure students had greater exposure to career information. By late 2008, guidelines for Individual Graduation Plan (IGP) conferences were developed and promulgated to EEDA district coordinators, school counselors, and career specialists throughout the state; these

guidelines were revised in 2008-09 to incorporate information regarding advising eleventh graders; similar revisions were made in the following two years (2009-10 and 2010-11) for twelfth graders.

The EEDA legislation stipulated that SDE develop prototypes for individual graduation plans and the curriculum frameworks for career clusters of study. The sixteen national career clusters served as a foundation for developing these initiatives. During the first school year (2005-2006), electronic versions of the curriculum framework and IGPs were pilot tested in six school districts to ensure smooth statewide implementation. By Year 2, final revisions were made to the electronic delivery of the curriculum framework and IGPs. By Year 3 (2007-2008), the EEDA Coordinating Council (EEDACC) reported that all of the state's middle and high schools were connected to the eIGP system which was embedded with the state-approved curriculum templates. Thus, for that year and the remaining years, the status of this initiative was reported as "complete" and no funding was provided for this effort for Year 3 through Year 6.

Throughout the reporting period, several initiatives facilitated the development of IGP prototypes and curriculum frameworks for career clusters. In 2008-2009, the K-12 Majors Alignment Task Force was established to develop guidelines for assessing the effectiveness of career clusters and major alignment, curriculum managers from each school district were provided with training in the online eIGP system and the PowerSchool student information system. Career specialists and guidance counselors also benefited from such efforts: with the support of SC Educational Television, the online program, Career Clusters 101, provided counseling personnel with information about career cluster websites and online resources.

By the end of Year 2 (2006-2007), 84% of eighth graders had selected a preferred cluster of study, which was designated on their IGP. By the end of Year 6, this proportion had increased to nearly 99% of eighth graders completing an IGP in which they identified a preferred cluster of study. At that time, the top three clusters selected by students were Health Sciences; Arts, Audio-Video Technology and Communications; and Science, Technology, Engineering and Mathematics.

The EEDA mandated that students be provided with career information through the South Carolina Occupational Information System (SCOIS) or occupational information system approved by the SDE. It is also important to note that SCOIS is not only for basic career exploration. For example, the interactive exercise, Reality Check, provides students with an opportunity to cross-reference their favorite career cluster to a specific occupation. SCOIS also allows counselors, career specialists, and business partners to maintain electronic data about job shadowing, mentoring and other work-based learning experiences (EEDACC, 2010). Educators can also access training on SCOIS's STEM Career Inventories (EEDACC, 2011).

In Year 1 (2005-2006), 238 middle schools and 194 high schools reported using SCOIS; the remaining schools were using another SDE-approved occupational information system. By 2009-10, all South Carolina public elementary, middle and high schools had free access to SCOIS. Between 2006-2007 and 2010-2011, there was an 87% increase in the number of schools electing to use SCOIS (from 477 schools to 891 schools). Each year since 2006-2007, more than

100,000 students statewide completed SCOIS assessments. In addition to SCOIS, schools were also using EXPLORE and Kuder to provide career information to their students.

Our observations. Study results indicate that by Spring 2009, the third year of IGP roll out, several schools were well along in their implementation and use of IGP documents, the IGP process and annual guidance-student-parent meetings, and the electronic IGP (eIGP) system, whereas others were in their first year of implementation of the eIGP system. All schools had established at least preliminary career majors, with a range from 14 to 44 career majors offered and an average of 26 majors across schools. All but one of the sample schools had organized these majors into career clusters. The numbers of career clusters at these seven high schools ranged from 11 to 14. The eighth school that was in the process of organizing their career majors into clusters during our first site visit had completed that process by the following school year and listed 16 career clusters in that year's registration materials.

Figure 2.2 shows the trends in clusters appearing on the statewide longitudinal data system (SLDS) Cohort 2011 IGPs as of tenth grade (2008-2009). Health Sciences was the most popular IGP cluster, followed by Science, Technology, Engineering and Mathematics (STEM) and then Arts, Audio Video Technology & Communications. Our study results seem to parallel the state reports that students tended to gravitate toward particular career clusters. Throughout the study period, across the state, eighth and ninth graders listed these same three clusters most often in their IGPs.

Although the EEDA policy does not require students to complete majors, some sample students indicated as early as tenth grade, when they are required to select a career major, that they intended to progress through the requirements to complete the high school major chosen. Others indicated on their IGPs that they were only declaring a major as required for the IGP and thus can be assumed not to have plans at that time to complete the major. Figure 1.3 indicates that the 2011 SLDS cohort at tenth grade was split relatively evenly on intentions to complete majors. As of tenth grade, about 30% of the SLDS 2011 cohort planned to complete their selected majors. About 40% indicated that as of tenth grade, they were just declaring a major. A little less than 30% of the tenth grade IGPs had missing data on intentions to complete a particular major.

The integration of rigorous academic and career-focused curricula requires training for school personnel. EEDA requires the SDE to provide this type of training and professional development as well as resources to K-12 school personnel to assist in efforts to integrate academic and career-focused curricula, including the use of cluster-of-study curriculum frameworks and of IGPs. The policy mandates that all middle and high school educators receive training in contextual teaching, involving methodologies used by teachers that focus on concrete hands-on instruction and content presentation with an emphasis on real-world application and problem solving. EEDA also requires all state colleges of education to include in their training of teachers, school counselors, and administrators the following topics: career guidance, the use of the clusters of study curriculum framework and IGPs, learning styles, the elements of the South Carolina Career Guidance Model, contextual teaching, cooperative learning, and character education. The State Board of Education has developed performance-based standards for all teachers and principals in the areas of career exploration and guidance.

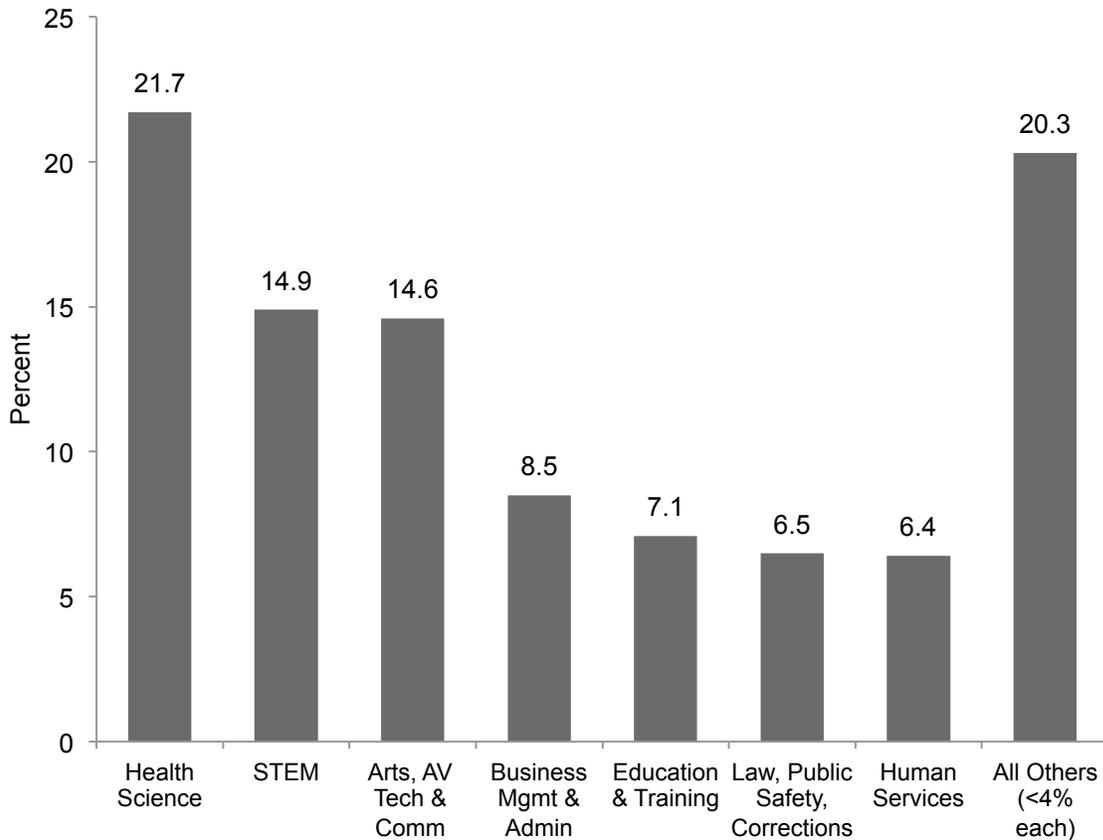


FIGURE 2.2. IGP major clusters chosen by SLDS 2011 cohort at 10th grade (2008-2009).

Teachers in our study schools reported receiving varied amounts of training related to EEDA activities from their school, their district, or the state. The state was credited with providing good virtual job shadowing and other general resources through websites such as the Personal Pathways to Success website, the college and career planning sites through Kuder, Microburst learning sites, and the REC sites. However, guidance personnel and school-based career specialists were reported to be the main providers of training for teachers. Teachers in sample schools were most likely to receive school or state-sponsored training in the early stages of policy implementation but little training as the implementation continued. Some teachers found this training too general and felt the need to supplement initial training with their own research. Some teachers commented that the best training they received on content integration and career clusters was through professional development provided by High Schools That Work (HSTW) staff.

Guidance personnel in study schools reported receiving at least some training on career pathways and IGP development, but the amount and type of training varied, as did the topics covered. This training was offered through a variety of channels, including the local school district, the state education department, and state and regional professional development meetings and workshops. School guidance counselors at one school reported receiving training through a local business alliance. It was not clear how much information was being provided to personnel on various CTE programs and occupations in these various workshops, because we found that many of the

counselors were not aware of the full range of CTE programs and types of career opportunities available to their students. Many teachers and counselors too were taking on the responsibilities of training themselves to some degree as they could see the need to possess skills and information in this area. Regardless of the types of training described, school counselors interviewed generally felt satisfied with the training they had received.

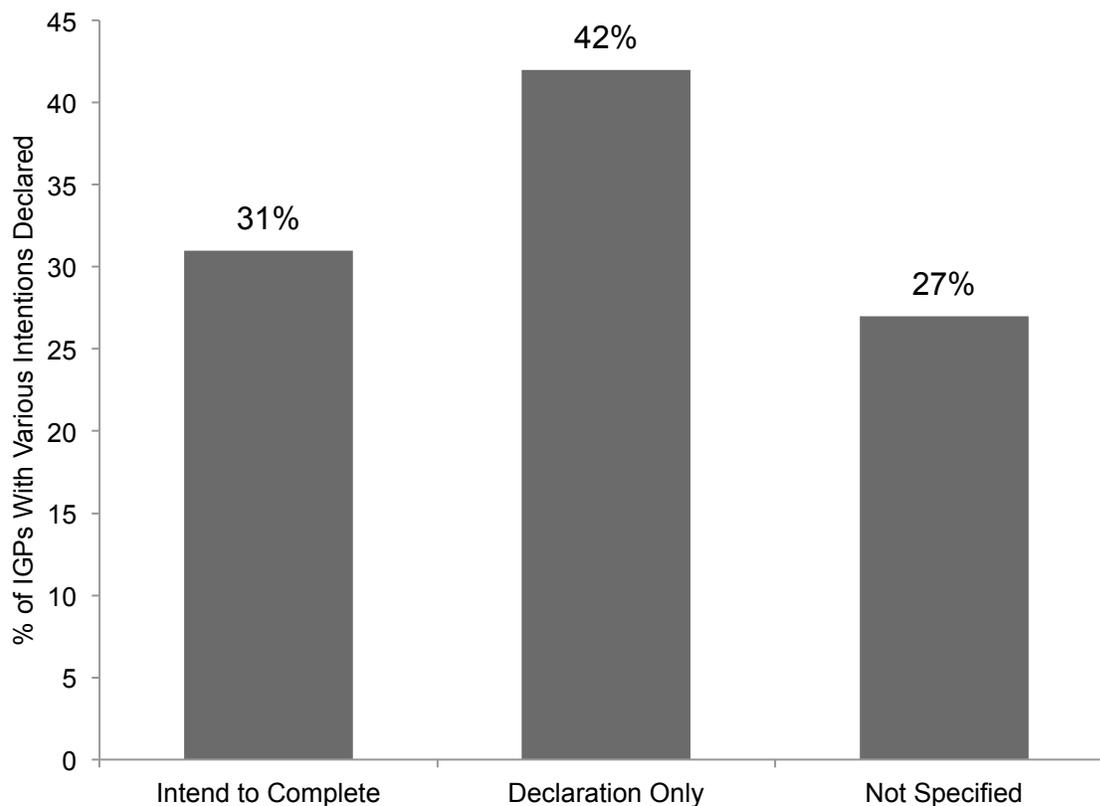


FIGURE 2.3. Students’ intentions to complete majors, as indicated on 10th grade IGPs of the SLDS 2011 cohort.

EEDA Facet 3: Increased Counselor Role in Education and Career Planning

Reported by SDE. EEDA implementation was guided by the SDE’s guidance and counseling model which helped school districts and communities to develop their own district-specific school guidance and counseling programs. In Year 1 (2005-2006), the EEDA Coordinating Council (EEDACC) reported that the state’s overarching guidance and counseling model was complete and available to school districts electronically. At that time, the SDE was also updating the model to reflect EEDA content and policy. In Year 3 (2007-2008), the revised SC Comprehensive Developmental Guidance and Counseling Program was distributed throughout the state. To facilitate implementation of the model, K-12 school counselors received information and training through eight regional workshops in Year 3.

To ensure successful implementation of EEDA, guidance professionals received training and technical assistance on a variety of topics and in numerous venues. For example, in 2008-2009, nearly 4,000 Personal Pathways workshops were provided to teachers, counselors, and work-

based learning coordinators throughout the state. However, in 2009-2010 and 2010-2011, there was a slight decrease in the number of Personal Pathways workshops provided to educators throughout the state.

Several organizations were involved in these career development opportunities, reflecting the extensive collaboration and partnerships that have facilitated implementation of EEDA. Guidance professionals received training at the annual Statewide Education and Business summits, statewide guidance counselor workshops, annual SC School Guidance Counselor conferences, and through the SDE's Office of Career and Technology Education (SDE CATE). South Carolina educational television partnered with SDE to provide statewide presentations and "In Our Schools." SCOIS and Kuder representatives also provided guidance professionals with information and resources. Guidance professionals also received information and training electronically, through e-newsletters, the Carolina Careers digital video library, Carolina I-TV, and school counselor listservs. Additionally, school districts themselves provided training to counseling professionals.

To facilitate policy implementation, the EEDA stipulated that school guidance counselors and career specialists limit their activities to guidance and counseling and to not perform administrative tasks. The EEDA utilized the American School Counselor Association (ASCA) guidelines for delineating a list of inappropriate (noncounseling) and appropriate (counseling) responsibilities. The noncounseling duties were to be eliminated or reassigned, so school guidance personnel could then focus more directly on students' needs. District and school administrators were encouraged to develop strategies for the elimination and reassignment of inappropriate tasks.

The EEDA stipulated specific duties associated with the Certified Career Specialist position. Beginning in Year 1 (2005-2006), career specialists must have earned their Career Development Facilitator (CDF) or Global Career Development Facilitator (GCDF) certification. Over 400 professionals reportedly held one of these two certificates by the end of 2005-2006. By the end of Year 2, approximately one-half of career specialists had met the certificate requirements. The majority of others were either enrolled in a certification course or were given provisional status. By Year 6 (2010-2011), approximately 100 % of career specialists whose positions were either fully or partially EEDA-funded had earned their certification, earned provisional status or were within the two-year eligibility guideline approved by the SDE in 2008-2009.

According to the original EEDA legislation, career specialists currently employed by the sixteen tech prep consortia must be supervised by the SDE CATE office. By the end of Year 1 (2005-2006), the EEDA Coordinating Council (EEDACC) reported that the SDE was supervising the career specialists employed in SC business and education alliances. However, in Year 2 (2006-2007), the reauthorization of the Perkins legislation led to the demise of the sixteen tech prep consortia. As a result, eight of the sixteen original alliances (representing nine of the twelve Workforce Investment Area geographic regions) decided to operate under the Perkins IV, Title 1 guidelines. Funds were provided for a career specialist for each of these nine regions. By Year 3 (2007-2008), a career specialist was providing services in ten of these regions and by Year 6 (2010-2011), it was reported that the twelfth career specialist was expected to be hired in the

near future. For Years 2 through 6, it was reported that the SDE supervised these career specialists.

These regional career specialists provided a variety of services, including technical assistance and professional development activities to school districts. In Year 4 (2008-2009), the regional career specialists conducted workshops for 700 secondary educators. By the following year (2009-2010), this number increased by over 100%, to 1,500 secondary educators receiving career development training.

The EEDA stipulated that in Year 2 (2006-2007), counseling and career awareness programs on clusters of study were to be provided to all students in sixth through eighth grade. By the end of their eighth grade year, all students were required to select a preferred cluster of study. Ideally, this selection was to be made in consultation with parents, guardians, or parent/guardian designees.

Guidance counselors throughout the state were active in their efforts to provide career related information to students, as evidenced, in 2007-2008, by their coordination of 12,000 career activities for middle and high school students throughout the state. During the following year (2008-2009), the number of workshops increased by 100%, with career specialists coordinating 24,000 career development activities. The number of career development workshops increased to 29,000 by 2010-2011, representing a 241% increase over the four-year period (since 2007-2008).

Regarding Career Specialist activities, more than 3,000 career-related workshops were provided in 2010-2011, representing more than a 100% increase from 2007-2008 when 1,528 workshops were provided.

The EEDACC reported that significant progress was also made in the provision of career and technology information to parents and guardians: approximately 317,000 received such information in 2010-2011 versus 123,900 in 2007-2008. There was also a reported increase, over time, in the proportion of the state's eight graders who completed an IGP accompanied by a parent or parent designee, from 80% in Year 3 (2007-2008) to 85% in Year 6 (2010-2011). However, there was a reported slight decline over the last three years in the proportion of parents or designees who participated in at least one IGP planning conference (72% in 2008-2009; 71.5% in 2009-2010; and 67% in 2010-2011).

The EEDA Coordinating Council (EEDACC) reported that by the end of Year 2 (2006-2007), career awareness programs on clusters of study were being provided to over 90% of students in Grades 6 through 8. Additionally, career interest inventories were available to all schools and lesson plans and career awareness and exploration programs were available as well.

By year 3 (2007-2008), the EEDACC reported that a majority of students in Grades 6 through 9 had completed at least one career assessment and/or participated in at least one career exploration activity during the year. In the subsequent years, it was reported that nearly 100% of students had participated in these activities, with the greatest percentage of students being assessed in tenth and eleventh grades. In 2007-2008, the EEDACC also reported that all middle and high school students were connected to the eIGP. Beginning in 2008-2009 and in all

subsequent years, at least 97% of students developed, revised, or completed an IGP during the academic year.

EEDA stipulated that middle schools and high schools had to provide students with the services of a certified career specialist by 2006-2007 and 2007-2008, respectively. All middle and high schools had to achieve a 300:1 student-to-guidance-personnel ratio by 2007-2008. By 2010-2011, funding was provided for 547 career specialists, an increase over 2006-07, when funding was provided for 538 career specialists in middle and high schools. Prior to the passage of EEDA in 2005, only 33% of the state's middle and high schools had achieved a 300:1 ratio or less and over 51% had a ratio of 350:1 or greater. By 2010-2011, approximately 87% of schools had achieved the 300:1 student-to-guidance-personnel ratio.

The EEDA stipulated that all public high schools implement a SDE-developed or –approved career guidance program or model. School districts also had to ensure that students wanting to attend a school that offered the courses required for their major be provided with transportation to do so (if their own school did not offer such courses). During Year 1 (2005-2006), the South Carolina career guidance and counseling model was available to all schools; this model was revised in Year 3 (2007-2008).

By the end of Year 1, a majority of school districts had identified at least three clusters of study and majors or were in the process of doing so; by Year 2 (2006-2007) high school principals reported that nearly 90% of the state's high schools had selected at least three clusters of study. By the end of the first year, high schools were also allowing students desiring to transfer to other schools if their actual school did not offer the courses necessary to complete a career cluster.

The EEDACC also reported significant accomplishments in the provision of career-related experiences to students by Year 6 (2010-2011). Nearly 29,000 career events were conducted by career specialists in 2010-11 and more than 257,000 of the state's middle and high school students had completed at least one career awareness inventory. In Year 3, 81% of ninth grade students participated in an IGP conference and completed their IGPs; by Year 6 (2010-2011), 98.4% of ninth-grade students participated in these activities. Similar increases were reported for job shadowing experiences, with 60,000 students participating in such experiences in Year 4 and 67,537 participating in Year 5. Approximately 127,000 students participated in extended/work-based learning experiences throughout the 2009-10 school year. Between 2008-09 and 2010-2011, there was an 11% increase in the number of students participating in extended work-based learning opportunities (increasing from 108,000 in 2008-2009 to 120,000 in 2010-2011).

Individual Graduation Plans are an essential element of successful EEDA implementation. Such plans must be aligned with a student's particular course of study, include core academic courses, and be flexible to allow for changes in course of study, among other requirements. By the end of Year 1 (2005-2006), the EEDACC reported that the eIGP requirements for post-high school choices had been developed and were being piloted in six school districts. By the following year (2006-2007), this item was designated as “completed.”

From the inception of the EEDA initiative, parents and advocates were envisioned as a central participant in student career exploration and development activities. Annual parent conferences

are a primary method of communicating with parents about student progress in career exploration and development. This emphasis is reflected in the change to the name of this section of EEDA from “Parental/Advocate Participation Integral to Career Clusters Program” to “Parental Participation and Annual Parenting Counseling Conferences” in 2006-2007.

Several awareness campaigns informed parents about the importance of participating in IGP conferences (e.g., “What Parents Need to Know about the EEDA” (2006-2007); “Dropping Out of School: Failure is Not an Option” (2006-2007); and the “Resource Guide for Parents” (2009-2010). In 2010-2011, the REC coordinators made arrangements for more than 550 speakers to discuss college access and awareness for nearly 30,000 students and parents statewide. According to the EEDACC (2011), approximately 317,000 parents/guardians received career and technology education information in 2010–2011. This figure represents a 155% increase over the number served (123,900) in 2007-2008. The proportion of parents who believed that the IGP process benefitted their children increased from 82% in 2008-2009 to 93% in 2010-2011. Additional data about student participation in IGP conferences was also provided in the EEDA annual reports, but these data were not reported in a consistent fashion, thus it was difficult to make comparisons from one year to the next.

Our observations. Career guidance and counseling services are critical to the EEDA reform policy through their key role in students’ career development and career planning. Under EEDA, students are exposed to career development efforts in elementary school with the exploration of career pathways and career interests. This process of exploration continues throughout later grades and intensifies in middle school. In eighth grade, each student, along with parents or guardians, works with a counselor to develop an IGP, which includes courses required for graduation and appropriate electives that align with the student’s interests, postsecondary plans, and professional goals. The process of working with counselors continues into high school where, on an annual basis, students and parents are to meet with school counselors to review and revise their IGPs. Further, school counselors with career development facilitator certification or other school personnel with such training are to provide students with career awareness and career exploration activities and work-based learning (WBL) experiences.

