Competition and Community:

Exploring the Inter-Organizational Relationships Underlying Dual Credit Programs

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Oscar Carmody Schefers

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Abstract

Dual credit programs, in which a student takes a course that fulfills both high school and postsecondary requirements, are one method employed to increase the number of high school students matriculating into a postsecondary program. This study investigates how postsecondary institutions and high schools work together to develop student access to dual credit programs. Implementing this arrangement requires establishing new relationships between high schools and postsecondary institutions. Using qualitative methods, the research explores how institutions involved in a dual credit partnership manage the arrangements and are affected by them. Interviews were conducted with postsecondary faculty and administration, high school teachers, counselors, and administrators. As a result of the investigation, a framework focusing on the following elements of an inter-organizational relationship is proposed: Curriculum, collaboration, support services, and organizational structure. The study's findings suggest that when the curriculum for a dual credit program is jointly developed between the high school and postsecondary faculty, and is coupled with strong leadership in both institutions, dual credit programs have the ability to serve a wider range of students than traditionally continue on to postsecondary settings.

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Chapter 1: Introduction

A number of forces are coming to bear on the transition between high schools and postsecondary institutions. Research describing a wide range of benefits correlated with postsecondary participation has been steadily growing, including benefits such as better jobs, higher pay, and better critical thinking skills. At the same time as the benefits of a postsecondary education are becoming better defined, gaps in access continue to emerge. Disparities based on income, high school exit requirements that have no connection to postsecondary entrance requirements, poor communication between the institutional players; all of these factors are driving researchers and the public to look at potential ways to improve the transition from high school to postsecondary settings.

A particularly promising option for bringing the two institutions closer together has been developed under the banner of dual credit course offerings. Dual credit courses are completed during high school, and earn the student credit in both high school and a postsecondary school. Students who go through these programs appear to have a better chance at obtaining the wide range of benefits connected with higher education. Traditionally dual credit programs have been the domain of students already likely to matriculate. More recently an expansion of dual credit programs has been underway, coupled with a push to involve a broader range of students in dual credit programs.

As these programs become more common, it is important to ascertain the effect on participating institutional partners, who are entering into a new compact in which they share students. Many of the issues which drive students and educators to consider dual

credit courses stem from problems at the institutional level. Various institutional gaps, such as curriculum alignment and lack of coordination, call for organizational solutions. This research aims to set the groundwork for explaining how the two institutions that provide a dual credit course deal with each other. What happens to a school or a university when they offer a dual credit course? Is there increased cooperation with their partner institution or animosity? Where will dual credit courses take our educational institutions as they become more widely available? Even more basic, what are the questions we should be asking when looking at these issues - is there a *framework* that can help explain how institutions collaborate to provide a dual credit class?

While investigating the issues identified above, this project uncovers powerful forces affecting the relationship between institutions. The structure of a dual credit program appears to play a significant role in whether the participating institutions will become aligned or antagonistic. Fortunately, most of the factors described in this study are controllable at the institutional level. High schools and postsecondary institutions may be able to use what is uncovered in this study as a guide for providing their students with a smoother transition between the institutions.

Research Question

In order to approach the questions raised above, this research examines how two institutions communicate and how they interact regarding a dual credit program. The guiding question is: What is the nature of the relationship between a high school and postsecondary institution when implementing a dual credit program? In order to answer

this question, several themes for inquiry appear in the literature. The following topics provided guidance when investigating the question:

- The extent to which dual credit is widely available
- The nature of the bureaucratic structure
- Connection to organizational mission
- Organizational history
- Role of developmental coursework
- Curriculum alignment
- Counseling and student support
- Role of institutional and program leadership

Methods Overview

The method chosen for approaching the questions above is qualitative. The questions underpinning this inquiry are exploratory in nature. Very little research exists describing the inter-organizational relationships surrounding a dual credit program - qualitative inquiry is uniquely able to provide in-depth description of the interactions involved. Because this research is exploratory in nature, the initial theoretical framework is subsequently revised based on the results of the inquiry. The factors in the framework are drawn from four board areas of existing research which deal with aspects of the relationship between a high school and postsecondary institution; curriculum alignment, collaboration, supportive organizational structures, and counseling and support services.

Certain factors above were more enlightening than others, and the revised framework based on this research is an important outcome of this inquiry.

The present research was conducted at eight different educational institutions consisting of three postsecondary and five high schools. A total of thirty-two semi-structured, on-site interviews were conducted with a range of employees who play a role with their institution's dual credit program. The interview protocol was designed to elicit information describing the interaction between institutions related to the four broad areas of the framework.

Institutions were selected based on the level of participation in dual credit programs, using high levels of participation as a proxy for successfully increasing postsecondary participation. Documents such as program brochures, websites, class materials, inter-organizational contracts and other program related information were used to provide validity and depth to the interviews. Interviews were recorded and transcribed for accuracy. Conceptual themes were identified, coded and analyzed. Three levels of analysis were performed - at the level of a single institution, an institutional pair, and whenever possible regarding themes which involved more than one institutional pair.

Chapter 2: Review of the Literature

Introduction: The Benefits of Postsecondary Education

The significance of education beyond high school is indisputable. Over the past two decades, Ernest T. Pascarella and Partick T. Terenzini have comprehensively reviewed research on the topic (1991, 2005) and their synthesis found that postsecondary education is correlated with increased occupational status and earning capacity, increased subject matter knowledge, increased critical thinking skills, positive effect on leadership ability and self confidence, increased civic and community involvement, and increased moral judgment. Researchers have also found a connection between postsecondary education and increased earning potential that begins with community college attendance (Grubb, 2002; Marcotte, Bailey, Borkoski, & Kienzl, 2005). In other words, the benefits for individuals are largely undisputed.

The need for some postsecondary education in order to find employment has been steadily increasing since World War II (Autor, Katz, & Krueger, 1998; Berman, Bound, & Griliches, 1994; Juhn & Murphy, 1995), and postsecondary education has become a gatekeeper for middle class income and above (Cabrera, Burkum, & La Nasa, 2003; Carnevale, 2007). Swail describes postsecondary education as "one of the surest returns known this side of the NASDAQ," (2000, p. 85). Acemoglu and Pischke find a very direct relationship between income and college enrollment, estimating that for every 10 percent increase in family income, the likelihood of college enrollment increases by 1-1.4 percentage points (2001). Education provides significant economic and social benefits, yet while researchers continue to demonstrate the importance of education, others have

begun to find that low income students are not experiencing the benefits of education at the same rates as other students.

Uneven Participation in Postsecondary Education

Students from families with low income have a more difficult time navigating the journey from high school through postsecondary education than students with more financial resources. Postsecondary entry and completion rates for low income students are significantly lower than rates for middle and upper income students (Goldberger, 2007). The structure of educational systems in combination with individual student needs produce a paradox: while education can be a means to improving one's lot in life, the same education which provides these gains is harder to obtain for those who need it the most. Because of this paradox, the educational system can be both a tool for self-improvement and method for maintaining class divisions (Carnoy & Levin, 1985; Paulsen & St. John, 2002). Rates of matriculation for low income students are lower than for high income students (Ellwood & Kane, 2000), and Kane also notes that, "the persistently large gaps in college-going by family income appear to be widening," (Kane, 2001, p. 5). The pathways to postsecondary education begin long before matriculation into a postsecondary setting, and depend on a variety of skills and services, but "those who would most directly benefit from a postsecondary education - low income and minority youth are not receiving appropriate service," (Tierney & Hagedorn, 2002, p. 1). Low income students are less likely to be enrolled in the high school courses which lead to postsecondary success (Kirst & Bracco, 2004) and less likely to be in schools with

rigorous college preparatory programs (Gándara, 2002). The path forward for educational researchers involves identifying the issues contributing to the disparity in postsecondary success based on income, and determining what adaptations can reduce the disparity. Grodsky and Jackson state that, "We are far from achieving the level of equality of outcomes we would expect were stratification based exclusively or even largely on factors beyond the control of policy makers," (2009, p. 2348) suggesting there is much work ahead for both researchers and practitioners.

Describing the Transition from High School to Postsecondary Settings

Four broad topical areas have significant potential to describe the transition from high school to postsecondary settings: the academic and social support services available beginning in high school and continuing through postsecondary education, the degree to which curriculum in high school is aligned with the postsecondary path chosen by the student, the degree to which the relevant institutions collaborate for the purpose of implementing the services and curriculum, and whether the institutions are structured to support the collaboration required by the curriculum and support services. The first two areas, support services and curriculum alignment focus on the student experience, while inter-organizational collaboration and structural support highlight the role of the organization in bringing about student success. Implementing the various ideas relating to support services and curriculum alignment leads to a discussion involving inter-organizational collaboration and structural support. Each of the four areas offers some

insight into the transition, and when approached as a whole, suggest a coherent approach for increasing participation.

Student Support Services Designed to Improve Postsecondary Success Rates

Providing pathways for postsecondary success includes ensuring that students have access to adequate support beginning early in their academic careers. While in high school, postsecondary counseling and information, academic tutoring, and on-going communication are key issues for success. Ishitani and Snider (2004) completed a longitudinal study to investigate the effects of educational experiences in secondary school on college retention. They found that certain academic preparation programs, such as ACT prep, can increase retention once a student matriculates to a postsecondary setting, and that teacher-initiated communication between teachers and parents is correlated with lower drop-out rates (2004). King established a positive correlation for low-income students between college counseling in high school and postsecondary matriculation (1996), a relationship made more significant by the lower number of counselors in schools with large numbers of low income students (Ishitani & Snider, 2004). The importance of counseling in high school is especially critical for low income students. High schools do not often have postsecondary counseling for all students, and without some knowledge, it is hard for students to prepare for the transition to postsecondary (Kirst, Venezia, & Antonio, 2004). According to Swail and Gándara, students who need the most attention and resources are receiving the least amount of both (Gándara, 2002; Swail, 2000). As the student progresses from high school into a

postsecondary setting, their need for support follows. But professional support within the secondary school does not provide the whole answer. Choy, Horn, Nuñez, and Chen (2000) find that peer group expectations and parental involvement while in high school are correlated with postsecondary success. These out-of-school factors continue to be influential once a student has entered a post-secondary institution.

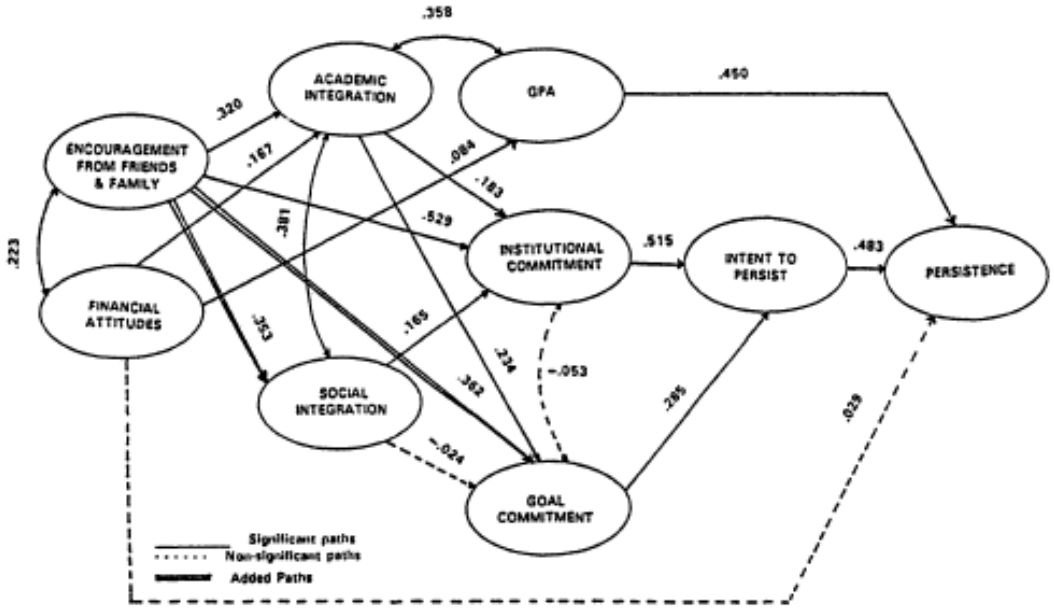
Once a student successfully matriculates to a postsecondary setting, there is much research describing what types of support are positively related to persistence and success. Tinto's work in developing the Student Integration Model (SIM) focused on the interaction between institutional factors and the student (Tinto, 1975, 1994). Students come to the institution with a variety of traits including academic skills, family background, and specific goals. While at a postsecondary institution, the student interacts with an institution's academic and social systems. These interactions contribute to a student's sense of integration, of whether the institution is a good match for the student, and this sense of integration drives the student to either remain enrolled or pursue other paths. Students are constantly assessing the academic and social environment at an institution, and when it no longer matches their own traits and goals, a decision to depart may result. With the SIM as a reference, other researchers have examined the issue of persistence and produced related analyses.

Bean found that the SIM does not account enough for external factors affecting students (Bean, 1985). Bean proposed the Student Attrition Model (SAM) in an effort to understand student persistence (1985). The SAM and SIM share many factors, but differ in how those factors are analyzed. For example, the role of grades; under the SIM, good

grades lead to academic integration and contribute to persistence, while under the SAM, a sense of academic integration contributes to good grades and a sense of persistence (Bean, 1985). Under both models, a list of factors including academic integration, social integration, personal commitment and institutional commitment are placed into a relationship to assess correlation with student persistence. Broadly speaking, Tinto's work focuses on the relationships between the student and the institution, while Bean's work places greater emphasis on the external influences on the student.

Given that both the SAM and the SIM were developed to investigate the issue of student persistence, a high degree of overlap exists between the models. In examining both models together through a longitudinal research study, Cabrera, Nora, and Castaneda (1993) concluded that merging the SAM and the SIM could provide a more comprehensive view of student attrition. The combination of factors in both models leads them to conclude that *individual* student services were not likely to impact student persistence significantly in the postsecondary setting, and that an *institutional* approach to the range of variables was more likely to succeed. The researchers conclude that, "… a concerted effort on the part of the institution in bringing together the different student support services to address student attrition is needed," (Cabrera et al., 1993, p. 136). Their resulting integrated model is reproduced below:

Figure 2.1: Representation of factors affecting persistence.



(Cabrera et al., 1993, p. 134). The narrow, solid connecting lines are hypothesized relationships that were found to be significant. The wider, solid connecting lines were relationships that were not hypothesized originally, but found to be significant. Finally, the dotted connecting lines in the above model represent relationships found to be non-significant. Overall, after an individual's intent to persist, the following were found to have a significant effect on persistence (in declining significance): GPA, institutional commitment, encouragement, goal commitment, and academic integration (Cabrera et al., 1993). Practitioners charged with increasing student persistence should be aware of the interplay between these factors. It is not as simple as picking a factor such as good grades, or adequate financial aid and improving the services for that particular factor. All models and approaches above point to an integrated approach at the institutional level,

combining the different factors mentioned above. As noted by Cabrera, Nora and Castaneda, the entire range of factors is important, especially in their relationship to each other. In a recent speech, Tinto discusses this point further:

> What would it mean for an institution to take student retention seriously? Among other things, it would mean that institutions stop tinkering at the margins of institutional life and make enhancing student retention the linchpin about which they organize their activities. It would mean that institutions move beyond the "adding-on" of services by recognizing that the roots of attrition lies not only in their students but also in the very character of the settings in which they ask their students to learn; settings which are now taken for granted as "natural" to higher education, (Tinto, 2002).

As all of the models regarding postsecondary persistence see academic performance as significant, a logical starting point for efforts to increase postsecondary success consists in focusing on the academic requirements of both postsecondary institutions and high schools. Students arriving at postsecondary institutions are not academically blank slates; they come with academic experience and are affected when the content of a given class does not directly lead to the content found in the next course in sequence. Aligning the content of courses is of considerable importance to academic success and made very visible by the transition from high school to postsecondary setting.

Curriculum Alignment

Calls for aligning the curriculum to ease the transition from high school to postsecondary settings are widespread. Schneider, Kirst, and Hess (2003) discuss the complexity faced by high school students and note that successful postsecondary experiences are predicated on choosing a proper path through high school course offerings. The importance of high school curriculum to postsecondary success is hard to overstate - it is potentially the most powerful tool for reducing disparities based on income (Adelman, 2006). Consensus regarding effective content for postsecondary success does exist. Since 1999, Adelman's research has been a highly respected reference when examining what high school coursework is most directly correlated with postsecondary success. As noted in a recent review of literature surrounding the transition from high school to college, "[o]verall, a large body of research has demonstrated that better high school preparation leads to greater levels of access to the postsecondary system…" (Goldrick-Rab, 2007, p. 2446). The Toolbox research using the data from the High School and Beyond survey indicates that higher levels of math, science and foreign language are correlated with improved postsecondary participation rates (Adelman, 1999, 2006). He found that across income groups, the stronger, higher quality education received in high school, the more likely a student is to enroll and be successful in a postsecondary setting (Adelman, 1999). After revisiting the research seven years after the initial project, Adelman concluded that the content of the curriculum remained one of the most powerful tools available for increasing postsecondary success (Adelman, 2006). Adelman further explained that when accounting for variance in his model, aside from

academic resources, the only demographic variable that remained significant was socio-economic status (Adelman, 2006). His analysis found that academic resources and continuous enrollment were the most powerful predictors of postsecondary success.

Adelman's findings relating to curriculum provide support for, and interact with the work of many other researchers, including Cabrera, Burkum, and La Nasa. Cabrera and La Nasa focused on the interaction between high school curriculum and populations of students not likely to matriculate to postsecondary settings. They concluded that postsecondary degree completion is affected by several factors including socio-economic status and academic resources in high school (Cabrera et al., 2003). They approached the issue of lower postsecondary attainment by persons with low income from a different perspective than previous researchers - instead of using family income as a factor to explain some other variable, they structured their research to shed light on *why* low income students have not achieved higher postsecondary success rates (Cabrera et al., 2003). Framing their inquiry in this manner allowed them to emphasize that academic preparation while in high school has a greater positive effect on postsecondary success for low income students (Cabrera et al., 2003). In some sense their research can be used to describe academic skills as an effective tool for reducing poverty through increased postsecondary success. Taking advantage of this relationship between high school academics and postsecondary success is more than enrolling all students in 8th grade algebra - educational organizations that are able to work together to provide support for students as they move from one system to the next will see greater levels of student success.

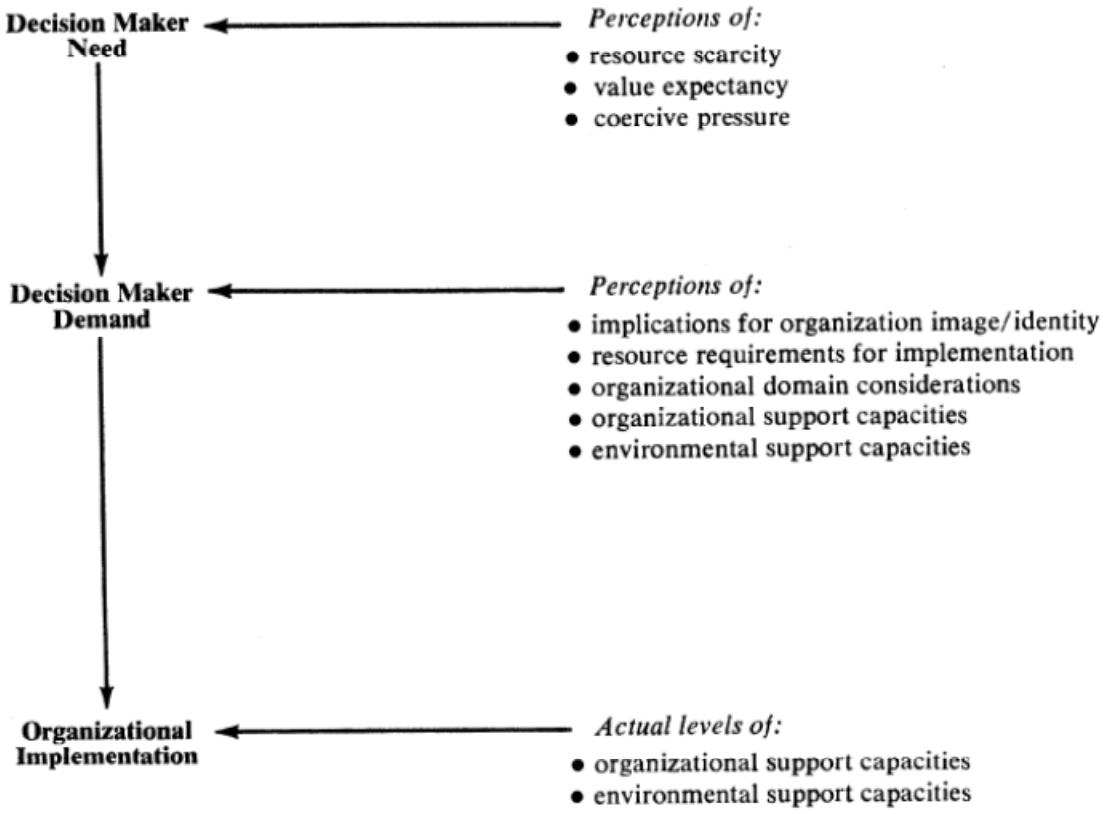
Inter-Organizational Collaboration Between High Schools and Postsecondary Institutions

Tinto's call above to "stop tinkering" (2002) and have the institutions reorganize around the issues surrounding transition places great emphasis on the institutional role. Implementing the support services and curriculum recommendations described above entails significant inter-organizational activity. Finding a way to approach individual student gains through organizational action and support is the focus of the final two topical areas, inter-organizational collaboration and structural support. Siegel (2008) describes a similar situation facing graduate business schools in the late 1970s. In order to increase participation of underrepresented populations, the business schools took a collaborative approach and created the Leadership Education and Development (LEAD) Program. The participant organizations concluded that collaboration could provide a significant tool for reducing the participation gaps present at the individual student level. Siegel conducted extensive research into the program, and discovered that improving individual student performance was an explicit goal for all organizational participants. Inter-organizational collaboration was being driven by a need to affect individual student participation. "While the actual *practice* of partnership in the network varied, there was no question that the *concept* of collaboration (collaboration in principle) made a meaningful difference in the overall experience, at least in the estimation of the informants," (Siegel, 2008, p. 532). Siegel found that a collaborative approach at was an

effective tool for increasing participation at the individual level, and for increasing the quality of interaction between the participant organizations.

