A Descriptive Study of Dual Enrollment in Public High Schools Enrolling Grades 9-12 in New York State and Implications for Policy Changes

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A Descriptive Study of Dual Enrollment in Public High Schools Enrolling Grades 9-12 in New York State and Implications for Policy Changes

Abstract
There is a need to increase college readiness among high school graduates to promote college success and degree attainment (Blume & Zumeta, 2013; McMahon, 2009; Reindl, 2007). Sixty percent of first semester college students are not college ready and prepared to succeed in college (National Center for Public Policy on Higher Education, 2010). Dual enrollment programs are a noted pathway to increase college readiness among high school students (Hoffman, 2003; Pretlow & Wathington, 2014). Forty-seven states have dual enrollment policies. New York has no statewide policy and dual enrollment programs vary among public high schools throughout the state. This descriptive study examined dual enrollment programs in public high schools in New York. The study sought to determine what, if any, differences exist in dual enrollment programs throughout the state. A quantitative, descriptive, cross-sectional research design was utilized. The findings from this research identified several differences among dual enrollment programs throughout the state. Differences included type and quantity of courses, tuition responsibility, and how parents and students receive program information, among others. The research identified challenges and successes of dual enrollment programs. The results of this study are important to New York policymakers seeking to standardize dual enrollment programs, ensure students access, increase college readiness and college enrollment, increase degree attainment, and prepare the workforce to compete globally in the years ahead.

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A Descriptive Study of Dual Enrollment in Public High Schools
Enrolling Grades 9-12 in New York State and Implications for Policy Changes

By
Lynn M. Kattato

Submitted in partial fulfillment
of the requirements for the degree
Ed.D. in Executive Leadership

Supervised by
Linda Hickmon Evans, Ph.D.

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St. John Fisher College

August 2016
Dedication

I would like to dedicate this research to my family who have provided constant support and encouragement throughout this process. First, to my parents, who have always stressed the value of education. To my mother, a lifelong learner, who has demonstrated that great achievements are worth personal sacrifice and hard work. And to my father, who taught us how to be resourceful and who never wavered in his unconditional support for any endeavor we pursued.

I am lucky to be one of five children and have always had a built in support base and friends on command. Thank you for the words of encouragement throughout this process that have provided the right amount of sustenance when I needed it most.

To Jamie Cuda, my partner during this crusade, without whose support and friendship would have resulted in a very different experience for me. Thank you for the late nights, the feedback, the car rides and weekend stays, your input and support have been invaluable.

Most importantly, to my two beautiful and precious boys, August and Army, who have endured an absentee mom for several months, who tolerated empty cupboards and mile high laundry piles, who have given up their dining room to house research and books and “buckets”. And for being absent even when I was present as I was buried in work, that at times seemed never ending. I know this journey has not been easy on you both, especially Army, who was left alone when August went off to college. And even
though Army insists he did not mind his Friday nights alone on class weekends, I missed our precious time together during your last year at home.

Finally, to my cohort members. I could not ask for a greater group of people with whom to share this experience. You have offered support, advice, humor, and encouragement throughout this program. Our cohort brings new meaning to the term “dream team”. In this cohort, the whole is greater, truly greater, than the sum of all its parts. It has been a pleasure getting to know everyone. These connections and friendships will continue to grow long after this page turns…
**Biographical Sketch**

Lynn Kattato attended Utica College of Syracuse University and graduated with a Bachelor of Science degree in Business in 1990. She continued her business studies at SUNY Institute of Technology at Utica/Rome and earned a Masters of Sciences degree in 1993.

Lynn worked for over 15 years as a Human Resources Director. She has also worked as an Operations and Facilities Manager. Lynn teaches several higher education business courses both online and in the classroom.

Additionally, Lynn has certificates in Mindfulness in Education and Energy Medicine. She is also a certified Reiki Master.

Lynn came to St. John Fisher College in May of 2014 and began doctoral studies in the Ed D. Program in Executive Leadership. She pursued her research in dual enrollment under the direction of Dr. Linda Hickmon Evans and Dr. Ellen Wayne, and received the Ed D. degree in 2016.
Abstract

There is a need to increase college readiness among high school graduates to promote college success and degree attainment (Blume & Zumeta, 2013; McMahon, 2009; Reindl, 2007). Sixty percent of first semester college students are not college ready and prepared to succeed in college (National Center for Public Policy on Higher Education, 2010). Dual enrollment programs are a noted pathway to increase college readiness among high school students (Hoffman, 2003; Pretlow & Wathington, 2014). Forty-seven states have dual enrollment policies. New York has no statewide policy and dual enrollment programs vary among public high schools throughout the state.

This descriptive study examined dual enrollment programs in public high schools in New York. The study sought to determine what, if any, differences exist in dual enrollment programs throughout the state. A quantitative, descriptive, cross-sectional research design was utilized.

The findings from this research identified several differences among dual enrollment programs throughout the state. Differences included type and quantity of courses, tuition responsibility, and how parents and students receive program information, among others. The research identified challenges and successes of dual enrollment programs. The results of this study are important to New York policymakers seeking to standardize dual enrollment programs, ensure students access, increase college readiness and college enrollment, increase degree attainment, and prepare the workforce to compete globally in the years ahead.
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Chapter 1: Introduction

The economy will need three million more college educated workers than will be available by 2018 (Carnevale, Smith, & Strohl, 2010). Reindl (2007) reported that the United States is being outpaced in degree attainment by its top competitors. In a 2006 report by the United States Department of Education, the country ranked 12th in degree attainment out of the 29 countries studied (National Center for Public Policy on Higher Education, 2008). By 2008, that rank dropped from 12th to 15th (National Center for Public Policy on Higher Education, 2008). A lack of degreed workers may result in a decrease in per capita income and consequently reduce the standard of living for all Americans (Hoyle & Kutka, 2008). States need to increase the education of “all students” to avoid a shortfall of degreed workers (Callan, Finney, Kirst, Usdan & Venezia, 2006, p. 3) including minorities and students from low income households. If the United States fails to increase the education and degree attainment of the workforce, the country’s ability to compete globally will be compromised (Hoyle & Kutka, 2008).

To meet these labor needs, pathways from high school to college are needed for all students, including previously underserved students such as low income, minorities, first generation college students, and mid performing students (Callan et al., 2006).

Although the number of students entering college has been consistent over the past decade, the number of students earning a degree has not kept pace (National Center for Public Policy on Higher Education, 2008). The National Center for Public Policy on Higher Education reported, 60% of first year college students are not college ready...
These students require non-credit remedial courses before progressing to credit bearing courses. Taking non-credit courses lengthens the time it takes to earn a degree and often leaves students discouraged and more prone to drop out before degree completion (An, 2012).

To address issues related to college access, college readiness, and degree attainment, several initiatives and pathways were implemented. The Obama Administration in a report from the Executive Office of the White House (2014), initiated the Expanding College Opportunity (ECO) project to increase college opportunities for all students, particularly those from low income households. One major goal of ECO included allocating resources to increase college readiness. Additionally, the American Association of Community Colleges (2010) and the 21st Century Commission of Future Community Colleges (2014) called for a 50% increase in community college completion rates by the year 2020. These initiatives built on the United States Secretary of Education, Margaret Spelling’s command to increase community college completion rates (Spelling, 2006). The Every Student Succeeds Act (ESSA) signed by President Barack Obama in December of 2015, supports dual enrollment as a college readiness strategy to better prepare high school students for college (Lowe, 2015). This act updates the No Child Left Behind act and focuses on increasing graduation rates and college readiness, as well as closing the achievement gap among minorities and low performing students.

Programs that increase college enrollment, college readiness, and student success and persistence in college benefit students, employers, and society (Hoyle & Kutka, 2008). Dual enrollment is one means to increase college readiness, college access, and
persistence in college among participants (An, 2012; Karp, Calcagno, Hughes, Jeong, & Bailey, 2007; Kim & Bragg, 2008). Forty-seven states have dual enrollment policies and legislation (Education Commission of the States [ECS], 2015). New York has no statewide policy and individual schools and districts determine dual enrollment programs throughout the state. The lack of a statewide policy may lead to the absence of, or differences in dual enrollment programs and student participation in public schools in New York.

Dual enrollment is a nationwide credit based transition program that allows high school students to earn college credit for courses that also fulfill high school curriculum requirements. Dual enrollment programs prepare students for postsecondary work and offer pathways to college for many students. Different terms used to describe dual enrollment include: concurrent enrollment, dual credit, joint credit, and College Now. Throughout the country, dual enrollment courses may be offered on the college campus or in the high school. Courses are taught by high school teachers or college faculty. College credits are free to the student or offered at a reduced tuition rate.

Dual enrollment programs provide high school students an opportunity to experience college level work and expectations while still in high school (Karp, 2012; Martin, 2013). Students get a head start on a college degree by earning college credit while in high school. Earning credit in high school potentially shortens the amount of time and money spent in college. Both 2-year and 4-year colleges and universities may participate in partnerships with high schools to offer dual enrollment courses.

Dual enrollment courses are one type of credit based transition programs and should not be confused with advanced placement courses. Advanced placement (AP)
courses originated to provide educational opportunities to high achieving or gifted students who have completed most of their high school course requirements (Klopfenstein & Lively, 2012). In some cases, students eligible to enroll in AP courses must have a grade point average of 85 or better and must be recommended by a guidance counselor or other high school faculty member. The College Board develops standardized advanced placement course curriculum (Klopfenstein & Lively, 2012). High school faculty teach AP courses in the high school. Students must take a fee-based standardized AP exam at the end of the course. The grading scale for all AP exams is 1 to 5. A passing grade on an AP exam is a 3 or better. College credit for AP courses is granted by individual colleges on a per case basis. Some colleges will grant college credit for an AP exam score of 3 while others may only grant credit for a score of 4 or 5.

In contrast, students taking dual enrollment courses must complete the course and earn a passing grade to earn college credit from the participating college. College credit earned in dual enrollment courses may also transfer to other colleges. Each college will perform a credit evaluation to review the dual enrollment credit as transfer credit for incoming students. There are no standardized exams for dual enrollment courses. Dual enrollment courses must follow the course learning outcomes identified by the participating college. Individual faculty teaching dual enrollment courses can design the course and syllabus to meet those outcomes.

Dual enrollment benefits many stakeholders including high school students and parents, high schools, and colleges (Allen & Dadgar, 2012; An, 2012; Hoffman, 2003; Hofmann & Voloch, 2012; Pretlow & Wathington, 2014; Swanson 2008). For high school students, dual enrollment increases college readiness and decreases the need for
first semester remediation (Hoffman, 2003). For high schools, dual enrollment increases high school graduation rates (Fowler & Luna, 2009). For colleges, dual enrollment increases college retention (Hofmann & Voloch, 2012). Dually enrolled students are more likely to enroll and persist in college, than nondual enrollment students (Pretlow & Wathington, 2014). Dual enrollment participants earn higher first semester grade point averages than nonparticipants (Allen & Dadgar, 2012; An, 2012; Swanson, 2008). Studies indicated less need for remediation for dual enrollment participants compared to nondual enrollment participants (An, 2012; Karp et al., 2007; Kim & Bragg, 2008).

Forty-seven states have statewide dual enrollment policies or specific legislation that govern dual enrollment programs (ECS, 2015). Many states have initiated dual enrollment programs and policies and have increased dual enrollment participation. For example, Virginia experienced greater participation among Black and Hispanic students, 25.6% and 56.3% respectively, after a statewide policy change to increase dual enrollment participation and course offerings (Pretlow & Wathington, 2014). In Utah, dual enrollment programs increased the number of career-and-technical and vocational dual enrollment courses to appeal to a broader range of students (Pretlow & Wathington, 2013). Oklahoma implemented efforts to increase dual enrollment participation among low socioeconomic students and minority students, and the number of African American and Latino participants tripled (Vargas, Roach, & David, 2013).

Problem Statement

More than half of the job growth in the United States in the next decade will require postsecondary education (Reindl, 2007). To meet this demand, more students need to earn a college degree, including minorities, students of color, and low income
students (Callan et al., 2006; Reindl, 2007). Failure to produce a greater number of college educated and degreed workers will compromise the country’s ability to compete in the global economy (Hoyle & Kutka, 2008; Reindl, 2007).

It is important that students graduate from high school prepared to succeed and persist in college (Hoyle & Kutka, 2008). However, 60% of first semester college students are not college ready or prepared to succeed in college (National Center for Public Policy on Higher Education, 2010). Consequently, many students require non-credit remedial courses before progressing to credit bearing courses in college. Students must pay tuition for these remedial courses yet earn no credit. Taking remedial courses lengthens the time required to earn a degree and often leaves students discouraged and more prone to drop out before degree completion (An, 2012). Students dropping out of college before degree attainment is problematic as the economy will need three million more college educated workers than will be available by 2018 (Carnevale et al., 2010). Moreover, qualified and educated candidates are needed to fill vacancies created when baby boomers retire. One way noted to promote success in college is to increase college readiness among high school graduates (Blume & Zumeta, 2013; McMahon, 2009; Reindl, 2007).

The American Association of Community Colleges (AACC) (2012) reported that there is a college attendance and degree attainment gap between White and minority students. Over 23% of White students earn an associate’s degree within three years of enrolling in college, compared to 9% of African Americans and 10% of Hispanic-Latinos (Callan et al., 2006). It was found that White, high income students have higher degree completion rates than low income, minority students (AACC, 2012). Thirty percent of
low income students complete degree or certificate requirements within six years compared to over 36% of high income students. Thirty-nine percent of White students complete degree requirements during the same timeframe compared to 26% of Black and 26% of Hispanic students.

With no statewide dual enrollment policy in New York, dual enrollment programs vary among public schools throughout the state. Each public high school is responsible for decisions regarding the implementation of dual enrollment programs. Differences in dual enrollment policies, practices, and offerings may lead to student participation gaps throughout the state. The research will review dual enrollment programs in public high schools in New York State to assess whether differences and service delivery gaps exist. This review is undertaken to provide empirical data to policymakers on dual enrollment. The review will be conducted using a descriptive study that explores the current state of dual enrollment, as well as insights gathered from practitioners.

Theoretical Rationale

Social justice theory addresses the distribution of societal benefits. Rawls (1971) considered social justice as distribution of benefits and burdens within a society, meaning, a just society ensures the good of the state and the individual. Rawls promoted improving the position or condition of those most unfortunate, including below average mental capacity, physical capacity, and social and economic status. Everyone should have the same opportunity to the “offices and positions” in a given society (p. 53). Accordingly, all citizens should have equal access to training and education to qualify for various jobs.
Rawls (1971), maintained that education is a valuable asset and as such, resources should be allocated to improve the education of the least advantaged. Education may help individuals acquire wealth, participate in society, and promote self-worth. St. John (2007), also applied a social justice framework to education policy. St. John argued that individuals have a fundamental right to education. St. John, like Rawls, supported equal opportunity and favoring the disadvantaged. Equal opportunity to education and college access should be a priority of education policy. This priority includes providing college access to minorities, students from low income households, and low to mid performing students.

Increasing college access may help close the gap between socioeconomic groups (Hoyle & Kutka, 2008). Dual enrollment is a pathway to college. Dual enrollment programs increase college access for low socioeconomic students (An, 2012). There was an increase in dual enrollment participation among previously underserved students when funds were reallocated to recruit minorities, midrange performing students, and low socioeconomic students (Kim, 2012).

Increasing college access to previously underserved students is necessary to provide the workforce with the demand for more educated workers (Reindl, 2007). Individuals with a college education generally earn more money over a lifetime than those with a high school diploma (Baum, 2014; Carnevale, Rose, & Cheah, 2010). Some postsecondary education is necessary to earn middle income wages in many industries (Rose, 2013). College graduates often earn higher wages doing the same job as someone with no degree (Carnevale, Rose, & Cheah, 2010). Workers with college degrees have lower unemployment rates than those with less education (Rose, 2013). College
graduates are more likely to contribute to society, pay taxes, and vote in elections (Barnett & Stramm, 2010). According to a Roper Center report, in the 2012 presidential elections 76% of the voters were college graduates or had some college experience (“How Groups Voted,” 2012). Less than 25% of the voters in that same election were high school graduates or had some high school. College graduates are less likely to require welfare, commit crimes, or be incarcerated (Barnett & Stramm, 2010). Students benefit from postsecondary education and in turn are more likely to contribute positively to the community.

Other benefits of increased education include: greater health and wellness, higher life expectancy, and greater environmental concern and awareness among college graduates (McMahon, 2009). McMahon considered these “spillover effects” of being educated (p. 181). College educated individuals have higher rates of charitable giving and volunteerism than those with no college. Research supports that increasing college access to more individuals will provide more skilled and educated workers which benefit the individual and society (Barnett & Stramm, 2010; McMahon, 2009).

Statement of Purpose

Dual enrollment is a pathway to increase college attendance and college readiness. Dual enrollment programs that reach a broad range of students increase college readiness and persistence and bring college courses to many high school students, including previously underserved populations (Kim, 2012; Hoffman, 2003; Pretlow & Wathington, 2014). Forty-seven states have statewide dual enrollment policies (ECS, 2015). New York does not have a statewide policy and dual enrollment programs vary among 856 public high schools throughout the state.
With no statewide dual enrollment policy in New York, dual enrollment programs vary among public schools throughout the state. Each public high school is responsible for dual enrollment program and implementations decisions. Differences in dual enrollment policies, practices, and offerings may lead to student participation gaps throughout the state. The research will review dual enrollment programs in public high schools in New York State to assess whether differences and service delivery gaps exist. This review is undertaken to provide empirical data to policy makers on dual enrollment. The review will be conducted using a descriptive study that explores the current state of dual enrollment as well as insights from practitioners.

**Research Questions**

The research proposes to answer the following questions:

1. What are the characteristics of dual enrollment programs in public high schools in New York State?
2. What differences, if any, exist in dual enrollment programs in public high schools in New York State and what factors contributes to these differences?
3. What practices and policies may impact dual enrollment in New York State, based on information gathered from this statewide needs assessment?

**Significance of the Study**

The United States global economy requires a more educated workforce (Reindl, 2007). More than half the job growth in the United States in the next decade will require postsecondary education (Reindl, 2007). Initiatives such as Expanding College Opportunity (ECO) aimed to increase college opportunities for all students, particularly low income students. One major goal of ECO included allocating resources to increase
college readiness. A policy report by ACT (2013), reported there is a need to increase college readiness and persistence. Dual enrollment programs promote college readiness, college access, and persistence in college among participants (An, 2012; Karp et al., 2007; Kim & Bragg, 2008). College access and college education may help minimize the gap between socioeconomic groups (Koyle & Kutka, 2008).

**Definitions of Terms**

*Advanced placement* – a college level course offered to high school students in the high school with curriculum administered by the College Board, in which students must pass a standardized exam to earn college credit.

*Board of Cooperative Education Services (BOCES)* – public education collaborative which offers career and technical programs and vocational training.

*Career and technical education (CTE)* – technical or vocational courses (e.g., metal works, aviation repair, mechanic, food service, health service, etc.)

*College Now* – the name of a dual enrollment program utilized in New York state.

*College readiness* - students are considered college ready when they do not require remediation in college (Hoffman, 2003) or earn a C or better in college level courses (Martin, 2013).

*Credit based transition programs* – programs that allow high school students to earn college credit.

*Dual enrollment* – courses that earn both high school credit and college credit simultaneously, also called concurrent enrollment, dual credit, and joint enrollment.

*High schools* – for the purposes of this study, includes only those public high schools enrolling grades 9 through 12.
Low to mid performing students – students earning a grade below a “B”, also referred to as low to mid achieving students and low to midrange students.

Social justice theory in education – requires that all students be treated equally and have access to the same educational opportunities.

Underserved – minorities, low socioeconomic students, and low to midrange students; also referred to as underrepresented students.

Chapter Summary

The labor force requires a greater number of college educated individuals (Carnevale, Smith, & Strohl, 2010; Reindl, 2007). More than half of the job growth in the United States in the next decade will require postsecondary education (Reindl, 2007). As baby boomers retire and create vacancies, qualified workers will be needed to fill these vacancies. Increasing the number of college educated citizens benefits society and helps prepare the workforce to compete globally (Barnett & Stramm, 2010; Hoyle & Kutka, 2008). College graduates are more likely to contribute to society, pay taxes, and vote in elections (Barnett & Stramm, 2010). College graduates are less likely to require welfare, commit crimes, or be incarcerated.

Many high school graduates are not college ready and require noncredit remediation courses in college (National Center for Public Policy on Higher Education, 2008). Taking noncredit courses lengthens the time to earn a degree and often leaves students discouraged and prone to drop out of college before degree completion (An, 2012). Dual enrollment is a pathway noted to increase college readiness and college access for all students (Hoffman, 2003; Pretlow & Wathington, 2014).
There are 47 states with statewide policies governing dual enrollment programs. New York does not have a statewide policy and dual enrollment programs vary among 856 public schools across the state. The lack of a statewide policy may lead to differences in dual enrollment programs across the state. There may be participation gaps among students throughout the state. There is little research regarding dual enrollment programs in New York State. A descriptive study will gather information on existing dual enrollment programs, differences among high schools, as well as input from practitioners.

Chapter 2 presents research regarding dual enrollment participation. Studies examining efforts and initiatives to increase access to a broad range of students including underrepresented populations such as mid achieving students, minorities, and low socioeconomic students, are highlighted. In Chapter 3, the methodology, research context, and research participants are discussed. Chapter 4 includes the findings and survey results. In Chapter 5 the implications from the findings and recommendations are presented.
Chapter 2: Review of the Literature

Introduction and Purpose

The review of literature focuses on research that addresses participation in dual enrollment programs. This literature review will present studies examining the impact of dual enrollment participation on grade point average, persistence in college, college readiness, and remediation. Additional studies examine the impact of technical, vocational, and career-and-technical education dual enrollment courses. Finally, studies examining efforts and initiatives to increase access to a broad range of students will be highlighted. This includes underrepresented populations such as mid achieving students, minorities, and low socioeconomic students. Despite the noted benefits of dual enrollment programs, there are challenges to implementing successful programs. The review of literature will also include an examination of such challenges noted in the research.

The benefits of a college education are well documented. Individuals with a college education generally earn more money over a lifetime than those with a high school diploma (Baum, 2014; Carnevale, Rose, & Cheah, 2010). Some postsecondary education is necessary to earn middle income wages in many industries (Rose, 2013). Carnevale, Rose, and Cheah (2010) noted college graduates will often earn higher wages doing the same job as someone with no degree. Rose (2013) maintained that workers with college degrees have lower unemployment rates than those with less education. College graduates are more likely to contribute to society, pay taxes, and vote in elections
College graduates are less likely to require welfare, commit crimes, or be incarcerated (Barnett & Stramm, 2010).