All high schools had access to the services of career specialists by the time of our first site visit, and all schools reported having student-to-guidance personnel ratios of 300 to 1 or less at that time, as required by EEDA. This is despite the fact that, in 2008-2009, the SDE reported that due to economic situations, the SDE had not requested an increase in the upcoming FY 2011 EEDA budget for this line item. The committee also recognized that the level of funding was not adequate to meet the 300:1 student-to-guidance personnel ratio required by EEDA. As an update, the December 2010 EEDACC annual report states, “The percentage of middle and high schools with a student-to-guidance-personnel ratio of 300:1 or less has decreased by 9% since 2008–2009, from 8% to 69% in 2009–2010. This decrease is directly attributable to the reduction in state funds because, in an attempt to offset the impact of budget reductions, some districts have eliminated the career specialist positions and have required counselors to fulfill those duties” (p. 15).

Overall, school guidance personnel were found to be key players in policy implementation. Most counselors in the eight schools reported engaging in more career-focused activities and academic

guidance because of EEDA, as well as spending less time on personal guidance, but the extent of engagement in these activities and the amount, nature, and types of career experiences they provided for students varied across sample schools.

Because counseling and career guidance and career-focused activities were such a large part of EEDA efforts ongoing in our schools, we focused a number of data collection activities in this area over the study period. Data collected and analyzed and trends discovered are described in more detail later in this section.

EEDA Facet 4: Implementation of Evidence-Based High School Reform

Reported by SDE. The EEDA legislation mandated that, by the 2009-2010 school year, all high schools across the state implement the principles of High Schools That Work (HSTW) or a similar model of organizing clusters or majors. Other state-approved models used by schools included the Content Literacy Continuum, developed by the University of Kansas Center for Research on Learning and the CARS (Crescent=Achievement, Responsibility, Stability) model developed by S.C. Anderson School District Three.

From the beginning of the reporting period (2005-2006), this initiative was reported as being “on schedule.” In the first year (2005-2006), the EEDACC reported that 57% (115) of high schools had implemented HSTW. By 2010-2011, that proportion had increased to 95% with 191 HSTW sites in South Carolina (in addition to 16 Career Centers that Work (EEDACC, 2011).

Our observations. All eight sample high schools indicated that they had implemented at least some of the key elements of the High Schools That Work (HSTW) reform model by the time of our first site visit in 2008-2009. Two schools had begun implementing HSTW prior to passage of EEDA (2005) whereas two others began implementation at the same time or shortly after EEDA’s passage. The remaining four schools began implementation later but still were in compliance with EEDA’s requirement of whole school reform implementation prior to 2009-2010.

During preliminary school visits, we noticed that there appeared to be a relationship between HSTW implementation and the level of acceptance of and implementation of the state EEDA policy. Schools already actively engaged in HSTW often had a head start on EEDA as well as POS implementation, due to many of the requirements of HSTW. The higher the level of HSTW implementation and the longer the school had been implementing the model, the higher the level of state policy implementation appeared to be. As will be discussed later in this section, this relationship was also found in our quantitative analysis. In addition, two of the sample schools with the highest level of implementation of HSTW also were the only schools where the study team identified study-defined Perkins IV POS.

Many schools found elements of HSTW to be highly compatible with different facets of the state policy. Some primary elements noted by staff and teachers included the modules developed to help implement the 10 HSTW key practices, the technical assistance and professional development provided by the Southern Regional Education Board (SREB) to assist with HSTW implementation, the advisor-advisee program, and the assistance the model provided in

developing career pathways and ways to integrate career content into coursework. One principal told us that a key reason for electing to implement HSTW was that it would help make a “seamless transition with EEDA.” Another principal described it as a “good umbrella for all we are doing.” For one of the early implementation schools, HSTW was considered by the principal as “part of the fabric of their school.”

The organization of schools into Smaller Learning Communities (SLCs) at three of the study sample high schools also appeared to have helped with policy and POS implementation. Staff reported that SLCs helped to increase collaboration between academic and CTE teachers, especially in the school that organized its learning communities around career clusters. As part of the SLCs’ curriculum and instruction efforts, core academic teachers are integrated with CTE and other teachers. Teachers reported that being located on the same hall, having common planning periods, working in learning community teams, and advising a cross-section of students all helped to stimulate efforts towards integration and collaboration.

Two schools had merged SLC and HSTW into the reform models at their schools. A principal at one of these schools told us that they opened with EEDA in mind and that their school’s strategic plan was built around EEDA, HSTW, and SLC because they fit well together and reflected their institutional goals. The structure for career pathways at the other school had already been put into place prior to EEDA through implementation of HSTW. The passage of EEDA only strengthened this orientation. But the real impetus for the increase in their efforts on career pathways and curriculum integration, as reported by staff during interviews, came from the receipt of funding for SLCs. Staff reported that the school redesigned the curriculum around clusters and organized their learning communities around clusters of related pathways. Each learning community contained relevant content teachers for the clusters, such as for business and marketing, and core academic teachers were assigned to each community and co-located for better coordination.

EEDA Facet 5: Facilitation of Local Business-Education Partnerships and Resource Dissemination through Regional Centers

Reported by SDE. The EEDA legislation mandated that, before July 1, 2006, the EEDA Coordinating Council must designate Regional Education Centers (RECs) that would coordinate and facilitate the delivery of information, resources and services to stakeholders throughout the state, including students, educators, employers, and the broader community. In the first year, 12 RECs, corresponding to the 12 local workforce investment areas delineated by the South Carolina Workforce Investment Act, were designated. By 2007-2008, all 12 RECS had established advisory boards to oversee REC operations. In 2009-2010, the EEDACC reported that more than 240 different educators and business representatives served on the 12 REC advisory boards.

In the annual reports, the EEDACC reported on four elements of REC operations, each of which is summarized below.

1. By the second year (2006-2007), efforts were underway to create virtual RECs. These virtual centers aimed to link educators, students and parents with pertinent career

information and resources. By 2008-09, all 12 virtual centers were in operation. By October 2009, each site reported an average of 11,066 visitors. REC coordinators actively promoted the virtual RECs through numerous meetings, workshops, conference presentations, and an electronic newsletter.

2. By Year 3 (2007-2008), coordinators were hired for each of the 12 RECs. All of them had acquired their career development facilitation certification by Year 5 (2009-2010). The REC Coordinators were tasked with collaborating with schools and businesses in each of their regions to coordinate career-oriented learning experiences for students. A statewide development coordinator helped the advisory board to establish regional partnerships with a variety of educational and business entities.
3. By Year 3 (2007-2008), the original REC Committee was disbanded and replaced by the REC Advisory Panel (RECAP), comprised of representatives from a variety of state government, educational and business entities and the 12 REC advisory boards. During Year 5 (2009-2010), the RECAP revised REC bylaws and other documents to improve the efficiency of RECs and to encourage and facilitate productive relationships between the 12 RECs and their partners.
4. In 2006-07, more than 200 board members were appointed by the local legislative delegations in eight established REC regions. By 2007-2008, the number of members had increased to 300 and significant progress was made on developing a strategic plan for the 12 RECs. By the end of the 2011, the membership totaled 240.

The EEDA also required that the SDE collaborate with several state organizations, including the State Board for Technical and Comprehensive Education, the Commission on Higher Education, and the South Carolina Department of Commerce and the South Carolina Employment Security Commission. Through such collaboration, stakeholders were provided with information about potential employers, labor market data, and workforce education programs for youth in particular.

In Year 3 (2007-2008), the SDE had secured a license for K4A, an online database that helps college students and adult workers to identify job opportunities. Additional information systems that have facilitated policy implementation include Connect 2 Business (for businesses) and Kuder Journey (for college students and adult workers). The number of adults registered in Kuder Journey increased by 440% between Year 4 (2008-2009) and Year 6 (2010-2011), increasing from 5,000 to 22,000 in that time frame. Before the Connect 2 Business effort was discontinued in 2009-2010 due to budget cuts, over 900 businesses had registered to post extended/work-based learning experiences. Thirteen virtual job shadowing experiences were created in 2009-10 by Microburst Learning; by Year 6 (2010-2011), 37 virtual job shadowing experiences were available to students. This effort was enhanced through the provision of more than 140 virtual job shadowing experiences available through VirtualJobShadow by 2010-2011.

Our observations. Several initiatives in EEDA policy promoted partnerships between local schools and districts and local businesses for CTE and non-CTE programs. For example, EEDA created 12 Regional Education Centers (RECs) to help disseminate information about the policy

to local industries and the community, to help schools to educate students and staff about career opportunities, job training, and apprenticeships, and to connect local education and businesses. Involvement with the RECs varied across sample schools, ranging from no contact to periodic contacts. Another program developed by the state and partially administered through the RECs was the Connect2Business program, which recruited businesses to be involved with local schools. At one time, over 900 businesses across the state had volunteered to have their contact information listed to be partners with their local schools.

Despite these policy initiatives, some schools were much further along than others in the formation of partnerships with the business community at the time of our 2009 site visits. Nearly all of the schools had little to no contact with their Regional Education Centers (RECs), although these centers were supposed to be assisting schools in recruiting business partners, training teachers and staff, and identifying work-based learning experiences for students. We did find that all schools were disseminating to students, parents, and school staff at least some information on CTE, career planning and IGPs, the career majors and clusters, and to some extent on work-based learning experiences.

School administrators and CTE faculty at our study high schools mentioned during our site visits that local advisory teams were an integral part of program development and important for keeping schools informed on the needs of industry. Links to business and industry were also important to comply with policy mandates for increased job shadowing, mentorship, and internship training opportunities for students. But having staff available to identify, establish, and maintain partnerships is critical to the success of these efforts, as is the availability of local business partners. Few sample schools had staff that they could dedicate to developing these partnerships, and the remote or economically depressed locations of some schools posed serious challenges to creating the necessary partnerships with industries.

The implementation of REC activities were most certainly influenced by broader contextual factors, including budget cuts to this portion of EEDA implementation. As reported by the SDE, during Year 1 (2005-06), Year 2 (2006-07), and Year 3 (2007-08), the operation of RECs was funded at the levels requested by the SDE (\$1,200,000, \$1,200,000, and \$2,586,000, respectively). However, in 2008-09, due to the poor economy, the SDE reduced their funding request below the desired level (\$1,844,032). As expressed by both the SDE and the EEDA Coordinating Council (EEDACC), “the current level of funding hinders the RECs [coordination and facilitation efforts] necessary to meet the identified needs in their respective regions” (EEDACC 2009, p. 30). In addition, according to the SDE, the provision of career information and employment options was impacted by budget cuts. This particular section of EEDA was only funded in Year 2 (2006-07) and Year 3 (2007-08) in the amount of \$45,000 each year.

EEDA Facet 6: Articulation between K-12 and Higher Education

Reported by SDE. Since the passage of EEDA, a variety of processes and programs have been developed to facilitate the dual enrollment of high school students in postsecondary institutions. In Year 1 (2005-2006), efforts were initiated to improve the curriculum pathways for students to transition from high school into college. The implementation of this line item was facilitated through a partnership between representatives of the EEDA Information Technology Committee,

the SDE, the South Carolina Technical College System, the South Carolina Commission on Higher Education (SC CHE), and institutions of higher education throughout the state. These efforts focused on reviewing statewide articulation agreements and identifying a list of 86 universally transferable courses. Articulation agreements for Project Lead the Way pre-engineering courses were approved by three four-year institutions as well.

In Year 3 (2007-2008), the University of Oregon's Educational Policy Improvement Center (EPIC) was contracted by SC CHE to develop and implement the South Carolina Course Alignment Project (SC CAP); the aim of SC CAP was to develop sequences of paired course (an exit-level high school course and an entry-level college course) in core subjects (English/language arts, mathematics and science). Throughout the remaining three years, this effort was facilitated by a series of key stakeholder meetings, an environmental scan of K-16 alignment issues, an interactive project web site, the collection of public comments about the College Readiness Reference Standards, and the recruitment of institutional liaisons from partner institutions. Also, by Year 3 (2007-2008), the SDE had secured an electronic student record and transcript system. In Year 4, the SC CHE had contracted with a Pennsylvania company to develop and implement a web-based course articulation and transfer system statewide.

By Year 4 (2008-2009), six four-year institutions had implemented the equivalency synchronizer, which was designed to synchronize equivalency data from each institution with the South Carolina Course Articulation and Transfer system. By October 2011, the SC Transfer and Articulation Center (SC TRAC) system was populated with approximately 551,000 course equivalencies and 770 transfer agreements. As early as Year 1 (2005-06), agreements for Advanced Placement courses and a draft policy for statewide acceptance of International Baccalaureate (IB) courses were developed. The IB credit acceptance policy was approved by the CHE in Fall 2007.

Twenty-eight of the state's 33 institutions offered dual enrollment courses in Year 3 (2007-2008). By 2008-2009, 29 of the 33 institutions offered such courses. Approximately 170 different courses were offered in 2007-2008; by 2008-2009, the number had increased to 186. Technical colleges offered a total of 428 sections of dual enrollment courses in 2007-08; this number increased by 46.5% (627 courses) by 2008-2009. By 2010-2011, the state's technical colleges offered 88.2% of the total number of dual enrollment courses, the four year institutions offered 6.6% of the total and the University of South Carolina regional institutions offered 5.2% of such courses (EEDACC, 2011).

These efforts seem to have influenced the dual enrollment of high school students in postsecondary education. The number of secondary students completing dual credit coursework increased from 7,532 in 2005-06 to approximately 9,900 in 2010-2011, an increase of approximately 32%.

Beginning in Year 1, the SDE's Office of Educator Quality initiated efforts to ensure that teacher preparation programs throughout the state were adequately preparing teachers, counselors, and administrator's to implement the EEDA requirements. To facilitate this goal, in Years 3, 4, and 5, the CHE allotted \$30,000 to each teacher education entity at all public colleges and universities to assist them with the alignment of teacher credential curricula (Year 2, 2006-2007).

In Year 3 (2007-2008), consultants developed an “EEDA toolkit” to make this integration easier for institutions of higher education. A 2008 statewide EEDA Teacher Education Technical Assistance Workshop aimed to help institutions implement EEDA and incorporate performance-based standards into their educational institutions. A majority of institutions followed-up these efforts with workshops and conferences of their own, targeted toward faculty seeking information regarding how to integrate EEDA standards into their courses. In 2008-2009, training on contextual course methodology was provided by regional career specialists to over 700 secondary educators; the same training was provided to over 1,500 secondary educators the following year (2009-2010).

Our observations. The SDE reported that in Year 1 (2005-06), efforts were initiated to improve the curriculum pathways for students to transition from high school into college. The implementation of this line item was facilitated through a partnership between representatives of the EEDA Information Technology Committee, the SDE, the South Carolina Technical College System, the South Carolina Committee on Higher Education (SC CHE), and institutions of higher education throughout the state. These efforts focused on reviewing statewide articulation agreements and identifying a list of 86 courses with approved curriculum that would automatically transfer credits between all two-year community/technical colleges to four-year institutions of higher learning across the state. Articulation agreements for Project Lead the Way pre-engineering courses were approved by three four-year institutions as well.

Also, according to the SDE, since the passage of EEDA, a variety of processes and programs have been developed to facilitate the dual enrollment of high school students in postsecondary institutions. As early as Year 1 (2005-06), agreements for Advanced Placement courses and a draft policy for statewide acceptance of International Baccalaureate (IB) courses were developed. The IB credit acceptance policy was approved by the SC CHE in Fall 2007. In addition, efforts were also underway to increase the number of statewide articulation agreements between the community or technical colleges (which offer two-year associate degrees) and four-year colleges and universities across the state.

Our study results indicate that the articulation structures and processes varied widely across sample schools, with most schools offering at least some opportunities to students for dual credit and/or dual enrollment. All eight of the schools participating in our study reported either dual enrollment or dual credit arrangements, or both, with local postsecondary institutions. Most of these agreements were with local two-year community or technical colleges.

Chapter 3: EEDA and the Development of Foundations for POS

In this chapter, we examine evidence that the EEDA may facilitate the development of Perkins IV-defined POS by establishing parts of the foundation considered necessary for their development. These findings stem from analyses of the following data: (1) observations and interviews conducted with school personnel during the two on-site visits, (2) two guidance personnel surveys and follow-up interviews with school counselors, (3) student survey responses, (4) the SDE's GP Accountability Reports, and (5) EEDA annual reports to the legislature.

Findings will first be discussed relative to observations of how EEDA may help to lay groundwork for the core elements of POS established in the Perkins IV. Although our study preceded, and thus was not originally designed to examine, the 10 components of the POS Design Framework developed by OVAE (U.S. Department of Education, 2010), we report here observations on several of the components particularly relevant to our study. The full Design Framework is shown in Technical Appendix B.

Core Elements of Perkins IV POS

As described earlier, Perkins IV outlined three mandated core elements for Perkins-IV funded POS and one optional element. Here we provide findings on the ways in which EEDA may be facilitating the development of the foundation necessary for POS at our eight sample schools through these four core elements.

Core Element 1: Incorporate and Align Secondary and Postsecondary Educational Elements

The study team found that increased attention was being paid to aligning secondary and postsecondary programs at the state level as well as at many of the sample schools, but it is unclear whether this is due to Perkins IV, EEDA, or some combination of factors. EEDA legislation facilitates alignment between secondary and postsecondary education in several ways.

One potential way for the EEDA to facilitate alignment is through the mandated IGP process. A goal of IGP development is to help students link their secondary coursework with postsecondary training and education. To facilitate these linkages, two EEDA initiatives were begun through the state's Commission on Higher Education (CHE): the South Carolina Course Transfer and Articulation System (providing information through the SC Transfer and Articulation Center, SC TRAC) and the South Carolina Course Alignment Project (SC CAP). In addition, the statewide EEDA Coordinating Council (EEDACC) established two committees to help oversee these efforts: the Articulation, Dual Enrollment, High School Graduation and Postsecondary Education Alignment Committee and the Curriculum Frameworks and Individual Graduation Plan Committee. The state has also called on industry-specific advisory committees to help develop curricula and assist with the efforts toward active statewide course alignment and articulation.

The SC CAP aims to develop sequences of paired courses (an exit-level high school course and an entry-level college course) in core subjects (English/language arts, mathematics and science). Seventeen paired courses have been developed, with accompanying course packets containing

course syllabi and scoring rubrics. The courses not only aim to strengthen alignment between high school and postsecondary learning but also to align the content with the South Carolina College Readiness Reference Standards (EEDACC, 2011).

SC TRAC provides online information and services to students who may be participating in dual enrollment courses. The online portal provides tools that make it easier for students to evaluate how coursework transfers among and between all of SC's two- and four-year public colleges and universities, helping to eliminate barriers to degree completion, including additional expenses and delays involved when courses do not transfer as expected.

One difference to keep in mind when discussing findings in our sample schools, is that Perkins IV places a greater emphasis than EEDA on explicit, career-related, links between secondary and postsecondary education/training. Sample schools in our study with strong, well-established CTE programs and experienced CTE faculty were more likely to have better alignment between secondary and postsecondary instruction than those with weaker CTE programs. In addition, schools that had a career center that was close by the school also tended to have better alignment. However, we found that that alignment was often better when the career center was not only close to the high school but also had a good working relationship with a local community college partner. This was particularly the case when the local community college partner valued the links between the high school's and college's programs and coursework and were active partners in developing the high school curriculum and programs and in recruiting students. In several schools, either the community college curriculum was being used by the high school teacher or a community college faculty member was teaching the courses, sometimes on the high school campus, strengthening the alignment between levels. For example, at one of the sample high schools, local community college faculty was teaching the courses at both the high school and college levels for the Machine Technology and Welding programs. Eighty-five to ninety percent of credits in these high school courses transferred to the college's two-year program in this and other related areas, providing a seamless alignment between the high school and college programs.

Core Element 2: Include Coherent and Rigorous Academic and Relevant CTE Content in a Coordinated, Non-Duplicative Progression of Courses

EEDA legislation requires an integration of academic and CTE content and an alignment between resources and instructional materials for all courses and the state's content standards. The EEDA legislation stipulated that SDE develop prototypes for individual graduation plans and the curriculum frameworks for career clusters of study. The sixteen national career clusters served as a foundation for developing these initiatives. According to EEDA annual reports (EEDACC, 2008), by the third year of implementation, 2007-2008, an electronic version of the curriculum framework and IGPs had been developed and piloted and all of the state's middle and high schools were connected to the eIGP system which was embedded with the state-approved curriculum templates. In 2008-09, a statewide K-12 Majors Alignment Task Force was established to develop guidelines for assessing the effectiveness of career clusters and major alignment and curriculum managers from each school district were provided with training in the online eIGP system and guidance personnel with information about career cluster websites and online resources.

EEDA also requires the state to provide training in contextual teaching to all middle and high school educators; this training must emphasize methodologies that focus on hands-on instruction and content presentation with an emphasis on real-world application and problem solving. Study researchers did find some evidence of the integration of academic and CTE content, often due to efforts by individual teachers. Integration came in the form of the integration of academic standards and content into CTE courses, introduction of real-world experiences into academic courses, through efforts to integrate literacy and/or reading or math across the curriculum or into CTE courses, and some career-focused instruction.

When asked how much integration of career and real-world content was occurring in their academic and other courses, responses from Class of 2011 students during focus groups was mixed. Some students did mention that core academic teachers were trying to give some real-world examples of how their subject related to certain fields. For example, several students mentioned math courses where teachers mentioned that math would be important for the medical field or for architecture. Of the academic courses, English (senior project assignments, journaling about career interests and career portfolio development), economics, and government classes were most often mentioned as including real-world examples and discussions of what careers these subject areas could lead to. However, CTE courses were the most often mentioned as courses where various careers were discussed, being given real-world examples and completing hands-on projects. These courses also more often included speakers from relevant industries/businesses than non-CTE courses.

The organization of schools into Smaller Learning Communities (SLCs) at three of the study sample high schools appears to have increased collaboration between academic and CTE teachers, especially in the school that organizes its learning communities around career clusters. As part of the SLCs' curriculum and instruction efforts, core academic teachers are integrated with CTE and other teachers. Teachers find that being located on the same hall, having common planning periods, working in learning community teams, and advising a cross-section of students all help to stimulate efforts towards integration and collaboration.

When exploring the type of foundation established by EEDA to support programs of study, it is important to remember differences between EEDA career majors and Perkins IV-defined POS. Programs of study under EEDA are referred to as "career majors." Although career majors and the Perkins IV-defined POS share some characteristics, they also differ in several ways. In the South Carolina policy, career majors are considered areas of academic focus and include "a sequence of four elective courses leading to a specified career goal" (South Carolina Department of Education, 2006, p.3). Elective courses for career majors can include both CTE and academic courses. In contrast, POS, as defined in the Perkins IV legislation, include a sequence of three related CTE courses and have a greater emphasis on the development of structured sequences of courses.

Of the available CTE majors/programs with postsecondary ties reviewed for this study, the most likely to offer a logical sequence of at least four courses were culinary arts, some health sciences programs, and programs in the areas of manufacturing, construction, and transportation. The

majors/programs least likely to offer logical sequences of courses were those in the areas of business, marketing, and information technology.

The IGP process at schools has helped to increase the amount of activity and coursework planning to ensure that high school experiences are related to students' majors and to help students prepare for their careers after graduation. Counselors reported to us that a variety of career- and postsecondary-related topics were discussed during required meetings with students, including giving information on the different career pathways, helping with identification of career goals, and providing guidance on the selection of a major and appropriate coursework to help students achieve their identified goals. The goals of these sessions were similar across schools: to help students choose a career pathway that can meet their goals and to help students understand and consider their postsecondary options. Many student-initiated interactions with counselors also centered around career and course-related issues, where students often wanted further information on various career pathways or on course requirements for majors, advice on choosing electives, or assistance with getting into courses or changing majors.

