Youth Dropout Through the Lens of a Public Health Model: Prevention, Intervention, and

Recovery Supports

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Abstract

High school dropout is a pressing issue with research suggesting that one in five students

drops out of high school (Princiotta & Reyna, 2009). Not only do high school dropouts face

difficult challenges such as unemployment, but dropouts also cost the U.S. more than $300

billion per year and the U.S. Department of Justice estimates almost three-fourths of prison

inmates were high school dropouts in 2003 (in Princiotta & Reyna, 2009; U.S. Department of

Justice, 2003). With such negative outcomes for dropouts, it is imperative that educators

understand ways to address the problem. The present paper will explore the problem as well as

theories and correlates of youth dropout. Following this is a thorough discussion of nine dropout

prevention and intervention programs within the Public Health Model framework—prevention

supports for all students, intervention supports for at-risk students, and recovery supports for

students who have already dropped out of high school. Limitations of these programs and

implications for practice and future research are also examined. Lastly, the role of the school

psychologist in high school dropout is outlined to help guide practitioners in responding to the

problem.

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The Problem

Youth dropout, or failure to receive a high school diploma, is a problem that impacts the

students who drop out and society as a whole. One in five students drops out of school, and on an

international scale, the United States ranks number 20 out of 28 "on high school graduation rates

among industrialized democracies…" (Princiotta & Reyna, 2009, p. 6). Furthermore, the

Alliance for Excellent Education suggests that the total number of youth dropouts costs the U.S.

more than $300 billion per year between factors such as unemployment insurance, welfare

assistance, health care, and the loss of potential workers (in Princiotta & Rena, 2009; Bridgeland,

Dilulio, & Morison, 2006). Of special concern, the gap in graduation rates shows African

American and Hispanic students graduating at a rate between 55 percent and 58 percent while

approximately 80 percent of White and Asian American students graduate from high school.

Aside from these numbers, the dropouts face far more difficult challenges and hardships

than those who receive a high school diploma. Youth dropouts not only earn substantially less

than their counterparts when employed (approximately $9,000 to $10,000 less per year), but they

are also more likely to be unemployed, die at a younger age, become involved in crime, become

parents at a young age, and have children who also drop out of school resulting in a never-ending

cycle (Bridgeland, Dilulio, & Morison, 2006; Amos, 2008; Wilson & Tanner-Smith, 2013). In

fact, the U.S. Department of Justice states that approximately 70 percent of prison inmates in

2003 were high school dropouts (U.S. Department of Justice, 2003).

Youth dropout is a problem that must be addressed as quickly and effectively as possible

for both the students' and society's benefit. Rather than ignoring the problem, schools around the

country must begin to look at how they can address it. Numerous research-based programs can help to mitigate such a damaging and pervasive issue. However, before implementing these programs, one must have a basic understanding of the factors that contribute to youth dropout. The present paper aims to explore current theories and correlates of youth dropout in addition to strategies to prevent and intervene with youth dropout through a three-tiered public health model: universal supports, at-risk supports, and intensive and recovery supports.

Theories of Youth Dropout

Theories that seek to address why students drop out of school have not been researched as extensively as those that explore the correlates and factors that are known to contribute to youth dropout. Despite this, three well-researched theories exist that attempt to explain and provide an understanding of dropout beyond what is objectively known about the students who do drop out: (1) the push, pull, and falling out framework, (2) the self-determination theory, and (3) the self-system model of motivational development.

The first theory consists of three components as evidenced by its name—push, pull, and fall out—and together, these factors contribute to an overall understanding of dropout (Doll, Eslami, & Walters, 2013). The push component of this theory entails influences and consequences in the school environment that lead students to be "pushed out" of school, which include factors such as attendance and discipline. In contrast, the pull component consists of factors outside of the school system, but within the student's personal environment that ultimately "pull the student out" of school; pull out factors include family needs and financial needs. The final aspect of this theory, the falling out component, describes students who become disengaged and disinterested in finishing school due to insufficient social and academic supports. These students are neither pushed nor pulled out of school, but instead become disconnected and

"fall out" of school. Although pull factors (e.g., family needs; pregnancy) have historically been the biggest contributors to youth dropout according to previous studies, researchers assert that push factors (e.g., inability to get along with peers/teachers; problems in school) have quickly become the most influential reasons for students dropping out of school today (Doll, Eslami, and Walters, 2013). Interestingly, push factors contributing to dropout were at their highest immediately following the enactment of No Child Left Behind (NCLB) in 2001, which has raised the bar for academic performance and has increased the amount of pressure placed on students.

In addition to the push, pull, falling out framework, the self-determination theory also contributes to a better understanding of youth dropout. Self-determination as described by Deci and Ryan (2002) is a student's perception about his or her behaviors and the influences behind these behaviors. Students with higher levels of self-determination are said to have a stronger internal locus of control, and they are better able to perceive themselves as the initiator and controller of their own behavior (Alivernini & Lucidi, 2011). With lower self-determination, students are more likely to believe their behavior is influenced by outside forces that they cannot control. Furthermore, self-determination can be influenced by factors such as educators, the school environment, and a student's parents.

Undoubtedly, a student's level of self-determination and perceived locus of control have the ability to influence whether that student stays in school or drops out of school. In one longitudinal study that analyzed the relationship between numerous factors such as context, self-efficacy, self-determination, and one's intention to drop out of high school, researchers found that when not accounting for the effects of a student's SES or academic performance (whether low or high), a student's self-determined motivation still significantly influenced his or her

intention to drop out or not. With this theory in mind, it can be said that educators should focus on increasing students' self-determination in schools. They could do so by encouraging independence, listening to and respecting students, and taking students' points of view into consideration. With the increase of push factors (school-related characteristics) becoming more prevalent in a student's decision to drop out of school, the self-determination theory provides support for the need of a positive and nurturing school environment.

One last theory that has been proposed in youth dropout research is the Self-System Model of Motivational Development (SSMMD). This model is closely tied to the self-determination theory, although it has a slightly different focus as it "integrates contextual [e.g., parent and teacher support] and self-system variables [e.g., a student's identification with school] and provides a framework for describing the processes that initiate and sustain a decline in student engagement," which is ultimately related to a student's decision to drop out of school (Fall & Roberts, 2012, p. 788). While the previous theory emphasized self-determination, this theory focuses more on the effects of school engagement.

