Ohio College Credit Plus:
A Policy Analysis of Two Central Ohio Public High Schools
in the First Year of Implementation

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This dissertation titled

Ohio College Credit Plus:
A Policy Analysis of Two Central Ohio Public High Schools
in the First Year of Implementation

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Abstract

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Ohio College Credit Plus: A Policy Analysis of Two Central Ohio Public High Schools in the First Year of Implementation

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In an effort to broaden access, meet burgeoning workforce needs, and reduce the cost of postsecondary attainment, Ohio has implemented policy to provide college credit options to high school students. The purpose of this research study was to develop a descriptive first-year profile of the implementation of Ohio’s College Credit Plus policy for two central Ohio high schools. This policy implementation analysis employed a multi-pronged approach using case study and policy implementation evaluation framework. Document review and administrative interviews provided the primary data sources.

Several overarching themes surfaced. Confusion regarding the regulations exacerbated inconsistent application and compliance across institutions. No explicit process is defined for assessing or reporting on compliance. Additional inconsistency is evident in program offerings based on district cultures, location, and size. Course offerings differ in number, quality, delivery, and subject orientation.

Additionally, while program reporting is not yet required or available, preliminary enrollment information from the two case study sites indicates potential continuation of historic trends of limited minority participation. The funding model requires the district to cover tuition and material in an environment where public educational funding has
eroded. K-12 administrators expressed concerns regarding the financial sustainability of the program. While some critical barriers to access have been removed, student support systems and counseling services have not been increased to assist those students that may need guidance in understanding alternative program offerings, risks and benefits, and designing an appropriate academic plan.

Finally, secondary and postsecondary institutional objectives and organizational structures generate conflict in establishing and managing dual enrollment course offerings. These conflicts surface in teacher-faculty interactions, academic calendars, and, for some innovative school models, such as early college high schools, a discrepancy between competency-based progression and seat time in assessing credits earned.

As the program matures and additional elements are created to ensure compliance and student success, this dual enrollment policy holds the potential to move Ohio forward in creating a more equitable and effective K-16 continuum, but there are program elements, which if not addressed, create the risk that it will not.

*Key words:* dual enrollment, College Credit Plus, policy, Ohio, dual credit
Dedication

This dissertation journey would not have been possible without the encouragement and support of my husband, family, friends and peers.

Thank you all for your guidance and care, especially those (Monica, Mary Beth, Carissa) who made me grin, helped me feel grounded, and pushed me to keep going.
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Chapter 1: Introduction

Central Ohio public high schools and higher education institutions are on a newly mandated fast track to accelerate college and improve completion rates. While efforts have been initiated throughout the 20th century, this pressure has been building across the state and nationally, most notably since the early 2000’s. Since the publication of *A Nation at Risk* (U.S. Department of Education, 1983), issues related to global competitiveness have necessitated a look at building a more educated citizenry with the skills required in a knowledge-based and technically oriented economy. The findings and recommendations from that report have been echoed in subsequent analyses, including the 2006 Spellings Report (U.S Department of Education). Findings from these studies have impacted the development of key federal policy guidelines, including the reauthorization of the Higher Education Act (HEA), now pending, which has established goals associated with access, opportunity, funding, and, more recently, accountability, as demonstrated by efficient use of tax dollars and improved completion rates across student groups (American Council on Education, 2015).

To accelerate progress through college and improve completion rates, national and state policies are moving on parallel paths driven by similar constituency groups, political sentiment, and economic realities. Several non-profit organizations, such as the Bill and Melinda Gates Foundation and Lumina, have created template policies and lobbied at both the federal and state level in promotion of greater access, faster degree completion and workforce development. Some of the principal organizations involved in the completion agenda, and with which Ohio has partnered, include Complete College
America, Achieving the Dream, Lumina, and the Bill and Melinda Gates Foundation. Notably, the rise of these active non-profits in garnering funding for selected actions has coincided with weakened public support for higher education. The environment has encouraged the development of public-private partnerships in addressing academic challenges. Additionally, policymakers and communities are demanding a tighter link between education, outcomes, and employment.

Multiple constituencies inform educational policy. Critical stakeholders in this process collide and collaborate in the space that Robbins (1993) termed “occupational opportunity… the main place of conflict in the struggle between the field of education… and the field of employment…” (p. 156). Others have noted that the implementation of policy must take into account not only the various participants but also logistical and programmatic considerations (Dar, 2013). State policies have historically addressed four key areas: funding, accountability, high-school-to-college transition, and partnerships (Harnish & Lynch, 2005; McLendon, & Perna, 2014). Educators, employers, and policymakers have overlapping and yet separate agendas in the development of these policies, which include accelerating college by providing college credit opportunities for high school students.

Over the last decade, Ohio has invested in a variety of programs such as early college high schools (ECHSs) and career pathways. Some programs leveraged federal grants, such as those provided by the funding allocated in the Race to the Top (U.S. Department of Education, Programs, Race to the Top, 2015), by developing partnerships with non-profit foundations, or by obtaining grant money set aside by the Ohio
Department of Education (ODE) for innovative programming (ODE, 2015). Ohio College Credit Plus (CCP) outlines policy objectives and rules that can accelerate and ease the transition from high school to college by providing broad access to dual enrollment programs (ORC, 2014; ODHE, 2015b, see Appendix A for a summary of CCP rules).

The legislation and rules focus on dual enrollment programs, one approach advocated to address educational and skill needs for a growing economy. These programs provide students with the opportunity to earn both high school and college credit simultaneously for successfully completed coursework.

By creating a new state-level approach for obtaining dual credits, more Ohio students may be provided these types of opportunities. Codified in 2014, College Credit Plus requires development and deployment of college credit opportunities for all Ohio public high school students. Goals include better aligning the K-12 and postsecondary curriculum, broadening access across different demographic groups, speeding degree attainment, and lowering postsecondary costs. Rules and regulations distributed in January 2015 required implementation for the 2015-2016 school year. Noting that most districts complete a master schedule of classes and enrollment for the next school year during the preceding spring, this schedule was aggressive; districts must first understand and then react to the requirements, some of which continue to change or expand. It was a rapid process to develop and deploy new programs within existing curriculum structures and some Ohio school districts were more ready than others.
Background

While the College Credit Plus program is unique, Ohio is in step with a broader national agenda to provide college credit opportunities to more students at a lower cost. Dual enrollment, which may also be referred to as dual credit or concurrent enrollment, is increasingly offered to high school students across the United States. These programs differ from traditional accelerated academic programs, such as Advanced Placement (AP) or International Baccalaureate (IB), because they provide low-cost or free college credit options to high school students in curricula integrated into the high school coursework or environment and which awards college transcripted, and high school credit simultaneously. According to the College Credit Plus definitions, a transcripted credit "means post-secondary credit that is conferred by an institution of higher education and is reflected on a student's official record at that institution upon completion of a course" (OCR, 2014, 3365.01).

Dual enrollment is a program of study in which the student concurrently earns both high school and college credit for a successfully completed course (Thomas, Marken, Gray, & Lewis, 2013). In contrast, attainment of college credit resulting from AP or IB coursework requires the student complete a standardized exam, which is reviewed by the postsecondary institution for potential articulation and credit. Similarly, Career and Technical Education (CTE) credits are governed by agreements between a high school and postsecondary institution that establishes requirements for articulation of a credit. The student must request this articulation at the time of enrollment in that institution. Note that the terms dual credit, dual enrollment, and concurrent enrollment

are not used consistently across organizations or in existing research. For example, the National Alliance for Concurrent Enrollment Partnerships (NACEP) (n.d.) specifically defines concurrent enrollment as college-level coursework taught by a certified high school teacher in the high school. Other definitions provide greater flexibility in the location of the delivery for dual enrollment course and the affiliation of the instructor.

Dual enrollment programs can be further delineated based on the program structure, or lack thereof,

*Within* a “dual enrollment program” is defined as within an organized system with special guidelines…[setting] entrance or eligibility requirements, funding, limits on course taking, and so on. This includes early and middle college high schools…*Outside* a “dual enrollment program” is defined as high school students who simply enroll in credit courses… and are treated as regular college students. (Marken, Gray, & Lewis, 2013, p.1, emphasis in original)

For students within dual enrollment programs, participation in college-level coursework may begin earlier than traditional plans, starting in ninth grade, or even in middle school. They may also extend past the conventional high school years and go beyond 12th grade. Some of these initiatives expand on characteristics of CTE programs to create career pathways that build connections to specific industry credentials and job opportunities.

Research within individual states, such as in North Carolina (Edmunds, 2013), Georgia (Harnish & Lynch, 2005), and Texas (Struhl & Vargas, 2012), supports the implication that dual enrollment programs benefit broad student constituencies, including
minorities, low-income, first-generation, and at-risk students. Research suggests that participation in dual enrollment programs heightens college readiness, facilitates alignment of K-12 curricula and postsecondary requirements, improves high-school-to-college transition, and shortens time to degree (American Institutes of Research [AIR], 2006, 2009; An, 2013; Harnish & Lynch, 2005; Westcott, 2009). Although results across these studies are relatively consistent in pointing to a positive relationship, individual state policy and unique program characteristics have not been dissected. Therefore, generalizing results is not practical without caution and consideration of potentially confounding variables, including the influence of state policy.

**Problem Statement**

Ohio, in addition to other states, is focusing funding, policy, and resources on providing college credit options to high school students. Dual enrollment programs can broaden access, provide opportunities to traditionally underserved student populations, and lower the cost of attaining a postsecondary credential (AIR, 2006, 2009; Westcott, 2009). Dual enrollment requirements are governed by state, rather than federal, guidelines and are the concentration of increasing policy review and scholarly research. Lumina, Complete College America, the National Center for Public Policy and Higher Education, Jobs for the Future, and the Bill and Melinda Gates Foundation are among the many influential organizations recommending state policies supporting dual enrollment.

Research indicates that state policy can support or detract from innovative and accelerated educational programming that opens access, addresses equity, and maintains cost-efficiency (Vargas, 2006; McLendon & Perna, 2014). Researchers have assessed
individual dual enrollment programs in several states (Edmunds, 2013; Harnish & Lynch, 2005; Karp, Calcagno, Hughes, Jeong, & Bailey, 2007; Hughes, Rodriguez, Edwards, & Belfield, 2012) and resulting findings and recommendations highlight key policy requirements for successful programs. These fundamental policy requirements include K-12 and higher education program alignment, transition agreements across institutions of higher education (IHE), and funding models that incentivize participation in college credit partnerships.

Analysis of Ohio’s new legislation provided an opportunity to examine the potential tensions created across differing institutions with multiple goals in partnerships shaped by state education policy. Insights can be leveraged to improve outcomes targeted by the policy because “improved understanding of the relationship between state policy and college preparation, affordability, participation, and completion is essential” (McLendon & Perna, 2014, p.9). Creating a descriptive profile of the first year in the implementation of College Credit Plus can assist in the assessment of student success and cost-effectiveness, as well as inform educational institutions in best practices needed to facilitate improved access, equity, and efficiency in these educational programs.

**Research Purpose and Approach**

The purpose of this research study was to develop a descriptive first-year profile of the implementation of Ohio’s College Credit Plus policy for two central Ohio high schools. This policy implementation analysis employed a multi-pronged approach using a case study model within an action inquiry framework (See Figure 1).
The research model establishes a phase wherein actions are collaboratively developed that increase equity and justice (St. John, 2013). This is accomplished by assessing the conditions and characteristics of effective educational programs and developing plans to address identified needs (McLendon & Perna, 2014). This analysis describes the differences in CCP implementation between two different districts by investigating the high schools’ implementation strategies, including requirements to
notify students and families about the program, how credits are earned, and what constitutes eligibility. This study used a qualitative case study approach with an action inquiry perspective.

Pragmatic research and examination of policy implementation is increasingly highlighted as critical to the advancement of social research (Brenneman, et al., 2010; Callan, Ewell, Finney, & Jones, 2007; Conner & Rabovsky, 2011; McLendon & Perna, 2014; St. John, 2013; Stark, 2013). It provides a democratic means to assess impact with the active participation of those involved (St. John, 2013; Stark, 2013). The emerging approach to active research builds on the pragmatic approach of Dewey (2016) and seeks to address what St. John (2013) has termed a “global transition” away from the historic arch of progressivism (p.11). An evaluation of the implementation of this Ohio educational policy allowed for an initial assessment of impact on key student constituencies and provides the opportunity for a determination, in conjunction with those actively engaged at the institutional level in this implementation, of how changes may be made to enhance equity and justice.

Research was conducted using two primary modes of data collection. First, document and record analysis created foundational understanding of institutional actions and procedures established as a result of College Credit Plus. Second, the perceptions of those responsible for the implementation were provided through interviews with key state and district administrators.

Interviews were designed to clarify policy implementation, marketing, and curriculum as defined in available documentation and records. Additionally, the
perceptions of administrators and staff responsible for actual implementation activities provided depth and meaning to the policy and resulting programs. Themes were identified and categorized using the theoretical framework outlined later in this chapter. These were coded based on current literature and emerging themes. Confidentiality will be maintained for both schools and individuals.

These data sources were supplemented with demographic information as available. Student descriptive statistics could add additional insight and context, however, formalized reporting is not in place and this information was not available from both districts. As data requirements are put into place, trends should be monitored over time to determine how this policy is impacting college matriculation, degree completion, and career choices. Capturing baseline participation data facilitates development of trends that can be compared to those of earlier Ohio high school-college credit programs, and to national or future Ohio participation.

**Research Questions**

There is increasing research on the impact of dual enrollment participation. Research that is available predominantly has been conducted on selected individual populations, within single states or locations (Edmunds, 2013; Harnish & Lynch, 2005; Karp, et al., 2007; Hughes, 2012). Some research has been funded by organizations advocating these programs (AIR, 2006, 2009; Struhl & Vargas, 2012). Some analysis has been performed to compare dual enrollment, overall, with advanced placement outcomes specifically (An, 2013; Speroni, 2011a). Many studies provide descriptive information for individual programs (AIR, 2006; Edmunds, 2013; Harnish & Lynch, 2005).
However, in order to expand understanding of the relationship between state policy and high school student participation in dual enrollment programs, this study has sought to answer the following research questions in analyzing the fidelity of implementation of the Ohio College Credit Plus policy at two locations:

1. How have implementation strategies met the requirements of Ohio’s College Credit Plus policy?
2. How has each high school implemented college credit opportunities?
3. What lessons can be learned from the first-year implementation process?

**Theoretical Framework**

College Credit Plus policy seeks to address multiple issues. Ohio’s dual enrollment requirements were analyzed using several theoretical perspectives. Numerous dynamics are influencing the development and implementation of dual enrollment course offerings for high school students. Among these are increased pressure on educational institutions to promote workforce development and, concurrently, a desire to improve college completion rates, especially for underserved student populations. St. John (2003) provides the basic scaffolding through which implementation of Ohio College Credit Plus will be analyzed. Three critical dimensions will be assessed. According to St. John (2003), policy and educational programming should support:

1. *access for the majority*, as measured by the overall opportunities to attend college;
2. *equal opportunity to enroll*, as measured by the growing gap in opportunity between minorities (African Americans and Hispanics) and Whites and between low-income and high-income students;

3. *justice for taxpayers*, as measured by tax expenditures per student enrolled in higher and other postsecondary education (p.17, emphasis in original).

Against these dimensions, additional theories provide insight. Cultural and social capital affect student choice and participation in these types programs. Does the policy and selected implementation strategy provide adequate support to overcome potential barriers that may ultimately impact access and opportunity, especially for students who do not typically participate in high school college credit programs? College Credit Plus supports many of the social and economic objectives espoused by those working for higher completion rates and accelerated college, such as Lumina and the Gates Foundation. These perspectives warrant consideration as well.

Both workforce development and human capital theory provide a lens to assess the desired outcomes of educational programming and policy. Economic projections recently conducted indicate a shortage of skilled workers who are able to meet the employment requirements in an increasingly knowledge- and technologically-based economy (Carnevale & Rose, 2012). Projections by Harvard Graduate School of Education (HGSE) indicate that only one third of future jobs will require a baccalaureate degree; there is a significant shortage estimated, depending on industry, in middle-skilled jobs, which are those requiring more than high school, but less than a baccalaureate degree (Symonds, Schwartz, & Ferguson, 2011). For the central Ohio region, a recent
study projects that over 10,000 new middle-skill jobs will be created annually through 2018 (New Skills at Work & JP Morgan Chase, 2015) and many of these will be challenging to fill.

Development of accelerated certification and two-year degree programs directly aligned with projected industry needs is an attempt to address this gap. Inability to provide a skilled workforce to emerging and rising industry sectors will limit the ability of individual states, and the nation as a whole, to achieve economic stability and growth (The Pell Institute & PennAHEAD, 2015). In central Ohio high schools, four industry pathways (advanced manufacturing, logistics, information technology, and healthcare) were initiated in 2014 that are directly tied to state economic projections (Reynoldsburg City Schools, 2013).

Human capital is based on the attainment of education and skills that are leveraged for personal gain or advantage. College credit opportunities enhance the academic – and therefore, human – capital of participating students and support the need for an educated workforce. As schools deploy career pathways, work-based learning experiences, and college credit opportunities, students can enhance their ability to build the skills necessary for gainful employment that can support a family, and, at the same time, create broader economic value for their communities. Social theories overlap both human and cultural capital theories in highlighting the role that families and community networks play in creating connections that improve both types of capital. Additionally, families and communities are important in recreating intergenerational characteristics, behavior, and beliefs (St. Johns, 2003). Expectations and aspirations can be set by the
norms of those with whom students associate, thereby influencing educational and career choices.

These theoretical perspectives – social justice, cultural capital, and economic theories – provided a framework within which to examine the implementation of College Credit Plus. Implementation performance was analyzed against the legislative rules to describe characteristics and resources employed by the selected schools. Demographic elements resulted in some differing reactions, participation, and perceptions among those affected. Understanding these elements assist in evaluation of the program and development of additional actions to strengthen attainment of desired outcomes.

**Study Delimitations and Limitations**

**Delimitations.** The study was delimited by the selection of two K-12 districts within central Ohio, which are dissimilar in size, one with three high schools of approximately 1,700 students each. Analysis of College Credit Plus policy implementation assessed actions and programs developed for the 2015-2016 academic year. Further, both districts participated in the 2014-2015 Straight A funding for career pathway development that included some creation of dual enrollment courses. This shared experience would differentiate these schools from others outside the region that did not participate in this program. These school districts worked in a collaborative consortium with Ohio Department of Education grant funding that supported the purchase of work-based learning equipment, teacher training, and solidification of partnerships with a postsecondary two-year institution to deliver college courses to high school students (ODE, 2015c). These steps were taken ahead of the CCP legislation. The
high schools selected are representative of suburban high schools with somewhat similar demographics. Urban, rural, or small schools are not included and are, potentially, addressing implementation of this policy in ways that would not benefit from the results of this analysis.

Data collection methods were delimited to document analysis and interviews. Supplemental student information statistics were requested. However, district reporting requirements were not defined at the time of the study and reports to the state are not mandatory until July 2017. Nonetheless, each district did provide some preliminary, though dissimilar, information on the participation in dual enrollment coursework.

Multiple additional characteristics, such as teacher qualification, delivery mode, and student support services associated with dual enrollment provide critical avenues for future research but were not included in this policy implementation analysis.

Limitations. This dual case study was limited to the first semester, first year of College Credit Plus policy implementation. Actions taken in initial deployment of programs may be modified over time and with additional experience. Selected administrative staff were interviewed; however, neither student nor teacher information was collected because this study focuses only on policy implementation.

Due to the unique nature of the interplays among individual state and district policy, school district demographics, dual enrollment program characteristics, and student profiles, the results of this study should be used with caution when extending into other environments. Findings would not be generalizable to dual enrollment offerings in other locations, even within the state of Ohio. However, the findings do provide insights to
inform the development of new offerings and assist schools as they seek to implement programs meeting the requirements of Ohio’s College Credit Plus legislation or other high-school-college-credit programs.

**Definition of Terms**

The Ohio Revised Code (ORC) has defined key terms related to the College Credit Plus legislation in ORC Chapter 3365 (ORC, 2014). An additional statute, ORC 3333 (2014), defines other policy and program requirements, associated with the role, responsibilities, and scopes of the Chancellor and the Ohio Board of Regents (now the Ohio Department of Higher Education), including responsibilities related to workforce development and college credit programs.

There are many variations of college credit opportunities available for high school students. Ohio has historically provided separate guidance for these types of programs, many of which are now combined under CCP. Table 1 provides a high level, descriptive summary of precollege credit programs.
Table 1

**Summary of High School College Credit Programs**

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
<th>Funding</th>
<th>Design Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Placement (AP)</td>
<td>Individually selected by higher-achieving secondary students; taught in high school; credit status dependent upon College Board test results that may be accepted by the postsecondary institution in lieu of college credit.</td>
<td>Student/high school</td>
<td>Curriculum created by College Board; high school courses are audited to ensure compliance to curriculum.</td>
</tr>
<tr>
<td>International Baccalaureate (IB)</td>
<td>International Educational Foundation offers programs for students aged 3-19, resulting in certificates or diplomas that may be accepted by postsecondary institution in lieu of college credit.</td>
<td>Student/high school</td>
<td>Schools apply to IB for access to programs; students are tested on material to receive certificates or degrees.</td>
</tr>
<tr>
<td>Career &amp; Technical Education (CTE)</td>
<td>US career development program incorporating academic and career-related courses with articulation agreements between the high school and postsecondary institution; resulting in transferability of credit based on articulation agreement.</td>
<td>Student/high school</td>
<td>A planned sequence of study in a technical or vocational field, selected based on student interest; credits are articulated based on institutional agreements.</td>
</tr>
<tr>
<td>Single college coursework</td>
<td>Individually selected and registered, resulting in individual college credits obtained while still in high school.</td>
<td>Student</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Dual enrollment</td>
<td>A school program resulting in attainment of a high school diploma and college credits, certificate, or an associate degree; earned simultaneously and transferrable based on state and postsecondary guidelines.</td>
<td>High school/postsecondary institute/state/student</td>
<td>Academic programs are designed in cooperative manner between the high school and postsecondary partner; in Ohio credits are easily transferable for all public institutions of higher education.</td>
</tr>
</tbody>
</table>

Note: There is inconsistent use of these terms across current literature and research.
Additional terms are clarified below for the purposes of this study.

**Accountability:** Ohio postsecondary institutions, governed by the Department of Higher Education (DOHE), operate under a performance-funding model that assesses key outcomes such as completion rates. Secondary districts report against a Department of Education (ODE) scorecard (n.d.). Specific metrics for dual enrollment are in development but are anticipated to include the number of students participating and the location and type of courses accessed (McGarity, Ohio Alliance of Dual Enrollment Partnerships Conference, November 12, 2015).

**Access:** Access incorporates at least two separate elements, financial and academic ability (St. John, 2003). Financially, although the high school cannot charge students based on the framework of College Credit Plus for successfully completed courses, other factors, such as the ability to travel, may restrict access to programs by some students. Academic access requires completion of the appropriate prerequisite coursework. Additionally, district resources may enhance or restrict access to courses based on location, proximity of postsecondary institutions, teacher credentialing, and other curriculum programming decisions.

**Achievement:** Student achievement is calculated in a variety of ways and may include Grade Point Average (GPA), standardized test scores, and graduation rates. For the purposes of this study, three categories have been defined based on GPA using a four-point scale; low-achieving students are those with GPAs below 2.0; middle-achieving students are those with a GPAs above 2.0 but below 3.0; and high-achieving students have GPAs at or above 3.0.
**Articulated credit:** “Post-secondary credit that is reflected on the official record of a student at an institution of higher education only upon enrollment at that institution after graduation from a secondary school” (ORC, 2014, 3365.01).

**At-risk student:** Student characteristics, outcomes, or behaviors related to the inability to attain critical basic skills and that indicate a high probability of dropping out (Kaufman & Owings, 1992).

**Early college high school:** High school and, potentially, feeder middle schools, with course work aligned and coordinated in a formalized governance structure with postsecondary partner(s) that offer rigorous academic preparation and an ability to earn college credits or an associate degree simultaneously with a high school diploma (Mickens, 2013).

**Finance:** Program cost and funding establish a foundational element that can impact the secondary and postsecondary institutions, as well as students and family. According to Zinth (2015b) assuring a sustainable funding model that removes barriers for all students is critical to expanding dual enrollment opportunities. The funding and governance for public secondary and postsecondary institutions differ. Ohio high schools are locally administrated with taxpayer funding. Postsecondary public institutions are incorporated into the University System of Ohio and are supported by state funding based on a defined performance model.

**Partnership:** Collaboration between institutions is required in order to provide dual enrollment opportunities for high school students. Generally, memorandums of
understanding (MOUs) are created that define and document specific responsibilities and allocation of resources.

Pathways: A course of study that guides students toward attainment of dual credit, a credential, or other measure of success. The term is currently being used in several ways in academe.

1. Career pathway: Structured coursework at the high school level that is linked to a career or postsecondary certification and/or degree attainment (Schwartz & Hoffman, 2014, Symonds, et al., 2011). Career pathways are aligned with industry and represent a critical element in the recommendations in Pathways to Prosperity (Symonds, et al., 2011). These recommendations formed the basis for the 2014-2015 pathway work in central Ohio that leveraged Ohio ODE Straight A funding (ODE, 2015; Reynoldsburg City Schools, 2013)

2. College credit pathway: College Credit Plus defines a pathway as denoting a sequence of classes leading to 15 or 30 college credit hours, these may be general education and can be without specific industry alignment (ORC, 2014, 3365.13).

3. Guided pathway: At the postsecondary level, research has indicated that limiting course selection and defining a clear roadmap that ends in degree attainment is a key to improving student success and completion (Complete College America, 2014; Jenkins & Cho, 2013). A guided pathway lays out a specific sequence of courses and critical milestones for postsecondary degree completion, and may also include monitoring for risk events, such as an enrollment off-plan.
**Quality:** The quality of the program includes the level of academic rigor in courses offered. Other program factors such as delivery method or location, textbooks and equipment, and teacher credentials also impact the quality of the academic experience. Adelman (1999) differentiates rigor from academic intensity. Noting that rigor refers to program standards which vary widely between courses and schools. He defines academic intensity as the level of non-remedial Carnegie units in six key subject areas; findings highlight this variable as a critical component to postsecondary matriculation and success.

*Transfer Assurance Guide (TAG):* In Ohio, specifically identified courses in more than 38 degree progressions that have course requirements and learning outcomes with consensus across institutions and that allow not only the transfer of credit, but the application of those course credits to specified degrees (ODHE, 2015c).

*Transition:* The ability of the student to easily matriculate into a postsecondary institution of choice includes transfer of credits, academic and emotional readiness, and understanding of the college experience and the steps required to successfully make a college choice (Perna, 2006). Alignment of high school graduation and college entrance requirements facilitates these goals.

**Significance**

This chapter has provided the background, key terminology, and theoretical frameworks that will be used for this study. Ohio has codified a centralized, mandated approach under the College Credit Plus legislation, and, as noted, there is an increasing use of dual enrollment programs. As an example, for the school year 2010-11, 46% of
Title IV postsecondary institutions, those eligible to participate in federal student loan programs, reported high school students earning college credit within a dual enrollment program at their institutions (Marken, et al., 2013). High schools reported participation in dual credit programs at over 80% for that same period (Thomas, et al., 2013). The number of students participating is expected to increase across the state as all Ohio public schools implement requirements designed to broaden college credit access while students are in high school.

An analysis of National Center for Education Statistics (NCES) findings for the Beginning Postsecondary (BPS): 04/09 cohort indicates that participation in any college credit coursework while in high school differs based on socioeconomic status (SES), academic achievement, and race/ethnicity. White or Asian students in higher income brackets who maintain high grade point averages participate at a significantly greater rate than lower income levels or other races (U.S. Department of Education, 2009). In Ohio, participation in the pre-College Credit Plus dual enrollment opportunities, such as those provided under the Postsecondary Enrollment Options Program (PSEOP), was relatively low, fluctuating at around 5% of the secondary student population with the highest proportion of participants demographically mirroring national data (Harper, 2015).

Based on a survey of state dual enrollment policies, Harnish and Lynch (2005) note, “Admissions requirements and funding were the dual enrollment program elements most often regulated by state policies, and program structure and use of earned credits were least regulated by states” (p.171). College Credit Plus does address the attainment and transfer of earned credits within the University System of Ohio, but does not define
program specific requirements that may encourage broad student participation, nor does it address the issues that may face the many private non-profit colleges and universities in managing their relationships with Ohio K-12 districts.

Issues of funding, participation, and delivery are critical in assessing how the implementation of the CCP policy addresses potential pitfalls that can be associated with access to college credit opportunities by high school students. Location, academic standing, and available courses at participating high schools can restrict access to college credit curricula and may make them unattainable for some student populations (Kim, 2008). An analysis of Ohio’s PSEO program found that highest participation occurred in locations connected to urban areas, indicating these limitations can confront rural schools (Harper, 2015). College Credit Plus requires coverage of college fees and materials by the high school district. However, some districts may have difficulty developing a budget to support broad participation without increased state funding. If more remote, they may struggle to form the postsecondary partnerships that would be needed in order to offer these programs to a majority of academically eligible students.

Ohio is among the first states to implement state policy with centrally defined dual enrollment characteristics that are required for all public educational institutions. It is within the discretion of the partnering academic institutions to define how the policy will be implemented, including selection of the specific courses to be offered, how students will be advised and supported in accelerated programs, and the mode of course delivery.
College Credit Plus requirements define rules addressing student eligibility, funding, instructor credentials, college credit pathway development, and student counseling. However, other program characteristics may also be important as students make choices to participate or persist in these programs. Further, some elements, such as delivery location or teacher credentials, are left to the discretion of the partnering high school and the IHE.

Dual enrollment programs are often structured to address key educational features that research indicates supports student success. Research has identified critical characteristics needed for student success in dual enrollment programs (AIR, 2006, 2009; Adelman, 1999, 2006; Edmunds, 2005; Struhl & Vargas, 2012), which AIR (2006) labeled as the “three r’s, …rigorous instruction, relevant curriculum, and supportive relationships” (p.v). Many dual enrollment programs address these essentials by deploying an aligned high school-postsecondary curriculum that is paired with experiential learning and student support services, such as mentors, advisors, or career counselors.

With increasing investment in these initiatives, assessment of program implementation strategies is needed in order to better inform policy makers, communities, and individual students. Taxpayers, communities, and students are impacted by the ability of high schools to successfully implement education policy. Assessment of the critical success indicators can inform future modifications to both policy and individual dual enrollment programs in addressing goals to extend access, increase diversity, and provide cost efficient programs across the state.
Organization of Study

This study is organized into five chapters. Chapter 1 provides a brief introduction to the problem and the significance of the study. In this chapter, general background on precollege credit programs, including a brief review of dual enrollment, key terms, and Ohio’s College Credit Plus policy has been provided. The research problem, questions, and significance guiding the study are outlined.

Chapter 2 provides an overview of relevant literature and research on dual enrollment. The chapter begins with a discussion of the theoretical frameworks that were used to view and assess these programs and their success. Second, a brief overview of the various high-school-college-credit programs is provided. Third, the chapter describes national policy drivers and state implementations, including program elements associated with student success. Finally, chapter 2 looks at Ohio’s historical dual credit programs.