One of the stumbling blocks to the development of rigorous programs of study at sample schools was that schools are required to offer all students core academic courses that meet South Carolina academic standards, with an emphasis on offering college prep-level courses or higher across the curriculum. Only half of sample schools had evidence in their catalogs or guarantees from staff during interviews that all students, regardless of career major, were taking all college prep courses to graduate. At four of the eight sample schools, non-college prep math and/or science courses were still allowed for some students and outlined on the IGPs in school catalogs as core academic courses available for completion of career majors.

School staff at the eight sample schools spoke of facing the challenge of trying to get low performing students through core academic courses to meet these stricter graduation requirements. In the past, low performing students were often placed in CTE programs and schools and districts had developed core academic courses specifically for these programs. These courses were called "applied" math or science courses, or math and science for the "technologies," and included content thought to prepare students for technical careers but not necessarily for college or that met state academic standards. When pushed to make all courses meet state standards and to offer college prep content to all students, schools were facing challenges with struggling students who would no longer be able to take lower level courses and still graduate. Some schools offered additional remediation courses in core academic content areas or developed two-course sequences that would be a semester or a year longer than the regular college prep academic course, and worked toward bringing the student up to meet the state standards but at a slower pace.

One school outlined a career prep diploma in both their 2008-2009 and 2010-2011 catalogs that was not specified just for special education students, that included core academic courses with "academic standards intended to prepare students to qualify for technical colleges and colleges with 'open' selectivity" and elective CTE courses to match the students' interests. Most schools still offered remediation courses and often two-sequence courses in English and in math and science to give students college prep-level content over a two-course sequence rather than a one-course sequence and help prepare students for the high school exit exam/state standards. To meet

the state's requirements, a student had to usually take both courses in a sequence. Additionally, some of the science courses were identified as not counting towards college admission but were designed to help students prepare for a technical career.

We asked CTE teachers during our 2009 interviews and focus groups whether students were coming to their courses prepared with the appropriate academic skills to be able to handle their course content. Repeatedly, we heard from these teachers that many students were still entering their courses without the skills necessary to the coursework. Students were lacking adequate math skills and reading comprehension and CTE teachers found themselves having to provide remediation so that students would be ready to handle the content in their courses. This was found across a variety of program areas, from health science and horticulture to construction and manufacturing. CTE in several schools was still being used as a "dumping ground" for low-performing students or as an alternative program for students with continual disciplinary problems. CTE teachers perceived that the IGP process was helping somewhat but had not alleviated the "dumping ground" problem for many teachers. Some CTE teachers pointed out that they now had all levels of students, from low- to high-performing students, in the same class and that they needed to address the diverse needs of these students, but were being asked to do this without the teacher aids that were often available in core academic courses.

Several CTE teachers spoke of a struggle to attract higher-level students to their courses because of the challenge in ensuring that students taking their courses would get appropriate credit for the amount and level of work they do in these courses. Both health science and horticulture teachers spoke of the frustration resulting from the lack of recognition of the rigor of their courses, the lack of honors and/or dual credit for CTE courses, and a lack of acceptance of credit for what they taught from local colleges, particularly four-year colleges.

Core Element 3: May Include the Opportunity for Secondary Students to Participate in Dual or Concurrent Enrollment Programs or Other Ways to Acquire Postsecondary Education Credits

As part of the development of strong career pathways and mandates of both Perkins IV and EEDA, there has been progress in South Carolina in developing and strengthening articulation agreements between schools and districts, community colleges, and four-year colleges and universities, with increases in dual credit and credit transferability options for students at many of our sample schools. Since the passage of EEDA, a variety of processes and programs have been developed to facilitate the dual enrollment of high school students in postsecondary institutions. The EEDA Coordinating Council (EEDACC) surveyed all of the state's two- and four-year postsecondary institutions about the transferability of dual enrollment courses. From these survey responses, a brochure was created to outline for students the various credit transfer options available at the state's public colleges and universities (EEDACC, 2011). By 2008-2009, 29 of the state's 33 public postsecondary institutions offered dual enrollment courses and this number continued to 2010-2011. Technical colleges offered 627 courses by the 2008-2009 school year. By 2010-11, the state's technical colleges offered 88.2% of the total number of dual enrollment courses, the four year institutions offered 6.6% of the total and the USC regional institutions offered 5.2% of such courses (EEDACC, 2011).

These efforts seem to have influenced the dual enrollment of high school students in postsecondary education. According to the EEDACC annual reports, the number of secondary students completing dual credit coursework increased from 7,532 in 2005-06 to approximately 9,900 in 2010-11, an increase of approximately 32%.

Although opportunities for dual credit may have increased over our study period and more information on them may have been made available, our student survey data relative to students' plans to take these types of courses didn't significantly differ between the Class of 2009 and the Class of 2011. A majority in both classes as seniors indicated that they would take one or more dual credit courses (Class of 2009, 56.3% and Class of 2011, 54.4%). Nor did seniors in the Class of 2009 and seniors in the Class of 2011 significantly differ in their responses to the number of times they took Advanced Placement courses, with approximately 45.0% of seniors in the Class of 2009 and 46.6% of seniors in the Class of 2011 indicating they had never taken these types of courses.

Overall data on our two study cohorts in the SLDS data indicate a similar pattern where there was no overall increase in the percentage of students between the 2009 and 2011 cohorts who took either AP/IB and/or dual credit courses. However, as will be described in more detail later in this section, there was wide variation in AP/IB and dual credit course-taking across schools and between POS1 and non-POS1 students. There were significant increases in the percentage of students taking these courses at two schools between the two cohorts, declines at four schools, one significantly, and no change at the seventh school between the cohorts. Percentages of 2011 SLDS cohort students taking AP/IB courses at these seven sample high schools varied widely, ranging between 21% and 25% of students taking these types of courses in the 2011 cohort. At the eighth school, AP/IB courses had not been offered since the 2006-2007 school year.

In the case of dual credit courses, overall there was no increase in the percentage of students taking these courses between the 2009 and 2011 cohorts. Again, there were wide variations across schools, where at three sample schools there were essentially none to few students taking dual credit courses, no change at one school, slight increases at two other schools, a significant increase at one school and a significant decline at another school.

As will be described in more detail later in this section, there were significant differences between the course-taking patterns of POS1 and POS2 students across schools and cohorts. Overall, 2011 POS1 students were significantly more likely to have taken take dual credit courses than 2011 non-POS1 students but that was not the case for POS1 students in the 2009 cohort. There was a significant increase in the percentage of POS1 students who took dual credit courses between the 2009 and 2011 cohorts. Non-POS1 students in both the 2009 and 2011 cohorts were consistently more likely to have taken AP/IB courses but only non-POS1 students in the 2009 cohort were consistently more likely than POS1 students to have taken dual credit courses.

Students at our sample schools, as well as schools across South Carolina, however, face several challenges with regard to dual credit courses. One theme heard in nearly every school was that when postsecondary plans are considered, students, parents, and counselors often have to weigh the tradeoffs for students in choosing CTE courses over core academic courses, honors,

Advanced Placement (AP), or dual-credit academic courses. One challenge of choosing CTE courses over other courses is that CTE courses only count for elective credit. In order to graduate from high school in South Carolina, a student must earn 24 units of credits, 17 units in core academic courses and 7 in elective courses. For those planning to go to a four-year postsecondary institution, 1 unit of the 7 elective units must be spent in another year of foreign language. Students may find it difficult to fit in the exact electives they desire. In addition, even if students have room in their schedules to take a CTE elective course, they may face problems getting into the course because of limited space or limited time offerings of CTE courses.

Another major challenge for students in taking CTE courses is the impact that CTE courses can have on a student's GPA. Students with goals to attend four-year colleges, particularly those colleges that are more highly selective, work to get their GPAs as high as possible to help improve their prospects for college admission and scholarships. In addition, several of the state scholarships available in South Carolina require a 3.0 GPA or higher (LIFE and South Carolina HOPE scholarships) or, depending on SAT or ACT scores, either a 3.5 or 4.0 GPA (Palmetto Fellows Scholarships) to be eligible (South Carolina Commission on Higher Education, n.d.). Because AP classes carry greater weight than CTE classes, a student may find it more advantageous to their GPA to take an AP course versus a CTE course without the extra weight. Dual credit courses also help to boost GPAs, because in most districts, AP and dual credit courses carry the same weight. Students would not face GPA penalties if these options were consistently available for CTE courses. We found at sample schools, however, that options for dual credit or AP credit in CTE courses were often limited and did not provide a viable option for many students. A similar problem occurs with honors credit, where some schools reported that only recently had some CTE courses received honors level credit. These course options were not consistently available across all schools.

Core Element 4: Lead to an Industry-Recognized Credential or Certificate at the Postsecondary Level, or an Associate or Baccalaureate Degree

Perkins IV requires a direct link to a postsecondary level credential, although EEDA does not emphasize the direct link to a credential, only that the career major courses must help to prepare students for success in postsecondary education or a particular field. There were still a number of career majors at every school that were reported to have a postsecondary component culminating in a credential, certificate, or degree at the postsecondary level. In addition, all of the sample high schools or their partner career centers offered opportunities for students to earn industry-recognized credentials while in high school in at least one of their CTE programs. Administrators interviewed at several schools wished more certificate programs were available to high school students. A lack of industry-qualified teachers to provide the instruction for certification in some areas was often cited as an obstacle. The schools in our study also work with local employers to learn what skills and credentials are needed, and then design their programs around these requirements.

In our review of CTE school majors/programs in our eight sample schools to assess whether they met study-defined Perkins IV POS elements (POS4, discussed in more detail in the next section), an average of approximately 56% of CTE majors/programs reviewed had some type of postsecondary link, such as to further training or to two- or four-year degrees in that area. It

varied widely from school to school, however, from a low of 27.3% of reviewed programs to a high of 84.6%. The school with the highest percentage of CTE major/programs reviewed that was found to have programs leading to postsecondary training/education/degrees was a school with close ties to a career center that had a strong working relationship with the local community college. The emphasis was often on two-year degrees but also those that could lead from two-year into four-year. Two other schools with approximately 60% of their CTE programs/majors were high poverty schools that focused on the development of CTE programs to help their students get through high school and into further education. Their focus was on offering certification programs that might require some education after high school as well as on helping student progress into two-year degree programs, several of which could also lead to four-year degree programs. The school with the lowest percentage of CTE programs/majors with close postsecondary ties was one of our largest schools, with a primary focus on four-year college preparation and less on the development of CTE programs.

During interviews with CTE faculty in 2009, concerns were raised about the requirement that the attainment of a postsecondary credential be used as an indicator of the success of POS. We were told that many high school students who performed well in internships or cooperative placements were being offered full- or part-time employment when, or sometimes even before, they graduated. Not counting such employment offers as proof of success of POS, because they do not meet the criterion of postsecondary degree or credential attainment, ignores the benefit of high school credential-based programs in helping graduates successfully move into career-related employment upon graduation.

OVAE Design Framework

OVAE's Career and Technical Programs of Study Design Framework for POS was developed to provide policy guidance to states on the development of POS. Along with the other four NRCCTE POS studies, we agreed to incorporate observations on these 10 components in our data collection, and observations relative to six of these components are summarized here. The information we collected yielded nothing of relevance concerning the four that are not addressed:

Guidance Counseling and Academic Advisement

As described in more detail earlier in this report, career guidance and counseling services are critical to the EEDA reform policy, with school guidance and counseling programs playing a key role in students' career development and career planning. Under EEDA, students are exposed to career development efforts in elementary school with the exploration of career pathways and career interests. This process of exploration continues throughout later grades. In eighth grade, each student, along with parents or guardians, works with a counselor to develop an IGP, which includes courses required for graduation and appropriate electives that align with the student's interests, postsecondary plans, and professional goals. The process of working with counselors continues into high school where, on an annual basis, students meet with school counselors to review and revise their IGPs. Further, school counselors with career development facilitator certification or other school personnel with such training provide students with career awareness and career exploration activities and WBL experiences.

In 2007-08, the year prior to our first visits to sample schools, the revised SC Comprehensive Developmental Guidance and Counseling Program designed to facilitate policy implementation, was distributed throughout the state. To facilitate implementation of the model, K-12 school counselors received information and training through eight regional workshops during that school year. To ensure successful implementation of EEDA, throughout the reporting period, the statewide plan was to provide guidance professionals with training and technical assistance on a variety of topics and in numerous venues. All guidance personnel reported receiving some training on career pathways and IGP development, at least in the first year or so, but the amount and type of training and the topics covered varied. Training ranged from courses and workshops to personal research and “do-it-yourself” experiences and covered topics such as IGP development and advising students on career pathways.

Due to this centrality of counseling in the implementation of EEDA and to the development and implementation of high quality POS, we examined the role of guidance in policy implementation in the sample schools to learn whether and how guidance personnel duties changed since the implementation of EEDA. We found that EEDA has affected the role of counselors and the depth and breadth of information that students receive about their educational and career opportunities in career and technical fields. EEDA emphasizes students’ need to engage in career development activities such as exploration, interest assessments, and talking about career issues and career options with knowledgeable adults, thus making school counseling an essential service.

Key to much of the ongoing change in sample schools is the development and maintenance of students’ four-year IGPs. The purpose of these plans is to provide students with an academic blueprint toward graduation and beyond, based on their career goals and within the context of their career pathway. IGPs often provide students with access to career assessment data, aiding them in matching their career interests and personality traits with career goals and postsecondary options. As compared to results from the other NRCCTE POS studies, it appears that when these types of plans are emphasized, as under EEDA, students are likely to receive more academic and career guidance services.

Students when asked about the IGP process during focus groups often mentioned that they liked having a plan, that it made school more relevant and gave them a purpose for taking their courses. For example, one Class of 2011 senior said that “[I]t gives you kind of a plan. You’re not just taking random classes.” Another Class of 2011 senior further described their experience:

I think that it did help us know what we wanted to do. And in the beginning, we never knew what we want to do. We were confused, we were young. We didn’t even know what we wanted to be. And then it just helped guide us. Like we got to try this out, and if we thought we were interested in it, we’d try it, and if we didn’t like it, we could switch and try something else. And it did lead us. I do think that.

Some students also mentioned that they liked learning about the variety of jobs available in various occupations and having a chance to think about and plan for their future career. As one Class of 2011 senior noted:

When I first said that I want to do criminal justice, I was just thinking strictly attorney, because you'll see on TV all the powerful attorneys and everything. But once I took the classes, I had no idea how many different job positions were in the field of criminal justice. I narrowed it down to studying criminal law. And so that's what I'm going to major in when I go to college.

The EEDA emphasis on the role of guidance counselors and the IGP requirements have increased the amount of time counselors spend with students engaging in one-on-one career-based counseling, with an increased effort to meet with every student on an annual basis. Further, there has been a greater effort to promote CTE programs to students and engage parents in the course and career planning of their children.

In both 2009 and 2012, guidance counselors reported on surveys that their involvement in required career development activities with students and teachers and career counseling duties with students and parents had increased somewhat or had not changed since the beginning of EEDA implementation. Over the time period, counselors also reported in interviews that, although the amount of time they spent with students remained steady over the period, there had been a steady increase in parental engagement in the IGP process. Efforts over that period had been made to increase opportunities for students in career exploration and development, such as through career assessments and work-based learning experiences. Identification of career goals also seemed to be a more important part of the IGP process in 2012 than 2009. In addition, counselors also reported a steady growth in students' knowledge of career pathways and majors, partially due to transition activities being offered to students in middle school to prepare them to enter high school.

However, in both 2009 and 2012, counselors also reported continued involvement in inappropriate duties, such as administering standardized tests; registering and scheduling students for classes; developing the master class schedule; and maintaining/completing educational records/reports. Interestingly, although overall the IGP process was viewed by counselors as a positive process for students and guidance personnel, the IGP was also cited as a primary factor in keeping counselors involved in these types of "inappropriate duties" because of the merging of course scheduling and registration. Counselors did report that they were better able to handle their increased workloads in 2012 than in 2009. However, the demands of EEDA still produced work overloads for many counselors and left some counselors unable to do other counseling activities and raised concerns that they were having to leave many school and student needs unmet,

Legislation and Policies

Research on educational reform has repeatedly emphasized leadership as essential to successful reform efforts. Our study offers an opportunity to explore the impact of a state-directed, comprehensive career-pathways/POS reform model on the delivery and outcomes of career-oriented education. Because the legislation affects all high schools, the study is drawing upon naturally occurring variations in implementation, community resources, and extent of exposure to the changes required by the legislation to assess the factors that influence its impact.

Early evidence from sample schools indicates that the legislation's requirements regarding guidance have increased the number and types of career-focused activities at sample high schools and the amount of influence that counselors and career specialists have on the educational and career plans of students. These increases are in large part due to the IGP process, a key to career planning for students, increasing student contact with guidance personnel about career planning, and providing a link between student interests and career goals and their high school coursework. The IGP process, in combination with other career-focused activities, has also resulted in increased awareness of CTE, reduction in some of the stigma attached to taking CTE courses, increased likelihood of more appropriate placement of students in CTE courses, and improved efforts to disseminate CTE information to students, parents, and educators.

Although the structure and content of the state policy help to streamline guidance roles and responsibilities, some schools reported that it was difficult to implement EEDA fully without additional resources. Only some facets of the legislation have received state funding, which has made it difficult for most schools, particularly those in high-poverty communities, to fully implement the policy.

Partnerships

School administrators and CTE faculty at our study high schools mentioned local advisory teams as an integral part of program development and important for keeping schools informed on the needs of industry. Links to business and industry were also important to comply with policy mandates for increased job shadowing, mentorship, and internship training opportunities for students. However, having staff available to identify, establish, and maintain partnerships is critical to the success of these efforts, as is the availability of local business partners. Few sample schools had staff that they could dedicate to developing these partnerships, and the remote or economically depressed locations of some schools posed serious challenges to creating the necessary partnerships with industries.

Despite these obstacles, several initiatives in EEDA policy help promote partnerships between local schools and districts and local businesses for CTE and non-CTE programs. EEDA created 12 virtual Regional Education Centers (RECs) to help disseminate information about the policy to local industries and the community, to help schools to educate students and staff about career opportunities, job training, and apprenticeships, and to connect local education and businesses.

As reported in the EEDA annual reports, a coordinator was hired for each of the 12 RECs and the centers were developed to be "virtual centers" and provide access to the above types of resources for each region online. Various types of online resources were made available. For example, a Connect 2 Business site, which recruited businesses to be involved with local schools, had up to 900 businesses listed before it had to be discontinued in 2009-2010 due to budget cuts. Virtual job-shadowing experiences were created in partnership with several companies over the study period, including 37 job shadowing experiences through Microburst Learning and more than 140 virtual job shadowing experiences available through VirtualJobShadow by the 2010-2011 school year.

We found, however, during early site visits that schools' involvement with the RECs varied across sample schools, ranging from no contact to periodic contact. One school had more contact with the REC because the coordinator lived in their district. Some RECs were more active than others in adding content to their websites and reaching out to schools and districts with resources and services.

Professional Development

EEDA requires the SDE to provide training, professional development, and resources to K-12 school personnel in various aspects of the policy, such as the use of cluster-of-study curriculum frameworks and of IGPs. The policy mandates that all middle and high school educators receive training in contextual teaching, involving methodologies used by teachers that focus on concrete hands-on instruction and content presentation with an emphasis on real-world application and problem solving. EEDA also requires all state colleges of education to include in their training of teachers, school counselors, and administrators the following topics: career guidance, the use of the clusters of study curriculum framework and IGPs, learning styles, the elements of the South Carolina Career Guidance Model, contextual teaching, cooperative learning, and character education. The State Board of Education has developed performance-based standards for all teachers and principals in the areas of career exploration and guidance.

Teachers in our study schools reported receiving varied amounts of training related to EEDA activities from their school, their district, or the state. The state was credited with providing good virtual job shadowing and other general resources through websites and other resources. However, guidance personnel and school-based career specialists were reported to be the main providers of training for teachers. Teachers in sample schools were most likely to receive school or state-sponsored training in the early stages of policy implementation but little training as the implementation continued. Some teachers found this training too general and found it necessary to supplement initial training with their own research. Some teachers commented that the best training they received on content integration and career clusters was through professional development provided by High Schools That Work (HSTW) staff.

Guidance personnel in study schools reported receiving at least some training on career pathways and IGP development, but the amount and type of training varied, as did the topics covered. This training was offered through a variety of channels, including the local school district, the state education department, and state and regional professional development meetings and workshops. School guidance counselors at one school reported receiving training through a local business alliance. Regardless of the types of training described, school counselors interviewed generally felt satisfied with the training they had received.

College and Career Readiness Standards

One of the goals of EEDA is that all of South Carolina's students complete high school fully prepared for successful employment, further training, or postsecondary study; this goal is to be achieved by requiring high academic standards across the curriculum, integration of academic and CTE content, and opportunities for work-based experiences. Each student's IGP includes

postsecondary options and all students are encouraged to take the SAT or the ACT college readiness tests.

Even though EEDA emphasizes that students complete high school to be fully prepared for the future, the students surveyed from our sample schools who had been exposed to the policy (Class of 2011) had lower expectations that they would complete high school as compared to an earlier cohort (Class of 2009). Regarding the highest level of education they expected to complete, although the percentages were low, more seniors in the Class of 2011 than seniors in the Class of 2009 indicated that they would not finish high school (4.7% and 2.2%, respectively; $p = 0.008$). However, a majority of seniors in both the Class of 2009 and Class of 2011 indicated they would enroll in a 4-year college/university, enroll in a 2-year community college, or transfer to a 4-year college/university the year after graduating from high school (79.2% and 78.1%, respectively).

One obstacle to readiness for employment involves students' lack of engagement in WBL activities. Administrators at several sample schools noted that students are often restricted from engaging in WBL activities due to age requirements (under 18 years of age), safety issues, and legal restrictions in certain occupations.

Students surveyed in sample schools were asked about participation in WBL activities. The majority of students (70-75%) in both the Class of 2009 and Class of 2011 as seniors reported having participated in at least one WBL activity. And, fewer seniors in the Class of 2011 (those exposed to early policy) indicated they had participated in *none* of the listed work-based experience opportunities (21.0%) than seniors in the Class of 2009 (those with little to no policy exposure; 25.1%; $p = 0.032$). Job shadowing or work-site visits and community services were the most frequently reported WBL experiences, whereas co-ops and school-based enterprise were the least reported WBL experiences.

Credit Transfer Agreements

All eight of the schools participating in our study reported either dual enrollment or dual credit arrangements, or both, with local postsecondary institutions at the beginning of the study period. A number of the schools reported upcoming efforts to update and/or reactivate old agreements with local community college partners and/or develop new agreements. These dual credit agreements were primarily with local two-year institutions but schools also had agreements with four-year institutions. Sample schools were also anticipating being able to capitalize on the effort to create statewide articulation agreements between the community or technical colleges (which offer two-year associate degrees) and four-year colleges and universities across the state. Currently, 86 statewide courses with approved curriculum will automatically transfer from state two-year community/technical colleges to four-year institutions of higher learning across the state.

During the study period, the SC CHE contracted to have a statewide, web-based course articulation and transfer system developed and it was launched in April, 2010. By October 2011, the system was populated with approximately 551,000 course equivalencies and 770 transfer agreements (EEDACC, 2011).

Chapter 4: Guidance and Career-Focused Activities in Sample Schools

Due to the centrality of counseling in the implementation of EEDA and the potential of guidance personnel to influence the development and implementation of high quality POS, we examined the role of guidance in policy implementation in the sample schools in more depth to learn whether and how guidance personnel duties changed since the implementation of EEDA. In this section, we report on these trends based on data gleaned from: (1) initial site selection visits (2008-2009) and second POS site visits (Fall 2009); (2) guidance personnel surveys in 2009 and 2012; (3) additional in-depth interviews with guidance personnel in 2010 and 2012; and (4) semi-annual SDE online *GP Accountability Reports*.