Carnevale, Smith, and Strohl (2010) predicted the economy will need three million more college educated workers than will be available by 2018. More than half of the job growth in the United States in the next decade will require postsecondary education (Reindl, 2007). To meet this demand, more students need to earn a college degree, including minorities, students of color, and low income students (Callan et al., 2006; Reindl, 2007). Failure to produce a greater number of college educated and degreed workers may compromise the country’s ability to compete in the global economy (Hoyle & Kutka, 2008; Reindl, 2007).

Riendl (2007) also reported that the United States is being outpaced in degree attainment by its top competitors. In a 2006 report by the United States Department of Education, the nation ranked 12th in degree attainment out of the 29 countries studied (National Center for Public Policy on Higher Education, 2008). By 2008, the nation declined further from 12 to 15. States need to increase the education of “all students” to avoid a short fall of degreed workers which may result in a decrease in per capita income, including minorities, low income, and mid performing students (Callan et al., 2006, p. 3). Consequently, this decrease may reduce the standard of living for all Americans (Hoyle & Kutka, 2008). Reindl noted minority groups and low socioeconomic students need to increase degree attainment to the level of White and Asian American students to provide the labor force with the needed college educated workers. Over 23% of White students earn an associate’s degree within 3 years of enrolling in college, compared to 9% of African Americans and 10% of Hispanic-Latinos (Callan et al., 2006). Therefore,
consistent with social justice theory, all students, including underserved students, desiring a college education should have access to college.

As noted, college graduates are more likely to contribute to society, pay taxes, and vote in elections (Barnett & Stramm, 2010). According to a Roper Center report, in the 2012 presidential elections, 76% of the voters were college graduates or had some college experience (“How Groups Voted,” 2012). Less than 25% of the voters in that same election were high school graduates or had some high school. Students benefit from postsecondary education and in turn are more likely to contribute positively to the community. Therefore, Barnett and Stramm (2010) noted, consistent with social justice theory, society benefits as the number of college graduates increases.

Hoyle and Kutka (2008) suggested increasing college access may help close the gap between socioeconomic groups. Hoyle and Kutka also noted achieving higher levels of education benefits society as a whole and potentially raises the quality of life for all citizens. Not only do college graduates potentially earn more income, McMahon (2009) noted other benefits including: greater health and wellness, higher life expectancy, and greater environmental concern and awareness among college graduates. McMahon considered these “spillover effects” of being educated (p. 181). Among other societal benefits, McMahon stated college educated individuals have greater charitable giving and volunteerism than those with no college.

Dual enrollment programs provide a pathway to college and increase college readiness and persistence from semester to semester. Dual enrollment participation saves students time and money while earning a degree. With no statewide dual enrollment policy in New York, dual enrollment programs may vary among public schools
throughout the state. Each public high school is responsible for decisions regarding the implementation of dual enrollment programs. Differences in dual enrollment policies, practices, and offerings may lead to student participation gaps throughout the state.

**Reviews of the Literature**

The next section presents information regarding dual enrollment and college access for the underserved. Many benefits of participating in dual enrollment will be discussed. Lastly, program challenges and barriers will be presented.

**Dual enrollment promotes college access for underserved.** Historically, dual enrollment courses were only offered to high achieving students (Fleischman & Heppen, 2009). For students and society to reap the benefits of dual enrollment programs, such programs must be accessible to a wide range of students (McMahon, 2009).

High schools in New York City utilized dual enrollment opportunities as a means to increase college access to previously underserved populations (Kim, 2012). Kim (2012) conducted a quantitative, descriptive analysis of dual enrollment in the Bronx and Manhattan between 2006 and 2011. During this time period administrators made a concerted effort to recruit minority students. To increase access to previously underserved students, midrange students, those earning a grade below B, were identified and recruited for College Now courses. This effort resulted in a 27% increase in participation among Black and Hispanic students (Kim, 2012). According to social justice theory, all students have a basic right to education, including a college education (St. John, 2007). This effort in New York City attempted to increase access to dual enrollment programs by specifically targeting previously underserved students.
Like Kim (2012), Vargas, Roach and David (2013) examined a 2-year pilot program in Oklahoma designed to increase dual enrollment participation among low socioeconomic students and ethnic students. According to Vargas et al., prior to this pilot program, the typical dual enrollment student was White and college bound.

Tulsa Public Schools and Union Public Schools sought to increase college access to a diverse student population and to increase dual enrollment participation among low socioeconomic students. This initiative sought to recruit and support previously underserved students by broadening admission requirements and removing fees. Under this initiative, the grade point average requirement for dual enrollment participation was reduced from 3.5 to 2.5. During the pilot program, 1,618 students participated in dual enrollment courses. Using descriptive statistics, students in the pilot program were compared to traditional dual enrollment students. The study reported a statistically significant increase among African American and Hispanic student participation rates (Vargas et al., 2013). Dual enrollment offered college credit accumulation to African American and Hispanic students and participation rates among these groups doubled (Vargas et al., 2013).

In Virginia, Pretlow and Wathington (2013) noted that schools with high percentages of underrepresented students and a high percentage of free and reduced lunch had fewer dual enrollment course offerings. After the 2005 policy change, the state increased dual enrollment offerings in these schools to increase participation rates among underrepresented students. Pretlow and Wathington conducted a descriptive analysis and reported that an increase in dual enrollment courses from 2004 to 2006 successfully increased college credit accumulation to low income students and minority students.
Both Pretlow and Wathington reports (2013, 2014) demonstrate the increase in participation among underrepresented students after a statewide policy change. In a later study, Pretlow and Wathington (2014) reported that the Virginia statewide policy change expanded dual enrollment programs to reach a broader range of underserved students including low and midrange performing students. Low and midrange performing students include those who have an average grade of a C or lower. Longitudinal data from the Virginia Community College System tracked dual enrollment program participation before and after a state policy change. Before the policy change, dual enrollment courses were offered to only select high school juniors and seniors. The policy change required all high school students be informed of dual enrollment opportunities. This included low and midrange students. After the policy change, dual enrollment participation among Black and Hispanic students increased, 25.6% and 56.3% respectively (Pretlow & Wathington, 2014). Deliberate efforts to increase awareness and support to previously underserved populations resulted in greater participation rates among these subgroups and therefore supports social justice in education. Class meetings and guidance counselor sessions allowed low and midrange students the chance to learn about dual enrollment offerings and ask questions (Pretlow & Wathington, 2014). Similarly, in California and Memphis, TN, dual enrollment programs provided access to college courses to many students including low income and minority student (Barnett & Kim, 2014; Hughes, Rodriguez, Edwards, & Belfield, 2012). In 2008 the James Irvine Foundation funded an initiative to expand dual enrollment to low income, underrepresented students in California (Hughes et al., 2012). Dual enrollment course offerings expanded to appeal to a broader range of students and additional support
services such as tutoring, were made available. In the California study, Hughes et al. (2012) tracked approximately 3,000 students over a 3-year period. Ten colleges and 21 high schools participated in this initiative. The participants were 60% students of color and 40% were from non-English speaking homes. A quantitative analysis, using regression analysis and propensity score matching, examined the impact of dual enrollment participation on grade point average, college readiness, college enrollment, and persistence. Based on this analysis, dual enrollment participants were more likely to continue on to a postsecondary institution and also less likely to require basic skill or developmental courses once in college than the non-participants (Hughes et al., 2012).

Barnett and Kim (2014) conducted an evaluation of dual enrollment participation in Memphis, Tennessee. The purpose of the study was to document the results of a multiyear effort to expand dual enrollment. The Memphis City School (MCS) student body is 83% African American and 72% eligible for free or reduced lunch (Barnett & Kim, 2014). The MCS administrators worked with college administrators to expand high school and college partnerships in an effort to increase dual enrollment participation among underserved students. Counselors made an effort to inform all students, including midrange performing students, of dual enrollment offerings. To do this, guidance counselors meet with students, parents, and community outreach offices. Students were told, as early as freshman year, about the dual enrollment opportunities available to them when they reach junior and senior year (Barnett & Kim, 2014). College advisors provided ongoing support and information to district counselors. In some cases, additional technical courses were offered to appeal to low and middle grade earning students who did not meet college eligibility for traditional dual enrollment courses.
(Barnett & Kim, 2014). Tuition for the courses were covered in part by scholarships and college waivers. Required textbooks were purchased by the districts and students and parents incurred no out of pocket expense for dual enrollment courses. During this 4-year initiative from 2008 to 2012, MCS experienced a 45% increase in dual enrollment participation (Barnett & Kim, 2014). The expansion of the dual enrollment program in MCS sought to improve the educational level of the underserved students in the district (Barnett & Kim, 2014).

Wozniak and Palmer (2013) investigated dual enrollment participation in Michigan and surveyed district superintendents, college dual enrollment administrators, and high school principals. The online survey included rating scales and open ended questions. The response rate for the survey was 29.8% with 411 respondents. The respondents provided zip codes that represented a diverse group of districts, colleges, and high schools throughout the state.

The results reported over 75% of the respondents felt there was adequate access to dual enrollment among high academic ability students (Wozniak & Palmer, 2013). Only 46% agreed that students with less ability had access to dual enrollment courses. Wozniak and Palmer (2013) noted that in Michigan students must pass proficiency exams before participating in dual enrollment courses. Being required to pass these pretests may prevent low and midrange student participation. Therefore, as this study demonstrated, the mere existence of a dual enrollment program does not guarantee broad range participation. To promote a just distribution of students served, including low and midrange students, dual enrollment programs may need to remove barriers to participation.
Dual enrollment and career, technical, and vocational students. Career technical education (CTE) and vocational dual enrollment courses also serve as a pathway to college. Some studies specifically examined the benefits of technical dual enrollment programs (Ganzert, 2014; Harnish & Lynch, 2005; Karp et al., 2007; Lynch & Hill, 2008). Technical and vocational courses appeal to low and middle performing students who do not meet college eligibility for traditional dual enrollment courses (Barnett & Kim, 2014). Lynch and Hill (2008) noted, students who are insecure about their ability to perform college level coursework may opt for technical dual enrollment courses.

Ganzert (2014) conducted a causal-comparative study in North Carolina to examine the effects of both traditional and vocational dual enrollment programs on persistence in college and first semester grade point average. Inferential statistical methods were used to analyze a dataset of 15,527 high school graduates from 2003 through 2008 (Ganzert, 2014). Ganzert (2014) compared outcomes from students in traditional dual enrollment programs and students in vocational, technical, or medical dual enrollment programs.

The study concluded that participation in dual enrollment programs, traditional and technical, positively impacted persistence to graduation and higher grade point averages in college. Dual enrollment students averaged a first semester GPA of 2.18 compared to an average GPA of 1.63 for nondual enrollment students. Ganzert (2014) also noted that technical and vocational dual enrollment courses exposed students to various trades and careers. In some cases, this encouraged student commitment to continue credit accumulation towards a degree or certificate (Ganzert, 2014). This study
noted the value of technical dual enrollment courses in addition to more traditional
general education courses. Not all students continued on to postsecondary education.
Some students lacked the drive, motivation, or financing to continue on to college.
Nevertheless, Ganzert noted that students with some college coursework are better
prepared for the workforce than those with no college experience.

Similarly, Harnish and Lynch (2005) examined three technical dual enrollment
partnerships in Georgia. In a qualitative, exploratory, descriptive case study, Harnish and
Lynch used a non-random, purposive sample from three selected sites. Each site
consisted of a technical college and two high school partners. Interviews and focus
groups were conducted with administrators, instructors, and students to collect data.
Forty-three dual enrollment students participated in the 17 question survey and focus
groups. The survey included questions regarding dual enrollment promotion, motivation
to take dual enrollment courses, expectations, college or career path, and challenges. The
most noted motivators for taking dual enrollment courses included receiving college
credit and increasing earning potential (Harnish & Lynch, 2005). Some students reported
the benefit of experiencing college level work and the value of working on degree
requirements while in high school.

According to survey results, students who did not transition to postsecondary
education reported the benefit of gaining employment skills from participating in dual
enrollment technical courses. Often dual enrollment courses are viewed as a pathway to
postsecondary education. Students who do not continue beyond high school still reap the
benefits and education from dual enrollment courses as noted by Harnish and Lynch
(2005). This was particularly true for technical dual enrollment courses that offered
employment ready skills. Students reported feeling better prepared to get a job after participating in career and technical and vocational dual enrollment courses even though they did not plan to continue on to college (Harnish & Lynch 2005). Dual enrollment programs that offer traditional, technical, and vocational courses allow a broad range of students to accumulate college credit, to save time and money, and to prepare for the work force. Students in high schools with limited or no dual enrollment programs will miss the opportunity of program benefits.

Karp et al. (2007) and Lynch and Hill (2008) reported findings similar to Harnish and Lynch (2005). Lynch and Hill, tracked 17,442 technical dual enrollment students in Georgia, over a 3 year period, from 2003 to 2006, from high school to college. Lynch and Hill found that technical college dual enrollment students were prepared to continue postsecondary education or gain immediate employment in the field. According to the quantitative data collected, over 54% of high school technical dual enrollment students enrolled in a Georgia technical college or University System of Georgia (USG) college or university. This data did not include the number of dual enrollment students who enrolled in colleges or universities outside the state of Georgia or the USG. These technical college and career and technical education (CTE) dual enrollment partnerships in Georgia, specifically increased access to low income groups and low to midrange students (Lynch & Hill, 2008). Survey results revealed that low to midrange students reported more confidence to complete technical dual enrollment courses than other subjects such as math and science (Lynch & Hill, 2008).

The research also found 91% of these students, enrolling in the Georgia public and USG systems, earned a C or better in their college coursework (Lynch & Hill, 2008).
After transitioning to college, 81% of the dually enrolled students achieved a C or better in technical and general education courses (Lynch & Hill, 2008). Over 75% of the dual enrollment students who went on to college did not require remedial or developmental courses. Lynch and Hill found that dually enrolled students, who go on to matriculate in a postsecondary institution, perform successfully in a broad range of coursework. According to survey responses, Lynch and Hill noted students who did not continue to postsecondary education reported they felt prepared to enter the workforce with necessary job ready skills.

Karp et al. (2007) conducted a quantitative study of career and technical education (CTE) dual enrollment programs in Florida and New York City. This two state study examined the outcomes of CTE dual enrollment programs (Karp et al., 2007). The Florida dataset consisted of 299,685 students who graduated in 2001 and 2002. This population included a total of 34,273 dual enrollment students and CTE dual enrollment students. CTE students were identified as taking technical, communication, business, or health care dual credit courses. The researchers utilized non-experimental methods including logistic regressions. They applied several control variables to isolate the influence of dual enrollment on student outcomes, rather than other student characteristics. Such control variables included gender, race, free or reduced lunch, disability, and English proficiency.

Traditional dual enrollment students in Florida were 10.95% Black and 23% free and reduced lunch recipients (Karp et al., 2007). Career and technical education dual enrollment students were 13.95% Black and 29.87% free and reduced lunch. Offering
CTE dual enrollment courses increased participation among minorities and low income students.

The dataset in the New York City study was much smaller and included 2,303 students. This dataset included students who attended any of the 19 vocational high schools in New York City and who transitioned to the City University of New York (CUNY). Like the Florida study, this analysis included several demographic control variables. The controls were included to examine the effects of career and technical education (CTE) dual enrollment participation and not preexisting characteristics.

The findings from this study showed a positive relationship between CTE dual enrollment participation and college persistence and first semester grade point average. Even those students who earned college credit in technical dual enrollment courses were more likely to enroll in college than nondual enrollment students. Students who participated in CTE dual enrollment were more likely to pursue a bachelor’s degree than nondual enrollment students (Karp et al., 2007). Technical or CTE dual enrollment courses offered a path to postsecondary education to many students who were otherwise less likely to attend college (Karp et al., 2007). In Florida, grade point average for traditional dual enrollment programs was 3.0, but for CTE dual enrollment courses the grade point average required was 2.0. Many CTE dual enrollment students were not eligible for advanced placement (AP) courses (Karp et al., 2007). Technical dual enrollment courses offered mid performing students a chance to experience college level work and earn college credits.

To extend the benefits of dual enrollment it is important to provide a range of dual enrollment courses to appeal to diverse student needs. Career and technical and
vocational dual enrollment courses are an effective way to allow students of various academic standing and backgrounds to experience the benefits of dual enrollment programs. Dual enrollment programs that offer a range of courses promote social justice and benefit a range of students, who in turn gain skills to increase market value and societal contribution (Lynch & Hill, 2008).

**Dual enrollment impact on college readiness and remediation.** According to Hoffman (2003), students are considered college ready when they do not require remediation in college. Martin (2013) defines college readiness as earning a C or better in college level courses. National Center for Public Policy on Higher Education reported that 60% of first year college students are not college ready (National Center for Public Policy on Higher Education, 2010). Consequently, many students require non-credit remedial or developmental courses before progressing to credit bearing courses in college. Students must pay tuition for these remedial courses yet earn no credit. Taking remedial courses lengthens the time it takes to earn a degree and often leaves students discouraged and more prone to drop out before degree completion (An, 2012). Students dropping out of college before degree attainment is problematic as the economy will need three million more college educated workers than will be available by 2018 (Carnevale, Smith, & Strohl, 2010). A January 2013 report from the National Center for Education Statistics noted, 19.9% of White students, 30.2% of Black students, and 29% of Hispanic students reported taking remedial courses in the 2007-08 academic year. These students were first-year college students enrolled in public institutions.

Scott-Clayton and Rodriguez (2012) noted that community colleges spend approximately $4 billion per year on remediation. It has been noted that dual enrollment
participation increases college readiness and reduces the need for remediation in college (An, 2012; Hoffman, 2003; and Lynch & Hill, 2005).

An (2012) collected data from the Beginning Postsecondary Students Longitudinal Study (BPS:04/09) and examined if dual enrollment participation influenced college readiness. An collected data on 14,090 college freshman or first semester students to examine the influence of dual enrollment participation and the need for remediation. An used propensity score matching models to measure dual enrollment influence on college readiness and need for remediation. An acknowledged the possibility of hidden bias effecting the study. Therefore, An conducted sensitivity analyses to ascertain the effect of hidden bias on study results. An found that dual enrollment students were more college ready and less likely to require remediation in college than nondual enrollment students. Nondual enrollment students were 13% more likely to require remedial coursework than dual enrollment students. An noted that this is relevant since remediation is costly to the institution and the student. Students enrolled in remediation courses typically do not earn credit for those courses. Students may take longer to fulfill degree requirements and may become discouraged and drop out (An, 2012). Students who drop out before degree completion may be unable to reap the full benefits of a college degree.

Kim and Bragg (2008) studied the impact of technical dual enrollment courses. Kim and Bragg used a sample of 1,141 students from Florida, Ohio, Oregon, and Texas. The focus was on college readiness and dual enrollment participation. Using Pearson’s $r$ and correlation analysis, Kim and Bragg sought to determine the relationship among tech prep dual enrollment course participation. In this study, dual enrollment participation
was identified as the independent variable and college readiness was the dependent variable. Positive correlations, $r = .34$ and $r = .19$, between tech prep dual enrollment participation and college readiness were reported in Florida and Oregon, respectively. Students who participated in technical dual enrollment courses experienced greater college readiness and less need for remediation in college than nondual enrollment students (Kim & Bragg, 2008).

Similarly, Karp (2012) conducted semi-structured interviews in a semester-long study and interviewed 26 first time dual enrollment students in New York City. Four of the students were White while the remainder were students of color. Karp sought to determine the perceptions of the role of a college student. The dual enrollment courses were offered through two community colleges in New York City. Karp conducted interviews at the beginning, middle, and end of the semester. A total of 76 interviews were conducted. A case-construction method was used to analyze the data. This method allowed the researcher to observe changes in perceptions over time. The findings reported that after participating in dual enrollment courses, students gained an understanding of what it is like to be a college student. This experience contributed to college readiness (Karp, 2012). Dual enrollment participation allowed the chance to “practice the role of college student” (Karp, 2012, p. 25). According to Karp, of the 26 students interviewed, 17 reported that dual enrollment increased their understanding of the role of a college student. In the initial interviews, students had little knowledge of what it would be like to be a college student and little knowledge of the expectations in a college course. Over the course of the semester, these dual enrollment participants gained knowledge of college level work and expectations. According to Karp, students
learned what behaviors were necessary to succeed in college. Karp found dual enrollment is a way to prepare students to succeed in postsecondary education.

Kanny (2015) also conducted semi-structured interviews with dual enrollment participants. Kanny sought to gain information on dual enrollment participation from the student’s perspective. Kanny conducted one-on-one interviews with five dual enrollment participants, four females and one male, from a Los Angeles charter school. The high school was in a low income area and 100% of the students were eligible for free and reduced lunch (Kanny, 2015). The school had a total of 520 students and 90% Latino population. Interviews were transcribed verbatim, analyzed and coded. Three positive themes were identified including exposure to college level work, ability to learn skills needed to succeed in college, and independence and freedom. The interviewees reported positive perspectives related to experiencing college level work. Students reported they felt prepared for the academic demands of college and reassured that they could complete college work successfully (Kanny, 2015). One student, who failed a dual enrollment course, noted it was better to learn a lesson now rather than during the first year of college (Kanny, 2015).

In another study, Crouse and Allen (2014) sought to determine if dual enrollment students were better prepared than traditional students for later coursework in Iowa. This multiyear study included 186,823 students from 14 community colleges in Iowa. The researchers compared outcomes between students who took a dual enrollment course and then went on to the next sequential course in the same content area when they enrolled in college and nondual enrollment students who took the sequence of courses in college.
The findings reported, using regression analysis to control for ACT scores, income, gender, and grade point average, dual enrollment students outperformed nondual enrollment students in several courses including English, accounting, American history, economics, psychology, and biology (Crouse & Allen, 2014). The greatest difference was noted in English at .25, while the differences in other courses were not considered “statistically significant” (Crouse & Allen, 2014, p. 506). For instance, the difference in an Accounting course between the dual enrollment students and nondual enrollment students was comparable to the difference between a B and B+. These findings offer support for dual enrollment programs noting dual enrollment courses are as effective or more effective than traditional college courses in preparing students for future coursework (Crouse & Allen, 2014).