In Fall and Roberts (2012) research regarding SSMMD in which they utilized and analyzed the Education Longitudinal Study of 2002-2004, findings show that academic and behavioral engagement in school entirely mediated the relationship between self-systems and high school dropout. That is, the more positive a student's self-system variables, the more likely the student is to be engaged in school, which results in a decreased likelihood that the student will drop out. Additionally, contextual factors (e.g., parent and teacher support) contributed to students' positive self-systems and school engagement. While these findings may seem obvious, the current research consolidates the important factors that influence high school dropout into an understandable and coherent model. Although different theories exist regarding youth dropout,

past and present research unequivocally agrees on the correlates and risk factors that contribute

to the problem. While the three theories discussed above touch on many of these correlates,

additional and more specific correlates will be described below.

<div align="center">**Correlates and Risk Factors for Youth Dropout**</div>

A wealth of information exists regarding correlates and risk factors for youth dropout.

Despite such an abundance of information detailing who is at-risk of dropping out, few programs

are rigorously designed, researched, and/or implemented to help combat high school failure.

Either because educators are unaware of the programs that exist or they do not have the time or

the resources to commit to prevention and intervention programs, dropout statistics remain high

with almost one-third of high school students failing to receive a high school diploma in 2006

(Bridgeland, Dilulio, & Morison, 2006). In the next section, these correlates and risk factors will

be addressed followed by a discussion highlighting various existing programs that have been

shown to decrease the rate of youth dropout in one way or another.

School-related Factors

A report prepared by Achieve, Inc.: The American Diploma Project Network states that

of all the reasons for students failing to receive their high school diploma, school-related factors

are the most frequently mentioned (Jerald, 2006).

Disengagement with school is consistently one of the first factors discussed in research

studies addressing the reasons why students drop out of school. Signs of student disengagement

include poor academics, poor attendance, and poor participation in the classroom as well as

school activities (Morse, Anderson, Christenson, & Lehr, 2004). In one report, it was noted that

almost half of students who were asked why they dropped out stated classes were uninteresting

(Bridgeland, Dilulio & Morison, 2006). Furthermore, uninspiring teachers who either made

classes "boring" or set low expectations for their students was also found to be a large

contributor in youth dropout. With a low level of school engagement, the chances of academic

failure also increase. Academic failure, which includes poor grades and retention, is another

important facet in youth dropout, and it is cited as one of the top five reasons students report

dropping out (Bridgeland, Dilulio & Morison, 2006; Kennelly & Monrad, 2007). It has also been

found that failing more than one core subject in ninth grade and being retained that year predicts

approximately 85 percent of students who will drop out (Kennelly & Monrad, 2007).

In addition to these factors, it should be noted that "more students fail ninth grade than

any other high school grade," and incoming ninth graders with poor academics but who had a

"positive ninth grade academic experience graduated at nearly twice the rate of incoming [ninth

graders] with strong academics who reported a negative ninth grade academic experience…"

(Kennelley & Monrad, 2007, p. 3; Kennelley & Monrad, 2007, p. 5). These findings also point to

just how critical and difficult the transition period from middle school to high school can be.

Clearly, school engagement dramatically effects students' academics and their decision to drop

out of school.

In addition to school engagement, students' relationships with educators are also crucial

factors when it comes to student dropout. As mentioned above, students' expectations impact

their education. As stated in Bridgeland, Dilulio, and Morison's report (2006), approximately 70

percent of high school dropouts felt unmotivated and uninspired by their teachers, and two-thirds

of students exclaimed they would have put forth more effort if more was expected of them.

Furthermore, more than half of these same students also mentioned they felt they did not have

one teacher or staff member with whom they could speak with about their personal problems.

Along with this, it has been found that supportive teachers have the potential of reducing the

dropout rate by 50 percent (Jerald, 2006).

Family Influences

Aside from school-related factors, family influences also play a major role in a student's

decision to drop out of high school. Students who are seriously abused or neglected and students

who are in foster care placement are at a much higher risk of dropping out than students who

have not experienced such difficulties (Kennelly & Monrad, 2007). However, these are not the

only familial factors that negatively impact students. Low proactive parental involvement in

general increases the likelihood of a student dropping out. Although one report found that

approximately 60 percent of dropouts' parents were involved in their schooling, more than 50

percent of these parents were only involved for disciplinary reasons (Bridgeland, Dilulio, &

Morison, 2006). With more positively involved and engaged parents or guardians, students are

found to have higher academics, to have higher expectations for themselves, and to be more

involved in school activities (Morse, Anderson, Christenson, & Lehr, 2004). Additional family

influences that increase students' chances of dropping out include having to obtain a full-time

job to support themselves or their family or having to stay home to care for family members

(Bridgeland, Dilulio, & Morsion, 2006). Although these are factors that students cannot

necessarily control, more support, encouragement, and higher expectations in school are strong

starting points to help keep these students on track for graduation.

Personal Factors

One last important area to consider in youth dropout is a student's personal factors such

as behavior problems, perceptions, and expectations. Although the school and family inevitably

influence these factors, they also have an independent effect on high school dropout. Preexisting

behaviors problems in school, for example, often have a large impact on high school dropout. One study found that only one in four students who received poor behavior marks in 6th grade made it to their 12th grade year on time, if at all (Kennelly & Monrad, 2007). In addition to behavior problems, students' perceptions and expectations for themselves also influence their chances of high school completion. Fan and Wolters (2014) found that students who are more confident in their abilities in core subjects (e.g., math and English) are less likely to drop out. Additionally, students who have lower perceptions of their academic abilities and thus, expect less of themselves are more likely to drop out.

With such a wide array of factors influencing students to drop out of school, it is critical that educators understand the supports that can be put in place to help alleviate the dropout problem and contribute to an increased number of students receiving their high school diploma. As one study explained, "the student that is at-risk for high school dropout has a need to incorporate high school completion into his or her personal value system and to bridge individual meaning-making processes in relation to life, goals, self, and others with high school graduation" (Lemon & Watson, 2011, p. 21). As will be discussed, numerous programs exist that help students do so.

The Public Health Model

The Public Health Model as it is used in schools is comprised of three separate tiers with each tier becoming more specialized and intensive for students at a greater risk of having problems in school (Fedewa, Candelaria, Erwin, & Clark, 2013). This model directly challenges the one-size-fits-all approach traditionally used in schools. Due to the recent scrutiny of this traditional model, the Public Health Model aims to address the specific needs of each child. Tier one consists of comprehensive school reform and primary prevention services given to all

students to strengthen and encourage positive youth development (Mac Iver & Mac Iver, 2010; Fedewa, Candelaria, Erwin, & Clark, 2013). These services are specifically intended for the prevention of problem behaviors, and they positively impact approximately 80 percent of students.