Implementation of Career-Focused Activities by Guidance Personnel

Although EEDA was not planned to be fully implemented until the end of the 2010-2011 school year, data collected during the prior year (2009-2010) indicated that EEDA had already increased the amount of career planning activities and guidance that students were receiving in our sample high schools and changed the roles of many guidance counselors in these schools.

A primary objective of the EEDA is to increase students' access to career information and career counseling. EEDA mandated a variety of career exploration and assistance activities to be rolled in with the policy implementation. As reported by the SDE, in Year 4 (2008-2009), system enhancements allowed for South Carolina Occupational Information System (SCOIS) data to be viewed via the eIGP. By 2009-2010, all South Carolina public elementary, middle and high schools had free access to SCOIS. This system was reported by guidance personnel as being available to students at all of the sample schools.

From 2008-2009 *GP Accountability Report* data, approximately 200 ongoing career events and activities were reported by sample schools, ranging from 3 to 97 events or activities per school per year across the eight schools. Guidance personnel reported the numbers of students participating in these activities. To make comparisons possible across schools, we estimated the percentage of students served at each grade level by adding the unduplicated count of students given for each reporting period for that grade level and then dividing the total by the reported enrollment for that grade level for that year. For seven schools, it appears that nearly 100% of their ninth and tenth graders received assistance in identifying and accessing career information pertaining to various career clusters during the 2008-2009 school year. We were unable to calculate the percentage for the eighth school due to missing data. The percentage of ninth and tenth grade students who completed at least one career assessment during the school year was also nearly 100% at four of the schools, and between 93% and 100% for at least one of the grade levels at three other schools. Again, we were unable to calculate the percentage for the eighth school due to missing data. At all but one of the sample schools, 95% or more of the ninth and tenth graders appeared to have used computer-assisted career guidance systems (e.g., SCOIS, Kuder, or virtual job shadowing) to explore careers. At the remaining sample school, we were unable to calculate the percentage due to missing data.

In 2008-2009, across the state, 96% of both ninth and tenth graders, the only two grades required to develop IGP that school year, had completed electronic IGPs (South Carolina Department of

Education, 2009a). School-level data from the 2008-2009 *GP Accountability Reports* indicate that a majority of ninth and tenth graders in our sample high schools attended an IGP conference during that school year, and at seven of the eight high schools, attendance was over 94% for both grade levels. At the eighth school, slightly less than 75% of ninth graders and a little less than two-thirds of tenth graders attended IGP conferences during that school year.

Other early (2008-2009) data from the *GP Accountability Reports* indicate that guidance personnel presented a total of 36 career development and guidance workshops to around 1,000 teachers, school counselors, and work-based constituents over the course of the year, with an average of 125 participants per workshop. The number of workshops per school ranged from 0 to 9. Guidance personnel across the eight schools were also responsible for 254 one-time career events, classes, or programs, ranging from 6 events at one school to 89 events reported at another school.

Participation in Policy Appropriate and Inappropriate Duties

In surveys and interviews, school counselors reported engaging in more policy-mandated, career-focused guidance activities across all schools. Surveys were administered to school counselors in 2009 and 2012 to gather information on whether their participation in various policy-required and policy-inappropriate duties had changed since the beginning of EEDA implementation. For each survey administration, counselors were asked to indicate the extent to which their level of effort had changed since EEDA implementation on a range of duties primarily in the areas of personal/social, career, and academic issues. The scale ranged from “5” (duties have increased greatly) to “1” (duties have decreased greatly). If a duty did not apply to their position, counselors had the option of selecting “0,” “not applicable, this has never been a part of my duties.”

A mean indicator of perceived change was determined for appropriate and inappropriate duties for each school by year. The higher the mean is above 3, the more their involvement in that duty was perceived by counselors to have *increased* since the beginning of EEDA implementation. The lower the mean below 3, the more their involvement in that duties was perceived by counselors to have *decreased* since the beginning of EEDA implementation. A mean of 3 would indicate that they did not perceive that their involvement in that duty had changed since the passage of EEDA.

The mean reported changes for selected assigned duties are summarized in Table 4.1. In Fall 2009, the top three duties for which counselors reported the highest perceived increase in involvement since the passage of EEDA were assisting students with the development of their career plans and IGPs, meeting with parents about career issues, and counseling students on career issues, in that order. By 2012, the top three were still the same, but the order had changed slightly. The perceived increase in time spent assisting students with IGPs and counseling students on career issues was about the same as reported in 2009. The amount of time meeting with parents was perceived to not have increased as much as in 2012 as it was perceived to have increased in 2009. Classroom guidance on career issues may have picked up some between 2009 and 2012 considering the levels of perceived increase in duties in that area (3.4 vs. 3.7). These changes could indicate some shifts in the way the new demands of EEDA were being handled

several years after EEDA’s first implementation; however, it should be noted that the level of involvement in most guidance activities varied widely across schools.

Table 4.1

Mean Perceived Change in Assigned Duties Since the Passage of EEDA as Reported by School Counselors, 2009-2010 and 2011-2012

School Counseling Duties	Mean 2009-2010	Mean ^a 2011-2012
<i>Policy-Mandated Career-Focused Activities</i>		
Assisting students with the development of their career plans and IGPs	4.6	4.1
Meeting with parents about career issues	4.3	3.9
Counseling students on career issues	4.2	4.1
Coordinating special events/programs for the school regarding career issues	3.9	3.7
Identifying and coordinating work-based/extended learning opportunities for students	3.8	3.8
Conducting professional development workshops in career development and guidance for teachers and counselors	3.6	3.4
Classroom guidance on career issues	3.4	3.7
<i>Specifically Cited as Inappropriate Activities for Counselors^b</i>		
Coordinating special services referrals	3.2	3.3
Administering standardized tests	3.4	3.3
Maintaining/Completing educational records/reports (cumulative files, test scores, attendance and dropout reports)	3.8	3.6
Developing the master class schedule	3.9	3.3
Registering and scheduling students for classes	4.0	3.5
<i>Other Related Inappropriate Activities</i>		
Coordinating the standardized testing program	3.5	3.1
Performing hall, bus/car pick-up, cafeteria duty	3.4	2.8

Note. Responses are from the *School Counseling Duties* survey administered to school counselors during school site visits in the Fall of 2009, $N = 25$, and the online version administered in the Spring of 2012, $N = 29$. ^aThe mean value is based on a scale of 1 to 5, with 1 = “duty has decreased greatly” and 5 = “duty has increased greatly.” Mean values do not include the responses of counselors who reported that this duty did not apply to them because it had never been a part of their duties (NA). N sizes for mean calculations range from 9 to 25, with n sizes of 24 or 25 for 7 of the 14 questions. For the remaining seven questions, n sizes vary from 9 to 20, which reflect the percentage of NA responses to these questions and the removal of these NA responses from the calculation of the means. ^b*South Carolina Education and Economic Development Act Guidelines*, South Carolina Department of Education, 2006, p. 15-16.

School counselor survey respondents also reported continued participation in activities considered to be “inappropriate” under EEDA guidelines. These included registering and scheduling students for classes, developing the master schedule, and maintaining educational records/reports. In 2009, for nearly all of these “inappropriate” duties (for six of the seven listed),

counselors were more or at least equally likely to report an increase in involvement in these activities since the passage of EEDA as they were for involvement in “appropriate” or required duties. However, for 2012, for all but one of the perceived changes in duties in these inappropriate areas, counselors were less likely to report increases in inappropriate duties than for required duties. For one inappropriate duty (performing hall, bus/car pick-up, or cafeteria duty), counselors reported in 2012 that their duties had decreased in that area since the passage of EEDA. This was the intention of EEDA; that required duties would increase, while inappropriate duties would be assigned to other staff so that counselors could incorporate the new demands for increased college and career guidance.

At all but two schools, school counselors were less likely to perceive an increased involvement in the nine inappropriate duties since the passage of EEDA in 2012 than in 2009, as highlighted in Figure 4.1. In 2012, counselors at six out of the eight schools were less likely to report a perceived increase since the passage of EEDA than in 2009 in the following inappropriate duties: Chairing individualized education program (IEP) meetings; chairing Section 504 of the Rehabilitation Act of 1974 meetings; coordinating special services referrals; administering standardized tests; registering and scheduling students for classes; developing the master class schedule; maintaining/ completing educational records/reports; handling discipline of students; and substitute teaching and/or covering classes for teachers at your school. Even though they were less likely to report increased involvement in these inappropriate duties since the passage of EEDA in 2012, the scores indicate that their involvement in these duties had not changed much since EEDA.

These findings from the survey indicate continued involvement of counselors in “inappropriate activities,” as defined by EEDA guidelines, throughout the study period. Although overall during interviews, the IGP process was seen as a positive process for students and guidance personnel, the IGP was also cited as a primary factor in keeping counselors involved in “inappropriate duties” because of the merging of course scheduling and registration, both deemed “inappropriate” under EEDA (South Carolina Department of Education, 2006). With these duties merged, responsibility for student registration and developing the master course schedule was still in the hands of counselors at most sample schools.

According to the 2009 surveys and interviews, many counselors reported that they were still involved in these inappropriate activities because there were insufficient resources to hire additional staff to cover mandated duties. When asked during interviews how they managed to juggle all of their counseling duties when both testing and IGP development demands were high, counselors reported that they found ways to manage their duties using teamwork, working longer hours, or working more days of the school year.

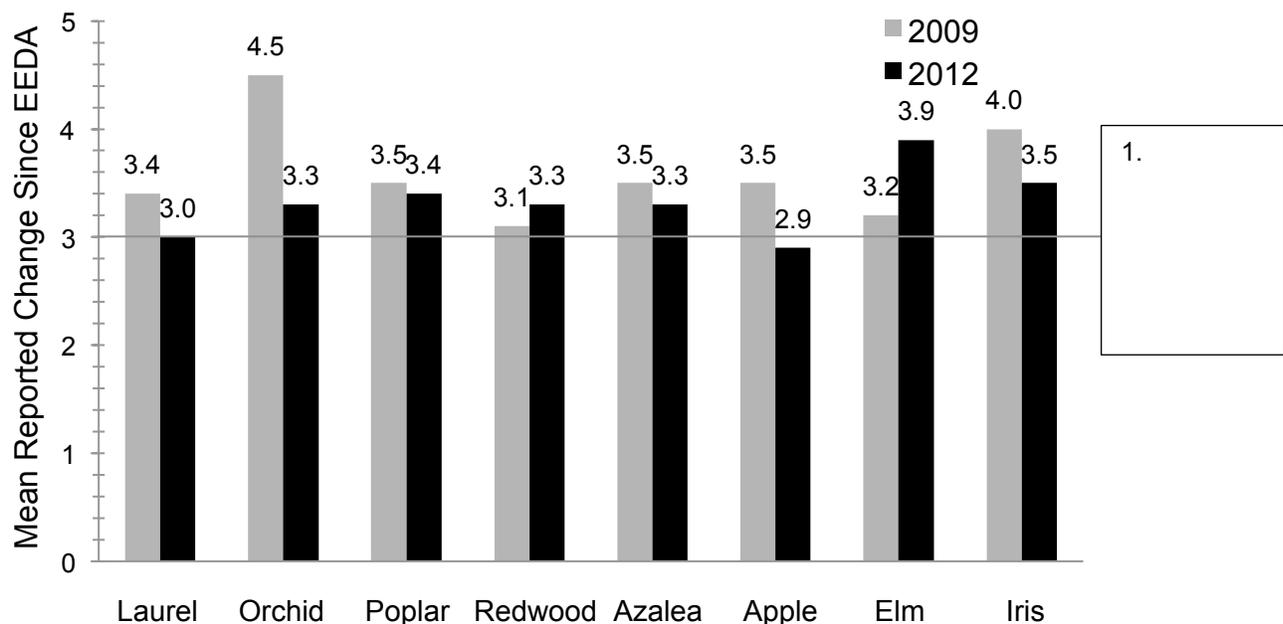


FIGURE 4.1. Comparison of mean reported perceived changes in nine inappropriate guidance counselor duties since the passage of EEDA: Fall 2009 and Spring 2012. *Note.* The response scale for each item was as follows: Duties have increased greatly (5), duties have increased somewhat (4), duties have not changed in this area (3), duties have decreased somewhat (2), duties have decreased greatly (1), and not applicable, this has never been a part of my duties (0). All not applicable responses were removed from calculations of means.

Reports of Involvement in Guidance “Required Duties,” As Defined by EEDA Guidelines

As discussed earlier in the report, guidance counselors serve a critical role in implementing EEDA guidelines. In particular, guidance personnel are expected to participate in many required career-focused activities for students. These required duties for guidance counselors, as defined by EEDA, include classroom guidance on career issues; curriculum development on career issues; counseling students on career issues; assisting students with the development of their career plans and IGPs; consulting with teachers and administrators about career issues; assisting with exceptional students on career issues; meeting with parents about career issues; coordinating special events/programs for the school regarding career issues; conducting professional development workshops in career development and guidance for teachers and guidance counselors; and identifying and coordinating work based/extended learning opportunities for students.

In 2009, guidance counselors reported that their involvement with these required duties had increased somewhat or had not changed since the passage of EEDA. Counselors at five of the eight schools in 2012, on the other hand, were more likely to report less increased involvement with these required duties since the passage of EEDA (see Figure 4.2).

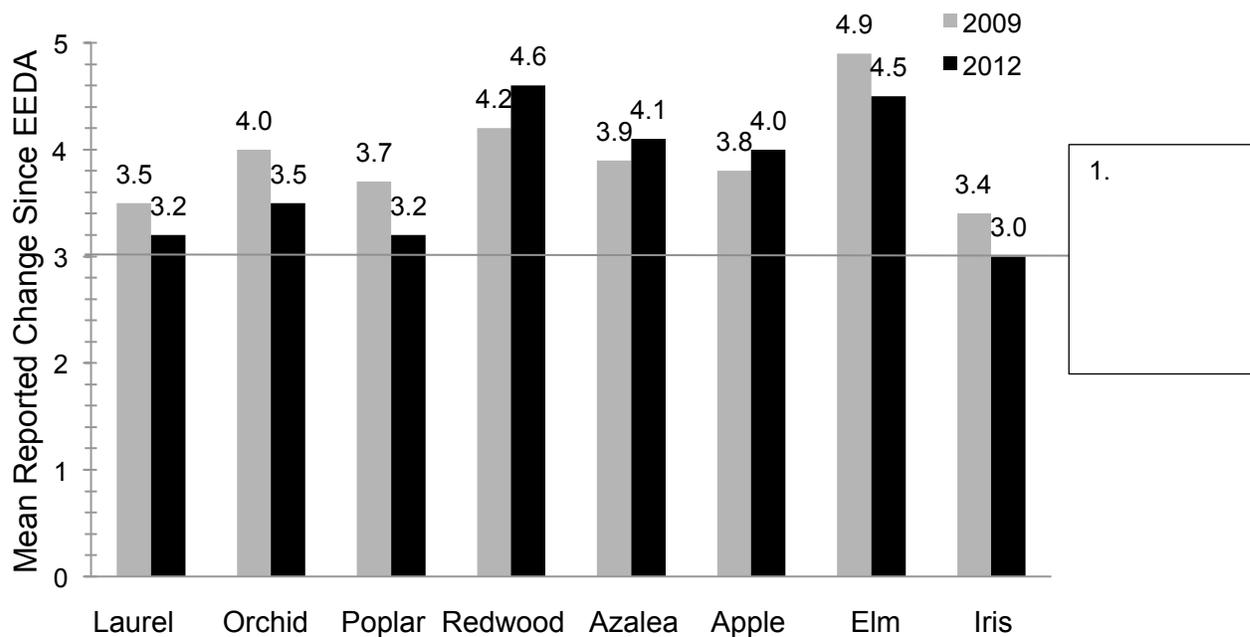


FIGURE 4.2. Comparison of mean reported perceived changes in 10 required guidance counselor duties since the passage of EEDA: Fall 2009 and Spring 2012. *Note.* The response scale for each item was as follows: Duties have increased greatly (5), duties have increased somewhat (4), duties have not changed in this area (3), duties have decreased somewhat (2), duties have decreased greatly (1), and not applicable, this has never been a part of my duties (0). In doing the analysis for this figure, all not applicable responses were removed from calculations of means and reported separately. If all of the guidance counselors at a particular school selected not applicable (0), then a mean was not calculated.

Differences in duties by LOI. To further explore guidance counselors’ reporting of involvement in required duties, we examined the mean scores in 2009 and 2012 for increased involvement in required duties compared to a school’s level of policy implementation (LOI). As explained in Technical Appendix B, LOI is a constructed variable based on several measures of the six facets of EEDA discussed above. It can vary between 0 and 100. A higher LOI has little relationship with ratings of involvement in required guidance counselor duties (see Table 4.2). The counselors from the eight schools were fairly consistent in their responses across surveys but these responses had little relationship to their schools’ overall LOI measure.

The schools’ LOIs and a measure of community resources (POV) were also compared to the school counselors’ mean reports of perceived changes in involvement with inappropriate duties since the passage of EEDA, in 2009 and 2012 (see Table 4.3). We did not find consistent relationships for either the LOI or POV scores and ratings of increased or decreased involvement with inappropriate duties.

Table 4.2

Comparison of LOI to the 2009 and 2012 Mean Reports of Perceived Change in School Counselors' Involvement in Required Duties Since the Passage of EEDA, Ordered by LOI

School	LOI	2009 Mean Perceived Change in Required Duties	2012 Mean Perceived Change in Required Duties
Redwood	85.2	4.2	4.8
Orchid	84.6	4.0	3.5
Apple	76.3	3.8	4.0
Laurel	75.2	3.5	3.2
Iris	74.4	3.4	3.0
Azalea	72.2	3.9	4.1
Poplar	66.9	3.7	3.2
Elm	64.2	4.9	4.5
Average Across Schools		3.9	3.8

Note. The required duties included classroom guidance on career issues; curriculum development on career issues; counseling students on career issues; assisting students with the development of their career plans and IGPs; consulting with teachers and administrators about career issues; assisting with exceptional students on career issues; meeting with parents about career issues; coordinating special events/programs for the school regarding career issues; conducting professional development workshops in career development and guidance for teachers and guidance counselors; identifying and coordinating work based/extended learning opportunities for students.

Table 4.3

Comparison of LOI and POV to the 2009 and 2012 Mean Reports of School Counselors' Involvement in Inappropriate Duties

School	LOI	POV (Higher Indicates Greater Poverty)	2009 Mean Reports of Inappropriate Duties	2012 Mean Reports of Inappropriate Duties
Poplar	66.9	2	3.5	3.4
Laurel	75.2	2	3.4	3.0
Azalea	72.2	5	3.5	3.3
Orchid	84.6	7	4.5	3.3
Redwood	85.2	8	3.1	3.3
Elm	64.2	10	3.2	3.9
Apple	76.3	11	3.5	2.9
Iris	74.4	12	4.0	3.5
Average Across Schools			3.6	3.3

Note. The inappropriate duties included chairing individualized education program (IEP) meetings; chairing Section 504 of the Rehabilitation Act of 1974 meetings; coordinating special services referrals; administering standardized tests; registering and scheduling students for classes; developing the master class schedule; maintaining/completing educational records/reports; handling discipline of students; and substitute teaching and/or covering classes for teachers at your school.

Results from follow-up phone interviews echoed the data from the surveys on duties. Twelve guidance counselors participated in in-depth phone interviews during the Spring of 2010 from

seven of the eight schools. During these interviews, counselors at six of the seven schools reported that their duties related to career services had increased as a result of EEDA. Counselors at the seventh school reported that they had already been highly focused on career services for students prior to EEDA, but that the policy resulted in an increased focus on Individual Graduation Plans (IGPs). Interview reports indicate that much of the counselors' time was being spent on IGP-related tasks, including an increase in one-on-one meetings with students and parents about career exploration and planning and an increase in career counseling to larger groups in classroom guidance activities and career day assemblies.

Phone interviews were again conducted in Spring 2012 with school counselors at six of the eight sample schools. One to three counselors at each school agreed to be interviewed, for a total of 11 counselors interviewed across the six schools and one career development facilitator (CDF). All of the counselors interviewed were certified school counselors and had worked at their schools for 2 to 17 years. Six of the interviewees served as the guidance directors at their schools and all but one of them carried student caseloads. The reported caseloads of the interviewees ranged from 250 students to 500 students (see Table 4.4).

Table 4.4
Numbers of Counselors Interviewed by Phone and Approximate Caseloads Reported, Spring 2012

School	Number of Counselors Interviewed	Number of CDFs Interviewed	Approximate Case Load
Apple	1		200
Azalea	1		250
Elm	1		325-350
Iris		1	
Laurel	1		453
Orchid			
Poplar	1		500
Redwood	3		250

Note. Case loads consist of one certified school counselor to student caseload ratio; CDFs are not included in the ratio. See the “EEDA’s Effect on Counselor Duties” section below for a further discussion of caseload.

Although EEDA recommends a student to counselor caseload ratios to 300 to 1, career specialists are counted as counselors in this ratio. The roles of career specialists and school counselors are distinctly different, with one major component being that school counselors are required to meet annually with each student on their caseload to develop and sign the students’ IGPs. Because career specialists are identified as counselors, it results in a greater caseload for school counselors. For example, one school included in this study has five school counselors and two career specialists, and it is reported to EEDA that the student to counselor ratio is approximately 300 to 1. However, in reality, the student to “certified school counselor” ratio is closer to 500 to 1, meaning that each school counselor is required to engage in 500 individual planning meetings with students and their parents during the school year.

The sites with the larger student populations reported more difficulty with the caseload issue than sites with smaller or more manageable student populations. In order to manage large caseloads and meet IGP requirements the counselors reported that they have adjusted how they divide duties among the counseling and guidance personnel and that they tend to spend more time on career guidance issues than other issues like student's personal/social development.

The issue of caseloads and how counselors are counted was a salient theme in the 2009 interviews. At that time, it appeared to be a much larger issue for some of the sites. During the 2012 interviews this issue was still a problem area, but the counselors seemed to have found ways to adjust to the problem. For example, one counselor reported that the counseling staff revised how they divided their workload, with one counselor handling all the special needs students (e.g., special education students, those with 504 plans, and English Language Learners) and the other counselors working centrally on students IGPs. However, even revising how they handle the workloads tended to leave several counselors feeling strapped for time to do other counseling activities and raised concerns that some student and school needs go unmet.

In both years, most of the interviewees reported that their school engaged in some of the EEDA program requirements prior to the initiation of EEDA in 2008. The most commonly reported aspects of EEDA that the interviewees engage in included the development of an Individualized Graduation Plan (IGP), or similar four-year-plan, and the administration of career assessments with students.

IGPs are the organizing factor for career-focused activities and planning because they outline a student's career goals and postsecondary plans as well as selection of a career cluster, major, and coursework to lead toward those goals. For IGPs to be influential, counselors must have adequate time to guide students in career exploration and planning. Counselors in the early site visits reported that most of their efforts were centered on the development and renewal of IGPs and the career services that go along with them. They reported spending much of their time on some aspect of the process; counselors with caseloads of 300 or more students reported that they spent on average three to four months of the school year engaged in the IGP process. One counselor, with a caseload of around 400 students, reported that "between January through right before Spring break, every day is filled with 20 minute increment appointments to meet with students. So, our time is constrained" (Counselor 9, Fall 2009).