The final two topical areas, inter-organizational collaboration and structural support, both directly address the organizational role in increasing participation. The LEAD program described by Siegel builds on a history of research regarding organizational collaboration. Schermerhorn developed the model depicted below for understanding inter-organizational cooperation:

Figure 2.2: Determinants of interorganizational cooperation.



(1975, p. 854). In the above model, decision makers in the participant organizations are the keys for understanding inter-organizational cooperation. A specific need for an

organization develops into a demand, and eventually into implementation, based on the assessment of such factors as organizational capacity, costs, and external pressures. These factors are filtered and weighed by the decision maker, and if appropriate, result in implementation of some level of organizational cooperation.

In addition to the overall focus on the decision maker, one of the factors included by Schermerhorn is coercive pressure. Schermerhorn also notes that the resulting cooperation may run a wide range of interdependence, from a simple interdependence (such as both high schools and colleges require students) to a far more complex cooperation based on concerted decision making (1975). Building on that idea, researchers investigated what type of influence the pressures driving the collaboration might have on the resulting relationship.

Hardy and Phillips highlight one such connection between the underlying motivation and resulting organizational relationship. Hardy and Phillips demonstrate that there may be a negative consequence for cooperation, when it is derived from coercion (1998). To shed light on this inquiry, they suggest that, "[b]y asking who has the formal authority, who controls key resources, and who is able to manage legitimacy discursively, we can also identify various power dynamics," (Hardy, Phillips, & Lawrence, 1998, p. 227). They also suggest that those parties who have disproportionate amounts of power or control may seek to maintain the status quo, or at least to alter the cooperation in their favor. In addition to the process described by Schermerhorn, the research by Hardy et al highlights the importance of the relationship between the organizations that produce and support a collaborative effort, and the success of the outcome.

By extending this line of inquiry, researchers have found methods of assessing the effectiveness of existing collaborative relationships. Collaborations have been shown to produce several effects for the participating organizations, including strategic effects, knowledge creation, and political effects. While the strategic effects of collaborations include to the development of internal organizational capacity; collaboration is also driven by the intent to create new knowledge, and lastly, the political effects of collaboration largely refer to increasing an organization's power and influence outside of the organization (Hardy, Phillips, & Lawrence, 2003). Building on these definitional foundations, Hardy, Phillips, and Lawrence (2003) point out that not all types of collaboration produce all three effects. Based on the wide range influences and outcomes, it is therefore reasonable to wonder how the factors that contributed to the creation of the cooperative relationship are connected to the type of relationship that results.

By investigating two characteristics of collaborations, embeddedness and involvement, the researchers found that collaborations exhibiting certain levels of embeddedness and involvement were more likely to produce one of the three effects. They defined embedded as a collaboration that has a high level of interaction with external parties and multi-directional information flow between the collaboration parties to external parties (Hardy et al., 2003). Involved collaborations were collaborations that had a high degree of interaction between the parties in the collaboration (Hardy et al., 2003). While a given collaboration's level of embeddedness is determined with reference to external interactions, its level of involvement is determined by examining interactions between the collaborating partners. Using these definitions, the authors found that;

> Collaborations that are both involved and embedded are more likely to be associated with knowledge creation effects; those that are only involved are more likely to be associated with strategic effects; those that are only embedded are more likely to be associated with political effects (Hardy et al., 2003, pp. 341–42).

The distinctions drawn by the authors highlight a tension between collaboration for the purpose of knowledge creation and for strategic benefit. Hardy et al. point out that there may be a managerial tendency to favor strategic benefits based on short term benefits, but that social service organizations dealing with communities might be better served by a longer term view focused on knowledge creation (2003).

In addition to embeddedness and involvement, Hardy, Lawrence, and Grant have found that the descriptions of a given collaboration, composed of the conversations and language used in the course of the collaboration, provides information about the collaboration itself. They approach collaborations with the proposition that discourse and conversation among collaborators can produce a collective identity, potentially leading to an effective collaboration. Essentially, more in-depth interaction can produce a more effective collaboration, and this can be assessed by examining the conversations taking place regarding the collaboration (Hardy, Lawrence, & Grant, 2005). As with the aligned curriculum, successful inter-organizational interactions appear to require significant efforts by the persons involved, and as seen below, these efforts can be facilitated or hindered by the structure of the organization itself.

Leaders faced with the challenges above must be able to generate support for their project in ways that support the end result. As noted in the previous section, coercion at

the outset may very well mitigate positive outcomes, and yet the potential hurdles appear to require a high degree of motivation on behalf of a leader. Etzioni described the primary power in schools as normative, with coercive power serving only when normative attempts fail (Etzioni, 1975). Etzioni also noted that effectiveness is dependent on the relationship between power and goals. Coercive leadership depends on an organizational hierarchy, and tends to alienate those under direction (Azim & Boseman, 1975; Etzioni, 1975). Normative power can produce more positive support. In the context of dual credit programs and institutional collaboration, the need for a strong leader and the importance of normative power becomes more significant.

Since the base of normative power is related to expertise, incongruence between the source of power and intended goal can decrease effectiveness (Etzioni, 1975). Leadership positions in dual credit programs are sometimes treated as additional duties for an existing position (Chapman, 2001). The potential for a mismatch of skill and power derived from position alone is significant. The flip-side is also important to dual credit programs, in that a skilled advisor or counselor may be able to significantly impact the program without a position conveying formal power. Research has long established that an individual skilled at interacting with others can have a significant amount of power regardless of position or title within an organization (Bacharach & Lawler, 1980; Busher, 2006). One researcher described an exchange where a subject initially identifies the organization's leader according to title, but when pushed a bit further, clarifies by identifying the *real* leader as someone outside the bureaucratic structure for leadership (Robertson, 2006). Organizations face a potential challenge balancing the formal

authority for dual enrollment programs with the individual skills and expertise needed. Close attention to the role of a dual credit leader within their organization appears important, and may provide insight into the overall question relating to institutional support of dual credit.

Educational Institutions Organized to Provide Support

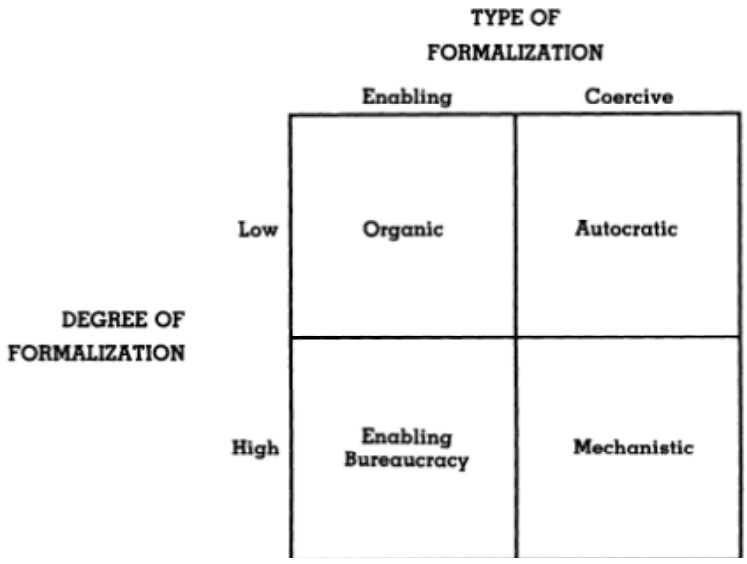
Implementing the required collaboration described above involves dealing with the separate structures governing k12 and postsecondary systems. Researchers have often called for more interaction between high schools and postsecondary institutions (Goldrick-Rab & Mazzeo, 2005; Kirst & Usdan, 2007; Kirst & Venezia, 2001). Underlying these calls for improved institutional functioning is the acknowledgement that the structure of an institution *can* affect the transition from secondary to postsecondary settings. As such the "salient question… is whether differences in their structures and processes account for differences in their effectiveness," (McGuigan, 2005, p. 14).

"Two classic aspects of all organizational structures are formalization (formal rules and procedures) and centralization (hierarchy of formal authority)," (Sinden, Hoy, & Sweetland, 2004, p. 463). Each aspect can be viewed on a continuum. An organization's level of formalization falls between coercive and enabling, while centralization is either hindering or enabling (Sinden et al., 2004). Ascertaining the formalization and centralization of a school bureaucracy can indicate whether it would be supportive of innovative programs. An enabling bureaucracy would view problems as opportunities, learn from mistakes and find ways to utilize differences, instead of

punishing mistakes and enforcing uniformity (Hoy & Sweetland, 2001). In general an enabling bureaucracy frames issues in a positive sense, and attempts to involve parties in joint action targeted towards increasing the overall effectiveness of the organization. After performing quantiative analysis, Hoy and Sweetland conclude that it is possible to identify whether a program is an enabling bureaucracy, and that "what is needed at this juncture are also qualitative studies to map specific examples of enabling rules and enabling hierarchy," (2001, p. 316).

Previous research discussed similar issues by placing a bureaucracy on a continuum between alienating and enabling with regard to supporting an employee's ability to perform their job (Adler & Borys, 1996). Adler and Borys depict the range of organizational structures using the following graphic:

Figure 2.3: Typology of organizations.



(Adler & Borys, 1996, p. 78). The figure above depicts two dimentions of organizations, one representing the level of bureaucracy as low or high, and the other representing the

type of influence used to accomplish oranzational goals. Organizations such as schools would have a high degree of formalization, and be placed on a spectrum between enabling and coercive. "The key to avoiding the dysfunctions of centralization is to change the kind of hierarchy rather than to try to eliminate it," (Hoy & Sweetland, 2001, p. 300). Much of the desire to ease the transition from high school to college expressed by researchers has been present since the early 1900s. According to Wechsler, a significant criticism of college admissions in the early 20th century was that of "poor articulation - ensuring that colleges picked up a subject where the high school left off," (2001, p. 2). Many programs and movements during the past century have been focused on the issues of curriculum alignment, supporting students for a transition to college, and increasing the collaboration between educational entities. What follows is a brief selection of some of the current attempts to mitigate the differences in postsecondary success.

Approaches for Increasing Postsecondary Success

Four potential solutions implemented to some degree include: outreach programs, P16 initiatives, middle college, and dual credit programs. Each attempts to increase postsecondary success by approaching it from a different perspective, and dual credit programs represent an approach that integrates aspects of each of the other three.

Outreach programs.

Probably the most well known outreach programs are those under the TRIO designation administered by the Department of Education. The TRIO programs attempt to increase postsecondary success of underrepresented populations by providing services beginning in high school. TRIO started in the 1960s with three programs, and now comprises eight offerings targeting a broad range of ages and needs. TRIO provides federal funding for states and institutions to implement services intended to increase postsecondary success. Often the service providers will supply tutoring in a variety of academic subjects, counseling relating to academic progress and success, and assistance with the financial aid process (Swail & Perna, 2002). Outreach programs in general and the TRIO programs in specific are designed to meet the information needs described above with regard to support services. They operate under the assumption that by providing more information to students when they are in a position to use it, more students will be in a position to make the choices needed for postsecondary success. These services can be targeted at specific underserved populations, such as low income students, or school-wide programs. Partially due to a history in which the programs provided services to "children of faculty, administrators and well-to-do professional families," and the resulting legislative changes, most of the current implementations of TRIO programs specifically target populations in need (Groutt, 2003, p. 4). In addition to TRIO, outreach programs like the privately funded I Have a Dream (IHAD) and the federally funded GEAR UP fit more into the school-wide outreach model. Outreach programs in general attempt to provide the counseling and academic skills that

researchers like Adelman, Cabrera, La Nasa, and Burkam have linked to postsecondary success, but because they are often targeted at specific student populations, there is less likelihood that a program will have an effect on the overall interaction between the two applicable educational institutions.

Swail described outreach programs as "fingers in a dike," (2000, p. 88) and concluded that, "none of these programs is broad enough to provide services to all needy students," (Swail, 2000, p. 90). Common criticisms include failure to reach a larger portion of eligible participants and little evidence that those who do participate experience any educational benefit (Domina, 2009; Swail, 2000).

> The TRIO programs have never grown beyond a demonstration effort involving a limited number of institutions. Less than 10 percent of eligible students benefit from services provided under the TRIO programs. Moreover, the support services they provide often occur after the student has enrolled, so they may have a negligible effect on preparation levels before the student enrolls in college. (Hauptman, 2007, p. 262)

While the programs are the result of shared commitment to improving educational opportunities, they do not follow any particular model, and are highly dependent on the individuals leading the programs (Swail & Perna, 2002). Tierney notes that after over a decade researching these types of support programs, he has "found no program that states it is anything other than highly successful," and calls into question the validity and rigor of the evaluation techniques employed (2002, p. 219). Adelman investigated educational outcomes for disadvantaged students and found that outreach programs, including TRIO,

did not have a significant effect and that targeting programming based on traits risks excluding participants that may benefit (Adelman, 2002). Domina (2009) compared the effectiveness of targeted outreach programs with that of schoolwide outreach programs, and concluded that although the gains were modest, the schoolwide programs consistently performed better than those targeting specific groups. His finding highlights the significance of broad efforts designed to increase postsecondary participation - possibly the broadest being a state-wide effort to ingrate elementary, secondary, and postsecondary education systems.

P16 initiatives.

Initiatives to bring the elementary, secondary and postsecondary systems under one umbrella, or P16 initiatives, approach the issue of increasing postsecondary participation by eliminating the systemic gap existing between high school and postsecondary education. A significant reason for creating a P16 system is to improve student achievement at all levels of education for all groups of students (Louie, 2005; Van de Water & Rainwater, 2001). Potential benefits related to increasing postsecondary success include increased ability to offer appropriate preparatory curriculum, reduction in need for remedial coursework at the postsecondary level, and simplification of the admissions process (Van de Water & Rainwater, 2001). These efforts take place at the state level, and often result in the creation of a committee charged in part with reviewing high school exit requirements in conjunction with college entrance requirements (Chamberlin & Plucker, 2008). One of the largest hurdles in creating an effective P16

system is the time and coordination required between the myriad state and local education agencies and institutions.

While 30 states have enacted some type of P16 reform, much fewer have progressed to the point of demonstrating gains claimed at the outset (Krueger, 2006a). The effort in Georgia is one of the more comprehensive, and provides some insight regarding issues faced when utilizing a P16 approach. Local resources needed to implement the changes implemented by the P16 approach, sustaining effective communication among the participants, and coordinating the various collaborative efforts to minimize duplication all remain as hurdles for the Georgia system (Turner, Jones, & Hearn, 2004). At the high school level in particular, concern exists over lack of adequate counseling resources regarding postsecondary entrance requirements (Turner et al., 2004). High school personnel are uncomfortable explaining college requirements to the students, and both students and high school personnel want more direct interaction the postsecondary system (Turner et al., 2004).

Oregon also created a P16 system significantly focused on assessments of competency as the gateway from high school to college. Three stages of potential certification exist: 10th grade, 12th grade, and college entrance (Bueschel & Venezia, 2004). The initial implementation of the assessments was met with confusion, and an early review of the project was inconclusive (Bueschel & Venezia, 2004). The student assessments themselves are still "moving targets" in terms of their purpose and implementation, but a promising result of the P16 initiative in Oregon is the "culture of collaboration that has developed across educational levels" (Venezia, Kirst, & Usdan,

2006, p. 17). A common thread in both the Oregon and Georgia efforts highlights the complexity in communication that exists when approaching these issues from the state level. Because of this complexity, identifying the results of the reform and realizing the intended gains requires an extended timeframe.

Middle college.

The third approach to improving postsecondary access significantly reduces that complexity by operating at the institutional level. Rather than combining an entire state's worth of educational systems, middle colleges are institutions that offer both high school and postsecondary classes and credentials under one roof, often by overlapping the content traditionally found in the last years of high school with that found in the first years of postsecondary educations. Researchers have concluded that middle college schools (sometimes referred to as early colleges) have the ability to improve postsecondary attainment for underrepresented populations, including low income students (Vargas, 2007). Middle colleges have a very long history, stretching back a century or more. One of the reasons for their creation was to allow students to begin college-level work while in a familiar setting (Wechsler, 2001). Other reasons included curriculum alignment, cost savings for both students and institutions, and developmental rationales (Wechsler, 2001). Early attempts, pre-World War II, were not successful in creating a widespread change in the education system. However, in the 1960s, Simon's Rock Early College in Massachusetts began to operate as a private college program for students after the 10th grade. Several years later, and drawing on Simon's Rock for

inspiration, LaGuardia Middle College also came to fruition as a public school in New York, with the express purpose of being an elite school for at-risk students (Wechsler, 2001). Middle colleges appeared infrequently around the nation until 2001, when the Bill & Melinda Gates Foundation began funding the Early College High School Initiative (Bailey & Karp, 2003). Since that time over 200 schools have been created or redesigned with funding from the Early College High School Initiative (Early College High School Initiative, 2007).There are few middle colleges with enough experience to provide data regarding success, but what little exists regarding LaGuardia and Simon's Rock is either neutral or positive. In the case of LaGuardia, the school does appear to have increased postsecondary success rates for students of low income (Wechsler, 2001). The issues of inter-organizational collaboration and curriculum alignment are largely eliminated because there is no more institutional divide. The remaining concerns regarding student support and the enabling nature of the bureaucracy are considerably less complex when dealing with a single institution that is able to work with each student from the beginning of high school through to some level of postsecondary attainment. As the schools created by the Early College High School Initiative come of age, there will likely be a wealth of information to describe this movement in greater detail. These benefits of the middle college were recognized by Vargas (2007) when he examined various methods for integrating high school systems with postsecondary systems, and ranked middle college and dual credit programs together as the easiest options to implement successfully.

Dual credit programs.

The final approach for increasing postsecondary participation is that of dual credit programs. Dual credit programs, also called dual enrollment programs, provide college credit and academically advanced courses while the student is still in high school. Program requirements vary by state, but generally provide some mechanism for a student to complete high school and continue their postsecondary education with some credits already completed. The location of the courses (either at the high school or postsecondary institution) and the background of the instructors vary according to the design of the program. Dual credit programs have always provided a path for college-bound high school students to accelerate the progression to a postsecondary credential, and every state has an academic program where high school students can take advanced courses for college credit.

Such programs continue to gain popularity with policy makers, institutions, and participants (Bailey & Karp, 2003). Dual credit programs usually derive from state-level policies like the P16 initiatives, but operate on an institutional level akin to the middle colleges. Partially for these reasons, Hoffman and her colleagues envision dual credit as the best way to move the largest number of students successfully into a postsecondary setting (Hoffman, 2005; Hoffman, Vargas, & Santos, 2008). Adelman describes dual credit programs as "the least threatening (to school systems) path to providing opportunity-to-learn," (2002, p. 57). Because these programs were historically focused on speeding the college-bound students along, and were aimed at a relatively small group of students, there has been little research into the broader relationship between dual credit

programs and increasing postsecondary participation. Research on dual credit programs is just beginning to present a picture of how the programs affect postsecondary participation.

These early indications describe dual credit as being beneficial for a wide range of students. “Once limited to high-achieving students, these programs are now seen as a means to support the postsecondary preparation of average-achieving students,” (Karp, Calcagno, Hughes, Jeong, & Bailey, 2008, p. 1). Research indicates a positive relationship between dual enrollment participation and postsecondary outcomes (Hoffman, 2005; Karp, Calcagno, Hughes, Jeong, & Bailey, 2007; Karp et al., 2008). The research conducted by Karp and her colleagues (2007) was a broad-based investigation of dual credit programs at the statewide level in two states. Karp (2004) also conducted a nationwide review of dual credit policies highlighting significant traits at the state level. Another researcher found that, “A single authentic college course can help first-generation urban students… onto a path toward college,” (Hoffman et al., 2008, p. 21). Research indicates that dual credit programs are also able to expand postsecondary participation programs (Bailey & Karp, 2003; Hoffman et al., 2008; Karp, 2006; Kleiman, 2001). The variation between states and differing implementations at the institutional level has prompted researchers begin looking for patterns in the programs indicating success. Much of the existing research seeks to describe the broad picture of dual credit programs either nationally or within a given state, while at the same time highlighting many significant institutional-level factors. There have also been a handful of studies assessing the effect of dual credit programs on students at the individual

program level (Karp, 2006; Nathan, Accomando, & Fitzpatrick, 2005; Nathan & Jennings, 1990; Smith, 2007) that tend to focus on the individual benefits of participation for students. The linkage between variation in program implementation and increased postsecondary participation has been hinted at by existing research, but not yet fully explained. This relationship between implementation and increased participation sets the stage for a more in-depth inquiry at the program level along the lines of the topics discussed above. Drawing from the broad topical areas described above, certain aspects of dual credit programs become more important when focusing on the relationship between implementation and participation.

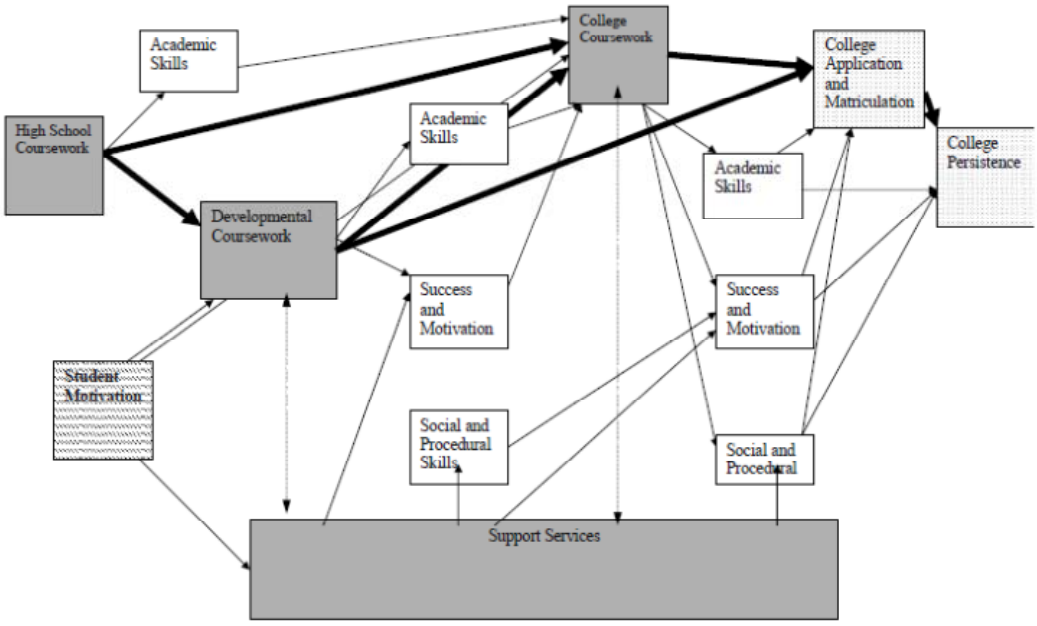
Aspects of Dual Credit Programs Related to Increasing Postsecondary Participation

Dual credit programs combine the resources of two separate institutions and rely on several different areas of research to describe their interaction. The support services provided to students, the curriculum alignment between the high school and postsecondary institution, aspects of the inter-institutional collaborative process, and how the organization is structured to support the program may have a significant impact on the ability of a dual credit program to increase postsecondary success. The sections below outline how aspects of these four areas interact with dual credit programs, in conjunction with a fifth section describing where most dual credit courses can be found.