In the next tier, tier two, intervention services are targeted toward students at a greater risk of exhibiting academic or behavioral problems (roughly 10 to 20 percent of students in schools). Supports in this tier are more focused and often given to students in small groups. In tier three, the third and final tier, supports are designed for the approximately five percent of students in schools who require more concentrated and individualized services. Students receiving services in this tier are at the highest risk of problem behaviors and oftentimes already have an identifiable disorder or, in regards to high school dropout, have already dropped out of high school. Ultimately, the Public Health Model is designed to prevent serious problems from occurring and intervene with and correct such behaviors in a specialized way when they do occur.

Data Gathering Strategies

The information gathered throughout this review was primarily obtained through Chapman University's Leatherby Libraries online database. The specific databases used to find relevant journal articles included Academic Search Premier, Education Full Text, Education Resource Information Center (ERIC), and PsycINFO. Key search terms included but were not limited to "high school," "student," "dropout," "correlates," "prevention," "intervention," and "recovery." From the journal articles yielded, articles were chosen for review based on their relevancy to the topic and the time period in which they were published; articles older than 10 years were generally excluded unless they were key to research or especially useful. The online

search engine Google Scholar was also used intermittently with identical search terms. Lastly, additional journal articles were chosen and reviewed for relevancy from previously selected articles' reference pages.

Tier One: Universal Prevention for All Students

As mentioned, tier one supports are considered universal in nature as they can be given to and support all students in a school. These supports are viewed as schoolwide reforms taking a whole school approach to increase student engagement and positive youth development, and they are effective for approximately 80 percent of students (Mac Iver & Mac Iver, 2010).

Career Academies

According to Kemple and Snipes (2000), the Career Academies program is one of the most widely known reform programs, and it can be found in 1,500 high schools around the country. Career Academies is respected in its ability to address numerous problems in large, comprehensive high schools. In this model of school reform, these large high schools are separated into smaller learning communities in a "school-within-a-school" structure to create a more personal and supportive environment for both students and teachers (Kemple & Snipes, 2000; Herlihy & Quint, 2006). Career Academies focuses on an academic curriculum, a career and occupational curriculum (guided by a career theme such as technology, public service, etc.), and partnerships with local employers who provide different resources to students such as internships (Kemple & Snipes, 2000; U.S. Department of Education, 2006). In this model, smaller units of students are enrolled in their specialized career-related courses (an "academy") with a core team of teachers. By doing this, the program aims to make the curriculum more relevant, to increase student engagement and performance, to increase students' exposure to

career options, and to help ensure students receive the necessary skills for both college and a career.

In their research, Kemple and Snipes (2000) evaluated Career Academies over a ten-year period and with more than 1,700 students from small cities to large urban school districts. These students began the program in eighth or ninth grade and researchers followed them through the end of their senior year. It should also be noted that these students were randomly selected to enroll in the Career Academies program. Of the numerous findings noted in their research, several are especially relevant. First, students in the program had an increased level of interpersonal support; as mentioned previously, interpersonal support from teachers is crucial in keeping students in school. Furthermore, for those at-risk of dropping out, Career Academies significantly reduced dropout rates and improved students' attendance. Lastly, in the schools where interpersonal support was especially increased, the program was found to decrease dropout rates and increase school engagement for approximately 75 percent of the students the program served. In addition to these findings, Herlihy and Quint's (2006) evaluation of Career Academies in 16 school districts found that during the four years following their high school graduation, young men in the program earned approximately $10,000 more than those in a control group who did not participate in the program. As shown through these findings, Career Academies addresses the dropout problem in unique ways and positively impacts students by not only lowering their chances of dropping out, but also by increasing school engagement and the support they receive.

Talent Development High Schools

Talent Development High Schools is another dropout prevention program that is similar to yet also distinct from Career Academies. Like Career Academies, Talent Development aims to

restructure large high schools, specifically those with high dropout rates and poor achievement, into smaller learning communities to create a more personalized environment (U.S. Department of Education, 2007). In addition to these smaller learning environments, Talent Development also includes separate academies for ninth grade students, career academies for the upper grade students, and after-hours instruction with extra support for students with more serious discipline problems. The aim of Talent Development focuses on structural and curriculum reforms while increasing both teacher and student expectations and preparing students for college and employment (Kemple, Herlihy, & Smith, 2005). Additionally, Talent Development includes a college preparatory sequence for students, "catch-up" courses for students who are behind in core subjects, daily extended class periods, a seminar class for ninth grade students regarding strategies to be successful in high school, and professional development for teachers (Kemple, Herlihy, & Smith, 2005; Mac Iver & Mac Iver, 2010). As mentioned earlier, the transition from middle school to high school is especially difficult and having a seminar to help students successfully navigate this transition is beneficial.

Between these many different facets of Talent Development, outcomes have shown to be favorable for students. In their research, Kemple, Herlihy, and Smith (2005) followed 20 cohorts of ninth grade students through high school. Although Talent Development is a whole school approach, its intensive focus on ninth grade students is reflected in its findings in which these students had an increase in attendance, earned credits, and promotion rates that were sustained throughout their high school career. Because ninth grade is an important time for potential high school dropouts, these findings are especially relevant. In addition to these outcomes for ninth graders, Talent Development also appears to improve high school graduation rates. Based on a review (Kemple, Herlihy, & Smith, 2005) of the first two high schools to implement Talent

Development, the program was able to yield approximately 40 new graduates per year in a class of roughly 500 students.

Project Graduation Really Achieves Dreams (Project GRAD)

Aside from Career Academies and Talent Development, Project GRAD is one more dropout prevention program that has been shown to have a positive impact on students, specifically students in economically disadvantaged communities. While Project GRAD has similar aims to Career Academies and Talent Development, namely to reduce high school dropout rates, increase rates of college attendance, and increase students' academic achievement, its approach is unique. Although Project GRAD is focused on the high school level, its services start at the elementary schools that will eventually "feed into" the Project GRAD high schools to help students arrive to middle and high school better prepared (Snipes, Holton, Doolittle, & Sztejnberg, 2006). As noted earlier, factors affecting high school dropout can be seen at the elementary level, and Project GRAD aims to address such problems by providing specific reading and math interventions in addition to professional development for teachers in the elementary schools.