The time-intensive nature of the IGP process was seen by counselors as a key factor in work overloads. At some sample schools, course scheduling and registration have been merged with the IGP process for time-management purposes. Because all of the course information is entered into the electronic IGP database (eIGP), several schools told us that they use this database to generate their semester course schedules and register students for classes. In this way, course offerings at a school may be based on student interest and requirements for selected majors as well as the traditional need to offer the basic curriculum to meet graduation requirements.

Contributions of career specialists to guidance workload restricted by EEDA guidelines.

Interview and survey responses from career specialists at sample schools indicate that their duties vary widely across schools. Career specialists provide a range of activities, such as career testing, incorporating career test results into IGPs, disseminating career information to students

and teachers, and helping students identify career interests. As outlined in Table 4.5, the majority of duties assigned to career specialists responding to our surveys related to career guidance and reflected those duties stipulated in EEDA. These duties included meeting with parents about career issues, assisting students with development of IGPs, and consulting with teachers about career issues. Overall, the EEDA specified duties reported by career specialists, however, did not alter greatly for career specialists from Fall of 2009 to Spring of 2012. Although career specialists are not allowed to do the final review or approval of student IGPs, all but one of the respondents reported involvement in the development of student career plans and IGPs in 2009 and all of the career specialists in 2012 reported involvement in development of student IGPs and career plans. A greater percentage of career specialists also reported involvement with identifying and coordinating work-based/extended learning opportunities for students in the Spring of 2012.

No career specialists reported involvement in registering and scheduling students for classes or developing the master class schedule in 2009 or 2012. Career specialists were less likely to report involvement in some non-EEDA specified duties since the passage of EEDA in 2012 than in 2009, including administering standardized tests and performing hall/cafeteria duty. However, these career specialists were more likely to report increased involvement with other inappropriate duties in 2012, including assisting students with college planning and applications; participating on committees within the school; and substitute teaching/covering for other teachers in the school.

The primary EEDA administrator at the SDE reported that in her view, EEDA policy implementation would not be possible without the contributions of career specialists (S. Moore, personal communication, August 18, 2010). She described career specialists as the connection to students as well as parents and as a primary provider of career information and career assessments for IGP development.

Regardless of the contributions career specialists may make to career activities at sample schools, however, there were mixed reports among school counselors as to whether career specialists had actually helped to reduce their workload. One of the primary reasons that career specialists cannot reduce guidance counselor student caseloads related to IGPs is that the EEDA mandates that only certified school guidance counselors can legally sign off on IGPs. So, although the state allows career specialists to be factored into a school's student-to-guidance ratio, the presence of career specialists does not reduce school counselors' student caseloads for IGPs. This was a major criticism of EEDA voiced by guidance personnel across sample schools.

Table 4.5
Assigned Duties Reported by Career Specialists, Fall 2009 and Spring 2012

	2009	2012
	Yes	Yes
Career Counseling and Guidance Duties	%	%
EEDA Specified Career Counseling and Guidance Duties		
Providing classroom guidance on career issues	100	80
Counseling students on career issues	100	100
Consulting with teachers and administrators about career issues	100	80

Assisting with exceptional students on career issues	100	100
Meeting with parents about career issues	100	100
Coordinating special events/programs for the school regarding career issues	100	100
Developing curriculum on career issues	83	80
Assisting students with the development of their career plans and IGPs	83	100
Conducting professional development workshops in career development and guidance for teachers and school counselors	83	60
Identifying and coordinating work-based/extended learning opportunities for students	33	60
Non-EEDA Specified Duties		
Assisting students with college planning and applications	50	80
Participating on committees within the school	50	100
Administering standardized tests	40	20
Performing hall, bus/car pick-up, cafeteria duty	40	0
Coordinating the standardized testing program	33	40
Consulting with teachers and administrators about personal/social issues	17	0
Substitute teaching and/or covering classes for teachers at your school	17	40
Registering and scheduling students for classes	0	0
Developing the master schedule	0	0

Note. Data are from the *School Counseling/Guidance Duties* survey of career specialists, conducted in Fall 2009 and Spring 2012. For the 2009 survey, total $N = 6$; 6 of the 7 career specialists, from 4 of the 5 sample schools reporting that they had career specialists on staff, responded to the survey. In the 2009 survey, N sizes for calculation of percentages for each item range from 5 to 6, with only two items having an N of 5. For the 2012 survey, total $N = 5$; 3 schools reporting that they had career specialists on staff that did not serve a dual role as a school counselor.

Reported counselor duties not in compliance with ASCA National Model guidelines.

Counselors perceived that the increase in IGP development and time spent on career services had caused an imbalance in their ability to provide comprehensive guidance services in the areas of career, academic, and personal/social, putting them out of compliance with ASCA National Model guidelines. Personal/social services were mainly limited to crisis intervention, with less time focused on programming and individual personal/social counseling. Some schools were able to continue with existing personal/social programs whereas others were forced to cut back on such programs. As one counselor commented: “We’re so focused on IGPs, meeting with parents, getting career assessments done, and getting their futures planned that we don’t have time to do the groups that we used to do. We don’t have time to do one-on-one personal and social... We can’t focus on that at all” (Counselor 5, Fall 2009). Attending to crises also put a strain on counselors’ time, requiring them to delay other tasks like IGP meetings and career assessments, often resulting in longer work hours.

Guidance personnel in study schools reported receiving at least some training on career pathways and IGP development, but the amount and type of training varied, as did the topics covered. This training was offered through a variety of channels, including the local school district, the state education department, and state and regional professional development meetings and workshops.

School guidance counselors at one school reported receiving training through a local business alliance. Regardless of the types of training described, school counselors interviewed generally felt satisfied with the training they had received.

Despite challenges, counselors reported feeling prepared to carry out EEDA duties. EEDA stipulates that all school guidance counselors and career specialists must receive career development and training. All guidance personnel reported receiving some training on career pathways and IGP development but the amount and type of training and the topics covered varied. Training ranged from courses and workshops to personal research and “do-it-yourself” experiences. Training sessions covered topics such as IGP development and advising students on career pathways. Regardless of the types of training described, school counselors interviewed generally felt satisfied with the training they had received and the resources and support available to them through their districts and the state, and felt prepared to provide reliable career guidance.

The IGP process has increased both one-on-one counselor-initiated interactions with students and student-initiated interactions with counselors, with interactions mainly centered around career and course-related issues. Eight of the 12 counselors interviewed reported in the Fall of 2009 that the requirements involved in implementing IGPs with students have increased one-on-one counseling sessions centered on career issues and postsecondary options and plans. As one counselor noted: “I think the Act has put us more in the role of working on career exploration and meeting with and counseling students, and the registration process is a cooperative effort” (Counselor 3, Fall 2009). Two of the four counselors not reporting an increase in one-on-one sessions with students in 2009 felt that they had already provided these types of comprehensive career counseling sessions prior to policy implementation.

In counselor-initiated one-on-one sessions with students, a variety of career- and postsecondary-related topics were discussed, including giving information on the different career pathways, helping with identification of career goals, and providing guidance on the selection of a major and appropriate coursework to help students achieve their identified goals. The goals of these sessions were similar across schools: to help students choose a career pathway that can meet their goals and to help students understand and consider their postsecondary options. As expressed by one counselor in 2009: “We share with them what their options are if they want to go directly into the workforce, if they want to go and get a technical degree or two-year degree or four-year degree. And, we make sure they understand what the requirements are on admissions in higher ed [education] so they could be accepted into those programs” (Counselor 12, Fall 2009).

It was not clear, however, how well trained school guidance personnel were to prepare the full range of students for career opportunities, particularly those not planning on going on to college. The lack of this training by counselors was evident in our early site visits. We found that many of the counselors did not seem to have knowledge of all CTE programs and types of career opportunities available to students or to be prepared to assist the full range of students with career planning. Many teachers and counselors were taking on the responsibilities of training themselves to some degree as they could see the need to possess skills and information in these areas.

Five of the 12 counselors interviewed in Fall 2009 reported an increase in student-initiated interactions. These tended to be focused on personal, social, and career-based issues. In career-related sessions, students often wanted further information on various career pathways or on course requirements for majors, advice on choosing electives, or assistance with getting into courses or changing majors. When asked to describe what students sought from career guidance, one counselor commented:

I think they need us more. There are so many choices out there. I think it can be overwhelming and confusing to them. Just to jump off into the world--‘What am I doing? Where am I going? I just don’t know! Help me!’ I think that what we do is vital and very important and I feel like we are doing more with EEDA and it’s very needed and beneficial (Counselor 5, Fall 2009).

Increased Engagement with Students and Parents

Counselors who reported in 2012 that they had engaged in academic/career planning with students prior to EEDA said that they met with most students on a yearly basis to engage in course planning and discuss postsecondary options. It was reported, however, that EEDA had helped to standardize and streamline this process and had ensured that all students and their parents are aware and engaged, at some level, in the planning process. Of the sites that reported engaging in four-year planning prior to EEDA, most did not report meeting with every student and, other than a couple of the sites, they did not make special efforts to include parents in the planning process. One counselor reported that initiation of EEDA contributed to an increased level of information and parent involvement at her school:

I think maybe the difference is that now [post EEDA initiation] parents are so inundated and students are so inundated with information about EEDA and SC Pathways...so I think we’ve had more parents to come in for IGP data, but I think it’s just simply because the information is just everywhere...we’ve had a much larger volume of parents that want to be involved in what their students are doing (Counselor 1, Spring 2012).

To clarify, this is not to imply that parental participation is 100%. Several sites continue to report that it is difficult to get parents to come to meetings; however, since the initiation of EEDA, more efforts have been made to engage and inform parents in their child’s career and educational planning than prior to EEDA.

A comparison of the 2012 findings to the telephone interviews compared to the 2009 findings revealed that there has been a steady increase in parental engagement over time in the IGP process. One counselor stated, “...they’ve [parents have] kind of gotten in the routine of knowing this is how we work with the students, and it’s [parental participation] just been increasing each year.” Engagement with students has remained relatively steady over the past few years due to the requirement that each student be included in the renewal of their IGP on an annual basis.

Increased Focus on Career Development

Another aspect that EEDA reportedly added to the guidance programs is an increased focus on career development, as was reported in the 2012 phone interviews. This includes a stronger level of engagement with students not only in career planning but by providing students with a broader degree of information regarding careers by providing classroom guidance lessons on careers and career planning and development, by providing students with materials about career and educational opportunities, by bringing in local business and industry representatives to engage with students (e.g., career fairs, speakers), and by providing opportunities for students to engage in work-based learning. It should be noted, however, that work-based learning was limited at several of the schools due to the lack of viable opportunities for students.

Efforts towards increasing students' career development appears to have steadily increased over the past three years as the sample schools provide more opportunities for career development and exploration such as increased engagement in career assessments, more opportunities for engagement with community-based industry through speakers, career fairs, work-based learning opportunities, etc. For example, one site now offers two career fairs, a general career fair and a military career fair in an effort to provide students with more information and career options.

Student career knowledge. The counselors reported during phone interviews in 2012 that students' knowledge of career pathways and majors has increased since the initiation of EEDA. Students appear to have a greater knowledge of what's available to them as they enter into the ninth grade and this knowledge increases during their ninth grade year. One counselor stated, "I think they know where to go and get information on careers, but I think they start getting more information once they hit ninth and we start telling them how important it is for them to make plans of what they're going to do and get information on their postsecondary plans. And I think they probably do more investigating in high school than they do in the middle school." Further, there is evidence that students are receiving career information in several areas, in addition to the counseling sessions. All respondents reported that career information is shared in academic classes (e.g., English) and CTE classes.

As implied above, there has been a steady growth in students' knowledge of career pathways and majors. Students are receiving such information prior to entering high school. For instance, students are oriented to the career pathways and available majors during their eighth grade year with middle school and high school counselors engaging in transition activities with eighth grade students. One counselor stated, "there's a lot of transition activities of introducing them to high school and what programs we have." Transition activities have increased at some of the sites since 2009 with counselors engaging in in-depth activities in an effort to prepare students to have an understanding of the options available to them and to have an increased knowledge of their own career goals.

Goal Development. One aspect of IGP development and career information that counselors stressed in 2012 interviews as useful to students was its help with goal development and long-term planning. Several counselors indicated that the students may not have a clear idea as to what they want to do for their long-term career, but that the IGP process helps students to consider postsecondary options and "to have a goal when they graduate from high school...I may

not know for sure what it is right this second [what I want to do], but I know what I want to do as far as the education that I want to get” (e.g., 2-year, 4-year degree). Another counselor stated, when speaking of her school’s career development efforts with students, “We want to know where you [students] want to go, what you [students] want to do, what your [students’] career goals are, and we try to put as many resources in their [students’] hands...” Further, it is evident to the counselors that the students may not persist with certain goals at this stage in their development, but that the process of setting goals is important to the career exploration and development process. One counselor stated, “We’re trying to help these kids form a goal whether it’s a goal that’s going to last throughout their entire lifetime we can’t say, the process of making a goal and following through on it, however, is a good thing to learn.”

Goal development was not a noteworthy theme during the 2009 interviews. However, the counselors did indicate that helping students to identify career goals was a major part of the career development process and something that they addressed during IGP meetings.

Trends in Student Career Planning and LOI

In this section we report on evidence of the influence of EEDA implementation at the sample high schools as related to several key student outcomes related to student career planning, based on data collected and analyzed from responses from each administration of the *Student Engagement/POS Experiences Survey* and data from Individual Graduation Plan (IGP) and other data from the Statewide Longitudinal Data System (SLDS) dataset.

IGPs, Majors, and Clusters

One goal of our *Student Engagement/POS Experiences Survey* was to quantify the number and type of career-focused activities students would report being involved in and how helpful they found them. Asking these questions of students would also allow comparisons of student reports to those of counselors about activities provided to students.

EEDA guidelines require that all students develop an Individual Graduation Plan (IGP) by the end of the eighth grade and take part in an annual meeting at school to review their IGP plans and have parents sign these plans. All guidance personnel reported that students had all developed IGPs and that these meetings were taking place. Looking at *Student Engagement/POS Experiences Survey* results for seniors from the Class of 2011, a majority (69%) surveyed reported developing an IGP and a majority (72%) of students surveyed also reported participating in a meeting with a parent and counselor about their IGP at least once by the end of their senior year. However, 16% of students surveyed reported not having developed an IGP and 28% of students reported never having taken part in such a meeting.

These percentages may reflect problems with the terms used in the survey to describe these activities rather than lack of participation in these activities. Despite the availability of statewide standardized materials, our pilot survey and early school site visits revealed that “official” EEDA language was not used consistently across schools or even within schools. For example, IGPs at one school were called career plans, whereas at another they were called plans for course registration. Even though in registration and other school materials, “majors” may be delineated,

they may be referred to by staff and students as programs, areas of study or concentration, or other terms. Terminology used by CTE teachers to refer to IGPs, plans, or majors often differed from that used by counselors or core academic faculty. These inconsistencies may have resulted in confusion among students in responding to some survey questions.

Although students may not have reported meeting annually with counselors, students in the Class of 2011 did identify school counselors as the most helpful in developing their career plans or IGPs. As outlined in Table 4.6, of those students who had developed career plans or IGPs, around half of the Class of 2011 as sophomores reported that their guidance counselor was the most helpful. Students responding from the Class of 2011 as seniors were even more likely to say that a guidance counselor was most helpful (almost 60% chose that response). This is in contrast to only 38% of Class of 2009 respondents choosing this response (of those who said they had developed plans). This trend held true also for responses of high-risk students responding to the survey. Similar patterns were found Parents were important in career planning for both cohorts (Class of 2009 and Class of 2011) and for Class of 2011 students as sophomores and as seniors. Parents were chosen as being most helpful by about 30-35% of the respondents in both cohorts.

For all levels of LOI, a majority of seniors in the Class of 2011 indicated that a guidance counselor was the most helpful in developing a career plan (64.3% of seniors in High EEDA LOI, 55.6% of seniors in Medium EEDA LOI, and 59.0% of seniors in Low EEDA LOI implementation) (Table 4.7). The distribution of responses for who was the most helpful in developing a career plan significantly varied for the senior Class of 2011 across implementation levels ($p = 0.041$). Guidance counselors were not selected as the person most helpful in plan development across all LOI levels for the Class of 2009. It is interesting also to note that the percentages of students who selected a guidance counselor as the most helpful increased over time with each survey administration, whereas parents, step-parents, and other adults in the household remained important influences as well

Table 4.6
Student Survey Question: When You Put Together Your Career Plan or 4-Year Individual Graduation Plan, Who Was the Most Helpful in Developing Your Plan?

Percentage of Respondents	Senior Class of 2009 Percent <i>N</i> = 486	Sophomore Class of 2011 Percent <i>N</i> = 899	Senior Class of 2011 Percent <i>N</i> = 610
Parents, step-parents or other adults with whom you live	35.4	33.4	29.5
A teacher	8.9	5.5	5.3
A guidance counselor	37.5	49.8	59.3
Friends	6.2	4.0	1.6
No one helped me to put together my career plan/4-year Individual Graduation Plan	12.1	7.3	4.3

Note. Does not include multiple responses, missing responses, or not applicable responses.

A majority of the senior respondents to the *Student Engagement/POS Experiences Survey* in the Class of 2009 and Class of 2011 indicated they had selected a career cluster (81.3% and 84.9%, respectively), whereas 50.9% of the seniors from the Class of 2009 and 58.9% of the seniors from the Class of 2011 reported having selected a high school major. The distribution of responses for selection of a career cluster between the two senior classes was not significantly different whereas the distribution of responses for selection of a high school major did significantly differ ($p < 0.001$). Tables 4.8 and 4.9 present these data. As a reminder, caution should be taken in interpreting these data as the EEDA policy was not required to be implemented for the Class of 2009; however, some of schools across the state had all of their classes preparing IGP's even in the early years of policy implementation. Also, for both the 2009 and 2011 cohorts, terminology could have been confusing, although the survey questions were clarified after the study team received feedback from the pilot of the survey (in late 2008) that “major” and “cluster” were sometimes not well understood. We modified the terms to be “high school major” and “career cluster” for the surveys used with our cohorts.

Table 4.7
Student Survey Question 8 by LOI: When You Put Together Your Career Plan or 4-year Individual Graduation Plan, Who Was the Most Helpful in Developing Your Plan?

LOI Level	Response	Senior Class of 2009 (N = 486) % (N)	Sophomore Class of 2011 (N = 899) % (N)	Senior Class of 2011 (N = 610) % (N)
High LOI (N = 572)	Parents, step-parents or other adults with whom you live	27.5 (46)	24.1 (47)	24.3 (51)
	A teacher	12.0 (20)	7.7 (15)	7.6 (16)
	A guidance counselor	42.5 (71)	58.0 (113)	64.3 (135)
	Friends	4.8 (8)	2.6 (5)	0 (0)
	No one helped me to put together my career plan/4-year IGP	13.2 (22)	7.7 (15)	3.8 (8)
	Total	100.0 (167)	100.0 (195)	100.0 (210)
Medium LOI (N = 907)	Parents, step-parents or other adults with whom you live	45.2 (20)	36.8 (160)	33.1 (88)
	A teacher	7.3 (15)	4.4 (19)	4.5 (12)
	A guidance counselor	31.1 (64)	47.8 (208)	55.6 (148)
	Friends	6.8 (14)	3.5 (15)	3.0 (8)
	No one helped me to put together my career plan/4-year IGP	9.7 (20)	7.6 (33)	3.8 (10)
Total	100.0 (206)	100.0 (435)	100.0 (266)	
Low LOI (N = 516)	Parents, step-parents or other adults with whom you live	29.2 (33)	34.6 (93)	30.6 (41)
	A teacher	7.1 (8)	5.6 (15)	3.0 (4)
	A guidance counselor	41.6 (47)	47.2 (127)	59.0 (79)
	Friends	7.1 (8)	6.0 (16)	1.5 (2)
	No one helped me to put together my career plan/4-year IGP	15.0 (17)	6.7 (18)	6.0 (8)

Total 100.0 (113) 100.0 (269) 100.0 (134)

Note. Does not include multiple responses, missing responses, or not applicable responses.

A similar proportion of sophomores and seniors in the Class of 2011 indicated they had selected a career cluster to plan for (85.2% and 84.9%, respectively). Fewer seniors (58.9%) than sophomores (63.0%) in the Class of 2011 indicated they had selected a high school major.

Table 4.8

Student Survey Question: Have You Selected a Career Cluster to Plan for? Classes of 2009 and 2011 as Seniors

	Senior Class of 2009 (<i>N</i> = 1020)	Senior Class of 2011 (<i>N</i> = 929)
Percentage of Respondents	% (<i>N</i>)	% (<i>N</i>)
Yes	81.3 (829)	84.9 (789)
No	10.6 (108)	7.6 (71)
Don't Know	8.1 (83)	7.4 (69)

Note. Does not include multiple responses, missing responses, or not applicable responses.

Table 4.9

Student Survey Question: Have You Selected a High School Major within that Cluster? Classes of 2009 and 2011 as Seniors

	Senior Class of 2009 (<i>N</i> = 994)	Senior Class of 2011 (<i>N</i> = 898)
Percentage of Respondents	% (<i>N</i>)	% (<i>N</i>)
Yes	50.9 (506)	58.9 (529)
No	28.1 (279)	20.2 (181)
Don't Know	21.0 (209)	20.9 (188)

Note. Does not include multiple responses, missing responses, or not applicable responses.

For each of the three levels of EEDA LOI (High, Medium, and Low), a majority of the seniors in the Class of 2011 indicated they had selected a career cluster to plan for (84.8%, 86.9%, and 81.8%, respectively). The distribution of responses for high school major selection for seniors in the Class of 2011 at High, Medium, and Low EEDA LOI schools significantly differed ($p < 0.001$) with approximately 50.2%, 68.5%, and 56.2% of seniors in the Class of 2011 High, Medium, and Low EEDA LOI schools indicating they had selected a high school major, respectively (Table 4.10).

Similarly, as shown in Table 4.11, Medium LOI implementation schools had a larger proportion of seniors in the Class of 2011 (75.5%) that had put together a career plan or IGP than High (64.3%) or Low (64.6%) EEDA LOI schools ($p = 0.010$).

Table 4.10

Student Survey Question 2 by LOI: Have You Selected a High School Major within that Cluster? Class of 2011

		Senior Class of 2011 (N = 898)
Percentage of Respondents		% (N)
High LOI (N = 982)	Yes	50.2 (165)
	No	24.0 (79)
	Don't Know	25.8 (85)
	Total	100.0 (329)
Medium LOI (N = 1372)	Yes	68.5 (246)
	No	16.7 (60)
	Don't Know	14.8 (53)
	Total	100.0 (359)
Low LOI (N = 947)	Yes	56.2 (118)
	No	20.0 (42)
	Don't Know	23.8 (50)
	Total	100.0 (210)

Note. Does not include multiple responses, missing responses, or not applicable responses.

Table 4.11

Student Survey Question 6 by LOI: Have You Put Together a "Career Plan" or 4-Year "Individual Graduation Plan (IGP)," that Outlines a Series of Activities and Courses that You Will Take throughout High School? Class of 2011

		Senior Class of 2011 (N = 905)
Percentage of Respondents		% (N)
High LOI (N = 980)	Yes	64.3 (209)
	No	18.5 (60)
	Don't Know	17.2 (56)
	Total	100.0 (325)
Medium LOI (N = 1363)	Yes	75.5 (278)
	No	11.4 (42)
	Don't Know	13.0 (48)
	Total	100.0 (368)
Low LOI (N = 936)	Yes	64.6 (137)
	No	18.4 (39)
	Don't Know	17.0 (36)
	Total	100.0 (212)

Note. Does not include multiple responses, missing responses, or not applicable responses.