Crouse and Allen (2014) further noted the nonminority participation rate was 45%, while the minority participation rate was approximately 23%. Crouse and Allen recommended that minority students be targeted for dual enrollment participation to avoid an educational disadvantage among minority students.

**Dual enrollment impact on grade point average and persistence.** Several studies set out to survey the effects of various dual enrollment programs. Swanson (2008) and Allen and Dadgar (2012) conducted two such studies. Swanson used a causal model and inferential statistics to determine if there is a relationship between dual enrollment and persistence in college to degree attainment. Swanson used a nationally representative population and gathered information on 213,000 students who graduated in 1992. The analysis revealed that dual enrollment students were 12% more likely to enroll in college and 11% more likely to persist to the next semester than nondual enrollment
students. According to Swanson, these results suggested an “academic momentum” experienced by students accumulating college credit from dual enrollment courses while in high school (p. 3). Based on these findings, Swanson believed that dual enrollment credits served as a motivator for students to continue to postsecondary education to continue credit accumulation. Swanson also found dual enrollment students enrolling in college within 7 months of high school graduation were more likely to earn a bachelor’s degree than nondual enrollment students. Swanson used logistic regression and controlled for such variables as race, gender, academic standing, socioeconomic status, and standardized test scores. The findings were that dual enrollment participation had a statistically noteworthy impact on continuation and persistence in postsecondary education. Dual enrollment participation may improve persistence rates among minority subgroups challenged with higher drop-out rates than nonminority students.

In a smaller, city specific study, Allen and Dadgar (2012) conducted a quasi-experimental study of the City University of New York’s (CUNY) dual enrollment program. This study explored the impact of dual enrollment participation on grade point average in college, credit accumulation, and retention in college. The sample included 22,962 freshman students who enrolled in a CUNY college within 15 months of graduating from a New York City high school. Allen and Dadgar used regression adjusted estimates to account for many differences among students including race, gender, socioeconomic status, free and reduced lunch status, and minority language status. In attempt to control for unobservable differences between participants and nonparticipants, Allen and Dadgar employed quasi-experimental difference in differences analysis. The findings from the regression estimates were that dual enrollment has a
positive effect on grade point average, number of credits earned during first semester, and persistence to the third semester.

In a study similar to the Allen and Dadgar study, An (2012) reported comparable findings. An used collected data from the Beginning Postsecondary Students Longitudinal Study (BPS:04/09) on 13,230 college freshmen or first semester students from 2004 through 2009. This study investigated the influence of dual enrollment on college readiness and performance. There were a number of controlled variables including race, gender, age, language spoken at home, and family structure. The findings from An’s (2012) study demonstrated a positive effect of dual enrollment on college grade point average. The first year grade point averages were ascertained using college transcripts. An used propensity score matching models to measure dual enrollment influence on academic performance. An also used sensitivity analysis to account for hidden bias. Dual enrollment students were more college ready in that they were less likely to require remediation in college than nondual enrollment students (An, 2012).

Likewise, Jones (2012) and Struhl and Vargas (2012) conducted similar studies in Texas. Jones collected data from the Community College and Research University institutional research offices including dual enrollment and nondual enrollment students between 2001 and 2004. The study investigated dual enrollment program impact on persistence in college and college grade point average. The study utilized descriptive and inferential statistics to investigate dual enrollment program impact on persistence in college and college grade point average. A sample of 576 students was randomly selected from a pool of 2,880 dual enrollment students (Jones, 2012). Dual enrollment course offerings included English, sociology, psychology, history, government, and algebra. Jones used
students from the same 60 high schools to create comparison groups, dual enrollment participants and nonparticipants. Students were matched only on class rank and grade point averages. To ensure that the dual enrollment participation groups and nonparticipation groups were similar, the researcher utilized $F$ test of variance. Based on the results, Jones (2012) noted the comparison groups were similar. The findings of this investigation revealed that dual enrollment has a positive impact on both persistence and grade point average. A Pillai’s trace criterion and one way ANOVA were utilized to analyze the significance of the impact of dual enrollment on grade point average and persistence. In both cases, a statistical significance was reported. Jones found that dual enrollment had a positive impact on both persistence and grade point average (GPA). Dual enrollment students had higher a GPA and greater persistence from semester to semester than the nondual enrollment group (Jones, 2012).

In a more comprehensive quasi-experimental study, Struhl and Vargas (2012) studied 32,908 Texas students who graduated in 2004. One purpose of the study was to assess the impact of completing college courses in high school on future college success. Propensity score modeling was used to construct similar demographic and academic control and treatment groups, each with 16,454 students. This allowed Struhl and Vargas to control for the fact that stronger students were more likely to participate in dual credit courses and also more likely to succeed in college. Propensity score modeling allowed the researchers to examine the impact of dual enrollment on success in college by controlling for preprogram differences. Demographic factors were comparable in each group and included race, low income, average standardized math scores, and limited English proficiency.
The findings reported that the dual enrollment treatment group was more likely to enroll in college and persist from semester to semester than the nondual enrollment control group (Struhl & Vargas, 2012). The dual enrollment students were more likely to earn a degree than the nondual enrollment students. According to Struhl and Vargas (2012), 47.2% of the students in the dual enrollment treatment group earned a bachelor’s degree compared to 30.2% of students in the control group.

Many studies reported the benefits of dual enrollment on student success in postsecondary education. The positive outcomes of dual enrollment programs are not guaranteed. The next section will examine additional factors that may impact dual enrollment program success.

**Advisement and support for dual enrollment programs.** Offering dual enrollment may not be enough to ensure student success. Karp and Hughes (2008) and Khazem and Khazem (2012) researched the role of advisement and support in successful dual enrollment programs. Karp and Hughes conducted five qualitative case studies. The scope of this research included schools in Michigan, California, Iowa, and Texas. Karp and Hughes conducted over 100 interviews and made 61 classroom observations at various sites. Interviews were conducted with students, faculty, and staff. The data were coded and analyzed using NVivo software.

According to the results from these case studies, Karp and Hughes (2008) found that it is not enough to offer credit based transition programs like dual enrollment to low and midrange students. Karp and Hughes noted that providing support and additional preparation for low and middle achieving students is important. Credit based transition programs “show promise” for low and middle achieving students provided they receive
the necessary assistance and developmental coursework (Karp & Hughes, 2008, p. 861). Low and midrange students may require additional information, support, and counseling to fully understand the benefits and mechanics of dual enrollment. Therefore, under a social justice premise, providing additional support resources may be necessary and just to ensure that low and midrange students understand dual enrollment benefits. Students need to understand the value of completing college course work while in high school. Students may not fully grasp the benefits of dual credit courses and support from guidance counselors and advisors is critical (Khazem & Khazem, 2012).

The role of advisement and guidance counselors is worth noting. An (2012) reported, based on previous research, that low socioeconomic students often lack parental input and knowledge regarding pursuing postsecondary education. An noted, these parents, although committed to their child’s academic success, lack the experience and expertise with educational matters. Some such parents are “intimidated and confused” by school officials and policies (An, 2012, p. 409). Therefore, parents rely on guidance counselors and teachers to adequately inform and direct students. To promote social justice, additional effort to guide low socioeconomic parents and students may be necessary to ensure all students have access to dual enrollment benefits.

Kinnick (2012) researched the highlights and challenges of a dual enrollment program at Kennesaw State University in Georgia. This research included both a quantitative analysis along with qualitative interviews. Although the focus of the study was on the dual enrollment program’s impact on the college, noteworthy information surfaced regarding the role of guidance counselors. Additional paperwork and counseling for dual enrollment students may prevent high school counselors from
encouraging student participation. In a Georgia survey, 31% of high performing students reported that high school counselors discouraged participation in dual enrollment courses (Kinnick, 2012). In these cases, students were encouraged to take AP courses rather than dual enrollment. Advanced placement courses do not serve midrange students and discouraging dual enrollment participation may limit the range of students eligible to experience college level work in high school. From a social justice standpoint, this practice may appear unjust as many students will be denied the opportunity to experience college level work and earn college credits while in high school.

**Funding issues.** Many studies noted funding issues. Dual enrollment funding varies across districts throughout the country. States, colleges, high schools, and students may be burdened with covering tuition costs (Hoffman, Vargas, & Santos, 2009). There may be additional costs, including employing a coordinator or liaison between the college and the high school (Hoffman et al., 2009).

In the Wozniak and Palmer (2013) Michigan study noted previously, subjects “rank 17 barriers to expansion of postsecondary options” and identified funding as the “most severe issue” (Wozniak & Palmer, 2013, p. 4). According to Wozniak and Palmer, 83% of the survey respondents in the Michigan study noted funding to be a serious barrier to expanding dual enrollment programs.

According to Hunt, funding deficits may result in additional fees for dual enrollment participants. Additional fee requirements will influence further participation in dual enrollment courses, particularly for students who are unable to pay these fees (Hunt, 2007). These fees may also contribute to unequal access to dual enrollment for these students compared to other districts that offer free college credits and no additional
fees. According to social justice, unequal access to dual enrollment based on funding issues is unjust, leaving low income students at a disadvantage. A state policy regarding dual enrollment funding may address funding challenges throughout the state.

These funding issues vary among participating colleges and high schools. Funding issues may impact dual enrollment course offerings among various high schools. In addition to funding challenges, other issues arise surrounding communication between the credit offering colleges and the high schools. The following studies focus on communication issues encountered within various dual enrollment partnerships.

**Relationship issues.** Howley, Howley, Howley, and Duncan (2013) findings focused more on the relationships between the college and high school. Howley et al. conducted semi-structured interviews with educators in a collaboration of high school and college partnerships in a Midwestern state. This purposive sample started with 50 educators, but only 22 chose to participate. The interviews were recorded and transcribed and then coded using an inductive approach. A second analysis was performed using both deductive and inductive codes. Participant triangulation was used to ensure validity. Outlier analysis was used to determine typical and atypical perspectives across participants.

Four noticeable themes were identified, including “Border Crossers” and “Organizational Power Dynamics” (Howley, Howley, Howley, Duncan, 2013, p. 87). Each of these themes noted a general connection to general “communication dynamics” and the importance of positive communication between the high school and college (p.88). Open communication channels allow parties to share goals, visions, challenges, and other concerns. Communication gaps between the colleges and high schools may
impact course content and standards between campuses (Howley et al., 2013). Some high school teachers unfamiliar with grade submission procedures, expectations, and other college policies, lacked support and guidance from college faculty (Howley et al., 2013). This contributed to “power dynamics” as the full time college faculty have policy knowledge and experience greater than the high school teachers (p. 94).

According to interview responses, high school faculty teaching dual enrollment courses benefited from additional support (Howley et al., 2013). High school faculty acknowledged the value of a liaison to address issues and concerns. High school faculty benefited from support and assistance from someone familiar with the college’s syllabi requirements and grading deadlines (Howley et al., 2013). This liaison improved the implementation of the dual enrollment program and the attitudes of the high school faculty towards the program (Howley et al., 2013).

In a similar qualitative study in Kentucky, Stephenson (2014) used Rapid Assessment Process, semi-structured interviews, and an online survey to examine dual enrollment partnerships at Bluegrass Community and Technical College and West Kentucky Community and Technical College. An email invitation to participate in the survey was sent to 29 participants. Sixteen respondents included five from Bluegrass and 11 from West Kentucky. The survey focused on organizational partnerships and included open and closed ended questions and rating scales. Results from the surveys and interviews noted the importance of “open and honest” communication and support between college and high school partnerships (Stephenson, 2014, p. 13). Open, defined communication channels provide a means to solicit support and address issues (Stephenson, 2014).
When these organizational issues and communication gaps exist, both the colleges and the districts may avoid participating in dual enrollment programs (Howley et al., 2013). This leaves the students in these districts without the same opportunities as other districts. There are a range of relationship issues that may impact the success of a dual enrollment partnership. Communication between the college and high schools partners is imperative.

**Chapter Summary**

To meet future labor demands, states need to increase the education of “all students” (Callan et al., 2006, p.3) including minorities, low income students, and low to mid performing students. There are several noted benefits of increasing the education level of the labor force. According to Barnett and Stramm (2010) and McMahon (2009) the overall societal benefits of increasing the number of college graduates include: college graduates are more likely to contribute to society, pay taxes, and vote in elections. College graduates will generally earn greater income than high school graduates (Rose, 2010), are less likely to require welfare, commit crimes, or be incarcerated (Barnett & Stramm, 2010). Barnett and Stamm maintained that society will benefit as the number of college graduates increases. Dual enrollment programs offer a pathway to postsecondary education, increase college readiness among participants, and also increase persistence in college (An, 2011; Fowler & Luna, 2009; Ganzert, 2014; Hoffman, 2003; Hofmann & Voloch, 2012; Karp et al., 2007; Pretlow & Wathington, 2014). Midrange students, high performing students, and students from various socioeconomic levels benefit from dual enrollment participation. A broader range of students participate in dual enrollment courses when efforts to expand dual enrollment to underserved students are initiated
Career and technical dual enrollment courses provide college access to many students who may otherwise not be likely to attend college (Allen & Dadgar 2012; An, 2012; Hofmann & Voloch, 2012). This increase in college access may help narrow the gap between high and low socioeconomic groups (An, 2012; Hoyle & Kutka, 2008).

New York does not have a statewide policy and dual enrollment programs are determined by the individual high schools throughout the state. Additional research is needed to analyze the characteristics of existing dual enrollment programs throughout the state and to conduct a descriptive study of dual enrollment programs in public school high schools in New York. Research is also needed to determine what practices and policies may impact dual enrollment in New York State.

Chapter 3 will describe the research methodology including the survey instrument, data collection process, and potential research participants. The data analysis process will also be presented.
Chapter 3: Research Design Methodology

General Perspective

The labor force will require three million more degreed workers than will be available by the year 2018 (Reindl, 2007). To avoid a shortfall of degreed workers, states need to increase the education of “all students,” including minorities and students from low income households (Callan et al., 2006, p. 3).

According to the National Center for Public Policy on Higher Education, 60% of first year college students are not college ready (National Center for Public Policy on Higher Education, 2010). Students are not considered college ready if they require remediation or if they are unable to earn a C or better in a college level course. Students who are not college ready require non-credit remedial courses before progressing to credit bearing courses. Taking noncredit remedial courses lengthens the time required to earn a degree and often leaves students discouraged and more prone to drop out of college before degree completion (An, 2012). Dual enrollment is one means to increase college readiness and reduce the need for remediation. Dual enrollment students experience college level work, get a head start accumulating college credit, shorten the college stay, and save money.

With a number of noted benefits, many states have policies regarding dual enrollment practices. For example, Minnesota requires high schools to offer dual enrollment courses and also provides state funding for dual enrollment courses (ESC, 2001). Florida requires all 28 community colleges to offer dual enrollment courses to
high school students (Hunt, 2007). Arizona also requires mandatory dual enrollment
programs but allows the community colleges to determine which courses to offer.
Similarly, in Georgia dual enrollment programs are mandatory in public high schools
throughout the state (ESC, 2016).

Forty-seven states have dual enrollment policies and legislation (ECS, 2015).
New York has no statewide policy and dual enrollment practices and policies are
determined by individual high schools throughout the state. The lack of statewide policy
has led to differences in dual enrollment programs across public high schools in New
York.

The research reviewed dual enrollment programs in public high schools in New
York State to assess whether differences and service delivery gaps existed. This review
was undertaken to provide empirical data to policy makers on dual enrollment. The
review was conducted using a descriptive study that explored the current state of dual
enrollment and considerations for moving toward statewide policies.

Problem statement. The economy will need three million more college educated
workers than will be available by 2018 (Carnevale, Smith, & Strohl, 2010). To meet this
demand, more students need to earn a college degree, including minorities, students of
color, and low income students (Callan et al., 2006; Reindl, 2007). Failure to produce a
greater number of college educated and degreed workers may compromise the country’s
ability to compete in the global economy (Hoyle & Kutka, 2008; Reindl, 2007). A lack
of college educated workers may result in a decrease in per capita income and
consequently reduce the standard of living for all Americans (Hoyle & Kutka, 2008).
Therefore, it is important that students graduate from high school prepared to succeed and
persist in college. However, 60% of first semester college students are not college ready or prepared to succeed in college (National Center for Public Policy on Higher Education, 2010). Consequently, many students require non-credit remedial or developmental courses before progressing to credit bearing courses in college. Students must pay tuition for these remedial courses yet earn no credit. Taking remedial courses lengthens the time required to earn a degree and often leaves students discouraged and more prone to drop out before degree completion (An, 2012). Students dropping out of college before degree attainment is problematic as the economy will need three million more college educated workers than will be available by 2018 (Carnevale, Smith, & Strohl, 2010).

The American Association of Community Colleges (AACC) (2012) reported that there is a college attendance and degree attainment gap between White and minority students. Over 23% of White students earn an associate’s degree within 3 years of enrolling in college, compared to 9% of African Americans and 10% of Hispanic-Latinos (Callan et al., 2006). It was found that White students from high income households have higher degree completion rates than low income, minority students (AACC, 2012). Thirty percent of low income students complete degree or certificate requirements within 6 years compared to over 36% of high income students. Thirty-nine percent of White students complete degree requirements during the same timeframe compared to 26% of Black and 26% of Hispanic students.

**Research design.** This study utilized a quantitative, descriptive, cross-sectional research design. Quantitative research is used to explain a topic and consists of collecting numeric data that can be analyzed with mathematical methods (Muijs, 2004). Cross-sectional research data are collected at a single point in time (Johnson &
Christensen, 2014). The data in this study were collected at one time and did not include any longitudinal data collection. Specifically, the data collected referenced the academic school year 2014-2015. Descriptive research is useful to describe the characteristics of a topic or subject (Joyner, Rouse, & Glatthorn, 2013). Data collected in descriptive research increases knowledge about the topic or subject studied. The data collected in descriptive research may be used to make recommendations for improvement (Glass & Hopkins, 1984).

The research was conducted using a descriptive study to analyze dual enrollment programs in 856 public high schools throughout New York State. Descriptive research is useful to determine “what is.” The descriptive study gathered information on the established dual enrollment programs, differences among dual enrollment programs, and who is served by dual enrollment programs throughout New York.

**Researcher bias.** The researcher has experience with and is a proponent of dual enrollment programs. Open ended questions may be subject to researcher bias in interpretations. However, the researcher made deliberate attempts to be aware of potential bias and consistently monitor and limit bias when presenting and interpreting data collected in this research (Johnson & Christensen, 2014). Through critical self-reflection, the open ended questions were analyzed without giving greater weight or preference to specific responses. By continually reevaluating the open ended responses, the data was analyzed without predetermined assumptions or expectations.

**Research questions.** The research sought to answer the following questions:

1. What are the characteristics of dual enrollment programs in public high schools in New York State?
2. What differences, if any, exist in dual enrollment programs in public high schools in New York State and what factors contribute to these differences?

3. What practices and policies may influence dual enrollment in New York State, based on information gathered from this statewide needs assessment?

**Research Context**

This study examined dual enrollment programs in 856 public high schools, grades 9-12, throughout New York State. A purposive, non-probability sample that included New York public high schools enrolling grades 9-12, was used in this research. When using a purposive sample, the characteristics of the desired population are defined and potential participants with those characteristics are located and solicited to participate in the research (Johnson & Christensen, 2014). The participants are chosen to be part of the research based on specific criteria or characteristics. In this case, the desired characteristics were New York State public high schools enrolling grades 9-12. The entire population of public high schools in New York enrolling grades 9-12 was invited to participate.

This study sought to identify whether differences in dual enrollment programs and student participation existed among public high schools and what factors contribute to the differences. The results of this study are useful to policy makers and program administrators to ensure dual enrollment programs, a pathway to postsecondary education, are available to a broad range of students in high schools across New York. The results of this study will also educate individuals on the value of dual enrollment as a pathway to access education, increasing the education level and earning potential of participants. To date, there is little research regarding dual enrollment programs in public
high schools throughout New York. A descriptive study examined existing dual enrollment programs, differences among high schools, and participation rates in public high schools throughout the state.

**Research Participants**

A list of the 856 public high schools was compiled from a 2014-15 directory on NYSED.gov. An electronic survey was distributed to the principals in 856 public high schools throughout New York. The principals were asked to complete the survey or forward it to the appropriate person who has knowledge of the school’s dual enrollment program. Participation was voluntary and there was no compensation or incentive offered for completing the survey.

The first correspondence to potential participants included an introductory letter (see Appendix A) to describe the purpose of the research, the link to the survey, and a timeline for completion. The participants were informed that all responses were anonymous and confidential. The introductory letter explained that by completing the survey, the participants provided informed consent. The first question of the survey asked participants to agree to participate. Without agreeing, potential participants were not able to proceed to the survey questions.

**Instruments Used in Data Collection**

The instrument used in data collection was a web-based survey (see Appendix B) developed by the researcher. The questions on the survey were not leading and were constructed to avoid bias. The survey was administered and delivered using Qualtrics, a web-based survey platform. Surveys are useful tools to gather information on a topic from a particular group (Johnson & Christensen, 2014). There are many advantages to
using an electronic survey. Electronic surveys are low cost, flexible in design, easy and convenient to distribute, and effective at collecting and storing data within a short time period (Dillman, 2007). Electronic surveys are also easy for respondents to complete. Based on the low cost, flexible design, and convenience of use, the electronic survey was preferred for this study.

The survey included open-ended and closed-ended questions. Closed-ended questions provide preset answer choices (Creswell, 2012). Open-ended questions allowed the respondent to provide a response in their own words and are used to probe deeper to obtain information not permitted in a closed-ended question. The participants had an opportunity to add additional descriptors regarding individual dual enrollment policies and practices.

The survey instrument was tested for reliability and validity. A tool is reliable if its measures produce the same results consistently and repeatedly (Litwin, 1995). Validity refers to how well the instrument measures what it sets out to measure. To test for validity, a panel of individuals with knowledge of and experience with the topic reviewed the survey. Litwin (1995) referred to this as content validity in which subject matter experts advise on what should and should not be included in the survey. The panel included local guidance counselors and dual enrollment coordinators. The survey was also tested for flow and skip logic mechanics and to determine how long it would take to complete the questions. Any issues or ambiguities identified were corrected and recommendations were implemented before the survey was finalized and prepared to send to potential participants in the 856 public high schools in the state.
High school principals were able to forward the survey to another employee within the same school. Only one submission per public high school was permitted. The survey link was set to allow only one submission per high school using the internal protocols within Qualtrics. The respondents were permitted to start, stop, and restart the survey as needed. The respondents were permitted to skip questions and continue through the survey.