Importance of support services to dual credit programs.

The utility of support services such as tutoring, postsecondary counseling, and study skills training, in regards to postsecondary success has been long established. It appears settled that support services can play a positive role in moving from high school to a postsecondary setting, and as dual credit programs gain maturity, scholars are beginning to connect support services more directly with dual credit program participation. By conducting an in-depth qualitative inquiry, Karp and Hughes (2008) have begun to form a framework for examining different aspects of dual credit programs. They selected five program sites based on program longevity and focus on middle- and low-achieving students, and conducted 118 interviews and 61 observations. As their research progressed, they began to realize the importance of certain aspects of the dual credit programs. They altered their original model to show an increased role for support services. Through student support services, secondary and postsecondary institutions can use dual credit programs to increase postsecondary participation. These support systems need to function in both the high school and postsecondary setting. Karp and Hughes's research has produced a framework depicting the importance of student support services in the dual credit setting, as shown by the image below:

Figure 2.4: Model of influence of credit-based transition programs on student success.



(Karp & Hughes, 2008, p. 861). The heavy arrows indicate student progress through a given program, while the gray shaded boxes represent the components of the program. The remaining arrows are meant to indicate the wide variety of possible interactions available to students. Notably, the support services begin in the high school setting, continue into the postsecondary setting, and include an interaction with developmental coursework. To expand postsecondary participation beyond those already likely to matriculate, it is logical to work with less prepared students - to accomplish this, successful dual credit programs provide support services, including development coursework, to a wide range of students over a longer course of time (Karp & Hughes, 2008). Goldrick-Rab and Mazzeo put it succinctly: "involving teachers acquainted with college admissions and financial aid processes in educating *all* students (not only those

on the "college track") in the early school years should also enhance college access," (2005, p. 108).

The model depicted above highlights the importance of support services and the authors note that, "reliance on only the high school-based services seemed unlikely to reinforce the strong college-going orientation that these programs were attempting to instill," (Karp & Hughes, 2008, p. 857). These services must also be present in the postsecondary setting, and integrated with high school services as much as possible. Under a traditional transition from high school to college, the high school counselor and/or tutor stops providing support once the student successfully finds a postsecondary institution; under a dual credit approach, the student should be able to draw on the support services of both the postsecondary institution and the high school, eliminating any gap. The authors found that support services were more than a contributing factor; such services were a critical component for increasing postsecondary participation (Karp & Hughes, 2008). Integrating support services across institutional boundaries shows the importance of examining the institutional level implementation of dual credit programs.

Additional research found that student support, both services in school and outside of school, were "essential" in making progress towards a postsecondary credential in a dual credit setting (Hoffman et al., 2008, p. 18). Hoffman found that such support should be present from ninth grade through the first two years of postsecondary attendance to have the greatest effect (Hoffman et al., 2008). One of the goals of the support services is to provide an accurate set of expectations regarding postsecondary requirements, early enough for students to make use of this information. In addition to

support, Hoffman also found that a strong academic program aimed at a seamless transition was important to a transition to postsecondary setting through a dual credit program (Hoffman et al., 2008). Like the middle college approach, dual credit programs offer a way to smooth the transition from high school to postsecondary by blurring the organizational boundaries and allowing support services and curriculum to be the facets that *provide* the transition, rather than be lost in the transition.

Curriculum in support of transition from high school to postsecondary education.

Dual credit programs are in a unique position regarding curriculum; the existence of a dual credit curriculum pathway is viewed as a way to potentially connect the two institutions in a manner that can increase participation (Kirst & Venezia, 2001). In addition to eliminating the gap by having a student enroll in two institutions simultaneously, dual credit programs are by design more challenging than traditional high school curriculum, and researchers have begun to test the links between increased postsecondary participation and dual credit participation. Andrews (2000), a former community college administrator and dual credit researcher, found that curriculum pathways are significant when implementing dual credit programs. Calls for policy reform in this area include descriptions of how dual credit programs can achieve curriculum alignment (Krueger, 2006b). "Dual enrollment can be a mechanism for aligning high school and postsecondary education, not merely a strategy for advancing

students out of high school," (Farrell & Seifert, 2007, p. 72). From this starting point, research has begun to explore the potential effects of dual credit programs more deeply.

Karp and Hughes determined that "aligning high school and developmental curricula with college expectations is predicated on strong communication and collaboration among program and preprogram instructors," (2008, p. 863). Such curriculum pathways should include academic and non-academic components, in order to reach a base larger than one composed of students traditionally considered college-bound. The researchers found that, "widespread communication about program demands and curricular pathways is an important way to help faculty give all students the tools they need to enter a CBTP [credit based transition program] pathway," (Karp & Hughes, 2008, pp. 863–64). Karp and Hughes discuss the importance of communication to a successful program. Information must flow between the two institutions and their faculty, and from the faculty to the students. Accomplishing this type of information flow can be made more effective if there are supportive organizational structures in place. Discussion of a curriculum that spans institutional boundaries highlights the importance of inter-organizational collaboration (Conley, 2007). Conley points out that there are mechanical aspects to developing a curriculum that function across an institutional divide and provides the creation of a syllabus as an example. He describes the effort needed by both high school teachers and college instructors to use a common language in their syllabi, while still conveying the unique information required in each setting (Conley, 2007).

Hoffman, Vargas and Santos find that strong dual credit programs benefit from feedback loops that provide support for curriculum alignment (2009). Notably, they

found that providing a mechanism to perform college-level work in high school can create the types of feedback loops needed to support the type of curriculum alignment described above. The feedback loops they discuss involve calling attention to how well high school courses are sequenced with postsecondary offerings, in an effort to better link the courses at both institutions (Hoffman et al., 2009). Feedback loops would involve direct communication between the postsecondary institution and high schools regarding student performance. Such a communication pattern is not always present in a dual credit system, and would require significant collaborative effort by both parties.

Inter-organizational collaboration in support of inclusive dual credit programs.

Early research on dual credit programs highlighted the benefits to both high schools and postsecondary institutions in terms of collaboration. Dual credit programs were thought to encourage collaboration and improve communication between faculties (Chatman & Smith, 1998). More recent calls for wider application of dual credit programs similarly highlight the potential collaboration. "It [expanding dual credit programs] embeds dual enrollment in the larger agenda of constructing a seamless transition to postsecondary education—an agenda that requires collaboration across secondary and postsecondary sectors and changes both," (Hoffman, 2005, p. 11). At the institutional level, such a vision depends heavily on communication and the individuals charged with implementing the various programs. Hoffman, Vargas and Santos state that

a strong dual credit program benefits from three features relating to the overall design of the program:

- Formal structures that link a high school and a partner college such as a renewable partnership agreement; a person serving as liaison between high school and college; and a decision-making body to design, monitor, and collect data about the program.
- A feedback loop to high schools from postsecondary on student success. High school and college transcripts include college course grades and call attention to how well courses are sequenced between high school and college and how well high schools are preparing students for college work.
- Shared responsibility (financial and otherwise) by leaders in both secondary and postsecondary education institutions for continued collaboration. (2008, p. 24)

Given the importance of institutional components, and the emphasis on personnel and communication, the individuals selected to implement a given dual credit program can have a large effect.

Schermerhorn drew attention to the role of a leader with regard to collaboration, and McLaughlin noted that "Organizations don't innovate or implement change, individuals do," (1987, p. 174). Hans Andrews stated that "strong leadership" is important to implementing successful dual credit programs (2000, p. 36). Andrews is referring to strength because of the potential for lack of support among faculty in either participating institution. The leader of a dual program is likely to be working with a

number of administrators, faculty and students in multiple institutions, and will be called upon to find consensus and forward movement among potentially disparate interests. What follows is a brief description of the potential challenges a leader might face and discussion of relevant concepts relating to power in leadership.

Of particular note when discussing the use of dual credit to expand postsecondary participation is the potential for the program to be seen as a challenge to the existing system. Fears of faculty and staff may be compounded by fears at the organizational level. Andrews (2000) describes how faculty in postsecondary settings may have concerns about academic preparation of the students, and high school teachers may fear losing their best students early. Nathan (2005) found administrative reluctance in both the secondary and postsecondary settings. These fears combined with the notion that changes which are beneficial to an organization in the near term might bring about the demise of the organization in the long term (Levinthal & March, 1993) to produce an environment not necessarily conducive to increasing participation in dual credit programs. If a high school depends on students, while at the same time shortening the length of time these students need to spend in high school, it is possible that some negative consequences for the high school may arise due to decreased enrollment. Levinthal and March described this type of situation as a, "trap of distinctive competence," (1993, p. 103). Dual enrollment courses by their nature shorten the length of time a student spends combined in high school and postsecondary institutions, and that decrease in attendance may be viewed by either institution as a potential threat. Fears and organizational pitfalls are examples of some of the challenges requiring strong dual credit leadership.

Structure supporting successful dual credit programs.

Interestingly, program structure has been found to be the least governed area relating to dual credit programs (Karp et al., 2004), by default leaving much of the variation to occur at the institutional level. Currently, many dual credit programs are positioned as high school escape mechanisms for academically advanced students (Hoffman, 2005; Karp et al., 2004). In order for dual credit programs to increase postsecondary participation, the focus of these programs must shift to a wider range of students. Such a shift is not always welcomed by the participating institutions; administrators and faculty sometimes fear wider adoption of dual credit programs. Existing relationships between high schools and postsecondary organizations have prevented the active marketing of dual credit offerings (Asmussen, 2001). Asmussen (2001) described how many postsecondary administrators were reluctant to push dual credit, because they were concerned about damaging existing relationships with high schools. Several researchers describe potential faculty fears regarding student preparation (Andrews, 2000; Bailey & Karp, 2004). Bailey and Karp note that at the state level, "program structure often take[s] a back seat to admissions and questions about financing," (2004).

These circumstances can combine to create a situation in which a program permits wide participation, but only experiences participation from a narrower group of students. When researching the broader category of all credit-based transition programs (CBTP), Karp and Hughes noted that, "simply opening access to CBTPs may be an insufficient

way to encourage student access to and success in college," (2008, p. 863). Much of the existing literature categorizes dual credit program participation based on the policies that govern each program, rather than data at the institutional level. Using Minnesota as an example, the state is often described as having an open dual credit program, with emphasis often placed on the state requirement that information about the program be given to every student in ninth grade (Karp et al., 2004). Then what research does exist specifically discussing dual credit participation in Minnesota finds that program participation is dominated by students already likely to matriculate into postsecondary settings (Nathan et al., 2005). It appears from the literature that institutional level traits may play an important role in determining the effectiveness of using dual credit programs to reach a wide range of students (Karp et al., 2004).

Institutional setting of inclusive dual credit programs.

Dual credit programs that expand postsecondary enrollment will be working with populations of students not traditionally bound for college. At the postsecondary level, community and technical colleges (two-year colleges) are the most likely place to find such students.

> Community colleges lead the way in making accelerated learning options available. First, their missions include outreach to high schools and service to their immediate neighborhoods and regions. Second, in many of the forty-two states with dual-enrollment policies, public community colleges, not four-year institutions, provide such opportunities, (Hoffman et al., 2009, p. 44).

Many of the earlier two year institutions began as extensions of the local high school (Bragg, 2001; Wechsler, 2001). Two-year colleges have the most diverse student population and account for thirty-seven percent of all undergraduate enrollment, and forty-five percent of first-time college entrants (Bragg, 2001). Low income students are often overrepresented in two-year colleges (Bueschel, 2004). In addition to the historical relationship with high schools, dual credit programs are uniquely tied to two-year colleges. There is already significant curriculum overlap with high schools, in the form of developmental education or basic skills classes at two-year colleges (Bueschel, 2004). Dual enrollment exists at two-year schools to a much greater extent than other postsecondary institutions (Hoffman et al., 2009; Kleiner & Lewis, 2005). According to a recent national survey, seventy-seven percent of dual enrollment coursework is completed at a public two-year institution, fifteen percent at a public four-year institution, and eight percent at private four-year institutions (Kleiner & Lewis, 2005, p. 8). Because two-year colleges attract a higher proportion of first time college entrants, and because they are the destination for the majority of dual credit programming, investigations focused on increasing participation through dual credit could reasonably focus on two-year colleges.

Access to a broad range of students is important. Participants may feel the strain of attending two institutions that are physically separate (Nathan et al., 2005). There are far more secondary institutions than postsecondary, and given the responses described by Nathan, Accomando, and Fitzpatrick, it is logical to expect more support for dual credit in high schools that have easy access to a nearby two-year institution. High schools that

successfully contribute to a dual credit program which increases postsecondary enrollment must have access to a pool of students who would not otherwise be likely to matriculate into the postsecondary setting. These two factors can be used to identify institutions with significant potential to affect an increase in participation.

Scholars have found connections between state policies and the success of dual credit programs (Hoffman, 2005; Karp et al., 2004). In addition to the effects of state policies on dual credit programs, each program is administered at a local level, and subject to local constraints. Research has not addressed how using dual credit programs as a tool to increase student participation affects the participating organizations. Guided by these initial findings, it is logical to examine the participating organizations within a dual credit system in order to better understand the effects of dual credit programs on institutions.

Dual credit programs exist to ease the transition from high school to college, and have done so successfully for decades with certain groups of students. Traditionally, dual credit programs have been used as a vehicle to provide advanced academic experiences to students already likely to matriculate into a postsecondary setting. Recently, dual credit programs are showing promise as a method for increasing postsecondary participation among populations not as likely to matriculate. Dual credit programs vary greatly based on state laws and institution-level implementation.

The literature surrounding dual credit programs is often filled with state policy recommendations and pronouncements declaring the virtues of a seamless system in which all students are able to progress without external impediment. Getting to this

educational nirvana requires working with the system that exists, including both the secondary and postsecondary institutions. When approaching such projects, research would benefit from a "contextually sensitive" approach, and an attention to detail and depth, (Weick, 1976, p. 10) often associated with qualitative inquiry. Dual enrollment programs in one school or postsecondary institution may behave very differently from that same policy mandate in another school or postsecondary institution. By narrowing the inquiry to the institutional level of a dual credit program as described above, researchers may be able to locate programs able to show the institutional effects of using dual credit programs as a tool for increasing participation.

Chapter 3: Research Design

Research Question

The research regarding dual credit programs suggests the following question with respect to organizational relationships: How can the nature of the relationship between a postsecondary institution and high school when implementing a dual credit program as a method for increasing postsecondary participation be represented? To answer this question, specific issues arise from the following areas, structural components, student support services, and inter-organizational relationships. Beginning with the structural design and implementation of the dual credit program within an institution, previous research indicates the importance of investigating how the program fits within the organization. Is it one of the "lynchpins" (Tinto, 2002) around which the institution has chosen to focus? Understanding this question entails investigating many factors including:

- The extent to which dual credit is a widely available pathway.
- Existence of an enabling bureaucratic structure.
- Relationship between mission and dual credit program.
- Significance of organizational history.
- Role of developmental coursework in the organization.
- Connections between curricula in both institutions.
- The availability of counseling and student support

Generally speaking, implementing a dual credit program will result in some type of relationship between participating institutions. The nature of the relationship between a

high school and postsecondary institution may vary widely and can play a significant role in the overall success of students in the program. Critical factors relating to the inter-organizational relationship in specific include:

- How the relationship is framed by leaders in the institutions and whether it is seen as a distraction or potentially supportive of their overall mission.
- The extent to which the program has become "embedded" (Hardy et al., 2003) in the organization.
- The existence of supportive feedback loops and shared responsibility within the institutions.

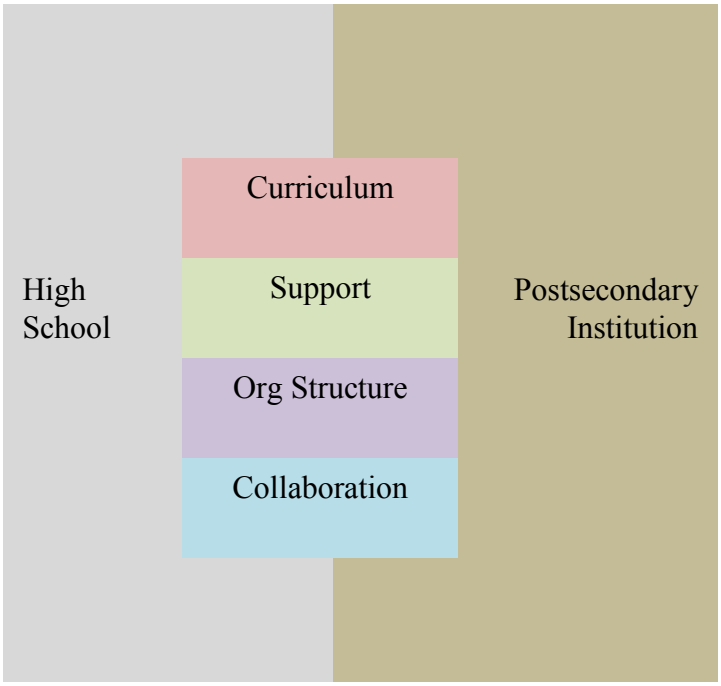
The success of a dual credit program may be influenced significantly by the nature of the relationship between the participating institutions. By investigating these aspects of a dual credit program, it is possible to gain a deeper understanding of how a dual credit program affects the relationship between a postsecondary institution and a high school.

Conceptual Framework

Most dual credit programs exist within a regulatory framework that describes some level of interaction between the participating organizations, but this regulatory setting alone does little to describe the level of organizational participation - institutions have a good deal of leeway in deciding to what extent they will support dual credit options. At one end of the spectrum lie organizations that forward the paperwork required by law when a student requests participation in a dual credit program, while at the other end lie organizations for which dual credit programs provide the vehicle for inter-

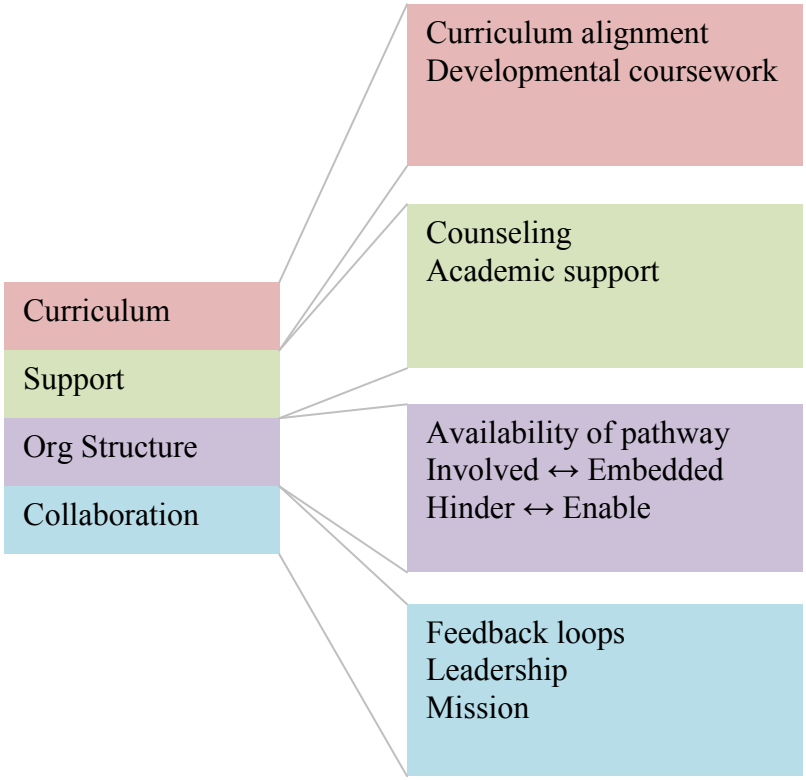
organizational action and collaboration. The previous research regarding collaboration suggested four areas in which increased organizational interaction might be visible. This project began under the assumption that organizations with a high level of dual credit participation are more likely to exhibit increased levels of interaction in the four areas depicted below.

Figure 3.1: Areas of overlap between high schools and postsecondary institutions.



The four areas of overlap shown above highlight specific issues within each related to dual credit programs. These four areas are expanded in the image below:

Figure 3.2: Detail of areas of overlap.



This project was designed to investigate the ten areas on the right hand side of the graphic above, and how organizations on either side of a dual credit arrangement deal with each other within these contexts.

Design

This research employed a qualitative methodology. A qualitative approach is appropriate for the following reasons: the guiding research question focuses on describing the relationship between organizations; the topic deserves in-depth inquiry because not much research exists in the specific area; and lastly, qualitative methods can provide a "complex, detailed understanding of the issue," (Creswell, 2007, p. 40). When examining the ability of an organization to support a given program, qualitative research

is specifically identified as important to the field (Hoy & Sweetland, 2001). They, together with colleagues, have produced research regarding organizational interaction, and the abilities of an organization to either support or hinder a given process (Adler & Borys, 1996; Hoy & Sweetland, 2001; Sinden et al., 2004). Hoy and Sweetland describe organizations on two continuums; one of centralization and another of formalization (2001). The current investigation attempts to describe aspects of the various dual credit implementations in similar fashion with regard to dual credit programs. It is therefore important when Hoy and Sweetland highlight the applicability of qualitative methods for such an inquiry.