The top IGP career cluster, as identified from the state longitudinal data system (SLDS) 2011 cohort, was Health Sciences with 12 to 27% of students across schools choosing this major for their 10th grade IGP. Arts, Audio-Video Technology & Communications and Business, Management & Administration were popular across schools at all implementation levels (similar

to Health Sciences). Science, Technology, Engineering and Math (STEM) was also a popular cluster across all three LOI levels.

Career Exploration Activities

As part of the requirements for EEDA, all students in South Carolina must participate in activities to help them identify jobs or careers that may interest them. Several questions in the student survey were geared toward discovering more details about student participation in job or career identification activities. As outlined in Table 4.12, a majority of seniors in the Class of 2011 and seniors in the Class of 2009 reported answering job- and career-related questions on a computer or filling out a questionnaire, researching different jobs and careers, researching different colleges, universities, or military branches, speaking with or visiting someone in a career that interests them, and being in a class where someone from a local business talked about working at their company or in their career. Two of these activities differed significantly between the two classes: answering questions relating to jobs and careers and having representatives of local businesses talk about working at their company or in their career. In both cases the class of 2011 was higher.

Table 4.12

Percentage of Class of 2009 Seniors and Class of 2011 Seniors Reporting Participation in Job or Career Identification Activities

Job or Career Identification Activities	Class of 2009 Seniors	Class of 2011 Seniors
Answered questions related to jobs and careers on a computer or filled out a questionnaire.*	79.5	83.8
Researched different jobs or careers.	85.7	86.8
Researched different colleges, universities, military branches or technical/community colleges.	87.0	88.5
Spoke with or visited someone in a career that interests me.	68.4	69.2
Been in a class where someone from a local business talked about working at their company or in their career.**	60.6	69.0
Toured a local business with a group from my school.	38.1	38.0

Note. Responses are from the *Student Engagement/POS Experiences Survey* administered to members of the Class of 2011 at the eight sample schools in the Spring of 2011 and members of the Class of 2009 at the eight sample schools in the Spring of 2009. * $p < .05$., ** $p < .01$.

As outlined in Table 4.13, a majority of students in the Class of 2011 as both sophomores and seniors engaged in all career identification activities listed in the student survey, except for touring a local business. The percentages reporting each of these activities increased from their sophomore to senior years.

Table 4.13

Percentage of Class of 2011 as Sophomores and as Seniors Reporting Participation in Job or Career Identification Activities

Job or /Career Identification Activities	Class of 2011 Sophomores	Class of 2011 Seniors
Answered questions related to jobs and careers on a computer or filled out a questionnaire.	78.8	83.8
Researched different jobs or careers.	83.8	86.8
Researched different colleges, universities, military branches or technical/community colleges.	77.9	88.5
Spoke with or visited someone in a career that interests me.	54.3	69.2
Been in a class where someone from a local business talked about working at their company or in their career.	55.8	69.0
Toured a local business with a group from my school.	22.6	38.0

Note. Responses are from the *Student Engagement/POS Experiences Survey* administered to members of the Class of 2011 at the eight sample schools in the Fall of 2010 (following the completion of their sophomore year) and in the Spring of 2011 (at the completion of their senior year). Chi-square analysis not conducted due to correlations among unmatched responses or sophomores and seniors of the Class of 2011.

When students' reports of job or career identification activities were analyzed by school level of EEDA LOI, the only significant difference involved being in a class where someone from a local business talked about working at their company or in their career (Table 4.14). The differences were in the expected direction, increasing as EEDA LOI increased.

Thinking and Planning for Careers

Students were asked about how much thinking and planning they had done for job-related activities. The students classified how much thinking and planning they had done into four categories: (1) I have not thought about or done this; (2) I have thought about doing this; (3) I have made plans to do this; and (4) I have already done this. There were no significant differences in the responses of seniors in the Class of 2011 and seniors in the Class of 2009 regarding their thinking and planning on gathering information about jobs of interest, taking classes to help decide what kind of job they want, participating in school or out-of-school activities that will help in the decision about the kind of job wanted, or in volunteering, interning, or working on a job to help find out what kind of job they want to have in the future.

Table 4.14

Percentage of Class of 2011 Seniors Reporting Participation in Job or Career Identification Activities

Job or Career Identification Activities	High EEDA LOI Yes (%)	Medium EEDA LOI Yes (%)	Low EEDA LOI Yes (%)
Answered questions related to jobs and careers on	80.8	85.9	84.7

a computer or filled out a questionnaire.			
Researched different jobs or careers.	85.3	86.5	90.0
Researched different colleges, universities, military branches or technical/community colleges.	91.0	85.8	89.1
Spoke with or visited someone in a career that interests me.	69.0	70.4	67.5
Been in a class where someone from a local business talked about working at their company or in their career.**	74.8	69.5	58.9
Toured a local business with a group from my school.	41.6	34.0	34.6

Note. Responses are from the *Student Engagement/POS Experiences Survey* administered to members of the Class of 2011 at the eight sample schools in the Spring of 2011. * $p < .05$. ** $p < .01$.

A majority of seniors and sophomores in the Class of 2011 indicated they had made plans or already gathered information about jobs of interest (68.5% and 61.2%, respectively), took classes to help decide the type of job wanted (64.6% and 71.6%, respectively), and had participated in school or out-of-school activities that would help to decide the type of job wanted (57.2% and 53.1%, respectively). More seniors in the Class of 2011 indicated they had made plans or already volunteered, interned, or worked on a job to help find out what kind of job they want to have in the future (56.0%) than sophomores in the Class of 2011 (45.3%).

To further investigate the relationship with this topic and LOI, we again looked at the responses from the Class of 2011 as seniors across LOI groups. A larger percentage of seniors in the Class of 2011 from Medium EEDA LOI schools reported having made plans to participate in or had already participated in volunteering, interning, or working on a job to help them find out the kind of job they want to have in the future (62.0%) than from High or Low EEDA LOI schools (51.8% and 52.2%, respectively; $p = 0.023$). There were no significant differences in the responses of seniors in the Class of 2011 by EEDA LOI of their schools for the other activities.

Work-Based Learning Experiences

Students also reported whether or not they participated in work-based learning (WBL) experiences. The most reported work-based learning experiences were job shadowing or work-site visits and community services and the least reported experiences were co-ops and school-based enterprise. Table 4.15 summarizes the work-based learning experiences of seniors in the Class of 2009 and seniors in the Class of 2011. A higher percentage of seniors in the Class of 2011 (53.4%) indicated they had participated in job shadowing or work-site visits than seniors in the Class of 2009 (39.4%; $p < 0.001$). Fewer seniors in the Class of 2011 indicated they had participated in a co-op work experience at a local business (9.5%) than seniors in the Class of 2009 (14.2%; $p = 0.002$). Additionally, fewer seniors in the Class of 2011 indicated they had participated in none of the listed work-based experience opportunities (21.0%) than seniors in the Class of 2009 (25.1%; $p = 0.032$). There were no significant differences in the proportions of seniors in the Class of 2011 and seniors in the Class of 2009 who participated in internships, community service, or school-based enterprise.

Table 4.15

Percentage of Class of 2009 Seniors and Class of 2011 Seniors Reporting Participation in Work-Based Learning Experiences

Work-Based Learning Experiences	Class of 2009 Seniors % (N)	Class of 2011 Seniors % (N)
Internship (work experience, but not necessarily part of a vocational, career, or technical class)	23.7 (236)	21.3 (191)
Co-op (work experience at a local business in your high school major or career cluster)**	14.2 (141)	9.5 (85)
Job shadowing or work-site visits (visits to work places to observe one worker or many workers)**	39.4 (392)	53.4 (479)
Mentoring (a match with an adult in your career area for advice and support)	17.2 (171)	20.4 (183)
Community service (volunteer work to support your local community)	40.2 (400)	38.5 (345)
School-based enterprise (working in a business run by students or teachers from your school)	12.8 (127)	11.6 (104)
None of these*	25.1 (250)	21.0 (188)

Note. Responses are from the *Student Engagement/POS Experiences Survey* administered to members of the Class of 2011 at the eight sample schools in the Spring of 2011. * $p < .05$. ** $p < .01$.

Table 4.16 summarizes the work-based learning experiences reported by sophomores and seniors in the Class of 2011. A higher percentage of seniors in the Class of 2011 (53.4%) indicated they had participated in job shadowing or work-site visits than sophomores in the Class of 2011 (36.2%). Similarly, more seniors in the Class of 2011 than sophomores in the Class of 2011 indicated they had participated in an internship (21.3% and 15.3%, respectively), mentoring (20.4 and 11.4%, respectively), and community service (38.5 and 28.7%, respectively).

Table 4.16

Percentage of Class of 2011 as Sophomores and as Seniors Reporting Participation in Work-Based Learning Experiences

Work-Based Learning Experiences	Class of 2011 Sophomores	Class of 2011 Seniors
Internship (work experience, but not necessarily part of a vocational, career, or technical class)	15.3	21.3
Co-op (work experience at a local business in your high school major or career cluster)	8.5	9.5
Job shadowing or work-site visits (visits to work places to observe one worker or many workers)	36.2	53.4
Mentoring (a match with an adult in your career area for advice and support)	11.4	20.4
Community service (volunteer work to support your local community)	28.7	38.5
School-based enterprise (working in a business run by students or teachers from your school)	12.6	11.6
None of these	36.0	21.0

Note. Responses are from the *Student Engagement/POS Experiences Survey* administered to members of the Class of 2011 at the eight sample schools in the Fall of 2010 (following the completion of their sophomore year) and in the Spring of 2011 (at the completion of their senior year). Chi-square analysis not conducted due to correlations among unmatched responses or sophomores and seniors of the Class of 2011.

The seniors' responses from the Class of 2011 were further analyzed to see if there was any relationship between LOI and WBL for that group. Table 4.17 summarizes the work-based learning experiences of seniors in the Class of 2011 cohort from the student survey data from High, Medium, and Low EEDA LOI schools. A higher percentage of seniors in the Class of 2011 from Medium EEDA LOI schools (63.6%) indicated they had participated in job shadowing or work-site visits than seniors from High and Low EEDA LOI schools (50.3% and 40.5%, respectively; $p < 0.001$). Fewer seniors in the Class of 2011 from Low EEDA LOI schools indicated they had participated in mentoring (14.2%) than seniors in the Class of 2011 from High and Medium EEDA LOI schools (22.3% and 22.2%, respectively; $p = 0.041$). There were no significant differences in the proportions of seniors in the Class of 2011 from High, Medium, and Low EEDA LOI schools who participated in internships, co-ops, community service, or a school-based enterprise.

Table 4.17
Percentage of Seniors in the Class of 2011 Reporting Participation in Work-Based Learning Experiences, by LOI

Work-Based Learning Experiences	High EEDA LOI Yes (%)	Medium EEDA LOI Yes (%)	Low EEDA LOI Yes (%)
Internship (work experience, but not necessarily part of a vocational, career, or technical class)	19.6	20.3	25.9
Co-op (work experience at a local business in your high school major or career cluster)	9.0	10.8	7.8
Job shadowing or work-site visits (visits to work places to observe one worker or many workers)**	50.3	63.6	40.5
Mentoring (a match with an adult in your career area for advice and support)*	22.3	22.2	14.2
Community service (volunteer work to support your local community)	39.5	38.6	36.6
School-based enterprise (working in a business run by students or teachers from your school)	13.3	10.3	11.2
None of these**	22.0	15.3	29.3

Note. Responses are from the *Student Engagement/POS Experiences Survey* administered to members of the Class of 2011 at the eight sample schools in the Spring of 2011. * $p < .05$. ** $p < .01$.

Meetings with Counselors

Data from the *Student Engagement/POS Experiences Survey* reinforced findings of increased guidance/student meetings. The number of times that seniors in the classes of 2009 and 2011 talked with their guidance counselor while putting together the career plan or IGP significantly differed ($p = 0.001$), with approximately 55% in the senior Class of 2011 and 45% in the senior Class of 2009 talking to their guidance counselor three or more times.

Table 4.18 presents data on responses by the senior Class of 2011 regarding number of meetings with guidance counselors, by LOI. The number of times that seniors in the Class of 2011 from High, Medium, and Low EEDA LOI schools talked with a guidance counselor when putting together a career plan or IGP significantly differed with 64.5% of seniors in the Class of 2011 from Low LOI schools indicating they had spoken with their guidance counselor three or more times while putting together this plan compared to 59.7% and 45.5% of seniors in the Class of 2011 from High and Medium EEDA LOI schools, respectively ($p < 0.001$). Although the percentages varied across LOI levels, higher LOI was not necessarily associated with the more reported meetings with guidance. As mentioned, the guidance portion of EEDA was a state-funded portion of the law; therefore, it is not surprising that across all levels of LOI, the percentages of students who never talked to guidance about career plans or who only talked once or twice with guidance dropped between sophomore and senior years whereas the percentage who talked to guidance three or more times increased.

Table 4.18 also includes comparisons of responses regarding number of meetings with guidance counselors between the Class of 2009 and Class of 2011 as seniors by LOI. Especially for the lower LOI schools, the percentage of students never talking to their guidance counselors about a career plan dropped considerably between the 2009 cohort and the 2011 cohort as seniors.

Table 4.18
Student Survey Question 7c by LOI: When You Put Together Your Career Plan or 4-Year Individual Graduation Plan, How Often Did You Talk with Your Guidance Counselor?

LOI Category	Response	Senior Class of 2009 (N = 524) % (N)	Sophomore Class of 2011 (N = 907) % (N)	Senior Class of 2011 (N = 631) % (N)
High LOI (N = 593)	Never	6.7 (12)	17.3 (34)	6.5 (14)
	1-2 Times	37.2 (67)	47.2 (93)	33.8 (73)
	3 or More Times	56.1 (101)	35.5 (70)	59.7 (129)
	Total	100.0 (180)	100.0 (197)	100.0 (216)
Medium LOI (N = 937)	Never	11.4 (25)	15.4 (68)	7.9 (22)
	1-2 Times	51.1 (112)	51.7 (228)	46.6 (129)
	3 or More Times	37.4 (82)	32.9 (145)	45.5 (126)
	Total	100.0 (219)	100.0 (441)	100.0 (277)
Low LOI (N = 532)	Never	13.6 (17)	13.8 (37)	2.2 (3)
	1-2 Times	44.0 (55)	47.2 (127)	33.3 (46)
	3 or More Times	42.4 (53)	39.0 (105)	64.5 (89)
	Total	100.0 (125)	100.0 (269)	100.0 (138)

Note. Does not include multiple responses, missing responses, or not applicable responses.

Student reports of topics discussed with counselors. Students were asked if they had discussed with guidance particular topics including courses to take, going to college, possible jobs or careers for adulthood, finding a job after high school, steps necessary to pursue a career, and applying for college or vocational/technical school with their guidance counselor between the start of the ninth grade and the time the survey was administered. Of these topics, seniors in the

Class of 2009 and seniors in the Class of 2011 differed significantly only in their responses of discussing what courses to take with a guidance counselor (91.4% of the seniors in the Class of 2009 and 94.1% of the seniors in the Class of 2011; $p = 0.021$).

As outlined in Table 4.19, fewer sophomores (71.7%) than seniors (90.8%) in the Class of 2011 indicated they had talked to a guidance counselor about going to college, courses to take (91.4% and 94.1%, respectively), possible jobs or careers (63.8% and 75.1%, respectively), finding a job after high school (35.4% and 48.3%, respectively), steps necessary to pursue a career (63.3% and 73.4%, respectively), and applying for college or vocational/technical school (44.2% and 83.8%, respectively).

Table 4.19

Topics Class of 2011 Cohort Reported Discussing with School Counselors in Ninth and/or Tenth Grades and by End of Senior Year

Topics	By 9 th /10 th	By 12 th
	Grades Yes %	Grade Yes %
What courses to take this school year	91.4	94.1
Going to college	71.6	90.8
Possible jobs or careers when you are an adult	63.8	75.0
Steps necessary to pursue your career	63.3	73.4
Applying for college or vocational/ technical school	44.2	83.8
Finding a job after high school	35.4	48.3

Note. Responses are from the *Student Engagement/POS Experiences Survey* administered to members of the Class of 2011 at the eight sample schools in the Fall of 2009, just after their 10th grade year and in the Spring of 2011 at the end of their senior year. *N* sizes for calculation of percentages range from 1,402 to 1,414 for 2009 survey and from 909 to 919 for 2011 survey. Missing and multiple responses were excluded.

Seniors in the Class of 2011 at the three levels of EEDA LOI differed in their responses of discussing going to college with a guidance counselor ($p = 0.002$) (see Table 4.20). Fewer seniors in the Class of 2011 Medium EEDA LOI schools indicated they had discussed going to college with a guidance counselor (86.8%) than in High EEDA LOI (94.4%) and Low EEDA LOI (91.9%) schools.

Trends in Student Engagement

Students who reported having a high school major and career cluster on the student survey were asked how much they agreed or disagreed with particular statements about having a high school major or career cluster. In particular, students were asked to indicate their level of agreement that having a high school major or career cluster has: a) made me more likely to want to come to school; b) made me less likely to want to drop out of school; c) helped me get better grades; d) helped me make connections between what I study and what type of career I want; e) made it more likely that I would take courses that I need for the future; and f) made it more likely that my parents got involved in my selection of courses.

Students agreed that most of their teachers make the subject matter interesting and useful and most of their teachers make connections between what they are teaching and how it applies in the real world. Seniors who reported having a high school major and career cluster did not differ significantly on whether most of their teachers make the subject matter interesting and useful. Three-fourths (74.0%) of the Class of 2009 and slightly fewer (70.6%) of the Class of 2011 agreed or strongly agreed to this statement. With regard to teachers making connections between what they are teaching and how it applies in the real world, significantly more seniors in the Class of 2009 indicated agreement (76.7%) than seniors in the Class of 2011 (71.9%) ($p = 0.005$). Two-thirds (67.7%) of the seniors in the Class of 2011 agreed or strongly agreed that having a high school major and career cluster made it less likely they will want to drop out of school. This was 5 percentage points higher than the seniors in the Class of 2009 (62.4%).

Table 4.20

Student Survey Question 10 by LOI: Between the Start of the 9th Grade and Now, Have You Talked to a School Guidance Counselor about the Following Topics?

LOI Category	Response	Senior Class of 2009 % (N)	Sophomore Class of 2011 % (N)	Senior Class of 2011 % (N)
High LOI	a. What courses to take this school year ($N = 1005$)	91.5 (322)	89.2 (281)	92.9 (314)
	b. Going to college ($N = 1003$)	92.3 (323)	75.2 (237)	94.4 (319)
	c. Possible jobs or careers when you are an adult ($N = 998$)	82.8 (289)	64.2 (203)	76.9 (256)
	d. Finding a job after high school ($N = 1002$)	64.1 (223)	36.1 (114)	52.7 (178)
	e. Steps necessary to pursue your career ($N = 1002$)	80.5 (281)	61.8 (194)	77.6 (263)
	f. Applying for college or vocational/technical school ($N = 1002$)	88.5 (309)	50.2 (158)	87.6 (296)
Medium LOI	a. What courses to take this school year ($N = 1388$)	90.0 (325)	91.0 (599)	93.5 (345)
	b. Going to college ($N = 1386$)	86.3 (309)	64.4 (424)	86.8 (321)
	c. Possible jobs or careers when you are an adult ($N = 1377$)	67.7 (241)	62.0 (407)	71.8 (262)
	d. Finding a job after high school ($N = 1387$)	54.6 (197)	36.2 (238)	47.8 (176)
	e. Steps necessary to pursue your career ($N = 1376$)	71.7 (258)	62.3 (406)	71.2 (259)
	f. Applying for college or vocational/technical school ($N = 1382$)	82.8 (298)	40.7 (267)	81.2 (297)
Low LOI	a. What courses to take this school year ($N = 949$)	92.9 (276)	93.7 (413)	97.2 (205)
	b. Going to college ($N = 947$)	88.2 (262)	80.0 (351)	91.9 (194)
	c. Possible jobs or careers when you are an adult ($N = 944$)	62.8 (186)	66.2 (290)	78.1 (164)
	d. Finding a job after high school ($N = 941$)	32.2 (95)	33.9 (148)	42.1 (88)
	e. Steps necessary to pursue your career ($N = 943$)	56.4 (167)	66.1 (288)	70.6 (149)
	f. Applying for college or vocational/technical school ($N = 946$)	77.2 (230)	45.1 (197)	82.5 (174)

Note. Does not include multiple responses, missing responses, or not applicable responses.

Similar proportions of sophomores and seniors in the Class of 2011 who reported having a high school major and career cluster indicated they agreed or strongly agreed to the impact of having a high school major and career cluster. Two-thirds (66.7%) of sophomores and slightly more seniors (68.7%) agreed or strongly agreed that having a high school major and career cluster made them more likely to want to come to school. Sophomores and seniors in the Class of 2011 had similar agreement for having a high school major and career cluster made them less likely to want to drop out of school (67.8% and 67.7%, respectively). Two-thirds of sophomores (67.9%) and slightly more seniors (71.4%) agreed or strongly agreed that having a high school major and career cluster has helped them get better grades. Almost nine out of ten sophomores and seniors also agreed or strongly agreed that having a high school major and career cluster has helped them make connections between what they study and the type of career they want (86.2% and 86.1%, respectively) and made it more likely that they would take courses needed for the future (89.9% and 88.0%, respectively). Those that reported having high school majors and career clusters made it more likely that their parents got involved in the selection of courses were 62.7% for sophomores and 64.2% for seniors. Similar proportions of sophomores and seniors in the Class of 2011 agreed that most of their teachers make connections between what they are teaching and how it applies in the real world (72.3% and 71.9%, respectively) as well as agreeing that most of their teachers make the subject matter interesting and useful (67.5% and 70.6%, respectively). We found no significant differences in the level of agreement among seniors in the Class of 2011 who reported having a high school major and career cluster at High, Medium, and Low EEDA LOI schools for any of the six statements regarding the impact of having a high school major or career cluster.

Seven out of every ten seniors (71.1%) in the Class of 2011 from High EEDA LOI schools agreed that they were less likely to want to drop out of school, compared to 67.2% from Medium EEDA LOI schools and 63.9% from Low EEDA LOI schools. A majority of seniors in the Class of 2011 from High EEDA, Medium EEDA, and Low EEDA LOI schools agreed that having a high school major and career cluster helped them to get better grades (75.1%, 71.5%, and 65.3%, respectively). Similar proportions of seniors in the Class of 2011 from High, Medium, and Low EEDA LOI schools agreed that having a high school major helped to make connections between what is studied and the type of career students want (88.8%, 86.3%, and 81.5%, respectively), made it more likely that they would take courses needed for the future (90.5%, 88.6%, 83.1%, respectively), and made it more likely that their parents got involved in the selection of courses (62.8%, 67.2%, and 59.7%, respectively). Seniors in the Class of 2011 from High, Medium, and Low EEDA LOI schools had significantly different agreement about teachers making the subject matter interesting and useful (65.2%, 76.3%, and 69.2%, respectively; $p = 0.002$) and about teachers making connections between what they are teaching and how it applies in the real world (70.2%, 77.5%, and 64.6%, respectively; $p = 0.006$).