At the high school level, Project GRAD implements numerous elements including a classroom management program, academic counseling, summer programs for academic enrichment, four-year college scholarships opportunities, and additional supports from within the community (Snipes, Holton, Doolittle, & Sztejnberg, 2006; U.S. Department of Education, 2007). Ultimately, the initial high schools implementing Project GRAD have not had enough time with the program to thoroughly assess its influences on high school completion; however, in one study with ninth grade students from 13 high schools, early indicators show Project GRAD has a positive impact on two important factors—attendance and promotion from ninth grade to

tenth grade (Snipes, Holton, Doolittle, & Sztejnberg, 2006). Based on early findings, these two improvements at the high schools with Project GRAD appear to be stronger than at comparison schools. Furthermore, in the first school to implement the program, it was found that Project GRAD did have a significant positive impact on the number of students completing a core academic curriculum (Herlihy & Quint, 2006).

As demonstrated above with Career Academies, Talent Development High Schools, and Project GRAD, universal programs aimed at increasing the graduation rate have shown promising effects. From increasing students' attendance to decreasing the dropout rates, these programs and their positive impacts prove worthwhile for administrators to consider implementing in their schools. Despite the encouraging findings in these programs, some students at-risk of dropping out may not respond to such universal supports and more focused supports for these students may be needed. These types of programs are discussed below.

Tier Two: Intervention for At-Risk Students

Tier two of the public health model is designed to assist the 10 to 20 percent of students who need additional supports beyond those of tier one (Mac Iver & Mac Iver, 2010). Whereas tier one is primarily concerned with preventing high school dropout, tier two supports can be seen more as interventions for students already at-risk of dropping out. Because of this focus, tier two interventions are generally given in small groups of students.

Check & Connect

As discussed earlier, school engagement and relationship factors (e.g., with teachers and parents) are critical components in preventing high school dropout. With a low level of school engagement and/or with a lack of supportive adults, students are at a higher risk of not completing high school. With these two factors in mind, the Check & Connect program attempts

to address both of these needs in a comprehensive manner. Although Check & Connect focuses on individual relationships for at-risk students, the program is designed for groups of students with similar problems and needs.

Named by the key component of the program, the Check & Connect model ensures that one adult, known as a "monitor," consistently checks in and connects with the student with whom they are working. This "check in" element consists of the monitor checking in on the student's attendance, school performance such as grades and earned credits, behavior in school, and ultimately school engagement (Lehr, Johnson, Bremer, Cosio, & Thompson, 2005; U.S. Department of Education, 2006). The "connect" element describes the relational side of the model and involves both basic and intensive intervention when needed; basic intervention refers to regular discussions between the monitor and the student about the student's progress in school as well as problem-solving strategies the student can utilize, while the more intensive interventions consist of tutoring, meetings between the home and school, and referrals to community resources (Lehr, Johnson, Bremer, Cosio, & Thompson, 2005; U.S. Department of Education, 2006). An additional component of the program includes consistent family and school collaboration in which the monitor encourages communication between the two by frequently contacting the home and fostering the home-school relationship (Lehr, Johnson, Bremer, Cosio, & Thompson, 2005).

With such an involved intervention program, studies analyzing the Check & Connect model have shown several favorable outcomes for at-risk students in the program. According to two of these studies with more than 200 students (as cited in U.S. Department of Education, 2006), ninth grade students in the program were significantly less likely to have dropped out of high school compared to their ninth grade counterparts at the one-year follow-up (9% compared

to 30%) and at the four-year follow-up (39% compared to 58%). Furthermore, Check & Connect ninth grade students were also found to have earned significantly more credits (U.S. Department of Education, 2006). Lehr, Johnson, Bremer, Cosio, and Thompson (2004) further noted that research findings in four longitudinal studies with Check & Connect show decreases in absenteeism and dropout rates and increases in high school completion. One more research study with 116 students that specifically looked at the importance of the relationships in the Check & Connect model found that after accounting for student risk factors that increase a student's chances of dropping out, both the student and monitor perceptions about the quality of their relationship were related to an increase in school engagement (Anderson, Christenson, Sinclair, & Lehr, 2004).

Achievement for Latinos through Academic Success (ALAS)

Similar to the Check & Connect model, Achievement for Latinos through Academic Success (ALAS) is another detailed tier two intervention. ALAS (also known as "wings" in Spanish) is implemented with at-risk middle school Latino students for three years until the end of the students' ninth grade year (U.S. Department of Education, 2006). The intervention heavily emphasizes collaboration between the student, family, school, and community, and each student in the program is assigned a counselor who oversees and coordinates the ALAS services (Lehr, Johnson, Bremer, Cosio, & Thompson, 2005; U.S. Department of Education, 2006). According to the What Works Clearinghouse Intervention Report (2006), ALAS consists of six main strategies including: daily attendance monitoring, problem-solving skills instruction, weekly or daily feedback from teachers to both students and parents, parent training in the parent-child relationship and parent participation in school, social activities for students, and finally, help with connecting families to community resources.

Research findings regarding ALAS with three cohorts of students ($N = 94$) exhibit

positive outcomes for both general education students and students in special education (e.g.,

with Individualized Education Plans, or IEPs) (Lehr, Johnson, Bremer, Cosio, & Thompson,

2004; U.S. Department of Education, 2006). For example, students with IEPs in the program

were significantly less likely to drop out than students with IEPs not in the program.

Furthermore, students without IEPs who were in the program were also much less likely to drop

out of high school than their counterparts (2.2% compared to 16.7%). Findings further show that

ALAS students had a higher probability of being on track to graduate, having lower rates of

absenteeism, and having failed fewer classes. Follow-up data confirm such findings by showing

eleventh grade ALAS students to be more likely to still be enrolled in school than those students

who did not participate in ALAS.

Accelerated Middle Schools

Accelerated Middle Schools focuses on a different type of approach than the two

previously mentioned intervention programs. Like ALAS, Accelerated Middle Schools is

intended for middle school students; however, this program can be structured as a school-within-

a-school or as a separate school since it is a self-contained program (U.S. Department of

Education, 2008). Ultimately, the program's mission is to help middle school students one to two

years behind grade level catch up with their peers by the time they enter high school to help

ensure students stay in school. Accelerated Middle Schools works to achieve this by covering the

core academic curriculum at an accelerated pace so students can obtain an additional year of

needed instruction during their time in the program. Furthermore, the program offers less

electives and classes are smaller, more interrelated, "hands on," and supportive compared to

typical classes in middle school. Lastly, the program provides additional supports such as attendance monitoring and counseling.