Chapter 3 outlines how this policy analysis was conducted using a case study approach with an active inquiry perspective. Implementation strategy in two Ohio K-12 districts was analyzed. This chapter also defines the steps, tools, and instruments that were used to capture policy and program data and describes how College Credit Plus legislative requirements are implemented at the selected sites. Resulting findings have been used to develop program themes, and highlight key implementation strategies.

Chapter 4 documents the findings. This chapter provides a summary of the data collection process. Interview comments and results from document review are categorized around themes from current research and elements emerging from the analysis. Findings are organized into the following themes: access, quality, transition,
finance, and other implementation characteristics. Findings are summarized to compare, contrast, and highlight fidelity of the districts’ implementations to legislated requirements.

Finally, chapter 5 discusses the findings and draws attention to policy elements in support and contrast to emerging research. This chapter assesses the findings against both the theoretical frameworks outlined in chapter 1 as well as the program elements highlighted in literature and around which themes developed. Recommendations for practice and research are provided. The study concludes with references and appendices relevant to the study.
Chapter 2: Literature Review

Introduction

This chapter examines relevant literature pertaining to dual enrollment and associated educational policy. In order to expand understanding of the relationship between state policy and high school student participation in dual enrollment programs, study results seek to provide insight into the following research questions, which will serve as a guide in analyzing the impact of Ohio’s College Credit Plus dual enrollment requirements:

1. How have implementation strategies met the requirements of Ohio’s College Credit Plus policy?
2. How has each high school implemented college credit opportunities?
3. What lessons can be learned from the first-year implementation process?

Traditionally, college credit opportunities have been made available to higher achieving high school students through advanced placement or international baccalaureate coursework. However, a number of factors converged that have accelerated and broadened the types of college credit opportunities available to high school students. Reform policies created and implemented following the release of *A Nation at Risk* (US Department of Education, 1983) and *A Test of Leadership* (U.S. Department of Education, 2006) have sought to increase academic rigor and improve student outcomes. These national reports assessed the status of our nation’s educational system and provided recommendations that drove changes at all levels. Due to the number of modifications these programs have experienced within the last decade,
literature on dual enrollment and high school-college success discussed in this chapter
will focus on more recent research, that which has been completed since the early 2000s.
However, a historical perspective contributes to a deeper understanding of the issues and
impacts and these will be considered as well.

This chapter is organized in five main sections. Analysis of student choice and
achievement necessitates comprehension of critical social, economic, and philosophical
frameworks. The first section highlights three theoretical frameworks that support
analysis of academic policy. Economic, social justice, and cultural capital theories
provide a lens through which to examine the implementation of college credit and
industry-oriented career pathways in the central Ohio region. The second section
provides general background information on college credit programs offered at the
secondary level. The third section looks at dual enrollment programs implemented in
other states, including analysis of research on how dual enrollment programs may impact
student success. Because state policy is critical in establishing foundational elements for
dual enrollment, or other educational, programs, the fourth section looks briefly at current
and historical Ohio policy on high school-college transition or credit earning programs,
including a high-level review of the College Credit Plus rules and requirements. The
chapter concludes with an emerging line of research theory, action inquiry, which is used
to inform and drive advocacy from traditional academic study.

Theoretical Framework

This section presents an analysis of theories behind the development and
proliferation of high-school-college-credit programs. Understanding program
implementation, performance, and participation in dual enrollment is deepened by examination of underlying social and economic factors.

National and regional targets for increased college completion are coupled with anticipated skill gaps in U.S industries (Carnevale & Rose, 2012; Symonds, et al., 2011; New Skills at Work & JP Morgan Chase, 2015). Therefore, in order to meet projected shortages, there is a growing need for postsecondary students to demonstrate industry-based skills as well as career and college readiness. Additionally, college costs have risen and even though more students are entering postsecondary institutions, completion rates have remained stagnant, especially for underserved populations (Bowen, Chingos, & McPherson, 2009). These factors have converged and are spurring debate, discussion, and policy creation aimed at reducing the time and cost of degree completion.

Simultaneously, a growing social agenda, encouraged by both governmental and non-profit agencies, seeks to improve access and facilitate more positive postsecondary outcomes for underserved populations and counteract the growing economic inequity, while addressing the anticipated skill need for an expanding global economy.

The gap in college degree attainment, especially at the baccalaureate level, by socioeconomic class is persistent and is widening. A recent report released by the Pell Foundation (The Pell Institute & PennAHEAD, 2015) highlights the growing inequity. The study assessed six equity factors looking at who participates in postsecondary activity and to what level they participate. The report findings are consistent with other research (Bowen, et al., 2009; Carnevale & Rose, 2012; Carnevale & Struhl, 2010, 2013) and indicate that disadvantaged students -- minority and of low socioeconomic status
(SES) -- are less likely to attend a postsecondary institution and, when they do matriculate, are more likely to attend a less selective institution, even if meeting academic requirements. The result is that more elite, four-year colleges and universities are becoming whiter and richer, while less selective and two-year institutions are serving more minorities (Carnevale & Rose, 2012; Carnevale & Struhl, 2013; The Pell Institute & PennAHEAD, 2015). The 45-year trend report highlights how current educational policy, as well as the U.S’s broader and growing social inequity, is contributing to an unbalanced and two-tiered educational system (Carnevale & Struhl, 2010, 2013; The Pell Institute & PennAHEAD, 2015).

1. Economic theories. Projected skill shortages indicate a need to build a talent pipeline to sustain economic growth. Workforce development and human capital theories contribute to an assessment of current policy calling for accelerated college and postsecondary credentialing that meets identified industry needs. Current workforce development efforts build upon the historical foundation established by earlier career, technical, and vocational programs and policies while also seeking to infuse greater academic rigor. Impetus is gained by economic recovery efforts and by public awareness and sensitivity to growing student debt (Carnevale & Rose, 2012; St. John, 2003).

One’s skills, education, and training are reflected in human capital. Gaining additional education is linked to personal gains socially and economically (Becker, 1992; Carnevale, 2013; The Pew Institute & PennAHEAD, 2015). Those with higher educational credentials, also known as academic capital, are less likely to be unemployed and more likely to enjoy stable career opportunities through their lifetime (Carnevale &
Human capital, as represented by academic capital and earned degrees, provides employers with perceived information about a person’s abilities, persistence, and critical thinking skills. Additionally, greater human capital signals attainment of other soft-skills, such as the ability to solve problems and communicate clearly, necessary for success in a dynamic work environment (Becker, 1992).

The need for ever-higher academic credentials is reflective of both a globally competitive and technically oriented environment, as well as the ability of industry to demand greater training prior to hiring. Credentialism can be seen to further exacerbate the socioeconomic stratification by differentiating those with degrees from those without (Collins, 2011). Concerns related to credential inflation echo concerns related to social justice and core democratic values, such as fairness and equal opportunity. Additionally, credentialism may solidify the status quo and support replication of a two-tiered society, fixing power with those most advantaged, as it is another means of tracking and dividing (Collins, 2011). Providing more access and greater postsecondary prospects to underserved populations through dual enrollment programs can counteract this effect and offers a venue to increase attainment of human capital. For students, this can be a means to earn the academic degrees needed to secure meaningful, stable employment.

2. Social justice theory. Education can be used to advance greater equity. Policy can enable the advancement of fairness and equity in accessing educational opportunity. The triad of access, equity, and efficiency must be balanced in creating educational policy (St. John, 20003). An over emphasis on one aspect without an appraisal of the
others can lead to greater inequity. As discussed in Chapter 1, according to St. John (2003), policy and educational programming should be balanced in the support of access for the majority, equity in opportunity, and efficiency, or justice, for taxpayers.

**Access for the majority.** Both financial and academic capacities impact the ability of students to access postsecondary opportunities and to access those that provide an avenue to successful completion. Socioeconomic status, as measured by family income, is highly correlated with student matriculation into postsecondary education and ultimately degree completion (Bowen, et al., 2009). Further, financial aid policy impacts divergent SES and ethnic or racial groups differently. Low-income, African-American students are more sensitive to financial aid policies, while students who are working class or Hispanic are influenced more by changes in tuition when making college choices (St. John, 2003). Further, research indicates that students from higher SES categories and of Caucasian or Asian background are more likely than African-American or Hispanic students to enroll in a more selective university. This holds true even when academic achievement is equal (Bowen, et al., 2009; Carnevale & Struhl, 2013).

A rigorous K-12 education is another critical factor in college degree attainment (Adelman, 2006; AIR, 2006, 2009; Bowen, et al., 2009). Inequality of primary and secondary resources is affected by socioeconomic status, as well as demographic location. Students in poorer districts may lack equipment, support services, and highly trained teachers. Additionally, these students are more likely to deal with family, health, and emotional issues that negatively impact their ability to succeed academically (Diggs, 2013; Ravich, 2013).
A college-going culture is related to both academic persistence and the ability to consider available financial resources. Awareness of college and belief in the possibility of achieving a degree is correlated with taking the actions needed to gather information, search postsecondary alternatives, and complete the steps required, such as taking the Scholastic Aptitude Test (SAT), to apply, enroll, and attend college (Perna, 2006; St. John, 2003). This correlation is reflected in findings demonstrating the benefits accrued to students who participate in a competitive and supportive cohort or learning community, and it points to the importance of a college-going culture and peer support (Bowen, et al., 2009; Diggs, 2013). The impacts of socioeconomic inequity extend throughout the educational system, beginning in preschool and extending into high school and postsecondary opportunities and choices.

**Equity in opportunity.** As higher education has become more stratified, equity appears to be more and more elusive. Systemic characteristics, family environment, and personal choice influence the selection of which postsecondary institution to attend and whether to attend at all (Perna, 2006; St. John, 2003). Increasingly, lower income and minority students are attending two-year, for-profit, or less-selective postsecondary institutions, while selective four-year doctoral granting institutions are becoming more heavily populated with high SES student populations (Bowen, et al., 2009; Carnevale & Struhl, 2013; The Pew Institute & PennAHEAD, 2015)

Accelerated college programs, such as dual enrollment pathways or early college high schools (ECHS), are aimed at providing critical opportunities to students who are often underserved, such as first generation or minority students. Some research indicates
that traditionally underserved student populations, as well as those at-risk or of middle achievement, benefit from dual enrollment courses (An, 2013; Edmunds, 2013; Karp, et al., 2007; Struhl & Vargas, 2012). Historically, participation in college credit opportunities by high school students has been the purview of Caucasian or Asian students, of higher SES and with higher grade point averages (US Department of Education, 2009). However, programs such as ECHSs are increasingly targeted at minority or at-risk students (Jobs For the Future (JFF), 2013). Other programs, such as Ohio’s College Credit Plus, seek to broaden opportunity to a large population of students by providing low- or no-cost dual enrollment courses with minimal eligibility criteria, regardless of school location, size, or demographics (ORC. 2014).

Efficiency or justice for taxpayers. Broadening access to ever-larger student populations, including reaching into middle school, also seeks to address the rising cost of attaining a postsecondary degree. The 45-Year Trend Report noted that, as a percentage of income, lower SES families and students carry a higher financial burden for the cost of college (The Pew Institute & PennAHEAD, 2015). Additionally, the resources available to them are fewer. This indicates that those students, potentially in the most need of support and strong academic programs are the least likely to have access to them. Further, these students may not be well informed about options and college pricing, a critical step in the college choice process (Perna, 2006)

Affordability is an area of increasing attention. The pending reauthorization of the Higher Education Act (HEA) includes drafted language highlighting issues associated with affordability (American Council on Education (ACE), 2015). Affordability is often
tied to accountability and performance based measurements. However, assessment of efficiency requires a fuller analysis of the benefits and costs, including cross-generational uplift and broader societal impacts (St. John, 2003).

Policy trends have exacerbated the growing divide. Since the 1980’s federal and state policy has moved away from need-based grants to merit-based grants, loans, and tax incentives. These policies have supported a growing middle-class postsecondary enrollment pattern; however, they have negatively impacted low-SES and minority students (St. John, 2003). Middle-class students are more likely to have expectations of attending college and be less sensitive to rising tuition and diminishing financial aid in the form of grants (Bowen, et al., 2009). Assessing College Credit Plus for efficiency compels gleaning an understanding of how this program enlarges the pool of students seeking information on postsecondary options and taking the needed steps required to earn academic credentials.

3. Cultural capital theory. Against the political backdrop of equity in opportunity and justice as fairness, other theories provide mechanisms to look beyond the institutional structures and policies. Other forces that influence choice that are created by family, community, and personal belief. These forces are represented in theories that seek explanations from analysis of cultural, social, and human capital theories.

Capital refers to forms of power; cultural capital is one type (Swartz, 1997). Culture incorporates symbolic characteristics, such as dress, mannerisms, and educational credentials. One’s community and family help to develop social networks that can form powerful connections hindering or advancing personal ambition. These may be
connected to economic capital and financial resources as well. Elements come together to form a set of persistent habits and beliefs that drive perceptions and decisions (Swartz, 1997). Personal choice can be seen to arise from the concept of habitus (Bourdieu, 1977), which is a core concept in an analysis of social constructs and the impact of higher education on class stratification.

**Habitus.** Habitus refers to the enduring beliefs, actions, and values of an individual. These beliefs are formed as an individual grows, influenced by community and family. Educational attainment is a type of capital that can be exchanged for personal and economic benefit, as well as the potential for power and advancement in society (Bourdieu, 1977). One’s beliefs and behaviors – habitus – influence the decision of whether to enter particular fields or educational institutions. It affects decisions on participation in college preparation or vocational pathways, including those providing dual enrollment options that may lead to a postsecondary degree. Bourdieu (1977) postulated that because of one’s habitus, an individual of lower or working class might devalue education or other features esteemed by those more powerful and self-select out of situations within which they perceive or anticipate failure. This assessment may be unconscious and reinforced by family, peers, and community (Bourdieu, 1977).

**Field.** Education is a critical field when analyzing social structures. “… [T]he educational system [is] the principal institution controlling the allocation of status and privilege.” (Swartz, 1997, p.189). Field encapsulates the concept that distinctive forms of capital may be more relevant in differing settings, and that these forms of capital may be related but independent. “‘Fields’ can be defined as mutually supporting
combinations of intellectual discourses and social institutions” (Robbins, 1993, p. 155).

For example, cultural capital is important in academic fields, but may be less important in business, where economic capital is more critical (Swartz, 1997). Therefore, fields are both related and competing and represent a struggle between values (Swartz, 1997).

A conflict exists between education and employment fields in setting the academic agenda (Robbins, 1993). This concept is especially relevant in the current environment where corporate partners are actively engaged in promoting alternate academic programming and who are driving academic policy. The trend, as demonstrated by Pathways to Prosperity and other career pathway efforts, is moving toward more explicitly tying academics to industry and specific job skills.

Education and employment interests collide because educational credentials are not independently valid, but require context and value attributed by the employing entities and to which all students do not have equal access (Robbins, 1993). The fields influence each other as academe seeks to gain status relative to employers and industry causes academic institutions to adopt more work-based curriculum (Robbins, 1993). The influence of employers on academic curricula is evident in policy designed to reward participation in programs leading to degrees in high-need industries where these curricula are tied to specific vocational outcomes. These overlapping, codependent, and competing fields highlight the tension between values underpinning many new programming models.
High School College Credit Programs

The previous section provided a foundational lens through which to view and analyze high-school-college-credit programs. This section looks more in depth at both historical articulated credit programs and the emerging use of dual enrollment as a means to better prepare students for both college and career, while, potentially, reducing the overall cost of degree attainment.

College credit programs, including dual enrollment, offered to high school students, have expanded and built upon historical offerings for vocational education and advanced placement. This trend parallels a broad growth in the number of high school students earning college credits. According to the Middle College National Consortium (MCNC), almost 30% of high school seniors have earned college credits (Kim, 2012). From an institutional perspective, 82% of public high schools report students engaged in dual enrollment courses (Marken, et al., 2013). Both federal and state funding is being funneled into emerging programs. The number of dual enrollment programs is growing as states and communities seek means to better prepare students for college and career and contain the cost of earning a postsecondary degree. However, there are differences in the models and, although research data are growing, there is little empirical evidence to guide communities, students, or policy makers on specific policy constructs that facilitate attainment of the desired goals.

Multiple models are emerging that provide students with alternatives or supplements to traditional college credit options. Participation in college-level coursework may begin earlier than other, more traditional programs, starting in 9th grade,
or even as early middle school. They may also extend past the traditional high school years, sometimes going beyond 12th grade. Other, more specific kinds of high schools, such as early college, offer intensive curricula that often extend beyond the secondary school boundaries.

**Advanced placement and international baccalaureate programs.** AP coursework was created in the mid 1950’s in response to a growing chorus of research recommending cooperation between secondary and postsecondary institutions for motivated students (College Board, 2013). Both the 1983 *Nation at Risk* (U.S. Department of Education, 1983) and the 2006 Spellings report, *A Test of Leadership* (U.S. Department of Education, 2006), reinforced the need to provide students with rigorous academic preparation and extend postsecondary opportunity to all eligible students. Report recommendations included increasing access to quality academic programs, which incorporated a broadening of the availability of advanced placement and international baccalaureate coursework. In support of these objectives, the federal government has been providing funding, primarily through awarded grants, to increase participation in these programs, especially to typically underserved student groups (Byrd, Ellington, Gross, Jago, & Stern, 2007).

The IB program operates in a manner somewhat similar to AP, albeit with a more stringent operating model and program requirements. This program was founded in the late 1960s through the International Baccalaureate Organization (IBO) in acknowledgement of an increasingly global educational landscape and a need for cross-border recognized credentials (IBO, n.d.). The IB coursework, unlike AP, is a prescribed
sequence of requirements with teacher assessment combined with standardized testing. AP and IB programs seek to provide academically sound students with an accelerated transition into college. Both owning organizations assert, and some research supports the contention, that partaking in these programs may reduce the time to postsecondary degree attainment for participating students (An, 2013; College Board, 2013; IBO, n.d).

However, it must be noted that generally AP programs serve students that already demonstrate academic achievement (US Department of Education, 2009). Perceptions around the programs, particularly AP, have shifted since their initiation. Byrd, et al. (2007) note, “Although the program was designed as a college placement incentive, taking AP courses has clearly become a significant factor in the college admissions process” (p. 8, emphasis in original). In spite of efforts to extend these programs, concerns have been raised in the literature regarding elitism and rising competition based on escalating test scores (Byrd, et al., 2007). Increasingly, there has been a desire to rethink how college credit opportunities can be part of an integrated program that provides both academic rigor and career readiness, before students graduate from high school. Experiential experiences blend hands-on learning with academic attention. These programs seek to provide this opportunity beyond the traditional participants of high-achieving students.

**Career and technical education.** While AP and IB courses generally have stringent participation criteria, including higher grade point averages, career and technical education (CTE) precollege credit opportunities targeted a different, less academically oriented student population. The history of vocational training in the U.S. is helpful in
assessing and understanding the current workforce development and college credit policies.

CTE, also referred to as Vocational Education and Training (VET), was initiated in the early 20th century with the Commission on National Aid to Vocation Education (Bragg, 2013; Wonacott, 2003). The report recommended providing additional education to the large majority of Americans, most of who, at that time, did not graduate from high school. With a growing U.S. economy, a trained workforce was needed in order to increase national productivity. The commission recommended creating a tighter connection between education and work-life. Advocates for the approach believed that this would democratize the academic system and offer greater opportunities to those not going on to attain a four-year degree (Bragg, 2013; Wonacott, 2003).

These recommendations influenced the passage of the Smith-Hughes Act in 1917 (Bragg, 2013; Wonacott, 2003). Essentialism, the philosophical basis behind the Act as espoused by the leaders promoting the approach, is the belief that “instruction [emphasizes]… basic academics… respect for the prevailing power structure, and appreciation of middle class values” (Bragg, 2013, p. 190). The Act created a completely separate system for oversight, funding, and curriculum for participating, working-class students (Bragg, 2013; Wonacott, 2003). However, John Dewey, a prolific and outspoken early 20th century pragmatist and educational philosopher, was a vocal critic of a narrow focus on vocational training at the expense of broader learning. He instead expressed belief that vocational programs solidified the status quo, served capitalist
motives, and removed opportunity from marginalized populations (Bragg, 2013; Dewey, 1916). He stated

This movement [vocational training] would continue the traditional liberal or cultural education for the few economically able to enjoy it, and would give the masses a narrow technical trade education for specialized callings, carried on under the control of others (Dewey, 1916, p. 319).

The competing sentiments of this conflict carry through to subsequent vocational policies and into current debates around college and career preparation.

The mid-1960s ushered in a wave of educational reforms under a broad national policy agenda. CTE, specifically, was impacted by the expansion of vocational training into the postsecondary level under the Vocational Education Act of 1963 (Bragg, 2013). This coincided with the national expansion of community colleges (Brubacher & Rudy, 2008). Some argued these occurrences created a two-tiered educational system that replicated existing social hierarchy (Bragg, 2013). A system, under which credits were articulated, not earned, could be seen to extend the K-12 tracking system. Some credits led to a terminal, two-year degree, rather than a four-year degree. In essence, this approach continued the essentialist philosophy espoused when vocational training programs were first developed (Bragg, 2013). Tracking solidified the divide between two divergent paths, one academic and college-bound, and the other, experiential, hands-on, and job oriented. A vocational path has historically provided for those less academically able. Tracking parallels the social divide between two- and four-year postsecondary institutions in grooming future workers, separating the working class from professional
occupations (Bragg, 2013). These systemic issues and historical structures carry into current debate and highlight the sociological underpinnings that continue to plague perceptions on the relationship between education and vocation.

The Carl D. Perkins Vocational Education and Applied Technology Act, passed in 1984, solidified federal funding that promoted aligned academic and vocational achievement for career readiness (Bragg, 2013; Wonacott, 2003). Perkins program goals support course work and technical preparation in fields of applied practical arts or trade and assist the student in the transition from high school to work (US Department of Education, n.d.).

To some extent, the populations at whom the Perkins Act was targeted echoed earlier vocational history. Targeted recipients included those in poverty, minorities, and students with special needs. The unanticipated consequence was to create a negative stigma associated with participation in vocational training, further solidifying the two-track system (Bragg, 2013). More recently, Tech-Prep programs, comparable to other educational programs, have been under attack politically for ineffectiveness leading to funding for the Perkins Act being cut in 2011 (Gonzalez, 2011). These programs, like other college credit options, provide a valuable avenue for many students to gain an industry credential or degree and transition into a career, but key stakeholders are increasingly seeking measurable information on the effectiveness of publically supported programs.

The new vocationalism that surfaced in the late 1990s continued to urge tighter coordination and collaboration across the entire academic spectrum. Objectives included
promotion of better alignment between elementary/secondary, postsecondary, and business organizations (Bragg, 2013). More current recommendations, such as Pathways to Prosperity, build upon these proposals and seek to align the entire life-learning continuum with structured curriculum and work-based learning beginning in K-12, extending through postsecondary education, and leading into a related career (Schwartz & Hoffman, 2014; Symond, et al., 2011).

Currently, the participating CTE high school and accepting higher education institution, typically a community or two-year technical college, define approved courses. Individual students initiate articulation of the course(s) to be evaluated for college credit (Association for Career and Technical Education (ACTE), 2015). Tech-Prep programs embody many characteristics upon which emerging career pathway programs expand, such as creating aligned learning plans across K-12 and postsecondary institutions tied to specific industry credentials.

**Dual enrollment.** One avenue through which students can survey various career prospects and obtain college credit is through a career pathway that links high school, a community college, and local business. The Pathways to Prosperity Project is the result of recommendations from the Harvard Graduate School of Education (HGSE) (Symonds, et al., 2011) whose white paper echoes concerns previously raised in *A Nation at Risk* (US Department of Education, 1983) and the Spellings report, *A Test of Leadership* (US Department of Education, 2006). It highlights significant apprehensions related to America’s ability to remain competitive globally, meet demands for a technically skilled workforce, and address the ever widening economic and opportunity gap between those
with and those without a postsecondary education. In order to attend to these concerns, and support the Obama administration’s call for more postsecondary graduates, the authors portend that it is not necessary to put all students on a college-bound, baccalaureate degree path. In fact, projections indicate that only about one third of future jobs will require a bachelor’s or four-year degree (Symonds, et al., 2011). In central Ohio, over 27% of the jobs of the future are defined as middle-skill; this segment is expected to grow across key Ohio industries, such as healthcare and insurance (New Skills at Work & JP Morgan Chase, 2015).

For the remaining two thirds of anticipated workforce needs, there must be tighter linkage between educational experiences and tangible, regional, or local job opportunities beginning with high school students (Symonds, et al., 2011). These experiences, with active business industry engagement, lead to associate degrees or other industry recognized certificates and job placement. Internationally, there are comparable approaches, such as the apprenticeship programs in Germany, which have strong technical and educational pathways (Symonds, et al., 2011). These models could be adapted and implemented across the United States to strengthen secondary and postsecondary programs. Proposals in this vein build on traditional career and technical education but expand it to encompass a greater commitment and influence from regional businesses in guiding coursework development and a promoting a greater level of interaction with students. Generally, these programs are highly structured and businesses supplement classroom experiences with apprenticeships, internships, and job shadowing to prepare students for career and college (Symonds, et al., 2011).
Early College High Schools (ECHSs) are defined as intensive dual enrollment programs often located on a college campus (Mickens, 2013). This is another initiative through which students may earn college credits while in high school. Jobs for the Future (JFF) has partnered with Harvard GSE to provide assistance to schools seeking to implement career-oriented pathways. Additionally, JFF has supported the foundation of and funding for more than 240 ECHSs across 28 states and the District of Columbia (JFF, 2013). These programs may be adapted or combined with other programs calling for increasing college credit opportunities, easing transition to postsecondary work or education, and accelerating college degree completion.

Student initiation and the disintegration of courses are common elements in historical programs, such as CTE or AP, seeking to bridge high school and college. Early colleges deviate from that model by creating structured coursework progressions and competency gateways (JFF, 2013). ECHS may offer an alternative for students in order to improve access and expedite attainment of college credits. These high schools provide an integrated four- to six-year curriculum of study that results in both a high school diploma and up to two years of college credit and/or an associate degree (JFF, 2013). There are early college partnerships geared toward science, technology, engineering, and math (STEM) coursework leading to two-year degrees, such as an Associate in Applied Science; others may be linked to regional job projections and local industries and integrate program characteristics as recommended in Pathways to Prosperity.

Efforts underway in New York State are representative of a multiple phased approach to increase the creation of early colleges, with specific focus areas tied to
regional job opportunities. New York, additionally targets early college programs to educationally at-risk and underserved students, as is typical for many ECHS programs, to help them graduate from high school, facilitate postsecondary success, and ease transition into a meaningful job (New York Department of Education, 2013). Overall, structured, accelerated college credit dual enrollment programs work to strengthen the link between high school and college, as well as reinforce the transition into a career.

**Potential issues.** Dual enrollment programs have a long history and most states have policies in place that support or require these opportunities for students (Karp, Bailey, Hughes, and Fermin, 2004). However, beyond the potential to solidify the status quo, as Dewey (1916) expressed in the early 20th century, there are related issues associated with these curricula that should be taken into account when assessing outcomes and potential benefits. Location, academic standing, and courses available at participating high schools can restrict access to college credit curricula and may make them unattainable for some student populations (Kim, 2008). For example, small, underfunded, or rural schools may not have access to facilities or resources, such as a near-by postsecondary institution or appropriately qualified teachers, that are needed in order to offer college credit options to their students.

A critical limitation for dual credit coursework is funding. Many states have not provided financial support to enable students to participate in programs that provide the option to earn college credit. Therefore, families must cover any postsecondary tuition or other fees without access to federal student loans, as these are restricted to those with a high school diploma (Kronholz, 2011). Under College Credit Plus, the owning K-12
district must cover the majority of the cost of college credit instruction, fees, and materials (ORC, 2014). The model is more expensive if high school teachers are not qualified as postsecondary adjuncts or if distance delivery models are not available. In Ohio, teachers who qualify for adjunct status must meet the requirements set out by the Higher Learning Commission, which include qualification based on degrees and experience for the topic and level of instruction. These constraints may impact the ability of schools to offer programs due to transportation and higher instruction costs.

Further, with a potential cap on credits earned as a restriction on federal aid, dual enrollment has the potential to encourage college coursework not aligned with a postsecondary degree program on which students may eventually embark. This may cause students, ultimately, to exceed the number of credits permissible in completing a degree with the support of financial aid (Kim, 2008). Finally, there is a potential limitation on the transfer of general and program-specific credits earned into a selected postsecondary institution (Kim, 2008). Programs offered that purport to provide opportunities for career exploration may exacerbate these issues because students may participate in a variety of dual credit courses in a spirit of exploration that may not tie directly to a final degree.

Program Implementation and Performance

The previous section highlighted several key program types that may provide students with the ability to simultaneously earn high school and college credit. Under the College Credit Plus program, for public and participating private institutions, earned college credits are posted to the student’s postsecondary transcript without a testing
requirement (ORC, 2014). This section examines how these programs may impact the ability of students to graduate from high school, matriculate into a postsecondary institution, and earn a degree.

AIR (2006) summarized three key characteristics used for assessing accomplishments based on participation in a dual enrollment program. These mirror findings that others (Community College Research Center (CCRC), 2012) have found in studies within individual states. Included are “rigorous instruction, relevant curriculum, and supportive relationships” (AIR, 2006, p.v). Literature suggests that program specifics around academic coursework, student support services, and curriculum are important in facilitating student academic success.

In some studies (AIR, 2006, 2009), students within a dual enrollment program, in this case an early college high school, are compared to those students who are not participating. High school populations are compared but without matching or control of other variables, such as student motivation, self-selection to a dual enrollment program, family characteristics, access to support services or tutoring, or other program elements that may influence outcomes. Further, there is a lack of consistency in research method or selected populations that make comparison of study results or generalization difficult (Cowan & Goldhaber, 2015; Kim, 2008). Mitigating the potential influence of confounding variables is necessary when seeking to accurately assess these programs.

Student support. A study conducted by Edmunds (2013) in North Carolina established a protocol that matched student characteristics in two separate programs. Edmunds (2013) examined North Carolina’s early college high school outcomes by
demographic categories, such as underachievement, race, and gender, based on random assignment into one of two groups: a group of lottery applicants who entered the ECHS program and a group of lottery applicants who were not selected. Selection via the lottery system allowed the researcher to control for many study variables, such as parental support and level of student interest. Findings indicate increased high school graduation rates and college degree attainment for ECHS students, with the largest benefit evident in low-performing, underachieving student populations. Although not specifically analyzed, study results indicated that dedicated support resources are a key contributor to student success. These conclusions are not generalizable to other dual enrollment programs, or to other ECHS outside North Carolina, but are informative and are consistent with findings from AIR (2009) on the need for systemic, focused student support.

One aspect of instilling student support into a dual enrollment program is to establish an environment with encouraging relationships (AIR, 2009). Beyond providing interesting and challenging classes, ECHS programs generally offer students orientation and encouragement across several dimensions ranging from early college and career awareness to individual mentorship. An initial step in creating a college-going culture involves reaching out to students in lower grades, by establishing connections in middle school, or even into primary grades. This helps create college awareness and supports affirmative postsecondary expectations (AIR, 2006). Positive student experiences are highly correlated with teacher expectations, a respectful student-teacher relationship, and a student’s “sense of belonging.” Expectations were found to be significant indicators of
student success (Kim, 2012; Tinto, 2012). Developing a college-going mindset for students and faculty, often buttressed through creation of cohorts of students engaged in these pursuits, generates a climate where academic achievement is a key expectancy (Diggs, 2013).