When examining the nature of a dual credit program within an organization, the descriptive power of qualitative research may be a powerful tool. Qualitative inquiry was also used as the original basis for creating a framework for understanding the support structures needed for dual credit programs (Karp & Hughes, 2008). The work done by Karp & Hughes provides a very good starting point, and helps to identify the key areas of concern for an organization. Karp and Hughes conducted an investigation on a national scale to identify broad relationships relating to successful dual credit programs - the present investigation builds upon this initial work by focusing on the nature of the organizational factors as found within a single state setting. It has long been known that quantitative inquiry can fail to identify important detail (Miles & Huberman, 1994), and that a contextually sensitive approach often found in qualitative methods (Weick, 1976) may serve to provide an enlightened description of the phenomena in question.

Because the underlying question relates to the relationship between at least two organizations, a collective case study (Merriam, 2009) approach was used to identify and investigate pairs of institutions. The description of inter-organizational relationships is well-matched with qualitative methods. Case studies are in-depth investigations of a bounded system (Merriam, 2009), in this case, the system of dual credit programs in a selected state. These programs are implemented at the individual educational sites, in naturally occurring institutional pairs, making a collective case study particularly attractive (Creswell, 2007). In a collective case study, data is collected and analyzed from several cases, as distinguished from a single case study with having subunits embedded within a single case (Creswell, 2007; Merriam, 2009). Students involved in a dual credit program are necessarily enrolled in two institutions simultaneously, creating the institutional pairs. Because there can be significant differences in institutional approach, several institutional pairs would describe the overall experience with greater clarity. According to Merriam, "the more cases included in a study, and the greater the variation across the cases, the more compelling an interpretation is likely to be," (2009, p. 49). The individual nature of each relationship, as well as differences in program implementation at the organization level are likely to come through under qualitative analysis. By using holistic description and explanation, it is hoped that this research will uncover significant factors in the interaction between institutions participating in dual credit programs (Merriam, 2009).

Sample

Because the nature of the underlying question depends on a relationship between two or more organizations, the research focused on pairs of postsecondary/secondary institutions with demonstrated success in dual credit enrollments and programming. The research that underlies this inquiry shows the range of student success possible within the dual credit framework, and on that footing, this study hopes to examine issues relating to the organizations themselves.

Due to the exploratory nature of this investigation, purposive sampling was used to identify the cases most likely to shed light on the underlying question, (Creswell, 2007; Merriam, 2009). It is logical to set the "boundary" (Miles & Huberman, 1994, p. 27) of the sample to include institutions that have a successful dual credit program. When seeking to explain why a given program is successful, selecting the cases in which success can be demonstrated is an accepted method of inquiry. While such cases may not provide a basis for generalization, they can be highly educational (Patton, 2002). The measurement of a successful program in this context is either a high percentage of students relative to size of student body enrolled as dual credit students, or a significant number of students enrolled in dual credit relative to other institutions.

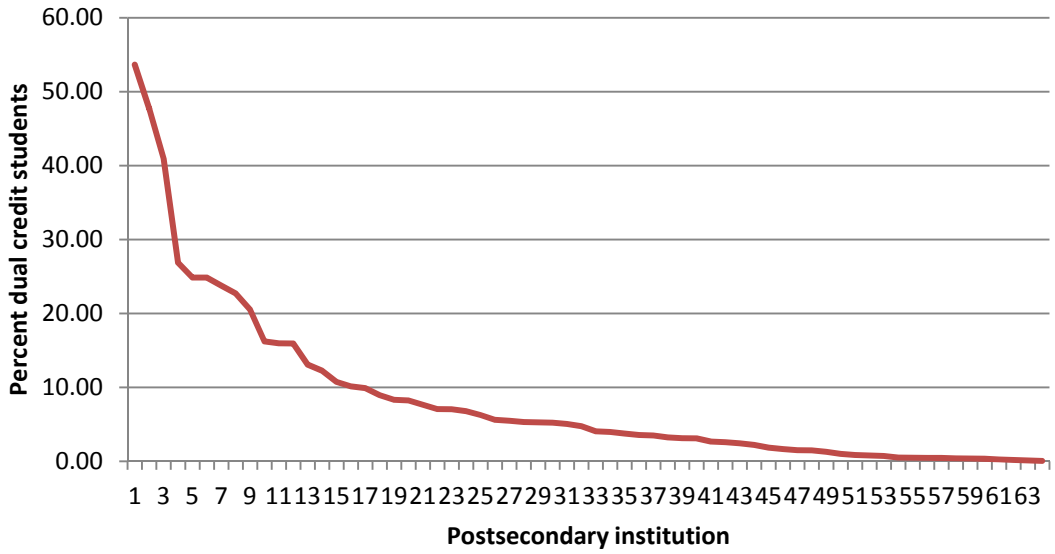
Within that boundary of successful programs, further guidance was gained by looking at other institutional factors. Patton describes purposive sampling for maximum variation as a way to capture "central themes that cut across a great deal of variation," (Patton, 2002, p. 235). Existing national research indicates that two-year postsecondary institutions are the destination for most of the dual credit programs (Hoffman et al.,

2009). As such, within the boundary of successful dual credit programs, the application of the "frame" (Miles & Huberman, 1994, p. 27) of organizational type provided more depth in the resulting data. It is reasonable to assume that institutions of different type, such as a four-year college, community college, or university, might approach dual credit programming with different methods, resources, and goals - identifying the patterns that cut across these differences may lead to a framework applicable to similar inquiries.

This study examined the dual credit programs for a single state in the United States. It became apparent that a small number of postsecondary institutions stood out with regard to raw participation numbers and percentage of student body participating in dual credit. According to the state's office of higher education, approximately 22,000 students participated in dual credit programs in 2009 (Donnel, 2010)[1]. The graph below highlights how a small group of institutions have a high rate of dual credit participation with respect to the size of the student body.

[1] The names of institutions and individuals in this study have been changed in order to provide confidentiality of those participating in the study.

Figure 3.3: Graph of percentage of dual credit students in relation to total enrollment.



Digging a little deeper into these numbers produced a list of the top ten institutional leaders by percentage of dual credit students.

Table 3.1: List of institutions with highest percentage of dual credit enrollment.

Leaders by percentage

Institution	**% dual credit students**
Agricultural University	53.65
Tribal College	47.72
R1-Branch Campus 1	40.94
Rural Two-Year College	26.87
Rural Two-Year College #7	24.86
Rural Two-Year College #5	24.85
Rural Two-Year College #2	23.78
Rural Two-Year College #4	22.71
Private College	20.53
Rural Two-Year College #6	16.21

A similar pattern appears when sorting the participation data based on student head count rather than percentage.

Figure 3.4: Graph of total number of dual credit students enrolled.

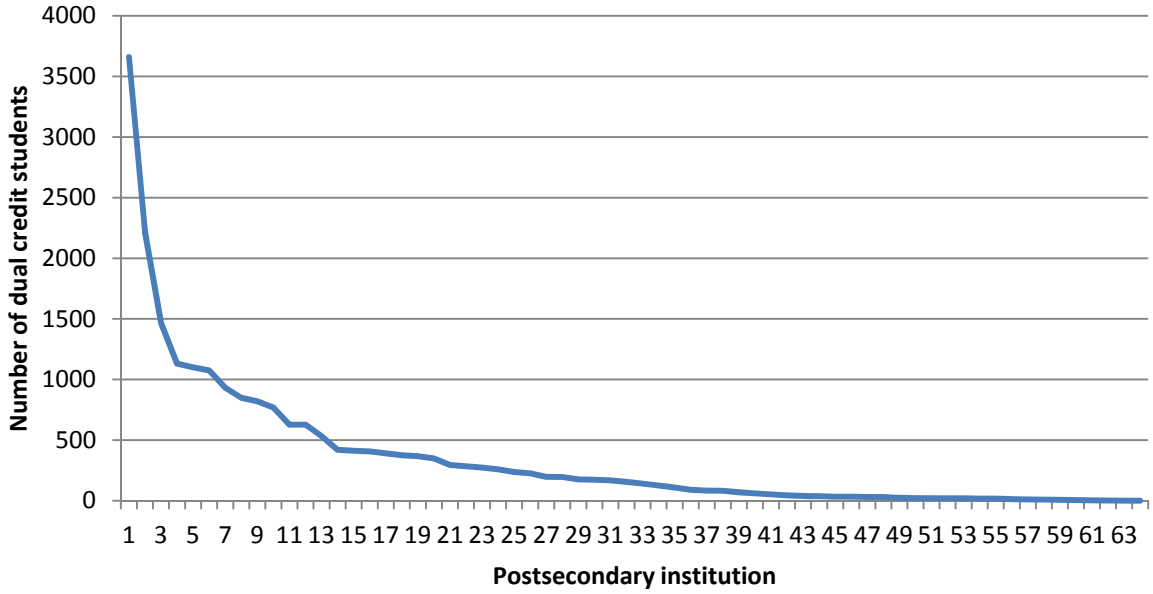


Table 3.2: List of institutions with highest numbers of dual credit participants.

*Leaders by raw enrollment**	
Agricultural University	3,700
Medium Size Urban University	2,200
Suburban Two-Year College	1,500
Rural Two-Year College	1,100
Tribal College	1,100
Rural Two-Year College #3	1,100
R-Branch Campus 1	900
Large Research Institution	800
R-Branch Campus 2	800
Suburban Two-Year College #2	800

*totals rounded to nearest hundred

In order to ensure variation with respect to institution type and along geographical lines, the combination of Agricultural University, Rural Two-Year College, and Suburban

Two-Year College stands out.[2] Agricultural University is a four-year institution located in a small city in a rural farming setting, Suburban Two-Year College is a two-year institution near a large urban center, and Rural Two-Year College is a two-year institution in a small city located in a rural vacation area. All three are the highest ranked in their respective categories with regard to participation rates for dual credit programs, and together they provide a diverse view of dual credit programs in the state. This sample also fits nicely with the pattern of dual credit attendance favoring two-year institutions.

The nature of an inter-organizational relationship requires at least a pair of organizations. Using the destination institutions as the starting point, the next step was identifying the most likely candidates for sending institutions. Each of the postsecondary institutions selected above identified one or more high schools as a significant source of participating dual credit students.

Table 3.3: List of institutions selected for study.

Postsecondary Institution	**Secondary Institution(s)**
Agricultural University	Agricultural High School
Rural Two-Year College	Rural High School 1 Rural High School 2
Suburban Two-Year College	Suburban High School Small Town High School

Within each institution, the sample was narrowed down to include personnel responsible for various aspects of the dual credit program in the high schools, typically including teachers, administrators, and counselors. At the postsecondary level, faculty, administrators, and admissions personnel were interviewed. A total of thirty-two

[2] Tribal College also has a very high dual credit participation rate, combined with a unique institutional setting. Multiple attempts were made to identify the secondary institutions paired with Tribal College, however the researcher was not successful in obtaining the required information from the institution.

interviews were conducted. In addition to the eight institutions above, persons at two additional high schools were included at the direction of interviewees. The two interviewees at additional sites are included as part of the referring institution (rather than their own) because in each case the referral was made to highlight a certain aspect of a given program at the referring institution. The final distribution of interviews and institutions is shown in the table below:

Table 3.4: Number of interviews per institution.

Postsecondary Institution (Interviewees)	**Secondary Institution (Interviewees)**
Agricultural University (5)	Agricultural High School (6)
Rural Two-Year College (5)	Rural High School 1 (2) Rural High School 2 (2)
Suburban Two-Year College (5)	Suburban High School 1 (4) Small Town High School (3)

Interviews broken down by institution and position are shown below:

Table 3.5: Titles of interviewees by institution.

Institution	**Interviewees**
Agricultural University	Dean, Dual Credit administrator, Professor A, Professor B, Counselor
Agricultural High School	Principal, Teacher A, Teacher B, Teacher C, Teacher D, Teacher E
Rural Two-Year College	President, Vice President, Dual Credit administrator A, Dual credit administrator B, Teacher A
Rural High School 1	Principal, Teacher
Rural High School 2	Counselor, Teacher
Suburban Two-Year College	Dual Credit administrator A, Dual Credit administrator B, Teacher A, Teacher B, Teacher C
Suburban High School	Counselor A, Counselor B, Teacher A, Teacher B
Small Town High School	Counselor, Teacher A, Teacher B, Teacher C

The interviewees were identified by their organizations as the people most likely to be able to discuss issues relating to dual credit programs. Each interview was conducted utilizing a similar format to reduce variability, and lasted approximately 40 to 70 minutes. In almost all cases, the interviewees were met at their institutions. In three cases, interviewees at postsecondary institutions indicated a preference for meeting off-campus which was accommodated.

Data Collection

This investigation is a collective case study (Creswell, 2007; Merriam, 2009). Because the interview subjects are professionals, it was necessary to make multiple trips to various institutions. The interview locations were clustered into three geographic areas, each identified by the postsecondary institution. For each cluster, multiple trips, sometimes lasting several days, were conducted and included interviews with key institution and program personnel, informal conversations, and observations of the campus environment. The primary data collection method was through interviews. Before conducting an interview, each interviewee was presented with a description of the project, and list of the basic interview topics. If acceptable to the interviewee, the interview was recorded and the recordings were held in a confidential manner. Additionally, the researcher kept a journal of observations and reflections. Publicly available information was collected and analyzed, including: participation information, documents describing the history and mission of each institution, course catalog and

program brochures, marketing materials, and information discussing advising and counseling resources.

Instrumentation

The primary instrument for the study was an interview protocol available in Appendix A. The content of the interview was driven by the theoretical framework described above. Using the framework as the guide, the overall goal was to have participants describe the nature of the organizational interaction. Specific closed questions were used to obtain baseline data about the respective institutions, including information about:

- program resources and staff
- organizational structure

As often as possible, questions were open-ended and used to explore the inter-organizational relationships that have developed around dual credit programs. Topical areas explored included:

- integration with counseling resources,
- communication about dual credit program between institutions,
- the use of dual credit as an advanced placement or as a bridge program,
- how 'embedded' the dual credit program is within the broader institution,
- the level of bureaucratic support present, and
- how dual credit programs fit with the history and mission of the institution.

Data Analysis

Transcriptions of interviews were analyzed, coded and categorized (Miles & Huberman, 1994) according to their fit with the theoretical framework. Transcription, coding and analysis was ongoing throughout the course of the research. In order to provide a deeper understanding of the phenomena (Miles & Huberman, 1994), both within-case and cross-case analysis were completed. Triangulation of data was accomplished by comparing the interviews, documents, and observations.

Role of Researcher

The involvement of the researcher was primarily composed of interviewing and archival research. The researcher does not work in any of the subject institutions and has no personal relationship with any of the subjects. Because of the nature of qualitative research, the researcher brings personal perceptions and biases (Creswell, 2007). Although every attempt has been made to minimize the influence of bias, it is nonetheless important to acknowledge.

It is relevant to note that the researcher is an administrator in a small high school in the Midwest, and leads the dual credit program in that school. The researcher is responsible for developing and maintaining institution-level relationships between his organization and various postsecondary institutions. A high percentage of the students in his high school are members of populations not traditionally bound for postsecondary settings. The motivation for this project is partly driven by experiences working to find

settings for students to be successful in a postsecondary setting. None of the schools in this study are related to the researcher's employment.

Chapter 4: Results

In this chapter I first provide a general description of each cluster of institutions. All institutions in the study are either public postsecondary institutions or public high schools, and all have multiple forms of dual credit programs. Second, I discuss how early observations about the nature of the inter-institutional relationships, specifically the idea of institutional pairs, affected the subsequent analysis. Lastly, I present the results organized according to conceptual framework outlined in Chapters 2 and 3 - leaving the discussion of the relationship of the results to the theoretical framework and existing research to Chapter 5.

Program Overview

Dual credit programming is available in this state to juniors and seniors in high school. Postsecondary institutions sometimes place further restrictions on enrollment, but once enrolled, the postsecondary coursework is free to the student. The cost is allocated to the institutions through various statutory provisions, and typically varies based on the location of the class. Under the terms of the state program, a college class can be taught on-site at a high school, by a qualified high school teacher, under the supervision of a college instructor through an agreement between the institutions, hereinafter referred to as the High School Centric (HSC) model. In this model, the high school would pay a negotiated fee to the postsecondary institution. If a high school student attends a college class on a college campus, the state takes a pre-set amount of funding from the high school and allocates it to the college; such an approach is referred to here as the College

Centric (CC) model. These two models are both considered dual credit, as the student receives both credit towards high school graduation and a transcript from the postsecondary institution upon completion of the course. From the student perspective, both CC and HSC model courses are free and provide a jump-start on earning college credit. As explored more fully below, the inter-organizational relationships that develop as a result of the dual credit courses tend to differ based on which model is driving the relationship.

Institutional Descriptions

There are three clusters of institutions in this study, each is centered on a postsecondary institution. All high schools in this study offered both CC model and HSC model dual credit programs. All three postsecondary institutions were both destinations for CC model coursework, and providers of content and mentoring for HSC model coursework.

Agricultural University cluster.

Agricultural University.

Agricultural University (AgU) is a public university in a small, rural town, several hours drive from the nearest major metropolitan center. The town is home to about 12,000 people, and several larger companies. The companies provide a source of economic stability that is not present in other towns of similar size in the area. The university is home to 3,500 undergraduate and graduate students, and serves another

4,500 high school students in dual credit courses. The school is primarily an undergraduate institution, with several graduate program offerings at the Masters level. They have a well-developed dual credit program. The nearby high school, Agricultural High School, is located across the street from AgU, and the students are able to walk or bike along a path connecting the two institutions. AgU works with over 100 different high schools in the state to provide HSC model dual credit programs. AgU also is the destination for CC model courses for many of the smaller nearby high schools, notably Agricultural High School. The vast majority of the dual credit offerings at AgU utilize the HSC model.

The school is located on one side of the town, and provides a focal point for community activities. Because AgU is home to one of the few facilities large enough to hold a significant number of people, it is used by the community for events. The campus itself is very integrated into the surrounding town, and accessible by foot, bike, or car. The city streets transition from residential area on one side of the campus and a commercial area on the other side, directly into campus without any gate or significant physical separation. Agricultural High School can be found along a third side of the institution.

Agricultural High School.

Agricultural High School (AHS) is located on the outside edge of the AgU campus, just on the other side of a busy boundary road from most of the town and AgU. The AHS facility is relatively new, and very impressive. Inside the main building visitors

are greeted with open spaces filled with natural light, calm colors, and a clear path to the main office. AHS has extensive facilities for agricultural, industrial, performing arts, and a campus that would be the envy of many students and staff in education. The quality of the campus facility obscures a shrinking budget; large companies with significant local ties have provided funding for much of the facility. At the state level, as with all institutions in this study, AHS has seen funding decrease in the recent past.

AHS has about 800 students. Of those 800, about 150 participate in some type of dual credit program. Over the past several years, the school has seen a decrease in CC model courses and an increase in HSC model courses, leading to approximately 5-10% of the dual credit courses offered under the CC model, and the remainder being offered on-site at AHS. All of the CC model courses were completed through AgU. The HSC model courses are offered through four different postsecondary institutions, with the majority of their HSC offerings through AgU.

Suburban Two-Year College cluster.

Suburban Two-Year College.

Suburban Two-Year College (STYC) is a large institution with a main campus located on the outskirts of a large metropolitan area. The second campus is located about 30 miles away from the metropolitan area in a small town with a population of about 10,000. The total student enrollment is around 12,000 students, with the majority of students attending the suburban campus, and about fifteen percent of the enrollment consists of high school students participating in dual credit courses. The school was

founded in the late 1960s as a vocational college administered by a local secondary school district, and was reorganized about 30 years ago as part of a larger statewide postsecondary network of institutions. The mission of the school includes providing an open-door opportunity for a comprehensive postsecondary education and to react to the needs of the surrounding community.

STYC has the same type of dual credit programs as AgU, offering both CC and HSC model classes. Unlike AgU, STYC's dual credit offerings mostly utilize the CC model, with students from nearby high schools coming to STYC's campus. Almost 15% of the enrollment at STYC consists of dual credit participants.

The main campus is a sprawling collection of buildings and parking lots, located down the street from Suburban High School. There is not a clear main entrance or focal point to bring people into the campus. There is a constant flow of student cars coming and going from campus.

Small Town High School.

Small Town High School (STHS) is located about an hour away from STYC, located in a small district that has seen declining enrollment over the past several years. About 1,000 students attend STHS. Prominently featured on the school's website is a description of their ability to provide a wide range of educational experiences, including various dual credit opportunities. Small Town itself is a shrinking community on the distant edge of a large metropolitan area. Budget concerns occupy much of the discussion at STHS, as enrollment declines and the infrastructure remains in place.

Suburban High School.

Suburban High School (SHS) is one of many high schools in a large district on the edge of a large metropolitan area. With about 2500 students in SHS, and several tens of thousands in the district, SHS has a diverse student body and wide range of academic needs and offerings. The facility itself is an older, grey concrete structure that might easily be mistaken for some type of industrial facility. Concern for security is apparent upon entering; along with the expected trip to the office for sign-in, there is a uniformed security officer posted at the door.

Rural Two-Year College cluster.

Rural Two-Year College.

Rural Two-Year College (RTYC) is located in town of about 15,000 people, in an area known for outdoor recreation. RTYC was created by merging a technical college and a community college. The technical college was originally part of the local school district, and focused on supporting students as they transitioned to employment. In addition to workforce preparation, the community college also had a transfer program for students moving to four-year institutions. RTYC currently enrolls about 6,000 students, approximately 25 percent of whom are high school students participating in dual credit courses.

Rural High School 1.

Rural High School 1 (RHS1) is located about 30 miles from RTYC in a town of about 1,200 people. RHS1 has about 500 students drawn from the small towns in the area. Various educational buildings are scattered throughout one half of the town; the middle school is a few blocks away, the district offices, and high school, as well as the elementary school, are all within walking distance and in a largely residential area. The town is a very small community with agricultural roots, and is also the main shopping and service area for several even smaller surrounding communities. The school is an older building that appears to have undergone an expansion. Halls are decorated in student work, and there is a very welcoming feel to the office.

Rural High School 2.