According to What Works Clearinghouse standards, Accelerated Middle Schools has positive effects for students staying in school (U.S. Department of Education, 2008). Research done by Dynarski et al. (1998) with more than 800 students shows a significant difference in dropout rates between students in accelerated middle schools versus a control group with those students in the middle schools less likely to drop out two years after beginning the program. Two more findings show that accelerated middle school students were also more likely to progress in school and be promoted to the next grade level than their peers not in the program. In this same study by Dynarski et al. (1998), it was found that the Accelerated Middle Schools assessed decreased the high school dropout rate while the alternative high school programs looked at were not found to reduce the dropout rate. Researchers posit that this difference is likely due to the fact that students are more easily influenced, susceptible to change, and benefit more from interventions during their middle school years than older high school students who may be farther behind in school or face more serious problems.

As evidenced by the focus and findings of these three programs, the transition from middle school to high school—and especially a student's ninth grade year—is a crucial time for students where intervention programs targeting high school dropout can have the largest positive impact. Still, more intensive and individual interventions may be needed for students who have "fallen through the cracks" and are either at the highest risk of dropping out or have already dropped out of high school. While it is educators' hope that tier one and tier two supports will reach a majority of students, tier three supports exist to help those not reached.

Tier Three: Intensive Intervention and Recovery Supports for Individual Students

The last tier in the Public Health Model is directed toward students who need more intensive, individual supports—roughly five percent of students (Mac Iver & Mac Iver, 2010). Students receiving these services are considered at the highest risk of dropping out or, oftentimes, have already dropped out of high school. These services are only put in place when both tier one and tier two supports have been ineffective for students. Because tier three services are often costly and time-intensive, it is important for educators to first implement the lower levels of prevention and intervention. However, keeping that in mind, tier three services have promising effects for students in need.

National Guard Youth ChalleNGe Program

Since its development in 1993, the National Guard Youth ChalleNGe Program (NGYCP) has served approximately 100,000 individuals (Millenky, Schwartz, & Rhodes, 2014). NGYCP is a residential program designed for students ages 16 to 18 who have either been expelled or have dropped out of high school, and individuals in the program must be unemployed, drug-free, and not involved in the criminal justice system at the time of the program (e.g., on parole) (U.S. Department of Education, 2010). The program is semi-military in nature as it is highly structured and individuals are known as "cadets." It consists of three different phases and focuses on positive youth development with emphasis on various components including community service, life skills training, citizenship, leadership, physical and overall health education, teamwork, relationship building, job and career training, and education—the program's primary focus—in which individuals are prepared to obtain their GED or high school diploma (Millenky, Schwartz, & Rhodes, 2014; U.S. Department of Education, 2010).

In the first phase of the program, the pre-ChalleNGe phase, individuals complete a two-week introduction to the rules and expectations of NGYCP. After this, students move to the more intensive phase of the program known as the 20-week residential phase. During this time, students become known as "cadets," live in barracks on a designated NGYCP base (such as an active or closed National Guard base), and follow numerous strict guidelines in accordance with military expectations such as wearing uniforms and controlled daily schedules. Moreover, individuals work with NGYCP staff during this time to discuss possible placements after the program such as employment, post-secondary education, or military service. In the last phase, the post-residential phase, individuals participate in a one-year mentoring program where students choose their mentor who is trained by the NGYCP and meet with him or her as often as they would like, but for a minimum of four hours a month.

In a study examining the effectiveness of the NGYCP program ($N = 1,196$ students), researchers found that students in the NGYCP program were significantly more likely to have received a high school diploma or their GED approximately two years after starting the program (61% of NGYCP students compared to 36% of control group students) (U.S. Department of Education, 2010). In addition, a separate study with 3,000 individuals in the program also found these students to have higher rates of employment and college enrollment (Bloom, 2010). In Millenky, Schwarts, and Rhodes (2014) study evaluating impacts of NGYCP three years after the program ($N = 1,173$ students), researchers found individuals to have sustained the positive effects of the program. Specifically, NGYCP students earned more money and college credits, were more likely to have received their GED or high school diploma, and were more likely to be employed three years after entering the program.

High School Redirection

The original High School Redirection program was an alternative high school model targeted at students who were at the highest risk of dropping out of high school (U.S. Department of Education, 2007). More specifically, the program was geared toward individuals who had previously dropped out of high school or who were teen parents, were behind grade level, or had critically low test scores. The original High School Redirection model is currently not considered an active program, although it was present in the New York City public school system from 1968 through 2004. The Alternative Schools Demonstration Program (ASDP), which strictly followed the High School Redirection model, attempted to replicate the model in six states but eventually closed as well due to issues such as budget pressures and changing district priorities (Dynarski & Wood, 1997; U.S. Department of Education, 2007).

Despite their closures, both High School Redirection and its sister program (ASDP) have influenced many of the alternative high school programs that are in existence today due to their valuable core features. During their operation, High School Redirection and ASPD were focused on helping students achieve their high school diploma through intensive remedial reading programs, the development of basic skills, and on-site child care if needed (U.S. Department of Education, 2007). Furthermore, the model followed their school district's standard curriculum, but also offered fewer extracurricular activities, independent study, and accelerated ways to earn credits. The programs also worked to build relationships between staff and students by ensuring the schools and classes were small and encouraging teachers to assist students as mentors. Lastly, these alternative high schools were separate from the district's typical high schools and acted independently of district policy in terms of daily decision-making (Dynarski & Wood, 1997).

Based on studies' findings regarding High School Redirection and ASDP, the programs had significant positive effects on students. Compared to a control group in the first year follow-up, High School Redirection students ($N = 374$ students) were enrolled in more days of school, and in the fourth year follow-up, students in the program had also earned more credits (U.S. Department of Education, 2007). Moreover, students in High School Redirection were less likely than the control group students to have dropped out of high school in the third year follow-up (43% compared to 53%). In a study analyzing the ASDP program ($N = 924$ students), findings show significant positive impacts for more than 60 percent of ASDP students with an increase in attendance and earned credits in addition to higher graduation rates for students (Dynarski & Wood, 1997). Ultimately, despite their non-existence today, the High School Redirection and ASDP model positively influenced the students who participated in the programs. Furthermore, many alternative high schools today have incorporated key components into their schools from this alternative high school model.

Job Corps

Job Corps is a large, national, and comprehensive program with more than 100 sites around the country serving approximately 62,000 individuals a year, and it is considered the largest training program for disadvantaged youth (Bloom, 2010; Schochet, Burghardt, & McConnell, 2008). Job Corps is a federally funded program, and more than 60 percent of all funds spent by the US Department of Labor each year goes toward Job Corps (Schochet, Burghardt, & McConnell, 2008). The program serves disadvantaged individuals between the ages of 16 and 24 who often lack a high school diploma or GED, and while most youths average a total of eight months in the program, individuals can stay in the program for up to two years (U.S. Department of Education, 2008; Schochet, Burghardt, & McConnell, 2008).