Reinforcement for students may also be provided via structured seminars, such as information sessions, which assist students in understanding the expectations of college-level coursework, provide information on navigating college systems, and establish a venue for students to receive personal and social support (Tinto, 2012). Both students and instructors have perceived these types of offerings positively; however, additional research is needed on the core characteristics that drive effectiveness (Hindo, Barnett, & Kim, 2010).

Studies indicate that attainment of precollege credits necessitate student supports beyond those traditionally provided by high school counselors (Edmunds, 2013). In a review of several dimensions of academic and college success as predicated by 8th grade performance metrics, students with access to college level courses and, importantly, appropriate “academic and social supports” had improved grade point averages as high school seniors (Kim, 2012, p.2). Cowan and Goldhaber (2015) reinforce the need for supports around dual enrollment students, especially those that may be at-risk or underperforming. “…for students struggling with high school level coursework, simply raising the stakes without a commensurate increase in support services is likely to end in frustration and failure” (p.63). Nonetheless, college readiness is improved by participation in dual enrollment programs and program benefits are cumulative. Students
who earn college credit while in high school have a higher probability of persisting and earning a postsecondary degree (An, 2013; Kim, 2012).

Recognizing the importance of support for students who are less academically prepared, a majority of institutions targeting dual enrollment programs for at-risk students (4% of Title IV postsecondary institutions) provide tutoring and study assistance, along with other services (Marken, et al., 2013). Consistently, research conclusions indicate that infusing student support structures into accelerated college programs is an important component in facilitating student success. However, as noted, this element is not generally addressed in state policy guidance. Ohio has addressed this issue within College Credit Plus by requiring that the postsecondary partner must provide advising, but no level of precision or specificity is stipulated (ORC, 2014).

**Coursework.** Student success can be affected by several factors beyond support services. High school experiences impact subsequent postsecondary achievement (Bowen, et al., 2009). However, consideration of the student’s socioeconomic status and parental and community support is important in assessing outcomes for particular programs.

Research is inconclusive on the effectiveness of some dual enrollment delivery models. Speroni (2011a; 2011b), for example, found that the benefits attributed to dual enrollment were not realized for courses delivered in the high school. Dual enrollment can assist students in understanding college expectations; however, programs should support them in realistic, authentic, college experiences (Karp, 2015a, 2015b). Findings from a study of a Washington state dual enrollment program somewhat similar to Ohio’s
College Credit Plus, found that even for high school juniors and seniors attending courses at the college campus, there was an increase in the number of students with lower academic readiness who participated, but high school dropout rates also rose (Cowan & Goldhaber, 2015).

Nonetheless, academic rigor is positively correlated with degree attainment (Adelman, 2006; Bowen, et al., 2009; An, 2013). Structured career pathways and accelerated college high school programs typically work to develop challenging, college-level curricula, based on input and direction from a postsecondary or industry partner. Many dual enrollment programs, especially early college high schools, offer highly regimented coursework progressions, with tightly defined gateways to ensure academic milestones are achieved (JFF, 2013).

Struhl and Vargas (2012) examined the impact of course selection on degree completion for Texas dual enrollment, ECHS participants. Their findings indicate benefit from all college level coursework completed through dual enrollment, but found differences by subject area. For example, students completing a college level language arts course were more likely to enroll in a postsecondary institution, but not more likely to complete a degree (Struhl & Vargas, 2012). Research has found that completion of higher-level math courses, in particular, is positively correlated with college success at a more significant level (Adelman, 2006; An, 2013; Struhl & Vargas, 2012).

In addition to rigorous coursework, AIR highlights the need for relevance and has defined three requirements for a relevant course of study:
Relevant instruction requires students to 1) address questions or problems with real-world applications; (2) make choices about what they will study and how they will study it; and (3) take on plausible writing roles and submit their work to real audiences (AIR, 2006, p. 49).

Dual enrollment courses in structured, career-aligned pathways are connected to real-world problems in a setting where work-based learning opportunities and broad career exploration is encouraged. For example, central Ohio districts engaged in the Pathways to Prosperity implementations are embedding experiences in the mobile advanced manufacturing lab into existing middle school science classes and building in opportunities for students to take on projects, such as using the 3-D printer to construct skeletons in the study of biology (M. Raymond, personal communication, March 26, 2015).

**Earned credits.** Some studies have examined whether there is a threshold of earned credits, regardless of subject area, that may be related to completion and matriculation. Earning a minimum of six college credits through dual enrollment increased the likelihood of completing a baccalaureate degree (An, 2013). Studies support a positive correlation between completing at least one college-level course and degree attainment (Struhl & Vargas, 2012). Similarly, college students who attain a minimum of 20 college credits in the first year are more likely to successfully complete a college degree (Adelman, 2006). These findings support the concept of a credit threshold necessary to promote sufficient impetus toward degree completion. College Credit Plus requires that public institutions offer the opportunity for students to earn 15 or 30 dual
credits in provided course offerings (ORC, 2014). There are growing data indicating the benefit of earning a minimum level of college credits while in high school.

**Academic Policy**

The competing fields of education and employment in setting the academic agenda indicate the critical nature of balanced academic policy in developing program specifications that promote student success. Workforce development and accumulation of human capital influence policy in an environment sensitive to economic growth and taxpayer accountability. However, analysis of outcomes needs to accommodate an understanding of how dual enrollment programs contribute to broader social goals that improve equity and provide the less privileged with access to postsecondary opportunities. Educational institutions seek not only to align academic programming with industry goals, but also to continually balance the need to reinforce social structures and norms while providing mobility to those less privileged. Policy is a critical factor in meeting and balancing these potentially conflicting objectives and supporting democratic principles underlying educational systems.

Social justice provides a foundation for increasing mobility. By providing underserved student populations with access to greater academic rigor through dual enrollment, or other accelerated programs, these students can gain important skills needed to succeed. Educational institutions are a critical component in expanding opportunities and equalizing access. However, understanding the potential impact of habitus and cultural capital allows deeper analysis of competing elements associated with institutional structure and self-selection in solidifying social inequity across generations.
“Chances of success or failure are internalized and then transformed into individual aspirations or expectations; these are in turn externalized into action that tends to reproduce the objective structure of life chances” (Swartz, 1997, p. 103). Ultimately, it is both individual action and policy that drive the ability of academic institutions to achieve a balance among access, equity, and efficiency that honors democratic principles of fairness.

Historical context is important in assessing the current impetus behind federal legislation and the national educational agenda. National level shifts in priorities have also impacted state educational policy. Some policies are the result of targeted educational reform efforts. Powerful lobby groups and institutions, such as Lumina, established within the last decade, are advocating academic models, creating policy, financing experimental programs, and influencing reform efforts. Over time, policy initiatives and associated research have been tied to assessment of access, affordability, and accountability (Conner & Rabovsky, 2011).

**National policy.** Federal higher educational policy is increasingly focused on expanding access to more students while simultaneously creating systems of accountability and transparency. The Higher Education Act has been a means through which policy priorities are established and subsequently funded.

**The Higher Education Act.** In 1965, under the presidency of Lyndon Johnson, the first Higher Education Act (HEA) was enacted (Brubacher & Rudy, 2008, Cervantes, et al., 2005). Socially, it represented a key aspect of Johnson’s broader “Great Society” vision. The domestically focused Great Society programs were designed to combat
poverty, create greater equity, and advance civil rights across the United States. Education was a central tenet in the administration’s “War on Poverty” as encompassed in the Great Society vision (Cervantes, et al., 2005). HEA, reflecting this drive for equity, grew out of a growing national concern about the lack of access to educational opportunities for first-generation and minority students and those of lesser means. During this era, federal support programs at the primary and secondary level were expanded with the Elementary and Secondary Education Act (ESEA) (Cervantes, et al., 2005). Support for governmental action in K-12 programs was generally accepted. HEA extended that assistance into the postsecondary level by establishing federal grants and loans to help fund college education opportunities for all (Cervantes, 2005; Learning Network, 2012).

In subsequent reauthorizations, sections have been added or modified in the HEA to suggest predominant attitudes or concerns reflective of the time. In 2008, when last reauthorized, Title VIII was added. Title VIII moved beyond the financial support structures at the core of the original HEA, as provided through grants, and turned to policy to improve college completion and create college-career connections (Stampen & Zulick, 2009). That reauthorization occurred following the Spellings Report (US Department of Education, 2006), which highlighted significant gaps and issues in the educational system, including the lack of alignment between high school and college expectations and a need to increase the access to more rigorous academic programs. Additional recommendations included increased accountability of academic institutions.
Further, changes in the HEA arose from other components in the environment. In 2008, after years of war and with an economy reflecting greater inequities but slower job growth, Americans expressed concerns about the rising cost and questionable return on investment of a college education. A presidential campaign was underway, highlighting great divides in political strategies intended to address many intensifying domestic issues. However, there was basic consensus across political parties on the need to tackle the growing cost of a college education, the necessity for a better-educated workforce in a technological and global society, and desire to improve poor completion rates, especially among challenged populations (Carter, Ellis, Hossain, & McLean, 2008, Stampen & Zulick, 2009). Along with federal funding and affordability, these issues continue to dominate much of the discussion surrounding current reauthorization efforts.

**College completion.** Issues associated with accountability, access, and affordability overlap. Addressing one area can impact others and may create unintended consequences. The desire to improve college completion rates is a key factor underlying the development of accountability measures, addressing inequity in achievement rates, and providing coursework designed to support a growing economy.

There are many drivers behind the increasing pressure to raise college completion rates. The economic crisis of 2008-2009 heightened sensitivity to cost containment across all constituency groups. The cost-benefit analysis on the return of a college education includes the length of time and the associated expense of completing a degree (Becker, 1992). Costs are exacerbated for students who initiate postsecondary education but do not finish (Jackson & Reynolds, 2013). They carry and create a heightened cost
burden for themselves and their communities. Simultaneously, as tuition rises and grants 
are limited, student debt has grown and gained visibility as a key issue for both families 
and policy makers (St. John, 2003). These and other forces have been contributing to the 
increasing call for action around college cost and completion.

Several non-profit organizations create template policies and lobby at both the 
federal and state level in promotion of greater access, faster degree completion, and workforce development. Some of the principal organizations involved in the completion 
agenda, and with which Ohio has partnered, include the following:

- Complete College America was founded in 2009, coinciding with President Obama’s 
call for an aggressive increase in postsecondary graduates. Ohio is a member of the 
Complete College Alliance. This organization promotes policy that aligns 
postsecondary work to the labor market and develops recommendations to support 
students in faster degree completion (Complete College America, 2014);

- Achieving the Dream is a national reform network, in which several Ohio institutions 
participate, specifically targeted at helping community college students succeed 
(Achieving the Dream, 2015);

- The Bill and Melinda Gates Foundation develops programs and recommendations 
designed specifically to assist underserved, low-income, and minority students with 
access and success at the postsecondary level. The Foundation has several affiliates, 
such as Jobs for the Future, KnowledgeWorks, and EdWorks, each of which advocates 
for policy to increase college completion and supports students in attaining gainful
employment (Bill and Melinda Gates Foundation, 2015; JFF, n.d.; KnowledgeWorks, 2015);

- Completion by Design, is also affiliated with The Gates Foundation. In Ohio, this initiative is led by Sinclair Community College, and seeks to implement educational reforms that improve and accelerate student completion (Completion by Design, 2015). Other organizations, such as the Lumina Foundation, are also working with state and federal legislators to define policies and establish mechanisms to increase institutional accountability. Among the new policies, experimental educational models, and innovation grants are recommendations for establishing dual enrollment programs, as these may improve completion rates and time to degree (An, 2013; AIR, 2006, 2009; Struhl & Vargas, 2012).

**Ohio, a model state?** The Education Commission of the States (ECS) assessed policy in all 50 U.S. states in order to ascertain those practices more highly aligned with successful programs and successful student outcomes (Zinth, 2014, 2015a). Thirteen states were selected as models on key program elements. Four broad, interrelated categories are defined: access, finance, academic quality, and transferability (Zinth, 2014, 2015a). Categories mirror those identified in dual enrollment policy analysis found in other research (Education Commission of the States (ECS), 2015; Harnish & Lynch, 2005; McLendon & Perna, 2014; Struhl & Vargas, 2012; Zinth, 2014). Ohio policy was evaluated primarily assessing the parameters under postsecondary enrollment options. However, many of the recommendations across all four categories are reflected in College Credit Plus policy rules. No state has cohesively addressed all recommendations.
In the assessment of access, Zinth (2014, 2015a) defined several distinct components. First, Ohio CCP supports broad access specifically prohibiting added eligibility requirements for participating high school students (ORC, 2014). Access to coursework is based on academic achievement as represented, generally, by proficiency on a college placement exam. Many other states promoting dual enrollment, such as Florida, require minimum GPAs of 3.0 for academic coursework and a 2.0 for vocational classes (Allen, 2010; ESC, 2015). Second, another key to incentivize student participation and reduce costs is to assure that both high school and transcripted, transferable college credit is awarded with successful completion (Zinth, 2014). CCP requires that dual credit be given and, within the University System of Ohio, that public two- and four-year institutions recognize the credit (ORC, 2014). Finally, access and opportunity are supported with information; CCP requires public notice and information sessions be available with sufficient timing for students to enroll and participate (ORC, 2014; ODHE, 2015b).

In the area of finance, the first model principle denotes the importance for dual enrollment programs to be free to participating students. College Credit Plus requires that school districts cover the costs (ORC, 2014; ODHE, 2015b). However, additional state funding was not provided for this implementation and districts are impacted by budget constraints. Further, the required floor-ceiling funding reimbursement model may cause some institutions to opt out.

Third, course quality is maintained by requiring that offerings be of the same caliber, design, and rigor as those offered on the college campus to regularly enrolled
students. Delivery location is at the discretion of partnering schools, however, teachers must be approved for adjunct status if high school personnel are used (ORC, 2014).

Ensuring quality and encouraging participation is fortified by transparency in reporting. While the current Ohio Department of Education scorecard does not explicitly report dual enrollment, enhancements to reporting is in progress (ODE, n.d.). Currently, CTE courses associated with Perkins vocational funding are required to report participation and success metrics that further inform student progress in these areas. Further, the Central Ohio Compact, is in the process of developing a regional dashboard that uses data from Ohio Educational Research Center (OERC) to match high-school-postsecondary-labor outcomes (Central Ohio Compact, Dashboard, 2014a).

The ability to monitor longitudinal data from K-12 through postsecondary and into careers supports a critical objective for the Compact. The Compact provides Central Ohio districts with the additional advantage of a mature coalition that was originally formed in 2011. The Compact is a regional strategy, led by Columbus State Community College, for educational institutions, non-profits, business, and government leaders to collaborate in moving the region to its goal of 60% adult postsecondary credential attainment by 2025 (Central Ohio Compact, 2014b).

Finally, the fourth component ECS highlights in model policies is the transferability of credits earned. Under Ohio’s University System, credits earned in a dual credit program must transfer between public institutions. Further, the transfer assurance guide (TAG) has identified specific courses, taken in any public postsecondary institution that can be credited toward a specified degree program (ODHE, 2015c). Ohio
is highlighted as a model state prior to the implementation of College Credit Plus for its transfer policies. State policy has moved in forward in many areas deemed critical to successful dual enrollment strategies.

Overall, Ohio is unique from other states developing policy in this area. K-12 districts in Ohio are decentralized with local control governing funding, boards, union contracts, and instructional design. The implementation of a centralized policy in a localized setting allows for comparison of characteristics that may impact success. In the model states described by the Educational Commission of the States (2015), no state meets all criteria. Ohio is attempting to address many of the recommendations deemed important for successful dual enrollment with College Credit Plus policy.

**Ohio high school-college credit policy.** Ohio has historically provided a number of college-credit programs within policies designed to increase access and ease transition into college. National programs such as advanced placement are offered in many Ohio districts. Further, Ohio was one of the first to embrace dual enrollment and was an initial implementer of an early college with the establishment of Dayton Early College Academy (DECA) in 2003 (DECA, 2013). Ohio is consistently highlighted as an innovative state in educational programming; it is one of only 12 states participating in the Pathways to Prosperity network to develop industry-oriented opportunities for all students (JFF, n.d.).

Ohio’s Postsecondary Enrollment Options Program (PSEOP) was based on the Minnesota program initiated in 1985 (Smith, et al., 2007; Geise & Knight, 2011). Additional policy to improve transition and shorten time to degree completion was
enacted under the 2008 Seniors to Sophomores program wherein students could use their senior high school year to take a full college course load in lieu of high school classes and transition as a sophomore into a postsecondary institution (Smith, 2010). College Credit Plus legislation builds on these earlier programs. The policy consolidates them under one legislative umbrella, and seeks to provide a cohesive framework, with common terminology and guidance, for all Ohio dual enrollment opportunities (ODHE, 2015b). Additionally, the intent is to increase participation above that achieved in either the PSEOP or the Seniors to Sophomores program (Geise & Knight, 2011, Smith, 2010).

Participation is increasing across all dimensions of earning college credits in an accelerated manner and with broader constituencies. This includes programs such as AP that offer the opportunity to test and articulate an earned credit. Annual statistics highlight the growing effort to provide AP opportunity to underserved, minority, and low income students (College Board, 2014). A reported 22.7% of Ohio’s high school students took an AP exam while in high school (College Board, 2014). This is a two-fold increase over the last ten years. In Ohio, however, there is inequity in the number and type of courses offered in various districts that may restrict access to some student populations. Nonetheless, the state reported overall gains across most demographic groups over the national averages (Candisky, 2013).

This section will specifically review the Ohio policies that preceded College Credit Plus. This includes a review of PSEOP, Seniors to Sophomores, and other educational policies designed to improve transition, credit transfer, and degree completion. Participation rates are impacted by a number of factors and historical
program analysis assists in foreshadowing potential issues with the implementation of College Credit Plus.

**Postsecondary Enrollment Options Program.** Enacted in 1989, this program was originally offered to high school juniors and seniors; later, in 1997, it was extended to qualified freshman and sophomores (Geise & Knight, 2011). A qualitative analysis of participation, as compared to participation in AP, indicated significant issues with the communication, perceptions, and acceptance of the program (Smith, et al., 2007). This included a lack of acceptance by parents, teachers, and counselors, some of whom expressed concern about a lack of maturity in high school students that would prohibit them from realizing desired benefits. Further, the study found that an elitist culture existed that negatively impacted PSEO participation. Students believed that better and more motivated students were able to take AP classes. PSEOP courses were offered off the high school campus. While this afforded flexibility to student participants, it was perceived as a negative to those in AP classes, and may have limited participation of some students (Smith, 2007). Generally, these factors adversely impacted participation with PSEOP rates consistently low across the state, in spite of the ability for students to access state funding for college coursework (Harper, 2015; Smith, et al., 2007). Quantitative analysis of student outcomes found overall better attainment on key academic goals. However, findings did not support significant differences in the achievement of PSEOP versus non-PSEOP students across several dimensions, including long-term outcomes on college persistence and degree attainment (Geise & Knight, 2011). The somewhat surprising outcomes highlight the difficulty of assessing these
programs given the number of other factors that may be beyond the ability of the program to influence. Factors such as student on-campus engagement and learning communities can positively impact success but are not easily controlled. Further, available data were constrained in the identification and tracing of longitudinal outcomes due to incompatible student information systems, a lack of private institutional data, and use of federal student aid forms for key data (Geise & Knight, 2011).

**Seniors to Sophomores program.** The number of competing programs is a potential contributor to low utilization of dual enrollment opportunities, including PSEO. In an effort to increase college level access for high school students and enrich the classes taken during their senior year, then Ohio governor, Ted Strickland, enacted the Seniors to Sophomores program in 2008 (Geise & Knight, 2011). However, issues often highlighted in dual enrollment programs, such as competing funding models, a lack of state financial support, transportation issues, and inaccessibility to programs or teachers, especially for rural districts, impacted participation (Smith, 2010). A small percentage of students participated (Smith, 2010). However, in conjunction with other efforts to ease credit transfer between public institutions, such as the establishment of the University System of Ohio, concerted efforts were made across academic levels to align curricula and encourage participation.

**Other accelerated policies.** PSEOP and Seniors to Sophomores are dual enrollment programs that received specialized funding and legislative attention. Other Ohio state-level policies aim to reduce the time and cost of degree. These include Ohio’s 3-Year Degree Plan, the 1-Year Option, Credit When It’s Due, and PLA with a Purpose
(ODHE, 2012a; 2015a). Elements within these programs overlap. In particular, the 3-Year Degree Plan highlights dual enrollment, early college high schools, and advanced placement as avenues to meet 3-year requirements at participating institutions. The 3-Year Degree plan requires institutions of higher education to develop a means through which students may earn a baccalaureate degree in an accelerated manner, generally in structured course sequences (ODHE, 2015a). These plans rely on students attaining college credit while in high school (Carey, n.d.).

In assessing the PSEO program, Smith, et al. (2007) noted that issues affecting participation included the number of programs available to students, a lack of clear and available information, and misperceptions regarding how program requirements worked or would impact ultimate college matriculation and enrollment. With multiple, potentially competing, programs available within the state, the ability to access and critically assess the programs for fit may be more difficult for those without the necessary cultural capital and support systems.

**College Credit Plus.** College Credit Plus was codified in 2014 and is fully effective for the academic year 2015-2016 (ODHE, 2015b; ORC, 2014). This legislation subsumes PSEO and other dual enrollment programs, with Ohio’s ECHSs grandfathered into current parameters until academic year 2016-2017 (ODHE, 2015b; ORC, 2014).

College Credit Plus outlines requirements for schools to provide notice to students, offer academic counseling, and defines the funding model to which schools must adhere. Chancellor John Carey (n.d.) set out six goals for this policy:

1. Clearly define the College Credit Plus program;
2. Expand participation in dual credit opportunities;
3. Create a transparent funding system in which both school districts and colleges equitably share in the costs;
4. Assure that each college credit plus course is purposeful and meaningful;
5. Ensure that parents and students receive comprehensive and consistent communication regarding opportunities and requirements;
6. Assure that system wide data is consistently collected and reported on students, courses, credits earned, instructor qualifications, performance, and institutional agreements (pp. 9-18).

These goals were codified in the Ohio Revised Code 3365 and supported by rules established following public hearings in December of 2014. All public schools and institutions of higher education must offer this opportunity to students in 7th through 12th grades beginning with the academic year 2015-2016 (ODHE, 2015b; ORC, 2014)

Policy Analysis and Active Inquiry

This chapter provides a summary of the theoretical frameworks through which educational policy and Ohio programs, in particular that defined under College Credit Plus, can be analyzed. Research in the current environment can provide an advocacy foundation through which programs promoting greater equity can be advanced. This section describes a research approach that leverages collaboration in developing conclusions and recommendations seeking to advance social justice in addressing systemic and persistent social challenges.
St. John (2013) advocates for modification of traditional research approaches using theoretical frameworks. In his analysis, many social, economic, and developmental theories often used in educational research were developed at a time of progressive movement toward more equitable opportunity and justice. However, he has labeled our current era as a time of “global transition,” wherein a conservative movement is working to dismantle many social programs (St. John, 2013, p.11). Therefore, social and educational researchers must reframe their approach to be both collaborative and active (St. John, 2013). Assessing policy implementation in order to develop greater understanding and to put forward recommendations that improve opportunity and equity are necessary to mitigate the potential erosion of progressivism (McLendon & Perna, 2014; St. John, 2013; Stark, 2013).

Research for action rests on key tenets associated with a critical-empirical approach that recognizes the importance of situated context in assessing educational and social programs (St. John, 2013). Centralized policy creates complexity in assessing programs, as local conditions, such as teacher preparation and family or community support, impact outcomes. Universal social, economic, and educational theories need the context of the specific environment within which the program is implemented in order to more fully analyze performance.

St. John (2003, 2013) places research of social and educational policy against the democratic principles espoused by Rawls in his principles based on social contract and justice as fairness. Core concepts are equal liberties and equal access to opportunities (Pogge, 2007). Further, if there is inequitable treatment, then the greatest benefit must
favor the least advantaged (Pogge, 2007). Finally, tax investments are needed in social systems in order to ensure intergenerational uplift and progress (Rawls, 1971, 2001).

However, St. John (2013) argues that in an era of transition away from public to private good, evolution of these ideas is needed. For example, in assessing policy, action inquiry uses research to consider a range of possibilities with consideration for the voices of practitioners (St. John, 2013). Research design explores multiple possibilities with explanations that can be tested within context and used to develop practical solutions at a local level (St. John, 2013).

This study seeks to incorporate action inquiry principles in the evaluation of Ohio College Credit Plus policy. It uses universal theories based on social, cultural, and economic frames, but includes an emphasis on collaboration with participants in contextual assessment of implementation. Conclusions and recommendations will be developed to elevate conditions that may be addressed by policy makers, academic administrators, and communities to improve programs.

**Summary**

This chapter offers an overview of high school college credit programs, including Ohio’s College Credit Plus program. Conducting a policy analysis of this educational program furthers understanding of the impact state policy may have on opening college credit opportunities to a more diverse student body. However, issues of access and equity must be balanced with the return on the investment for the taxpayer and community.

Accelerating postsecondary degree attainment can help fill the pending need for skilled workers in a growing economy. Policy may, however, have unintended
consequences if those in most need of help are unable to access the information, take the steps needed to participate, or have the supports required to succeed. The following chapter outlines the method used to analyze this Ohio policy using the framework provided by social justice and economic theories with an active inquiry approach.

This study provides an important insight into how dual enrollment programs are impacted by state policy. Additionally, the findings highlight strengths and opportunities within the policy that can be leveraged to improve the ability of dual enrollment programs enacted under College Credit Plus to reach more diverse student populations. There are also weaknesses within and threats to the policy and associated program implementations that must be addressed and mitigated in order to sustain this opportunity and assure that it decreases inequity in the educational systems.
Chapter 3: Method

This policy analysis uses case study to describe and compare the implementation of College Credit Plus programs in two central Ohio public high schools. Under Ohio’s recently enacted legislative requirement, all public high schools must offer the opportunity for students to earn college credits, at no cost to them, beginning in the 2015-2016 school year. There is minimal guidance on how these objectives should be implemented at the high school or postsecondary level. A descriptive qualitative analysis of two high schools in the first semester of the first year of program implementation can inform policy makers and communities as these programs are deployed and extended.

This study seeks to answer the following research questions in analyzing the first-year implementation of Ohio’s College Credit Plus dual enrollment requirements at two central Ohio high schools.

1. How have implementation strategies met the requirements of Ohio’s College Credit Plus policy?
2. How has each high school implemented college credit opportunities?
3. What lessons can be learned from the first-year implementation process?

This chapter is organized into the following sections. Section one outlines the research design using a case study approach for policy implementation analysis. Action inquiry informs the development of conclusions and recommendations. This section also provides the research schedule. Section two describes the data collection process along with a description of the two selected cases, and explains how reliability and validity were ensured. Section three explains the data analysis approach used. Appendices
provide the interview protocol and a matrix that was used to capture elements taken from the analysis of collected data.

**Research Design**

A general overview of the interpretive framework informing the study provides the context for the policy analysis approach that was conducted. Theoretical perspectives influenced the research process. Educational research can be guided by paradigms that drive advocacy and social justice or seek to construct meaning by examining real events and real people (Creswell, 2013; St. John, McKinney, & Tuttle, 2006). A postpositivist framework provided an overarching lens for this educational, comparative study of policy implementation. According to Creswell (2013) “…postpositivists do not believe in strict cause and effect, but rather recognize that all cause and effect is a probability that may or may not occur” (p. 24). Assessment of a policy implementation at two locations provides insight into how these educational institutions used available resources to meet legislative requirements and provide college-credit opportunities to students. Further, analysis at two institutions allows for a better understanding of the local conditions and the situational context that influences performance and implementation (St. John, 2013).

The findings from this study are not generalizable due to the number of factors that influence the implementation and success of dual enrollment programs. This includes differences in state and institutional policy, community demographics, and student make-up. However, findings are transferable and recommendations for practice can be adapted and applied in other districts or locations.
**Policy implementation analysis.** This policy analysis, using selected cases, is designed to collect data from multiple perspectives and describe the implementation of College Credit Plus legislation at the high school level. State policy is critical in developing success strategies for higher education. It is the states that outline requirements for funding, accountability, degree attainment, transitions from K-12 to higher education, and partnerships (McLendon & Perna, 2014). College Credit Plus addresses these structural characteristics through rules that set financial boundaries, student and teacher eligibility, and reporting requirements (ODHE, 2015b; ORC, 2014).

Pragmatic research and examination of policy implementation is increasingly highlighted as critical to the advancement of social science research (Brenneman, et al., 2010; Callan, et al., 2007; Conner & Rabovsky, 2011; McLendon & Perna, 2014; St. John, 2013; Stark, 2013). It provides a democratic means to assess impact with the active participation of those involved (St. John, 2013; Stark, 2013). The emerging attitude to active research builds on the pragmatic approach of Dewey (Stark, 2013). It seeks to address what St. John (2013) has termed a “global transition” away from the historic arch of progressivism by purposefully tying research to advocacy (p.11). An evaluation of the implementation of Ohio educational policy allows for assessment of impact on key student constituencies and provides the opportunity for a determination, with input from those actively engaged, on how changes may be made to improve the ability of the policy to meet stated objectives of broadened access and greater equity in participation.

Policies and their implementation may also have negative and unintended consequences. St. John (2013) notes that critical social issues “are often created rather
than resolved by centralized policy…” (p. 3). With the speed and complexity of Ohio’s College Credit Plus policy, concern is raised that those that might most benefit from the programs may be unable, or unwilling, to participate. Therefore current trends of inequity could be further solidified rather than ameliorated.

Analysis of College Credit Plus policy implementation necessitates a view of how legislative requirements have been translated into programs that directly affect students, teachers, and administrators. “Policy implementation encompasses those actions by public and private individuals (or groups) that are directed at the achievement of objectives set forth in prior policy decisions” (Van Meter & Van Horn, 1975, p. 447). It is the “short loop” in the action inquiry process wherein the researcher evaluates initial programs against the intent and action plans in order to collaboratively develop solutions (St. John, et al., 2006, p.71). Selected cases provide the opportunity to assess the same policy implemented in different locations where local resources impact the specific performance.

**Schedule and research steps.** The study was initiated prior to the beginning of the 2015-2016 school year with an examination of publicly available documentation from both districts and the state of Ohio. Course catalogs, program descriptions, and other available records, such as parental information, were available during the summer of 2015 prior to the initiation of the school year.

Detailed schedules and timelines were collaboratively developed and interview participants were district superintendents and other identified stakeholders. Interviews were conducted with state education leaders and district administration representatives.
One-hour interviews were scheduled with selected participants beginning in August 2015 using the semi-structured protocol developed (see Appendix B).

Data was aggregated, categorized, and analyzed with coding, key themes, and preliminary descriptive data completed by the end of 2015. Analysis and development of the discussion of findings and recommendations for future research were completed in the first quarter of 2016.

**Action inquiry.** Infused into the policy analysis of two high school implementations of College Credit Plus is an emerging approach to social and educational research: action inquiry. Action inquiry, or actionable research, is defined as “inquiries that involve researchers, practitioners, and citizens served by and advocating within social and educational enterprises” (St. John, 2013, p. 5). This mode of research has arisen as social inequities have grown, not diminished, and with a recognition of the need to address the traditional privilege of the researcher (St. John, et al., 2006; St. John, 2013).