Prior to distributing the survey, the researcher completed the National Institutes of Health Office of Extramural Research Protecting Human Research Training Module (see Appendix C). The survey instrument and introductory letter were approved by the Institutional Review Board (IRB) at St. John Fisher College (see Appendix D).

**Procedures for Data Collection and Analysis**

The survey design allowed respondents to participate anonymously. The initial email included the survey link and invitation to participate. Weekly reminders were emailed to those schools which had not yet responded. Forty-eight hours before the survey closed, a final reminder was emailed. The survey remained open for approximately 4 weeks.

The data collected was analyzed using descriptive statistics to describe, explain, and summarize the data. Descriptive statistics included frequency, central tendency, mean, median, modes, ranges and other relevant data. The insights gleaned from practitioners in the open ended questions were coded and themed. The data analysis included a description of dual enrollment programs in public high schools in New York. The analysis identified what, if any, differences in dual enrollment programs exist among public high schools throughout the state.
The survey was administered through Qualtrics and the data stored in Qualtrics which offered secure, password protected storage. Data access was limited to the researcher. All data collected, both hard copies and electronic data stored on an external storage drive, were retained in a locked cabinet in the researcher’s home. Both the electronic and physical data will be destroyed in a secure manner after a period of three years following the study.
Chapter 4: Results

The survey instrument link was sent to public high schools in New York State that enroll grades 9 thru 12, to gather information on dual enrollment programs throughout the state. This chapter presents an analysis of the data collected from the survey respondents. The data included descriptive statistics to describe the characteristics of current dual enrollment programs in New York State. Descriptive statistics included frequency, central tendency, mean, median, modes, ranges, and other relevant data. The data also included responses from several open ended questions. Responses from the open ended questions were coded to identify common concepts, categories, and themes.

Research Questions

The survey was constructed and administered to collect information to answer the following research questions:

1. What are the characteristics of dual enrollment programs in public high schools in New York State?

2. What differences, if any, exist in dual enrollment programs in public high schools in New York State and what factors contribute to these differences?

3. What practices and policies may impact dual enrollment in New York State, based on information gathered from this statewide needs assessment?

Data Analysis and Findings

The survey was emailed to 856 public high schools in New York State. Of the 856 emails sent, 42 emails bounced as undeliverable. Weekly reminders were emailed to
those schools which had not yet responded. A final reminder was emailed 48 hours before the survey closed. The survey remained open for 4 weeks. A total of 112 participants responded.

Each respondent needed to consent to participate in the survey. Survey question 1 asked if the respondent agreed to participate before gaining access to the survey. If a respondent did not agree to participate, the respondent was not able to access the remaining questions. Ninety-eight respondents agreed to complete the survey. The following sections present information gathered from the survey respondents. Survey questions 3 – 28 and 41 (see Appendix E) were designed to answer research question 1, the characteristics of dual enrollment programs, and the first part of research question 2, the differences among dual enrollment programs in New York.

It is important to note that not every respondent answered every survey question. Therefore, the total number of respondents for each question varied. Survey results are presented per question and each section refers to the specific number of responses for that question. In many cases, respondents were asked to check all answer categories that applied. Many respondents checked more than one category. In these cases the total percentages will be greater than 100. This survey utilized skip logic mechanics, forwarding respondents to the next question based on how they answered the current question. Due to this feature, not all questions will appear in numerical order. For example, if respondents answered yes to survey question 3, they moved on to survey question 4. However, if respondents answered no to survey question 3, they moved on to survey question 29.
Research question 1. The information in this section presents responses from survey questions 3-28, 41, aligned with the research question: What are the characteristics of dual enrollment programs in public high schools in New York State? This section presents characteristics of dual enrollment programs among respondents. Several characteristics were identified including type and quantity of courses offered, eligibility requirements, time of day offered, where courses were offered, how program information was shared, teaching faculty, and cost of dual enrollment courses.

Survey question 3 asked did you offer dual enrollment courses to students in your high school during the 2014-15 academic school year. Ninety-three respondents answered survey question 3. Eighty-five (91.4%) respondents did offer dual enrollment and eight (8.6%) did not.

Survey question 4, what type of dual enrollment courses did you offer during the 2014-15 academic school year, received 80 responses. Respondents were asked to check all that apply from a list of dual enrollment course offerings that included traditional courses, career and technical education (CTE) courses, vocational courses, and other. Ninety-six percent ($n=77$) of the respondents offered traditional courses (see Appendix F). Thirty-eight percent ($n=30$) of the respondents offered career and technical education courses and 5% ($n=4$) offered vocational dual enrollment courses. Less than 3% ($n=2$) offered a course in the “other” category, English as a second language and theater.

Survey question 5, do you have a written dual enrollment policy, received 82 responses. Forty-four percent ($n=36$) of the respondents had a written dual enrollment policy, 40% ($n=33$) did not, and 16% ($n=13$) were uncertain.
Survey question 6, during the 2014-15 academic school year did your school offer dual enrollment through a partnership with a 2-year or 4-year college, or both, received 82 responses. The majority of respondents, 56% ($n=46$), partnered with both 2 year and 4 year colleges and universities to offer dual enrollment courses (see Appendix G). Fifteen percent ($n=12$) partnered with only a 4 year college or university and 29% ($n=24$) with only a 2 year college or community college.

Survey question 7 asked if any high school students participated in dual enrollment courses in the 2014-15 school year. Eighty-three respondents indicated that they did have students enrolled in dual enrollment in the 2014-15 school year. These respondents continued to survey question 8, how many high school students took dual enrollment courses. Respondents ($n=62$) were asked to count students only once even if the student was enrolled in more than one dual enrollment course. Three (4.8%) respondents noted that they did not have that information. Dual enrollment participation rates ranged from 2% to 84% of the high school student population. The average dual enrollment participation rate among respondents was 17.5%.

Survey question 9, during the 2014-15 school year how were dual enrollment courses offered to the high school students, received 70 responses. Respondents were asked to check all that apply including: taught at the high school by high school faculty, taught at the high school by college faculty, taught on the college campus, taught through distance learning, or some other location. According to 94% ($n=66$) of the respondents, dual enrollment courses were taught in the high school by high school faculty (see Appendix H). Twenty percent ($n=14$) responded that dual enrollment courses were offered at the partnering college, while 9% ($n=6$) of respondents reported that college
faculty or adjuncts taught dual enrollment courses at the high school. Distance learning was utilized to deliver dual enrollment courses in 13% \((n=9)\) of the responding high schools. One respondent reported that dual enrollment courses were offered at the career and technical education or vocational site.

Survey question 10, if high school faculty teach dual enrollment courses, do the high school faculty receive additional compensation or stipend, received 65 responses. Eighty-eight percent \((n=57)\) noted that the high school faculty received no additional compensation and 12% \((n=8)\) indicated that high school faculty teaching dual enrollment courses did (see Appendix I). Of those eight, some of these high school faculty members were compensated per course \((n=3, 4.6\%)\) while other faculty were compensated per credit hour \((n=3, 4.6\%)\). Per course compensation ranged from $150 to $800 per course with an average of $453. Per credit hour compensation ranged from $104 to $550 per credit hour. Instead of monetary compensation, high school faculty at two (3%) high schools received one 3 credit course per semester, from the participating college. If respondents indicated that high school faculty teaching dual enrollment courses were compensated, skip logic advanced respondents to survey question 41, if high school teachers teaching dual enrollment courses received additional compensation or stipend how was that compensation funded. Of the seven respondents indicating that faculty teaching dual enrollment courses were compensated, five (71%) noted that compensation was funded by the partnering college or university and two (29%) reported compensation was funded by the high school or district.

Survey question 11 asked how many dual enrollment courses were offered to high school students in the 10 month 2014-15 school year, including fall semester, spring
semester, and full year courses. Among respondents \((n=61)\), the number of dual enrollment courses offered ranged from one course to 35 courses (see Appendix J). The majority of high schools responding \((n=22, 36\%)\) offered between 7-10 dual enrollment courses per school year while five \((8\%)\) high schools offered over 21 courses per year.

Survey question 12, during the 2014 - 15 academic school year when are dual enrollment courses offered to the high school students, received 66 responses. Respondents were asked to check all options that applied including: during the regular school day \((n=65, 98\%)\), early morning before the official school day begins \((n=1, 2\%)\), after school period after the official school day ends \((n=5; 8\%)\), evening \((n=2, 3\%)\), Saturday \((n=2, 3\%)\), and/or other \((n=1, 2\%)\) (see Appendix K). The “other” category noted dual enrollment courses were offered online.

Survey question 13, during the 2014 -15 academic school year what was the maximum number of courses per academic term a high school student was allowed to take as part of the dual enrollment program, received 65 responses. Of the 65 responses, 85\% \((n=55)\) reported no maximum number of courses, while 3\% \((n=2)\) of responding high schools allowed students to take one dual enrollment course per term (see Appendix L). Five percent \((n=3)\) allowed students to enroll in two dual enrollment courses, 3\% \((n=2)\) allowed students to enroll in a total of three classes, and 3\% \((n=2)\) of respondents allowed four courses.

Survey question 14, during the 2014 -15 academic school year which high school grade levels of high school students were eligible to take courses as part of the dual enrollment program, asked respondents to check all that apply. In all responses \((n=66)\), seniors had access to dual enrollment courses, and 65 \((98\%)\) responded that juniors had
access to dual enrollment courses. Additionally, 50% (n=33) of the respondents also allowed sophomores to enroll in dual enrollment courses and 23% of the respondents (n=15) extended dual enrollment opportunities to freshmen students (see Appendix M).

**Eligibility requirements for dual enrollment participants.** Survey question 15, during the 2014-15 academic school year were there academic eligibility requirements for high school students to participate in your institution’s dual enrollment program, received 66 responses. Forty-five percent (n=30) of responding high schools had no eligibility requirements while 55% (n=36) had some eligibility requirements.

Survey question 16, what were the academic eligibility requirements for high school students to participate in your dual enrollment program, received 35 responses. Fourteen (40%) of those respondents with eligibility requirements had a minimum GPA required for dual enrollment participation. According to these responses, five respondents reported that students needed a minimum GPA of a 3.0 on a 4.0 scale or a 75 on a 100 point scale (see Appendix N), three respondents noted students needed a minimum GPA of 85 on a 100 point scale, and two responses noted a minimum GPA of 80 out of 100 to enroll in dual enrollment courses.

In thirteen (37%) of the 35 high schools responding, students enrolling in dual enrollment courses were required to pass an entrance exam administered by the participating college or high school. Six percent (n=2) of respondents indicated that dual enrollment students were required to earn a minimum score on a standardized test. Specifically, one respondent noted students needed to earn a minimum of an 80 on the state math test and a 75 on other state exams. The other respondent indicated that students needed to earn a minimum score on Regents exams, but did not specify.
Thirteen (37%) respondents indicated that dual enrollment students had to meet some other eligibility requirements. Of these 13, five noted minimum Regents scores were required for dual enrollment participation.

**Who is responsible for program coordination and student participation decisions?** Survey question 17, does your school have a designated staff member to coordinate the dual enrollment program, received 65 responses. Fifty-four percent \((n=35)\) had a specific staff person designated to coordinate dual enrollment programs, and 46% \((n=30)\) did not.

Survey question 18, what is the title or position of the staff member designated to coordinate the dual enrollment program, received 34 responses. Staff designated to coordinate dual enrollment programs included guidance counselors \((73\%, n=25)\), assistant principals \((9\%, n=3)\), director of guidance \((6\%, n=2)\), principal \((3\%, n=1)\), college and career coordinator \((3\%)\), dean \((3\%)\), and other faculty member \((3\%)\) (see Appendix O).

Survey question 19, who makes decision regarding whether or not an individual student may enroll in dual enrollment courses, received 64 responses. Respondents were asked to check each category that applied including: building principal, school counselor, parents and students, high school faculty, and participating college. In most cases, the school/guidance counselors \((73\%, n=47)\), parents and students \((69\%, n=44)\) and building principal \((45\%, n=29)\), made decisions regarding student participation in dual enrollment courses (see Appendix P). Seventeen percent \((n=11)\) of respondents noted high school teachers as decision makers and 31% \((n=20)\) of responses, reported that dual enrollment participation decisions were determined by the partnering college.
Who is responsible for dual enrollment tuition and fees? In survey question 20, during the 2014-15 school year which sources paid tuition for the dual enrollment courses taken by the high school students in the dual enrollment program, respondents \((n=58)\) were asked to check all that apply among: the college, the state, the high school/district, parents/students, and/or other source. According to respondents, 79% \((n=46)\) parents and students were responsible for tuition, 38% \((n=23)\) reported the colleges covered tuition costs, 14% \((n=8)\) responded that tuition was paid by the district or high school, in 3% \((n=2)\) the state covered tuition costs, and 6% \((n=4)\) selected the “other” category (see Appendix Q). In the “other” category, one respondent noted that dual enrollment courses offered through the local community college were at no charge to the student, but the dual enrollment courses offered through the private university required students to pay a reduced tuition rate. Another respondent noted that the district covered a “small portion” for up to two distance learning dual enrollment courses. Two of the respondents stated that dual enrollment was offered at no charge to the student, citing foundations and or scholarship endowments covered all costs.

Survey question 21, during the 2014-15 school year what did high school students and their parents generally pay out of pocket for dual enrollment courses, received 64 responses. In some cases, students and parents were responsible for full tuition, partial tuition, and/or books and fees. A total of 28% \((n=18)\) of the respondents indicated that students and parents were not responsible for any tuition costs, fees, or textbooks, 34% \((n=22)\) said students and parents paid partial tuition for dual enrollment courses, and 19% \((n=12)\) said student and parents paid full tuition for dual enrollment courses.
courses (see Appendix R). Six percent ($n=4$) of the respondents noted that students and parents paid for books or supplies only.

Survey question 22, if parents/students paid for the college credits from dual enrollment courses, what was the rate per course or per credit hour, received 40 responses. According to responses 55% ($n=22$) of respondents paid per course, while 38% ($n=15$) paid per credit hour. Two (5%) respondents reported dual enrollment charges varied. There was a range among both per credit hour charges and per course charges. The range for per credit hour charges was $5 per credit hour to $140 per credit hour, and the range for per course tuition that students and parents paid was from $10 per course to $700 per course (see Appendix S).

**Support services for dual enrollment students.** Survey question 23, did your institution provide extra support services specifically for students enrolled in a dual enrollment course (e.g., tutoring, academic advising, study skills workshops, pre-college counseling), received 64 responses. Eighty-three percent ($n=53$) of respondents indicated that they did not offer any additional support services specifically for dual enrollment students and 17% ($n=11$) did. Survey question 24, what extra support services were specifically offered to students enrolled in dual enrollment courses, received 11 responses. Additional support services included academic advising ($n=10$), tutoring ($n=3$), study skill workshops ($n=5$), college application and selection counseling ($n=9$), and financial aid counseling ($n=6$) (see Appendix T).

**How dual enrollment program information is conveyed.** Survey question 25, is dual enrollment information provided to students, received 63 responses. Of the 63 responses, 62 indicated that they did provide dual enrollment information to students,
while one respondent did not. Survey question 26 asked how do students in your high school receive information about dual enrollment course offerings, and respondents \((n=63)\) were asked to check all that apply (see Appendix U). Students received dual enrollment program information from counselors \((n=60, 95\%)\), teachers \((n=49, 78\%)\), parent meetings \((n=26, 41\%)\), newsletter \((n=19, 30\%)\), principal \((n=15, 24\%)\), college representative \((n=15, 24\%)\), and other \((n=10, 17\%)\). Other sources included high school website \((n=3, 5\%)\), course catalog and curriculum guide \((n=7, 11\%)\), and student handbook \((n=1, 1.5\%)\).

Survey question 27 asked how do parents of your students receive information about dual enrollment course offerings (see Appendix V). Survey question 27 received 63 responses. Parents received dual enrollment program information from counselors \((n=60, 95\%)\), teachers \((n=38, 60\%)\), parent meetings \((n=32, 50\%)\), newsletters \((n=29, 46\%)\), student inform parents \((n=15, 24\%)\), and other \((n=16, 25\%)\). Other sources included high school website \((n=6, 9.5\%)\), course catalog and curriculum guide \((n=10, 16\%)\).

Survey question 28 asked, if your school offered dual enrollment courses but you did not have any students enrolled in dual enrollment courses, please provide reasons for lack of participation. Respondents were asked to check all options that apply. There were high schools, \((n=13)\), that offered dual enrollment courses but did not have any students enrolled during the 2014-15 academic year. According to respondents \((n=13)\), reasons for lack of dual enrollment participation included: students preferred advanced placement courses \((n=3, 23\%)\), faculty prefer to teach AP courses \((n=1, 8\%)\), students did not meet eligibility requirements \((n=3, 23\%)\), students were not interested in the
subjects (n=5, 39%), and students were unwilling or unable to pay dual enrollment tuition (n=5, 39%) (see Appendix W).

A series of survey questions, 30-34 (see Appendix X), gathered population information on the responding high schools (see Appendix Y). Survey question 30, what is the total number of students in your high school grades 9-12, received 61 responses. Student population in responding high schools ranged from 17 to 2,700 students. Survey question 31, what percentage of your student body is eligible to receive free or reduced lunch, received 57 responses. Free and reduced lunch eligibility among respondents ranged from 1% to 96%. Survey question 32, what is the total number of minority students, African American and Latino combined, received 50 responses. There was a range of minority population in the responding high schools from 0% of the student population to 93%. Of the 40 responses to question 33, how many dual enrollment participants are eligible to receive free and reduced lunch, seven respondents noted they did not have that information. The range among those providing data (n=33) was 0-100%, with a mean of 33.66% and SD=30.88%. Likewise, of the 40 responses to question 33, how many dual enrollment participants are minority students, five respondents did not have that information. The range among respondents (n=35) was 0-100%, with a mean of 23.71 and SD=29.12%.

Research question 2. The information in this section presents responses aligned with the research question: What differences, if any, exist in dual enrollment programs in public high schools in New York State and what factors contribute to these differences? Based on the information the survey was able to capture, this section will present responses specifically aligned with the first part of this research question, “what
differences, if any, exist in public high schools in New York State.” The differences among dual enrollment programs in New York State were identified using the same survey questions (3-28, 41) utilized to describe the characteristics sought in research question 1. There were many differences among dual enrollment programs including type and quantity of courses offered, dual enrollment participation rates, cost of dual enrollment courses, and eligibility requirements.

Regarding the second part of question 2, “…what factors contribute to these differences,” outcome variables were not established or captured with the survey instrument. Outcome variables could not be tested and therefore, the survey responses were unable to determine what factors contributed to dual enrollment program differences.

Survey question 3, did you offer dual enrollment courses to students in your high school during the 2014-15 school year, received 93 responses. Eighty-five (91.4%) respondents did offer dual enrollment and eight (8.6%) did not.

Survey question 4, what type of dual enrollment courses did you offer in your high school during the 2014-15 academic school year, received 80 responses. High schools differed in the type of courses offered, with 77 (96.3%) high schools offering traditional dual enrollment courses, 30 (37.5%) offering CTE courses, and four (5%) offering vocational courses.

There was little difference in responses to survey question 5, do you have a written dual enrollment policy. Of the 82 responses, 36 high schools (44%) had a written policy, 33 (40%) did not, and 13 (16%) were uncertain. Survey question 6, during the academic school year 2014-15 did your high school offer dual enrollment through a
partnership with a 4-year college, a 2-year college or both, received 82 responses. Of the 82 responses 24 (29%) partnered with a 2-year college, 12 (15%) partnered with a 4-year college or university, and 46 (55%) high schools partnered with both a 2-year and a 4-year institution.

Survey question 7, did any of your high school students take dual enrollment courses in the 2014-15 school year, received 83 yes responses and zero no responses. Survey question 8, how many high school students took dual enrollment courses, asked respondents to provide an unduplicated count, counting students only once even if they enrolled in more than one dual enrollment course. There were differences in the dual enrollment participation rates among high schools. Among the 62 responses, dual enrollment student participation rates ranged from 2% to 84%. The mean dual enrollment participation rate was 17.5%, SD=14.23%.

Survey question 9, during the 2014-15 academic school year how were dual enrollment courses offered to students, received 70 responses. Noted differences included taught at the high school by high school faculty (n=66, 94%), taught at the high school by college faculty (n=6, 9%), taught on the college campus (n=14, 20%), and taught through distance learning (n=9, 13%).

Survey question 10, do high school faculty teaching dual enrollment courses receive additional compensation, received 65 responses. Of the total responses, 57 indicated that high school faculty did not receive additional compensation. However, there were noted differences among the remaining responses (n=8). Three (4.6%) respondents noted high school faculty were paid additional compensation per course ($150, $500, $800), while three (4.6%) respondents noted additional compensation per
credit hour ($104,550). Lastly, two (3%) respondents said high school faculty received one college course from the partnering college free of charge.

Survey question 41, if high school teachers teaching dual enrollment courses receive additional compensation or stipend, how is that compensation funded, received seven responses. Of the seven, five (71%) cited the partnering college as the funding source, while two (29%) cited the high school/district.

Survey question 11, how many dual enrollment courses did you offer students in the 10 month 2014-15 school year including fall, spring, and full year courses, received 61 responses. There were many differences among the responses. Four (6.5%) respondents offered 1-2 courses, nine (14.75%) offered 3-4 courses, eight (13%) offered 5-6 courses, 11 (18%) offered 9-10 courses, 11 (18%) offered 11-12 courses, one (1.5%) offered 13-14 courses, two (3%) offered 15-16 courses, four (6.5%) offered 17-18, four offered 19-20, and five (8%) offered over 21 courses. Most respondents (n=22, 36%) offered between 7-10 dual enrollment courses.

There were few differences in the time of day dual enrollment courses were offered. Survey question 12, during the 2014 -15 school year when are dual enrollment courses offered, asked respondents to check all that apply including: during the regular school day, early morning before the school day begins, during an after school period, evenings, Saturday, or other. Responses (n=66) included: during the regular school day (n=65, 98%), early morning before the official school day begins (n=1, 2%), after school period after the official school day ends (n=5, 8%), evening (n=2, 3%), Saturday (n=2, 3%), and/or other (n=1, 2%).
Survey question 13, during the 2014-15 school year what was the maximum number of courses per term a high school student was allowed to take as part of the dual enrollment program, received 65 responses. There were some differences in the amount of dual enrollment courses students were able to take during an academic term. Students were able to take one course (n=2, 3%), two courses (n=3, 5%), three courses (n=2, 3%), or four courses (n=2, 3%). One (2%) respondent reported that students may take up to 12 credit hours and the maximum is per credit hour rather than per course. Fifty-five (85%) respondents indicated that there was no maximum number of dual enrollment courses a student may take.