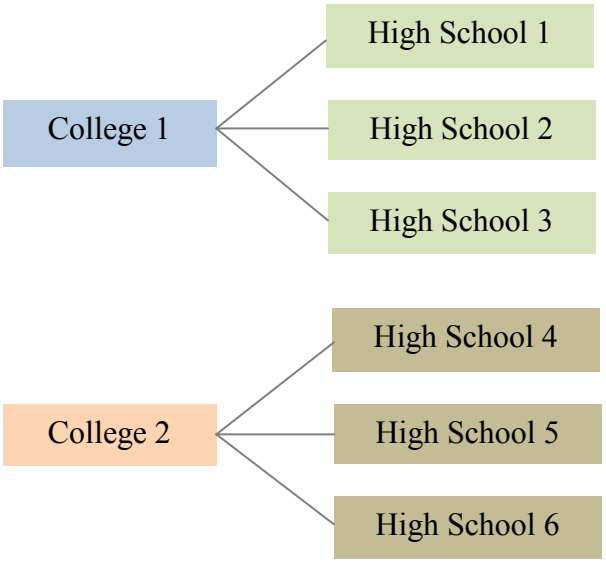
Rural High School 2 (RHS2) is an hour drive from RTYC in a slightly larger town of about 3,500 people. About 350 students attend this very modern high school situated on the outskirts of town. As with RHS1, the students of RHS2 come from the surrounding area. RHS2's campus and facilities were significant in both their recent design and construction and welcoming feeling. There appears to be significant community support for maintaining RHS2 as a focal point for the community.

Idea of Institutional Pairs

This research began with a focus on institutional pairs, where a given pair would include a secondary and postsecondary institution. This focus seemed appropriate

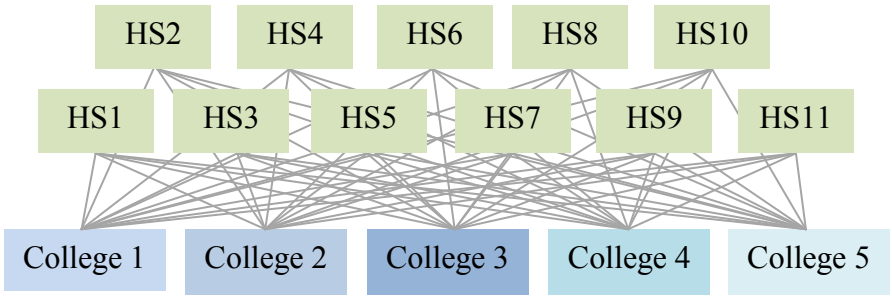
because each high school and its partner are obligated to develop an understanding of how they will share students involved in dual credit work. As the research progressed, however, it became apparent that while this is a very useful *conceptual* tool, it does not completely portray the relationships that tend to develop. Using the idea of pairs does highlight critical issues including communication, type of bureaucracy, curriculum linkages, but it is important to note that as this investigation continued, it also became useful to think of the postsecondary institutions as the center-points in a web of interconnecting relationships. The original idea of pairs could be depicted as shown below:

Figure 4.1: Hypothesized pair relationships.



The relationships that were discovered would be better depicted by the diagram below:

Figure 4.2: Actual pair relationships.



The implementation of these various dual credit programs involved more complex relationships than implied by the term 'pair.' The various institutions made key decisions directly as a result of interacting with *more than one* other institution. In addition to postsecondary institutions working with multiple high schools, a single high school might also choose to work with several postsecondary institutions, creating a different program with each one. The notion of competition, explored more fully below, put a number of these institutions into interesting relationships with each other.

Aspects of the Inter-Institutional Relationships

The initial research question sought to explore the following areas in hopes of describing the relationships that can arise between a high school and postsecondary institution:

- Extent to which dual credit pathway is available
- Existence of enabling bureaucracy
- Connection between dual credit and mission
- Role of organizational history

- Role of developmental coursework
- Connections between curricula
- Counseling and support services
- View of organizational leaders
- Extent of embeddedness
- Presence of supportive feedback loops

In addition to the above topics, several additional powerful themes emerged during the course of the research:

- Competition
- Financing
- Community

Of the original ten topics, eight provided some insight into how two organizations could interact through a dual credit program. As will be further explained, the roles of developmental coursework and organizational history did not provide significant insight into how these organizations worked together. As this research developed, natural groupings among the topics came to light. Curriculum and feedback loops are best explained together. The organizational history, influence of organizational mission and the role of the organizational leaders were similarly intertwined. The enabling nature of the bureaucracy fits nicely with the level of embeddedness of the dual credit program. The additional three topics that became apparent during the study proved to be very powerful. Competition, finance, and community seemed to play a role at almost every

turn and in every institution, albeit not always the same role. The resulting list of topics therefore transformed into the following:

- Availability of Dual credit Pathway
- Curriculum and Feedback Loops
- Enabling Bureaucracy and Embedded Nature of Program
- Mission and Leadership
- Counseling and Support
- Competition
- Finance
- Community

Within each content area listed above, the results of the research will be discussed in relation to broad themes that emerged, as well as interesting variations at the institutional level.

Significant and Non-significant Factors from the Original Framework

Two factors did not emerge as relevant in the interviews: developmental coursework and organizational history. The state law providing payment for dual credit coursework does not allow for developmental coursework, as that would essentially be high school level work. This prohibition removes the colleges from directly being involved in the developmental education process for students who have not graduated from high school and places the high schools in the position of having to create the curriculum linkages between the developmental coursework and dual credit

opportunities.[3] As a result, any discussion about academic preparation for dual credit leads to discussing how curriculum is structured in the high schools. I anticipated that developmental coursework would be an issue that emerged as part of the negotiation of the dual credit work, but it did not come into play when looking at the relationship between a high school and postsecondary institution. Likewise, organizational history, while extremely interesting in each case, did not have any connection to the various dual credit programs offered in or by the institutions in this study. Any difference in approach to the programs is better explained using one of the other factors discussed below.

Availability of Dual Credit Pathway

Broad themes.

The state law creating the funding for these programs allows for the participation of any junior or senior in high school. Every institution viewed some part of their dual credit offerings as a way to provide academically challenging coursework. When this researcher first contacted each high school about their dual credit programs, without fail, the high schools started describing the parts of their program that allowed the high-achieving students to earn college credit. Questions about the type of student that might best fit into a dual credit program included responses such as: "very high flying, high achieving students," [high school teacher][4]; "… you weed kids out at that meeting that

[3] Postsecondary institutions are allowed and do provide developmental course work for students who have graduated from high school and are not yet academically prepared for postsecondary requirements - such courses do not accrue postsecondary credit.

[4] Throughout this paper, interviewees are identified by position. This convention was chosen because it provides the information relevant to this inquiry while maintaining as much confidentiality as possible. If needed, their relationship to a given institution may also be indicated.

don't meet the requirements," [high school counselor]; "…they have to hit the line running. They have to be ready to take on that rigor and know what they are getting themselves into," [high school teacher]. "I use the term best and brightest often…" [high school counselor]. All eight institutions offered dual credit courses that would be considered academically advanced.

However, after the discussions progressed, it became apparent that in each high school, there were multiple programs and pathways for students to earn postsecondary credit. When prompted to describe offerings for students other than traditional high-performing students, each of the high schools also had career-track dual credit programs. Typically, the high schools would partner with one postsecondary institution for the higher level academic subjects such as math, language, and science, while working with a second postsecondary institution for a career-track program in areas like nursing, health science, or law enforcement.

High schools.

Each institution in this study approached the idea of dual credit programs with their own needs and goals, leading to interesting variation at the institutional level. Although the specific course offerings varied, each high school offered some HSC model coursework in the core academic areas of mathematics, science, and language arts, and provided support for students seeking CC model coursework. Beyond those core pathways, several institutions have developed interesting ways of using dual credit to reach a wide range of students.

Suburban High School.

SHS stood apart from the other four high schools with regard to availability of dual credit pathways. Dual credit opportunities were available and integrated under both CC model and HSC model courses, and for a wide range of content and skill. In addition to the traditional dual credit offerings described above, there is a district level program specifically designed to provide dual credit opportunities for students interested in careers rather than four-year programs after high school.

SHS's career-track program (SHSP) is contained in a building on campus at a postsecondary institution (not one that was part of this study), and students from any of the district high schools can choose to attend for any portion of the classes during the day as they choose. The district then takes care of the transportation between the high schools and the program. This program, in many respects, is very much like a complete high school, with a building, campus, administration, and teachers. In other ways, it is like a college with open areas, no hall passes, and the ability to come and go freely from campus. SHSP is open to juniors and seniors, and over 1,000 participate each year from across the district. The courses which make up the SHSP program are a collection of high school courses, dual credit HSC model courses, and courses offered based on a separate agreement with a postsecondary institution; some courses in the program provide only high school credit, some provide transferrable postsecondary credit, and some provide credit at only the partner postsecondary institution.

Students at SHS worked with their counselor to determine the best mix of coursework, including CC model, HSC model, and SHSP program offerings. Although probably not likely during a given term, it was very possible that a student could take a mix of all three course types, in addition to the traditional high school course offerings throughout the course of their time at SHS.

Additionally, SHS has a very integrated approach to CC model courses. Counselors are able to explain very clearly how any number of courses available at STYC fit into the high school curriculum and have devised comprehensive materials for the purpose of aiding students with these choices. The HSC courses are offered in connection with two postsecondary institutions that were not a part of this study. Overall, students at SHS had a very broad range of dual credit classes available in connection with at least four other institutions, for students with a variety of interests and skill levels.

Rural High Schools 1 & 2, Small Town High School.

RHS1, RHS2, and STHS have relatively similar approaches to dual credit programming with respect to the availability. All three favor the HSC model approach, and the majority of their offerings utilize that model. Most of the dual credit options have an academic requirement that is the primary limitation on participation in the program. Under this approach, the dual credit tends to merge with an honors or advanced placement track in the curriculum.

For these three high schools, the programs that are not targeted to the academically advanced students are offered through the use of an interactive video

connection. This is a form of HSC model course in that it is offered on-site with respect to the students, yet the college instructor remains on the college campus, as would be the case under the CC model course. The video link approach is used to provide programming for certain medical career track courses. Through a postsecondary institution that was not part of this study all three schools are able to have courses taught by an instructor on-site at a postsecondary institution, with students participating from their home high schools.

Agricultural High School.

AHS has students participating in CC model courses at nearby AgU. Additionally, AHS is working to expand their HSC offerings. Several years ago the leadership at the school began to strongly support the HSC model courses, and now they are partners with at least four different postsecondary institutions for a variety of courses. Their offerings include the HSC and CC model classes for academically advanced students, and a growing business internship program designed to provide hands-on experience with one of the local businesses while earning both high school and college credit. All persons interviewed at AHS appeared dedicated to finding ways to expand dual credit options in terms of both content and students.

Postsecondary institutions.

The availability of dual credit pathways is not as enlightening when looking at a postsecondary institution. The decision to participate is made by a high school student,

and the implementation of the pathway in large part takes place under the influence of high school personnel. The role of postsecondary institutions is primarily that of a provider, and because all of the institutions in this study were selected based on providing a large amount of dual credit programming, examining the availability of the pathway does little to describe what is taking place at AgU, STYC, and RTYC.

Agricultural University.

With that qualification, some differences in pathways were apparent among the three institutions. AgU is focused on offering an extensive catalog of upper level academic coursework through the HSC model. In terms of dual credit pathway, they have chosen to specialize in this type of delivery and course content. AgU is also a destination for CC model coursework, but because of their geographic location, the number of students using AgU for CC model courses is relatively few (approximately 50 students a year under the CC model and several thousand through the HSC model). To participate in the offerings at AgU students must be in the top third of the junior class or top half of their senior class. The combination of the class rank requirement with the type of courses offered has positioned AgU as a provider of dual credit options for students seeking to continue on to a four-year degree or further.

Suburban Two-Year College.

STYC's approach to dual credit is in some respects the reverse of AgU. Several thousand students per year go through their CC model courses, while several hundred

participate in their HSC offerings. STYC is actively working to grow their HSC model course offerings and working with schools in the smaller communities farther from the metropolitan area, but partially because of their location to SHS and other suburban schools, CC model courses dominate. In spite of the differences in delivery, STYC and AgU are both aiming their offerings at the high-performing students. STYC shares the same class rank cutoff as AgU most of the courses students take are chosen to support the eventual earning of a four year degree.

Rural Two-Year College.

Only RTYC was actively trying to offer both academic and career track programming through HSC model dual credit programs (STYC's career-centric offerings were largely in a stand-alone program not considered part of either the HSC or CC model programs). RTYC does offer classes for the academically advanced, under both HSC and CC model programs, but they also have a considerable range of programs aimed at students who will not be pursuing a four year degree. RTYC's approach to dual credit programming is not focused as much on the type of course, but instead on the connection to the high school itself. In contrast to AgU and STYC, both of which are actively focused on the academic piece as the driver, RTYC is using the school-to-school relationship as the driver to determine what is needed in the academic area."I want the schools in the area to look to us… as part of their system," [college administrator]. Another administrator at RTYC stated, "[Our president] is really big on what can we do to help our community stay solid, and to help our schools in our communities grow. And

so yes, he would like to see us grow, but at the same time, if these small schools shut down in your area, where are you going to get your college kids from?" [college administrator]. This approach tends to create relationships that extend deep into the organizations. Precisely because RTYC uses the community needs to drive the dual credit program, RTYC has developed a wider range of programs, including both the upper-level math, science, and language in addition to the career-track programs. This links directly to the topic of curriculum and feedback loops - and as discussed below, RTYC is again unique in their approach.

Curriculum and Feedback Loops

Curriculum and feedback loops were considered separate factors during the design of this study. During the data collection, it became very clear that with respect to inter-organizational relationships, the implementation of an HSC model course *is* a feedback loop.

Creation of an HSC model course.

There is a significant distinction in the way the two models of dual credit are dealt with by the high schools with regard to curriculum, and there was little variation among the schools in this study. The HSC model courses are jointly developed between the high school teacher and the postsecondary instructor. The CC model courses are simply normal postsecondary courses with a high school student enrolled, and have no effect on overall curriculum design. During the course of an HSC model class, there is ongoing

communication between the high school teacher and postsecondary instructor. When a high school wants to offer an HSC model class, there is a dialogue involving administrators in both institutions. As described by one postsecondary instructor:

> We get to learn by going out [to the high school]... I think we are going to hold to our same standards, but it does give us a better understanding of the preparation, because when students come into our classes, we are expecting more than they actually had in high school... I have been more cognizant of that, that these students are not necessarily as well prepared as we thought they were...

Stated simply, HSC model courses force the discussions and changes needed to implement curriculum alignment.

At AgU, one professor described the effect of working with a high school as follows: "I was a little surprised… I didn't know as much about what was going on in the schools." This realization led to internal discussions about course content and skill testing at the postsecondary level. In more than one instance, the postsecondary instructor was less experienced than the high school teacher, leading to some interesting dynamics. "…[The course development process] was a little intimidating, because I felt like my high school teacher that I was mentoring was probably more knowledgeable than I was," [college instructor]. As this relationship developed between the teacher and instructor, a comfort level was reached, allowing curriculum and methods to flow in both directions. When discussing the connection between the teacher and instructor, a college instructor later said:

> I am just here to be that kind of connection between the two [institutions], and we can chat about things, because honestly, I learn just as much from her as they do from me. They do different things, I've borrowed and stolen from what they do.

Another high school teacher relayed a story about developing a science course, describing how much his postsecondary faculty mentor was able to rely on graduate student assistants, and the effect that had on the content of the course. According to the high school teachers, in all cases, the inter-institutional discussions surrounding curriculum development helped create courses which they felt eased matriculation for the students.

Initiating the connections between institutions.

The structure of an HSC model dual credit course is such that either institution can be the starting point; a high school can have a specific need in mind and seek out a partner to help fill it, or a postsecondary institution can offer schools a particular class or service. In this study, both type of initiations were found. At Suburban High School, a dedicated science faculty actively created their course and shopped for a postsecondary partner, and at RTYC the administration is very active in reaching out to the local high schools.

Science class at Suburban High School.

An example of the role of the high school in curriculum alignment can be found at SHS. A teacher had a course design in mind, sought out a compatible institution, and

through working with the institution, ended up changing the design of the course. He wanted to offer a specific science course to replace the honors course in the high school. The existing curriculum in the high school used Advanced Placement curriculum for the honors course, and there was some dissatisfaction with the significance of the final test. There was a group of science teachers in this school who felt that a more rigorous science course without the high-stakes test at the end would be a better fit for their honors-level course. To that end, they decided that an HSC model dual credit course was their best option, and began the process of outlining what they hoped to see in the curriculum. As this progressed, they needed to find a postsecondary institution to partner with and provide the oversight, support, and credit.

He approached a nearby postsecondary institution (not one included in this study) with the type of course he was interested in teaching, and was turned down. He then went to another postsecondary institution (also not part of this study) that was open to the course. After offering the course for a year, and discussion with the students and postsecondary institution, the curriculum was changed to reflect the needs of the students and the requirements of both institutions. This process of inter-institutional discussion and negotiation regarding course content creates courses that bridge directly from high school to postsecondary settings.

From the college to the community.

Rural Two-Year College is often the initiator of the relationships that underlie the dual credit courses. Years ago, under different leadership at RTYC, all dual credit courses

were discontinued. High schools in the area that were working with RTYC at the time were left trying to either find new partners, or drop their dual credit classes. Once the current administration took over, they began repairing the relationships with the local districts, beginning with the re-establishment of HSC model programming. "[RTYC] got out of [dual credit], it was a stupid horrible marketing mistake, and when [the president] came on board, it really took off again, and he went and said why is [far away college] offering courses in [nearby small town]?" [college administrator]. An administrator at RTYC described it as follows,

> RTYC was in [dual credit] ten years ago, and a change in administration, this past admin came in and said we are not doing that anymore. Then [current president] came in... we had this institutional memory out there with the high schools saying RTYC left us high and dry, and we already did this once and had to scramble, so they were really wary of us. We came in and said we are going to do this, and they asked for how long. We kind of had some bumps for the first couple years.

From this starting point, RTYC began to re-enter the dual credit arena, and did so by working with the districts nearest their campus. They relied on personal relationships to restart the discussions between institutions. One staff person at RTYC was describing the stages involved with one district:

> [I am] working on [district X] right now... They are starting to take more courses, and getting rid of their 1950s principal, I love the guy, he is one of my best friends, but he is in the 1950s and been doing the [dual credit] through [another

> postsecondary institution], and the next new principal will get [dual credit] through [RTYC].

Another staff person at RTYC also described the role of personal connections when creating the partnerships underlying HSC model programming, "They had me there, long term experience with the program, I knew the players, I knew the superintendents, and have worked with them, so I was able to reintroduce the programs and convince the schools to come back to [RTYC]." Long term professional and personal relationships combined with a desire to work with the schools nearby RTYC were a powerful combination. RTYC has essentially met their goal of working with all but "two or three or four" [college administrator] schools in their immediate region.

Enabling Bureaucracy and Embedded Nature of Program

The role of the bureaucracy is probably where HSC and CC model programs diverge the most. Four out of five of the secondary institutions are largely organized in ways that do not support CC model dual credit programs (the approach taken by the fifth high school is discussed below) while providing support to the HSC model programs. At the postsecondary level, the approaches were unique to each institution. Below is a section describing the approaches found in the high schools, followed by a section discussing the issues from the postsecondary perspective.

High schools.

In all but one of the secondary schools, there is an institutional level dislike of CC model courses. This dislike is rooted in a variety of factors, including competition and finance, both of which are explored further below. Briefly, under the CC model, the high schools feel like they are losing their best students and a portion of their funding to the postsecondary institutions. In addition, there is a practical aspect to implementation of a CC model course that creates administrative burdens for the secondary institution. When a student needs to be in one institution for part of the day, and another physically separate institution for the remainder, issues such as class period length, transportation, and length of academic term come into play. All of the postsecondary institutions in this study utilize semesters, while all of the high schools use trimesters. Sorting out these details has led the high schools to create various forms and timelines and meetings between counselors, parents, and students. Taken as a whole, these requirements are effective in reducing CC model participation.

In every high school, personnel were clear to point out that students were able to choose which model they desired, and then often cautioned about the difficulties of the CC model. In four out of the five high schools, the collections of pre-participation requirements are presented as significant hurdles. At AHS, an administrator personally meets with students and parents to describe the benefits of HSC model when compared to the CC model approach:

> I meet with everyone that wants to go [CC model] and their parents, it's a required meeting, and I say as a parent, do you want to know where your kid is at,

> in class, 5 days a week for 90 minutes, 450 minutes a week for freshman English, under the direct supervision of a teacher? or 150 minutes, 3 days a week for 50 minutes? Same college credit.

This message was clearly repeated by others in the school. A high school counselor explained his reasoning for favoring HSC model programs over CC model programs:

> I've gotten negative comments from parents that I don't promote [CC model] enough, frankly, and that I speak the evils of it more than I do the benefits, and take a little bit of heat for that, but I say well, tell me why I would… I give all the information, I support kids that want to go, I never put any roadblocks, but if you are signing up for college, it's your leadership role, not mine, to get into the program.

At STHS the counselor presented an equally clear position, "… it hurts us when we lose our kids to postsecondary [CC model courses], and we the staff, like to keep those kids here in the building because of what they can add as a model, basically for the others." An administrator of RHS1 stated that, "… they should be in high school. If they go [CC model], they miss out on high school, and they have the rest of their life to be a college student."[5] A high school counselor stated, "We have two options, we can either say we can't offer any and here's the [CC model] course and we'll tell you when graduation is, see ya later, or bring those classes in." Keeping the students physically in the high schools was also favored by two of the postsecondary institutions, RTYC and AgU. "It's nice to keep them there, and of course, we are hoping that they are successful and become

[5] This comment was particularly notable in the context of dual credit courses reducing the amount of time needed for a postsecondary credential.

college ready and then come to us," [college administrator]; and "… if you had a community college down the road, all the juniors and seniors take their funding and the schools were losing their top students too, the people on the basketball, debate and choir, the top students were just going down the road," [college instructor].

The institutional-level dislike of CC model courses found footing in the processes created by the school personnel. In several schools, students interested in CC model courses must meet with advisory personnel by a specified deadline considerably before any deadline required by the postsecondary institution, before they are allowed to participate in the course. "I fill out the checklist, and actually have them sign off on a form, nothing official, but it says they are aware that their son or daughter is going to an adult program and that it is their responsibility to get information about things, especially for seniors," [high school counselor]. The purpose of these meetings is to describe how the program works - which consists of presenting a list of timelines, requirements, and potential pitfalls. The overall result of the institutional approaches in all high schools other than SHS is that of a hindering bureaucratic structure.