Policy implementation analysis supports active inquiry advocacy goals by seeking to understand performance and, ultimately, the local, situational, impact of policy. This is accomplished by assessing the conditions and characteristics of each districts’ performance and looking at where effective educational programs have been developed (McLendon & Perna, 2014). Looking at state level policy for education insights is key to this understanding. States are the primary means through which educational policy, experimentation, and innovation take place (McLendon & Perna, 2014). State policies, such as College Credit Plus, can positively influence student outcomes; it centralizes
planning and creates a more holistic K-20 system with aligned goals. However, other elements may negatively impact final results such as local experiences, culture, and staff (Conner & Rabovsky, 2011). As a centralized policy is actually implemented, local conditions, resources, and capabilities affect the performance and the outcomes.

The research design for this study leverages these three compatible approaches -- policy analysis, case study, and action inquiry -- as a means of deepening understanding of the characteristics of first-year state education policy implementation (see Figure 1). A dual-case study provides a venue to examine and compare characteristics that may influence outcomes through an analysis of the implementation steps and characteristics of resources used and actions taken. By working with the input of school participants in the development of themes and conclusions, there was an opportunity to develop conclusions and define recommendations that may advance historically held educational goals associated with equal access and opportunity in academic participation.

Case study. Assessing policy implementation by analyzing two separate settings provides greater insight into the challenges and emerging outcomes in early program performance. In an exploratory, descriptive case study, multiple elements are examined and analysis may render correlations between them (Yin, 2014). However, there are many dimensions, including some that may be conflicting, existing in dual enrollment programs generally and in College Credit Plus rules specifically. These may ultimately work together in a variety of invisible ways to impact student participation and program outcomes, similar to historical experiences. College Credit Plus is an overarching dual enrollment framework that Ohio has established and which works with other policies and
programs designed to improve and accelerate postsecondary degree completion. Initial descriptive student and course characteristics were available to inform the policy analysis and provide insight into initial participation. Future research can examine changes to these demographics over time and/or compare participation to national or other state statistics. Establishing a baseline for future comparison also facilitates the analysis of underlying problems that may be addressed locally (St. John, 2013).

Several critical characteristics were considered when selecting case study as a research approach. Primary elements included examination of a contemporary topic with many variables over which the researcher has no control (Yin, 2014). This study did not manipulate variables or seek to influence either case; instead it was designed to observe and describe actions underway in the implementation of the policy. In order to create meaningful and accurate profiles, multiple sources of data collection were needed. Case studies lend themselves to direct observation or interviews as a means to develop a rich description (Creswell, 2013; Yin, 2014). Review of policy documentation was supplemented with administrative interviews.

Case study methods offer a venue to collect information on emerging issues with the perspective of those engaged. It is, therefore, highly compatible with the collaboration approach used in action inquiry. Rich descriptions extend understanding and assist in development of recommendations for improvement or change in ways that facilitate achievement of democratic goals. Through a single case, with embedded areas of analysis, it is possible to address many of these aims, however, a dual-site, comparison case study strengthens understanding and can facilitate mitigation of single case
characteristics that may bias or impede the study and coalition of findings (Yin, 2014). Two cases also provide the opportunity for replication and comparison. Further, comparisons and contrasts that emerge from themes and findings deepen the understanding of the issue and policy implications and strengthen the resulting conclusions (Yin, 2014).

**Data Collection**

Assuring thoroughness in the data collection process is critical in attaining information that is meaningful, accurate, and actionable. This step entails several activities ranging from developing the collection strategy, selecting case-study sites, attaining appropriate permissions, and determining how and where to store information obtained. It is an iterative process that requires, as information is collected, the researcher to assess whether the strategy or tools must be altered (Creswell, 2013).

**Cases.** Dual enrollment programs and parameters vary by state, district, and even school level. All public K-12 and postsecondary Ohio institutions must offer both 15 and 30 college credit pathways to high school students (ORC, 2014). The two districts selected for this study were a purposeful sample (Yin, 2014). These districts were also convenient in location and working relationships with the researcher existed that facilitated access to individuals interviewed.

These sites were selected to be representative of dual enrollment programs in central Ohio. However, differences exist between sites that may assist in analysis and formation of conclusions. Further, due to the participation of these districts in a 2014 initiative to implement career pathways, they had initiated college credit opportunities in
a more organized and forward manner than other non-participating Ohio districts. One district had also founded an early college high school. In essence, these districts were early adopters who had embarked on development of dual enrollment opportunities prior to the codification of College Credit Plus. Their experiences can inform districts at a less mature implementation stage in meeting these new state policy requirements. Other selection considerations included district size and community demographics. The dual enrollment coordinator responsible for agreements and program specifics between the community college and these two partnering K-12 districts provided input and supported the site selections.

In 2014, grant funding from the Ohio Department of Education (ODE) was allocated to several Ohio K-12 districts for the implementation of career pathways, early college high schools, and other innovative programming (ODE, 2015). The postsecondary partner assisting with alignment of curriculum and guidance on compatibility with existing CTE programs was a community college. Ohio’s Department of Education 2013-2014 Straight A grant funding provided dollars to some Ohio selected districts for the purchase of equipment, professional development, or creation of digitized courses that could be co-taught by high school teachers and postsecondary faculty (ODE, 2015). The community colleges engaged worked to assure alignment of high school course progression with industry recognized credentialing and associate degree programming. In order to maintain the confidentiality of case districts and interview participants, a free random name generator application was used to create
pseudonyms for the study. Confidentiality for the selected school districts, as well as of the interview participants will be maintained.

**Greenfield Exempt Village Schools.** Greenfield Exempt Village Schools (GEVS) is an exurban district in a primarily rural county. This district has a small-town nature within a 30-mile radius of a major Ohio city. The district hosts a highly homogeneous student body, primarily White and middle or upper income. Less than 20% of the student body participates in free or subsidized lunch programs (US Department of Education, 2014). Overall, the community is whiter, richer, younger, and has a lower unemployment rate than the rest of the state. Postsecondary degree attainment, however, is comparable to that of the state, with slightly less than half of the population holding a high school diploma or less (City Data, 2015).

Greenfield is a growing, primarily manufacturing community. The community has a publically visible business partner with a local manufacturer, which has a factory collocated in the district. Because of their projected shortfall in skills, this business has been aggressive in developing a working relationship with schools, first and foremost, with local districts. They have been heavily involved in the construction and adaptation of coursework and provide resources and intern opportunities for participating students. Greenfield has taken purposeful steps to create a culture of college and career readiness that merges the importance of academic success with employment awareness and experiences.

This type of industry partnership and relationship is growing across Ohio as more businesses seek to address potential shortfalls in a skilled labor pipeline. Further, many
schools, including Greenfield, partner with regional career and technical centers to offer strong technical programs. This district has implemented a science, technology, engineering, and math (STEM) early college high school. Industry pathways are being integrated into course progressions in the ECHS and in conjunction with programs offered at the career center. The inclusion of an early college was an important consideration in the selection of this district. Early college high schools have an additional year to meet the requirements of College Credit Plus but also face significant challenges to merge College Credit Plus requirements with many of the existing models. Assessing how that district is accommodating College Credit Plus requirements in both a standard and early college high school can provide insight into the potential impact this policy may have on the approximately 15 ECHS across Ohio.

**Langston City Schools.** Langston City Schools is a larger suburban district consisting of three high schools. In comparison to Greenfield, Langston is a service and professionally oriented community with four postsecondary institutions, including a private four-year college, located within its boundaries. It has an older population with a significantly higher postsecondary attainment rate than the state as a whole. However, comparable to Greenfield, the community is primarily white and carries a lower unemployment rate than the rest of the state (City Data, 2015). Notably, the three high schools, drawing students from different neighborhoods, exhibit differing profiles. One high school has a higher proportion of low income (as measured by >30% participation in free and subsidized lunch) and minority students than the other two district high schools
(US Department of Education, 2014). Another has a high proportion of students for whom English is a second language (Lonnie, interview, October 8, 2015).

Career pathways are being integrated into existing curriculum leveraging the funding provided by grants. This district offers other college-credit opportunities to students including both advanced placement and international baccalaureate. Further, there was an existing relationship with a private four-year university, closely located to all three high schools. Individual students were able apply to this institution for a limited number of courses, and, if they meet entrance requirements, obtain a reduced course cost as negotiated with the district. College Credit Plus has impacted the financial elements in this arrangement. Private postsecondary institutions are able to participate in the program but are not included in Ohio’s University System and may not have the necessary resources or organizational structure to accommodate some requirements.

While similarities exist between districts, broad generalizations would not be feasible. The differences in district policies, partnerships, and maturity in career preparation and college credit programming provides insight into potential best practices that may be adopted by other districts in the state that are implementing college credit opportunities for the first time under the College Credit Plus requirements. The college attainment rates and demographic profiles in these two communities impact the culture of the high schools and influence choices students make in the selection of dual enrollment opportunities. One is more college and professionally oriented, while the other, is more vocationally focused.
**Data sources.** Yin (2014) highlights six primary sources of evidence in conducting case study research, including documentation, archives, and interviews. For this study, document and record analysis created a foundational understanding of state and institutional actions and procedures associated with or resulting from implementation of College Credit Plus.

As a policy and program implementation analysis, review of relevant documentation at both the state and district level was performed. Review of the state legislation, which documents rules and requirements, provided a basis for categorizing and capturing district policies and procedures. Documentation and record reviews leveraged publicly available information on the College Credit Plus program at the state and district levels. Program, course, and administrative directives at the district and high school levels were included. Among the documentation types reviewed were:

- Program procedures, oversight, and governance documentation, such as student eligibility requirements, grading and credit award, teacher certification;
- Relevant communication or administrative records;
- Aggregated school student or course enrollment information, as available from each district.

Documents were inventoried to note the location, owner (creator), date, and source/location. Margin notes and comments captured during reading supported the development of impressions and broad themes. Documents were screened to include only those directly relevant to the implementation of the College Credit Plus program for the 2015-2016 school year.
Administrative interviews provided perceptions from those responsible for the implementation in each of the districts and at the state level. State representatives were interviewed to provide insight into the conceptual design and state goals associated with the program. Interview questions sought to ascertain each participant’s policy understanding, communication, and institutional implementation strategies or tactics. Modifications to protocol were assessed following an initial interview with a district superintendent, who provided a pilot test of the questions and format. The interview protocol was informally structured to allow probing and follow up questions, therefore, no changes were deemed necessary.

Confidentiality will be maintained for both districts and individuals. Institutional Review Board (IRB) approval was received prior to contacting participants or engaging in interviews. A permission letter outlining the study goals and timeline was provided to all interviewees. Open-ended interview questions were designed to glean information that can clarify policy implementation, marketing, and curriculum. Additionally, the perceptions of those involved in developing programs to meet requirements is critical in understanding the ability of the policy to meet stated goals. An informal and conversational approach was used in order to allow flexibility to pursue comments or statements that required clarification or helped in providing deeper insight into the research questions.

Interviews were approximately one hour each. The date, time, and location were recorded as part of the protocol. Additionally, in order to be fully transparent and mitigate bias, the researcher noted that for district administrative interviews, previous
relationships existed due to the participation in other educational initiatives (Creswell, 2013). Operationally, two digital recording devices were used to create redundancy during the interview process. The use of data repository and management tools was explored but not used. A test was conducted using Atlas.ti to assist in the development of key themes and categories. However, as noted by Yin (2013) leveraging automatic tools for qualitative data can be difficult and unsatisfactory in developing findings. The complexity of the interview results hindered use of the tool. Therefore, documents and transcripts were manually reviewed multiple times. An online service, Rev.com, was used for transcriptions.

Finally, program records were requested. Descriptive statistics can provide frequencies and demographics for students in different programing options (such as College Credit Plus, AP, career tech, and general education). Each district had captured initial data on students or courses. Formal reporting for the 2015-2016 academic year is not required until July 2016 and, further, data requirements for this program are not defined. Nonetheless, each of the districts provided some initial, although dissimilar in nature, information on student enrollment. Developing a baseline of participation with the reporting required in July 2016 is an important step in assessing the performance of the policy. This can be used in future comparisons in order to ascertain trends. Student descriptive statistics offer additional insight and context that can be monitored over time to determine how this policy implementation impacts college matriculation, degree completion, and career choices.
Data management. “The creation of a case study database markedly increases the reliability of your entire case study” (Yin, 2014, p. 124). Organizing collected data can be an overwhelming task. Several tactics were leveraged to assist in the storage, retrieval, and analysis of data collected. Qualitative data resulting from document review and interviews were captured in a spreadsheet. Use of a data management tool facilitated the ability of the researcher to control the data in such a manner that information was not lost, miscoded, or erroneously sourced. By creating a chain of custody that followed a preset series of steps the reliability of the information is increased (Yin, 2014). Backups were conducted on a regular basis using an external hard drive attached to the primary research computer; as secondary backup drive was also employed following the completion of coding.

Reliability and validity. Some debate exists regarding the relative importance of undertaking rigorous reliability and validity checks for case study research. However, Cho and Trent (2006) highlight the need for qualitative research to increasingly provide the same level of research validity as quantitative research. Several strategies may be used to address this need. The construct of this policy analysis case study included leveraging multiple sources and perspectives to enrich the information and crosscheck emerging themes within and across sites and participants.

Triangulation. A number of steps can be taken to ensure an appropriate level of validity. Triangulation is critical (Creswell, 2013; Yin, 2014). Using multiple sources of data in pursuit of a research question allows for validation of emerging themes. In this study, a combination of sources, ranging from interviews across administrative
constituency groups to document analysis, at two sites and from a state perspective, allows contrast and comparison.

Member checks would allow the participants to validate findings and interpretations (Creswell, 2013). However, due to the early implementation stage and the continuing changes to the policy and associated requirements, individual profiles were not developed. Instead, each districts’ implementation information, as ascertained by comment or documentation, was compared to the state requirement. The natural inquiry approach described by Creswell (2013) highlights the constructionist nature of qualitative research. In active research or inquiry, the researcher works with the participants in a collaborative manner to evaluate policy implementation and develop conclusions and recommended actions. Resulting descriptions, findings, and conclusions are, therefore, co-constructed. For this study, each participant provided input on both state and district level modifications that were needed to improve the ability of the policy to meet its goals.

**Credibility.** Ensuring credibility is another approach used to address validity in qualitative research. Credibility is three-fold (Patton, 1999). First, the researcher must have credibility. This is enhanced by transparency. The researcher must be aware of and disclose potential bias and assumptions. In both the document analysis and interview process, the researcher is deeply involved in the selection and interpretation of data. It is, therefore, critical to examine the researcher’s role and perspective in order to mitigate any latent distortions. This is also important in mitigating potential imbalance or relational bias in the interview process (Creswell, 2013, Seidman, 2013). The researcher for this study participated in early implementation steps working periodically with each
of the selected districts in the deployment of career pathways. Over the course of the last two years, interaction with district superintendents and academic leaders occurred in planning and informational meetings. Positive personal perceptions existed for the schools and administrators involved. Researcher bias is more definitively discussed below.

Second, the audience impacts the reception of the research and ultimately its perceived credibility. The purpose of the research should be clear. In the study of Ohio College Credit Plus legislation, evaluation of the implementation could be received in a punitive or negative manner, depending on findings. This policy analysis case study was designed to compare and contrast implementation strategies for two K-12 districts. Care has been taken to ensure that the evaluation provides insight into the policy implications without jeopardizing either participating district. As an initial profile of the first semester, first-year implementation, identified trends and findings can inform these and other districts in adjusting program strategies to better meet the policy objectives and local constituencies. Over time, data from future studies can be compared and assessed to ascertain student participation trends.

Third, Creswell (2013) adheres to the premise that qualitative research must be able, as in quantitative research, to establish a means to verify that the account of the study is realistic and consistent with the perceptions of the participants. The study itself must convey credibility. Transparency and rich description seeks to address potential bias that can result from the selected coding strategy. “A recursive, open process in qualitative inquiry… gives us an analytic tool by which to identify a comparative,
operational, methodological relationship among the research purposes, questions, and processes” (Cho & Trent, 2006, p. 333). This approach is consistent with the postpositivist framework established for this policy analysis and active inquiry. It acknowledges that reality is socially constructed and entails many truths. Therefore, collaboration and a cross checks are critical to the development of meaningful descriptions and conclusions.

**Data Analysis**

The spreadsheet developed for data management was used to create a matrix of the types and sources of information. Organization of the data is the foundation of the data analysis effort. Creswell (2013) defines three steps in the analysis process that build on each other in a spiral fashion.

**Categories and theme development.** First, documents and interview transcripts are used to develop a broad, general picture by creating reactionary notes during perusal of materials to create an overall perception of the information collected. Second, the critical step of describing, classifying and coding takes place (Creswell, 2013). Documents and interview transcripts were coded for emerging themes and findings. In the coding process, the collected material was aggregated and grouped into several categories and then labeled to facilitate analysis and comparison. Managing the number of categories is critical in facilitating the ability to develop key themes (Creswell, 2013). Coding and labeling were guided by current literature in educational policy analysis, Ohio’s College Credit Plus rules, and emerging themes. These were captured in a rubric or matrix and sorted in a variety of ways to facilitate comparison.
Legislative rules were grouped into major areas using categories taken from policy research literature: access, finance, reporting, and quality (Brenneman et al., 2010; Zinth, 2014; McLendon & Perna, 2014) (see Appendix C for the analysis matrix). Program implementation characteristics in these areas were analyzed to determine potential impacts to access, equity, and efficiency (St. John, 2009). A rubric assisted in the categorization and analysis of these characteristics, and others were added as they emerged. Categories were modified based on actual data collected and themes that surfaced more organically. Data and field notes were analyzed using a comparative method to develop key themes and then sorted into major categories. Cross-case synthesis, which relies on researcher interpretation, was used to develop findings and recommendations (Yin, 2014). Comparisons of the districts to each other and to state rules were conducted. Profiles and findings were summarized for a comprehensive view of College Credit Plus policy implementation.

**Participation information.** Although student-level information could provide additional insight, due to the high sensitivity to data privacy, especially for underage students, that information was not captured. Aggregated student or course information was requested. However, neither district had completed any comprehensive or formal collection of data. Limited information was available: student enrollment from Langston; course information from Greenfield. Data elements required for state reporting are in development and were not defined or available for this study.

**Researcher bias.** The potential benefit of offering dual enrollment programs to a wider range of students is not without concern. These programs have the potential to
solidify trends in the dichotomization of college participation into four-year and two-year programs based on socioeconomic status. Preconceptions impact objective analysis of findings without a conscious and transparent effort to mitigate potential bias. Personal involvement in the initial effort associated with implementation of career pathways with these districts and one of the postsecondary partners creates an opportunity for the researcher to see these endeavors in a positive light. Relationships with school personnel have been developed and there is a desire for this action to succeed. While not directly involved in dual enrollment activity, there has been continued interaction with the school personnel in working on programs in support of the Central Ohio Compact goal of reaching a 60% threshold of postsecondary credentials in the adult population by 2025 (Central Ohio Compact, 2014b).

In the course of examining dual enrollment programs over the past two years, including early college high schools, there are philosophical conflicts regarding the potential for unintended, potentially negative consequences with the implementation of legislated career-oriented college credit programs. This includes internal dissonance on two seemingly incompatible beliefs. The first is that career pathways are an important strategy to engage more students, open access to postsecondary opportunities, and provide the skilled workforce Ohio requires for continued economic growth. However, questions linger on whether or not this creates, or exacerbates, socioeconomic divides, where those that are the more privileged in society abstain from career-oriented programs to pursue more traditional, four-year liberal arts experiences; this is the second belief, necessarily at odds with the first described above. In order to mitigate these
preconceptions, triangulation, cross-case synthesis, transparency, and rich descriptives, were employed to verify emerging themes and conclusions.

Summary

This chapter outlined the research design and schedule, data collection, selected case study sites, interview participants, and the data analysis approach that was used. This was a qualitative policy analysis of the implementation of College Credit Plus in the first semester, first year of deployment using case study with two Ohio districts. The research approach has been informed by action inquiry and the need to assess program performance locally in order to better understand and address underlying issues. Within each site, triangulation of multiple sources of data was used to develop a holistic picture of the program enactment against state requirements. The study was a designed as an initial profile analysis aimed at furthering our understanding of a new policy and its performance. Document analysis and administrative interviews provided the avenues to develop rich description and context on program characteristics and resulting activities.

The following chapters examine and discuss the findings resulting from the analysis. Chapter 4 provides detailed data on the information gleaned from document analysis and interviews. This is structured against the policy elements associated with dual enrollment and educational research. Chapter 5 provides a discussion of key themes and recommendations for practice and future research. These can provide information to those seeking to develop advocacy for critical changes to improve this policy and the associated district programs.
Chapter 4: Findings

This chapter builds upon a growing body of research and empirical information on the policies and programs implemented to support dual enrollment opportunities in diverse student populations. For this dual case study of a state policy implementation, data collection was primarily limited to two venues: publicly available documentation and administrative interviews. Combined, these sources have been analyzed to develop themes, perceptions, and insights for an understanding of program design and compliance to the regulatory requirements and rules of Ohio’s College Credit Plus program. This analysis is limited to the first year, first semester implementation of the policy in an effort to understand the steps taken by individual districts to rapidly deploy dual enrollment opportunities with the newly legislated requirements. In order to maintain the confidentiality of case districts and interview participants, a free random name generator application was used to create pseudonyms for the study. Confidentiality for the selected school districts, as well as of the interview participants will be maintained.

The chapter is organized as follows. First, I provide a summary of the documents examined at the state and individual district level. Case study profiles are developed, compared, and contrasted to each other and to the College Credit Plus requirements around a priori categories, as well as capturing themes arising organically from interviews and analysis. A summary discussion looks at the policy and its implementation holistically. Taking a broader view helps to illustrate the interdependency and potential conflicts within and across program characteristics and objectives. The final chapter of this research report discusses the findings in the context
of existing or emerging inquiry and considers future implications for policy, practice, and further research.

**Data Collection and Analysis**

Documents were selected from state and district electronic sources using searches on key terms, including district name and course descriptions, Ohio Revised Code 3365 and 3333, Ohio College Credit Plus and Ohio dual enrollment. A total of 32 documents specifically affiliated with College Credit Plus were reviewed, beginning with Ohio Revised Code 3365, which establishes the CCP program and requirements (see Table 2). District-level documents were selected based on direct applicability to the College Credit Plus program for the 2015-2016 academic year. See Appendix D for a descriptive summary of the documents selected and reviewed.

Table 2.

*Summary of Publicly Available Documentation Reviewed*

<table>
<thead>
<tr>
<th>Owner</th>
<th>Number Reviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio Revised Code</td>
<td>2</td>
</tr>
<tr>
<td>Ohio Department of Higher Education</td>
<td>8</td>
</tr>
<tr>
<td>Langston City Schools</td>
<td>12</td>
</tr>
<tr>
<td>Greenfield Exempt Village Schools</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32</strong></td>
</tr>
</tbody>
</table>

Documents reviewed indicate both major and minor differences in the approaches taken by the two school districts to meet the policy requirements and rules. Langston City Schools (LCS) has a number of informational documents available for students,
parents, and other stakeholder parties. These include a unique electronic podcast and associated presentation material. Greenfield Exempt Village Schools (GEVS) relies heavily on state-supplied informational materials.

The Ohio Department of Education (ODE) directs inquiry on College Credit Plus from their website to that of the Ohio Department of Higher Education (ODHE). These two departments are working collaboratively, however, the leading organization is ODHE. Other information analyzed included 2016 budget information from the Ohio Governor’s Office specifically related to dual enrollment and College Credit Plus funding.

A total of five interviews were conducted with state level policy makers and K-12 administrators responsible for the program development, implementation, and support. Two state level policy administrators, Kora and Travis, were delegated by the State Chancellor and Superintendent and interviewed in a joint session. At the K-12 level, the superintendent of GEVS, Marissa, was interviewed; from LCS, the secondary curriculum director, Lonnie, and college and career program coordinator, Aurora, were interviewed. Rev.com was used to transcribe all interviews. Themes and categories were developed from the interviews in both a deductive and inductive manner, using categories from existing policy research, as well as capturing those emerging from discussion.

Additional information was received during a November 2015 Ohio Alliance of Dual Enrollment Partnerships (OADEP) conference, which was dedicated to Ohio’s College Credit Plus policy. Sessions included a significant number of opportunities for K-12 and higher education representatives to ask questions and receive clarification from
ODHE, ODE, legal, and other state, delegated agents. Due to the public nature of the conference, comments or quotations taken from that venue will not be treated as confidential and pseudonyms have not been created.

**Ohio Revised Code**

College Credit Plus is defined in Ohio Revised Code (ORC) 3365. A total of 15 sections delineate the specific guidance for the implementation of this policy at both the K-12 and postsecondary levels. ORC 3365 is supplemented by other legislative codes that define related educational programs, such as career and technical education (CTE) or advanced placement (AP) requirements, which were not inspected for this study. ORC 3333 establishes rules associated with the transfer of credits within the University System of Ohio (USO), which is relevant to the examination of transferability of earned credits for coursework under the College Credit Plus program.

Three primary areas are addressed in the ORC 3365, which legally establishes the College Credit Plus Program. (See appendix A for a summary of relevant sections of Ohio Revised Code). These include the mandate to all Ohio public secondary and postsecondary institutions, required to participate, to provide students with information about the program, the funding model to be applied, and basic guidance on the structure of coursework rigor and instructor qualification. A minimum requirement for advising is outlined, requiring that, once accepted, the institution of higher education (IHE) must appoint an advisor to CCP students.
Policy Formation

Before examining specific program or case characteristics and themes, it is informative to look at the impetus behind the policy. College Credit Plus establishes an umbrella structure for all dual enrollment opportunities within the state of Ohio. Legislatively, the intent is to streamline, simplify, and broaden access. Lonnie (October 8, 2015, interview) spoke to the broader philosophical elements, in his view, behind these programs.

I think part of our responsibility is to provide these opportunities for kids. That’s the very premise of what public education is. We all chip in to provide these opportunities for kids regardless of how much their family does or does not make or where they do or do not live. Public education is supposed to be the great equalizer for kids. We know that some kids have greater access than others, whether it is to college, whether it is to a museum, whether it is to whatever… research would suggest education gaps… So if we can fill in those opportunity gaps and provide kids the opportunities who wouldn’t ordinarily have them… that’s … the very premise of public education.

Reiterating the need to provide greater opportunities to more students, state policy representative, Kora (October 23, 2015, interview), spoke specifically to the policy intent to remove impediments to participation in dual enrollment coursework.

Number one, it was the elimination of barriers. Barriers could be college acceptance, schools allowing the student to participate, the charging for credit … by taking down those barriers allows (sic) more conversation engaging families,
engaging parents who never had the opportunity because of barriers, to be engaged. Then it was like ... “Oh my gosh, and the state’s paying?” Which is an important factor in this.

College Credit Plus is intended to increase overall participation in dual enrollment coursework. Its primary predecessor, PSEO, had low participation rates, with most of the state regions operating below a 2% involvement rate; additionally, representation by minority groups was extremely low (Harper, 2014). Interviewees commented on the limited number of students taking advantage of the PSEO program, one stating, “Not enough kids are taking advantage of that type of program.”

Beyond extending the opportunities to more students, district administrators acknowledged the role of the economic and workforce development needs across the state, as well as working to address the increasing cost of attaining a postsecondary credential, in establishing this policy. The alignment of K-12, postsecondary, and industry needs are examined further below with findings on program quality and design. Lonnie expressed the importance of the drive for alignment in understanding much of the motivation behind the program. He noted that with a rapidly changing economy education is not meeting the emerging needs. “When you need more kids to go to college and it is economically increasingly less attainable, that is a recipe for potential, maybe a generation away, economic disaster.” Marissa (October 1, 2015, interview) echoed this sentiment and added, “…the biggest potential is creating a better workforce…having kids that are prepared…”
In conjunction with the goals and objectives driving the program, the speed with which the policy was defined and then implemented created challenges. The policy was formed and rules were implemented with only a few months for schools to define programs and enroll students. The Greenfield Exempt Village Schools superintendent articulated her frustration in receiving, understanding, then creating appropriate responses to the program requirements in substantial manner given the rapidity of the timeline. The speed of implementation necessitated institutional action before a full understanding across organizations was in place. Schools were setting up programs, enrolling students, and communicating prior to the rules being final. Marissa (October 1, 2015, interview) discussed the continuing evolution of requirements.

It changed all summer long to be honest with you. At one point you could teach an AP course with a college course, and then no, you couldn't. Then you could, then we’re back to you can’t. Don’t tell me that in July and my master schedule is done and kids come August 15th.

Even state policy representatives acknowledged the hurried efforts associated with the release of the rules and the beginning of the school year. Travis noted, “We had less than a year from the time the law went into effect. It was nine months and it was at the door… People were implementing things prior to the rules being finalized.” This is an explanatory factor in assessing areas of noncompliance evident in the first year of implementation.
**Themes**

Several themes emerged from analysis of the interview comments and the policy documentation. Examination of educational policy generally includes assessment of access, program structure or quality, and funding. Additionally, categories surfaced related to accountability, transition from secondary to postsecondary requirements, and institutional partnerships. The categories that emerged are not independent of each other. Elements are interrelated and policies and programs in one area impact others. This analysis will assist in answering research questions:

1. How have implementation strategies met the requirements of Ohio’s College Credit Plus policy?
2. How has each high school implemented college credit opportunities?
3. What lessons can be learned from the first-year implementation process?

Word tables are used to provide a visual summary of classifications and associated subcategories. These facilitate comparison between district programs and implementation activities against the requirements outlined under the College Credit Plus legislated requirements.

**Access.** The concept of access as it applies to participation in dual enrollment opportunities encompasses multiple elements (see Table 3). First, students must understand and have the opportunity to evaluate and enroll in dual enrollment courses. Financial barriers or physical barriers, such as course cost or location, can impact the ability of one to participate. Further, academic barriers, grade point averages or prerequisite requirements, may block students from enrolling, even if they might be
successful in the coursework. Some schools may be limited in the ability to offer a number of course options in a broader range of disciplines due to resource constraints.