Seniors from the classes of 2009 and 2011 were asked on the *Student Engagement/POS Experiences Survey* about their agreement with statements about the usefulness of information learned in school in everyday life, for college or further training, and for their career. Seniors in the Class of 2009 and in the Class of 2011 significantly differed in their responses to all three statements ($p = 0.006$, $p = 0.044$, $p = 0.021$, respectively). Specifically, more seniors in the Class of 2009 (64.5%) agreed that the information learned in school is useful in everyday life than

seniors in the Class of 2011 (58.0%). Similarly, more seniors in the Class of 2009 agreed that the information learned in school will be useful for college or further training (86.7%) and useful for a career (71.1%) than seniors in the Class of 2011 (83.3% and 65.5%, respectively).

Comparing the Class of 2011 students as sophomores, and then again as seniors, on their reports of agreement with statements about the usefulness of information learned in school in everyday life, for college or further training, and for their career, we found that the seniors and sophomores had similar agreement to all three statements. Specifically, a majority of seniors (58.0%) and sophomores (58.1%) agreed that the information learned in school is useful in everyday life. Seniors and sophomores also agreed that most of the information learned in school would be useful for their career (65.5% and 68.8%, respectively). Agreement with the statement that most of the information learned in school would be useful for college or further training differed slightly among seniors and sophomores in the Class of 2011 (83.3% and 89.9%, respectively). Chi-square analysis was not conducted for these comparisons due to correlations among unmatched responses of sophomores and seniors of the Class of 2011.

Seniors in the Class of 2011 from Medium EEDA LOI schools had higher agreement with the statement that most of the information learned in school is useful in everyday life (68.4%) than did seniors in the Class of 2011 from High and Low EEDA LOI schools (55.1% and 44.7%, respectively; $p < 0.001$). Agreement to the statement that most of the information learned in school will be useful for college or further training among seniors in the Class of 2011 from High, Medium, and Low EEDA LOI schools did not significantly differ with a majority agreeing or strongly agreeing (80.2%, 87.7%, and 80.4%, respectively; $p = 0.076$). Seniors in the Class of 2011 from Medium EEDA LOI schools had higher agreement with the statement that most of the information learned in school will be useful for a career (74.9%) than in seniors in the Class of 2011 from High and Low EEDA LOI schools (59.8% and 57.7%, respectively; $p < 0.001$).

The student survey also asked students several items about how prepared they were for classes. The distribution of responses for seniors in the Class of 2009 and in the Class of 2011 differed significantly for the number of times students went to class without a pencil, paper, book, or other necessary supplies, with more seniors in the Class of 2011 indicating they had never done this (42.3%) compared to seniors in the Class of 2009 (35.5%; $p < 0.001$). The distribution of responses between seniors and sophomores in the Class of 2011 for the number of times they went to class without their homework finished and went to class without a pencil, paper, book, or other necessary supplies were similar, with approximately 18.5% of sophomores and 20.1% of seniors in the Class of 2011 indicating they had never gone to class without their homework finished and 43.7% of sophomores and 42.3% of seniors indicating they had never gone to class without a pencil, paper, book, or other necessary supplies. The distribution of responses from seniors in the Class of 2011 regarding the number of times they went to class without homework significantly differed, with fewer seniors from High EEDA LOI schools indicating they went to class without homework finished (16.5%) than seniors in the Class of 2011 from Medium and Low EEDA LOI schools (23.5% and 19.6%, respectively; $p = 0.014$). A majority of seniors in the Class of 2011 from High, Medium, and Low EEDA LOI schools indicated they had gone to class without a pencil, paper, book, or other necessary supplies one or more times (59.8%, 52.0%, and 64.2%, respectively).

Attendance

To provide an indicator of school engagement that did not rely on students' self-report, we used the state longitudinal data system (SLDS) cohort data (2009 and 2011) to analyze attendance rates. A yearly attendance rate for each student was calculated to be the number of days attended divided by the number of days enrolled. We also used the SLDS data to define students whose courses aligned with the features required for Programs of Study as set forth in Perkins IV: Students who have been at a sample school for three consecutive years (tenth, eleventh, and twelfth grades) and have earned at least four credits in a logical course sequence of at least three courses within one cluster. We labeled these students "POS1." (For a full discussion of the development of the POS1 measure, see Technical Appendix B, POS1 Concept.)

Table 4.21 presents changes in average eleventh grade attendance rates across cohorts. All of the schools have relatively high attendance rates with both POS1 and non-POS1 students. There appears to have been little change in average attendance rates between the two cohorts for both groups of students.

Table 4.21
Change in Average 11th Grade Attendance Rates, by School, 2009 and 2011 SLDS Cohorts, Ordered from Lowest LOI to Highest LOI

School	Non-POS1 Students			POS1 Students		
	2009 (%)	2011 (%)	Difference (%)	2009 (%)	2011 (%)	Difference (%)
Elm	94.8	94.3	-0.5	93.6	94.8	1.2
Poplar	97.8	97.9	0.1	99.9	98.1	-1.8
Azalea	96.1	93.8	-2.3**	95.7	95.0	-0.7
Iris	94.9	96.0	1.1	96.7	97.5	0.8
Laurel	97.1	97.2	0.1	97.5	97.8	0.3
Apple	95.8	95.9	0.1	98.5	95.3	-3.2**
Orchid	98.2	96.9	-1.3**	98.9	97.6	-1.3*
Redwood	93.8	94.4	0.6	94.7	95.3	-0.6
Total	96.6	96.4	-0.2	96.1	96.5	0.4

Note. Caution should be used in interpreting data from Azalea and Poplar because the number of POS1 students at each of these schools is less than 10. * $p < 0.05$ level. ** $p < 0.01$.

The *Student Engagement/POS Experiences Survey* also asked respondents about absences and being late or skipping school. The distribution of responses for seniors in the Class of 2009 and in the Class of 2011 did not significantly differ for the number of times they were late for school, the number of times they cut or skipped classes, the number of times they were absent from school, or the number of times they went to class without finishing their homework.

When we compared sophomores and seniors in the Class of 2011, the sophomores consistently reported more engagement: they were not late for school (25.3% and 21.5%), they had not cut or skipped classes (73.2% and 56.1%, respectively), and they had not been absent from school (13.2% and 9.4%, respectively).

The distribution of responses from seniors in the Class of 2011 regarding the number of times they were late for school significantly differed, with fewer seniors from High EEDA LOI schools indicating they had never been late for school (17.3%) than seniors in the Class of 2011 from Medium and Low EEDA LOI schools (23.9% and 24.1%, respectively; $p = 0.026$). The distribution of responses from seniors in the Class of 2011 from High, Medium, and Low EEDA LOI schools indicating they had skipped classes or were absent from school did not significantly differ ($p = 0.304$ and $p = 0.821$, respectively) with a majority indicating they had never skipped class and were absent one or more times.

Discipline

Using the SLDS cohort data (2009 and 2011), we also analyzed discipline rates. The rate used was the total number of disciplinary incidents (in-school suspensions, out-of-school suspensions, other dispositions other than in-/out-of-school suspensions, and school expulsions) per 100 days of school.

Table 4.22 presents similar data on discipline rates for the 2009 and 2011 SLDS cohorts. Changes in disciplinary incidents varied for non-POS1 students, but there were increases for POS1 students at most schools. Overall, the count of disciplinary incidents per 100 days increased for both groups, but the increase for POS1 students was larger. This is counter to what we would expect to see if EEDA and increased POS implementation had a positive impact on student engagement.

Table 4.22

Change in Average 11th Grade Discipline Rates per 100 Days of Enrollment, by School, 2009 and 2011 SLDS Cohorts, Ordered from Lowest LOI to Highest LOI

School	Non-POS1 Students			POS1 Students		
	2009	2011	Difference	2009	2011	Difference
Elm	1.7	1.4	-0.3	1.5	1.7	0.2
Poplar	0.5	0.4	-0.1	0.0	0.0	0.0
Azalea	1.3	2.1	0.8	1.2	1.7	0.5
Iris	2.5	2.7	0.3	2.2	2.1	-0.1
Laurel	2.3	3.6	1.3**	1.9	2.3	0.4
Apple	5.1	4.2	-0.9	2.1	4.6	2.5
Orchid	0.3	0.7	0.3**	0.2	0.6	0.3
Redwood	1.8	1.5	-0.3	1.6	1.5	-0.1
Total	1.6	1.8	0.2	1.5	2.0	0.5*

Note. Caution should be used in interpreting data from Azalea and Poplar because the number of POS1 students at each of these schools is less than 10. * $p < 0.05$ level. ** $p < 0.01$.

Trends in Postgraduation Preparation

Intention to complete a career major. The Statewide Longitudinal Data System (SLDS) data included information on students' IGP related to those students' intentions to complete their majors and which majors they chose by year.

Because majors would not have been selected until 10th grade, the data reported in Table 4.23 relates to intentions as of 10th grade. Recorded intentions to complete majors do not appear to be closely related to implementation levels. We might expect the high implementation schools to have a larger number of intended completers, but instead they are among the lowest.

Table 4.23

Percentage of IGPs Indicating Intentions to Complete Major in High School (10th Grade IGPs), by LOI

LOI		
Low (60.0-69.9)	Medium (70.0-79.9)	High (80.0-89.9)
54.7% (Elm) 6.8% (Poplar)	90.6% (Apple), 29.7% (Iris), 80.8% (Azalea), 44.8% (Laurel)	4.1% (Orchid), 5.1% (Redwood)

Note. Each percentage reported represents the percentage of IGPs showing intentions to complete a specific career major as of 10th grade for a school within the three LOI categories shown.

Students select clusters in eighth grade, so for analysis of cluster information, we could have begun with earlier IGPs; however, to be consistent with other analyses, we looked back at the 10th grade IGPs for both cluster and major information for comparisons to twelfth grade IGPs on our SLDS 2011 cohort. There is a slight negative relationship between policy implementation score and percentage of students in the 2011 SLDS cohort who selected a major in one cluster area on their 10th grade IGP and then switched to another career cluster by the time they were seniors in high school. The general trend is that the higher the level of implementation, the lower the percentage of SLDS 2011 cohort who switched majors. But as illustrated in Figure 4.3, the relationship is relatively weak.

Patterns in course-taking. On the *Student Engagement/POS Experiences Survey*, students were asked about course taking that allowed them to earn, or potentially earn, college credit while in high school. Over half (56.3% and 54.4%,) of the seniors in the Classes of 2009 and 2011 reported they planned to take one or more courses that will earn college credit by the time of high school graduation. This was not a statistically significant difference nor was the difference in reports of Advanced Placement courses with 45.0% of seniors in the Class of 2009 and 46.6% of seniors in the Class of 2011 indicating they had never taken such courses. Similarly, responses of seniors in the Class of 2009 and seniors in the Class of 2011 did not significantly differ in terms of the number of times they had taken vocational, career, or technical courses, with approximately 27% of both classes indicating they had never taken these types of courses. A similar percentage of seniors in the Class of 2009 and Class of 2011 indicated they had never taken special education courses (81% in both cases).

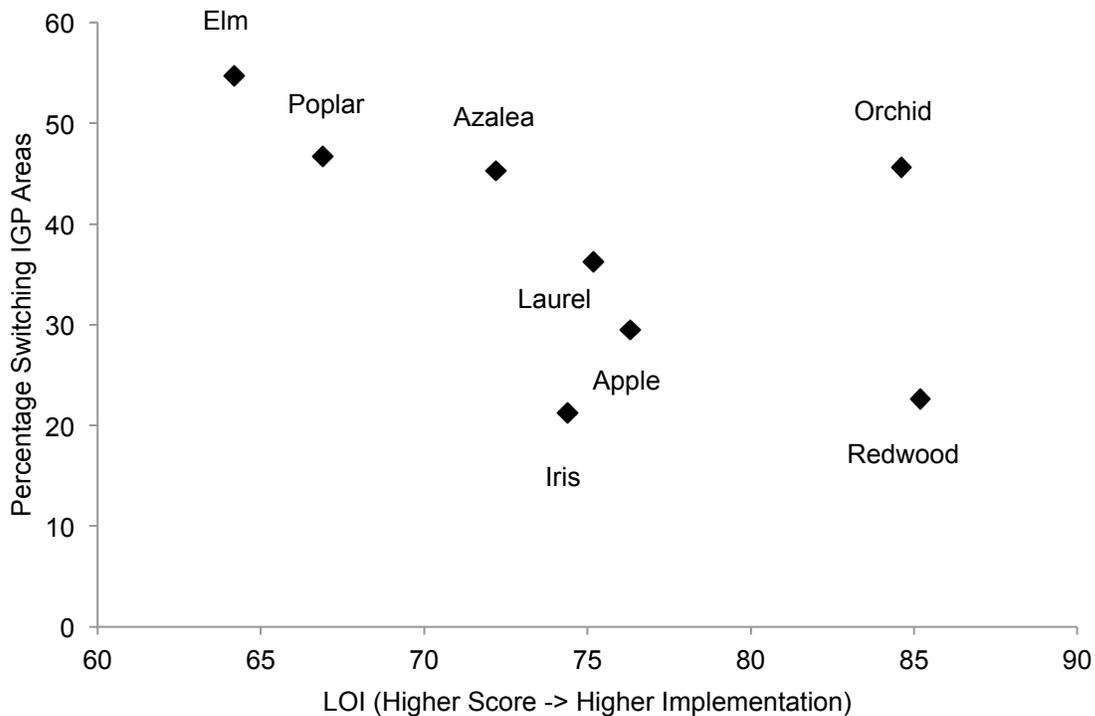


FIGURE 4.3. Percentage switching IGP career cluster by implementation score, 10th grade to twelfth grade IGP of SLDS 2011 cohort.

More seniors in the Class of 2011 (18.3%) than sophomores in the Class of 2011 (3.7%) indicated they would not take any courses that would earn college credit by the time they graduated from high school. More sophomores in the Class of 2011 (52.6%) than seniors in the Class of 2011 (46.6%) indicated they had never taken Advanced Placement courses and vocational, career, or technical courses (28.6% and 27.1%, respectively). Seniors in the Class of 2011 were also asked how many vocational, career, or technical units they would have earned in their primary vocational, career, or technical program area by the time they graduate from high school. A majority of seniors in the Class of 2011 indicated they would take one or more units in these types of courses (53.6%). Similar percentages of sophomores and seniors in the Class of 2011 indicated they had never taken special education courses (80.2% and 80.6%, respectively).

Seniors in the Class of 2011 from High, Medium, and Low EEDA LOI schools differed significantly in their responses to the number of courses they plan to take that will earn college credit by the time they graduate from high school. Over one-fourth (28.5%) of the seniors from Low EEDA LOI schools indicating they would take none of these courses whereas about one-sixth gave this response in High (16.5%) and Medium (13.9%) EEDA LOI schools ($p = 0.003$). Similarly, more seniors from Medium and Low EEDA LOI schools indicated they had never taken an Advanced Placement course (47.9% and 53.9%, respectively) compared to seniors in High EEDA LOI schools (40.2%; $p = 0.030$). There were no significant differences among seniors in the Class of 2011 from High, Medium, and Low EEDA LOI schools regarding the number of times they had taken vocational, career, and technical courses or special education courses. The distribution of responses to the number of units earned in their primary vocational,

career, and technical program areas did not differ significantly among seniors in the Class of 2011 from High, Medium, and Low EEDA LOI schools, with a majority indicating they would take at least one unit or credit by the time they graduate from high school.

Trends in Postgraduation Plans

Seniors in the Class of 2011 from High, Medium, and Low EEDA LOI schools significantly differed in their responses regarding the highest level of education they expect to complete with more seniors from Low EEDA LOI schools indicating they expected to complete at least a bachelor's degree (75.8%) than seniors from High and Medium EEDA LOI schools (64.5% and 64.9%, respectively; $p = 0.049$). Over three-fourths of the seniors in the Class of 2011 from High, Medium, and Low EEDA LOI schools indicated their intention to enroll in a 4-year college or university, enroll in a 2-year community college, or transfer to a 4-year college or university the year after graduation (75.3%, 80.6%, and 78.1%, respectively). Job plans at age 30 were virtually identical across the High (69.8%), Medium (68.8%) and Low (70.7%) EEDA LOI schools.

Recall that 2011 SLDS cohort POS1 students in this study are defined as students who have been at a sample school for 3 consecutive years (tenth, eleventh, and twelfth grades) and have earned at least 4 credits in a logical course sequence of at least 3 courses within one cluster. Although we asked CTE students on the survey about postgraduation plans, we were not conclusively able to identify from the student survey students who participated, concentrated, or completed POS. And whereas CTE program completers were definitely completers of state identified career programs, we did not survey or receive SLDS data based on this definition. Therefore, the best variable to use to look at the relationships between being in a POS and postgraduation plans is the POS1 identification.

Students are asked to indicate postsecondary plans on their IGPs. Options include workforce/apprenticeship, two-year college/technical training, four-year college, and military. Because our research questions relate to plans to continue formal postsecondary education, we looked at college plans for the 2011 SLDS cohort of POS1 students versus non-POS1 students.

For postgraduation plans analysis of the SLDS cohorts, the latest year of postgraduation plan data for each student was used. Many students had multiple different postgraduation plan observations within a single year – 350 of the 2011 cohort had two plans and 32 had three. To address multiple reports, the following rule was used: if a student ever indicated plans for four-year college, then four-year college was used; if a student ever said two-year college, but not four-year, then two-year college was used.

POS1 students were more likely than their non-POS1 counterparts to indicate a two-year college rather than a four-year college/university in their plans. The percentage of 2011 SLDS cohort POS1 students planning on some college was slightly higher than non-POS1 students, but the difference was not statistically significant (Figure 4.4).

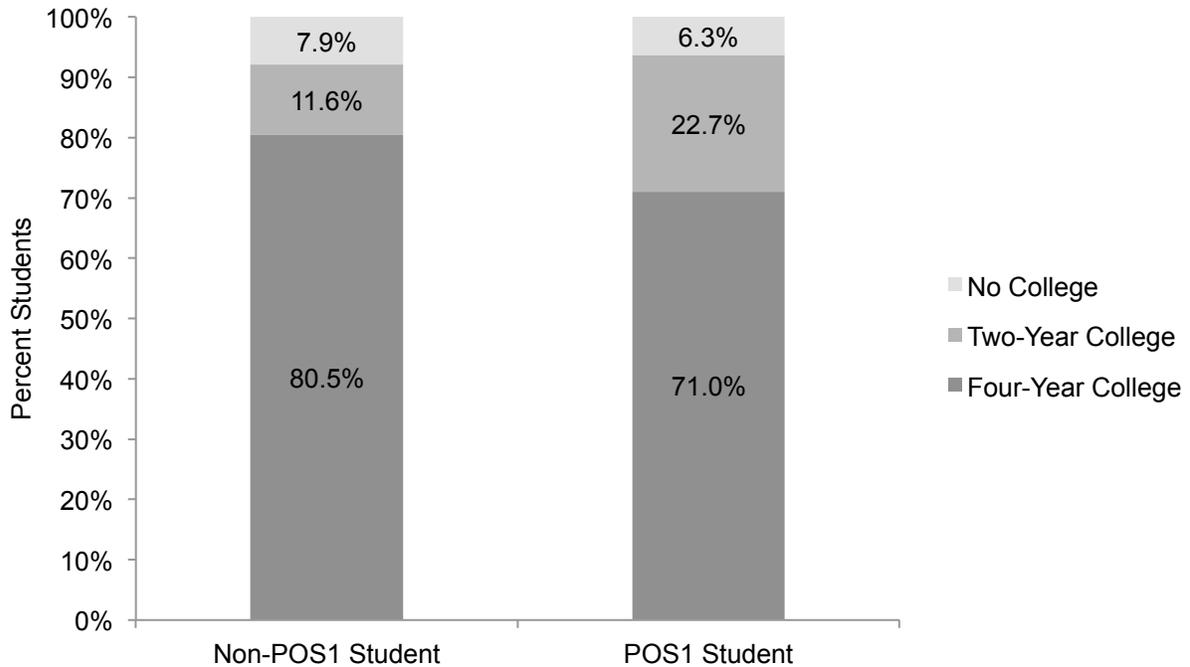


FIGURE 4.4. Postgraduation plans by POS1 status, 2011 SLDS cohort.

There was a great deal of variation in 2011 SLDS cohort students' plans across schools. Postgraduation plans do not appear to be related to level of community poverty (POV), or LOI. (See Technical Appendix B for a discussion of the development of the POV variable.) In Figure 4.5, the schools are ordered from lowest POV to highest POV and although there are variations among schools across the chart, the two lowest POV schools (Poplar and Laurel are each POV=2 schools) do have the highest percentages of students planning to attend four-year college. Orchid, a high LOI school was next in order of the percentage of students planning to attend four-year college; however 10% of their students did not plan to go to college. Redwood, the highest LOI school had 6% not planning to attend college. However, Elm, the lowest LOI school had nearly the same, 5%, not planning to attend college.

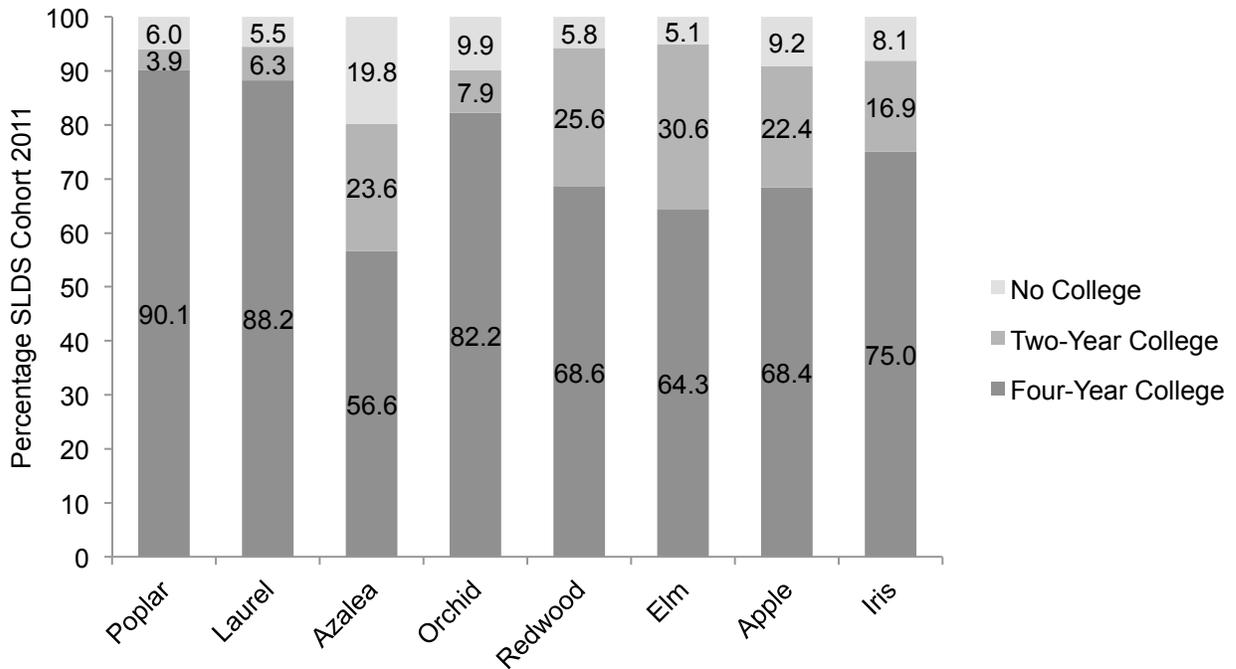


FIGURE 4.5. Postgraduation plans, all students, 2011 SLDS cohort, by school, ordered from lowest to highest POV group.