Survey question 14, during the 2014-15 school year which grade levels of high school students were eligible to take college level courses as part of the dual enrollment program, received 66 responses. There were noted differences among high schools in which grade levels could participate in dual enrollment courses. Some high schools (n=15, 23%) allowed ninth graders to enroll in dual enrollment courses, while some (n=33, 50%) allowed 10th graders. In most cases (n=65, 98%), 11th grade students had access to dual enrollment courses and all 66 respondents indicated that seniors have access to dual enrollment courses.

Survey question 15, during the 2014-15 school year were there academic eligibility requirements for high school students to participate in the dual enrollment program, received 66 responses. Of the 66 total responses, 36 (55%) had academic eligibility requirements and 30 (45%) did not. Survey question 16, what were the academic eligibility requirements for high school students to participate in dual enrollment courses, asked respondents to check all that apply including: minimum grade
point average, class rank, minimum score on a standardized test, college placement exam, or other. Several differences were noted among the 35 respondents. Dual enrollment students were required to pass a college placement exam according to 13 (37%) respondents. Among the 14 (40%) respondents with minimum GPAs required, three required a minimum GPA of 85, two required a minimum GPA of 80, and five required a minimum GPA of 75. Six percent \( n=2 \) of respondents indicated that dual enrollment students were required to earn a minimum score on a standardized test. Of these two responses, one respondent noted students needed to earn a minimum of an 80 on the state math test and a 75 on other state exams. The other respondent indicated that students needed to earn a minimum score on Regents exams, but did not specify. Thirteen (37%) respondents indicated that dual enrollment students had to meet some other eligibility requirements. Of these 13, five noted minimum Regents scores were required for dual enrollment participation.

Respondents did not differ much in the response to survey question 17, is there a designated staff member to coordinate the dual enrollment program. The 65 responses were a close split; 35 (54%) responded yes there is a designated coordinator and 30 (46%) respondents said they did not have a designated staff member to manage the dual enrollment program.

Survey question 18, what is the title or position of the staff member designated to coordinate the dual enrollment program, received 34 responses. There were some noted differences among respondents. Designated staff members included the guidance/school counselor \( n=25, 73\% \), the assistant principal \( n=3, 9\% \), director of guidance \( n=2, \)
6%), principal (n=1, 3%), dean (n=1), college and career counselor (n=1), and other faculty (n=1).

Survey question 19, who makes the decisions whether or not an individual student may enroll in dual enrollment courses, revealed differences among responses. Respondents (n=64) were asked to check all that apply including: building principal (n=29, 45%), parents and students (n=44, 69%), guidance counselor (n=47, 73%), school based committee (n=2, 3%), participating college (n=20, 31%), high school teacher (n=11, 17%).

Survey question 20, during the 2014-15 academic school year which sources paid tuition for students taking dual enrollment courses, including parents and students, the college, the high school or district, the state, or some other funding source, received 58 responses. Respondents (n=58) were asked to check all that apply and there were notable differences: parents and students (n=46, 79%), the college (n=23, 38%), the state (n=2, 3%), the high school or district (n=8, 14%), and scholarship fund (n=2, 3%).

Survey question 21, during the 2014-15 academic school year what did students and parents pay for dual enrollment courses, received 58 responses. There were several differences noted among the respondents. Parents and students paid full tuition (n=12, 19%), partial tuition (n=22, 34%), books and fees only (n=4, 6%), nothing (n=18, 28%), and it varied (n=8, 13%).

Survey question 22 asked if parents paid for college credits from dual enrollment courses what was the rate per course or per credit hour. Responses (n=50) were split; 22 (55%) paid per course, and 15 (38%) paid per credit hour for dual enrollment courses and two respondents were uncertain. Respondents were asked to provide the specific dollar
amount parents and students paid per course or per credit hour. There was a difference in the amount that parents and students paid for dual enrollment courses. The range for per credit hour charges was $5 to $140 per credit hour. The rate per course also varied, with a range of $10 to $700 per course.

Differences were noted in responses to survey question 23, did your institution provide extra support services specifically for students enrolled in a dual enrollment courses (e.g., tutoring, academic advising study skills workshops, precollege counseling). Eighty-three percent (n=53) of the 64 responses indicated that they did not offer any additional support services specifically for dual enrollment students and 17% (n=11) did. Survey question 24, what extra support services were specifically offered to students enrolled in dual enrollment courses, received 11 responses. Responses included tutoring (n=3, 27%), academic advising (n=10, 91%), study skills workshops (n=5, 45%), college application and selection counseling (n=9, 82%), financial aid counseling (n=6, 55%), and other (n=1, 9%).

Survey question 25, is dual enrollment information provided to students, received 63 responses. Of the 63 responses, 62 indicated that they did provide dual enrollment information to students, while one respondent did not. Survey question 26, how do students in your high school receive information about dual enrollment course offerings, received 63 responses. There were many differences among respondents. Students received dual enrollment program information from counselors (n=60, 95%), teachers (n=49, 78%), parent meetings (n=26, 41%), newsletter (n=19, 30%), principal (n=15, 24%), college representative (n=15, 24%), and other (n=10, 17%).
Survey question 27, how do parents of your students receive information about dual enrollment course offerings, received 63 responses. Parents received dual enrollment program information from counselors \( (n=60, 95\%) \), teachers \( (n=38, 60\%) \), parent meetings \( (n=32, 50\%) \), newsletters \( (n=29, 46\%) \), and student inform parents \( (n=15, 24\%) \), and other \( (n=16, 25\%) \). The “other” category included high school website, course catalog and curriculum guide.

Survey question 28, if your school offered dual enrollment courses but you did not have any students enrolled in dual enrollment courses in the 2014-15 school year, please provide reasons for lack of participation, received 13 responses. Different reasons for lack of participation in the high school’s dual enrollment program included: students prefer AP courses \( (n=3, 23\%) \), faculty prefer to teach AP courses \( (n=1, 8\%) \), students not interested in subject matter \( (n=5, 39\%) \), students did not meet eligibility requirements \( (n=3, 23\%) \), and students unwilling or unable to pay tuition for dual enrollment courses \( (n=5, 39\%) \).

Research question 3. Research question three asked what practices and policies may impact dual enrollment in New York State, based on information gathered from this statewide needs assessment. The initial approach was to conduct a needs assessment of dual enrollment programs in New York State. However, there was a shift from a needs assessment to a descriptive study. Upon construction and distribution of the survey instrument, it was evident that the resulting research was descriptive research.

Additional findings. A series of open ended questions, 35-37, 44-46, completed the survey (see Appendix Z). Respondents were asked specifically about funding and staffing challenges, as well as other barriers that may impact dual enrollment programs.
Respondents were also asked about what additional resources may assist dual enrollment programs and what factors may hinder dual enrollment programs. Questions and corresponding responses are presented in the following sections (see Appendix AA).

Thirty-six respondents answered survey question 35 that asked are there funding challenges your institution faces when implementing or considering to implement a dual enrollment program (see Appendix BB). Twenty-six of those respondents indicated that funding was not an issue. These respondents noted arrangements with the school board, participating college, or high school to fund dual enrollment courses. According to one respondent, “The cost for our high school to offer dual enrollment courses is non-existent through our partnership with our local community college.” Another respondent reported, “Our Board has made it possible for anyone who wants to enroll.” Other responses included, “we have a foundation that assists in paying for courses” and “we have a very healthy scholarship fund that supports any student who wants to take a dual enrollment course and can’t afford the cost.”

Seven respondents reported that funding for dual enrollment courses was a concern. One responded noted, “some of the families can’t afford the 1/3 tuition rate.” Another respondent reported, “Students who cannot afford the course, we have not found a grant or funding source to assist them.” One respondent stated, “Parents do not complete free or reduced lunch forms which eliminates their child from receiving aid.” Another noted funding challenge included: “Remuneration for the college has been an ongoing issue. We are renegotiating the funding agreement with the district to better fund for the college classes.” One other respondent reported, “we only weigh the staffing
considerations when determining whether we can offer the cost without having to hire more staff.”

Forty respondents answered survey question 36, are there any staffing challenges your institution faces when implementing or considering to implement a dual enrollment program (see Appendix CC). Over 50% \((n=23)\) noted staffing challenges. Staffing issues included availability, approval from the college, teacher preferences, and additional work and responsibility. Seventeen of the respondents reported challenges specifically with ensuring that high school faculty are trained, qualified, and approved by the partnering college to teach dual enrollment courses. For some dual enrollment courses, such as math and accounting, the high school faculty needed content specific master’s degrees. One respondent noted that the partnering college required a master’s degree in math to teach a math dual enrollment. The respondent reported that the math teachers had bachelor’s degrees in math and master’s degrees in education. One respondent noted, “More often than not they get their BS in Math and their MS in education. This is a huge barrier for us.” This requirement prevented the respondent’s high school from offering any dual enrollment math courses. Another respondent’s high school experienced this same barrier with regard to offering dual enrollment accounting courses. One respondent reported:

It is difficult some times to get high school teachers approved by the colleges due to required course work. For example, we couldn’t offer an accounting course because they wouldn’t approve our business teacher . . . you had to have more than a few accounting courses. You basically had to have an accounting degree. This challenged was echoed:
The partnering post-secondary institution makes the HS faculty adjunct instructors. The HS teachers must meet the same requirements that an on campus post-secondary instructor is required to have. Each department has different requirements. What limits us in offering certain courses is that some departments require a content specific masters degree which HS teachers typically do not possess.

Another respondent noted, “The challenge depends on the post-secondary institution. Each college/university has its own requirements for the teaching staff as well as the review of the course curriculum.” Also reported, “Bureaucratic issues around certification (i.e. concerns that DE faculty are not certified to work in a HS setting and getting certification is onerous).” Similarly noted, “The only issues that the school has encountered is making sure that the college will accept the teachers as adjunct professors.” According to one respondent, “Sometimes the approval process for . . . dual enrollment is difficult . . . the process is sometimes frustrating for our teachers.” Other respondents reported that dual enrollment offerings were limited due to staffing issues, “Staff certification issues have prevented us from expanding dual enrollment courses in certain content areas.” One respondent noted high school staffing was reduced due to budget cuts and these cuts limited the amount of available teachers to teach dual enrollment courses and also the amount of “tutors available for students in the programs who need additional support.”

Not only were there issues with staff availability and approval, two respondents also noted that there is a significant amount of additional work required for dual enrollment courses. One respondents stated, “It can be difficult to get teachers to teach
these courses due to the extra layer of work involved at no additional compensation.”

Four respondents reported challenges procuring available staff. One respondent noted, “Adding certain concurrent enrollment courses may increase the staffing needs which is a budgetary issue.” One respondent noted staffing challenges finding available tutors for dual enrollment students.

Survey question 45, are there other challenges or barriers you have encountered when implementing or considering to implement dual enrollment programs, received 37 responses (see Appendix DD). No challenges were reported by 13 respondents. Of the 37 respondents, nine respondents reiterated staffing challenges, including getting faculty approved by the college. Additionally, respondents noted the “amount of extra work some of the college departments require our teachers to do” and “teachers complaining about the paperwork required by the college” as potential barriers to offering dual enrollment courses. One respondent noted one barrier was finding “interested teachers”. Another respondent noted that faculty attitudes towards dual enrollment impacted course offerings:

We have tried desperately to offer a college level Biology course, but the Dean of the Biology department has denied our request each year because he does not believe in dual enrollment. This is very frustrating for our faculty, parents and especially students.

Five respondents noted scheduling challenges, including time of day dual enrollment courses are offered. Courses scheduled after the school day from 4:00 p.m. - 6:00 p.m. were a challenge for some students and according to one respondent, “parents do not like students to travel to a campus.” One respondent noted, “As a Small School
we struggle with offering the opportunity for courses more than one time per year and without offering one dual enrollment course at the same time as another - creating a choice issue.” Another respondent reported, “Trying to make a master schedule with the least amount of scheduling conflicts can be difficult.”

Other challenges were noted. Two respondents mentioned challenges aligning dual enrollment courses with high school and common core requirements. One respondent stated that there were ongoing conversation regarding “dual enrollment vs. AP” courses. Another respondent noted the “lack of universal policy regarding courses students can enroll in and the requirements students must meet to gain credit,” as a barrier to implementing dual enrollment programs. One respondent remarked, “not all college credits earned in HS are accepted by all colleges and that is VERY frustrating to my students and families.”

Other respondents noted issues with parental support of dual enrollment participation. One respondent noted, parents “do not fully understand the benefits” of dual enrollment courses and therefore do not support student participation. One respondent noted, “Parents do not fully understand the benefits of a dual enrollment program and sometimes think that their children can’t handle it even before they have begun.” Another responded added, “Parents and students do not understand the impact of participating in these courses. Students do not seek the challenge for increased knowledge at the college level, while in high school.”

Two respondents noted poor communication between the high school and the partnering college impacted program implementation. One respondent reported a challenge with “meeting the college’s criteria for implementation of a new course.”
Thirty-two respondents answered survey question 44, what additional resources would assist you in your efforts to administer dual enrollment (see Appendix EE). Twelve respondents indicated that additional resources were not needed to administer dual enrollment programs. Eleven respondents reiterated the need for funding to support dual enrollment programs. Two respondents specifically noted the need for tutoring and support staff for dual enrollment students. Respondents \((n=4)\) also suggested that a designated coordinator would be beneficial to administer and increase participation in dual enrollment programs. One respondent remarked, “More assistance with the management side of dual enrollment courses. There is quite a bit of paperwork involved.” The need for greater participation was reported by another respondent noting, “Sample policies for dual enrollment, recruitment plans for getting more students to participate.” Another respondent agreed noting the need for “a person to administer and develop the program to get more participation.” One respondent suggested that courses be offered earlier during the regular school and one noted the need for “more flexibility within the school day.”

Survey question 46, in your opinion, what factors may hinder a school or district from instituting a dual enrollment program, received 38 responses (see Appendix FF). Main hindrances noted were funding \((n=14)\) and staffing \((n=18)\). Concerns related to staffing included, approval and qualifications, and staff motivation to get qualified or teach the college curriculum. Six respondents noted the amount of paperwork, extra work, and additional responsibility for high school staff teaching dual enrollment programs may hinder a school from instituting a dual enrollment program. One respondent reported that one of the things “holding schools in our area from offering
more dual credit courses is amount of extra work some of the college departments require
teachers to do.” Another respondent noted that “not having a dedicated person to keep
track of the paperwork involved,” may hinder a school from offering dual enrollment
course.

Other noted hindrances included, lack of student understanding and student
motivation (n=1), competition with AP courses (n=2), and lack of cooperation and
partnership with colleges (n=2). Five respondents indicated that they did not experience
any factors that hindered dual enrollment programs. One respondents stated, “The dual
enrollment program makes sense.” Another respondent concurred stating, “We love it. If
you have the staff that can be approved, I can see no reason why a school would not offer
these courses.” One respondent maintained that dual enrollment courses were “so much
more beneficial to our students” than AP courses. This respondent reported that they did
not offer any AP courses. According to this respondent, “our students transcripts for our
Partner Colleges have been accepted at Yale, RIT, SUNY, and SUC schools” and dual
enrollment is, “A gift of opportunity for students to excel at the college level.”

The final question in the survey, question 37, the following space is provided for
you to share any additional information or comments, allowed respondents to offer
comments in their own words (see Appendix GG). Fourteen respondents provided
comments in this section. Two respondents indicated that there were no additional
remarks or concerns. Two respondents were thankful for the opportunity to participate
and one respondent asked for a copy of the survey. One respondent expressed a need for
“more explicit policies to support dual enrollment. Each district should also a have point
person and a policy consideration to support DE.”
The eight remaining responses are shared in this section. One respondent reported:

Dual credit has been a wonderful addition to our high school curriculum. We link a lot of our AP courses with Dual Credit opportunities though our community college. This enables students, especially those who attend state schools, to have two chances of their institution granting them credit.

Similarly, one high school noted, “I love that we have the ability to offer so many courses to our students.” This respondent went on to note:

Most course are taught by our faculty members. However, I have set-up DL courses in Psychology and Sociology from a local college which allows their professors to teach our students. This gives our students a great opportunity to experience working with teachers other than the teachers at (the high school). I would love to offer more classes but we are a small school and limited in teachers who can take on anymore in their schedule. I want to offer Graphic Design, Programming, and Music Theory via DL. We have a great space for DL and it is definitely under utilized.

One respondent noted, in addition to earning credit through dual enrollment courses, students are also able to “…take courses at 3 local colleges after high school hours for various fees.”

Another added,

Concurrent enrollment is very popular at our school. We also offer AP courses but concurrent enrollment satisfies general education requirements at most colleges. Students also get a reduced tuition rate and do not have to purchase
their own textbooks or have to pay college fees – which is a cost savings for families. We routinely have students who go on to college and can finish up a semester or even a year early – which is a real cost savings.

Another respondent agreed, “Dual enrollment courses are a wonderful way for students to earn college credits while in high school…and a great way to keep seniors engaged in rigorous courses during their senior year.” One respondent offered, “I am a big proponent of dual enrollment courses. These courses work very well for our student population who work very hard to earn the college credit these courses offer. No test determining college credit is big for us as well.” According to one response, “We have had pretty good success both with the process and with our students being able to transfer their credits.” One particular respondent noted, “for an impoverished district, 70% economically disadvantaged, we have many students who graduate with 20+ college credits.”

**Emergent theme.** A common concern among respondents was staffing challenges. Staffing challenges included ensuring that high school faculty are trained, qualified, and approved by the partnering college to teach dual enrollment courses. Other staffing issues included faculty availability, teacher preferences, and additional work and responsibilities required by the partnering college for dual enrollment program implementation. Furthermore, respondents noted a need for tutors for dual enrollment students and also a need for dual enrollment program coordinators.

**Responses from high schools with no dual enrollment programs.** Not every high school offers a dual enrollment program. If respondents indicated they did not have
a dual enrollment program in survey question 3, skip logic progressed the survey to
survey questions 29, 47-55 (see Appendix HH).

Survey question 29, you indicated that you did not offer dual enrollment courses
to your students, what factors contributed to the decision to not offer dual enrollment
courses, received eight responses. Reasons for not offering dual enrollment included
\((n=6)\): students not interested \((n=1)\), prefer to offer AP courses \((n=2)\), lack of a local
college partner \((n=1)\), need not identified \((n=1)\), and other \((n=1)\).

Survey questions 47, 48, 49 collected population statistics from respondents with
no dual enrollment programs (see Appendix II). Survey question 47 asked what is the
total number of students in your high school grades 9-12. The population range among
the six responses was 325-1,706, with a mean of 847 and SD of 612. Survey question 48,
what percentage of your total student body is eligible to receive free or reduced lunch,
received six responses. Four of the respondents indicated that the high schools had a free
and reduced lunch eligibility of 75% or greater. Survey question 49, what is the total
number of minority students (African American and Latino combined), received six
responses. Of those six, four of the respondents from high schools with no dual
enrollment programs had a total minority population, African American and Latino, of
more than 90% of the total high school population. The remaining two respondents had a
minority population of less than 10%.

Survey question 50, are there any funding challenges your institution faces when
implementing or considering to implement dual enrollment programs, received two
responses. One respondent reported, “we do not have excess funding for additional
programs.” The other added, “we would have to consider whether the community would support the expense added to the school budget.”

Survey question 51, are there any staffing challenges your institution faces when implementing or considering to implement dual enrollment programs, received two responses. One respondent offered a response stating, “We would have to determine whether teachers are willing to partner with colleges to meet any additional requirements.” The other respondents indicated that there were no staffing challenges when considering to implement a dual enrollment program.

Survey question 52, are there other challenges or barriers you may expect when implementing or considering to implement dual enrollment programs, received one response. This respondent indicated that there were no other challenges or barriers considered. Survey question 53, what additional resources would assist you in implementing a dual enrollment program if desired, received no responses. Survey question 54, in your opinion what factors might hinder a school or district from instituting a dual enrollment program, received no responses.

Summary of Results

This chapter presented the data collected from the surveys regarding dual enrollment programs in public high schools in New York. The characteristics of dual enrollment programs in respondent’s high schools, along with the demographics of these high schools was described. The open ended questions allowed respondents to include additional information and comments regarding challenges and issues with implementing dual enrollment programs. Many respondents reported experiencing staffing challenges for dual enrollment courses and support services for dual enrollment students. The next
chapter will discuss the implications of the findings, limitations of the study, and recommendations.
Chapter 5: Discussion

Introduction

The purpose of this descriptive research was to examine the characteristics of dual enrollment programs in New York State public high schools. With no statewide dual enrollment policy in New York, dual enrollment programs vary among public schools throughout the state. This study will inform policymakers of the current state of dual enrollment programs in high schools throughout New York.

There are several noted benefits of increasing the education level of the labor force and increasing the number of college graduates (Barnett & Stramm, 2010; McMahon, 2009). College graduates are more likely to contribute to society, pay taxes, and vote in elections. College graduates will generally earn greater income than high school graduates (Rose, 2010), and are less likely to require welfare, commit crimes, or be incarcerated (Barnett & Stramm, 2010).

Over 60% of high school graduates headed for college, are not considered college ready (National Center for Public Policy on Higher Education, 2010). These students require noncredit remedial and developmental courses before they begin earning credits toward a degree. Taking noncredit courses lengthens the time and increases the cost students spend in college.

Dual enrollment programs offer a pathway to postsecondary education, increase college readiness among participants, and increase persistence in college (An, 2011; Fowler & Luna, 2009; Ganzert, 2014; Hoffman, 2003; Hofmann & Voloch, 2012; Karp
et al., 2007; Pretlow & Wathington, 2014). Midrange students, high performing students, and students from various socioeconomic levels benefit from dual enrollment participation. A broader range of students participates in dual enrollment courses when efforts to expand dual enrollment to underserved students are initiated (Kim, 2012; Pretlow & Wasthington, 2014). Dual enrollment students have higher first semester GPAs and require less remediation that nondual enrollment students (An, 2012; Ganzert, 2014; Hoffman, 2003).

There is limited comprehensive data regarding dual enrollment programs in public high schools in New York State. This study contributes to that limited database. This chapter will discuss the implications of the findings as well as the limitations of the study. Also included are recommendations for future research or actions based on the findings. Finally, a summary of the dissertation, analysis, and results are included.