Four subcategories in these areas emerged in analysis of the revised code, documentation, and interview comments. These included communication about the program through notice to the students and families, student eligibility requirements, student cost, and availability and breadth of course offerings.
Table 3

Summary of Activities and Compliance Related to Access

<table>
<thead>
<tr>
<th>Sub-category</th>
<th>Ohio CCP Rules and Requirements for Public Institutions</th>
<th>Greenfield Exempt Village Schools</th>
<th>Langston City Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notice</td>
<td>Both secondary and postsecondary institutions must provide information about CCP on websites; via public information sessions, before April 1 annually.</td>
<td>Complied with dates and notice requirements. Leveraged state information materials.</td>
<td>Complied with dates and notice requirements via podcasts and detail presentations including program information from IHE partners.</td>
</tr>
<tr>
<td>Eligibility</td>
<td>The postsecondary institution sets eligibility requirements and CCP participants cannot be required to meet any criteria not in use for other, traditionally, entering students.</td>
<td>Documentation and comments indicate compliance with requirements and no additional eligibility applied.</td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>Students cannot be required to pay for courses and associated fees at public IHEs. In the event of course failure, the K-12 district may pursue reimbursement from students who are not deemed economically disadvantaged.</td>
<td>In the first semester, students have not completed a full semester that would allow assessment of failures or withdrawals; other payment and reimbursement activities are not complete.</td>
<td></td>
</tr>
<tr>
<td>Offerings</td>
<td>Public K-12 districts must provide both a 15 and a 30 credit hour progression of courses, which includes providing opportunity for middle school students.</td>
<td>Over 35 courses across disciplines are offered at the HS location. The GEVS ECHS provides structured curriculum toward seven STEM career pathways.</td>
<td>Five courses in Business and Science disciplines are offered at the HS; other options are with a community college or a private institution.</td>
</tr>
</tbody>
</table>

**Notice.** Students, and their families, in order to participate, must first be aware that dual enrollment opportunities are available. ORC 3365.02 (2014) outlines specific requirements that include public information sessions. Both case districts complied with the public notice and informational meeting requirements and both worked to assure that...
all students wishing and eligible to participate were able to do so. Langston City Schools made some accommodations in the enrollment timeline in order to include interested students after the required April 1 notice of intent date. Due to the late dissemination of information, this district wanted to provide students and their families with sufficient time to understand the program, meet with counselors, and assess the implications of participation. As Lonnie (October 8, 2015, interview) explained,

We were enormously flexible with that because we want to build a program. We don’t want to bite off our nose to spite our face and say, "We have twenty kids that want to take [community college] course work and already didn’t get it in by April 1. Sorry about your luck. Try again next year." No, we figured out a way to get those twenty kids in with what we’re trying to build in the master schedule.

We were very flexible with that and trying to be purposeful with communication. Similar sentiments are echoed by Marissa, “We’re not going to turn away kids who are ready and feel that’s the right choice for them because there’s some institutional barrier, that’s just not what we’re going to do.”

As a larger school district with more resources, LCS has a dedicated administrator responsible for college and career programs. This provides them with a dedicated means to develop district-specific informational materials and provide additional counseling direction and student/parental support. Aurora (October 8, 2015, interview) spoke specifically to the additional leverage her role provides the district.

I feel very fortunate in this district that I am a resource to help us get through this and navigate it and figure out a process and system. I know some other school
districts do not have those resources, nor do they have maybe college partners that are so close, too. That's been difficult.

The required public information session materials included postsecondary partner details submitted by the IHE for review in required meetings. LCS prominently displays the College Credit Plus logo on the district’s main website landing page. Information is easily accessible and presentations, podcasts, and other materials outline key program variables. Lonnie (October 8, 2015, interview spoke to the approach taken by LCS.

We said we worked too hard to provide phenomenal opportunities for our kids for no one to know about it. So from that thought and that mindset is why we developed the podcast where people could follow along at their own time and leisure, very simple and short enough that you’re not going to be encumbered by it to do that. We are probably being more forthright in our marketing even at the middle school level.

As a smaller exurban district, GEVS does not have dedicated dual enrollment or career and college preparation coordinators. College Credit Plus information is available through the district’s online landing page, but it is included in a general listing of programs and is not highlighted or distinctly branded. Parental informational materials available through the site leverage those provided by the state Department of Higher Education. Links to the ODHE website and CCP program information are included; district specific documentation is not available.

**Eligibility and cost.** Under PSEO, grade point average (GPA) boundaries were used for high school (grades 9-12) students. Additionally, postsecondary institutions
could establish additional eligibility criteria for dual enrollment high school students. Academic barriers include having the historical performance and scholastic experiences to move into college coursework. As Marissa (October 1, 2015, interview) noted, … there are lots of obstacles to get through. We have to get them college ready. They have to test at that level. They’ve probably not been in exactly the right coursework to get to that point because this came at a time when we weren’t ready down here.

Additionally, participation in PSEO required students to travel to the postsecondary class location (Harper, 2015; Geise, et al., 2011). In seeking to broaden access and ease barriers, College Credit Plus eliminates these parameters and extends the opportunity into seventh and eighth grades. ORC 3365.05 (2014) requires that colleges use existing admission and placement criteria, as would be applied to any applicant to that postsecondary institution. However, specific course prerequisites continue to pertain. Additionally, students may qualify for participation in some college-level courses but not others. For example, a student may meet placement requirements for English or Math but potentially not both. These are now judged separately. Lauren McGarity stated during the OADEP conference that “… students don’t have to be college ready in all subjects – they are high school students…” Travis described a unique situation in which a middle school student qualified to participate in the music program at a state university, but no other college courses. So while students are required to take placement tests or provide the IHE with other indicators of academic readiness, such as
ACT/SAT scores, they can be eligible for some but not all the courses offered under College Credit Plus or in the college course catalog.

GPA and stricter application requirements are removed. The policy also addresses the potential cost barrier some PSEO participants may have encountered in paying tuition and fees for dual enrollment courses. From the student’s perspective, this obstruction has been eliminated. ORC 3365.07 (2014) specifically restricts institutions from charging students for tuition, fees, or instructional materials. In the event of late withdrawal or course failure, the high school district may elect to pursue reimbursement for CCP courses, unless the student is identified as economically disadvantaged. Prior dual enrollment programs allowed greater flexibility by the K-12 district and more variability in individual secondary-postsecondary agreements that were established.

Marissa expressed a concern regarding the new funding model as it impacts the school, especially for districts already offering dual enrollment opportunities and where accommodations were being made to provide broad access to these courses.

…a lot of superintendents were saying, look I had a better deal than I do now. Free for everyone, I don’t know. Certainly it’s frustrating as a district, when you start something like we did as early college building and have pretty grandiose plans and then the burden of the money falls back on the district, when our parents were very happy with paying twenty dollars, twenty five dollars a credit hour. People who couldn’t afford that, we were making adjustments for them already. Reasonable compromise, like a sliding scale kind of thing would be something I would be very interested in, and I know others would be as well.
Interestingly, state policy representatives recognize that this can create pressures on a K-12 district and even be advantageous to students already planning on college and without a need for financial support.

I have one superintendent in a central Ohio school ... His comment [to the state superintendent] was, "Listen, I’m more than capable of paying my child’s education, but my child’s going to participate in this program because bottom line, it’s saving us money. Not that I agree with it. I’d change the model, as a superintendent, but as a parent, you’d better believe I’m taking [advantage of it]."

Balancing the elimination of cost barriers for students with the impact to the institutions is relevant in assessing the ability of the policy to be sustainable. The findings regarding the funding model from an institutional vantage point is provided separately below.

**Offerings.** Districts differ in the number, types, and delivery locations for courses meeting College Credit Plus requirements. ORC 3365.13 (2014) requires that high schools offer college credit pathways with courses that apply to a degree or credential. Travis (October 23, 2015, interview) explained the intent.

They were required to put together a 15-hour and a 30-hour pathway. That caused a lot of issues with school districts because they want to say, here’s the pathway, and you student, must take these courses. We quickly had to tell people, no, these are just examples of what you can do. The reason is we want to make sure that these are meaningful credits that they actually do help save money for the families sending students to school.
In assessing the development of college credit pathways, both districts in this study had already developed career, STEM, or other guided pathways. These are purposeful sequences of courses as opposed to general educational dual enrollment opportunities, which are also available. College Credit Plus does not encourage that structured progression, but instead provides a framework for independent, student-directed course selection.

LCS offers five dual enrollment college credit plus courses at the high school. Additionally, students have access to the full course catalog at a partnering private institution, as well as the opportunity to choose community college courses at a main or regional campus. The five courses delivered at the high school are related to specific industry career pathways in health and business. Implementation of these courses was initiated prior to the legislation and was part of a broader district initiative to develop career course progressions specifically tied to industry credentials or degrees in high need businesses. Aurora described the instruction of these courses, “The business teachers are considered full adjuncts. My health teachers, my science teachers …are facilitators.” This reflects the two primary delivery methods: one, by a high school teacher qualified as an adjunct and two, by a co-taught course with the high school teacher working with a postsecondary instructor of record. The teaching qualifications and models will be assessed in an analysis of program quality, however, the ability to offer specific courses at the high school impacts student access to these programs.

GEVS offers a significantly larger number of courses at the high school using qualified adjuncts and facilitated models. 35 on-site courses are available in Business,
English, Math, Foreign Language, Science, and Sociology. Courses are available from two independent community colleges and a four-year institution. The district had embarked on developing a robust dual enrollment set of offerings prior to the implementation of the College Credit Plus requirements.

This does not include the courses defined for the early college high school in partnership with a private four-year institution. The ECHS career pathways include: Information Technology; BioMed; Engineering; Health Information Medical Technology; Sports Studies; Multi-Craft Tech Engineer and Design – Business; and Allied Health. The GEVS STEM ECHS is in the early stages of establishment and although students may participate in College Credit Plus courses, this high school established seven structured pathways, tied to career and college readiness. In the design of this model, students will move into defined college-credit coursework in the 2016-2017 academic year. Marissa (October 1, 2015, interview) indicated the manner in which they sought to structure these courses.

They’re [career pathways] embedded into the early college, so if you're picking that pathway, a lot of the kids who maybe want to go into a four-year engineering degree, as well as someone who wants to go into the multi-craft technician are sitting in some of the same classes. I guess we’ve maybe blurred the line, but I don’t think it really matters in the big scheme of things to parents, as long as they’re going to still get to the place they want to go.

The approach taken by GEVS could be advantageous at creating broader acceptability of dual enrollment, industry-oriented courses. College Credit Plus can help open
opportunities to more vocationally leaning students by combining them with more academically aligned programs.

It’s really to me… college and career, it’s not college or career. I mean because really the end game is still about a career, right? The essential learnings are the same whether you’re going to take a path that gets you right out of high school, a two-year degree or a four-year degree, your end game is still a career. To me it’s and, not or. But I think some people still believe it’s or (Marissa, interview, October 1, 2015).

This either-or perspective is more evident in LCS. As Aurora (October 8, 2015, interview) expressed perceptions in Langston, “Here it’s still four-year prep... I think there's still a negative connotation when you think about community college, a two-year degree, or a technical degree, or not even going to college at all.” Lonnie (October 8, 2015, interview) further commented,

…they [career and technical classes] still have that stigma to overcome for parents who think that only a certain student population goes there. I think that’s the same type of stigma that a two-year community college, because every parent coming in as a freshman wants their child to go to the four-year university.

As a means to increase the number of postsecondary credentials and address economic and workforce needs, the ability to overcome these perceptions is important. These two districts are located in different community cultures, which are reflected in this aspect of the implementation and design of College Credit Plus coursework at those locations.
Quality. Not only is there variability in the number and type of courses accessible at the high school or through postsecondary partners, differences exist within the courses offered as well. This includes the rigor of the course content, the delivery location and method, and instructor qualifications (see Table 4). The policy makes clear that the intent of College Credit Plus is to provide a standardized structure for the delivery of college content to high school students. Kora (October 23, 2015, interview) spoke to this aspect of the policy and emphasized the importance of providing college-level coursework to more students, including those traditionally under-represented in these programs.

…one of the articulated objectives is to [provide]... access for under-represented students, including first generation. That’s why it’s so important, this idea of setting kids up for success, and why we started and landed at the fact that these are college courses and the college readiness standard has to be the postsecondary college readiness standard.
### Table 4

**Summary of Activities and Compliance Related to Program and Course Quality**

<table>
<thead>
<tr>
<th>Sub-category</th>
<th>Ohio CCP Rules and Requirements for Public Institutions</th>
<th>Greenfield Exempt Village Schools</th>
<th>Langston City Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course structure</strong></td>
<td>Courses syllabi, textbooks (or other materials), and learning outcomes must be equivalent to those offered in the college catalog and on the college campus. Courses must be nonsectarian, non-remedial and contribute to recognized credential or degree.</td>
<td>Some courses offered at the high school in partnership with one community college were discussed as being based upon the HS syllabus.</td>
<td>Courses offered at the high school appear to meet the specifications of the college course and are identified as a class section of that course in the college catalog.</td>
</tr>
<tr>
<td>Instructor qualification</td>
<td>CCP instructors must meet the criteria DOHE sets, based on direction from the Higher Learning Commission (accrediting body). Qualified adjunct instructors must be provided professional development and be observed by college faculty.</td>
<td>Compliance to adjunct requirements appears to have been met; frustration was expressed about the limitation this causes for courses and program flexibility.</td>
<td>Compliance to adjunct requirements appears to have been met.</td>
</tr>
<tr>
<td>Delivery</td>
<td>Courses may be taught at the high school, on the college campus, online, or in a co-instructor format.</td>
<td>Based on initial enrollment information, the majority of CCP courses are taught at the high school; no significant participation in online or distant delivery modes identified.</td>
<td></td>
</tr>
</tbody>
</table>

**Course structure.** ORC 3365.12 requires that courses offered through the College Credit Plus program be non-remedial and in the college catalog of the accredited postsecondary institution offering the course. Students successfully completing defined courses receive credit for high school graduation requirements, as well as transcripted college credit. Middle school students do not receive middle school credit, but instead
are deemed to be accelerated into a high school course that may qualify for dual credits.

During the OADEP conference, ODHE representative Lauren McGarity, when addressing questions on this component of the policy, reiterated that College Credit Plus courses must meet college-level requirements, including the pace, rigor, syllabus, and text. She stated emphatically; "it is not ok to use the high school syllabus and call it a college course…No college should be asking any high school for a syllabus…” (November 12, 2015, OADEP Conference). Comments and questions expressed during the conference sessions indicated confusion by both secondary and postsecondary institutions on this, and other, key provisions of the policy.

Postsecondary partners individually worked to interpret the law and then develop partnerships to deliver coursework at high schools. Some continued with practices and partnerships already in place, rather than assessing or instigating changes needed based on new, more rigorous requirements outlined in the College Credit Plus policy. The GEVS superintendent (October 1, 2015, interview) discussed how this confusion on requirements impacted her district and created, in her words, “an ethical dilemma.”

As the consumer of higher ed, which is what I consider us to be right now, there has to, they have to get on the same page. This whole disparity seems just insane to me. To be honest with you, our freshmen physical science course, that every freshman … takes, just got approved for College Credit Plus. It’s not a College Credit Plus class…. We have a couple of other partners who are very lenient on credentialing. When we brought in another partner who follows the rules to the T – that was huge strife. We’re not using their syllabus. We’re not using their
assessments. We’re not using their textbook. I don’t want to not have opportunities for my students. Politically, with the community, can you imagine if I’m saying all these courses don’t count? That’s not a win for a superintendent.

A situation where the high school syllabus and/or textbook are delivered as college credits, was discussed at the OADEP conference. Adam Lowe, the Executive Director, National Alliance of Concurrent Enrollment Partnerships (NACEP), with which OADEP is affiliated, spoke in a session titled “Emerging state and national trends in dual enrollment: Putting CCP in context” (November 13, 2015, OADEP Conference). He highlighted a recent situation in South Dakota where an institution was sued for credit laundering. The judicial review determined that providing transcripted credit for a course not deemed to be of college-level quality was fraud. This case is a harbinger of the potential liability in delivering courses as dual credit and not assuring that the quality and content meet college requirements. As institutions better understand the policy and restrictions, greater adherence to the regulations should be expected.

Lonnie (October 8, 2015, interview) expressed a different experience at LCS and described partners who addressed the requirements in a transparent but stringent manner. Each of this district’s public, postsecondary partners established processes that they applied to all their College Credit Plus relationships. More negotiation was required with the private partnerships, but generally there was a solid understanding of the legislation and its intent across organizations. In the end, the three different IHE partners of LCS provided college credit courses based on a common understanding and with similar responses to the intended requirements. As compliance to College Credit Plus following
the first year of clarification and development, accountability to the standards is critical to assuring the program meets quality objectives.

In assessing the quality of the courses offered under the policy, comparison to advanced placement courses, which are, potentially, articulated college credits, surfaced. AP options are offered at both GEVS and LCS. Qualified high school teachers teach these courses based on criteria established by the College Board. As students and their families assess the academic options available to them, examination of this as an alternative to College Credit Plus coursework is an assessment families may undertake. Administrators from both districts commented on how CCP and AP, an older, more established program, were being considered. Marissa (October 1, 2015, interview) stated,  

I go back to more rigorous course work and a different option besides AP. We all know that those high stakes one-opportunity tests, some kids, even if you’re the brightest of the bright, don’t perform to potential. Guaranteed credit and things like TAG’ged courses and etc., I think are all direct benefits. [But] more of our parents have an understanding of AP and are not understanding of dual enrollment …because some of our students want to go to school out of state, and they feel like AP might be the better way to go...

Aurora (October 8, 2015, interview) expressed the following supporting sentiment, “AP still has its part I think… for our kids that want to go traditional four-year route.” In order to offer both AP and College Credit Plus within the existing schedule to students interested in exploring both options, GEVS created a hybrid class in which the college content was taught on days alternated with the advanced placement content. However,
while this may meet the needs of some students and allow greater flexibility in the
district’s scheduling, this format appears to be in conflict with guidance from ODHE.

Ms. McGarity (November 12, 2015, OADEP Conference) responded to a question at the
OADEP conference regarding a blended format, stating that under the College Credit
Plus program, schools “cannot have AP and dual enrollment course in one class.”

Addressing scheduling, flexibility, and resources are in delicate balance as these districts
seek ways to provide the most opportunities to their students in a cost effective manner.

**Instructor qualifications.** The ability of a course to meet college-level rigor not
only depends upon the syllabus and textbook, but also on the qualifications of the
instructor. Recently, the Higher Learning Commission (HLC) issued an extension on
meeting faculty requirements in dual enrollment programs. HLC is the accrediting body
for postsecondary institutions in 19 states, including Ohio. HLC requires that instructors
of college-level courses generally hold a master’s degree or higher and/or successful
completion of at least 18 graduate credit hours in the subject area being taught (Higher
Learning Commission, 2015). In reacting to concerns that dual enrollment course
instructors could meet that requirement, HLC clarified existing policy. A lack of
understanding on the existing qualification criteria created a predicament that placed
many dual enrollment programs in jeopardy. According to the HLC policy statement that
was published,

The focus of the feedback was largely on the impact of the revision on dual credit
programs. Based on the feedback, the Board has decided to maintain the
expectation in the policy and allow institutions and state organizations to request extensions related to dual credit (“Extension Available”, para. 2, 2015). Under the guidance, instructors are still expected to meet academic credentialing requirements, but may request a waiver for a time period in which non-compliant dual enrollment instructors can meet needed credentials. This allowance demonstrates confusion regarding instructor qualifications for these types of courses, even beyond Ohio.

At the K-12 level, the two districts in this study have different experiences. As a more rural, remote district, GEVS exemplifies the dilemma strict credentialing creates in attempting to provide more college-level courses at the high school, a need potentially more critical to a rural district without close proximity to postsecondary partners. As Marissa (October 1, 2015, interview) commented,

I don’t have a qualified Math teacher that can teach it in the district… [and] the professor from [community college] doesn’t like to drive here. Next semester she only wants to come two days a week. I mean, that’s not really a student-based decision, it’s an adult-based decision.

Without a qualified adjunct or a visiting college instructor, the course cannot be offered in the high school. However, restricting these courses to college campuses could create barriers to students who cannot travel, or do not wish to do so or limit the breadth of courses available to them. LCS representatives noted that their college partners have been accommodating, but it must be recognized that they are also closer geographically to their IHE partners. “They’ve been very willing to come in and engage and train and
qualify teachers to teach some of their course work, make it easier for their course work to be accessed” (October 8, 2015, interviews)

Marissa (October 1, 2015, interview) expressed more frustration with the constraints the current requirements impose and a desire for the entire area of credentials to be reexamined. She spoke about the need to look at the pedagogy and structure brought to bear on the courses by secondary teachers in assessing instructor qualifications, beyond just assessing graduate credentials.

I personally believe that high school educators are much better teachers than college professors. While we can use that strong pedagogy blended with the rigor of college courses, I think it gives our students a better opportunity to get off on a successful path to college.

The issue of creating a larger pool of qualified instructors is receiving attention at the state level. Kora (October 23, 2015, interview) noted that, “The Department of Higher ... Education, our academic affairs folks, have always been ...have had the same requirements, like credentialing requirements and standards, as HLC has had for years.” Ohio accredited institutions are bound by the requirements of the HLC. Yet state representatives expressed the need for more secondary institutions to leverage their existing teachers in offering dual enrollment courses. Kora further conveyed,

Things that will change the future is this idea of having more teachers credentialed, authentically credentialed to teach college courses. It’s really breaking down a lot of barriers and a lot of perceptions and really doing more than just bridging secondary and postsecondary. It’s creating a mechanism to
merge them. I don't know, that it’s an interesting piece, but critical to this program because the quality was really important to us. The general assembly allocated, earmarked $10 million dollars … $5 million for … for universities or colleges specifically that do the graduate work, the graduate level course work for master’s degrees, etc. The purpose of it obviously is to have more adjuncts working in high schools, which has all kinds of implications.

One of those implications is the potentially negative impact dual enrollment courses offered at the high school could have on postsecondary institutions, especially community colleges. Marissa (October 1, 2015, interview) expressed this sentiment, “one thing [community college president] always says to me is you’re going to put me out of business... if you keep offering all of these courses.”

*Delivery.* Other issues can surface in the institutional cultures and personal experiences of secondary and postsecondary teachers and instructors as they work together in new ways. Clashes may be more likely to surface with shared teaching responsibility. If qualified adjunct teachers are not available in the high school, other delivery options exist, but as defined in the policy financial framework, those come at a higher cost. When a high school teacher is not qualified as an adjunct to teach a college course, one delivery option is to have the postsecondary instructor documented as the instructor of record. Essentially, this model establishes the IHE faculty as the primary teacher facilitated by a secondary teacher in the classroom. Marissa (October 1, 2015, interview) expressed the frustration high school teachers can experience in this arrangement.
Our teachers are very rulebook driven and give kids clear expectations on what it takes to be successful, and that’s lacking on the college side. It’s hard for my teacher to tell the kids what’s expected, because she’s going in and grading some things and then the [community college] person is going in and grading and trumping her. They don’t like it, they don’t necessarily like the, what are the facilitative courses, and feel like… really, she feels like the [community college] class is less rigorous than the course she would have offered for her tenth grade English.

The facilitated course delivery is one of several that can be employed to offer dual enrollment courses to high school students. Courses may also be offered at the college campus, which is the model that PSEO utilized. Leaving the high school, however, is not comfortable for all students, or their parents. Lonnie (October 8, 2015, interview) talked about his experience with students taking courses at the college campus.

Yes, we have PSEO, or had PSEO for secondary educational options, but the number of kids that could take advantage weren’t taking advantage because a lot of parents, especially in this district and some other districts that I’ve been involved in, either don’t have the ability to have their kids physically go to a college campus, don’t have the means to do that, or quite frankly don’t want their child in that environment at that particular time.

Marissa (October 1, 2015, interview) expressed the view that these perceptions and barriers will continue to keep the level of on-campus participation in dual enrollment classes to a minimum. As noted earlier, PSEO participation rates were low and the
barriers and perceptions associated with traveling to a college campus, even under the College Credit Plus umbrella, is anticipated to remain low. Increased participation is expected from students taking advantage of courses offered within the high school setting. Given the obstacles, some of which are perceptual, of going out of the high school, increasing the number of adjuncts and extending facilitated coursework may provide greater access to more students. Travis (October 23, 2015, interview) discussed the reasons why some students might not want to leave the high school. “They can still stay in their comfort zone for timing, and for safety, and for playing in the choir, or doing sports, or whatever the case is. They can still be with their peers.”

**Transition.** Rigorous academic high school coursework is one precursor to successful transition into postsecondary programs. The stages outlined in college choice models provide insight into the transition process as students move from secondary to postsecondary plans. Students must make selections that facilitate taking the necessary next steps in order to move on college. Academic progress and course selections made, even those before high school years, can limit or open dual enrollment opportunities to students. Further, as students prepare to matriculate or to shift into career, they develop expectations on the worlds of college and vocation. Successful transitions are built on realistic understanding of what might lie ahead. See Table 5 for a summary of the three subcategories that surfaced from the document analysis and interviews associated with these transitions. They include transferability, student readiness, and experiences or culture.
Table 5

*Summary of Activities and Compliance Related to Student Transition*

<table>
<thead>
<tr>
<th>Sub-category</th>
<th>Ohio CCP Rules and Requirements for Public Institutions</th>
<th>Greenfield Exempt Village Schools</th>
<th>Langston City Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transferability</td>
<td>Under the University System of Ohio (USO), public universities have established agreements for the transferability of credits between all IHEs (two- and four-year). Transfer Assurance Guides (TAG) for selected courses assure direct applicability to a degree.</td>
<td>Most CCP courses offered do not meet TAG requirements or guidelines. Dual credit course progressions at the ECHS, however, were specifically designed to meet TAG requirements.</td>
<td>Evaluation of the transferability of CCP courses, to in-state public and private IHEs, is in progress. It is anticipated that most will be elective credit.</td>
</tr>
<tr>
<td>Readiness</td>
<td>Students must meet college course entry requirements. Courses must be non-remedial. However, student maturity in addressing complex material is not addressed beyond the minimal requirement to provide some counseling.</td>
<td>No additional student requirements imposed; leveraging current advising and career counseling; ECHS has a nucleus cohort more strategically designed, that supports the student for all four years of HS.</td>
<td>No additional student requirements imposed; district is in process of developing a counseling guide and is developing individual relationships with some IHE counselors.</td>
</tr>
<tr>
<td>Experience/culture</td>
<td>The CCP experience will differ for students depending on the location of the class, the instructor, the make-up of the class participants. However, the policy is intended to provide a high school environment where all students are exposed to postsecondary expectations.</td>
<td>CCP has facilitated a dialog about alignment of HS graduation requirements and entry into a postsecondary institution. High school courses are being adjusted to better align down to college requirements, with expectations this will affect middle school curriculum.</td>
<td>CCP has facilitated a dialog about alignment of HS graduation requirements and entry into a postsecondary institution. High school courses are being adjusted to better align down to college requirements, with expectations this will affect middle school curriculum.</td>
</tr>
</tbody>
</table>

*Transferability.* Dual enrollment courses offered under the College Credit Plus policy must lead to a recognized credential or degree. The University System of Ohio establishes the rules under which courses obtained at one Ohio public postsecondary...
institution, either two- or four-year, can transfer to another (ODHE, 2012). Kora (October 23, 2015, interview) stated the intent behind the policy and highlighted the desire to drive alignment across the K-12, postsecondary, and industry sectors in developing this program.

Not just that they’re transcripted, that they apply to a degree. There’s lots of courses. There are courses that are ... theoretically you could ... that they have to apply to a degree or be the workforce certification, which is a very specific, not just any certification, but a workforce certification.

Courses, however, unless recognized under the TAG agreement or tied to specific industry credentials, may not lead to a specific certificate or degree but instead apply as an elective or general education course. At the district level, each of the interview participants expressed concern about the potential impact to students. In particular, apprehension was expressed about expectations of parents and students around the transferability, and degree application, of courses taken under the College Credit Plus program. Marissa (October 1, 2015, interview) summed up this concern,

Most of what they were going to transfer out, depending on the institution, I would guess would end up to be elective credit. I think parents are having misperception of what they’re getting out of the deal. We advertise, or were advertising when I got here, we offer 50, or however many it was, dual enrollment courses. We’re giving this many college credits. We’re saving you this amount of money. Well, yeah, but it’s all elective credit. Or, I don’t even know if [a top four-year] would take [the community college] English 237.
Aurora acknowledged that dual enrollment courses under the College Credit Plus program can assist students in addressing general education credits, but had concern as well on how credits would transfer, even within the USO. She specifically questioned a dual enrollment healthcare course offered at that district’s high schools. She contacted multiple in-state postsecondary institutions to understand how that credit would be accepted because the courses they are offering are not TAG courses. She determined that these would most likely be elective or, potentially, general education credits.

But, this appears to be in the design of the program. Statements from the state policy makers indicate that they understand that these may be elective credits, applied at the discretion of the receiving postsecondary institution. Kora (October 23, 2015, interview) stated,

They are not matriculating students. So they can accumulate these transcripted college credits on their college transcript, and that doesn’t mean that they’re going to end up with a degree, even if they accumulate, even if they earn 60 credits. They can theoretically earn up to 120, but that’s not a bachelor's degree. May that institution confer a degree on that student? Sure, but that’s at the institutional level to decide that.

As administrators and counselors, secondary and postsecondary, become better acquainted with the policy and as advising is strengthened, students and parents may be better equipped to determine what courses at which institutions best meet their personal goals and to lay out a constructive coursework plan with an understanding of how the
credits earned can be applied. Appropriately setting student and parental expectations will be critical in the sustainability of the program.

**Readiness.** As students assess the courses that meet personal goals beyond secondary school, they must not only plan but also be prepared. Ohio has established guidance on what readiness means for graduating secondary students (ODHE, 2012b). Detailed expectations are defined for math, reading, writing, and core science skills. It also includes soft-skills, such as problem solving, as well as other readiness behaviors that demonstrate the ability to set and meet goals.

The first step is academic readiness. Opportunities for a college preparatory or rigorous K-12 experience are an element in providing the access to these programs to all students. But as Aurora (October 8, 2015, interview) discussed,

…some of our kids do need all four years of high school to be prepared. It’s okay to do that. I think that’s sometimes hard if you have a parent who really wants a kid to do well, and they’re gifted or they’ve excelled, and then maybe don’t place into that college class.

Aside from the challenges of determining an appropriate set of courses based on academic preparation and desired outcomes, other factors impact the readiness of students’ ability to successfully attend to college-level material. Aurora highlighted this as it related to the ability of middle school students to participate in dual enrollment opportunities as required under the College Credit Plus program. “I bet I do have some kids in eighth grade that would test into courses, but it doesn’t mean that they’re ready for those courses, maturity wise.”
Marissa (October 1, 2015, interview) touched on this as well, noting the importance of the student understanding his or her own capabilities. She described students testing well academically, but opting to wait a year because they didn’t feel ready to take on the rigor of a college course. She stated, “They made informed decisions about all of their habits in mind and the lessons they learned throughout the year about themselves as a learner before making that decision.” This example of student choice points to the importance of a supportive network as individuals assess capabilities and make choices. The support and counseling systems in place can impact the ability of students and their parents to make an appropriate decision. Additional discussion on supports is offered below in other findings.

Not only student perceptions but also those of instructors may impact successful delivery of course materials. Lonnie discussed some of the objections raised as the policy was being solidified into their programs. “Here’s some of the push back we have gotten from teachers when we first started implementing this course work, not in its execution, but in the design. “Let high school kids be high school kids.”

State policy makers identified non-academic readiness as potential obstacle. Travis (October 23, 2015, interview) discussed some perceptions encountered as they put the policy forward. “People always bring this social, emotional part into it. “Are students moving through too fast?”… On the post-secondary side it was, "I’m a professor of X...I’m not going to babysit a seventh grader.'”

The ability of students to handle complex concepts is more complicated than completion of a specific prerequisite. There are developmental and maturity factors these
comments speak to, but simple resolution is not clear. At the GEVS early college high school, a comprehensive profile was developed which takes into account other skills.