Job Corps services are given in three separate stages, and in the first stage—outreach and admissions—agencies in disadvantaged communities recruit youths for the program by providing information to schools and community organizations that work with these students (U.S. Department of Education, 2008; Schochet, Burghardt, & McConnell, 2008). The next stage, center operations, is the focus of the Job Corps program. Core services include academics, vocational training, and living services. In the first two to four weeks in the program, youths engage in skill and interest assessment, and they receive an individualized schedule of vocational and academic instruction based on this assessment. Remedial education and GED preparation classes are also a primary focus of Job Corps' educational instruction. At one specific site, Job Corps typically offers specialized training for approximately 10 trades, although training in more than 75 trades exists throughout the different Job Corps sites. Training for these types of trades was compiled based on input from business and labor organizations regarding the necessary skills for a certain trade. Additional Job Corps services consist of counseling, social skills classes, health education, and recreational activities. Lastly, Job Corps individuals are given living quarters within a Job Corps site where they live in dormitories and receive a living allowance twice a month, meals, and health care.

According to one study with approximately 11,000 Job Corps participants, almost half of the individuals who entered the program without a high school diploma or GED received one by the end of the four-year follow-up (U.S. Department of Education, 2008). Moreover, Bloom's (2010) evaluation of the program ($N = 15,385$ youth) shows that compared to the control group, Job Corps individuals were more likely to have earned a vocational/trade certificate (38% compared to 15%). In this same review, it was found that individuals in the program also had lower rates of arrest, conviction, and incarceration. Finally, Schochet, Burghardt, and

Glazerman's (2001) research ($N = 9,409$ individuals) regarding Job Corps found that the program

increased participants' education by approximately one full school year and increased job

earnings by 12 percent. With these numerous positive findings, it should be noted that these

impacts were found to be even more influential and sustainable for participants ages 22 to 24.

As Bloom (2010) notes, these positive findings "do not support the common perception

that 'nothing works' for high school dropouts" (Bloom, 2010, p. 97). Lange and Sletten (as cited

in Powell, 2003) posit that alternative education programs are practical ways of achieving higher

education when they abide by certain standards such as a low teacher to student ratio, a

supportive learning environment, and relevant experiences for individuals that align with their

future goals. As evidenced by the aforementioned discussion, NYGCP, High School Redirection,

and Job Corps align with such standards and are three viable and useful programs for students

who need more intensive and individual supports.

<center>**Limitations of the Programs**</center>

Although these programs have demonstrated numerous positive outcomes in addressing

the issue of high school dropout, limitations inevitably exist as well. First and foremost, as

evidenced by the programs' descriptions, these programs consist of a diverse range of services

and components that often require substantial "buy in" from educators and administrators.

Because of the many different components, the programs are extensive and necessitate

considerable willpower and dedication from all involved in order to be effective. Additionally,

some of the programs come at a high cost per student, which further hinders their

implementation. Lastly, district priorities can interfere with the ability to put such detailed

programs in place (as seen with the High School Redirection Model), and districts may not be up

to the challenge of undertaking such a program with the various other responsibilities and issues

they must address. Unfortunately, these program limitations can deter administrators and

educators from attempting to strategically and rigorously address the dropout problem in their

schools. That being said, it is important for educators to understand that they can still be

powerful change agents without these programs in place, and they should be encouraged to start

small while aiming to work toward a full-scale prevention or intervention program.

Implications for Practice and Future Research

Preventing and intervening with high school dropout is a complex, demanding process.

From the discussion, it is clear that much must happen to ensure such programs are successful.

For schools looking to analyze and confront their dropout problem, beginning to implement these

programs can be overwhelming and intimidating. However, many recommendations exist to help

administrators and educators navigate such a process. The U.S. Department of Education's

Institute of Education Sciences' Practice Guide for dropout prevention (2008) provides a useful

checklist along with recommendations to help educators effectively address high school dropout.

Moreover, a separate report by Civic Enterprises (2006) discusses policy pathways in schools

and communities as well as at the state and national level that can help guide administrators. In

addition, the National High School Center report (2007) provides further information on how

educators can take steps toward tackling the student dropout problem.

In each of these reports, specific programs such as the ones listed above are discussed;

however, the reports are especially useful because they corroborate the core components of each

of these programs into helpful first steps for schools. For example, each of these reports

emphasizes the need for an early warning data system. Because high school dropout is a slow

process of school disengagement, these data systems provide systematic information to educators

about each student. In these systems, information including each student's attendance, behavior,

declines in achievement and engagement, risk factors of the student and of the school in general, and school-level outcomes are collected to track each student and respond to the student's needs as quickly as possible. With this, educators can begin to understand who is at-risk of dropping out, and they can address these students appropriately. In addition, these kinds of data systems can follow students if they change schools, ensuring that at-risk students are not forgotten.

Aside from the recommendation of an early warning data system, additional first steps include: adult mentors for at-risk students, academic support and enrichment, individualization of the learning process (e.g., smaller classes, small learning communities), rigorous and relevant instruction, the availability of different types of schools such as an alternative high school for students, and the fostering of the parent and school relationship. By implementing some of these components, educators can begin to positively impact student dropout while avoiding the problems associated with executing a full-scale program. In addition, by starting small, it would likely be easier to create "buy in" from educators, and it would also be easier for these components to be implemented with fidelity. As educators start to feel more comfortable with these strategies in their schools, they may consider transitioning to a more structured prevention or intervention program such as Career Academics or Check & Connect. Ultimately, the specific prevention and intervention programs mentioned above provide valuable insight into the ways schools can address the dropout problem, and for schools looking to do so, these programs provide promising results.

With regard to future research, investigation into dropout prevention and intervention programs should continue, and research should focus specifically on programs that have been shown to have positive effects but lack adequate research and findings (e.g., Project GRAD). With more rigorous research, schools, districts, and even states may feel more compelled to

implement these programs. Furthermore, it would be beneficial for researchers to continue to understand high school dropouts with more longitudinal and retrospective studies (Bridgeland, Dilulio, & Morison, 2006). Through the use of these types of studies, programs can be further strengthened by becoming more targeted and specific for the types of students they hope to reach. Finally, future research may also want to analyze the differences in schools with students of the same demographics and risk factors, but with different trajectories. In other words, research examining the schools with at-risk students who make it to their high school graduation and schools with at-risk students who do not could be advantageous in shaping future high school dropout reform.