This is in contrast to the active engagement of high school faculty and administration in promoting HSC model courses. Teachers actively recruit students, "I shamelessly recruit, including tap-dancing, singing, we don't have anybody that is territorial, and I go into other classes and do a presentation," [high school teacher]. In all high schools, the HSC model courses are listed alongside the traditional high school courses in the various catalogs and schedules. The high school teachers at all institutions were proud of how they had started with relatively small groups of students, and over the

course of several years grown their HSC model courses and fine-tuned the curriculum. One high school teacher compared the two models succinctly:

> We explain very carefully the options, if you want college credit, here are your three best options, [CC model, HSC model,] or Advanced Placement, and we usually say, with [CC model] you are a university student, end of story. With [HSC model] you get the same credit, same course, and stay in the high school environment and get almost triple the instructor time.

Suburban High School.

The notable exception to the above described theme was found at SHS. SHS is the only high school in which no personnel expressed a negative view of CC model courses. About ten percent of the entire student body at SHS participates in traditional upper-level academic CC model dual credit courses - a significantly higher number of students than in any other school in this study. School counselors are typically the point of contact at the high schools for students in CC model courses. Students are provided with information indicating which CC model courses meet the various high school graduation requirements, and assisted in the potentially complex process of scheduling classes in two institutions with very different calendars. As much as possible within the bounds of the various external privacy regulations regarding student data, the counselors at SHS work to stay abreast of student progress in the CC model courses. There is a clear impression that the student drives the choice between CC model and HSC model courses, with input from the counselor - in contrast to the other high schools which tended to frame the

opportunities as a choice between the HSC model offerings or being left to their own devices.

Postsecondary approaches to CC and HSC model offerings.

The three postsecondary institutions in this study were at different 'places' with regard to their dual credit bureaucratic structures. RTYC and AgU have both been offering HSC model courses for many years, while STYC has just begun to focus on HSC model courses. All three institutions have a long history with CC model students and offerings. Generally speaking, there is little or no institutional dislike of either model - the postsecondary institutions seem to support both programs without the same tension between the models present in the high schools.

Agricultural University and Suburban Two Year College.

Both AgU and STYC are approaching this issue in a similar manner: there is an institutional desire to see a given program succeed or grow, and resources in the form of staff positions and structures are allocated to support that goal. AgU has been providing dual credit under both models for several decades - both programs are well-established. CC model students are dealt with in largely the same way as other incoming freshman, using the traditional points of contact including admissions counselors and other support services. Partially because of their location, away from any large urban center, their HSC model courses have been more significant in terms of participation. There is also a desire on the part of the administration to grow the HSC model programming. As such, the

school has created an administrative structure to support HSC model programming that is separate from the way CC model students interact with the institution.

STYC has long been a destination for CC model programming, and has only recently decided to increase their focus on HSC model courses. They have created a new administrative structure to support their HSC model courses apart from that which supports their CC model classes. There is the sense in both institutions HSC model programs can be significant, and should be supported. Additionally, at STYC, CC model participants exist in large enough numbers to justify additional administrative positions. In both STYC and AgU, it appears that the administration examines the importance of a program, including participation numbers, and then devotes resources accordingly.

Rural Two Year College.

With regard to an enabling bureaucracy, RTYC stands apart in this study. Instead of looking at a given program and determining need, RTYC was very clear in first wanting to connect with their area high schools, and then determining how to allocate the resources to best accomplish that. Rather than structuring the program and then describing it to their high schools, RTYC administration designs the program to fit the request of their high schools. This was most clearly evident in the structure of the staffing for the dual credit programs. When RTYC began to significantly increase their dual credit offerings, the support for the program fell to several people within the institution. This proved problematic, as it did not focus enough on the needs of the high schools, leading the administration at RTYC to:

> [make] some changes in staffing, that sort of thing. You must provide the service and have one place for [the high schools] to go when they have a problem. We tried that the first year with two or three deans, each managing their own area. Well one would do this, and the other that, and the people at the high school would wonder which answer is right, I have two different answers from the same institution. So we had to clean that up a lot. [College administrator].

To alleviate this communication issue, the high schools working with RTYC now have a single administrator as their point of contact. This administrator is able to provide answers to high schools, and oversees both HSC and CC model courses. In the role as the focal point for dual credit, this administrator shared a similar description of the situation: "as we have grown, we need to have just a couple people that are the main players, and other departments help us, but we are the main players." This role within the institution then sorts out the various issues for students doing both CC model and HSC model courses.

This is in line with the overall approach at RTYC to first connect with the schools, and then second, to use the various programs in support of that connection. RTYC's approach to dual credit blurs the lines between CC and HSC model courses. RTYC's bureaucratic approach is defined by three key factors:

- Academic credentialing of HSC model teachers
- Geographic limitation of partner high schools
- Extensive use of video conferencing

When implementing an HSC model course, the requirement that the high school teacher have academic credentials equivalent to those required by their partner postsecondary institution can be difficult to satisfy. This requirement alone drives what course offerings are found at most high schools. Additionally, RTYC will only provide HSC model courses to schools that are located near their campus. The video conference capability extends to area high schools, allowing any of the various institutions to be either a host or a participant in any class. While none of these issues is particularly unique, the application of all three to the issue of dual credit delivery has led to a unique approach to the creation and dissemination of their HSC model courses.

The best way to convey how RTYC approaches dual credit offerings is to describe two different classroom settings, one on campus and one in a partner high school, for a hypothetical English 101 course. In the on-campus setting, there may be twenty students. Of those twenty, ten are traditional postsecondary students who are no longer in high school, six are CC model participants from a local high school, and the remaining four are HSC model participants sitting in a classroom in their respective high schools utilizing the video-conferencing link. This class is being taught by an instructor employed by RTYC. In the second classroom, off-campus at RHS1, there is a second class being taught for English 101. In this classroom are ten students from RHS1, and another ten from various nearby secondary schools participating via video conference link. The reason for the class being offered at RHS1 is because the English teacher at RHS1 has the credentials required by RTYC - if a teacher in a different high school were to have the required credentials, the class may be taught from that location, if there is no

teacher in any partner high school, then it is up to RTYC to offer it with their personnel, but possibly onsite at a high school, using the video link back to the college, or from the college. To blur the distinctions even further, some instructors will rotate the location from which they teach between the participating video conference sites throughout the term of the class. The administration at RTYC approaches the various statutory and regulatory requirements relating to dual credit as tools to use in building partnerships with the local high schools.

Mission and Leadership

Leadership and mission issues are exemplified by four institutions in this study. The first two examples below, AHS and RTYC, demonstrate institutional level leadership and mission in connection with HSC model dual credit programs. SHS and RHS2 are also described below as examples of teacher-lead HSC model courses.

Focused leadership at Agricultural High School.

AHS is a high school with a strong leader and a clear purpose regarding dual credit. Every staff person contacted described how the principal was responsible for the direction of the dual credit program. As one teacher stated when discussing the work that goes into the inter-institutional partnership behind dual credit classes, "At the secondary level, you have to have a supportive administrator - as a teacher I can't do it, the administrator has to be a proponent of it, which [the principal] has been great with... [The principal] had the idea about four years ago… I really credit this all to him." Another

teacher stated, “[The principal] is a terrific principal. He is behind a lot of this.” The principal's strong sponsorship is guided by his belief that the interests of the students, staff, and school are best served by keeping most students on the high school campus for dual credit programs. This belief is intertwined with the more pragmatic reality of financial considerations related to the HSC and CC models, and is discussed below in the section titled: Finance: Cost Containment and Inter-Sector Competition.

According to the participants, the initial resistance among staff members to the HSC model offerings has all but disappeared, replaced with a sense of pride over the number of college courses they are now able to teach on site, and a satisfaction in maintaining a strong high school community. The initial hesitancy towards an HSC model course was based in what teachers felt was an "attack" [high school teacher] on existing upper-level courses. All teachers I interviewed described how the development of the teacher’s HSC model course had become a success and source of pride, and credited the principal for providing leadership with regard to the HSC model courses.

In the course of describing one of the HSC model courses that has an internship component, the principal stated that the program:

> ... really distinguishes us. We see so many kids leave us and go to the metro area, and we want to show them what is here before they leave. This is early recruiting for the businesses, and they go work at the hospital, and it falls under the [HSC model] program... the idea is to make those relationships now. We look at it as a way to keep top talent here.

This powerful sense of pride in the community is interwoven into the HSC model program at every level.

Rural Two Year College - leadership focused on connections.

RTYC has a very clear sense of purpose relating to dual credit programming, and this begins at the top of the institution. When initially contacting the various institutions, I asked to speak to personnel responsible for various aspects of the dual credit programs. At RTYC I was referred up the chain of command until I reached both a vice president and the president of the institution. When meeting with each one, it was clear that dual credit courses were an integral part of the overall institution. They have chosen to use dual credit as one of the vehicles for building strong connections with their area high schools. As part of the HSC model programs, the president meets with personnel in the local districts to develop and maintain the relationships.

Everyone at RTYC presented a view of the school that involved providing service to the area high schools, businesses and community - programs like dual credit are used as vehicles for improving the community overall. When discussing the reasons for working so closely with the high schools, the president stated, "It just amazes me, and I think back to when I was a student, sometimes if I didn't understand something, I would just walk away; so how can we get those students to a point where they are feeling confident about themselves and trust the system?" This underlying drive to bring more students into the postsecondary educational system underpins the dual credit program at

RTYC, as compared to a program more focused on giving a jumpstart to students already heading down the path towards postsecondary education.

One administrator at RTYC stated, “we can’t ever be a … giant because we would lose our integrity if we became that. Our goals are not the same goals as [other postsecondary institution]. It’s just different goals.” When questioned further about goals and their origination, the administrator responded that the goals are, "... basically coming from [the president]...it's to help the communities in our area provide that extra rigor, and to keep their kids in their high schools... it's better for the student and better for the district." This sense of dual credit program as a community service is widely shared within the institution and also with their high school partners.

Suburban High School and Rural High School 2 - leadership by teachers.

SHS and RHS2 both presented cases in which the teachers wanted to teach a specific class, and then drove the creation and partnerships needed to support that class. SHS is the source of a significant number of CC model participants, and most of the institutional level support appears to be focused on that model. This is likely due to their proximity to STYC. The HSC model courses seem to have developed under leadership of the participating teachers. The teachers at SHS were very proud of how they had worked with their respective postsecondary counterparts to create their classes. One teacher spent a good deal of time negotiating with two different postsecondary institutions until he was able to deliver the course he felt was best for their curriculum. The discussion within SHS regarding how the HSC model course would be created and fit within the school took

place almost entirely at the content-department level. Another teacher at SHS took an HSC model class with an enrollment of ten students, and has expanded it to over 100 per year. The course was originally destined for elimination, but her involvement, recruiting, and persistence created a successful and sought-after course. SHS, and RHS2 below, both presented strong leadership from teachers, rather than administration-level leadership at RTYC and AHS.

RHS2 can trace their HSC model program to a teacher and counselor. An art teacher took it upon herself to obtain the required training, do the research with the postsecondary institution, and setup the first HSC model course. From this as a starting point, the school counselor worked with other faculty and with RTYC to eventually expand the HSC model offerings to the point of being able to offer a complete two-year degree onsite at the high school. Staff at RHS2 described their expanding HSC model offerings as something that just 'caught on,' or 'looked like fun', and all pointed to the art teacher as the starting point.

The growth has been fast; in the space of less than 5 five years, the school has moved from a single art class to an entire A.A. degree utilizing the HSC model. This type of growth is not typically possible with only a single teacher promoting the idea; others in the administration also provide significant support. What is unique at RHS2 is the clarity with which that single teacher is given credit for starting what has become a very powerful program and the degree to which she inspired other teachers to come along for the ride.

Counseling and Support Services

There is one overall theme that encompasses how counseling and support services fit into the dual credit programs, and in this area, the various institutions are far more alike than different. As with the nature of the bureaucracy, the theme distinguishes between the two models. Students participating in both types of classes, CC model and HSC model, have access to all of the resources found in both institutions - the difference in this study centers around implementing or integrating the various resources into the program - put concisely, the difference is with utilization, not access. Under CC model courses, students largely have access to postsecondary resources at their postsecondary institution, and high school resources while at the high school. Under the HSC model courses, there is more integration - students will access various aspects of postsecondary institutional support systems while participating in the high school setting, under the guidance of a high school teacher.

Under the CC model courses, the responsibility for articulation typically rests with the students. Students interact with their high school counselor, who in turn typically communicates with a counterpart at the postsecondary institution. There is very little information about the student that flows between the two institutions. Attendance and grades are considered private student information by the postsecondary institutions, and it is up to the student to share his or her progress with others. When a student needs help in a class, if that class is a high school class, the student would go to the high school teacher and counselor: if it is a CC model course, the student would go to the postsecondary instructor or use the academic and social support systems at the postsecondary institution.

One college administrator put it bluntly, “sometimes the high schools cut them off, and say, ‘well, you are over at the college now, the college will take care of you.” A high school counselor described it with equal clarity when asked how they deal with tracking student progress in the CC model courses, “We don’t. We can’t.” In the postsecondary setting, a young person may not be as able to locate and utilize such resources, and the instructors expect a higher degree of independence from the students. A college counselor said that it is very difficult to get the CC model students to take advantage of all the resources available to them: CC model students are not always prepared for postsecondary participation - because they are "not as mature," they may not always "follow directions." He expressed concern that this lack of maturity and failure to take advantage of existing support resources has higher stakes when taking a class for postsecondary credit.

Students in an HSC model course are not subject to the same set of support issues as those in CC model courses. HSC model participants have all of the traditional high school support structures, as well as their teacher to lead them through the relevant postsecondary resources. If this same student takes a HSC model course, the teacher will see them daily, and communicate with the parents about attendance and academic progress and any social issues, as with any other high school class. At several high schools, the supportive role played by the high school personnel and the cost of the program became intertwined. A principal described it as follows:

> We were paying nearly 6 figures for [CC model courses] and so we brought [HSC model courses] in and sold it as why do you want to send your kid to college, for

> [CC model courses] when you don't know if they are attending, will the professor tell you? Ask the child and they will say 'fine'. You have our email addresses, and if they are not here, we are calling you.

The preferences expressed by the high school personnel appear to have a direct impact on the various programs in terms of enrollment.

Additionally, postsecondary resources such as online writing labs, library resources, and on-campus facilities are also available. A number of HSC model teachers have integrated various postsecondary resources into their curricula. One HSC model high school teacher said, "I have tried to integrate the [postsecondary school's online learning platform] into the course as well, and I could do the grading on there if I wanted to, I could post quizzes if that was helpful, and it was." When asked to describe the resources available to students in an HSC model course, one high school teacher stated:

> We issue a college syllabus, and it incorporates what we do in the high school... they get [postsecondary] student IDs, the whole shot, they get library privileges, and we have to treat them like university students... [the students] get handbooks, we get an administrative handbook and have to follow the [postsecondary institution's] rules as well as the high school's.

Another HSC model high school teacher offered a view about how delivering the same content in a high school setting can be different from a postsecondary setting:

> I do a lot more meta-cognition, "this is why we are doing it this way," when you get to college you are not going to have a professor that will sit down with you and explain how to take lecture notes and things like that... After a test that we

> do... we take a day to basically look at strategies to help them be more successful... I feel that I have a little more flexibility to instruct them on how to do well in a course, and try to retain the rigor of the course, and still from time to time step aside and explain to them why we are looking at it that way. I don't think they get that in the [CC model] course.

A final HSC model high school teacher felt differently, and thought students had more opportunity for support in the CC model setting:

> … having a class every other day would afford the kids the opportunity to deal with profs outside of class. And you think about the college schedule, and they have that outside time to seek help. [Postsecondary institution] does offer [online courseware] for students to submit work and get feedback. I am busy teaching the whole day.

With the exception of this single teacher, the general opinion was that while the resources of two institutions are available to dual credit participants, those enrolled in HSC model courses are in a better position to benefit from increased support.

Competition Between Postsecondary Institutions

The topic of competition was not a part of the original research design, yet very early in the research, it became clear that competition between postsecondary institutions was driving various choices. Because high schools that implement HSC model courses do not have to be physically near their postsecondary partners, the high schools can effectively shop among several institutions for the best fit, cost, and curriculum. As

described by an administrator in charge of dual credit programs at one postsecondary institution, “You have to be on top of your game, because someone else can come in.” This underlying force affects the choices made by the postsecondary institutions with regard to HSC model programs. Both RTYC and AgU expressed an awareness of this competitive pressure, and described how they were reacting to it. What follows is a description of how competition between the postsecondary institutions plays out with respect to RTYC and AgU, followed by a description of how this is seen from the high school perspective. STYC’s HSC model program is not large enough to compete with either RTYC or AgU at this time.

Rural Two Year College: quality as a basis for competitive advantage.

When asked what distinguishes their approach to dual credit programs, an administrator at RTYC described it as being focused on quality. They have connected with all the high schools in their immediate geographical area, and instead of expanding that area, have chosen to focus on deepening their relationships with the various schools. RTYC intentionally limits the number of high school HSC model partners so that it can improve those relationships. As a result, the two high schools working with RTYC in this study both described how they chose to leave another postsecondary institution and switch their HSC model courses to RTYC instead. The high school personnel explicitly stated that there was value in the deeper relationship with the postsecondary institution. “The market is saturated by us, what we need now is quality, focus more on quality and on consolidating our presence and cementing our relationships. Already they are pretty

strong, but [we need] to continue to improve those relationships…" [college administrator].

The effect of this focus on deepening relationships was observed in the high schools working with RTYC. RHS1 switched their HSC model courses from another postsecondary institution to RTYC, and when asked why, a school administrator stated that the switch was for a variety of reasons, two of the most significant being the level of support from RTYC and the cost of the program. Personnel at RHS2 had a similar story - they had also switched their HSC model courses to RTYC from another postsecondary institution, and described how the switch has made things more sensible for students. An administrator at RHS2 described how the process of communicating with RTYC was easier, more streamlined, and worked better for RHS2's needs. Before switching all HSC model courses to RTYC, RHS2 offered a few HSC model courses through different institutions - after consolidating and working with RTYC, RHS2 now offers an Associate of Arts degree from RTYC in-house at the high school, which students are able to complete at the same time they graduate from high school.

Agricultural University: bigger is better for many high schools.

At AgU, their HSC model program is mature and well-developed. They work with many high schools throughout the entire state. Their ability to compete lies with the size of their program in terms of number of high schools and variety of course offerings. With over 100 high school partners across a wide geographic area, AgU depends more on the interactions between the individual professors and high school teachers to create and

maintain the inter-institutional relationships. “Let’s be candid, it is competition too. You have to market it, it is very competitive now, and we have to make some adjustments,” [university administrator]. There was an awareness of AgU’s program present in all institutions in this study. At some level, AgU is seen as a benchmark against which the other schools compare themselves. Four of the five high schools either had offered or were currently offering an HSC model course through AgU. When interviewing personnel at RTYC and STYC, comparisons to AgU were common. The postsecondary institutions recognize that high schools are in a position to comparison shop with regard to HSC model programs, as described by one staff member at RTYC, “[The president] is a business man. AgU was charging $3,200.00 a course, he said we will give you the same stuff for less. Small school districts have a limited amount of resources.” AgU and RTYC compete with each other (and with many other postsecondary institutions in the state) in terms of cost to the high schools, content, and ability to provide the needed support for the program.

The high school perspective: consumers with choices.

High schools know they are in the catbird seat with regard to HSC model programs. Unlike the CC model, where proximity to the postsecondary institution is a significant factor, under the HSC model, high schools are free to roam far and wide until they find a match for their needs. One high school teacher who developed a HSC model science class described the process of finding a postsecondary institution:

> We approached [postsecondary institution], and they were a little interested, and then they decided no, we would just be robbing kids from them. We didn't understand that, so then we went to [another postsecondary institution], and they wooed us, they said we are very interested in you.

The high schools consider a wide variety of factors when picking between the colleges for HSC model courses. All schools in the study were very clear that the first consideration was to find a place that offers the courses they wanted for the students.

The various postsecondary institutions have different approaches governing the interaction between the teaching partners. During an interview with two teachers at STHS1, the discussion turned to the interaction between high school and postsecondary personnel. The first teacher's HSC model course is through STYC, while the second teacher's HSC model course is through AgU. The first teacher was quite surprised to learn that part of his colleague's arrangement included having the postsecondary instructor actually grade the student work produced in the class. As teachers in the other high schools described their relationships with their postsecondary faculty partners, it became apparent that the nature of the relationship varies based on the parameters set by the postsecondary institution, and that in addition to looking for a given class to fit a certain curriculum, the high schools also consider these other factors when choosing which institution to work with. One of the factors considered by high schools when creating these relationships is cost. As one high school counselor stated, they "went shopping and told them we were going to end our relationship and work with [another postsecondary institution]… and they were gracious and renegotiated our contract." The

discussion below further explores how financing these types of classes plays a role in the collaborations that arise.

Finance: Cost Containment and Inter-Sector Competition

Four of the five high schools were united and explicit with regard to finance: they felt that CC model courses were in direct competition with HSC model courses for funding. Because funding at the high school level is based on enrollment, they felt financial pressure to support HSC model courses over CC model courses.

At the postsecondary level, the institutions stand to gain more financially from an individual participating in a CC model course, however the differences in participation numbers tend to make the HSC model more attractive. Additionally, at the postsecondary level, there is less use of institutional resources for HSC model courses, as the students do not come to campus - the primary expenditure on behalf of the postsecondary institution is faculty time. What follows is a description of how the dual credit models approach financial issues first by the high schools and then with respect to the postsecondary institutions.

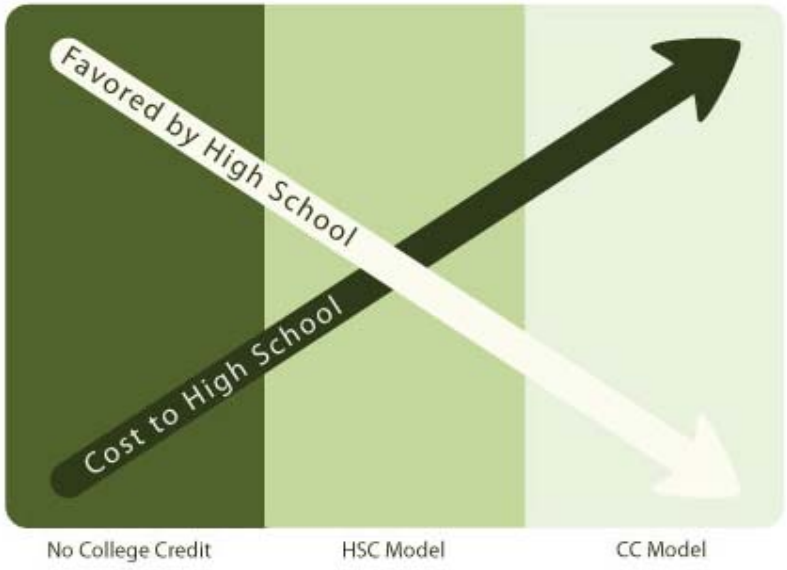
High school perspective.