**Implications of Findings**

Findings from this study describe current dual enrollment programs in New York State public high schools, grades 9-12. This information provides a description of the current of dual enrollment programs in New York State. The findings revealed the characteristics and differences in dual enrollment. Differences include the number of courses offered, type of courses offered, eligibility requirements for students, time of day dual enrollment courses are offered, availability of support services, how students and parents are informed of dual enrollment programs, and the cost responsibility for dual enrollment courses.

Seventy-eight of 80 respondents offered traditional courses such as English, sociology, and psychology while only 30 respondents offered career and technical
education (CTE) courses. Technical and vocational courses appeal to low and middle performing students who do not meet college eligibility requirements for traditional dual enrollment courses (Barnett & Kim, 2014).

The open ended questions collected information directly from practitioners regarding dual enrollment programs. Respondents were permitted to provide specific issues, concerns, and positive and negative feedback in their own words. Based on respondent feedback, a common theme, staffing issues, emerged.

Staffing challenges included getting high school faculty approved by the participating colleges to teach dual enrollment courses. If high schools were unable to get high school faculty approved by the partnering college, dual enrollment courses in that school were limited. Furthermore, budget cuts reduced the high school faculty and limited the amount of teachers available to teach dual enrollment courses.

Another noted staffing issue included providing staff for tutoring and supporting dual enrollment students. Offering dual enrollment programs to low and midrange students is not enough (Karp & Hughes, 2008). Low and midrange students may require additional support and assistance to succeed in dual enrollment coursework and appropriate support staff needs to be available.

There was a significant amount of paperwork for high school faculty involved with implementing dual enrollment programs. This paperwork required for dual enrollment students may prevent high school counselors from encouraging student participation (Kinnick, 2012). Some school counselors encouraged students to take AP courses rather than dual enrollment courses, as AP courses required less paperwork and administrative responsibilities.
Funding for dual enrollment courses varied across the state. In some cases, funding for dual enrollment courses was provided by the district, the high school, or the participating college. In high schools where such funding arrangements did not exist, funding challenges were noted. Dual enrollment opportunities were non-existent or limited for students in those schools. In New York, some families and students cannot pay the reduced tuition rate and are unable to participate in dual enrollment courses. Similar findings were seen in Florida. Dual enrollment program expenses that were not covered by the state, college, or the high school resulted in fees passed on to students and families (Hunt, 2007). These fees negatively impacted student participation in dual enrollment courses. Student’s inability to pay fees for dual enrollment courses, resulted in unequal access to earning college credit while in high school.

There are differences in the way dual enrollment program information is provided to parents and students. Some schools hold parent meetings while other schools rely on newsletters or the high school’s website to convey dual enrollment information. Many parents do not understand the benefits and value of dual enrollment courses. This lack of understanding creates a barrier to student participation in dual enrollment courses. This communication barrier is more prevalent for low socioeconomic families (An, 2012).

Poor communication between the high school and the partnering college also presented challenges, especially for those high schools partnering with more than one secondary institution. When communication challenges exist, some high school avoided implementing dual enrollment programs (Howley et al., 2013)
Some responding high schools did not offer dual enrollment courses. Four of these six high schools had a free and reduced lunch rate of over 75% and had over 90% minority population. The students in these high schools did not have access to dual enrollment programs and were unable to earn dual enrollment college credits while in high school.

The benefits of dual enrollment participation are well noted. In high schools with well-developed dual enrollment programs, students have the advantage of earning college credit and reaping the benefits of participating in these programs. In high schools with no or limited dual enrollment programs, students are not able to earn college credit, experience college level work, or many of the other noted benefits of dual enrollment participation, resulting in unequal access among students.

Limitations of the Study

There are noted limitations to this study. The list of public high schools enrolling grades 9-12 obtained from nysed.gov included 856 high schools. This list did not contain complete contact and email information for every school. Some contact information was obsolete and 42 email addresses bounced as undeliverable.

This study was conducted using a nonrandom, purposive sample and therefore the results are not generalizable. The survey instrument was able to capture descriptive data on dual enrollment programs. Regarding the second part of question 2, “…what factors contribute to these differences,” outcome variables were not established or captured with the survey instrument. Therefore, outcome variables could not be tested to identify contributing factors to dual enrollment program differences throughout the state.
The initial approach was to conduct a needs assessment of dual enrollment programs in New York State. However, upon construction and distribution of the survey instrument, it was evident that the resulting research was descriptive research. Therefore, responses to answer research question 3, what practices and policies may impact dual enrollment in New York State, based on information gathered from this statewide needs assessment, were limited and did not flow from the study.

**Recommendations**

Increasing the education level of the state’s population will benefit the individual, the community, and the state. Educated citizens are more likely to become contributing members of society, earn higher wages, pay taxes, require less welfare, and commit fewer crimes, than uneducated individuals (Barnett & Stramm, 2010; Baum, 2014; Carnevale, Rose, & Cheah, 2010; Rose, 2013). To compete in the global economy, the United States demands a greater number of college educated and degreed workers (Callan et al., 2006; Carnevale, Smith, & Strohl, 2010; Reindl, 2007). To meet that demand, more students, including minorities, students of color, and low income students, need access to college (Callan et al., 2006; Reindl, 2007).

**Recommendations for stakeholders.** Access to a college education is important. A way to increase college access is to develop a statewide policy requiring all New York public high schools to offer dual enrollment programs.

Not only does dual enrollment offer a pathway to college for many students who may not typically be considered college bound, dual enrollment also better prepares students for college level work. Therefore, dual enrollment courses should be offered in all New York State high schools and accessible to a broad range of students. Each dual
enrollment program should offer traditional college courses, as well as CTE and vocational courses. Expanding course offerings to include CTE and vocational courses will appeal to a wide range of students and not just students already considered to be college bound. According to survey results, 38% of respondents offered CTE courses and 5% offered vocational courses. To ensure greater access and participation among underserved students, a statewide policy must include provisions to require schools to offer traditional, CTE, and vocational dual enrollment courses as part of the dual enrollment program. Dual enrollment programs, focused on increasing participation among formerly underrepresented students, including minorities and students from low income families, have been successful in California (Hughes et al., 2012), Virginia (Pretlow & Wathington, 2014), Tennessee (Barnett & Kim, 2014), Oklahoma (Vargas et al., 2013), and New York City (Kim, 2012). Virginia, Memphis, New York City, Tulsa, and Oklahoma experienced an increase in participation among previously underserved students when course offerings expanded to include CTE and vocational courses. Low and midrange students may require additional support and assistance to succeed in dual enrollment coursework (Karp & Hughes, 2008). The state policy should include a provision for support services for dual enrollment students.

Simply offering dual enrollment courses is not enough. Respondents noted that parents who do not understand the benefits of dual enrollment present a barrier to student participation. School administrators, counselors, and teachers must work hard to communicate dual enrollment opportunities and benefits to parents and students. Program information must be communicated in a way that parents understand and in an avenue that will reach the desired population. Dual enrollment program communication
must happen early and often. Students and parents should receive dual enrollment program information beginning in seventh and eighth grade. In Virginia, public high school students begin learning about dual enrollment opportunities during freshman year. (Pretlow & Wathington, 2014). This early introduction to dual enrollment resulted in increased participation among previously underserved students. Early introduction to dual enrollment may increase parent and student understanding of program benefits. Schools need to use a variety of mediums to convey information to students and parents, including social media. For example, to increase participation in dual enrollment courses among minorities and low income students, school counselors in Memphis met with students, parents, and community outreach centers (Barnett & Kim, 2014).

Survey respondents noted funding challenges particularly for students and parents unable to afford dual enrollment tuition. Providing funding for dual enrollment courses is imperative. Community colleges spend over $4 billion a year on remediation (Scott-Clayton & Rodriguez, 2012). Dual enrollment students require less remediation once they enroll in college than nondual enrollment students. Potentially, funds could be reallocated to finance dual enrollment programs, reducing the need for remediation.

There are several states that provide free dual enrollment courses to high school students. For example, in Florida all public community colleges must offer dual enrollment courses to high schools (ECS, 2015). Students are not required to pay for tuition, fees, lab fees, and textbooks if enrolled in a dual enrollment course offered through the public community colleges. In North Carolina, tuition for dual enrollment courses is financed by the state. In Iowa, the school districts pay dual enrollment tuition
and students bear no cost to enroll. Likewise, Virginia students receiving dual enrollment credits from a college within the Virginia state system, pay no tuition or fees.

For dual enrollment courses to be accessible for all students, a statewide policy should consider how dual enrollment tuition will be funded. Many states have shared responsibility for dual enrollment credits, often sharing the cost among districts, the college, and the students. Many states such as Illinois, Kentucky, South Dakota, and Texas provide waivers or scholarships for those students unable to afford the reduced rate.

There are 64 State University of New York (SUNY) campuses throughout the state. State 4-year colleges and 2-year community colleges are ideal partners to offer dual enrollment courses to public high schools throughout the state, as seen in Virginia, North Carolina, and Florida. Several SUNYs have existing dual enrollment programs. According to survey results, dual enrollment programs in New York vary greatly in the tuition amount parents and students must pay. A state policy should provide a state approved universal dual enrollment tuition rate. A statewide policy should standardize tuition requirements and tuition responsibility throughout the SUNY system to ensure equal access to dual enrollment courses across the state.

Dual enrollment programs in New York also vary in the number of courses offered, eligibility requirements, and which grade levels may participate. To ensure consistency in dual enrollment programs among high schools throughout the state, a statewide policy may outline specific mandatory offerings and standardized eligibility requirements. A statewide policy will help minimize differences in dual enrollment opportunities between high schools by initializing basic program tenets. A statewide
policy will provide uniform guidelines to ensure greater consistency in the number of dual enrollment courses a student is permitted to take and which grade levels that may participate.

Respondents noted the value of a dual enrollment program administrator or coordinator. To ensure dual enrollment programs are managed consistently throughout the state, and to minimize the burden of additional work, a statewide policy may account for a dual enrollment coordinator or liaison with uniform responsibilities. The liaison or coordinator would be responsible for managing and coordinating paperwork, registration requirements, and college grading procedures. Templates should be available to assist schools and partnering colleges with uniform policies and procedures to increase participation. This uniformity will help ensure consistent implementation and compliance across the state.

**Recommendations for further research.** Additional research is needed to explore possible relationships between dual enrollment participation and various program components such as tuition responsibility, recruitment efforts, time of day courses are offered, type of courses offered, eligibility requirements, and the number of courses offered. New York State may benefit by conducting a statewide dual enrollment program evaluation including a comprehensive needs assessment of dual enrollment programs throughout the state.

The survey in this research gathered information from public high schools, enrolling grades 9-12, in New York State. In order to get a comprehensive evaluation of all dual enrollment programs in the state, further research should include data from private and charter high schools, as well as junior/senior high schools that enroll grades
beyond 9-12. Furthermore, this survey focused on dual enrollment programs from the perspectives of high school administrators and counselors. Future research should include gathering data from colleges and universities to examine challenges, issues, and best practices from the perspective of college dual enrollment program administrators. Further research is needed to collect information from the perspective of students and families who participated and those who did not participate in dual enrollment programs while in high school.

Education is a valuable asset. Education may help individuals acquire wealth, participate in society, and promote self-worth (Rawls, 1971). Increasing college access may help close the gap between socioeconomic groups (Hoyle & Kutka, 2008). Equal opportunity to education and college access should be a priority of education policy. This priority includes providing college access to minorities, students from low income households, and low to mid performing students. Dual enrollment is a pathway to college. Dual enrollment programs increase college access for low socioeconomic students, minorities, and low to midrange performing students (An, 2012; Pretlow & Wathingon, 2013).

Conclusion

The labor force will require a greater number of college educated individuals in the future (Carnevale, Smith, & Strohl, 2010; Reindl, 2007). More than half of the job growth in the United States in the next decade will require postsecondary education (Reindl, 2007). As baby boomers retire and create vacancies, qualified workers will be needed to fill these vacancies. Society will benefit as the number of college graduates increases (Barnett & Stamm, 2010). Increasing the number of college educated citizens
prepares the workforce to compete globally (Barnett & Stramm, 2010; Hoyle & Kutka, 2008). Overall societal benefits of increasing the number of college graduates include: college graduates are more likely to contribute to society, pay taxes, and vote in elections (Barnett & Stamm, 2010; McMahon, 2009). College graduates will generally earn greater income than high school graduates (Rose, 2010). To meet future labor demands, states need to increase the education of “all students” (Callan et al., 2006, p.3) including minorities, low income students, and low to mid performing students.

Many first year college students are not college ready and require remediation in (National Center for Public Policy on Higher Education, 2008). These students are required to take noncredit remedial or development courses. Taking remedial courses lengthens the time to earn a degree and often leaves students discouraged and more prone to drop out of college before degree completion (An, 2012).

Dual enrollment programs offer a pathway to postsecondary education, increase college readiness among participants, and also increase persistence in college (An, 2011; Fowler & Luna, 2009; Ganzert, 2014; Hoffman, 2003; Hofmann & Voloch, 2012; Karp et al., 2007; Pretlow & Wathington, 2014). Midrange students, high performing students, and students from various socioeconomic levels benefit from dual enrollment participation. A broader range of students participated in dual enrollment courses when efforts to expand dual enrollment to underserved students were initiated (Kim, 2012). Career and technical dual enrollment courses provide college access to many students who may otherwise be unlikely to attend college (Allen & Dadgar 2012; An, 2012; Hofmann & Voloch, 2012). This increase in college access may help narrow the gap between high and low socioeconomic groups (An, 2012; Hoyle & Kutka, 2008).
There are 47 states with statewide policies governing dual enrollment programs. New York does not have a statewide policy and dual enrollment decisions are determined by the individual high schools throughout the state. The lack of a statewide policy may lead to differences in dual enrollment programs across the state. Additionally, there may be participation gaps among students throughout the state. There is little research regarding dual enrollment programs throughout New York State. A descriptive study was used to gather information on existing dual enrollment programs, differences among high schools, as well as input from practitioners.

The goal of this descriptive study was to collect information on the characteristics of current dual enrollment programs in public high schools in New York, enrolling grades 9-12. This descriptive research sought to identify any differences that existed in programs throughout the state. These data included the type and number of courses offered, the cost of dual enrollment courses, financial responsibility for dual enrollment courses, eligibility requirements for student participation, and how students were recruited or informed of dual enrollment courses. Data collected also included who teaches dual enrollment courses and how, where, and when dual enrollment courses were delivered to high school students.

This descriptive research provided information on the status quo of dual enrollment programs in public high schools in New York State. The data collected was analyzed using descriptive measures such as frequencies, ranges, means, medians and standard deviations. The data provided a description of dual enrollment programs that currently exist in public high schools in New York State and answered the question, “what is?” A series of open ended questions captured feedback from practitioners. The
data collected from the open ended questions were coded to identify common concepts and themes.

According to the information collected, dual enrollment programs vary throughout the state. Specifically, there are differences in eligibility requirements for student participation, the type of dual enrollment courses, the number of dual enrollment courses offered, the time of day courses are offered, and how students and parents are informed of dual enrollment courses. Respondents also expressed staffing challenges, predominately with getting high school faculty approved by the partnering college to each dual enrollment courses. The availability of approved high school faculty impacted the number and type of dual enrollment courses offered.

Other challenges that impacted dual enrollment participation rates were noted. In some cases, when dual enrollment tuition and fees were passed on to parents and students, some students could not afford to participate. In some instances, parents and students did not understand the benefits of dual enrollment and this further impacted participation rates.

Education is a right. All students need access to higher education. Executive leaders and policymakers must make equal access to education a priority. To promote social justice, this priority must include providing college access to minorities, students from low income households, and low to mid performing students. Dual enrollment is a pathway to college and increases college readiness among participants. Dual enrollment participation saves students time and money toward earning a college degree. Dual enrollment programs need consistency in quality, implementation, and support throughout the state. To ensure equal access, dual enrollment programs must not be cost
prohibitive. The future of our state and our economy depends on educating our workforce in a timely and affordable manner.
References


from:

http://www.highereducation.org/reports/college_readiness/CollegeReadiness.pdf


*R*eadiness matters: *The impact of college readiness on college persistence and degree attainment* (2013). Iowa City, IA: ACT.


Appendix A

Introduction Letter to Potential Participants

Dear Principal/Dual Enrollment Program Administrator:

My name is Lynn Kattato and I am an Ed. D. in Executive Leadership doctoral candidate at St. John Fisher College. I am writing to request your assistance in my dissertation research which examines dual enrollment programs in public high schools in New York State.

As Principal, I invite you to complete a brief anonymous survey or forward this email and survey link to the dual enrollment coordinator (or appropriate employee) in your school. Participation is voluntary and there is no compensation for participating. There are approximately 13-35 questions in the survey and it will take 15-30 minutes to complete.

The link to the survey is listed below. The survey is administered in Qualtrics, an electronic survey format, and all responses will be confidential and anonymous. After all the responses are collected and analyzed, the results may be shared with the respondents. To receive the survey analysis, respondents will be directed to a separate field to enter their email address at the end of the survey.

The Institutional Review Board at St. John Fisher College has reviewed and approved this research and the data collection tool. This research is being conducted under the supervision of Dissertation Chair, Dr. Linda Hickmon Evans. If you have any questions or concerns please feel free to contact me at lk09985@sjfc.edu or via email at lk09985@sjfc.edu.

Thank you for your consideration.

Sincerely,

Lynn Kattato
Doctoral Candidate
St. John Fisher College
lk09985@sjfc.edu
Appendix B

Survey

Intro This study attempts to collect information about dual enrollment programs in public high schools throughout New York State. The following survey will take approximately 15-30 minutes to complete. Data will be collected and shared in aggregate form only. All responses are confidential and your identity will remain anonymous. You may start, stop, and restart the survey if necessary. All answers will be saved until you re-enter the survey. Please refer to the academic school year 2014-2015 when answering the survey questions.

Q1 Informed Consent Form This study attempts to collect information about dual enrollment programs at public high schools throughout New York State. I understand that by continuing with this survey I consent to participate. I understand data will be collected and shared in aggregate form only.
- I agree (1)
- I do not agree and do not wish to participate (2)

Q3 Did you offer dual enrollment courses to students in your high school during the 2014-15 academic school year?
- Yes (1)
- No (2)

If No Is Selected, Then Skip To You indicated that you do not offer d...

Q4 What type of dual enrollment courses did you offer in your high school during the 2014-15 academic school year? (Check all that apply).
- Traditional courses (i.e. English, Sociology, etc.) (1)
- Career and Technical Education (CTE) (2)
- Vocational Courses (3)
- Other (please specify) (4) _________________

Q5 Do you have a written dual enrollment policy?
- Yes (1)
- No (2)
- Uncertain (3)
Q6 During the 2014-15 academic school year did your school offer dual enrollment through a partnership with:
- a 4-year college or university (1)
- a 2-year college or community college (2)
- both (3)

Q7 Did any of your high school students take dual enrollment courses in the 2014-15 school year?
- Yes (1)
- No (2)

Q8 If yes, how many high school students took dual enrollment courses? (Please provide unduplicated head counts; do not count students more than once if they took more than one course.)

Q9 During the 2014-15 school year, how were the dual enrollment courses offered to the high school students? (Check all that apply).
- Taught at the high school by high school faculty (1)
- Taught at the high school by college faculty (either full time or adjunct) (2)
- Taught on the college campus (3)
- Through distance learning where the teacher and the student were in separate locations? (through audio, video, internet, or other technologies) (4)
- Some other location (please specify) (5) ____________________

Q10 If high school faculty teach dual enrollment courses, do the high school faculty receive any additional compensation or stipend? (Check only one).
- The high school faculty teaching dual enrollment courses receive no additional compensation or stipend. (1)
- The high school faculty teaching dual enrollment courses receive additional compensation per course? (Please enter the dollar amount per course) (2)

- The high school faculty teaching dual enrollment courses receive additional compensation per credit hour? (Please enter the dollar amount per credit hour) (3)

- The high school faculty teaching dual enrollment courses receive additional compensation in the form of a flat rate? (Please enter the dollar amount of the flat rate) (4) ________________

- Other (5) ____________________

If The high school faculty teach dual enrollment courses Is Selected, Then Skip To How many dual enrollment courses did...
Q41 If high school teachers teaching dual enrollment courses receive additional compensation or stipend, how is that compensation funded? (Check only one.)
✓ By the high school or school district (1)
✓ By the college or university offering the dual enrollment credits (2)
✓ Shared by both the high school and college or university (4)
✓ Other (3) ____________________

Q11 How many dual enrollment courses did you offer students in a ten month 2014-15 school year? Please provide a total count including fall semester, spring semester, and full year courses.
✓ 1-2 (1)
✓ 3-4 (2)
✓ 5-6 (3)
✓ 7-8 (4)
✓ 9-10 (5)
✓ more than 10 (please specify) (6) ____________________

Q12 During the 2014-15 school year, when are dual enrollment courses offered to the high school students? (Check all that apply).
✓ During the regular school day (1)
✓ Early morning before the official school day starts (2)
✓ After school period after the official school day ends (3)
✓ Evening (4)
✓ Saturday (5)
✓ Other (6) ____________________

Q13 During the 2014-15 school year, what was the maximum number of courses per academic term (e.g., semester, quarter) a high school student was allowed to take as part of the dual enrollment program(s)? (Check only one.)
✓ One course per academic term (1)
✓ Two courses per academic term (2)
✓ Three courses per academic term (3)
✓ Four courses per academic term (4)
✓ No maximum number per academic term (5)
✓ Maximum number of courses was determined by credit hours, not by number of courses. Students were permitted to take ________ credits per semester. (6) ____________________
Q14 During the 2014-15 school year, which grade levels of high school students were eligible to take college level courses as part of the dual enrollment program? (Check all that apply.)
- 9th (1)
- 10th (2)
- 11th (3)
- 12th (4)
- Some other grades (specify) (5) ____________________

Q15 During the 2014-15 school year, were there academic eligibility requirements for high school student to participate in your institutions' dual enrollment program?
- Yes (1)
- No (2)
If No Is Selected, Then Skip To Does your school have a designated st...