Role of the School Psychologist in the Public Health Model

According to Lessard, Butler-Kisber, Fortin, and Marcotte's (2013) research on at-risk students who either completed high school or dropped out, "risk is simply a measure of probability, not certainty" (Lessard, Butler-Kisber, Fortin, & Marcotte, 2013, p. 109). With that said, it is crucial for educators to recognize that all students, despite their level of risk for drop out, can be positively impacted and influenced to complete high school. School psychologists in particular have a unique role in this process, as they can be a part of positive youth development in each of the three tiers and often act as the connection between the home and the school.

With what research tells us about what influences students to drop out of high school and what helps students to complete high school, school psychologists can work to ensure all students have a positive high school experience. For example, one research study (Lessard, Butler-Kisber, Fortin, & Marcotte, 2013) notes that a student's self-efficacy, ability to plan, and persistence were key points in differentiating students who received their high school diploma and those who did not. By encouraging teachers to foster these skills in their classrooms and by

working with students who may need more practice with these skills, school psychologists can help increase student engagement and thus, their chances of graduating. Moreover, school psychologists can also be instrumental in developing the early warning data system discussed earlier. Because school psychologists are responsible for assessing student needs, it would be appropriate for them to screen students for levels of risk and additional student data needed for the early warning data system to be effective. School psychologists also have the ability to evaluate the effectiveness of prevention and intervention programs to help guarantee that schools only implement programs that work well. Additionally, it should also be noted that many of the duties and responsibilities of the school psychologist already in place (e.g., improving classroom behavior; teaching social skills; fostering relationships; creating individualized transition plans) are critical in preventing and intervening in high school dropout. However, it is important to note that these services in conjunction with whole school reform are what positively influence dropout rates. Without all educators working toward increasing graduation rates, the school psychologist's influence may be limited.

Conclusion

The present review concentrated on the discussion of effective high school dropout prevention, intervention, and recovery programs in use today. In tier one, Career Academies, Talent Development High Schools, and Project GRAD were reviewed and shown to have promising effects as universal programs for all students. In the second tier, Check & Connect, ALAS, and Accelerated Middle Schools were found to have positive influences for at-risk students in need of more focused and supportive interventions. Lastly, tier three programs— NGYCP, Accelerated Middle Schools, and Job Corps—were all shown to have favorable outcomes for students with more intensive needs. Although there are limitations to these

programs, each of them points to ways in which schools can effectively respond to the high

school dropout problem. Schools should also recognize that school psychologists especially have

one of the largest impacts as they can help to guide these reform efforts in numerous ways. Even

though addressing high school dropout may be a daunting task, it is one that must be addressed

in order to stem the tide of students who drop out. Considering the many ways this issue can be

addressed, educators need only choose to begin the process of helping their students reach

graduation.

References

Alivernini, F., & Lucidi, F. (2011). Relationship between social context, self-efficacy,

motivation, academic achievement, and intention to drop out of high school: A

longitudinal study. *The Journal of Educational Research, 104,* 241-252. doi:

10.1080/00220671003728062

Amos, J. (2008). *Dropouts, diplomas, and dollars: U.S. high schools and the nation's economy.*

Retrieved from the Alliance for Excellent Education website: http://all4ed.org/wp-

content/uploads/2008/08/Econ2008.pdf

Anderson, A.R., Christenson, S.L., Sinclair, M.F., & Lehr, C.A. (2004). Check & connect: The

importance of relationships for promoting engagement with school. *Journal of School*

Psychology, 42, 95-113. doi: 10.1016/j.jsp.2004.01.992

Bloom, D. (2010). Programs and policies to assist high school dropouts in the transition to

adulthood. *The Future of Children, 20,* 89-108. doi: 10.1353/foc.0.0039

Bridgeland, J.M., Dilulio, Jr., J.J., & Morison, K.B. (2006). *The silent epidemic: Perspectives of*

high school dropouts. Retrieved from Civic Enterprises in association with Peter D. Hart

Research Associates for the Bill & Melinda Gates Foundation website:

http://files.eric.ed.gov/fulltext/ED513444.pdf

Deci, E.L., & Ryan, R.M. (2002). *Handbook of self-determination research.* Rochester, NY:

University of Rochester Press

Doll, J.J., Eslami, Z., & Walters, L. (2013). Understanding why students drop out of high school,

according to their own reports: Are they pushed or pulled, or do they fall out? A

comparative analysis of seven nationally representative studies. *SAGE Open, 3,* 1-15. doi:

10.1177/2158244013503834

Dynarski, M., Gleason, P., Rangarajan, A., & Wood, R. (1998). *Impacts of dropout prevent*

    programs: Final report. Retrieved from Mathematica Policy Research, Inc. website:

    http://www.mathematica-mpr.com/~/media/publications/PDFs/dod-fr.pdf

Dynarski, M., & Wood, R. (1997). *Helping high-risk youths: Results from the alternative schools*

    demonstration program. Retrieved from Mathematica Policy Research, Inc. website:

    http://www.mathematica-

    mpr.com/~/media/publications/pdfs/education/helphighriskyouth.pdf

Fall, A.M., & Roberts, G. (2012). High school dropouts: Interactions between social context,

    self-perceptions, school engagement, and student dropout. *Journal of Adolescence, 35,*

    787-798. doi: 10.1016/j.adolescence.2011.11.004

Fan, W., & Wolters, C.A. (2014). School motivation and high school dropout: The mediating

    role of educational expectation. *British Journal of Educational Psychology, 84,* 22-39.

    doi: 10.1111/bjep.12002

Fedewa, A.L., Candelaria, A., Erwin, H.E., & Clark, T.P. (2013). Incorporating physical activity

    into the schools using a 3-tiered approach. *Journal of School Health, 83,* 290-297. doi:

    10.1111/josh.12029

Herlihy, C.M., & Quint, J. (2006). *Emerging evidence on improving high school student*

    achievement and graduation rations: The effects of four popular improvement programs.