A high school counselor stated the perspective shared by four high schools clearly, “Cost is a factor.” The high school funds both models, but it costs significantly less to implement an HSC model course than a CC model course. AHS leadership provided a very effective description of the broadly held opinion: “I kind of look it at as

sort of a wildfire, and so we lit some backfires and tried to extinguish the fuel source, and let's use [HSC model] as the way to do that. Let's keep our best kids here, they want the credit, let's offer them the credit," [high school administrator]. The wildfire he was referring is the economic and social drain on the school as a result of students choosing the CC model courses. He was able to demonstrate to the various stakeholders, as well as this researcher, the financial aspects of the different types of dual credit courses. Both models cost the high school, but HSC model courses cost significantly less. As an example, it may cost the high school several thousand dollars a year if a single student were to take six credits of CC model courses; and it would cost about the same to offer six credits of HSC model courses to two entire classes of students on site at the high school. Again using AHS as the example, high school leadership collected the financial data, obtained the backing of enough stakeholders, and led the discussions with several different universities to create the HSC model relationships.

As this project developed, it appeared as though a high school's desire to implement this program was inversely proportional to the cost, while balanced against a desire to have some type of postsecondary credit available for students. A high school HSC model teacher framed the two programs as follows: "We are either going to pay for [CC model] or [HSC model], and [HSC model] is much more affordable."

Figure 4.3: Relationship of dual credit models to cost and favorability.



The graphic above is intended to illustrate the idea that HSC model courses represented an acceptable compromise for the high schools - a way to keep costs low while still offering college credit. The compromise, which is represented by the intersection of the two lines, falls within the HSC model approach. A high school teacher explained it as follows: "I think it keeps students here in the building. And financially, that is good for the school. They can get funding if they are here in the building."

When a high school decides to favor one model over the other, it appears to have a direct effect on enrollment in the dual credit programs. AHS is a school that expressed a strong preference for HSC model courses, and their principal stated, "I like to show people numbers…We brought [HSC model] in as a way to offset [CC model]." The numbers provided at AHS did show a decrease in CC model and a corresponding increase in HSC model courses with respect to enrollment - participation in the CC model courses dropped by 50% over a period of four years, the same timeframe during which HSC

model courses were implemented. Breakdowns of the cost of each program were also provided, which showed a dramatically cheaper per-student cost associated with the HSC model courses.

The statutory restriction on marketing the courses only applies to postsecondary institutions - it was put in place to alleviate the concerns of high schools - leaving the high schools free to market the dual credit courses if they chose. At every high school, the information available for CC model courses consists of checklists, forms, and other types of documents that are procedural in nature. In several schools, there were actual signs and brochures for HSC model courses that are distinctly more presentational or marketing-based in nature. One high school has created a program allowing a student to graduate from a two-year postsecondary program with an Associate of Arts degree entirely through HSC model courses at the same time as their high school graduation. This program is described in color, glossy, marketing material provided to the researcher, and according to their descriptions, is a successful program with increasing participation - there was no comparable marketing of CC model courses at any high school in this study.

SHS stands out among the high schools in their approach to both models of dual credit programming. The CC model courses at SHS are significantly more popular than the HSC model courses, and there is no visible competition between the two types of courses. SHS is the only high school where the financial loss to the organization resulting from a CC model course did not appear to affect the institutional support for the program. SHS is the school with the highest number of CC model participants in this study, and the only school with more CC model students than HSC model students.

At SHS, the personnel attribute their high CC model participation to geographic proximity to STYC, but that only describes part of the picture. AgU and AHS are physically closer together, and AHS has promoted HSC model courses heavily at the expense of CC model courses. No such promotion or preference appears at SHS, and the students are participating in CC model courses in large numbers. One significant difference between SHS and AHS is the size of both the school and the district - SHS is a suburban school with three times the enrollment of AHS. SHS is part of one of the largest districts in the state, and AHS is the only high school in a small rural district. One possible explanation for the difference in institutional support for CC model courses is that the effect on the school both in terms of finance and community, of a student going off-campus for class, is less at SHS than at AHS.

Postsecondary perspective: They understand.

An administrator at RTYC was clear in his view of the situation: "They want to have students stay in the district, because when the student goes out the door, there goes the dollars." Notably, with regard to program cost at RTYC, three separate administrators described in their interviews how the HSC model program is structured to only cover the costs involved, and nothing more. Staff roles and positions were changed several times in the recent past, each time with one eye on meeting the needs of the program, and another on how to keep the costs as low as possible for the high schools. This focus on the effects in the community, including cost to the high schools, appears to be part of why RTYC is

able to offer HSC model courses for costs lower than some of the other institutions in the state.

STYC, the school with the strongest CC model program, also recognizes the financial trade-off faced by the high schools. An administrator at STYC placed dual enrollment spending in general on a spectrum – at one end, education funding is equal for all students, and at the other, you spend more on a select group of students. This administrator felt that CC model courses might be problematic in terms of spending on a small group of students, and that HSC model courses potentially represented a good compromise. "The ultimate question is do you sacrifice funds for the whole group, to really advance a select group?" He further stated that the difference in costs created a direct competition between the high schools and postsecondary institutions. When asked if he felt more competitive with the high schools as a result of the dual credit programs, he responded: "[CC model], yes. [HSC model], no, because they are not losing the students."

AgU saw all dual credit programs as a financial plus for their institution. An administrator at AgU described one aspect of the finances surrounding their HSC model program by saying simply that, "it makes a lot of money for the institution." A professor echoed the sentiment, "the motivation for universities like [AgU] is that it brings in a lot of money." AgU is one of smallest institutions in their system, and with approximately 50% of their total enrollment coming from dual credit (largely HSC model) programming, it is understandable why they view the program favorably.

How these programs are financed plays a significant role in how the relationships between the various institutions are developed. All five high schools want to provide some type of postsecondary credit, and for four of them, the cost of the various programs plays a role in the organizational decision making. All three postsecondary institutions recognize the choices faced by the high schools with regard to cost. Regardless of how the various partnerships are eventually created, cost plays a major role.

Role of Community

The concept of community played a key role at several of the institutions. RTYC is driven largely by their definition of community, while the high schools approached the idea of community from a similar perspective, referring to it as a powerful influence in their choices surrounding dual credit programs.

Rural Two Year College: Community embedded, community focused.

RTYC was very clear about their view of how the concept of community is related to the connections between high schools and postsecondary institutions. More specifically, RTYC is using their HSC model program, and to some extent their CC model programs, to create and strengthen their relationships with nearby high schools. RTYC begins by looking at which high schools are nearby, and then focusing their efforts on working with those schools. They see part of their mission as working with nearby high schools and develop the relationships which underpin a successful transition to postsecondary settings, and dual credit courses are a convenient tool to serve that

purpose. The overall desire is to create and support an educated workforce in an area of the state that is not near any metropolitan center. To do this, they use the HSC model programs as one of the main communication conduits between the high schools and RTYC. For RTYC, the community is the horse that pulls the dual credit cart.

Before the implementation of any dual credit program, the area high schools had already created a collaborative service organization for the purpose of sharing resources and expanding offerings for their member districts. In addition to working directly with the high schools, RTYC provides material and organizational support for this service organization, and is actively working to create similar arrangements with other high schools. The member high schools then work with RTYC through the service organization. This was the only location in the study that used a type of intermediate organization for distributing dual credit programming. Notably, both CC model and HSC model courses are handled by this arrangement. RTYC is actively looking at other ways in which area high schools have cooperated and trying to find ways to support or participate in existing collaborative structures. One RTYC administrator described the role of area high schools as follows, "the schools are the hub of the community, without the school the community pretty much dissipates."

RTYC has also expanded their dual credit programming to include significant involvement by local business and industry, and to include career and technical offerings not often offered in a dual credit setting. Through the creation of career-specific groupings, they organize and host events in which the local employers interact with the students of the area high schools on RTYC's campus. Curriculum supporting the career

and technical fields is developed with industry participation, and then partially distributed to the high schools through dual credit channels. An administrator at RTYC stated:

> For us it is really, the game is not so much about money, obviously we want to break even or cover our costs, but our issue is really about getting to those students and connecting with them and contaminating[6] their thinking about higher education really, because for a lot of them, that is not even on their horizon… that is what drives us.

One person connected with an intermediate organization, who had worked with multiple postsecondary institutions to offer dual credit programming, described working with RTYC: "I never saw the interest in collaboration with instructors [at the other postsecondary institution], and always got the sense that it was more a money mill. I didn't see the commitment for really thoroughly improving schools like I see at [RTYC]. According to one college administrator, the net result of all of the different dual credit courses and their underlying relationships and structures is that RTYC is, "…kind of becoming the senior year in many respects." He further explained that, "I want the schools in the area to look to us as part of their system."

An interesting side effect of RTYC's definition of community is that it effectively limits the size of the program; there are a fixed number of high schools physically close enough to participate in this type of relationship. This limitation in expansion was viewed by an administrator as an opportunity to focus on improving the program. He stated that:

[6] It should be noted here that in the context of the conversation, Mr. William's use of the word 'contaminate' held no negative connotations.

> The market is about saturated by us. What we need now is quality, focus more and more on quality and on consolidating our presence and cementing our relationships, already they are pretty strong, but continue to improve those relationships, and continue to uplift the level of expertise of [HSC model high school] teachers.

High school perspective: Students improve community.

For the most part, high schools do not want their best students to leave – and they view HSC model courses as a way to keep them. The term 'community' when used by the high schools was typically much smaller with respect to geography and membership. High schools consider their community to be the school and towns in which the students live. One high school counselor stated, "I am pretty blunt with parents on that… why would anyone chase those kids out the door intentionally… those are the students we want in our community." A high school teacher framed the situation by presenting the following question:

> We are taking our best kids off of our campus, our most successful kids, who are leaders, who are involved, super-involved in activities and councils, aren't in our classrooms and hallways and that is detrimental to the overall culture and climate of the building. What can we do to keep those kids here?

The postsecondary institutions also recognize the importance in keeping the students in the high school setting; one college administrator acknowledge that it is "a survival thing for a lot of these schools."

Overall, the results discussed above indicate the potential for dual credit programs to play a significant role in the relationships that develop between high schools and colleges. What follows is an application of the related research to the results discussed above. Aspects of dual credit programs often discussed in the current literature highlight key roles relating to how institutions work together, and when combined with the three emergent aspects of these relationships, have the potential to guide further research.

Summary of Results

Up to this point, this paper has dealt with the issues broken down by topic. There is value in also examining these issues from an institutional viewpoint. Below are descriptions of two institutions, followed by a graphical summary of the importance of the different themes to each of the seven institutions. The two institutions best able to serve as models in this regard are AHS and RTYC. These two schools were selected not because they are better than their peers, but because the various facets of the programs at their schools are particularly suited for this type of analysis. They add a depth to this analysis that does not come across as well in a topical layout.

Agricultural High School

AHS was faced with a decision about six years ago. AgU's campus is adjacent to AHS, and many juniors and seniors were finding CC model courses to their liking. Additionally, and unrelated at the time, there was a career-track business mentor program being developed. The cost to the school for the CC model courses began a discussion at

AHS that has brought them to new place with regard to dual credit and inter-institutional relationships. AHS leadership made a very conscious choice to implement HSC model programming to reduce the fiscal and social drain of CC model courses.

AHS now offers AgU courses through the HSC model, and has recently added another postsecondary institution in order to provide an applied science course not available through AgU. In addition, their career mentorship class has been improved and included as part of an HSC model offering with a third postsecondary institution. The CC model participation is still present, but the participation in the various HSC model programs has significantly expanded their offerings, and has become more integrated into the overall high school program. They have bundled resources and classes from three separate postsecondary institutions to make an overall program that provides a broader pathway for students. More AHS students representing a wider range of backgrounds now complete college credit before leaving high school. This focus and dedication has been entirely driven by AHS leadership and faculty. The result is a very strong program for their students - but without significant effect on their relationships to the various postsecondary institutions.

Rural Two Year College

RTYC seemed to be driven by a unique vision of how the institution fits within the larger community. RTYC's leadership is explicit about wanting to increase the rates of matriculation at the area high schools. This desire comes before their desire to

implement dual credit programs - in other words, RTYC does dual credit to support their desire to increase postsecondary participation.

RTYC's leadership starts with the question of, 'how do we connect to the high schools and local industry?' With this as their focus, they see HSC model programming, industry partnerships, and CC model programming as being different ways to answer the same question. When they began connecting with the high school districts, they learned that by working with the existing high school cooperative organizations they were able to use HSC model programming in new ways. Teacher credentials at the high school level, while still an issue, are mitigated by a strong network of districts creating a larger pool of qualified teachers. When this approached is paired with willing high schools the result can be very powerful – including a formalized path for completing an A.A. degree concurrently with a high school diploma, all on-site at the high school. The ties between RTYC and their local districts are described very strongly by both sides.

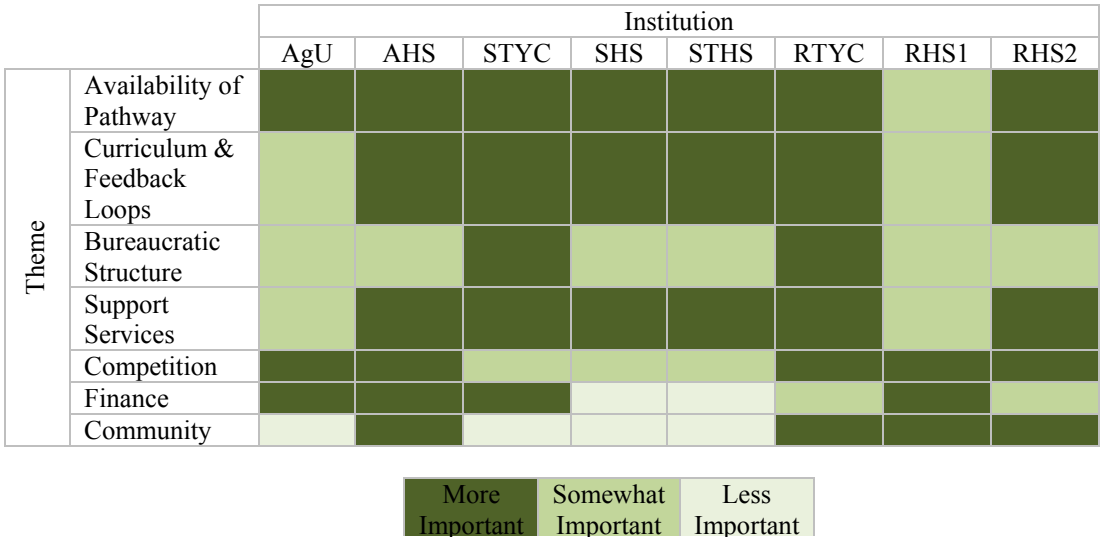
RTYC's approach has been driven by an overall desire to increase educational participation in their community. This approach changes the way dual credit programs are viewed at the organizational level from an odd subset of curriculum into a tool for linking organizations and creating pathways. When questioning personnel at RTYC about their dual credit course offerings the answers always started by framing the role dual credit plays in connecting RTYC with high schools and the community. Framing the program in this way exemplified how they approached their interactions – first figure out what the community needs, second assess what educational tools we have available to implement that approach. As with AHS, HSC model courses have proven to be a very

significant tool, and now account for over a quarter of the institution's enrollment, with participation from nearly every district within an hour's drive. In terms of this study, HSC model programs at RTYC are a tool to increase interaction between high schools and postsecondary institutions for the purpose of expanding the pool of students attending some form of education after high school.

Importance of Themes

In the table below, the relative importance of the themes is represented by shading. The darker the color, the more important that that theme was to a given institution.

Figure 4.4: Importance of themes to institutions.



Based on the figure above, there is significant agreement surrounding the importance of dual credit programming. Another notable pattern is the lesser importance of finance and

community to the schools near an urban center. Assessing how these results fit with the original framework is discussed below.

Chapter 5: Discussion and Conclusion

The focus of this investigation has been to describe the nature of the relationship between a postsecondary institution and high school when implementing a dual credit program for the purpose of increasing postsecondary participation. This section examines these relationships in light of the current research and framework described above. The layout of this section begins by mirroring that of Chapter 4 by utilizing the same topical sub-sections. Following that is a discussion of adaptations to the theoretical framework. This paper comes to a conclusion with a discussion of the limitations of this research and presentation of directions for future research.

Availability of Dual Credit Pathway

Karp and Hughes highlight that in order to expand postsecondary access through dual credit programs, the academic underpinnings must be broad enough to encompass a wide range of coursework (2008). Their research also highlighted the role of a clear curricular pathway for a wide range of academic and social backgrounds. As an exploratory study, this research investigated whether there might be a link between the inter-institutional relationships and the breadth of dual credit offerings.

The high schools tend to describe their work with a single postsecondary institution as their *program*, and their work with another institution as a different *program* - this is in contrast to how Karp and Hughes and other researchers often apply that same term. When researchers describe the need for a comprehensive dual credit program, researchers are often looking for something at the school level. After discussing

these issues with the high school staff, it became clear that they have a wide variety of offerings, or programs, which together would constitute what researchers are calling for at a school-wide level. The postsecondary institutions in the state have developed a wide range of offerings under the broad label of dual credit programs, and the high schools pick and choose among the buffet of programs to build a collection that fits each school's individual needs. Some high schools chose dual credit programs that create another level for existing program sequences – such as advanced study in a foreign language or music, while some focus more on the preparing students for a trade – such as emergency medical technician or law enforcement. This shifts part of the question about the connection to inter-organizational relationships to become: what would drive a high school to pick and choose dual credit offerings that together create a widely available set of programs?

In the absence of any external requirement, the high schools and postsecondary institutions have developed their offerings based on demand. The positive side of this approach is that schools are in a good position to see what their students need, and to create the needed programs. The downside is that because this is an *additional* part to the curriculum, schools with budgetary restrictions (such as restrictions that come with high-need populations, or declining populations and fixed infrastructure costs), may not be able to afford the dual credit programming. The result leaves the schools in this study in somewhat of a patchwork – with some more able or willing than others to offer dual credit programming.

At first inspection, it appeared that those high schools with a greater range of dual credit offerings, with more pathways for students with a wider range of academic

interests, would be the schools with very solid inter-institutional relationships. This holds true for RHS2 and their connection to RTYC. However, AHS and SHS have pieced together a wide range of offerings from different institutions combining to make very comprehensive programs. Based on that, the remaining part of the question then becomes: is there a connection between the breadth of the dual credit program and the level of relationship that develops? Digging a little deeper into the data, personnel at RHS2 were very clear about how easy it was to work with RTYC - personnel at AHS and SHS did not express similar opinions. Further, RHS2 personnel were familiar with the names, positions, and roles of people at RTYC, and appeared to be very comfortable with the prospect of interacting with them. Although no negative impressions regarding the relationships appeared at AHS and SHS, neither were they as positive as those at RHS2.

Based on these schools, a very logical connection appears: broader programs *when instituted between two institutions,* require increased interaction, thereby supporting a stronger inter-organizational relationship. To develop this question further, it would be enlightening to check in with these institutions after a period of time. If, in the future, AHS or SHS had chosen to expand their offerings with a given postsecondary institution, that could be an indication of the relationship leading the program development, rather than the reverse.

Curriculum and Feedback Loops

There is little doubt that curriculum should be aligned between high school and college (Schneider et al., 2003), and that it can be related to an increase in successful

postsecondary behavior (Adelman, 2006; Goldrick-Rab, 2007). Dual credit courses are a very straightforward example of aligned curriculum - a single class produces results in two separate institutions. What then, is the connection between alignment and the relationship between participating institutions? A significant difference between the HSC and CC model courses is evident in this area. The CC model courses do not require any interaction regarding curriculum, while the HSC model is dependent upon an inter-institutional interaction to develop and implement a given course.

The HSC model courses are very integrated into the high school curriculum. The creation of an HSC model course involves two levels of discussion between the institutions. First, it involves an initial discussion at the administrative level to coordinate aspects of the classes such as schedules, credits, and costs. Second, and more significantly, it involves an on-going discussion at the instructor level to create and implement a given course. This method for creating a course fits nicely with what Hoffman, Vargas and Santos describe as a feedback loop (2009). Instructors discuss how best to move the students through a given program, each becoming more familiar with the demands of the other's position. The discussion between the postsecondary instructor and high school teacher supports an alignment of curriculum that directly spans the institutional divide and contributes directly to building a strong inter-institutional relationship between a high school and postsecondary institution.

The CC model courses have very little effect on inter-institutional relationships. There is no interaction between the institutions regarding creation or implementation of the courses, and only minimal interaction when a student enrolls in a CC model course.

SHS and STYC are significantly more involved in CC model courses than the other schools in this study, and there are more aspects, more communication taking place, more interaction between the institutions because of this - but the increase in communication does not approach the same level as that which is involved in the creation of an HSC model course. Additionally, there does not appear to be a feedback loop of any sort - the connection between the schools for CC model programming is one of utility, not of inter-organizational bonding. HSC model programs do bring institutions together with respect to curriculum. The motivation for HSC model courses tended to come from two places: the high schools are driven to align their courses with the postsecondary institutions, and there is a desire to expand their course offerings - and in both cases, the result is a deeper connection to a postsecondary institution.

Enabling Bureaucracy and Embedded Nature of Program

According to Sinden, Hoy and Sweetland, a bureaucracy can be placed on a spectrum between hindering and enabling (2004). They were concerned with how an organization can be structured to either support or hinder a given purpose. They developed a list of characteristics that might identify whether an organization would be enabling or hindering. Characteristics such as enabling cooperation, encouraging innovation and flexibility are indicative of an enabling structure, while promoting control, hindering change, viewing problems as obstacles are indicative of a hindering structure (Sinden et al., 2004). In related work, Hardy, Phillips, and Lawrence describe how an inter-organizational relationship can be described in terms of embeddedness and

involvement (2003). If a relationship is embedded, it reaches deeper into the participating organizations. If a relationship is involved, there is a significant volume of communication occurring between the organizations.