Q16 What were the academic eligibility requirements for high school students to participate in your dual enrollment program? (Check all that apply).
- Minimum high school grade point average (Please enter minimum GPA on a 4-point scale) (1) ______________
- Minimum high school class rank (Please enter minimum rank) (2) __________________
- Minimum score on a standardized test, such as the SAT (Please indicate standardized test and minimum score) (3) ______________
- Passing a college placement test given by the high school or dual enrollment college (4)
- Some other requirement (specify) (5) ______________

Q17 Does your school have a designated staff member to coordinate the dual enrollment program?
- Yes (1)
- No (2)
If No Is Selected, Then Skip To Who makes decisions regarding whether...

Q18 If you answered "YES", what is the title or position of the staff member designated to coordinate the dual enrollment program?
- Guidance Counselor (1)
- Assistant Principal (2)
- Faculty Member (3)
- Other (4) ____________________
Q19 Who makes decisions regarding whether or not an individual student may enroll in dual enrollment courses? (Check all that apply.)
- Building principal (1)
- Parents and students (2)
- Guidance counselor (3)
- School based committee (4)
- Participating college or university (5)
- Other (please specify) (6) ____________________

Q20 During the 2014-15 school year, which sources paid tuition for the dual enrollment courses taken by high school students in the dual enrollment programs? (Check all that apply.)
- The college (1)
- The state (2)
- The high school/district (3)
- Parents/students (4)
- Other source (specify) (5) ____________________

Q21 During the 2014-15 school year, what did high school students (and their parents) generally pay out of pocket for dual enrollment courses? (Check only one.)
- Full tuition (1)
- Partial tuition (2)
- Books and/or fees only (3)
- Nothing (tuition, books, fees were paid in full by other sources) (4)
- It varied (5) ____________________

If Full tuition Is Selected, Then Skip To If parents/students paid for the coll...
If Partial tuition Is Selected, Then Skip To If parents/students paid for the coll...

Q22 If parents/students paid for the college credits from dual enrollment courses, what was the rate per______? (Check only one).
- Per course? (Please enter the dollar amount per course) (1) ____________________
- Per credit hour? (Please enter the dollar amount per credit hour) (2) ____________________

Q23 Did your institution provide extra support services specifically for students enrolled in dual enrollment course (e.g., tutoring, academic advising, study skills workshops, pre-college counseling)?
- Yes (1)
- No (2)

If No Is Selected, Then Skip To Is dual enrollment program informatio...
Q24 What extra support services were specifically offered to students enrolled in dual enrollment course? (Check all that apply.)

☐ Tutoring (1)
☐ Academic advising (2)
☐ Study skills workshops (3)
☐ College application/selection counseling (4)
☐ Financial aid counseling (5)
☐ Some other support services (specify) (6) ____________________

Q25 Is dual enrollment program information provided to the students?

☐ Yes (1)
☐ No (2)

If No is selected, then skip to How do parents of your students recei...

Q26 How do students in your high school receive information about dual enrollment course offerings? (Check all that apply.)

☐ Guidance counselor (1)
☐ Teachers (2)
☐ Principal (3)
☐ Parent meeting (4)
☐ Newsletter (5)
☐ College representative (6)
☐ Other (specify) (7) ____________________

Q27 How do parents of your students receive information about dual enrollment course offerings? (Check all that apply.)

☐ Guidance counselor (1)
☐ Teachers (2)
☐ Principal (3)
☐ Parent meeting (4)
☐ Newsletter mailed to student's home address (5)
☐ College Representative (6)
☐ Parents are not specifically notified (7)
☐ It is expected that students convey information to parents (8)
☐ Other (specify) (9) ____________________
Q28 If your school offered dual enrollment courses but you did not have any students enrolled in dual enrollment courses in the 2014-15 school year, please provide reasons for lack of participation. (Check all that apply)

- Students prefer AP courses (1)
- Faculty prefer to teach AP courses (2)
- Students did not meet eligibility requirements (3)
- Students not interested in subject matter (4)
- Students unwilling or unable to pay tuition of dual enrollment courses (5)
- Other (6) ____________________

Q30 What is the total number of students in your high school grades 9th - 12th?

Q31 What percentage of your total student body is eligible to receive free or reduced lunch?

Q32 What is the total number of minority students (African American and Latino combined)?

Q33 How many dual enrollment participants are eligible to receive free or reduced lunch?

Q34 How many dual enrollment participants are minority students?

Q35 Are there any funding challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.

Q36 Are there any staffing challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.

Q35 Are there any funding challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.

Q36 Are there any staffing challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.

Q45 Are there any other challenges or barriers you have encountered when implementing or considering to implement dual enrollment programs? Please explain.

Q44 What additional resources would assist you in your efforts to administer dual enrollment?

Q46 In your opinion, what factors might hinder a school or district from instituting a dual enrollment program? Please explain.

Q37 The following space is provided for you to share any additional information or comments, if you wish:

If The following space is prov... Is Empty, Then Skip To Would you like to see the results of ...If The following space is prov... Is Not Empty, Then Skip To Would you like to see the results of ...
Q29 You indicated that you do not offer dual enrollment courses to your students. What factors contribute to the decision to not offer dual enrollment courses? (Check all that apply)

- Students not interested (1)
- Lack of faculty support (2)
- Lack of principal support (3)
- Lack of superintendent's support (4)
- Prefer to offer AP courses (5)
- Lack of a college partner to offer college credits (6)
- Other (7) ____________________

Q47 What is the total number of students in your high school grades 9th - 12th?

Q48 What percentage of your total student body is eligible to receive free or reduced lunch?

Q49 What is the total number of minority students (African American and Latino combined)?

Q50 Are there any funding challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.

Q51 Are there any staffing challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.

Q52 Are there any other challenges or barriers you have encountered when implementing or considering to implement dual enrollment programs? Please explain.

Q53 What additional resources would assist you in implementing a dual enrollment program, if desired?

Q54 In your opinion, what factors might hinder a school or district from instituting a dual enrollment program? Please explain.

Q55 The following space is provided for you to share any additional information or comments, if you wish:

Q43 Would you like to see the results of this survey?

- Yes (1)
- No (2)

Email Address
Q1 To receive the results of this survey analysis, please provide your email address. This entry is not linked in any way to your survey responses.
Appendix C

Protecting Human Research Participants Certificate

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that Lynn Kattato successfully completed the NIH Web-based training course “Protecting Human Research Participants”.

Date of completion: 07/12/2015

Certification Number: 1797686
Dear Ms. Kattato:

Thank you for submitting your research proposal to the Institutional Review Board.

I am pleased to inform you that the Board has approved your Expedited Review project, “Needs Assessment: Dual Enrollment in Public High Schools in New York State and Implications for Policy”.

Following federal guidelines, research related records should be maintained in a secure area for three years following the completion of the project at which time they may be destroyed.

Should you have any questions about this process or your responsibilities, please contact me at irb@sjfc.edu.

Sincerely,

Eileen Lynd-Balta, Ph.D.
Chair, Institutional Review Board
ELB:jdr
Appendix E

Survey Questions Aligned with Research Questions 1 & 2

The following survey questions were designed to answer Research Questions 1 & 2:

Q3 Did you offer dual enrollment courses to students in your high school during the 2014-15 academic school year?

Q4 What type of dual enrollment courses did you offer in your high school during the 2014-15 academic school year? (Check all that apply).

Q5 Do you have a written dual enrollment policy?

Q6 During the 2014-15 academic school year did your school offer dual enrollment through a partnership with:

Q7 Did any of your high school students take dual enrollment courses in the 2014-15 school year?

Q8 If yes, how many high school students took dual enrollment courses? (Please provide unduplicated head counts; do not count students more than once if they took more than one course.)

Q9 During the 2014-15 school year, how were the dual enrollment courses offered to the high school students? (Check all that apply).

Q10 If high school faculty teach dual enrollment courses, do the high school faculty receive any additional compensation or stipend? (Check only one).

Q41 If high school teachers teaching dual enrollment courses receive additional compensation or stipend, how is that compensation funded? (Check only one.)

Q11 How many dual enrollment courses did you offer students in a ten month 2014-15 school year? Please provide a total count including fall semester, spring semester, and full year courses.

Q12 During the 2014-15 school year, when are dual enrollment courses offered to the high school students? (Check all that apply).
Q13 During the 2014-15 school year, what was the maximum number of courses per academic term (e.g., semester, quarter) a high school student was allowed to take as part of the dual enrollment program(s)? (Check only one.)

Q14 During the 2014-15 school year, which grade levels of high school students were eligible to take college level courses as part of the dual enrollment program? (Check all that apply.)

Q15 During the 2014-15 school year, were there academic eligibility requirements for high school student to participate in your institutions' dual enrollment program?

Q16 What were the academic eligibility requirements for high school students to participate in your dual enrollment program? (Check all that apply).

Q17 Does your school have a designated staff member to coordinate the dual enrollment program?

Q18 If you answered "YES", what is the title or position of the staff member designated to coordinate the dual enrollment program?

Q19 Who makes decisions regarding whether or not an individual student may enroll in dual enrollment courses? (Check all that apply.)

Q20 During the 2014-15 school year, which sources paid tuition for the dual enrollment courses taken by high school students in the dual enrollment programs? (Check all that apply.)

Q21 During the 2014-15 school year, what did high school students (and their parents) generally pay out of pocket for dual enrollment courses? (Check only one.)

Q22 If parents/students paid for the college credits from dual enrollment courses, what was the rate per ______? (Check only one).

Q23 Did your institution provide extra support services specifically for students enrolled in dual enrollment course (e.g., tutoring, academic advising, study skills workshops, pre-college counseling)?

Q24 What extra support services were specifically offered to students enrolled in dual enrollment course? (Check all that apply.)

Q25 Is dual enrollment program information provided to the students?

Q26 How do students in your high school receive information about dual enrollment course offerings? (Check all that apply.)

Q27 How do parents of your students receive information about dual enrollment course offerings? (Check all that apply).
Q28 If your school offered dual enrollment course but you did not have any students enrolled in dual enrollment courses in the 2014-15 school year, please provide reasons for lack of participation? (Check all that apply.)
### Appendix F

Type of Courses Offered

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Percentage of Respondents</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>96.3%</td>
<td>77</td>
</tr>
<tr>
<td>Career &amp; Technical</td>
<td>37.5%</td>
<td>30</td>
</tr>
<tr>
<td>Vocational</td>
<td>5%</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>&lt;3%</td>
<td>2</td>
</tr>
</tbody>
</table>
### Appendix G

**Dual Enrollment Partnering Colleges**

<table>
<thead>
<tr>
<th>College Partner</th>
<th>Percentage of Respondents</th>
<th>Number of Respondents $(n=82)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-year College</td>
<td>29%</td>
<td>24</td>
</tr>
<tr>
<td>4-year College or University</td>
<td>15%</td>
<td>12</td>
</tr>
<tr>
<td>Both</td>
<td>56%</td>
<td>46</td>
</tr>
</tbody>
</table>
## Appendix H

**Where Dual Enrollment Courses Are Taught**

<table>
<thead>
<tr>
<th>Where Dual Enrollment Courses Taught</th>
<th>Percentage of Respondents</th>
<th>Number of Respondents (n=70)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taught at the high school by high school faculty</td>
<td>94%</td>
<td>66</td>
</tr>
<tr>
<td>Taught at the high school by college faculty</td>
<td>9%</td>
<td>6</td>
</tr>
<tr>
<td>Taught on the college campus</td>
<td>20%</td>
<td>14</td>
</tr>
<tr>
<td>Through distance learning</td>
<td>13%</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix I

Did High School Faculty Receive Additional Compensation

<table>
<thead>
<tr>
<th>Responses</th>
<th>Number of Respondents (n=65)</th>
<th>Amount Compensated</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Compensation</td>
<td>57</td>
<td>-</td>
</tr>
<tr>
<td>Compensation Per Course</td>
<td>3</td>
<td>$150, 500, 800</td>
</tr>
<tr>
<td>Compensation Per Credit Hour</td>
<td>3</td>
<td>$104, 550</td>
</tr>
<tr>
<td>Flat Rate Compensation</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Other (College Credit)</td>
<td>2</td>
<td>(1) Three credit course</td>
</tr>
</tbody>
</table>

(1) Three credit course
## Appendix J

Number of Dual Enrollment Courses Offered in School Year

<table>
<thead>
<tr>
<th>Number of Courses Offered</th>
<th>Number of Respondents (n=61)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>4</td>
</tr>
<tr>
<td>3-4</td>
<td>9</td>
</tr>
<tr>
<td>5-6</td>
<td>8</td>
</tr>
<tr>
<td>7-8</td>
<td>11</td>
</tr>
<tr>
<td>9-10</td>
<td>11</td>
</tr>
<tr>
<td>11-12</td>
<td>2</td>
</tr>
<tr>
<td>13-14</td>
<td>1</td>
</tr>
<tr>
<td>15-16</td>
<td>2</td>
</tr>
<tr>
<td>17-18</td>
<td>4</td>
</tr>
<tr>
<td>19-20</td>
<td>4</td>
</tr>
<tr>
<td>21+</td>
<td>5</td>
</tr>
</tbody>
</table>
**Appendix K**

When Dual Enrollment Courses Are Offered

<table>
<thead>
<tr>
<th>Time of Day Offered</th>
<th>Percentage of Respondents</th>
<th>Number of Respondents (n=66)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular School Day</td>
<td>98%</td>
<td>65</td>
</tr>
<tr>
<td>After School Period</td>
<td>8%</td>
<td>5</td>
</tr>
<tr>
<td>Evening</td>
<td>3%</td>
<td>2</td>
</tr>
<tr>
<td>Saturday</td>
<td>3%</td>
<td>2</td>
</tr>
<tr>
<td>Morning Before School</td>
<td>2%</td>
<td>1</td>
</tr>
<tr>
<td>Online</td>
<td>2%</td>
<td>1</td>
</tr>
</tbody>
</table>
### Appendix L

Number of Courses Students Permitted to Take in an Academic Term

<table>
<thead>
<tr>
<th>Number of Courses Permitted</th>
<th>Percentage of Respondents</th>
<th>Number of Respondents ($n=65$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>3%</td>
<td>2</td>
</tr>
<tr>
<td>Two</td>
<td>5%</td>
<td>3</td>
</tr>
<tr>
<td>Three</td>
<td>3%</td>
<td>2</td>
</tr>
<tr>
<td>Four</td>
<td>3%</td>
<td>2</td>
</tr>
<tr>
<td>No Maximum</td>
<td>85%</td>
<td>55</td>
</tr>
</tbody>
</table>
## Appendix M

Grade Levels That May Enroll in Dual Enrollment Courses

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Percentage of Respondents</th>
<th>Number of Respondents (n=66)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th Grade</td>
<td>23%</td>
<td>15</td>
</tr>
<tr>
<td>10th Grade</td>
<td>50%</td>
<td>33</td>
</tr>
<tr>
<td>11th Grade</td>
<td>98%</td>
<td>65</td>
</tr>
<tr>
<td>12th Grade</td>
<td>100%</td>
<td>66</td>
</tr>
</tbody>
</table>
**Appendix N**

GPA Eligibility Requirements for Dual Enrollment

<table>
<thead>
<tr>
<th>GPA Eligibility Requirements</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum GPA: 85 on 100 point scale</td>
<td>3</td>
</tr>
<tr>
<td>Minimum GPA: 80 on 100 point scale</td>
<td>2</td>
</tr>
<tr>
<td>Minimum GPA: 75 on 100 point scale (3.0 on 4.0 scale)</td>
<td>5</td>
</tr>
</tbody>
</table>
## Appendix O

### Staff Member Designated to Manage Dual Enrollment

<table>
<thead>
<tr>
<th>Staff Member</th>
<th>Percentage of Respondents</th>
<th>Number of Respondents (n=34)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Counselor</td>
<td>73%</td>
<td>25</td>
</tr>
<tr>
<td>Assistant Principal</td>
<td>9%</td>
<td>3</td>
</tr>
<tr>
<td>Director of Guidance</td>
<td>6%</td>
<td>2</td>
</tr>
<tr>
<td>Principal</td>
<td>3%</td>
<td>1</td>
</tr>
<tr>
<td>Dean</td>
<td>3%</td>
<td>1</td>
</tr>
<tr>
<td>College &amp; Career Counselor</td>
<td>3%</td>
<td>1</td>
</tr>
<tr>
<td>Other Faculty</td>
<td>3%</td>
<td>1</td>
</tr>
</tbody>
</table>
### Appendix P

Who Makes Decision Regarding Student Participation

<table>
<thead>
<tr>
<th>Decision Maker</th>
<th>Percentage of Respondents</th>
<th>Number of Respondents (n=64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Counselor</td>
<td>73%</td>
<td>47</td>
</tr>
<tr>
<td>Parents &amp; Students</td>
<td>69%</td>
<td>44</td>
</tr>
<tr>
<td>Building Principal</td>
<td>45%</td>
<td>29</td>
</tr>
<tr>
<td>Partnering College</td>
<td>31%</td>
<td>20</td>
</tr>
<tr>
<td>High School Teacher</td>
<td>17%</td>
<td>11</td>
</tr>
</tbody>
</table>
Appendix Q

Which Sources Paid Tuition for Dual Enrollment Courses

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage of Respondents</th>
<th>Number of Respondents (n=58)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents &amp; Students</td>
<td>79%</td>
<td>46</td>
</tr>
<tr>
<td>College</td>
<td>38%</td>
<td>23</td>
</tr>
<tr>
<td>High School/District</td>
<td>14%</td>
<td>8</td>
</tr>
<tr>
<td>State</td>
<td>3%</td>
<td>2</td>
</tr>
<tr>
<td>Scholarship</td>
<td>3%</td>
<td>2</td>
</tr>
</tbody>
</table>
Appendix R

Parents/Students Expenses for Dual Enrollment Courses

<table>
<thead>
<tr>
<th></th>
<th>Percentage of Respondents</th>
<th>Number of Respondents (n=64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partial Tuition</td>
<td>34%</td>
<td>22</td>
</tr>
<tr>
<td>Nothing</td>
<td>28%</td>
<td>18</td>
</tr>
<tr>
<td>Full Tuition</td>
<td>19%</td>
<td>12</td>
</tr>
<tr>
<td>Books/Fees Only</td>
<td>6%</td>
<td>4</td>
</tr>
<tr>
<td>Varied</td>
<td>13%</td>
<td>8</td>
</tr>
</tbody>
</table>


## Appendix S

Cost of Dual Enrollment Courses Paid by Parents/Students

<table>
<thead>
<tr>
<th></th>
<th>Per Credit Hour</th>
<th>Per Course</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Range</strong></td>
<td>$5 - $140</td>
<td>$10 - $700</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>$66.60</td>
<td>$218.58</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>$55</td>
<td>$200</td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td>$50,55</td>
<td>$200</td>
</tr>
<tr>
<td><strong>Standard Deviation</strong></td>
<td>$41.23</td>
<td>$128.10</td>
</tr>
</tbody>
</table>
### Appendix T

#### Number of Respondents Offering Support Services

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Percentage of Responses</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutoring</td>
<td>27%</td>
<td>3</td>
</tr>
<tr>
<td>Academic Advising</td>
<td>91%</td>
<td>10</td>
</tr>
<tr>
<td>Study Skills</td>
<td>45%</td>
<td>5</td>
</tr>
<tr>
<td>College Application</td>
<td>82%</td>
<td>9</td>
</tr>
<tr>
<td>Financial Aid Counseling</td>
<td>55%</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>9%</td>
<td>1</td>
</tr>
</tbody>
</table>

\(n=11\)
## Appendix U

How Dual Enrollment Program Information is Communicated to Students

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage of Respondents</th>
<th>Number of Respondents (n=63)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Counselor</td>
<td>95%</td>
<td>60</td>
</tr>
<tr>
<td>Teachers</td>
<td>78%</td>
<td>49</td>
</tr>
<tr>
<td>Parent Meeting</td>
<td>41%</td>
<td>26</td>
</tr>
<tr>
<td>Newsletter</td>
<td>30%</td>
<td>19</td>
</tr>
<tr>
<td>Principal</td>
<td>24%</td>
<td>15</td>
</tr>
<tr>
<td>College Representative</td>
<td>24%</td>
<td>15</td>
</tr>
<tr>
<td>Other*</td>
<td>17%</td>
<td>10</td>
</tr>
</tbody>
</table>

*Includes student handbook, high school website, course catalog, curriculum guide
### Appendix V

How Dual Enroll Program are Communicated to Parents

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage of Respondents</th>
<th>Number of Respondents (n=63)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Counselor</td>
<td>95%</td>
<td>60</td>
</tr>
<tr>
<td>Teachers</td>
<td>60%</td>
<td>38</td>
</tr>
<tr>
<td>Parent Meeting</td>
<td>50%</td>
<td>32</td>
</tr>
<tr>
<td>Newsletter</td>
<td>46%</td>
<td>29</td>
</tr>
<tr>
<td>Principal</td>
<td>30%</td>
<td>19</td>
</tr>
<tr>
<td>College Representative</td>
<td>14%</td>
<td>9</td>
</tr>
<tr>
<td>Students Inform Parents</td>
<td>24%</td>
<td>15</td>
</tr>
<tr>
<td>Other*</td>
<td>25%</td>
<td>16</td>
</tr>
</tbody>
</table>

*Includes high school website, course catalog, and curriculum guide.
### Appendix W

Reasons for Lack of Participation in School’s Dual Enrollment Program

<table>
<thead>
<tr>
<th>Responses</th>
<th>Number of Respondents (n=13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students Prefer AP Course</td>
<td>3</td>
</tr>
<tr>
<td>Faculty Prefer to Teach AP Course</td>
<td>1</td>
</tr>
<tr>
<td>Students Did Not Meet Eligibility Requirements</td>
<td>3</td>
</tr>
<tr>
<td>Students Not Interested in Subject Matter</td>
<td>5</td>
</tr>
<tr>
<td>Students Unwilling or Unable to Pay DE Tuition</td>
<td>5</td>
</tr>
</tbody>
</table>
Survey Questions to Gather Population Statistics of High Schools with Dual Enrollment

The following survey questions were designed to gather population statistics of respondents:

Q30 What is the total number of students in your high school grades 9th - 12th?

Q31 What percentage of your total student body is eligible to receive free or reduced lunch?

Q32 What is the total number of minority students (African American and Latino combined)?

Q33 How many dual enrollment participants are eligible to receive free or reduced lunch?