    Retrieved from the National High School Center website:

    http://files.eric.ed.gov/fulltext/ED501076.pdf

Jerald, C.D. (2006). *Identifying potential dropouts: Key lessons for building an early warning*

    data system. Retrieved from Achieve, Inc.: American Diploma Project Network website:

    http://files.eric.ed.gov/fulltext/ED499838.pdf

Kemple, J.J., Herlihy, C.M., & Smith, T.J. (2005). *Making progress toward graduation: Evidence from the talent development high school model*. Retrieved from Manpower Demonstration Research Corporation website:

http://www.mdrc.org/sites/default/files/full_432.pdf

Kemple, J.J., & Snipes, J.C. (2000). *Career academies: Impacts on students' engagement and performance in high school*. Retrieved from Manpower Demonstration Research Corporation website:

http://www.mdrc.org/sites/default/files/Career_Academies_Impacts_on_Students.pdf

Kennelly, L., & Monrad, M. (2007). *Approaches to dropout prevention: Heeding early warning signs with appropriate interventions*. Retrieved from the National High School Center at the American Institutes for Research website:

http://files.eric.ed.gov/fulltext/ED499009.pdf

Lehr, C.A., Johnson, D.R., Bremer, C.D., Cosio, A., & Thompson, M. (2004). Essential tools: *Increasing rates of school completion: Moving from policy and research to practice.* Retrieved from the National Center on Secondary Education and Transition (NCEST) website: http://www.ncset.org/publications/essentialtools/dropout/dropout.pdf

Lemon, J.C., & Watson, J.C. (2011). Early identification of potential high school dropouts: An investigation of the relationship among at-risk status, wellness, perceived stress, and mattering. *The Journal of At-Risk Issues, 16,* 17-23. Retrieved from

http://files.eric.ed.gov/fulltext/EJ960073.pdf

Lessard, A., Butler-Kisber, L., Fortin, L., & Marcotte, D. (2014). Analyzing the discourse of dropouts and resilient students. *The Journal of Educational Research, 107,* 103-110. doi: 10.1080/00220671.2012.753857

Mac Iver, M.A., & Mac Iver, D.J. (2010). How do we ensure that everyone graduates? An

    integrated prevention and tiered intervention model for schools and districts. *New*

    Directions for Youth Development, *127,* 25-35. doi: 10.1002/yd.360

Millenky, M., Schwartz, S.E.O., Rhodes, J.E. (2014). Supporting the transition to adulthood

    among high school dropouts: An impact study of the national guard youth challenge

    program. *Prevention Science, 15,* 448-459. doi: 10.1007/s11121-013-0388-4

Morse, A.B., Anderson, A.R., Christenson, S.L., & Lehr, C.A. (2004, February). Promoting

    school completion. *Principal Leadership Magazine, 4*(5). Retrieved from

    http://www.naspcenter.org/principals/nassp_completion.html

Powell, D.E. (2003). Demystifying alternative education: Considering what really works.

    Reclaiming Children and Youth, 12, 68-70. Retrieved from https://reclaimingjournal.com/

Princiotta, D., & Reyna, R. (2009). *Achieving graduation for all: A governor's guide to dropout*

    prevention and recovery. Retrieved from the National Governors Association Center for

    Best Practices website: http://files.eric.ed.gov/fulltext/ED507071.pdf

Schochet, P.Z., Burghardt, J., & Glazerman, S. (2001). *National job corps study: The impacts of*

    job corps on participants' employment and related outcomes. Retrieved from

    Mathematica Policy Research, Inc. website: http://www.mathematica-

    mpr.com/~/media/publications/PDFs/01-jcimpacts.pdf

Schochet, P.Z., Burghardt, J., & McConnell, S. (2008). Does job corps work? Impact findings

    from the national job corps study. *American Economic Review, 98,* 1864-1886. doi:

    10.1257/aer.98.5.1864

Snipes, J.C., Holton, G.I., Doolittle, F., & Sztejnberg, L. (2006). *Striving for student success:*

The effect of project grad on high school student outcomes in three urban school

districts. Retrieved from Manpower Demonstration Research Corporation website:

http://www.mdrc.org/sites/default/files/full_517.pdf

U.S. Department of Education, Institute of Education Sciences National Center for Education

Evaluation and Regional Assistance. (2008). *Dropout prevention* (NCEE 2008-4025).

Retrieved from http://files.eric.ed.gov/fulltext/ED502502.pdf

U.S. Department of Education, Institute of Education Sciences, National Center for Education

Evaluation and Regional Assistance, What Works Clearinghouse Intervention Report.

(2008). *Accelerated middle schools*. Retrieved from

http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/WWC_AccelMiddleSch_070808.pdf

U.S. Department of Education, Institute of Education Sciences, National Center for Education

Evaluation and Regional Assistance, What Works Clearinghouse Intervention Report.

(2008). *ALAS: Achievement for latinos through academic success*. Retrieved from

http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/WWC_Project_ALAS_100506.pdf

U.S. Department of Education. (2008). *What works clearinghouse: Accelerated middle schools*.

Retrieved from

http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/WWC_AccelMiddleSch_070808.pdf

U.S. Department of Education, Institute of Education Sciences, National Center for Education

Evaluation and Regional Assistance, What Works Clearinghouse Intervention Report.

(2006). *Career academies*. Retrieved from

http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/WWC_Career_Academies_100506.p

df

U.S. Department of Education, Institute of Education Sciences, National Center for Education

Evaluation and Regional Assistance, What Works Clearinghouse Intervention Report. (2006). *Check & connect*. Retrieved from

http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/WWC_Check_Connect_092106.pdf

U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, What Works Clearinghouse Topic Report. (2008). *Dropout prevention*. Retrieved from http://files.eric.ed.gov/fulltext/ED502714.pdf

U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, What Works Clearinghouse Intervention Report. (2007). *High school redirection*. Retrieved from

http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/WWC_HS_Redirection_041607.pdf

U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, What Works Clearinghouse Intervention Report. (2008). *Job corps*. Retrieved from

http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/WWC_Jobcorps_040108.pdf

U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, What Works Clearinghouse Intervention Report. (2010). *National guard youth challeNGe program*. Retrieved from

http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/wwc_ngyc_092910.pdf

U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, What Works Clearinghouse Intervention Report. (2007). *Project grad*. Retrieved from

http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/WWC_Project_GRAD_073007.pdf

U.S. Department of Education, Institute of Education Sciences, National Center for Education

Evaluation and Regional Assistance, What Works Clearinghouse Intervention Report.

(2007). *Talent development high schools*. Retrieved from

http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/WWC_Talent_Development_071607
.pdf

U.S. Department of Justice, Bureau of Justice Statistics Special Report. (2003). *Education and

correctional populations*. Retrieved from http://www.bjs.gov/content/pub/pdf/ecp.pdf

Wilson, S.J., & Tanner-Smith, E.E. (2013). Dropout prevention and intervention programs for

improving school completion among school-aged children and youth: A systematic

review. *Journal of the Society for Social Work and Reseach, 4,* 357-372. doi:

10.5243/jsswr.2013.22