We worked with Edworks under guiding principles of early college and then we built, before we built any curriculum, we built the portrait of a graduate, and talked about when they leave here, what are the qualities that the student is going to have...flexibility, out of the box thinker, those kinds of things. Then they built curriculum with that in mind (Marissa, October 8, 2015, interview)

Transition is eased when the requirements for a high school diploma align with the entrance expectations of college or a working position. One of the goals of the College Credit Plus policy was to create a more streamlined and consistent set of requirements for students as they move through K-12 then into college and/or on to a career. Interviewees expressed the impact that working with the postsecondary partners has had on their programs, even beyond specific courses or high school grade levels. As the high school teachers interact with postsecondary faculty, they adjust course objectives and learning outcomes. This filters down into lower grades both by design and organically. Lonnie (October 8, 2015, interview) stated,

I think what College Credit Plus is trying to do is expand the opportunities for the relationship, and I think formalize and make consistent the relationship between K-12, local education agencies, and institutions of higher ed, at least public, and then privates that want to be involved.

Further, he noted,
You’ll start to see districts being more purposeful in realigning their curriculum to those college readiness standards of the assessment that they’re judged by, thereby potentially increasing a student’s readiness for college, increasing a student qualifying to do some college course work, or increasing a student’s confidence to say, “I can do this work.” Are we going to put our money in programs and courses and training for teachers that don’t align in any college or career readiness, or do we want to increase access to college and career readiness and put our resources and money there.

College- and career-ready implies a broad set of skills. This is a goal in Ohio’s guidance on readiness and is evident in the mandate that College Credit Plus courses align with either a degree or a recognized industry credential. The policy and resulting programs also reflect the influence of industry. Each of those interviewed perceived this to be a positive element in the creation of strong programs with opportunities for students. Working with Chambers of Commerce and industry helped the districts articulate to teachers and counselors the economic needs across the state and the role of these programs. The schools become the place where the talent pool for a future workforce is developed. Marissa (October 1, 2015, interview) discussed the benefits of coordinated and open communication across the spectrum.

The bonus, across the board, is sitting down with [a manufacturing business representative] and building our curriculum and also having [a community college dean] sitting at the table, that curricular alignment piece. At the end of the day, that just results in a prepared workforce to help meet our workforce challenge.
State policy makers acknowledged the importance of alignment with industry, but also asserted that the intent is to provide students with opportunities and experiences. If they’re ready for college and they’re doing this program, we want them to be set up for success, to do what they’re doing as teenagers. Not necessarily knowing what they’re going to be when they grow up, 30 years from now. We’re talking about, literally, thirteen-year olds to eighteen-year olds. We just want them to feel good about moving on with education (Kora, October 23, 2015, interview).

These perspectives highlight the potential conflicts between developing programs highly aligned with industry needs, and one more oriented to provide broad educational experiences.

**Experience/Culture.** Readiness and alignment of expectations can impact the culture of the institutions students attend. Development of the culture can be intentional. As Marissa expressed earlier, “It’s not college or career;” there was purposeful creation of that mindset in her district. Kora (October 23, 2015, interview) discussed the policy perspective on impacting the culture across the state.

The kids got major skin in the game. I think that this culture piece is real. I think that it will provide tremendous, and has already provided tremendous, opportunity to shift that, “I know I can concept,” culture concept.

Lonnie expanded on the cultural aspect and discussed how Ohio is examining other policy elements that may further impact the expectations at the secondary level in a way that helps more students see college as a postsecondary option. Some college choice
models point to the taking of a college placement exam as a critical element in successful transitions (Perna, 2006). He spoke about a program in Colorado where the state had mandated ACT testing for all students and the result was surprising to them. The overall composite scores increased and more students sought grants and financial aid after experiencing success on college-level testing. As more students are provided with the information, the opportunity, and the supports needed to develop college or career readiness aspirations and to see themselves as being able to successfully transition out of secondary programs, those historically underserved may take greater advantage of these programs.

**Finance and accountability.** State policy establishes important frames for academic access and program success. The Education Commission of the States (ECS) highlights the important role that state policies play especially in the area of funding dual enrollment (Zinth, 2014, 2015b). Ohio’s College Credit Plus policy seeks to eliminate cost barriers, real and perceived, that some students may have experienced under PSEO. The new funding model establishes standard operating ranges applicable to all public institutions and also defines a framework for private participation, both at the secondary and postsecondary level. According to Lonnie, the establishment of these funding standards is a critical factor in providing more access to a broader range of students.

So really what this policy is was a revision and modernization of what was called PSEO. We already had an understanding of kids going to college and qualifying to college. The deadlines didn’t change. What changed more was the funding structure (Lonnie, October 8, 2015, interview).
The following section examines the areas that are related to funding supporting this policy at the institutional level. Subcategories arising from analysis included commentary on the funding model and non-student costs, as well as how the state is setting out reporting and accountability guidelines (see Table 6). Reporting can provide transparency and accountability across the system in key success metrics, once these are solidified and published.

Table 6

Summary of Activities and Compliance Related to Finance and Accountability.

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Ohio CCP Rules and Requirements for Public Institutions</th>
<th>Greenfield Exempt Village Schools</th>
<th>Langston City Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding and costs</td>
<td>ODOHE has established a floor and ceiling rate based on instructor and delivery location; these are based on 83% of K-12 per-pupil foundation funding amount and are to be paid by the K-12 district. Equipment required for course participation, beyond textbooks and fees, are to be covered by the participating IHE.</td>
<td>MOU’s with each IHE are individually negotiated but are noted to be within the required range.</td>
<td>State requirements for reporting are not defined; minimal enrollment information is available</td>
</tr>
<tr>
<td>Reporting</td>
<td>Formal reporting requirements are in development; reporting is required annually in July for the previous academic year.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Funding and costs.** The College Credit Plus funding model recognizes ancillary costs associated with differing delivery models by assuring that a percentage of the state student funding stays within the district. The district covers tuition and textbooks, but the postsecondary institution provides for materials and fees that are optional or unique to specialized programs, such as culinary arts. Kora (October 23, 2015, interview) explained the policy perspective on the creation of the model and the attempt to distribute the cost across institutional entities.

I think that it’s a very, very equitable distribution of the responsibility of the financial pieces. As close to equal as we could possibly get it… The instructional tools, as the secondary bearing the cost of the instructional tools, and the postsecondary bearing the cost of the supplemental supplies… For the community colleges, it is more expensive for those supplemental tools because they teach more of the technical than the universities do…

Generally, the attempt to standardize the cost model is perceived as a positive step in expanding dual credit opportunities to students who might not have participated in the PSEO model. Notwithstanding the misgivings expressed by Marissa on the desire for a sliding scale to recognize differing student resources, the funding structure, including the lowest and highest (floor/ceiling) amounts that could be charged by the IHE, created a format for developing secondary-postsecondary agreements. Lonnie (October 8, 2015, interview) expressed his support of the standardization of both funding and qualifications in bringing more college-level courses into the high school, potentially increasing the students who participate.
However, with diminishing state resources allocated to public education at both the secondary and postsecondary level, institutions are concerned with sustainability and the K-12 district will bear a substantial burden as more students chose to participate. Marissa expressed this concern as it related to the loss of state financial support for local, public schools, and the anticipated, projected costs of the program for the early college high school in GEVS.

We’re one of the school districts who lose TPP [Tangible Personal Property tax] funding as well. That’s 12% of my budget. It was at one time 30% of the school district’s budget. They’re sitting on billions of dollars in CAT [Commercial Activity Tax] tax, which was always supposed to be the replacement, but we’re not getting that either… I’m looking at, when we have a full building at early college, having expenses of nearly $1.3 million dollars in College Credit Plus. This is $5.6 million you’re going to take from me within the next 6 years (Marissa, October 1, 2015, interview)

Not all districts are equally impacted. Based on the shear size of the budget in the larger LCS district, that administration anticipates a shift of resources, but no significant challenge to meeting the costs associated with College Credit Plus. Additionally, this district, unlike GEVS, has not embarked on developing an early college model that might significantly extend college credit opportunities to additional students in a more focused, purposeful way.

For a district like ours…prior to when it was PSEO and kids were only going out, our budget was approximately $30 to $35,000 a year, [that] was what we were
paying, what the cost to our district was. Now we estimate it to be about a hundred. That’s not because it costs more. It’s because we have more kids participating…. In the big scheme of things, our operating budget is almost $180 million dollars, so it’s just a re-calibrating of priorities about where we’re putting our money. I think it’s just a more strategic priority for us...Now if this was a $1 or $2 million dollar cost to our district, that would be tough to sustain, but at the cost it is, that’s very sustainable for a district the size of ours (Lonnie, October 8, 2015, interview).

But Lonnie also put a broader, personal, philosophical perspective on the issue of the costs associated with offering these opportunities.

It’s very cheap for the family, it’s cheaper for us, and it benefits our society and our economy when they get out and contribute to it… failure is far more expensive than success. So for the investment that we are providing students…the research that suggests students that attain the high school diploma, here’s what their contribution to society and the economy is going to be.

The financial discrepancy in operating budgets, while also representing differences in the size of student populations, clearly speaks to the challenges that smaller districts in particular will face as the program, potentially, grows.

**Reporting.** Administratively, the funding impacts budget and accounting procedures and projections. There are, however, additional accountability measures outlined in the legislation. Reporting timelines are defined, but data requirements, formats, and other specifications, as of this writing, are not. During the OADEP
conference, ODHE representative, Lauren McGarity (November 12, 2013), indicated that measures would be included on current ODE district scorecards with “Prepared for Success” metrics. Templates are in development. Data is anticipated to capture, at a minimum: year-end student demographics; course descriptions; delivery location; instructor credentials (McGarity, November 12, 2015, OADEP Conference). Once in place, the ODHE will assess sources for the information, including student record or other metrics currently captured and potentially available, but not included in current scorecards.

What seems to be missing, at least at this point, is a means to assure compliance to the rules and intent of the policy. Marissa expressed her concerns regarding differing interpretations on the definition of a college-level syllabus, materials, and teacher credentials. State policy representatives indicated that this year, non-compliance has surfaced as a result of individual complaint or question. As Travis (October 23, 2015, interview) put it, “We do have people who put up barriers purposefully…[but] people rat on each other.” This appears to be a recognized weakness in the current state accountability system. Ms. McGarity announced in the OADEP conference (November 13, 2015), policy next steps that have been set for the coming year. These include administrative improvements, development of oversight processes, and implementation of an advisory council.

Assuring compliance is critical in assuring that policy goals are achieved and participating students earn college credits, as the program is designed. It was noted previously that South Dakota had determined that any course transcripting college credit
but not deemed to be a college-level course constituted fraud by the offering institution (Adam Lowe, OADEP Conference, November 12, 2015). In general, however, this area of the policy is in development and the first formal reporting is due in July 2016, at the end of the first full year of implementation.

**Initial district reporting.** While no official reporting is required under the policy, the selected case districts each have begun an initial collection of metrics. Without defined state-level formats or data requirements, these differ, but are insightful into the populations of students participating in the first semester, first year of this policy and the courses that they are taking.

Table 7 summarizes participation at Langston City Schools in College Credit Plus disaggregated by student ethnicity and special program identification, additional demographic information, such as gender, is not currently available. This represents preliminary, informal data captured for fall 2015-2016 semester. Demographic information mirrors historical trends.
Table 7

*Langston City School College Credit Plus Participation by Ethnicity in Fall 2015.*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>East High School</th>
<th>Main High School</th>
<th>West High School</th>
<th>Total</th>
<th>Percentage CCP Stdts</th>
</tr>
</thead>
<tbody>
<tr>
<td>African- American</td>
<td>10</td>
<td>6</td>
<td>6</td>
<td>22</td>
<td>16.1%</td>
</tr>
<tr>
<td>Asian</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td>7.3%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1.5%</td>
</tr>
<tr>
<td>Mixed</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>5.8%</td>
</tr>
<tr>
<td>White</td>
<td>45</td>
<td>31</td>
<td>19</td>
<td>95</td>
<td>69.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>67</strong></td>
<td><strong>40</strong></td>
<td><strong>30</strong></td>
<td><strong>137</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

In a district with over 4,000 high school students, overall dual enrollment under College Credit Plus continues to represent a small percentage of students (approximately 3%) taking advantage of these opportunities. All three high schools service approximately 1,700 students. West High School, showing the lowest participation rate, represents the school with the highest minority, low-income population.

The reporting available does not provide insight into the location of the courses taken. However, interview comments would indicate the majority of dual enrollment classes are being delivered in the high school. This breakdown does highlight the overwhelming participation, based on percentage, for White students. The second largest participation is by African-American students. Minimal additional information is currently available. However, LCS has created trending information to assist them in monitoring overall dual enrollment participation, even though many program elements under CCP and the previous PSEO program are significantly different (see Table 8).
Under College Credit Plus, the number of students has increased significantly (80%), but continues to represent a small percentage of the overall student population across the three high schools. Additional information from LCS for this initial semester of College Credit Plus, indicates that the largest percentage of students who participate are identified as gifted, with close to 60% of students falling into this category. While the data continues to highlight the overwhelming trend for these programs to be utilized by White students over other minorities, it also demonstrates increased participation under College Credit Plus, but shifts in percentages by ethnicity. Monitoring these as the program matures will be critical in assessing the ability of the policy to encourage first-generation, low-income, and minorities to participate.

Table 8

*Langston City Schools 3-Year Ethnic Trends in Dual Enrollment.*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>12.7%</td>
<td>5.3%</td>
<td>16.1%</td>
</tr>
<tr>
<td>African American</td>
<td>8.5%</td>
<td>10.5%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>4.2%</td>
<td>3.9%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Mixed</td>
<td>4.2%</td>
<td>5.3%</td>
<td>5.8%</td>
</tr>
<tr>
<td>White</td>
<td>70.4%</td>
<td>75.0%</td>
<td>69.3%</td>
</tr>
<tr>
<td>Total Students</td>
<td>71</td>
<td>76</td>
<td>137</td>
</tr>
</tbody>
</table>

Greenfield Exempt Village Schools has also captured first semester, first year metrics. Due to the differences in funding and program requirements, this district is
currently not comparing metrics to earlier PSEO participation; nor is it capturing or comparing data between the traditional and early college high school. The GEVS student population is overwhelmingly White; minorities, together, make up less than 7% of the total student population. Therefore, GEVS is not currently capturing ethnicity in participation. This district has gathered course information by grade level compared to AP participation (see Table 9).

The participation rates are significantly higher for this district than LCS, even though it is a smaller, rural district. There has been a focused effort to offer dual enrollment opportunities to these students prior to the implementation of College Credit Plus, as is reflected by the large (>50) college credit bearing courses offered at the high school.

The participation levels for both the dual enrollment and advanced placement courses are reflective of historic trends. The majority of participation in college credit courses is occurring primarily in the junior and senior years. The data indicates somewhat comparable participation in dual enrollment and AP (see Tables 9 and 10). However, there is greater participation in the College Credit Plus program at lower grade levels and across a broader spectrum of course selections. Additionally, data indicate that more technical courses are being made available through the dual enrollment option, even though the largest participation is in a foreign language followed by chemistry. Overall, AP remains heavily focused on academics, with five of the nine courses in math or science fields. Nonetheless, this district would appear to be prioritizing making college-level credits more available across their student populations.
Table 9

*Greenfield Exempt Village Schools Dual Enrollment Participation in College*

_Credit Plus by Grade Level Fall 2015._

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Grade 12</th>
<th>Grade 11</th>
<th>Grade 10</th>
<th>Grade 9</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITS 1210: Keyboarding/Word Processing</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>10</td>
<td>28</td>
</tr>
<tr>
<td>ITS 1215, 1220, 1235, 1245: Beginning Word</td>
<td>14</td>
<td>7</td>
<td>9</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>ITS 1216, 1236, 1246: Inter-Word Processing</td>
<td>9</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>ITS 1400: Web Design Essentials</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>ACC 1100: Intro to Financial Accounting</td>
<td>17</td>
<td>19</td>
<td>3</td>
<td>0</td>
<td>39</td>
</tr>
<tr>
<td>ACC 1200: Managerial Accounting</td>
<td>6</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>ENG 102, 106: Basics of Comp &amp; Intermediate Comp</td>
<td>78</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>79</td>
</tr>
<tr>
<td>ENG 1111, 1112: English I, II</td>
<td>29</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>29</td>
</tr>
<tr>
<td>SPE 201: Intro to Speech</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>FLA 101: Foreign Lang 1 (Spanish 3)</td>
<td>24</td>
<td>70</td>
<td>56</td>
<td>0</td>
<td>150</td>
</tr>
<tr>
<td>STT 2640: Elementary Statistics 1</td>
<td>38</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>38</td>
</tr>
<tr>
<td>CHE 216: General Chemistry 1</td>
<td>5</td>
<td>95</td>
<td>22</td>
<td>0</td>
<td>122</td>
</tr>
<tr>
<td>SCI 200: Basic Forensic Science</td>
<td>16</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>23</td>
</tr>
<tr>
<td>PHY 201: General Physics 1</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>SOC 201: Intro to Sociology</td>
<td>17</td>
<td>7</td>
<td>9</td>
<td>0</td>
<td>33</td>
</tr>
<tr>
<td>PSY 200: General Psychology</td>
<td>17</td>
<td>7</td>
<td>9</td>
<td>0</td>
<td>33</td>
</tr>
<tr>
<td><strong>Total CCP</strong></td>
<td><strong>291</strong></td>
<td><strong>240</strong></td>
<td><strong>125</strong></td>
<td><strong>15</strong></td>
<td><strong>671</strong></td>
</tr>
</tbody>
</table>
Table 10

Greenfield Exempt Village Schools Advanced Placement Participation by Grade Level

Fall 2015

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Grade 12</th>
<th>Grade 11</th>
<th>Grade 10</th>
<th>Grade 9</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP English Lit &amp; Comp 12</td>
<td>34</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>34</td>
</tr>
<tr>
<td>AP US Gov</td>
<td>2</td>
<td>86</td>
<td>3</td>
<td>0</td>
<td>91</td>
</tr>
<tr>
<td>AP Physics</td>
<td>98</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>107</td>
</tr>
<tr>
<td>AP Chemistry</td>
<td>4</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>AP Bio</td>
<td>6</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>21</td>
</tr>
<tr>
<td>AP Calc BC</td>
<td>14</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>AP Calc AB</td>
<td>62</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>70</td>
</tr>
<tr>
<td>AP Spanish</td>
<td>31</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>31</td>
</tr>
<tr>
<td>AP Lang &amp; Comp 11</td>
<td>0</td>
<td>51</td>
<td>0</td>
<td>0</td>
<td>51</td>
</tr>
<tr>
<td>Total AP</td>
<td>251</td>
<td>181</td>
<td>4</td>
<td>0</td>
<td>486</td>
</tr>
</tbody>
</table>

Other findings. Interviews revealed areas of interest beyond the policy categories described above. Among those that surfaced are support services, which include academic advising, career counseling, risk intervention and progress monitoring. Additionally, the legislation provides specific delimiters on the number of hours that could be earned and provided for accommodation of some existing programs (see Table 11).
Table 11

**Summary of Activities and Compliance Associated with Other Findings**

<table>
<thead>
<tr>
<th>Sub-category</th>
<th>Ohio CCP Rules and Requirements for Public Institutions</th>
<th>Greenfield Exempt Village Schools</th>
<th>Langston City Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support services</td>
<td>IHEs must assign an advisor to all CCP students.</td>
<td>High school and career center counselors advise students and families; ECHS includes a cohort and advising model.</td>
<td>High school counselors provide career and academic advising.</td>
</tr>
<tr>
<td>Limitations/ accommodations</td>
<td>Students may not exceed 30 credit hours an academic year. Participation cannot exceed four years. Guidelines are provided for the participation of private schools.</td>
<td>Manual processes for tracking across IHE in development. The early college exempted one year.</td>
<td>Manual processes for tracking across IHE in development.</td>
</tr>
<tr>
<td>Exemptions</td>
<td>Early college high schools are exempted from CCP requirements until 2017 or until current MOUs expire.</td>
<td>ECHS is anticipating minimal changes except to current MOU’s and financial agreements with ECHS IHE partner.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Support services.** Support services, including career and academic advising are especially important to student populations, especially those typically under-participating in dual enrollment opportunities. Middle and high school counselors are charged with working with the postsecondary advisors on guiding students into the programs best suited for them and for which they are qualified. However, the high school administration may not be aware of the college programs in which the student enrolls. Aurora (October 8, 2015, interview) expressed the first-year challenges associated with providing adequate support to their students that enrolled outside the course set offered at the high school.
We have to figure out a better system too, so the kids that take classes on the college campus, they didn’t register with us necessarily, so we were waiting to hear from the colleges. Counselors would have some inkling, because they would talk to their kids, but then… I was actually surprised at some of the classes the kids registered for. I was curious and all…”Why did you take this particular class.” I’m looking forward to finding a way to have conversations with those kids, maybe before they go do the college scheduling, so our high school folks are more aware of what they’re thinking about taking and what they end up taking, than just getting the report from the college in the fall, like "Here are the classes they’re taking."

It is not just concern about assisting students with course selection; it is also about providing a more traditional set of wrap-around services that include monitoring in order to intervene if necessary. Again, Aurora provided insight.

They don’t access them [postsecondary resources]. It’s harder right now with our kids that are taking classes on the college campus, because we don’t have as much oversight on them. It’ll be interesting to see. Last year for PSEO we had two kids fail a class. My ultimate goal is that no one fails a class.

The early college high school at GEVS is structured along the early college foundational elements, which includes embedded support systems. As Marissa stated, for these students,

...in our building…they have a nucleus group which is like an advisory group, if you will. They keep that same nucleus instructor for all four years, so that’s the
person who did their COLS 1100 [a first year experience seminar] course with them, that’s the person who is doing their academic counseling with them. That’s the person that’s going to help them develop their capstone project. That person knows them really well as learners too, which makes a huge difference (Marissa, October 1, 2015, interview).

The standard high school in GEVS does not provide the same set of structured experiences or operate with a cohort model. However, the district has a strong relationship with a career and technical center that they rely on to assist with career counseling.

At LCS work is being done to better assess where students are matriculating and look at data on whether they successfully complete or transfer. As a supervisor of district counselors, Aurora is assessing data to support them in better advising students considering participation in dual enrollment courses. They are intending to develop additional guidance to help assess benefit and fit for specific course selections made. Aurora’s comments reflect a general awareness for the need to provide training and materials to the counselors for advising beyond those historically needed. As Aurora said, ‘I know my high school counselors are feeling overwhelmed… [so] we are implementing a career advising policy.” Lonnie (October 8, 2015, interview) also spoke to this effort underway at LCS, under Aurora’s leadership, to develop aids for the counselors as expectations for them shift.

We have really focused training and teaching counselors what these standards are, what these outcomes are, why we’re doing it… We’re also over the course of this
year writing curriculum for the guidance counselors that will align with what we have from the state. We really don’t have that for them, so their job has kind of been reactionary. We do testing now and now it’s registration and scheduling, instead of very purposeful, “Here’s the tasks and outcomes that you do with yours and making sure that you are the facilitator to help kids and families.”

Appropriate counseling, advising, and monitoring can facilitate student success. The policy recognizes the need, but allows each institution and partnership to determine the level of resource, the strategy for contact, and the avenues for communication.

**Accommodations and limitations.** Once a student has determined that he or she will participate, selected a postsecondary institution for application, and enrolled in coursework, the number of credit hours eligible for the program is limited, both annually and for a high school engagement. The legislation limits the number of credit hours that an individual high school student can earn annually to 30 credit hours; over the course of a four-year high school experience, the limit is a total of 120 credit hours. It is the responsibility of the K-12 district where the student is enrolled to monitor and track to assure student level compliance. Guidelines are provided for home or privately schooled students who access a pool of state funding for participation. Finally, the legislation provides for waivers until 2017 for some existing programs, such as early college high schools, and clarification on potential impact to career and technical programs.

High schools are responsible for establishing an administrative process for tracking students who participate in College Credit Plus, even if students are enrolled in courses with multiple IHEs simultaneously and have not assured that the school
counselor is informed. This poses difficulty for districts whose students may enroll outside the high school course offerings, who do not work with a district advisor, and/or who enroll in online courses. Aurora explained that they were figuring it out as the year unfolded. “I did a lot of the heavy lifting this year in our district, and pushed it out to my counselors...how we register kids and track kids... [Next year] they'll be more part of that system.” How students are advised, enrolled, and tracked for progress and credit accumulations may impact the ability of both the secondary and postsecondary institution to adequately counsel and intervene, as well as to adequately report.

**Exemptions.** While the legislation has been updated since the January 2015 publication, the original language allowed early college high schools and some technical programs an opportunity to review current program elements, make required adjustments, and implement College Credit Plus requirements in the 2016-2017 academic year. The critical component is the intent of the legislation to bring all transcripted credits under this policy umbrella. While it created some confusion regarding how the policy was intended to work, especially as it related to CTE, Kora clarified, “You never have to do your articulated college agreements under College Credit Plus, because College Credit Plus is only for transcripted credits.” Therefore, AP or IB coursework, or vocational training that requires articulation is exempted from CCP rules and regulations. Those programs continue to operate under the rules and requirements that have existed for them.

In discussion of the impact of College Credit Plus to the high schools in GEVS, Marissa (October 1, 2015, interview) noted the differences between the GEVS early college and the standard high school. Some of this stems from differing expectations.
I think after year one, they [early college high school administration] were able to say, “Okay these are the skills you need to have to be successful here.” Now, they’re probably not much different than the skills you need to be successful at the traditional high school, but the difference is, they do mastery learning, they’re looking at competency based, and if you’re not a student who is resilient, you could go to the high school and get a "D", but you can’t get a "D" over there.

While several elements, such as higher expectations, potentially, make the early college more conducive to broader dual enrollment participation, at least one area surfaced as a conflict with the model established by the policy. In the GEVS early college, mastery gateways are defined in a structured STEM-oriented curriculum. Therefore, students may progress through material on differing timelines. However, dual enrollment credits earned under College Credit plus are based on a grading structure calculated on seat time, or hours in class. As Marissa further expressed,

I think that when we look at competency based and saying, “Okay, and we’ll just do it in this very rare form, this kid gets it, we’re going to move them on.” That doesn’t align very highly with the College Credit Plus. Because college credit says you’re sitting in this class three hours a week. That’s where I think will be a significant obstacle for us, in achieving where we want to go.

The early college panel discussion held at the OADEP conference (November 13, 2015) raised a number of concerns about how the policy would impact these types of organizations. While each has unique elements, curriculum, and partnerships, generally, early colleges adhere to similar fundamental principals. Ed Ingman, Dean of Students,
The Charles School at Ohio Dominican University, discussed how many of Ohio early colleges, including The Charles School, were seeking waivers in order to continue to allow broad access and flexible time to degree, especially for underserved student populations. Dr. Thomas Lasley, Director, Early College Association, expressed his concern as well, “CCP, when it is applied across all ECHS will have a negative impact – the unintended consequence will be to close opportunity to many students…” The intent of the policy, as noted earlier, is to open access, especially to underserved student populations. However, Ohio has a number of early college high schools specifically established for these populations that allow for a five-year high school experience and mastery progression. These programs must adapt to meet College Credit Plus requirements.

**Challenges of change.** In closure on the perspectives of the interviewees, looking at additional challenges of this policy change is informative. Logistical and administrative obstacles, often exacerbated by the speed with which the policy was developed and required, impacted both the secondary and postsecondary institutions. Annual calendars are not aligned so breaks and vacations often differ. Policy on other issues, such as weather cancelations, also impact alignment and fulfillment of course requirements. Marissa (October 1, 2015, interview) called out the challenges, “…the logistics, timing, trying to meet the demands that the higher education needs to the amount of hours; we have snow days and you don’t; our spring breaks don’t align….” Other elements conflicting include grading practices and communication, beyond the teacher-faculty differences in pedagogy. As Aurora (October 8, 2015, interview) noted,
Right now we’re trying to figure out nine weeks grades for athletic eligibility.

My idea is can’t just the college send me the list of the grades, where they are at that point in time. Then we can look through them. The professors wouldn’t have to worry about it. The colleges don’t have ... I guess I didn't realize this. I thought through Blackboard, you could just pull all the grades, but you can’t.

These comments add to those on specific elements discussed earlier and further demonstrate the complexity of the policy and the difficulty in aligning academic environments with differing objectives, audiences, funding streams, cultures, and accreditation requirements. The subsequent chapter will look at these findings in relationship to theory and emerging inquiry and discuss the implications for future practice and research.
Chapter 5: Discussion and Implications

Introduction

The research reported here, as put forward in Chapter 1, performed a case study analysis of the first semester, first year policy implementation of Ohio’s recently enacted College Credit Plus program. This chapter is organized to provide a summary of the research approach and discussion of the findings presented in Chapter 4. It also offers implications for action and recommendations for future research.

Summary of Study

The following section provides an overview of the research approach, including the purpose and method employed. Major findings, including those that were unanticipated, are highlighted.

Overview of the research problem. Ohio is one of many states seeking to provide college credit earning opportunities to high school students. Dual enrollment allows for concurrent conferring of both high school and transcripted college credit for successfully completed coursework. According to the College Credit Plus definitions, a transcripted credit "means post-secondary credit that is conferred by an institution of higher education and is reflected on a student's official record at that institution upon completion of a course” (OCR, 2014, 3365.01). Research indicates that dual enrollment programs can broaden access, provide opportunities to traditionally underserved student populations, and lower the cost of attaining a postsecondary credential (AIR, 2006, 2009; An, 2013; Westcott, 2009).
State policy is a critical factor in setting the foundation for successful and sustainable programs to meet these goals. Ohio’s College Credit Plus program sets out guidance that encourages alignment of K-12 and postsecondary institutions, as well as establishing connectivity to industry needs and credential requirements. Further, the policy establishes standards, mandated for all Ohio public secondary and postsecondary institutions, on funding, student costs, program quality, and teacher credentials. Other program elements, such as the delivery location, faculty of record, advising, and course offerings remain the discretion of the partnering secondary and postsecondary organizations.

The College Credit Plus program was rapidly designed and deployed based on legislated requirements and deadlines. Both K-12 and higher education institutions received information in early 2015 that was applicable for action in the academic year of 2015-2016. Rapid policy deployment timelines created urgency for schools and colleges. Each institution had to assess the rules, develop programs, establish appropriate memorandums of understanding, then inform and enroll students. This study examined two secondary district implementations in the first semester, first year of this deployment. Analysis of Ohio’s new legislation provides an opportunity to examine the potential tensions created across differing institutions with multiple goals in partnerships shaped by state education policy. Insights gleaned from findings may be leveraged to improve outcomes and build sustainable programs. Creating an initial profile of the first year in the implementation of College Credit Plus can inform educational institutions in best practices needed to facilitate improved access, equity, and efficiency.
Purpose statement and research questions. The purpose of this study was to create an initial profile of the first year of the implementation of the College Credit Plus program. A case study approach was employed within the context of policy evaluation and action inquiry. Evaluation of the policy and activities taken during implementation inform the understanding of the challenges the policy intends to address. Among those outlined for this educational challenge are broader access to dual enrollment opportunities, especially for traditionally underserved populations, greater equity in participation across demographic groups, and financial efficiency in assisting Ohio students with completion of relevant postsecondary credentials.

Issues of funding, participation, and delivery are critical in assessing how the implementation of academic policy addresses potential pitfalls that can be associated with access to college credit opportunities by high school students. Taxpayers, communities, and students are impacted by the ability of high schools to successfully implement education policy. Assessment of the critical success indicators can inform future modifications to both policy and individual dual enrollment programs in addressing goals to extend access, increase diversity, and provide cost efficient programs across the state. Research questions were designed to guide the analysis of the policy implementation and assess the fidelity of implementation at two sites to the College Credit Plus rules and requirements.