Q34 How many dual enrollment participants are minority students?
### Appendix Y

Population Statistics of Responding High Schools with Dual Enrollment

<table>
<thead>
<tr>
<th></th>
<th>Student Population (n=61)</th>
<th>Dual Enrollment Participation % (n=62)</th>
<th>% Minority Population (n=50)</th>
<th>% Eligible for Free &amp; Reduced Lunch (n=57)</th>
<th>% of DE* Student Eligible for Free/Reduced Lunch (n=40)</th>
<th>% Minority DE Students (n=40)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Range</strong></td>
<td>17 – 2,700</td>
<td>2% - 84%</td>
<td>0 – 93%</td>
<td>1- 96%</td>
<td>0-100%</td>
<td>0-100%</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>777</td>
<td>17.5%</td>
<td>15.78%</td>
<td>37.85%</td>
<td>33.66%</td>
<td>23.71%</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>600</td>
<td>14.4%</td>
<td>6%</td>
<td>35%</td>
<td>23.2%</td>
<td>10.48%</td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td>-</td>
<td>14.81%</td>
<td>3%</td>
<td>35%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Standard Deviation</strong></td>
<td>520</td>
<td>14.23%</td>
<td>21.21%</td>
<td>22.27%</td>
<td>30.88%</td>
<td>29.12%</td>
</tr>
</tbody>
</table>
Appendix Z

Survey Questions Aligned with Research Question 3

Q35 Are there any funding challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.

Q36 Are there any staffing challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.

Q45 Are there any other challenges or barriers you have encountered when implementing or considering to implement dual enrollment programs? Please explain.

Q44 What additional resources would assist you in your efforts to administer dual enrollment?

Q46 In your opinion, what factors might hinder a school or district from instituting a dual enrollment program? Please explain.

Q37 The following space is provided for you to share any additional information or comments, if you wish:
Appendix AA

Open Ended Questions and Responses

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Responses</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q35 Are there any funding challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.</td>
<td><strong>n=36</strong></td>
<td>• Funding (<em>n=7</em>)</td>
</tr>
<tr>
<td></td>
<td>No (<em>n=26; 72.2%</em>)</td>
<td>(for staff, tuition, books)</td>
</tr>
<tr>
<td></td>
<td>Yes (<em>n=10; 27.7%</em>)</td>
<td></td>
</tr>
<tr>
<td>Q36 Are there any staffing challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.</td>
<td><strong>n=40</strong></td>
<td>• Approval/qualifications required by college partner</td>
</tr>
<tr>
<td></td>
<td>No (<em>n=17; 42.5%</em>)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes (<em>n=23; 57.5%</em>)</td>
<td>• Available staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey Question</td>
<td>Responses</td>
<td>Details</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Q45 Are there any other challenges or barriers you have encountered when implementing or considering to implement dual enrollment programs? Please explain.</td>
<td>$n=37$</td>
<td>- Staffing ($n=9$)</td>
</tr>
<tr>
<td></td>
<td>No ($n=13; 35.13%$)</td>
<td>- Scheduling ($n=5$)</td>
</tr>
<tr>
<td></td>
<td>Yes ($n=24; 64.86%$)</td>
<td></td>
</tr>
<tr>
<td>Q44 What additional resources would assist you in your efforts to administer dual enrollment?</td>
<td>$n=32$</td>
<td>- Funding ($n=11$)</td>
</tr>
<tr>
<td></td>
<td>None ($n=12; 37.5%$)</td>
<td>- Staffing/Coordinator ($n=7$)</td>
</tr>
<tr>
<td></td>
<td>Yes ($n=20; 62.5%$)</td>
<td></td>
</tr>
<tr>
<td>Q46 In your opinion, what factors might hinder a school or district from instituting a dual enrollment program? Please explain.</td>
<td>$n=38$</td>
<td>- Funding</td>
</tr>
<tr>
<td></td>
<td>Funding ($n=14; 36.8%$)</td>
<td>- Staffing</td>
</tr>
<tr>
<td></td>
<td>Staffing ($n=18; 47.3%$)</td>
<td></td>
</tr>
<tr>
<td>Q37 The following space is provided for you to share any additional information or comments, if you wish</td>
<td>$n=14$</td>
<td>- Benefits of DE</td>
</tr>
<tr>
<td></td>
<td>N/A ($n=5$)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Benefits of DE ($n=8$)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Policy &amp; Coordinator ($n=1$)</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix BB

**Responses to Survey Question 35**

**Q35 - Are there any funding challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.**

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some of the families can't afford the 1/3 tuition rate.</td>
</tr>
<tr>
<td>We offer a lot of these courses to our students through several colleges and universities. The only issue is dealing with several schools. They all have different processes and procedures.</td>
</tr>
<tr>
<td>No funding challenge.</td>
</tr>
<tr>
<td>No really.</td>
</tr>
<tr>
<td>No - we work with [name redacted] who offers financial aid to low-income students for this.</td>
</tr>
<tr>
<td>Parents do not complete free or reduced lunch forms which eliminates their child from receiving aid.</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>The high school teacher must be certified by the college/university to teach the course at the high school...district sometimes has had to consider to hire teacher if we don't have certified instructor...this is rare...usually have current teachers who get certified</td>
</tr>
<tr>
<td>None at this time.</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>No, we have a very healthy scholarship fund that supports any student who wants to take a dual enrollment course and can't afford the cost.</td>
</tr>
<tr>
<td>Purchasing appropriate books aligned to the college curriculum. Staffing.</td>
</tr>
<tr>
<td>n/a</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>we have a foundation that assists in paying for courses</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>No, this is funded by families.</td>
</tr>
<tr>
<td>Remuneration for the college has been an ongoing issue. We are renegotiating the funding agreement with the district to better fund the college classes.</td>
</tr>
<tr>
<td>No because the colleges and universities are willing to work with us and have students participate.</td>
</tr>
<tr>
<td>Not at this time</td>
</tr>
<tr>
<td>No. Our Board has made it possible for anyone who wants to enroll.</td>
</tr>
<tr>
<td>Students who cannot afford the course. We have not found a grant or funding source to assist them.</td>
</tr>
<tr>
<td>Question</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Transportation to and from the sites.</td>
</tr>
<tr>
<td>With $5 per credit hour we have 0 problems.</td>
</tr>
<tr>
<td>Most of our dual enrollment courses are at no cost to the district. We only weigh the staffing considerations when determining whether we can offer the cost without having to hire more staff.</td>
</tr>
<tr>
<td>Continued Federal support for VTEA through the Perkins grant is at risk</td>
</tr>
<tr>
<td>We had budget cuts from NYSED and we are a receivership school.</td>
</tr>
<tr>
<td>The cost for our high school to offer dual enrollment courses in non-existant through our partnership with our local community college. For the one course we offer through Syracuse University, all students are expected to pay the reduced tuition rates through Syracuse University.</td>
</tr>
</tbody>
</table>
Appendix CC

Responses to Survey Question 36

Q36 - Are there any staffing challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.

<table>
<thead>
<tr>
<th>Are there any staffing challenges your institution faces when implementing...</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is just a matter of staff being certified by the granting institution</td>
</tr>
<tr>
<td>Teachers need approval from the college to offer dual enrollment classes</td>
</tr>
<tr>
<td>None.</td>
</tr>
<tr>
<td>Getting teachers approved to teach the course - requires masters in specific areas</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Not really - depends on the interests of the teachers.</td>
</tr>
<tr>
<td>Sometimes the approval process for dual enrollment is difficult. They do try to overcome obstacles with us but the process is sometimes frustrating for our teachers.</td>
</tr>
<tr>
<td>Yes getting qualified teachers</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Staff must be certified by the college/university to qualify to teach the course for college credit</td>
</tr>
<tr>
<td>For the Syracuse University Program, the teacher training is quite extensive.  For the other dual enrollment classes, there is little to no training.</td>
</tr>
<tr>
<td>None at this time. We offer dual credit classes for courses that already are running.</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Yes, teachers who either retire or leave the district who have been teaching dual enrollment courses. it can be difficult to get teachers to teach these courses due to the extra layer of work involved at no additional compensation.</td>
</tr>
<tr>
<td>Yes. Adding certain concurrent enrollment courses may increase the staffing needs which is a budgetary issue.</td>
</tr>
<tr>
<td>students are not always interested in all possible dual enrollment courses so having enough teachers to teach desired courses can be challenging</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Yes ...need to qualify as Adjuncts</td>
</tr>
<tr>
<td>The only issues that the school has encountered is making sure that the college will accept the teachers as adjunct professors.</td>
</tr>
<tr>
<td>HS teachers need to meet qualifications of the post-secondary institution to teach the courses</td>
</tr>
</tbody>
</table>
Bureaucratic issues around certification (i.e. concerns that DE faculty are not certified to work in a HS setting and getting certification is onerous.) Finding sufficient staffing is also an issue.

<table>
<thead>
<tr>
<th>The challenge depends on the post-secondary institution. Each college/university has its own requirements for the teaching staff as well as the review of the course curriculum.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at this time</td>
</tr>
<tr>
<td>It is difficult some times to get high school teacher approved by the colleges due to required course work. For example we couldn't offer an accounting because they wouldn't approve our business teacher...you had to have more than a few accounting courses. You basically had to have an accounting degree.</td>
</tr>
<tr>
<td>We do not have any dual enrollment math courses as our teachers do not hold a Masters Degree in Mathematics. More often then not they get their BS in Math and their MS in Education. This is a huge barrier for us.</td>
</tr>
<tr>
<td>Tutors available for students in the programs who need additional support.</td>
</tr>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>The partnering post secondary institution makes the HS faculty adjunct instructors. The HS teachers must meet the same requirements that an on campus post secondary instructor is required to have. Each department has different requirements. What limits us in offering certain courses is that some departments require a content specific masters degree which HS teachers typically do not possess.</td>
</tr>
<tr>
<td>We have to make sure our staff receiving training at at the college and are approved before they can teach.</td>
</tr>
<tr>
<td>Not really. For the most part our dual enrollment courses are already courses being taught for High School credit.</td>
</tr>
<tr>
<td>Finding qualified staff to teach courses</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>No so far.</td>
</tr>
<tr>
<td>Staffing has been reduced for the last several years due to budgeting from over 110 staff down to 89.</td>
</tr>
<tr>
<td>No.</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>
Appendix DD

Responses to Survey Question 45

Q45 - Are there any other challenges or barriers you have encountered when implementing or considering to implement dual enrollment programs? Please explain.

Are there any other challenges or barriers you have encountered when implem...
post secondary institution changed rules governing the class offered
No
Teachers complaining about the paperwork required by the college. Students inconsistent about completing the registration paperwork (missing deadlines).
None.
No
No
No.
Student who want to take college bridge classes, but are not strong enough students. We've created a rubric to help students make an informed decision.
Parents and student do not understand the impact of participating in these courses. Students do mot seek the challenge for increased knowledge at the college level, while in high school.
Interested teachers
No
NA
Since we offer dual enrollment classes with five different colleges, the biggest difference that I see as a school counselor is the difference in our SUPA (Syracuse University) class. The price difference is significant. Some of our students and their families struggle to pay the fees, and there is no tuition assistance available.
The 3 main challenges we have had in being able to offer dual credit classes are: 1. that our teacher does not have the appropriate degree to be approved by the college 2. amount of extra work some of the college departments require our teachers to do 3. the poor communication from the college Dual Credit supervisor
There are many conversations about dual enrollment vs. AP
Making sure the dual enrollment curriculum aligns with Common Core standards meeting the college's criteria for implementation of a new course.
Scheduling. Many of these courses are singletons or doubletons. Trying to make a master schedule with the least amount of scheduling conflicts can be difficult.
not all college credits earned in HS are accepted by all colleges and that is VERY frustrating to my students and families some students also struggle with the advanced work load and get overwhelmed with juggling both HS grading and college grades/transcripts to manage
scheduling issues
Sometimes students are not up to working as hard as a dual enrollment course requires them to, and then wants to drop it past the college drop deadline.

Aligning DE offerings with NYS HS requirements is also a challenge.

Just getting staff approved to teach the course.

As a Small School we struggle with offering the opportunity for courses more that one time per year and without offering one dual enrollment course at the same time as another - creating a choice issue. Parents and students do not like being made to prioritize and make the tough decision.

Parental support. Parents do not fully understand the benefits of a dual enrollment program and sometimes think that their children can't handle it even before they have begun.

Scheduling/Lack of Staff

Funding and staffing

the time the courses are offered (4:00 pm to 6:00 pm) travel (parents do not like students to travel to a campus

Trying to get qualified teachers to teach the courses.

I am grateful to have a supportive community college so close to our campus. The only issue I have encountered is the lack of a universal policy regarding courses students can enroll in and the requirements students must meet to gain credit. The largest issue is that each department can select the courses they want to allow students to take through dual credit. However, we have tried desperately to offer a college level Biology course, but the Dean of the Biology department has denied our request each year because he does not believe in dual enrollment. This is very frustrating for our faculty, parents, and especially students.

Staff certification and credential issues have prevented us from expanding dual enrollment courses in certain content areas.
Appendix EE

Responses to Survey Question 44

**Q44 - What additional resources would assist you in your efforts to administer dual enrollment?**

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
</tr>
<tr>
<td>none identified. We have a great partnership with the college so things go smoothly</td>
</tr>
<tr>
<td>A coordinator</td>
</tr>
<tr>
<td>None.</td>
</tr>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>Financial assistance to students in need.</td>
</tr>
<tr>
<td>We have the necessary resources.</td>
</tr>
<tr>
<td>Financial assistance/scholarships for students who need assistance paying for the courses</td>
</tr>
<tr>
<td>Availability via other post-secondary institutions.</td>
</tr>
<tr>
<td>A person to administer and develop the program to get more participation.</td>
</tr>
<tr>
<td>Financial support &amp; trained/experienced teachers</td>
</tr>
<tr>
<td>None at this time...we have a successful program</td>
</tr>
<tr>
<td>I find the role of a dual enrollment coordinator interesting, though I'm not sure that it would be received well in my district. We currently handle such matters in various departments, with the department chairperson and teachers coordinating with the colleges.</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>More assistance with the management side of dual enrollment courses. There is quite a bit of paperwork involved.</td>
</tr>
<tr>
<td>some type of compensation for the instructors</td>
</tr>
<tr>
<td>State funding so that staffing and program cuts are not an issue.</td>
</tr>
<tr>
<td>more flexibility within the school day</td>
</tr>
<tr>
<td>Nothing really</td>
</tr>
<tr>
<td>After school tutoring for those who didn't score high enough on the placement tests</td>
</tr>
<tr>
<td>State policies that give more flexibility to DE courses and hiring; supplementary funding for DE programs.</td>
</tr>
<tr>
<td>Additional Funding for courses outside of the regular school day</td>
</tr>
<tr>
<td>Sample Policies for Dual Enrollment, Recruitment plans for getting more students to participate.</td>
</tr>
<tr>
<td>Financial Assistance for the students who cannot afford to take the course.</td>
</tr>
<tr>
<td>Additional funding for staff to support students that are enrolled.</td>
</tr>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>No concerns</td>
</tr>
<tr>
<td>Funding</td>
</tr>
<tr>
<td>-------------------------------------</td>
</tr>
<tr>
<td>offering the classes earlier in the day</td>
</tr>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>Funding and Teachers</td>
</tr>
<tr>
<td>None.</td>
</tr>
</tbody>
</table>
Appendix FF

Responses to Survey Question 46

Q46 - In your opinion, what factors might hinder a school or district from instituting a dual enrollment program? Please explain.

In your opinion, what factors might hinder a school or district from instituting a dual enrollment program?

- Cost of tuition
  - Cost is always a factor if there is a cost. People still believe that a dual enrollment class is not worth the money when cost is associated with it.
  - Staffing issues: Teachers not wanting to teach the college curriculum.

- Not having the staff willing to teach courses and not having a dedicated person to keep track of paperwork involved. The amount of notification and different requirements needs to be handled by one individual.

- Staffing; acceptability/transferability of credit/coursework.
  - I can only speak for this district. I would guess that qualified teachers may be an issue for some schools.

- Extra paperwork involved, possibly. Most high schools in this area do have a dual enrollment program.

- Staff motivation to become an adjunct professor and fulfill the additional responsibilities.
  - Lack of staff who qualify for certification by the college. Interest of staff to take on this responsibility and most time with little or no extra compensation. Faculty who do not believe in the programs and only support PA courses taught in house.

- Finances
  - Must have certified teachers; if costs go up, families may choose not to participate.
  - We would need to be convinced of the benefits to our students.

- The only things holding schools in our area from offering more dual credit courses are:
  - 1. that high school teachers do not have the appropriate degree to be approved by the college
  - 2. college curriculum and high school curriculum do not match enough to integrate the courses
  - 3. amount of extra work some of the college departments require teachers to do
  - 4. the poor communication from the college Dual Credit supervisor

- Time restraints - management of paperwork
  - the certification process for the instructors through the college, the barriers to implementing new courses and the cost

- Staffing, textbook purchasing, enrollment numbers.

- Not having all college credits earned in HS accepted by colleges of interest to our students

- Money, faculty issues concerning the union

- Students not being able to pay the tuition, lack of understanding as to how the dual enrollment course credit can benefit a student after graduation, lack of motivation in...
students. We have been lucky to have a couple of scholarship options for our students that cover the tuition.

The amount of teachers

cooperation with institutions of higher learning

Bureaucratic obstacles around hiring, seat time, HS requirements; funding concerns.

Student interest and too many constraints from the college/university.

Teacher training and textbook cost.

Coordination and being able to make it financially accessible to all students.

Viewpoints - I find that many schools still offer traditional AP courses. We do not offer any AP courses. It is so much more beneficial to our students to take a course for 1/3 of the cost and gain 3 - 26 credit hours prior to leaving [redacted]. Those credits transfer from the college transcripts they get. So they save money on the front side and time in college programs because their general studies can be applied to any college they attend. Our students transcripts for our Partner Colleges have been accepted at Yale, RIT, SUNY and SUC schools, [redacted] etc. A gift of opportunity to continue to excel at the college level.

Staffing to oversee student registration, progress, and provide support. Transportation for site visits by partnership coordinator and transportation for students that participate.

N/A

Only the cost of books

I have not experienced any hindrance. The dual enrollment program makes sense. A student has to take ELA anyway so the dual -credit ELA class doesn't impact staffing, course selection, etc.

We love it. If you have staff that can be approved, I can see no reason why a school would not offer these courses.

Staffing concerns. Tuition charges.

Funding and staffing

advanced placement courses

None

Not being about to partner with a local college or university in their area.

Lack of opportunities or cost.
Appendix GG

Responses to Survey Question 37

Q37 - The following space is provided for you to share any additional information or comments, if you wish:

The following space is provided for you to share any additional information...

Thank you.

Thank you for this opportunity.

We have had pretty good success both with the process and with our students being able to transfer their credits.

Our students have many opportunities to earn college credit while in high school. Besides the dual credit courses we also offer students the following opportunities to earn college credit: 1. purchase credit through SUNY Albany (redacted) 2. purchase RIT (for Project Lead The Way courses) if they meet the grade requirements 3. students can take courses at 3 local colleges after high school hours (senior can take course during the school day) for various fees (one college is cost of text books, another is an activity fee plus $7 per credit hour, and the 3rd is $100 per course) 4. we currently offer 17 AP courses (redacted) and students only pay to take up to 2 exams -- the District pays for any exams over 2 is a school year.

Dual enrollment courses are a wonderful way for students to earn college credits while in high school. We find that it is a great way to keep seniors engaged in rigorous courses during their senior year. Parents love the idea of their son/daughter earning free college credits and really push their son/daughter to take advantage of the opportunities rather than sitting in a study hall.

I am a big proponent of dual enrollment courses. these courses work very well for our student population who work very hard to earn the college credit these courses offer. no test determining college credit is big for us as well.

Concurrent enrollment is very popular at our school. We also offer AP courses but concurrent enrollment satisfies general education requirements at most colleges. Students also get a reduced tuition rate and do not have to purchase their own textbooks or have to pay college fees - which is a cost savings for families. We routinely have students who go on to college and can finish up a semester or even a year early- which is a real cost savings.

None at this time

for an impoverished district, economically disadvantaged, our partnership with College is perfect we have many students who graduate with 20+ college credits

NYS needs more explicit policies to support dual enrollment. Each district should also have a point person and a policy consideration to support DE.

I would love to have a copy of all the survey questions. Great study. Thanks

I love that we have the ability to offer some many courses to our students. Most course are taught by our faculty members. However, I have set-up DL courses in Psychology and and Sociology from a local college which allows their professors to teach our
students. This gives our students a great opportunity to experience working with teachers other than the teachers. I would love to offer more classes but we are a small school and limited in teachers who can take on anymore in their schedule. We have a great space for DL and it is definitely under utilized.

No concerns

Dual credit has been a wonderful addition to our high school curriculum. We link a lot of our AP courses with Dual Credit opportunities through our community college. This enables students, especially those who attend state schools, to have two chances of their institution granting them credit.
Appendix HH

Survey Questions for Respondents With No Dual Enrollment Programs

Q29 You indicated that you do not offer dual enrollment courses to your students. What factors contribute to the decision to not offer dual enrollment courses? (Check all that apply)
   - Students not interested (1)
   - Lack of faculty support (2)
   - Lack of principal support (3)
   - Lack of superintendent's support (4)
   - Prefer to offer AP courses (5)
   - Lack of a college partner to offer college credits (6)
   - Other (7) ____________________

Q47 What is the total number of students in your high school grades 9th - 12th?

Q48 What percentage of your total student body is eligible to receive free or reduced lunch?

Q49 What is the total number of minority students (African American and Latino combined)?

Q50 Are there any funding challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.

Q51 Are there any staffing challenges your institution faces when implementing or considering to implement dual enrollment programs? Please explain.

Q52 Are there any other challenges or barriers you have encountered when implementing or considering to implement dual enrollment programs? Please explain.

Q53 What additional resources would assist you in implementing a dual enrollment program, if desired?

Q54 In your opinion, what factors might hinder a school or district from instituting a dual enrollment program? Please explain.

Q55 The following space is provided for you to share any additional information or comments, if you wish:
Appendix II

Populations Statistics of Respondents with No Dual Enrollment

<table>
<thead>
<tr>
<th>Total Number of Students in High School</th>
<th>% of Students Eligible for Free and Reduced Lunch</th>
<th>% of Minority (African American, Latino Students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>325</td>
<td>90</td>
<td>98</td>
</tr>
<tr>
<td>437</td>
<td>90</td>
<td>95</td>
</tr>
<tr>
<td>467</td>
<td>75</td>
<td>96</td>
</tr>
<tr>
<td>600</td>
<td>78</td>
<td>90</td>
</tr>
<tr>
<td>1544</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>1706</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>