Figure 4.6 focuses on the postgraduation plans of the POS1 students from the 2011 SLDS cohort. When comparing the school-level data in Figure 4.6 to that in Figure 4.58, it should be noted that the numbers of 2011 SLDS cohort POS1 students (Figure 4.6) are small compared to the total cohort illustrated in Figure 4.5, especially for Poplar and Azalea. Nevertheless, a comparison of the whole 2011 SLDS cohort versus the POS1 students presents data related to POS and postsecondary plans. The one school where all students planned on attending college, Poplar, is based on only two POS1 students and should be disregarded. Laurel, a Low POV, but higher LOI school had 88% of its total 2011 SLDS cohort planning to attend a four-year college, but a little less of the POS1 students with such plans and a little more POS1 students planning to attend two-year and slightly more not planning to attend college. No obvious trends are evident when looking across other combinations of High POV, High LOI, Low POV, and Low LOI.

Azalea, the only Moderate POV and Medium LOI school in the sample, has the highest percentage of both the total SLDS 2011 cohort and the POS1 students within the cohort (20% and 17% respectively) who do not plan to go to college. Although this is only one school, and this school only had six POS1 students, it is our only school that is both Medium LOI and Moderate POV.

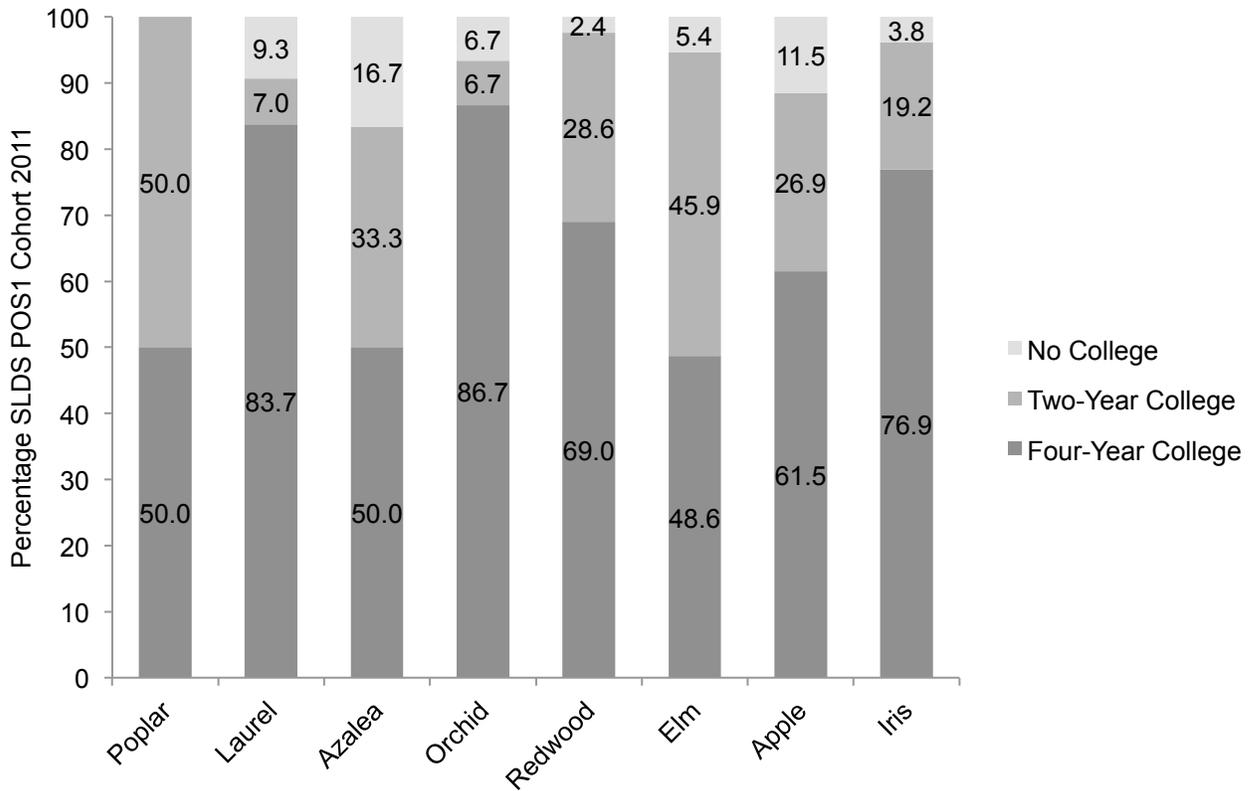


FIGURE 4.6. Postgraduation plans of POS1 students, 2011 SLDS cohort, by school. *Note.* Caution should be used in interpreting data from Azalea and Poplar because the number of POS1 students at each of these schools is less than 10.

Postgraduation plans differed for POS1 students in the 2011 SLDS cohort depending on the career cluster of their POS, as outlined in Table 4.24. Note that only those clusters with 10 or more students completing a POS1 course sequence are included in this table. Students in Business, Health Science, and Art, AV Tech, & Communications were the most likely to plan to attend a four-year college. Students in Transportation, Distribution and Logistics and Manufacturing were the most likely to plan to attend a two-year college. Students in Agriculture, Food & Natural Resources were the most likely to not plan to attend any college.

On the *Student Engagement/POS Experiences Survey*, students were asked about plans for after high school, both formal education and work. Although as we mentioned earlier, we cannot connect students' reported plans on surveys to whether a student was in a POS, reviewing responses to these questions can give some additional context about members of our cohorts' future plans for education and its relation to their career major area.

Seniors in the Classes of 2009 and 2011 differed significantly regarding the highest level of education they expected to complete, with slightly more seniors in the Class of 2011 indicating they would not finish high school (4.7%) than seniors in the Class of 2009 indicating the same (2.2%; $p = 0.008$). Virtually the same percentage point difference was found in the total of those aspiring to some college: 81.8% in the Class of 2011 plan to continue formal postsecondary education and 79.0% Class of 2009. Seniors in the Class of 2011 were additionally asked if the

main thing they planned to do the year after graduation from high school was connected to their concentration area they had during high school, with a majority indicating a connection (62.7%). Over three-fourths of seniors in both the Classes of 2009 and 2011 indicated they would enroll in a four-year college or university, enroll in a two-year community college, or transfer to a four-year college/university the year after graduating from high school (79.2% and 78.1%, respectively).

Table 4.24
Postgraduation Plans for POS1 Students by Career Clusters, 2011 SLDS Cohort

	<i>N</i>	Plan to Enroll at Four-Year (%)	Plan to Enroll at Two-Year (%)	No Plans to Enroll (%)
Agr., Food & Natural Resources	10	50.0	30.0	20.0
Architecture & Construction	28	60.7	25.0	14.3
Art, AV Tech, & Communications	20	75.0	25.0	0.0
Business, Management & Admin.	33	93.9	3.0	3.0
Health Science	53	84.9	15.1	0.0
Hospitality & Tourism	27	59.3	29.6	11.1
Manufacturing	28	50.0	39.3	10.7
Trans., Distr., and Logistics	22	50.0	40.9	9.1

Note. Only those clusters with 10 or more students completing a POS1 are included in this table.

Sophomores and seniors in the Class of 2011 had similar responses of the highest level of education they expect to complete, with a majority in each class indicating they would complete a bachelor's degree, master's degree, or doctoral degree (67.0% and 67.2%, respectively) (see Table 4.25). More sophomores (81.9%) than seniors (78.1%) in the Class of 2011 indicated they would enroll in a four-year college or university, a two-year community college, or transfer to a four-year college or university the year after high school.

Influence of the Reform Policy on CTE Awareness and Participation

Ensuring coordination of academic and relevant CTE content and appropriate progression of courses requires communication at schools between school counselors and academic and CTE teachers. It also may require some changes in awareness and perceptions of CTE courses and programs by students, parents, and school staff, to reduce barriers to participation in these programs. In recent years, CTE policy leaders and educators have been making efforts to revise the instruction provided in CTE courses and programs while at the same time changing perceptions of these courses and programs. We were interested in finding out if an emphasis on career planning and the required development of IGPs and selection of career pathways in our sample schools had changed the level of awareness of CTE, perceptions of CTE, and patterns in CTE course-taking at these schools. During interviews with school staff at the sample high schools and several partner career centers in 2009, these issues were often raised by staff when asked about changes in their schools since implementation of EEDA. These issues were also raised by researchers during interviews. The following are highlights of findings from these discussions.

Table 4.25

Student Survey Question 17: As Things Stand Now, What Is the Highest Level of Education You Expect to Complete?

Response	Senior Class of 2009 % (N)	Sophomore Class of 2011 % (N)	Senior Class of 2011 % (N)
Not finish high school	2.19 (22)	4.18 (59)	4.65 (43)
Graduate from high school or earn my GED	12.25 (123)	6.94 (98)	9.19 (85)
Attend college but not complete a degree	2.09 (21)	1.35 (19)	1.62 (15)
Complete a certificate or associate's degree	11.45 (115)	12.11 (171)	12.97 (120)
Complete a bachelor's degree	24.90 (250)	21.32 (301)	25.51 (236)
Complete a master's degree	23.90 (240)	26.56 (375)	24.00 (222)
Complete a doctoral degree	16.63 (167)	19.12 (270)	17.73 (164)
Don't Know	6.57 (66)	8.43 (199)	4.23 (40)
Total	100.00 (1004)	100.00 (1412)	100.00 (925)

*Does not include multiple responses, missing responses, or not applicable responses. The distribution of responses for seniors in the Class of 2009 and seniors in the Class of 2011 is significantly different ($\chi^2_1 = 19.14, p = 0.008$).

Increase in Counselor Awareness, Knowledge, and Dissemination Concerning CTE Courses and Programs

During Year 3 POS site visits, guidance personnel reported learning more about CTE offerings at their schools. Counselors commented that, because of EEDA and the IGP process, they were required to learn about available CTE courses and programs in their schools to better assist students in developing IGPs. CTE teachers at six of the eight sample schools reported that the IGP process helped them to identify students for their programs and that more, and/or more focused, students were being directed to their programs. One CTE teacher noted that the “career focus on IGPs has made CATE [CTE courses] more useful to students.” This increase in awareness and information sharing resulted in reports at some schools of an increase in the number of students taking CTE courses.

The impact of EEDA requirements and the IGP process on guidance personnel’s knowledge of CTE programs was particularly apparent during discussions with guidance personnel at two high schools that use career centers to provide CTE courses and programs. These personnel commented that they now know much more about the offerings of the career center. They reported an increase in interaction and information sharing with career center staff. They noted that center staff representatives now meet annually with ninth-grade classes to provide information on center programs. An administrator at one of these schools noted that “EEDA has pushed us to talk more with the career center, and in different ways...Before, the career center did its own thing and we did ours...We know now we must tie this closer together.” At the other high school, one of the administrators said that her school is “depending on the career center more now; the four-year plan brings the career center more into play now than before EEDA.”

Reports from the two 2008-2009 *GP Accountability Reports* support interview comments that CTE information is being disseminated to educators, parents, and students in at least seven of the

eight sample schools. Guidance personnel were asked to provide the number of educators, parents, and students who had been provided with information on their district's CTE programs during that school year. It is unclear which personnel schools considered to be in the category of "educators" at their school, because it was not specified on the form, but we assumed that teachers and guidance personnel at the sample high schools, and possibly guidance personnel at feeder middle schools, were included in this category along with any other high school program staff. Based on the numbers of teachers and guidance personnel reported in the *2009 School Report Card* for each school (South Carolina Department of Education, 2009b), the numbers of educators reported appear to indicate that the vast majority of school program staff at seven of the eight sample high schools received CTE program information at least once during the school year. These reports also indicate that the vast majority of ninth and tenth graders at these seven schools were provided CTE program information. At the remaining sample school, only small numbers of parents and educators relative to staffing and enrollment at the school were reported to have received information on available district CTE programs during that school year. It was unclear if none of the ninth or tenth graders received information at this school or whether the data were missing on this variable for students.

Perception of More Appropriate CTE Placement

CTE teachers at several schools not only reported an increase in numbers of students being directed into their courses but also more appropriate placement of students in their CTE courses and programs. Use of the IGP at some sample schools as a screening device helped students and parents have more realistic expectations for students' career and academic goals and resulted in more careful placement of students into academic and CTE courses. Rather than assign academically struggling or misbehaving students to any open CTE courses, counselors have been encouraged by the IGP process to review students' past performance and career goals and try to relate these goals and abilities to appropriate courses and programs. This resulted in reports from a number of CTE teachers that they were getting students in their courses who were better prepared academically and "who want to be there," because the course fits their career goals. One of the career centers where staff conducted interviews reported increased enrollment. Staff at the other center reported that high school guidance personnel were helping with recruitment and the IGPs were helping them to identify students for programs. These efforts were also reflected in student comments made during focus groups with Class of 2011 seniors. For example, one senior commented that he found out about "a whole bunch of classes that were available to me that I didn't even know existed," whereas another reported that he "didn't know we had engineering classes until IGP."

In addition, as a result of implementing a model focused on career pathways, a number of school administrators were rethinking how best to prepare students for graduation and the future. Some administrators commented to researchers that the model has caused them to think about finding ways to make sure that all students have some practical skills to prepare them for the work world after graduation, whether by getting a certification of some kind or by participating in an apprenticeship or internship before graduation.

Reduction in Stigma of CTE Courses

Inclusion of CTE courses in IGP discussions and career clusters and increased awareness and information sharing about CTE programs and courses by guidance personnel and CTE faculty may have contributed to changes in perceptions of CTE. At several schools, any stigma associated with taking CTE courses or attending a career center had been reduced in recent years. During the Fall 2009 interviews at five of the sample schools, we asked staff specifically about whether any stigma was associated with participation in CTE programs. Staff at three of these schools reported a reduction in negative views toward CTE, a change they attributed to efforts to better inform students, parents, and the community about what CTE courses and programs can offer. At one of these schools, employability was mentioned as a draw. Staff at the other two schools pointed to IGPs, clusters, and majors, along with integration of CTE into core classrooms, as being key factors in reducing stigma. At the fourth school, staff reported that a negative connotation of CTE programs persisted among students and parents, although they were making some effort to address it. For example, this school was conducting a campaign to showcase high-paying career options for CTE majors and working to increase the number of higher GPA-weighted CTE courses, by, for example, assigning honors or AP credit to CTE courses. But students at this school received mixed messages about CTE courses. Despite a campaign to heighten awareness of CTE at this school in some high-paying areas, some faculty and administrators at this school indicated that they still felt that some students are more “suited” for CTE whereas others are more “suited” for college. Finally, at the fifth school, staff commented that the problem with some students enrolling in CTE courses lay in the fact that CTE courses often carry a lower weight and result in a lower GPA that can hinder college entry, rather than any stigma associated with taking CTE courses.

The research team hypothesized that part of the reduction in stigma may be related to the greater interaction occurring at some schools between CTE and non-CTE teachers. Historically in our sample schools, CTE and “academic” programs had been somewhat isolated from each other. Three of the five schools asked about stigma were organized into Smaller Learning Communities (SLCs). In these schools, groups of core academic and CTE teachers are housed together in SLCs, reducing the physical isolation between CTE and academic faculty that is common on comprehensive high school campuses. SLC groupings have the potential to reduce isolation and offer opportunities for core academic teachers to become more familiar with available CTE programs, to observe CTE teachers planning and teaching, and to better understand that CTE programs do have rigor, as well as to increase interaction between CTE faculty and non-CTE students.

This opportunity for consistent interaction between CTE and non-CTE faculty and students in SLCs has the potential to reduce the stigma attached to CTE programs. However, only one of the three SLC schools visited reported reductions in CTE stigma, and that was a school that was newly organizing their SLCs around career clusters. Another school that randomly placed students into SLCs reported that CTE was still not as attractive to students as it would be if more CTE courses carried higher GPA weighting. And researchers noted that at the third SLC school, being housed together did not appear to have helped to reduce the stigma attached to CTE, which was still being perpetuated by students, parents, and administrators at the school.

Chapter 5: Assessment of EEDA Implementation

In this final chapter of Technical Appendix A, we summarize our findings relative to EEDA implementation. We also comment on budget cuts caused by the economic recession and their effects on implementation activities. Our conclusions relative to student outcomes analyzed in this report are discussed in more depth in Report I in connection with parallel analyses presented in that report.

EEDA Policy Implementation Levels at Sample High Schools

Career-focused activities increased at all sample schools. Observations and data collected from schools indicate that the policy increased the amount and variety of career-focused activities and guidance at sample high schools, with school counselors playing key roles in providing these activities. Results also indicate that EEDA has facilitated school reform, enhanced career guidance and counseling, and strengthened postsecondary ties. However, the study data also reveal that these outcomes vary across our study sites and that some elements of the legislation were not as fully implemented as planned. The nature of the events and the types of career experiences sample schools provided for students also varied. All schools had developed career clusters and majors and required students to select career clusters and develop Individual Graduation Plans. Schools reported being more focused on career planning for their students, working to provide students work-related experiences, and trying to offer more real-world examples in classrooms. Schools were in various stages of implementing the High Schools That Work reform model. All eight of the schools participating in our study reported either dual enrollment or dual credit arrangements, or both, with local postsecondary institutions.

Guidance counselors played a key role in policy implementation. From the beginning of EEDA implementation, guidance counselors were viewed as a lynchpin of policy success. Initial funding for this component and the addition of additional guidance staff helped not only to facilitate putting mandated guidance initiatives in place at schools but also helped launch the state policy's implementation. Various sources of data revealed that this EEDA focus on guidance had affected the role of counselors and the depth and breadth of information that students were receiving about their educational and career opportunities in career and technical fields. EEDA emphasizes students' need to engage in career development activities such as exploration, interest assessments, and talking about career issues and career options with knowledgeable adults, thus making school counseling an essential service. This emphasis in EEDA and the requirements of the IGP process increased the amount of time counselors spent with students engaging in one-on-one career-based counseling, with an increased effort to meet with every student on an annual basis. Through the IGP process, there has been a greater effort to promote CTE programs to students and engage parents in the course and career planning of their children. In addition, counselors were conducting career development and guidance workshops for teachers, guidance personnel, and work-based constituents.

The Individual Graduation Plan emerged as an essential component of policy implementation and the promotion of programs of study. The development and maintenance of students' four-year Individual Graduation Plans (IGPs) emerged as an essential component of EEDA policy implementation and the promotion of programs of study in general. Guidance personnel,

teachers, as well as students all pointed to IGP development as a valuable tool for career counseling and planning and that it had facilitated increased counselor interactions with students on career and course-related issues.

Demands of IGPs and continuing involvement in inappropriate duties often increased workloads of school counselors. The EEDA was quite specific in its delineation of appropriate and inappropriate duties for guidance counselors. Both the guidance counselor surveys and phone interviews revealed that guidance personnel were involved in more appropriate duties, while at the same time continued their involvement with inappropriate duties. Although the IGP process was seen as beneficial by counselors and students, it was also reported by counselors to be time intensive. Because of the demands of IGP-related tasks and the fact that they were still assigned a variety of other policy-mandated duties as well as still being assigned “inappropriate duties,” the IGP process was often cited as a primary reason for work overloads for counselors.

Students were benefitting in a variety of ways from policy implementation. From surveys and focus groups with students and discussions with school staff, it was obvious across schools that students in the Class of 2011 were benefitting in a variety of ways from implementation of the EEDA policy. Particularly through the Individual Graduation Plan (IGP) process, students were given opportunities to explore diverse careers and identify their interests, gain important skills in planning for careers and post-high school life, and link their interests and skills with the courses they were taking.

Components of the EEDA policy were helping to build some of the foundation for programs of study. Although we did not find at sample schools many Programs of Study (POS) that met all of the study-defined criteria for the Perkins IV core elements, our qualitative data revealed that components of EEDA were helping to build some of the foundational elements and framework necessary for the development and successful implementation of Perkins IV type programs of study. Various foundational elements were being put into place across our sample schools leading to the potential for the development of more programs of study in schools over time.

Budget Cuts and Policy Implementation

Budgets cuts have affected schools across the state and slowed progress in policy implementation and forced schools to make difficult choices relative to setting priorities for allocating scarce resources. Although schools were actively implementing a variety of career-focused activities, changing economic conditions forced schools to make some difficult choices about how to balance policy mandates with other requirements and initiatives. The timing of the implementation of the policy was unfortunate in that it occurred at the same time the state and nation were experiencing the beginning of a long recessionary period. State funding reports showed that funding was not kept up to the degree necessary to fully fund the policy’s successful implementation. Schools also reported that teachers’ jobs were on the cutting block, making the low student to guidance ratios more difficult to justify as a priority. Professional development related to the policy, although strongly noted in our initial site visits, undoubtedly suffered later with inadequate funding.

State budgeting shortfalls influenced the implementation of several EEDA initiatives; the effects of these budget cuts became especially apparent beginning in 2008-2009. In December 2008, EEDACC members expressed concern about midyear (2007-2008) budget cuts that would influence two things: 1) the implementation of programs for at-risk students, and 2) establishing curriculum standards. Another impact of budget cuts was that all formal EEDA marketing activities ended in July 2009. Informing students, teachers, parents, and the community about EEDA was a large part of the policy. Ending formal marketing efforts so soon may have had a negative impact on policy implementation throughout the state.

In 2008-2009, the EEDACC indicated in meeting reports that there would not be an increase in funding for career awareness programs, IGPs for middle school students and achieving the student-to-guidance personnel ratio of 300:1. The committee also indicated that a reduced funding request was not adequate to allow for continuous improvements in key technology components of certain EEDA line items (EEDACC, 2009).

Over time, the EEDACC reported a steady increase in the number of guidance counselors serving in the dual role of guidance counselor and career specialist. For example, in 2008-2009, 12% of career specialists reported serving in these dual roles; by 2011-12, this proportion had increased to 66% (EEDACC, 2011). As reported in December 2011, “this steady increase is a direct result of budget cuts: in several districts, the positions of career specialists who were not certified counselors were eliminated due to cuts in districts’ budgets” (p. 23). Such trends reportedly resulted in a decrease in the number of career-related activities and workshops offered to educators, students and parents in 2009-2010.

Budget cuts also affected the operation of Regional Education Centers (RECs). In 2008-2009, due to the poor economic situation in the state, the SDE reduced their funding request for the RECs line item below the desired level. As expressed by both the SDE and EEDACC, “the current level of funding hinders the RECs [coordination and facilitation efforts] necessary to meet the identified needs in their respective regions” (EEDACC 2009, p. 30).

Despite these challenging economic conditions, the 2010 annual report to the legislature by the EEDACC stated “each major component of the EEDA has been successfully implemented as legislated:”

Since the passage of the Education and Economic Development Act (EEDA) of 2005, many public schools throughout South Carolina have been transformed: comprehensive school reform models organized around career clusters have been implemented, increasing numbers of students have been receiving individual attention from guidance personnel annually, an increased number of parents are involved in their children’s decisions regarding college and/or career, and the transition between secondary and postsecondary education has become more seamless. (EEDACC, 2010, inside cover page)

These efforts are continuing, as reported by the EEDACC in their 2011 annual report, where it was stated that the “state’s public schools have continued to sustain key components of the Act” (p.ii). Sabrina Moore, the SDE EEDA administrator, highlighted some of the major

accomplishments from recent data (Moore, 2012). She reported that all state high schools are offering at least 3 of the 16 career clusters; funds have been provided to assist schools to meet the 300:1 student-to-guidance ratio with progress being made on achieving that across schools; annual Individual Graduation Plan (IGP) meetings are being held (in 2011-2012, 99% of students in Grades 8 through 12 completed an IGP); and all high schools have implemented evidence-based programs to address the needs of high-risk students, with successes reported in the majority of state funded efforts.