1. How have implementation strategies met the requirements of Ohio’s College Credit Plus policy?

2. How has each high school implemented college credit opportunities?
3. What lessons can be learned from the first-year implementation process?

**Review of research method.** This policy analysis, using selected cases, was designed to collect data from multiple perspectives and describe the implementation of College Credit Plus legislation at the high school level for two selected districts. Analysis of the cases facilitates evaluation of the policy implementation (see Figure 1).

This is a qualitative study designed to explore the district activities undertaken to meet policy requirements. Two Ohio districts were selected for the study. The sites selected are representative of suburban and exurban K-12 districts in the state. Both sites had engaged in dual enrollment initiatives prior to the codification of College Credit Plus. However, there are differences in size, location, and resources that provide insight into policy implementation strategies.

Two primary sources of data were employed, publicly available documentation and administrative interviews. Interview participants were identified and selected based upon their roles in policy or program formation and implementation at the state and K-12 level. A semi-formal interview protocol (see Appendix B) was developed to guide discussion. Interviews were intended to probe each individual’s understanding of the policy, how communication to key stakeholders was conducted, and to gather a description of actions taken in implementation. Confidentiality will be maintained for both case study sites and individual participants.

Interview recordings were transcribed using a third-party vendor, Rev.com. Inventories were created of documents reviewed and used to facilitate development of key themes with information emerging from interviews. This facilitated management and
analysis of the information captured during the study. A test was conducted using Atlas.ti as a means to expedite the development of key themes and categories. However, as noted by Yin (2014) leveraging automatic tools for qualitative data can be difficult and unsatisfactory in developing findings. The complexity of the interview results hindered use of the tool. Therefore, documents and transcripts were manually reviewed multiple times. Categories were defined based on preset categories from literature, as well as in a more inductive manner by capturing themes emerging from individual commentary.

Document and interview analysis was supplemented by information received at a 2015 fall Ohio Alliance of Dual Enrollment Partnerships (OADEP) that focused on legislative and institutional challenges associated with College Credit Plus. Additionally, formal reporting for the 2015-2016 academic year is not required until July 2016 and, further, data requirements for this program are not defined; nonetheless, each of the districts provided some initial, although dissimilar in nature, information on student enrollment.

**Significance of the study.** Findings resulting from this policy implementation analysis add to a growing body of literature on the importance of state policy in creating structures, funding, and support for the advancement of educational reforms that broaden access and facilitate student success and college completion. While many of the College Credit Plus requirements are designed to address well-researched barriers to college, such as student financial and academic obstacles, many of the rules are in conflict with emerging research. Among those policy elements that may exacerbate a growing bifurcation of both the K-12 and postsecondary educational systems is the lack of funding
for or guidance on necessary student supports, especially for those student populations typically underserved in accessing higher educational opportunities. Further, a completely open course enrollment strategy without required academic plans or pathways to completion might create an environment where credits are earned but cannot be practically applied. This first year implementation profile permits assessment of areas for additional state policy efforts or institutional level program changes focused to facilitate attainment of stated goals.

**Major findings.** Analysis of the findings from this study highlights several key elements arising from the first year of College Credit Plus program implementation. These elements do not operate independently; they are interdependent and threads pertaining to all policy areas interact. Nonetheless, several overarching themes surfaced in document analysis and interviews. First, statements reflect confusion by key stakeholders on the details and requirements within the legislation. This in turn, exacerbated inconsistent application and compliance across institutions. Commentary highlighted how each institution did, or did not, review and appropriately initiate programs in compliance with College Credit Plus rules. Further, no explicit process is defined for assessing or reporting on compliance; with state policy representatives acknowledging that identifying noncompliance is currently reliant on individual awareness and action.

Secondly, district cultures, location, and size create additional inconsistency in program offerings and implementation. At the K-12 level, the two sites analyzed differed in resources dedicated to dual enrollment programs, proximity to postsecondary partners,
and program construction. These district-level, local differences create inequity of access across student populations within the state. School districts within Ohio are decentralized and serve populations generally representative of the socioeconomic status of residents.

The course offerings of the two districts further highlight differences between a vocationally oriented versus a more professionally oriented community. Course offerings differ in both number and orientation.

Additionally, while program reporting is not yet required or available, preliminary enrollment information from the two case study sites indicates potential continuation of historic trends. There is generally low participation rate overall (under 5% of the eligible student population in one district); those that are enrolled are primarily White, academically proficient students. Opening access does not appear, at least based on initial district level data, to have increased equity. The results of this policy implementation analysis support concerns that, although designed to increase access broadly, and more specifically to underserved populations through the elimination of some barriers, cultural and social capital may have greater influence on actual participation rates in ways that maintain the status quo. Student support systems and counseling services have not been increased to assist those students that may need guidance in understanding alternative program offerings, risks and benefits, and designing an appropriate academic plan.

District resources impact the types and availability of student services. The funding model requires the district to cover tuition and material in an environment where...
public educational funding has eroded. K-12 administrators expressed concerns regarding the financial sustainability of the program.

Finally, secondary and postsecondary institutional objectives and organizational structures generate conflict in establishing and managing dual enrollment course offerings. These conflicts surface in teacher-faculty interactions, academic calendars, and, for some innovative school models, such as early college high schools, a discrepancy between competency-based progression and seat time in assessing credits earned. Further, Ohio operates in a competitive environment in which students may access postsecondary courses at any accredited institution. This can create confusion and discourage collaboration between organizations (Kanny, 2015).

Findings Related to Theoretical Framework

College Credit Plus is a state policy consistent with national and state efforts to address multiple economic, social, and educational issues. National and regional targets for increased college completion are coupled with anticipated skill gaps in U.S industries (Carnevale & Rose, 2012; Symonds, et al., 2011; New Skills at Work & JP Morgan Chase, 2015). Additionally, college costs have risen and even though more students are entering postsecondary institutions, completion rates have remained stagnant, especially for underserved populations (Bowen, et al., 2009). Some studies have found that American students are drifting through the postsecondary system without clear goals and are falling further behind in meeting basic learning outcomes (Arum & Roksa, 2011; U.S. Department of Education, 2006). State policy designed to build avenues to gain postsecondary skills can facilitate positive movement to meet these challenges.
Economic development. Workforce development is a macroeconomic strategy utilized to increase productivity and drive economic growth through the development of human capital. Becker (1992) describes human capital as the education, training, and skills one demonstrates. Further, he notes that economic growth is correlated with investment in education (Becker, 1992).

Several trends have been identified that highlight the need for policy to provide the means to counter potentially negative impacts to economic growth. Five key economic trends driving the promulgation of workforce development programs are globalization, technology, the new economy, political change, and demographic shifts (Jacobs & Hawley, 2009). As an aging workforce retires, technological innovation requires new skills, and competition occurs on an international level, countries seek to develop stronger talent pools by focused training and educational programs tied to industry need.

Both case study sites embarked on the deployment of career and structured pathways in the 2014-2015 academic year. Interestingly, when surveyed, employers highlight soft skills such as complex problem solving and ethical decision-making as areas that need additional educational emphasis (American Commonwealth Partnership, Education for the Public Good, 2010). While structured or technical pathways designed to accelerate completion and lead directly into the labor force may not provide an optimal avenue to attain these sought-after proficiencies, research indicates that they are important in enabling student degree completion (Symonds, et al., 2011; Jenkins & Cho, 2013).
This study did not examine the impact of College Credit Plus on existing career and technical education (CTE) programs or participation. However, the state did perform an analysis following the codification of the policy and concluded that articulated technical training programs should continue to operate separately from College Credit Plus (ODHE, 2014). Participation in traditional CTE coursework, however, does not disqualify a student from enrolling in a CCP dual enrollment course (ORC, 2014).

College Credit Plus is structured to support a high school student in earning college credit for coursework that leads to either an industry specific certification or a defined postsecondary degree. Students may access courses and experiences applicable to either. Ohio has a network of regional career and technical centers designed to provide training in state-approved programs. Some districts work closely with their career centers to assure that dual enrollment and vocational opportunities are well defined and coordinated where possible. Other districts may have a less formal or collaborative partnership. Currently, College Credit Plus rules do not specifically encourage collaboration in designing high school programs that outline robust course options for vocational articulation and/or college credit transcription.

However, both policies and the associated programs support efforts to increase talent pools in high-need industries. In order to meet anticipated skill gaps, student participation in these programs is a key to further economic, state growth (New Skills at Work & JP Morgan Chase, 2015). The K-12 districts studied for this policy implementation analysis have developed both technical, vocationally oriented, and recommended course projections that lead to both articulated CTE and/or college credit.
However, without stronger support at the state policy level that encourages structured and career pathways, realization of workforce development goals may remain elusive.

**Social justice.** Beyond developing a skilled pipeline of workers to meet regional industry needs, dual enrollment programs also seek to address growing inequity in college matriculation and completion rates. The concept of fairness infuses this evaluation of the College Credit Plus program. John Rawls (1971, 2001) articulated the importance of democratic principles in assuring that all individuals have equal access to opportunities. Social institutions, such as the educational system, are the means through which fairness and justice can be pursued or stymied (Bourdieu, 1977; Rawls, 1971; St. John, 2007).

A social order is to be accepted as *just* if and only if it could be the object of a *fair* agreement – of an agreement that takes equal account of the interests of all the individuals who are to live under this social order (Pogge, 2007, p. 66, emphasis in original).

Educational institutions can reinforce social hierarchies and stratification of classes and do so with the unknowing collusion of the members (Bourdieu, 1977). However, throughout history, these institutions have also been a mechanism to facilitate mobility. The policies and practices underlying our social structures, including schools, are a collaborative effort that can be influenced by analysis and action using a social justice lens to impact outcomes (St. John, 2007). Further, in order to assess policy against fairness objectives, a balance must be brought between access to the majority, equity of opportunity for all, and effectiveness of investments for taxpayers (St. John,
College Credit Plus creates a centralized state policy theoretically designed to open college credit course options to broader populations of students in pursuit of degree or recognized certificates. However, as many factors influence participation, providing access alone does not ensure equity. Further, increased enrollment does not ensure higher completion rates. Perna (2006) notes “…policy interventions will not effectively close gaps … without recognizing the culture and circumstances of particular groups” (p. 115).

Cultural capital. St. John (2003) introduced a college pipeline model that demonstrates the connection of the student’s background to the decision on whether or not and where to attend college. Other student development, college choice, and social theories also acknowledge the critical role that both individual student characteristics and family or community situations play in influencing choice and action (Astin, 1967; Perna, 2006; Renn & Reason, 2013; Tinto, 2006). Students bring preset belief systems, mannerisms, and habits into educational institutions that influence their perceptions and behavior.

Thus, for example, the habitus acquired in the family underlies the structuring of school experiences (in particular the reception and assimilation of the specifically pedagogic message), and the habitus transformed by schooling, itself diversified, in turn underlies the structuring of all subsequent experiences (e.g. the reception and assimilation of the messages of culture industry or work experiences), and so on, from restructuring to restructuring (Bourdieu, 1977, p. 87).
In the context of the dual enrollment programs, interviews indicated that, generally, students participate in specific courses or programs based on friendship circles. This is one manifestation of informal structures that may reflect social position and, thus, which reinforce particular values and behavior.

Social institutions are also the result of history and the practices, policies, and systemic structures that reinforce the status quo (Bourdieu, 1977). As organizations designed by and with the support of the dominant culture, schools can reinforce the cultural attitudes and behaviors valued by the privileged.

In an analysis of Rawls’ difference and opportunity principles, Pogge (2007) builds on the role that cultural capital can play in influencing equity. He states “… four kinds of factors that explain inequities in citizens’ chances…natural factors (talents), social factors (family and social class…), personal qualities (motivation, ambition, initiative), and luck” (p.123). Cultural capital can influence the ability of students to understand, evaluate, and select educational experiences, including dual enrollment prospects. Understanding the influence of student background, characteristics, and culture is necessary in order for institutions to take steps to mitigate the potential for negative impacts and drive greater equity across educational opportunities.

**Findings Related to Policy Objectives**

Research and policy analysis have identified practices more highly aligned with successful programs and positive student outcomes (Zinth, 2014, 2015b; Harnish & Lynch, 2005; McLendon & Perna, 2014; Struhl & Vargas, 2012). Four broad, interrelated policy categories have been identified: access, finance, academic quality, and
transferability (Zinth, 2014, 2015b; Harnish & Lynch, 2005; McLendon & Perna, 2014; Struhl & Vargas, 2012). The findings from the policy implementation study are organized around these themes as well as others, such as student support, which is associated with program construct and student success.

**Access.** St. John (2003) delineated three policy areas that can be used to promote access and success. These include the development of policies to remove financial barriers, build student aspirations, and provide student support. First, policy should be constructed to address inequality of financial resources by providing grants or other funding support to those of greater need. College Credit Plus specifically removed financial and eligibility barriers for students.

**Financial access.** Research (Bowen, et. al., 2009; St. John, 2003) has highlighted the impact of college cost as a potential deterrent to matriculation and completion, especially among minority or first-generation students. The broader financial implications to institutions and taxpayers will be examined below. However, from a student perspective, the ability to attend college courses, assuming successful completion, with no personal financial investment is a critical factor in providing broader access to dual enrollment coursework. With that burden removed for the student, the importance of factors beyond economics are imperative in order to holistically assess programs designed to support student matriculation (Bourdieu, 1977; Perna, 2006; St. John, 2003)

**Student readiness.** Developing student aspirations, and expectations, is tightly knit to the cultural capital the student brings to the institution. However, it is also associated with the academic readiness of the student and it is tied to the ability to find
and consider the material needed to make informed decisions. Perna (2006) described three potential areas that continue to contribute to the gap in educational opportunity between student groups. These are financial ability, academic preparation, and information. These are consistent with the financial and academic access barriers identified by St. John (2003). Establishing clear programs that provide student encouragement in the form of transparent and thorough information on programs, financials, and academic requirements is important in broadening access.

Grade point thresholds, which were set at 3.0 under Ohio’s Postsecondary Enrollment Options Program (PSEO), were removed by the new policy. The postsecondary institution establishes entrance requirements. These must be applied equally for all student applicants, traditional, non-traditional, and high school. Whereas previously, colleges could heighten criteria for high school students, College Credit Plus policy prohibits that practice. This reinforces the selectivity stratification in higher education. Some IHE’s are more selective and will be more challenging for high school students to attend.

Beyond the defined postsecondary application requirements, students must meet any course prerequisites; these, again, must be applicable to all students seeking to enroll in that class. A primary partner for the districts analyzed in this case study is an open access community college. Placement tests are required, as for all entering students, but no additional eligibility is applied. For students seeking to access college credit courses as offered by an open admission community college, this may mean that more students
with lesser academic preparation enroll in dual enrollment courses. There is the potential for this to negatively impact those students most in need.

Findings from this study related to access include notification to students and their families, in addition to academic eligibility, student cost, and available course offerings. Access to the appropriate, accurate, understandable information is critical to educational success (Perna, 2006). College Credit Plus seeks to address informational gaps by requiring early, prior-year notice, beginning in the sixth grade, to allow eligible students time to evaluate and enroll in dual enrollment courses. This requirement improved on the more informal level of information available under PSEO.

K-12 districts are to partner with postsecondary organizations within a 30-mile radius and to provide information on IHE courses, eligibility requirements, and any costs that could be incurred by the student, such as transportation expenses (ODHE, 2015b). High school students who assess and enroll in a dual credit course can be seen as parallel to those undertaking the search step in college choice models (Perna,, 2006; Renn & Reason, 2013). Students must evaluate postsecondary options and institutions and determine if they will act on the steps needed to apply and enroll (Perna,, 2006; Renn & Reason, 2013). State and district level materials provided students with the tactical details needed to apply and enroll in dual enrollment classes. But, information reviewed for this study of the first year of implementation did not discuss the long-term benefit or potential risks of participation. Cost-benefit analysis is therefore lacking; students are reliant on additional social or family support to assess programs and gage potential returns.
There were differences in the approaches between the two districts that highlight disparity of resources. One district, leveraging dedicated personnel, developed detail district-unique information in a variety of formats, which included postsecondary specifics in a comprehensive document. The other did not. Inconsistency and potential inequity is created, even while operating under the same policy rules. This study did not observe nor analyze who attended public information sessions or accessed website information about the program. That analysis could provide additional insight into cultural factors influencing the self-selection of students who choose to enroll in dual enrollment courses.

**Student supports.** Finally, policy should provide guidance on student support strategies, such as cohort and learning communities. Ohio’s policy does require that an advisor from the postsecondary institution be assigned once the student is accepted into a dual enrollment course. But no definition is provided that helps either secondary or postsecondary institutions develop rigorous, relevant, or coordinated counseling programs. Further, no additional assets are provided for this area, which can be resource intense and may require modification of existing counseling patterns. In the first year of policy implementation, both K-12 districts were developing and refining advising approaches but, in general, were relying on existing staff and procedures.

Support entails not only appropriate advising to assist students in selection of courses and the development of an academic plan, but also encompasses social encouragement. The first year of college is especially critical in a student’s college experience (Arum & Roksa, 2011; Tinto, 2006, 2012). Transition from secondary to
postsecondary work may require bridges, orientation seminars, or learning communities (Tinto, 2006, 2012). Under College Credit Plus, institutions are not required, and may not provide, these avenues to assist students as they address college course work. This is particularly true for students who elect courses outside of the high school environment and take online courses or travel to a college campus. The student, who may or may not leverage available resources to assist in an evaluation of appropriate courses, individually selects dual enrollment courses offered under the College Credit Plus construct. Because high school students may be unwilling or unable to make use of college support systems, addressing this must be more purposefully undertaken (Kanny, 2015).

Student success requires academic rigor, relevance, and positive relationships (AIR, 2006, 2009). Dual enrollment courses may be taken at the high school, on the college campus, or online. Individual choice and a lack of a cohesive cohort can leave students without a means to develop the supportive relationships needed, such as a peer group or faculty advisor, that can support them in addressing the academic and soft skills, such as time management, needed for successful course completion. Inability to meet with instructors located outside the high school campus may create a barrier to developing the relationships necessary for a trusting and supportive environment (Kanny, 2015; Tinto, 2006).

Opening access by removal of financial and academic barriers does not appear, at least based on preliminary district level data, to have increased equity. Further, student support is at the discretion, and availability of resources, of the K-12 district and the postsecondary partner. The results of this policy implementation analysis reinforce
concerns that, although designed to increase access broadly, and more specifically to underserved populations, through the elimination of some barriers, cultural and social capital may have greater influence on actual participation rates in ways that maintain the status quo, especially in an environment without mitigating support systems. Further, inequity across Ohio’s districts in proximity to postsecondary partners and resources exacerbates the potential for disaffection by first-generation, minority, and low-income student populations.

**Program quality.** Three categories assist in the analysis of dual enrollment program quality. These include the evaluation of courses offered, the delivery mode and location, and the qualifications of the instructor. These elements vary in the two cases examined.

**Course offerings.** First, although Ohio public high school students can attend any postsecondary institution in the state and have coursework funded under the College Credit Plus program, there is a focus at the district and state level to provide a greater number of courses within the high school. Course offerings at both locations included in this policy analysis seem to be informed by regional industry needs. Dual enrollment classes have a heavy focus on health care, business, and information technology. Again, differences in community and resources at the district level may limit access to some topical areas by students seeking experiences in a specific, but not offered, discipline. This can further increase inequity across Ohio’s K-12 student populations.

Of greater concern than course listings specified at the high school or with specific postsecondary partners, is the variability and lack of compliance in designing
courses that are truly college level in the pace, rigor, syllabus, and text. Both districts expressed concern that some of the college credit courses were less demanding than the high school course would be for the same topic and high school credit. This is consistent with research on faculty perceptions (Ferguson, Baker, & Burnett, 2015). Quality, not just credit attainment, must be maintained in order to honor core principles associated with education. Without a mechanism for assessing the quality of the education received there is the potential for devaluation of the completed credential (O’Banion, 2010).

Students and their parents may hold expectations on the ability of these dual enrollment courses to meet college-level, degree-specific requirements and meet learning objectives that advance student academic achievement. However, depending on the owning postsecondary institution, they may not. Further, as findings indicate, credits earned in courses ultimately deemed as not meeting college-level rigor, may open financial, trust, and program risk to some districts.

Additionally, College Credit Plus policy was specifically designed to be open and non-structured. K-12 districts are restricted from requiring students to take a defined course progression or pathway. This is counter to emerging research on the need to assist students, especially those typically underserved, with a plan that includes limited choices and facilitates development of clear goals (Jenkins & Cho, 2013). Citing a study conducted by the National Student Clearing House Research Center, Mangan (2013) highlights several systemic issues that are preventing graduation rates from rising, in spite of all the funding and programming around the completion agenda. Among these limiting course offerings, providing structured degree pathways, and revamping
scheduling to allow for block and off-hour classes. Guided and career pathways have been highlighted as a means to facilitate degree completion (Jenkins & Cho, 2013; O’Banion, 2011; Schwartz & Hoffman, 2014; Venit, 2012). College Credit Plus could hinder districts establishing policies that reinforce these potential, but supportive actions. Nonetheless, both districts had developed industry-oriented course progressions, some specifically aligned to CTE credits, industry certificates, or two-year degrees.

Career pathways, as defined in the Pathways to Prosperity white paper, are one mechanism for creating a guided path toward a specific industry credential or degree (Schwartz & Hoffman, 2014; Symonds, et al., 2011). Both districts examined had embarked on developing structured pathways prior to the codification of College Credit Plus. These pathways included industry course progressions that are tied to specific certifications or degree programs at a central Ohio community college. GEVS also initiated a STEM oriented early college high school, in partnership with a private four-year institution, which offered programs in a structured, competency-based progressive model. It may be the goal of the K-12 districts to provide students with opportunities to accelerate completion of a degree by developing guided pathways, but that is not the design of the policy. As state policy representatives stated, the student may earn college credits but as they are not matriculating students, these may not actually assist them in degree completion.

Tinto (2006) expressed the concern that “Though students may make credit progress, they do not make substantial degree-credit process” (p. 7). This situation may undermine graduation, matriculation, and ultimately, degree attainment. Accumulation
of college credits, without structure or goals, can create a situation where the student is “academically adrift” (Arum & Roksa, 2011). Some research (Arum & Roksa, 2011) has found that first-year college students may be receiving limited learning. Without clear goals, students shift majors and collect unusable credits that may encourage them to drop out of college before completing any degree (Arum & Roksa, 2011). High school, or even middle school, students with broad access to open college catalogs and who are experiencing college work without direction or supportive services may exacerbate stagnate college completion rates. The impact of open, unlimited course selection may negatively impact those students without the family background or academic advising to elect courses that are meaningful and in which they can be successful. Thereby, students may accumulate credits that may not expedite degree completion even if they are applicable for elective or general education credit.

One beneficial outcome of the College Credit Plus policy is the creation of an environment and set of incentives that encourage alignment of high school graduation and college entrance requirements. As high school teachers work with college instructors on course requirements and learning outcomes, it can strengthen secondary curriculum in other classes and develop more realistic expectations of college admission requirements. Case sites selected indicated both an organic and purposeful assessment and alignment of expectations between all levels of the K-16 spectrum and further, into general career prerequisites. However, due to the number of postsecondary partners each district has, collaboration to build deeply aligned curricula is jeopardized.
Course delivery and instructor qualification. Contributing to program quality is the qualification of the instructor and the location of the course as it is delivered. These elements are highly interdependent. Ohio is vested in increasing the number of high school teachers trained as college adjuncts both in policy and in financial commitment (Ohio Office of Budget and Management (OBM), 2015). However, K-12 districts expressed concern over the lack of pedagogical skill postsecondary instructors may have and the conflict potentially created in co-taught courses. Tinto (2006) highlights the gap at the postsecondary instructor level. “One of the ironies of higher education is that the faculty, as a matter of practice, are the only faculty in education from elementary school to college that are literally not trained to teach their students” (p. 17). The high school teacher may be better equipped to assist dual enrollment students with appropriate pedagogy and assessment; however, the postsecondary instructor maintains control over the syllabus and student evaluation process, if that teacher is not a qualified adjunct. The assessment of this element is complicated by research finding that dual enrollment benefits are not significant unless students attend courses on a college campus (Speroni, 2011a).

With more high school teachers gaining the credentials needed to meet adjunct status, the concern over instructional skill and experience may be rendered less important. However, it is critical to assess teacher quality in the context of the delivery models and locations. At both the state and district level the intent behind the policy is to increase the number of students taking dual enrollment courses. Those numbers are anticipated to increase if more courses are offered in the high school and the student is not required to
travel to a college campus. NACEP (n.d.) promotes dual or concurrent enrollment models that advocate for high school delivery of courses.

What constitutes a college-like experience is undefined and without “universal agreement” (Allen, 2010, p. 32). There is a potential conflict in weighing benefits, which may be influenced in unknown ways by the student characteristics. How can we assess benefits derived from a course delivered in the high school where, potentially, additional support is available and instruction may be better informed by student development models, against courses delivered at a college campus where the student must navigate the norms and expectations in the company of college-aged peers?

Rigorous, definitive research on specific program elements, including the significance of location, that support successful matriculation and completion continue to be lacking.

**Student success.** Evaluation of educational policy implementation must consider the impact of that policy on student ability to progress academically. While student characteristics are important, policy should inform institutional action that can be taken to improve student success. Organizational action to improve support, involvement, and feedback can positively impact student engagement and thus learning outcomes (Tinto, 2006, 2012).

**Student engagement.** Student support has been highlighted as a critical factor in student achievement within dual enrollment programs (AIR, 2006, 2009; Adelman, 1999, 2006; Edmunds, 2005; St. Johns, 2003; Struhl & Vargas, 2012). Further, it is first-year experiences that are especially significant (Arum & Roksa, 2011; Tinto, 2006, 2012).
If the first exposure to college level coursework is in high school, these experiences may influence the perception and engagement of the student in ways that impact future matriculation and completion. Students of lower preparation and readiness may enroll in dual enrollment coursework, but experience failure that could not only decrease the likelihood of college matriculation, but may also increase the likelihood of dropping out of high school (Cowan & Goldhaber, 2015; Ferguson, et al., 2015; St. John, 2007). Challenging the direction of K-12 reforms to provide more standardized and accelerated curricula, St. John (2007) questions the ability of these programs to improve either graduation rates or college readiness. “Just because policies cause some students to take more advanced courses, it does not mean these policies help all children. These policies could apparently discourage some children from completing high school” (p. 76).

Student engagement is needed for college persistence (Tinto, 2006, 2012). Most College Credit Plus students have a high school, not a college or residential experience. Therefore, the classroom is critical in developing student engagement and promoting learning.

…student success is built up one class at a time. This is especially evident during the first year of postsecondary education, when the student classroom experiences do much to set the educational trajectory that largely determines eventual success in postsecondary education (Tinto, 2006, p. 18).

Under this Ohio policy, students may be operating in a vacuum as they select or attempt college courses. Many may have the cultural capital to leverage family background, peers, and experience to successfully earn college credits. Others may not have the
broader support or academic preparation needed to assess courses, navigate the postsecondary environment, and progress successfully. If their first experience with a college-level course is fraught with difficulty, isolation, and frustration, College Credit Plus could create an environment where fewer students actually matriculate or complete a degree. Kanny (2015) found that even with students academically and, seemingly, culturally prepared, students experienced issues in fitting in, meeting goals, and successfully completing college credit courses on a college campus. In the College Credit Plus environment, these students would, potentially, be further impacted negatively by the possibility they would need to reimburse the school for tuition and fees for failed courses.

*Transferability.* The ability to effectively transfer earned credits is also important for the policy to benefit students and their families in completing a degree in a shorter timeframe and at a lower cost. While the University System of Ohio does create a foundational set of agreements that guide the transfer of transcripted college credits, differences between institutional degree requirements, often defined by the conferring department, can create challenges for successful transfer. The standing of the postsecondary institution owning the course may exacerbate the potential for a high school student to earn a number of college credits but be unable to apply them directly to a specific credential. As noted earlier, some postsecondary institutions were using the high school syllabus and materials and granting college credit when successfully completed. For the two districts examined in this study, the most active postsecondary partners are community colleges.
The gap in institutional completion rates between two- and four-year institutions is well researched (Arum & Roksa, 2011; Bowen, et. al., 2009; Carnevale & Struhl, 2013). As high school students access dual enrollment courses, most owned by a community college and offered at the high school, it is conceivable that differentials in successful academic outcomes become worse and further stratify student populations by socioeconomic status, academic ability, or minority status. In a fragmented postsecondary environment, as in the decentralized K-12 districts, resources are inequitably allocated. Community colleges, serving the largest and neediest populations, are generally significantly more resource constrained than selective institutions (Carnevale & Struhl, 2013; St. John, 2003). High school students accessing dual enrollment courses via community colleges are, therefore, likely to be impacted by less qualified instructors, poorer curriculum construction, and a lack of support (Carnevale & Struhl, 2013). These elements highlight the increasing stratification of an educational system that concentrates resources based on merit or status and one in which the least prepared are most negatively affected.

To advance social justice in an unequal system, the difference must be weighted not to those most privileged, but to those most in need (Rawls, 1971; Pogge, 2007). The difference principle is an important tenet underlying the concept of assuring justice in social institutions. In order to promote fairness, the opportunity to develop necessary skills, have access to opportunities, or acquire knowledge should not be dependent upon socioeconomic status (Pogge, 2007).
Educational institutions may promote policies designed to reward merit as a means of developing equitable distribution of opportunity or resources. However, establishing benefits based on merit creates an aura of fairness that is unfounded (Bourdieu, 1977; Rawls, 1971). Merit as demonstrated by culturally valued skills and behaviors are influenced by the habitus, field, and cultural capital of the individual. The educational system is more likely to esteem and reward those with privileged standing, who are more likely to have acquired the experiences and demeanor deemed valuable. This can solidify the status quo. In order to counter the negative impact this may have on some students, specific steps and resources must be applied.

College Credit Plus is designed for eligible students, those in grades 7-12 who meet the requirements established by the postsecondary institution. However, in reality, in order to be eligible, students must have progressed through prerequisite course selections with demonstrated proficiency and be able to navigate postsecondary system. The policy does not outline additional systemic or institutional supports to assist those less able to do so. If the policy is to be fair and just, not only would the participation rates be comparable between groups, outcomes would be as well. However, recent research (Taylor, 2015) has found that although dual enrollment policies benefit the underserved, minority and low income, student populations, there continues to be a gap in the effect when compared to other students. This presents policy makers and educators with a challenge to provide the proper environment and support to encourage and facilitate participation and success in these programs for all students (Taylor, 2015).
**Sustainability.** Dual enrollment programs are heavily reliant on the funding models established by state policy for sustainability. Several characteristics have been shown to contribute to successful collaborations between schools and universities. These include: having shared vision, leadership, and planning; strong communication; documented policy, with defined roles and responsibilities; and sustainable funding (Howley, Howley, Howley, & Duncan, 2013; Zuccelli, 2010). In order to increase student access, College Credit Plus generally prohibits collection of fees from the student. The burden of tuition and material costs is born by the K-12 district, ancillary costs by the postsecondary institution. As state funding for public schools continues to decline, districts are reliant on local taxpayer support for operational funding. Over time, this may not be sustainable.