As with many other issues in this study, there was a difference based on model. CC model brought out behavior in most high schools that could be considered hindering, while enabling the HSC model courses. A similar pattern is evident with regard to the level of embeddedness: most high schools have an embedded relationship with regard to HSC model programs, and at most an involved relationship for CC model programs. The HSC model courses were at different stages in their development, but in all cases, the organizations were creating patterns that went deeper than with the CC model courses.

In some high schools an attitude of open hostility is present when discussing CC model courses, while the HSC model programs were uniformly described with characteristics connected with supportive organizations. For reasons that are explained above, especially those relating to finance, competition, and community, this research indicates that HSC model programs are more likely to be connected with enabling bureaucratic structures in high schools.

At the postsecondary institutions it is apparent that the HSC model programming requires a different level of institutional support than CC level programming. The HSC model programs appear to require more staff time from administrators and faculty – as such, a more significant commitment in terms of leadership is required to implement the HSC model courses. At STYC, they are in the process of growing their HSC model courses, and have recently created a staff position that is devoted to the administration of

HSC model partnerships and courses. AgU, with a very established HSC model program, also has one full time position devoted to the program, with support from several other positions. RTYC has two positions devoted to dual credit programs in general, of which the majority are under the HSC model. Only STYC, the destination institution for a large number of CC model students, had any personnel devoted solely to CC model issues.

Only two organizations took CC model courses to a level that might be considered embedded. RTYC blurs the distinction between the two types of courses at the point of delivery, and because of this, the CC model courses are integrated with the HSC model courses. SHS keeps the two models very distinct, but has evolved a very detailed process for supporting CC model students. Also interesting to note is that the communication is not necessarily symmetrical. While RTYC may embed their discussions relating to CC model courses, that does not necessarily mean their partner high schools will do the same. The HSC model courses require an ongoing dialogue involving more organizational actors, and this dialogue appears to drive a more embedded relationship.

Overall, the HSC model programs are associated more with the creation of deeper relationships which in turn require stronger institutional support. CC model programs, while they can be associated with the same traits as HSC model programs, do not appear to require these traits in order to be successful. HSC model programs have more potential to bring high schools and postsecondary institutions together.

Mission and Leadership

As this research developed, the initial investigation hinted at a difference between CC and HSC model courses with regard to inter-institutional relationships when examining mission and leadership issues. With a more complete view of the results, it became apparent that in addition to a difference based on model, leadership when present at both institutions can have a significant effect.

CC model.

CC model courses alone are not associated with significant leadership issues in this study. The nature of the CC model, in combination with the institutional distaste for the model found in high schools, places the leadership role largely on the participating student. As noted by Hardy and Phillips, when collaboration is forced, there may be negative side effects (1998), and in this case, one side effect is a shifting of the leadership to the student. Students must chose to persist in the CC model in the face of either neutral or marginally negative support from their high school, and then navigate the postsecondary resources as would any other freshman.

HSC model.

HSC model courses do tend to be associated with leadership - someone in the organization must have a vision of how a class might be able to overlap and fill some curricular need for both institutions. The experiences with the four schools discussed below highlight the role of leadership within the HSC model. Broadly speaking, stronger

leadership of HSC model programs leads to more in depth inter-organizational relationships. If a leader takes a long term view, a broader view, this is associated with a broader range of benefits (Hardy et al., 2003). Notably, this leadership need not come from someone in a formal leadership position (Robertson, 2006). The HSC model schools in this study provided examples of both aspects of leadership.

There were two schools in this study where institutional level leadership clearly stood out as a factor (AHS and RTYC) and two where strong leadership came from the teachers (SHS and RHS2). At both AHS and RTYC the leaders had a clear view of how their respective HSC model programs would benefit all involved, and were able to articulate this view and bring others along. At RHS2, the HSC model program demonstrated success, and then with the participation of institutional level support, the program significantly expanded to the point of being able to offer a two-year degree on site at the high school. At SHS the HSC model program still very much remains in the hands of the teachers and academic departments - there does not appear to be a significant force at the institutional level. CC model courses do not significantly impact inter-institutional relationships; the depth relationship under the HSC model setting depends on the participation of both institutions and has the potential to significantly impact both institutions.

The results of this study highlight the importance of normative power in school leadership (Etzioni, 1975). The art teacher at RHS2 specifically obtained the expertise needed to implement an HSC model course, and with her course as a demonstration, “it has been infectious,” [high school counselor]; teachers in other areas became excited and

the program began to expand and really take off. When leadership at the high school is combined with leadership at a postsecondary institution, the result is more than a class that bridges the gap, it is an entire degree program that bridges the gap. The leadership at RTYC and RHS2 show that HSC model courses can play a significant role in connecting two institutions.

Counseling and Support Services

When Karp and Hughes discuss the importance of student support services, they talk about ensuring a wide range of students have *access* to support services (2008). Goldrick-Rab and Mazzeo want teachers in high schools to understand the postsecondary processes (2005). In order to expand postsecondary participation, you must work with a wider range of students than those already likely to matriculate. From this starting point, question becomes: what is the role of the inter-organizational relationship with respect to support services in the dual credit context? In this study it became clear that access alone is not the critical piece, but *utilization*.

Many of the resources of a postsecondary institution are available online, and under the guidance of their high school teacher, HSC model students are lead through various postsecondary hurdles including online courseware, grading, and tracking of student accounts. Additionally, many of the HSC model courses involve some type of postsecondary campus experience. The CC model students are treated the same as all other freshman in a postsecondary setting, while the HSC model students already have a guide (their teacher) and cohort (their class) as a starting point for understanding college.

High school students in a high school setting, with postsecondary resources available, and a teacher as a guide, are in exactly the type of position described by researchers like Karp and Hughes. Their resulting framework depicts support services as a broad category that spans the institutional divide (2008). The strength of this connection did not appear to vary from school to school - in all schools the HSC model teachers were bringing their students to the postsecondary resources both in person and online.

In order to accomplish this, the high school teachers of HSC model courses need to obtain the very familiarity mentioned by Goldrick-Rab and Mazzeo. To gain this familiarity, the institutions use a variety of tools - including professional learning communities, professional development training, and one-on-one meetings. Each of these contributes to the overall inter-organizational relationship. Inter-organizational relationships are related to support services in a familiar way: HSC model courses tend to increase the interaction between the institutions, and tend to increase the utilization of the support services.

Competition Between Postsecondary Institutions

HSC model courses tend to pit the postsecondary institutions against each other in competition for the relationship with a given a high school. The postsecondary institutions in this study reacted to this pressure in different ways, with differing impacts on the relationships formed with the high schools. With regard to CC model courses, a strong competition emerges between the high schools and postsecondary institutions which is largely financial in nature - that particular type of competition is dealt with in

the following section titled Finance. The competition between postsecondary institutions can have some effect on their relationships with the high schools.

A significant amount of research has explored the competition between postsecondary institutions from the perspective of a student and the choices one makes on the road from high school to postsecondary settings. The full range of research in this area is far too great to include here, a recent review of the literature by Perna (2006) provides a far better source for understanding the nature of student choice regarding college. The common factor in this area of research is a desire to explain what influences the choices a student makes when considering whether to attend postsecondary programs. Institutional factors come into consideration only so far as they affect a student's choice.

Competition between postsecondary schools is also cited as a factor in areas such as the pursuit of institutional prestige (Sanford, 2011) and the decline of an educated democracy (Brown, 2011). There is not yet any investigation of how competition between two postsecondary institutions might affect the relationships those institutions might have with high schools. Somewhat related, Calleson and Seifer (2004) investigated whether there was competition between postsecondary institutions regarding community sites for the training of health care professionals. Competition of the type described by Calleson and Seifer is similar to that described by this research, in that postsecondary institutions are competing with each other, however it is different because the sites for which the schools are competing are to be used as part of a program in which a student has already enrolled. There is no institutional gap to be spanned by the inter-institutional competition described by Calleson and Seifer. What is taking place in the schools in this

study is a competition between postsecondary institutions to become educational partners with high schools.

Fueled by a dislike of CC model programs, the high schools in this study have emphasized and expanded the HSC model programs. They are not alone in this endeavor - the postsecondary institutions in this state serve somewhere over 20,000 dual credit students per year (Donnel, 2010). RTYC and AgU have highly developed HSC model programs, while STYC's program is in a more growth-centered phase. As such, the effects of competition between postsecondary schools are better represented by aspects of the programs at RTYC and AgU. Each program is attempting to set themselves apart from their peers in different ways. AgU is focused on becoming (if it isn't already) the premier provider of upper-level coursework for high schools in the state. RTYC is equally focused on developing relationships with the local area high schools.

The difference in focus between RTYC and AgU has an effect on the inter-institutional relationships with high schools. AgU works with as many high schools as it can sustain, limited by the number of faculty hours needed for implementing the courses. RTYC has essentially capped the number of high schools they are willing to work with and chosen to focus on those schools within about an hour's drive from campus. AgU is committed to class-level interaction with their high school partners, while RTYC prefers to focus on school-level partnerships. This difference in focus has an effect on the depth of the inter-institutional relationship. RTYC's approach favors deeper relationships with their high schools.

Finance

When this study was initially designed, cost to implement the program was not included as a factor - it was assumed that the costs would be about the same (or governed externally) at each institution, and that factors more within the control of the institution should be the focus of the investigation. The factors were then chosen because research indicates they are associated with inter-organizational collaborative efforts and/or dual credit programs. By attempting to research successful collaborative efforts, it was felt that the idea of cost would not significantly define the relationship - in a successful effort, there is a cost, but both sides are willing to pay it, thereby reducing the usefulness of cost as an explanatory factor. Furthermore, the costs for CC model programming are set at the state level, thereby removing it from any institutional control. It was not envisioned that cost would be a motivational factor in the creation of a collaborative relationship with all schools in the study operating under the same financial framework.

However, cost clearly plays a role - as many of the school leaders in this study will attest. The cost of one program drives organizations to a different program. The costs of CC model courses (which are set by an external, central agency) push both institutions towards HSC model courses (where the costs are negotiable between the institutions). The state level legal framework creating CC model courses, when combined with the funding mechanism, creates a financial pressure on high schools. One postsecondary professor stated it very clearly:

> The reason [HSC model courses] got started was because of [CC model courses]. I mean the reason high schools are interested in this, the superintendent, and

> school boards, is because after [CC model statute] passed, if you had a community college down the road, all the juniors and seniors take their funding and the schools were losing and these were their top students too, the people on basketball, debate, choir, the top students, were just going down the road.

The above succinctly describes the role of program cost for dual credit programs in this state. CC model courses are more expensive and serve fewer students. These costs, both monetary and in terms of which students leave an institution, continue to push high schools from the CC model into the HSC model. Cost alone does not play a role in the development of a deeper inter-organizational relationship, but cost most certainly pushes schools towards the HSC model, which as seen elsewhere in this study, is more strongly associated with inter-institutional collaboration.

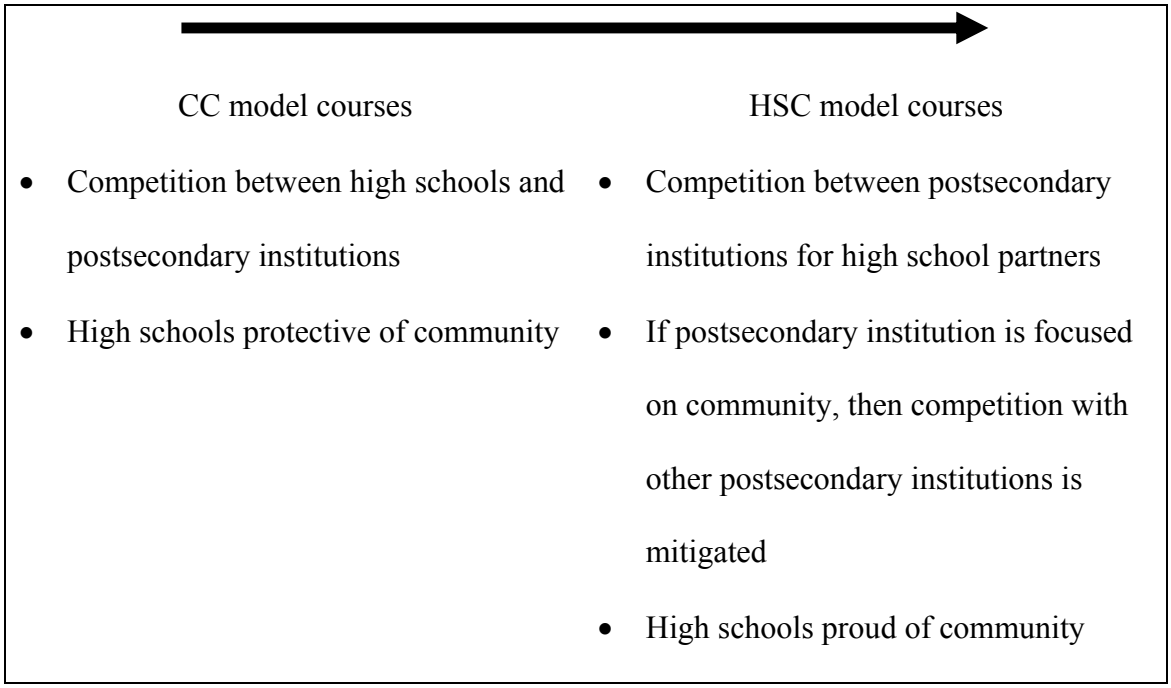
The comment above also highlights the scope of the issues as they relate to most schools - in addition to loss of money there is a concern over loss of an engaged, active student. As this project developed, it became clear that in some schools cost was a central factor, while in others, student participation and community issues were the central factors. Each high school had a different set of concerns with CC model courses, but all could be categorized as either cost or community centered.

Community

Perhaps the most enlightening moment of this project involved a realization of the role of community. In this project, every school used the term ‘community’ to explain why a certain choice had been made. Students are viewed as an asset, as potential

employees of local companies, as leaders within a school, as athletes to be cheered for; the institutions were very aware of how their actions would affect these roles. There is an interesting dynamic with the three emergent factors in this study - competition, finance, and community - depicted in the figure below:

Figure 5.1: Emergent factor relationship to delivery model.



The arrow above depicts the development of the dual credit programs, as well as the increasingly collaborative nature of the relationship between a high school and postsecondary institution. At the left end of the table, each institution is guarding their own interests closely, while at the right, two institutions have come together to create a pathway for students and focus on raising the level of education in a community.

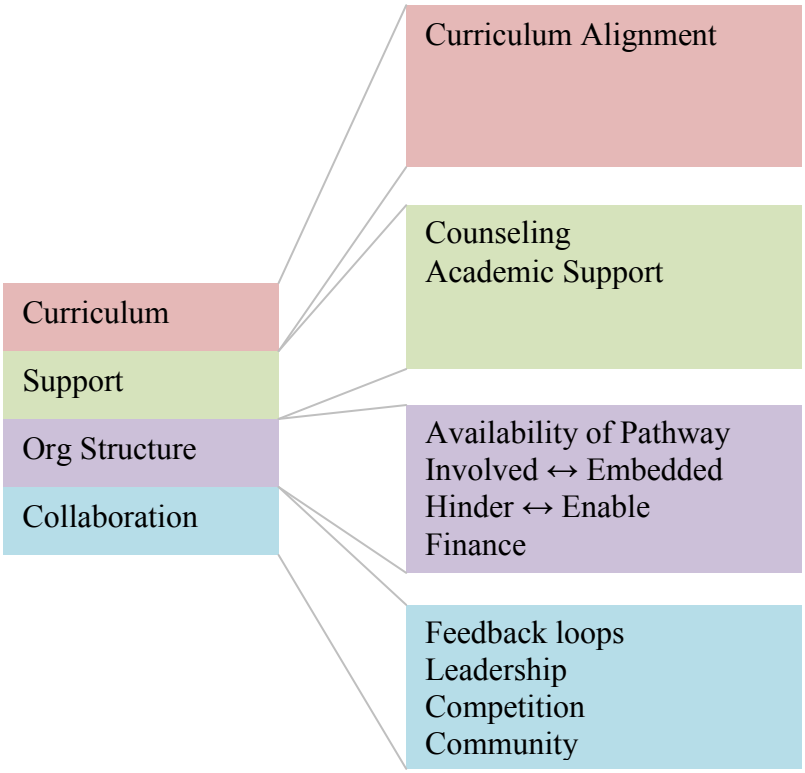
Both types of dual credit program provide students with accelerated postsecondary options, however, HSC model courses are available to a larger number of

students, covering a wider variety of courses. HSC model courses bring the participating organizations to the table to discuss issues that affect the gap between the institutions.

Relationship to Framework

The initial framework is focused on aspects of the relationship between a high school and college including curriculum alignment, collaboration, organizational structures, and support services. Drawn from these areas of research, a list of factors was created in order to provide some structure to an inquiry into the basis of the inter-organizational relationship surrounding dual credit courses. Based on this research, the framework for analyzing a relationship between a high school and postsecondary institution should be expanded to include the three emergent factors of competition, finance, and community, and remove the factors that were not significant. Below is a graphical representation of the adjusted framework.

Figure 5.2: Adjusted areas of overlap.



The nature of the subdivisions in each of the categories is not absolute. Describing a relationship is not always precise, and there is likely to be overlap. As an example, a feedback loop present with HSC model courses is the ongoing discussion between the college teacher and the high school teacher. It is a feedback loop because it tends to build on itself, the more iterations, the better the content. It could just as easily be categorized as curriculum alignment, or possibly program structure. The purpose of the above framework is not to uniquely label every facet of the relationship, but rather to guide a researcher in looking for various aspects of the relationship.

Limitations

This study is subject to some limitations. First, whenever possible, the accuracy of descriptions provided by participants was triangulated with public documents, data, and other available information. However, the accuracy of the information presented here is dependent on the recollection of those participating in the study.

Second, because the study is exploratory in nature, it should not be used as a basis for generalization to other institutions or contexts - the primary value of this study is in informing theoretical approaches and highlighting important factors. For example, as this inquiry progressed, it became clear that had the identification of institutional pairs begun in the high schools instead of the postsecondary institutions, different institutions may have been selected potentially yielding different results. This does not limit the utility of what is described herein, rather it demonstrates there is more work to be done with regard to this topic.

Lastly, the most significant limitation is that connected with all case study research. There are few cases, all from a single state. Further, the sampling in this research was based on diversity rather than similarity, and the issues and relationships present at one institution may not represent those found in other institutions.

Future Research

Several directions for future research became apparent through the course of this study. First is the relationship between teacher credentials and HSC model coursework. According to the National Alliance of Concurrent Enrollment Partnerships (“Standards ::

National Alliance of Concurrent Enrollment Partnerships (NACEP)," n.d.), one of the three main standards for dual credit programs is that the instructors teaching courses in a high school setting have the same academic credentials as those who would teach it in the postsecondary setting. This requirement often (but not always) means a masters degree in the content area, something which many high school teachers do not have. Exploring opportunities relating to this requirement could include describing the connections between professional development programs for teachers and dual credit teaching qualifications, or potential alignment between high school teacher licensing requirements and dual credit teaching qualifications.

Another potentially significant line of inquiry arises from the emergent concept of community. The schools in this study which possessed a strong sense of community service and contribution appeared to create stronger connections between their high schools and postsecondary institutions. The inter-institutional relationships that arise from these connections seemed to blur the institutional lines more than in other settings, and by so doing, had the potential to ease transitions for a wider range of students. Taking this study to the next step might involve investigating correlations between student performance and the institutions with strong community-based approaches.

One of the most interesting avenues for future exploration includes connecting student success more directly with inter-organizational relationships. In this study, successful programs were selected based on participation. While participation does indicate a level of success, other measures could be explored including student academic progress, completion rates of select populations, matriculation rates, and high school

graduation rates. Correlating any of the above factors with inter-organizational relationships could provide insight into the overall role of organizations with respect to student progress.

Competition between postsecondary institutions and high schools could be the focus of future research. In this study, competition in inter-organizational relationships was intertwined with financial concerns, and mitigated by strong community-based approaches. This relationship bears further investigation; specifically investigating the 'tipping points' between the three forces. What drives an institution to focus more on one aspect than another?

A final direction for future research involves an investigation into the connection between geography and program type. In the results discussed above, there were two institutional pairs where the members were physically very close to each other - close enough that high school students would be able to transport themselves between the institutions easily during the day. AgU and AHS were close, as were STYC and SHS; yet their preferences for CC model and HSC model courses indicated significant differences at the institutional level. It may be interesting to explore the role geography plays - AgU and AHS are in rural setting, while STYC and SHS are suburban. It may be that location has some role in defining the relationships that arise between the institutions with regard to dual credit institutions.

Conclusion

When used as a tool to increase postsecondary participation, dual credit programs appear to have an effect on the organizations involved. If there is no need for interaction to develop curriculum, and the financial incentives are negative, the program tended to remain focused on students already likely to succeed at a postsecondary institution. If the program requires interaction to create and deliver curriculum, a powerful connection between two organizations is formed; and when combined with strong leadership, the results appear to provide a broader pathway to postsecondary success for a larger pool of students. This is not a causal connection, rather a web of inter-related issues. When schools work together on curriculum and student support issues, they grow together institutionally and structurally.

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Appendix A

Interview Protocol

Organizational Aspects of Dual Credit Programs
Interview Topics

Introduction

Thank you for meeting with me to discuss dual credit programs. I am a doctoral candidate at the University of Minnesota within the department of Organizational Learning and Policy Development. For my thesis, I am conducting research into the organizational aspects of dual credit programs. I hope that we can visit for about an hour. The information you share, with your permission, will be recorded using an audio recorder. I will carefully maintain the confidentiality of your individual responses. Your interview will not be shared. Pseudonyms will be used for all participants in the preparation of our research report, as well as for the participating institutions.

Topical Areas for Discussion

Background:
What is your role regarding dual credit programs and courses, and how did you get to this point?

Program information:
How do students/parents learn about this program?
What staff people help the students in their choice to participate?

Student Resources:
Once in the program, how are students supported?

Integration of curriculum:
How does dual credit fit within the existing curriculum?

Role within institution:
How does dual credit fit within the school?

Mission & Purpose:
How does the dual credit program fit with the overall mission of the institution?

Future:
Long-term effect of a dual credit program on your institution, future plans?

Structure:
The organization setting for dual credit within the institution.

If you have any questions, feel free to contact me: Oscar Schefers / sche0415@umn.edu