State policy representatives reiterated the “money follows the student” perspective. Even though a small portion of funding remains in the districts for administrative cost, this viewpoint does not acknowledge the reality that many courses will continue to be offered regardless of smaller class sizes, therefore incurring the same instructional costs. Additionally, infrastructure costs would not appear to be materially impacted by the percentage of students participating in dual enrollment, as building and operational requirements remain relatively stable. However, smaller districts with lower overall budgets may experience a negative impact if there is an increase in College Credit Plus participants. Other accelerated, but articulated programs, like advanced placement or vocational education, are separately funded or may be subsidized by students carrying some, if not much, of the costs. Offering these courses, while it may limit access to some
students, nonetheless allows districts to provide access to potential college credits at a lower cost. Zinth (2015b) noted that in Florida, as a result of dual enrollment costs shifting to the K-12 district, many were encouraging participation in AP over dual enrollment courses. Given the critical role of the high school in providing guidance to the student on academic plans, this is a potential risk for Ohio.

Program performance is increasingly highlighted in academic reporting measurements, and in Ohio, tied to funding appropriation at the postsecondary level. Reporting based on implementation of College Credit Plus dual enrollment programs has not been defined, as of this writing. However, both short- and long-term metrics will be important as communities, taxpayers, and students evaluate the success of the policy. If districts incur the additional costs to provide these opportunities, but student populations that may not historically be predisposed to postsecondary work do not engage, then the goals of increasing equity by broadening access are left unfulfilled. If the students who participate have negative experiences, future matriculation and persistence may be at risk. And, if students taking dual enrollment courses fail, not only may they incur personal costs, financial and emotional, it may place them at greater risk of completing a high school diploma. A longitudinal view of these program elements is essential in assessing how the policy implementation has met defined goals.

Summary. The Ohio College Credit Plus policy was developed, codified, and rolled out across the state in a rapid manner. Neither secondary nor postsecondary institutions had abundant time to analyze rules, requirements, and possible programs before notifying and enrolling students. Variations exist as each institution determined
its own approach and developed unique partnerships for dual enrollment courses based on available resources, institutional culture, and academic programming. Figure 2 is a summary of policy strengths, weaknesses, opportunities, and threats (SWOT).

<table>
<thead>
<tr>
<th>LOCAL</th>
<th>POSITIVE To achieving policy objectives</th>
<th>NEGATIVE To achieving policy objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>STRENGTHS</strong></td>
<td><strong>WEAKNESS</strong></td>
</tr>
<tr>
<td></td>
<td>• Tuition-free for students</td>
<td>• Unfunded mandate</td>
</tr>
<tr>
<td></td>
<td>• Flexible eligibility requirements</td>
<td>• Inconsistent compliance and quality</td>
</tr>
<tr>
<td></td>
<td>• Purposeful alignment of K-12/postsecondary institutions</td>
<td>• Potential for excessive, non-degree applicable credits</td>
</tr>
<tr>
<td></td>
<td>• Local administration and program construction</td>
<td>• Resource intensive</td>
</tr>
<tr>
<td></td>
<td>• Open, flexible course offerings</td>
<td>• Unequal opportunity</td>
</tr>
<tr>
<td></td>
<td>• Access to 2- and 4-year postsecondary partners</td>
<td>• Confusion/competition with other accelerated academic programs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMIC</th>
<th>OPPORTUNITY To achieving policy objectives</th>
<th>THREATS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>OPPORTUNITY</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Targeted advising and support</td>
<td>• Lack of oversight and governance process</td>
</tr>
<tr>
<td></td>
<td>• Increased TAG qualified course-offerings</td>
<td>• Potential for increased high school drop out rates</td>
</tr>
<tr>
<td></td>
<td>• Leveraging structured pathways</td>
<td>• Unsustainable funding</td>
</tr>
<tr>
<td></td>
<td>• Creation of a college-ready student profile</td>
<td>• Erosion of early college high school principles</td>
</tr>
<tr>
<td></td>
<td>• Coordination of teacher-faculty pedagogy and curriculum</td>
<td>• Inconsistent college “authenticity”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Solidification of a bifurcated postsecondary system</td>
</tr>
</tbody>
</table>

*Figure 2. College Credit Plus Policy Implementation: SWOT Analysis*
Ohio’s policy seeks to address some issues identified as barriers to student participation. These include student cost, location, transferability, and eligibility requirements. These are positive steps in opening access to all student populations, including those typically underserved. However, critical elements related to student matriculation and retention may not be well attended by some districts. Minorities, first-generation, or students of lower socioeconomic status may need additional supports in order to take advantage of these programs and be successful.

Research has generally supported the development of dual enrollment programs in order to assist students with the transition into postsecondary work and, given a threshold of college credits earned, with impetus to degree completion (An, 2013; Karp, et al., 2007; Speroni, 2011b; Struhl & Vargas, 2012). However, specific institutional program elements remain under-researched (Cowan & Goldhaber, 2015; Tinto, 2006).

Conclusions

The College Credit Plus policy affords wide institutional variation in course selection, delivery location, and student support. These areas echo the three “R’s” defined by AIR (2006). Dual enrollment work must be academically rigorous, relevant, and in a context of supportive relationships. The design and discretion of the secondary, and postsecondary, institution impact the ability to meet those goals, and may be significantly impacted by the K-12 district’s size, tax base, and culture. Under the current construct, students within the state may be unequally served, participation may not increase for targeted groups, and taxpayers may not receive the cost benefit desired. Workforce needs may remain unmet. Access is provided but equity, effectiveness, and
efficiency may be missed. St. John (2013) notes that critical social issues “are often created rather than resolved by centralized policy…” (p. 3). College Credit Plus has the potential to provide many benefits to Ohio students; however, it also must take steps to mitigate the weaknesses that may not allow achievement of its objectives.

**Implications for practice.** Each of the participants interviewed for this study offered insight into policy or program modifications that would improve the implementation of College Credit Plus. However, specific action plans and detailed goals are not feasible at this time due to the highly dynamic nature of the state requirements. Currently, new legislation and rules are pending that would alter the definition of terms, the funding model, and the academic calendar (ODHE, 2016). As K-12 districts mobilize to rapidly assess and address these new rules, which are not yet published, resources may be diverted from longer-term program improvements.

However, there are areas that can be addressed at both the state and local level to improve the policy, the programs, and the procedures. In developing recommendations for action, Tinto’s (2006) model on institutional practice provides a useful framework. Echoing factors defined by Rawls (1971), the model presents student inputs, including family background and individual skills, as critical in retention. Student characteristics may be difficult for academic organizations to influence. Figure 3 highlights the institutional practices that can be designed to enhance the student experience in practical ways that foster student engagement (Tinto, 2006).
Figure 3. Model for Institutional Action

The three areas institutions can address to impact student success are support, feedback, and involvement. Within each are specific elements that can drive policy and program decisions. The areas are interrelated and impact each other in creating an environment that drives academic expectations and, ultimately, outcomes (Astin, 1967; Tinto, 2006, 2012). This study examined state policy and K-12 implementation; the model will be used narrowly within that focus to offer recommendations for action.

**Support.** Research indicates that a critical element in assisting students, especially first-year college or underserved populations, is the availability of strong
support (AIR, 2006, 2009; Edmunds, 2005; Tinto, 2006, 2012). The support areas parallel those needed to provide sufficient access across multiple dimensions. Students need academic, social, and financial support (Tinto, 2006, 2012).

Studies indicate that students, especially those typically underserved, benefit by supportive academic services (AIR, 2006; Edmunds, 2011; Tinto, 2006, 2012). Neither of the sites examined for this study identified areas of additional academic support being implemented for dual enrollment students. However, secondary institutions, with their postsecondary partners, can develop mechanisms to provide mentors, advisors, or career counselors. Schools will need resources in order to assure that instructors and counselors are well prepared to provide tutoring, when needed, and guidance on career options, college opportunities, and academic plans. To be effective, these resources must be readily available to high school students. It may require novel approaches to bring college support to the high school and prepare high school staff to address issues surfacing by advanced credit programs.

Additionally, high schools should assess the ability to develop learning communities or other cohort-like groups that facilitate the sharing of the dual enrollment experience. Larger, more affluent districts may have the ability to create formalized support groups that could be elusive to other districts but that may foster student involvement. Nonetheless, a space or location for safe sharing can be helpful in building a college-going culture (Diggs, 2013). Some postsecondary institutions offer orientation for incoming high school students. The policy could include a requirement for some form of orientation at the postsecondary school. This could be an important step in
creating a link to that institution and a more realistic college experience, even if the course is delivered at the high school.

Faculty is the first line of creating a positive relationship within a college-oriented culture (Tinto, 2006). Ohio has allocated funding to assist high school teachers in gaining credentials needed for adjunct status, but additional efforts could be initiated that create incentives to support college instructors, especially those working with high school students, on pedagogy, instructional and assessment methodologies that may benefit these students.

At the state policy level, College Credit Plus addresses potential issues associated with payment for dual enrollment participation. Under CCP, the funding model provides the necessary financial support for student participation without personal cost for successfully completed coursework.

Financial concerns surface not at the student, but at the institutional level. In the long-term, the program may be jeopardized due to a funding model that burdens the academic institutions and ultimately eliminates these opportunities for students. In order to create sustainable programs, supported funding streams that enable students to access accelerated college credit opportunities, including dual enrollment and early college high schools, must be developed. While K-12 funding from the state has been eroding, districts are more and more reliant on local levies or the pursuit of specialized grants (Sweetland, 2015). This policy environment produces risk and uncertainty.

Taxpayers are increasingly reluctant to assume new obligations for public schools, both secondary and postsecondary (Ravich, 2013; St. John, 2003). Further,
Ohio’s unequal K-12 district-level funding has been litigated but not adequately addressed (Sweetland, 2015). In this environment, assuming additional program requirements and broadening course offerings increases pressure on Ohio’s educational budgets. Some states have created separate funding streams to support dual enrollment; others have established student financial models that seek to better balance costs across the three major stakeholders, the student, the K-12 district, and the IHE (Zinth, 2014, 2015b). As findings suggest, financial relief could be assisted by restoration of taxes that have moved from the local community to the state, or the establishment of tiered, sliding scales for students in meeting tuition and material costs. The state should takes steps to assess and develop sustainable funding models, especially for smaller or less affluent districts, potentially allocating a funding pool that is targeted to encourage broad participation regardless of district resources. Addressing this aspect through state policy and budgeting will be critical for the long-term viability of the program.

**Feedback.** Supplementing academic supports needed by dual enrollment students, are formalized means to receive feedback on their progress. Administrators interviewed spoke about the difficulty of aligned assessment, both in terms of grading and timing, for co-taught courses. As part of the partnership process, institutions should explore collaborative development of grading rubrics. This step would facilitate the implementation of common risk indicators that could allow either or both the secondary and postsecondary instructor to monitor the progress of participating students and intervene when needed in order to assure successful completion. This is a large challenge
given that each K-12 district may be partnered with two or more postsecondary
institutions.

**Involvement.** Rigorous academic work can enhance student engagement. Under
College Credit Plus, the curriculum and learning outcomes are intended to be college
level. In addressing program quality, state policy representatives acknowledge the need
for creating an accountability system and cross-state committees that can evaluate and
assure program rigor. This is an important step in moving toward compliance by
confirming that these courses are college-level in rigor and pace. It can also serve to
assist districts in sharing best practices and developing programs that increase parity
across districts. Focused professional development for both high school teachers and
postsecondary faculty can promote the development of cohesive approaches to use
appropriate instructional approaches, as well as to deliver academic and social support to
participating students.

In order to meet key objectives to broaden access and equity, state policy and
institutional programs must assure that all forms of support, feedback, and involvement
are targeted to better assist underserved populations with the ability to participate, and to
participate successfully. This will entail purposeful engagement of those students to
develop trusting relationships that are encouraging. It requires a greater investment of
resources for those most at risk.

**Recommendations for future research.** Research on specific dual enrollment
program elements continues to be lacking (Harnish & Lynch, 2005; Karp, et al., 2007;
Tinto, 2011). Ohio has aggressively established a centralized policy requiring dual
enrollment opportunities for all public high school students. The complexity of the policy in a decentralized educational environment with individual boards and funding streams highlights many areas that could be served by future research. A critical factor necessary for dual enrollment to meet key goals related to workforce development and increased access and equity in participation is review of program characteristics that most influence student success and a deeper understanding of who is electing to participate.

**Research on student characteristics.** The first area in need of additional research is around student characteristics and the potential impact of cultural capital for enrollment into the program. Students need to be able to access and digest the many opportunities available to them and then create an academic plan. Differences that exist in family background, SES, or personal characteristics may impact the ability of students to positively gain from these opportunities. Some research indicates that underserved populations can benefit from dual enrollment experiences. However, much of the research conducted centers on early college high schools or specific demographic groups (An, 2013; Kim, 2012). The demographic and personal characteristics may impact how students are making decisions about participation in College Credit Plus versus other academic programs, and then how they are selecting courses. Early comparisons of College Credit Plus to AP participation indicate roughly similar levels of participation in one district. But there may be personal or demographic differences in the students selecting CTE, AP, or dual enrollment courses. Longitudinal trends in demographic groups who participate in different, accelerated programs are key to understanding the ability of the policy to encourage broader participation.
Research on student outcomes. Over time, will students participating in dual enrollment matriculate and complete college degree programs? Open dual enrollment opportunities may create an environment where more students, who are not fully qualified or ready, participate but are discouraged by the experience (Ferguson, et al., 2015). Readiness extends beyond academic readiness and includes softer skills, such as persistence and time management, which support success. Recent studies have found that dual enrollment students do not exhibit the maturity needed for college (Ferguson, et al., 2015; Kanny, 2015). Following a student cohort from middle school through high school and into college may find increased rates of students dropping out of high school, as was found in a study of Washington state dual enrollment programs (Cowan & Goldhaber, 2015). Replicating that study in Ohio, by identifying students prior to dual enrollment participation, following them into postsecondary experiences, and combining secondary and postsecondary data, may provide additional insight into the effect of this policy on student enrollment and completion outcomes.

Related to this question, is the impact on Ohio’s early college high schools. These models are targeted, often, to underserved populations and provide structured gateways for student progression that may include a five- or six-year high school engagement, potentially resulting in a high school diploma and an associate degree. Generally, early college models include institutionalized support programs. Additionally, many existing ECHS have long-standing partnerships with financial agreements that do not meet the requirements of the College Credit Plus funding model. Evaluation of the impact to specialized models, such as ECHS, can provide insight into innovative
academic programming that may drive changes to Ohio’s policy. Assuring the continued viability of Ohio’s early colleges is important to the broader goals of academic access and equity; these models have, generally, been seen as successful in supporting underserved students (AIR, 2006, 2009; Struhl & Vargas, 2012).

**Research on program elements.** Some research (Speroni, 2011b) indicates that there are differences in matriculation and completion for students taking courses in the high school versus on the college campus. Further, research (Struhl & Vargas, 2012) has indicated some course selections have a correlation to student achievement and progress. Career and/or guided pathways are being put forward as mechanisms to increase degree completion. However, College Credit Plus does not establish a requirement for structured course progression for participating students. Nonetheless, assessing students who are following a pathway against those that are not can provide meaningful insight into how guided, goal-oriented structures may support matriculation and completion. Additionally, analysis of the course selections may provide insight into college matriculation and completion patterns.

Studies (Adelman, 2006; An, 2013; Struhl & Vargas, 2012) have demonstrated that there may be a threshold of earned college credit that creates sufficient impetus to assist students in completion of degrees. Students in College Credit Plus courses can earn up to 120 credit hours in four high school years. These credits may be elective or general education. Assessing how those credits transfer and apply in postsecondary institutions can further understanding and, potentially, assist districts in establishing programs with a greater number of courses meeting Ohio’s transfer assurance guide
(TAG) that apply to specific, state recognized degrees. Students who can apply earned credits to specific degree programs may accelerate completion and lower the cost of a postsecondary degree over those that accumulate elective, general education credits.

**Research on instructors and staff.** Ohio is moving to increase the number of adjunct teachers qualified to instruct College Credit Plus courses at the high school location. Questions have been raised on the potential for increased adjunct faculty to negatively impact student outcomes (Adamowicz, 2007). One area of concern with the use of adjuncts at the postsecondary level is the inability of students to interact and meet with them outside of class (Tinto, 2006). However, if adjuncts are also onsite high school teachers, with the training, support facilities, and space afforded them there, they may be able to develop supportive relationships, mitigating those concerns.

There are cultural differences between secondary and postsecondary institutions. As teachers and faculty work together on coordinated classes, evaluating the impact to instructional and assessment behavior would be informative in developing program structures that leverage the positives in both environments. Further, the impact on college faculty and shared governance at the postsecondary level offers another area for analysis.

**Research on institutional impact.** Completion differences exist for students attending two- versus four-year institutions (Bowen, et al., 2009; Carnevale &Struhl, 2013). For the case sites analyzed in this study, the primary postsecondary partner is a community college. The community college is working with high schools to deliver facilitated classes. Cowan and Goldhaber (2015) found that dual enrollment students are
more likely to enroll in two-year, not four-year, institutions. As students take advantage of dual enrollment opportunities primarily owned by two-year institutions are completion rates impacted? Additionally, as these credits transfer both within the University System of Ohio, as well as outside, to private or other states’ institutions, are credits earned from postsecondary institutions treated equally?

Postsecondary institutions pose another area for research. These organizations are required to establish new student notice and enrollment protocols to include dual enrollment students under College Credit Plus. Additional tracking and reporting is essential. Further, each IHE demonstrates different levels of willingness in partnering with K-12 districts, providing flexibility in course offerings, and developing shared student support systems. Understanding the impact to Ohio’s public postsecondary institutions, especially community colleges, is important in assessing the overall success of the programs spanning the academic spectrum in creating an environment where more students graduate from high school and earn a postsecondary credential.

Some research (Vargas, 2015) calls for a redesign of 12th grade as a means to more tightly couple the K-12 and postsecondary systems. Early college models provide insight into how the secondary and postsecondary institutions can work collaboratively on curriculum, student support, and assessment strategies. Many states, including Ohio, have looked at establishing P-16 or P-20 councils to develop guidelines for secondary and postsecondary institutions to work together (Ohio Education Matters, 2011). These councils show some promise in establishing state-wide initiatives that are effective in
forming a more holistic educational framework that supports students from the beginning of their school experiences (Perna & Armijo, 2014).

**Concluding remarks.** College Credit Plus establishes a centralized, standardized framework for Ohio secondary students to earn college credits. The policy removes critical barriers to students who would otherwise not participate. However, the potential remains for the construct of the program to encourage students who would already be college bound and not provide the advising or support required that would broaden access to other student populations. In order to meet the anticipated workforce gaps, more diverse student populations must take advantage of the opportunity to earn postsecondary credentials.

The first year of this implementation has been challenging and confusing for many of the major stakeholders. As the program matures and additional elements are created to ensure compliance and student success, this dual enrollment policy holds the potential to move Ohio forward in creating a more equitable and effective K-16 continuum, but there are program elements, which if not addressed, create the risk that it will not.
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Ohio Education Matters. (2011). *Ohio’s plan to develop local P-16 councils*. Retrieved from [http://nebula.wsimg.com/5f60e433923b11c88fafla486b931e32?AccessKeyId=76EFDD77703ACB930FCD&disposition=0&alloworigin=1](http://nebula.wsimg.com/5f60e433923b11c88fafla486b931e32?AccessKeyId=76EFDD77703ACB930FCD&disposition=0&alloworigin=1)


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Indiana University of Pennsylvania, Indiana, PA.
**Appendix A: Summary of Ohio Revised Code: College Credit Plus**

<table>
<thead>
<tr>
<th>ORC Code</th>
<th>Title</th>
<th>Description and Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>3365.01</td>
<td>College Credit Plus program definitions.</td>
<td>Definitions are provided for key policy areas, including credit transfer, funding, and eligibility.</td>
</tr>
<tr>
<td>3365.02</td>
<td>College Credit Plus program creation.</td>
<td>Program parameters are provided, including exemptions for some existing programs, such as CTE, AP, and IB.</td>
</tr>
<tr>
<td>3365.03</td>
<td>Enrollment in CCP; eligibility; restrictions;</td>
<td>Students in 9&lt;sup&gt;th&lt;/sup&gt;, 10&lt;sup&gt;th&lt;/sup&gt;, 11&lt;sup&gt;th&lt;/sup&gt;, and 12&lt;sup&gt;th&lt;/sup&gt; grades are eligible; notice of participation is required to the school and students must apply to the postsecondary institution, using their established entrance criteria.</td>
</tr>
<tr>
<td>3365.031</td>
<td>student expulsion;</td>
<td></td>
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<tr>
<td>3365.032</td>
<td>7&lt;sup&gt;th&lt;/sup&gt; and 8&lt;sup&gt;th&lt;/sup&gt; grade participation.</td>
<td>Restrictions on enrollment include limits on the number of college courses that may be applied toward high school graduation. 7&lt;sup&gt;th&lt;/sup&gt; and 8&lt;sup&gt;th&lt;/sup&gt; grade student who qualify may participate.</td>
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<tr>
<td>3365.033</td>
<td></td>
<td></td>
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<tr>
<td>3365.04</td>
<td>Information regarding and promotion of the program.</td>
<td>Specifications for notice, including the required information and recommended venues. This section includes a requirement that counseling about the program begin in 6&lt;sup&gt;th&lt;/sup&gt; grade.</td>
</tr>
<tr>
<td>3365.05</td>
<td>Requirement for participants.</td>
<td>Public and participating private postsecondary institutions must apply established procedures and course limitations. Further, participating colleges must assign advisors to students and oversee high school instructors.</td>
</tr>
<tr>
<td>3365.06</td>
<td>Enrollment options.</td>
<td>Participants are provided options regarding self-payment, application of course credit.</td>
</tr>
<tr>
<td>3365.07</td>
<td>Funding and payment.</td>
<td>Requirements for payment to the college through the program are outlined, including reimbursement amounts depending on delivery. Additionally, this section specifically prohibits charging student participants for tuition, fees, or books.</td>
</tr>
<tr>
<td>3365.08</td>
<td>Financial aid ineligibility; transportation reimbursement.</td>
<td>Students participating in CCP are not eligible for aid; parents may apply for transportation reimbursement from the district.</td>
</tr>
<tr>
<td>ORC Code</td>
<td>Title</td>
<td>Description and Summary</td>
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<tr>
<td>33465.09</td>
<td>Reimbursement where student fails course.</td>
<td>Schools may seek reimbursement for CCP costs from the student in event of course failure, however, reimbursement may not be pursued for students identified as economically disadvantaged.</td>
</tr>
<tr>
<td>3365.10</td>
<td>Application for waiver of requirements of program.</td>
<td>The Chancellor or Superintendent may grant waivers for programs such as ECHS or others that exclusively address the needs of underrepresented students. Procedures for waives is defined in 3333-1-65.10.</td>
</tr>
<tr>
<td>3365.11</td>
<td>Credential requirements for instructors.</td>
<td>All CCP instructors must meet criteria established by the Ohio Board of Regents. Additional guidance is provided in ORC 3333-1-65.4.</td>
</tr>
<tr>
<td>3365.12</td>
<td>Nature of courses; awarding high school credit,</td>
<td>Courses must be non-remedial and in the college catalog; successfully completed courses will count toward HS graduation requirements.</td>
</tr>
<tr>
<td>3365.13</td>
<td>Model pathways.</td>
<td>Both a 15 and 30 credit hour pathway must be offered with courses applying to a degree or certificate at the college.</td>
</tr>
<tr>
<td>3365.15</td>
<td>Duties of chancellor and superintendent.</td>
<td>Jointly develop data criteria for annual reporting with a biennial report prepared for the Governor.</td>
</tr>
<tr>
<td>3333-1-65</td>
<td>Board of Regents - General provisions</td>
<td>General provisions are updated to reflect the above definitions, notice and institutional requirements.</td>
</tr>
<tr>
<td>3333-1-65.4</td>
<td>Delivery methods by institution of higher education for courses under College Credit Plus program.</td>
<td>Additional information is provided regarding delivery of course as a matter of IHE discretion; further detail is provided on the course management responsibilities including oversight, approvals, instruction, and evaluation.</td>
</tr>
<tr>
<td>3333-1-65.6</td>
<td>Funding.</td>
<td>This section provides additional guidance on funding, reimbursement, and exceptions.</td>
</tr>
<tr>
<td>3333-1-65.7</td>
<td>Procedures for an institute of higher education to receive funds from the Department of Education.</td>
<td>Information required by the board in order for a postsecondary institution to be reimbursed for courses delivered; this includes student identifiers, course information, delivery location, and teacher credentials.</td>
</tr>
</tbody>
</table>
Appendix B: Interview Protocol and Questions

Interview participants were selected based on their involvement in policy definition or implementation.

- State Policy Representatives
- Superintendent
- Executive Director, Secondary Academic Affairs
- College and Career Coordinator

Following a brief introduction of the researcher and a description of the study and interview objectives, the following questions will be explored.

1. In your opinion, why is dual enrollment receiving increased attention, funding, and policy efforts?

2. In your opinion, what research supports the broadening of access to dual enrollment opportunities?

3. How would you describe the College Credit Plus program and objectives?

4. In your opinion, what are potential outcomes in aligning K-12, higher education, and industry?

5. How can Ohio student populations benefit from this program?

6. In developing implementation strategies, what areas required the most effort and resources?
   a. What elements pose the greatest challenge?
   b. What communication avenues were needed to provide information to key stakeholders (parents, students, teachers, counselors)?
Interview Protocol continued

c. What if any obstacles were encountered and what actions were mobilized to mitigate negative impacts?

7. In assessing the first year of implementation, what changes do you anticipate in future years?

8. Do you perceive any unintended consequences as a result of this policy?
Appendix C: Document and Policy Analysis Matrix

<table>
<thead>
<tr>
<th></th>
<th>Greenfield Exempt Village Schools</th>
<th>Langston City Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access</td>
<td></td>
<td>Student eligibility, notice, and credit.</td>
</tr>
<tr>
<td>Quality</td>
<td></td>
<td>Teacher credentials, course delivery, evaluation.</td>
</tr>
<tr>
<td>Transition</td>
<td></td>
<td>Transfer</td>
</tr>
<tr>
<td>Finance and Accountability</td>
<td></td>
<td>Funding, fees, and fiscal management; reporting and measurement requirements.</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>Support services, limitations, and exemptions</td>
</tr>
</tbody>
</table>
## Appendix D: Publically Available Documents Reviewed

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Date</th>
<th>Accessed</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio Revised Code</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORC 3365: College Credit Plus</td>
<td>2014</td>
<td>7/24/2015</td>
<td></td>
</tr>
<tr>
<td>Ohio Department of Higher Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information for Principals and Counselors</td>
<td>n.d.</td>
<td>7/29/2015</td>
<td></td>
</tr>
<tr>
<td>Ohio CCP Guidance Document</td>
<td>10/10/14</td>
<td>7/29/2015</td>
<td></td>
</tr>
<tr>
<td>Instruction Standards</td>
<td>n.d.</td>
<td>7/29/2015</td>
<td></td>
</tr>
<tr>
<td>Postsecondary Opportunities in Career and Technical Education</td>
<td>6/1/2014</td>
<td>7/29/2015</td>
<td></td>
</tr>
<tr>
<td>College Credit Plus: Letter to Parents</td>
<td>n.d.</td>
<td>9/8/2015</td>
<td>Linked from GEVS CCP page; two page letter of program basics and dates.</td>
</tr>
<tr>
<td>College Credit Plus: Brochure</td>
<td>n.d.</td>
<td>9/8/2015</td>
<td>Linked from GEVS CCP page; Outline of basic program rules (state requirements).</td>
</tr>
</tbody>
</table>
### Publically Available Documents Reviewed continued

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Date</th>
<th>Accessed</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Langston City Schools Home Page</td>
<td>2007-2015</td>
<td>8/25/2015</td>
<td>Internet website</td>
</tr>
<tr>
<td>Career Tech and College Readiness</td>
<td>2007-2015</td>
<td>8/25/2015</td>
<td>Internet website</td>
</tr>
<tr>
<td>College Credit Plus: Presentation for Students and Families</td>
<td>3/3/2015</td>
<td>8/25/2015</td>
<td>Powerpoint download</td>
</tr>
<tr>
<td>College Credit Plus: Presentation for Students and Families</td>
<td>3/3/2015</td>
<td>8/25/2015</td>
<td>Podcast download</td>
</tr>
<tr>
<td>Intent to Participate</td>
<td>February 2015</td>
<td>8/31/2015</td>
<td></td>
</tr>
<tr>
<td>Career Technical Centers Pathway Guide</td>
<td>n.d.</td>
<td>8/31/2015</td>
<td>Document is not specific to College Credit Plus coursework.</td>
</tr>
<tr>
<td>College Courses Offered in LCS High Schools 2015-2016</td>
<td>4/15/2015</td>
<td>8/31/2015</td>
<td>Podcast download</td>
</tr>
<tr>
<td>CCP Registration with Community College ID</td>
<td>n.d.</td>
<td>8/31/2015</td>
<td>CCP course at High School: must register online with community college and requires Compass testing for placement.</td>
</tr>
<tr>
<td>High School Course Description Guide 2015-2016</td>
<td>2/13/2015</td>
<td>8/31/2015</td>
<td>Full course listing; grad requirements; progression; CCP described w/ AP, IB; career pathways outlined; college credit hour sample paths on campus; w/ community college and a private 4-year institution (requires add'tl fees) information.</td>
</tr>
<tr>
<td>Middle School Parents: Invitation to College and Career Readiness Night (February 26, 2015)</td>
<td>2/13/2015</td>
<td>8/31/2015</td>
<td></td>
</tr>
<tr>
<td>High School Home Page</td>
<td>2007-2015</td>
<td>9/8/2015</td>
<td>School links on left margin; includes CCP link, which takes you to the main career tech page.</td>
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</tbody>
</table>
## Publically Available Documents Reviewed continued

<table>
<thead>
<tr>
<th></th>
<th>Greenfield Exempt Village Schools</th>
<th>2015</th>
<th>9/8/2015</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenfield Exempt Village Schools Home Page</td>
<td></td>
<td>2015</td>
<td>9/8/2015</td>
<td>No CCP link or information evident.</td>
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<tr>
<td>Greenfield Exempt Village Schools High School Home Page</td>
<td></td>
<td>2015</td>
<td>9/8/2015</td>
<td>CCP informational link included in site map/ menu.</td>
</tr>
<tr>
<td>GEVS High School College Credit Plus Course Offering</td>
<td></td>
<td>2015-2016</td>
<td>9/8/2015</td>
<td>Descriptions of 35 on-site courses; private four-year application requires 3.0 GPA.</td>
</tr>
</tbody>
</table>

### Other

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>2015</th>
<th>11/30/2015</th>
<th>Description</th>
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<tbody>
<tr>
<td>Ohio Operating Budget FY2016-17</td>
<td></td>
<td>2015</td>
<td>11/30/2015</td>
<td>Executive summary of the approved budget.</td>
</tr>
<tr>
<td>College Credit Plus: Private Four-Year Institution</td>
<td></td>
<td>2015</td>
<td>8/31/2015</td>
<td>LCS partner provides course and application information.</td>
</tr>
<tr>
<td>GEVS Early College High School Offerings</td>
<td></td>
<td>2015</td>
<td>9/8/2015</td>
<td>ECHS partner; Not linked from either the HS site or CCP info; Seven career pathways outlined that include community college courses; indicates courses are free but is not &quot;under&quot; CCP information.</td>
</tr>
</tbody>
</table>