Leaving the College Track? The Causes and Effects of High School Student Exit from Advancement Via Individual Determination (AVID)

By

Bo McCready

A dissertation submitted in partial fulfillment of

the requirements for the degree of

Doctor of Philosophy

(Educational Leadership & Policy Analysis)

at the

UNIVERSITY OF WISCONSIN-MADISON

2014

Date of final oral examination: April 25, 2014

The dissertation is approved by the following members of the Final Oral Committee:

Xueli Wang, Assistant Professor, Educational Leadership & Policy Analysis

Carolyn J. Kelley, Professor, Educational Leadership & Policy Analysis

Peter M. Miller, Associate Professor, Educational Leadership & Policy Analysis

Nicholas Hillman, Assistant Professor, Educational Leadership & Policy Analysis

Geoffrey L. Wallace, Associate Professor, La Follette School of Public Affairs

Table of Contents

Tables and Figures

Acknowledgements

I would like to start by thanking the faculty and staff of the Department of Educational Leadership & Policy Analysis, who all have contributed to what has been a tremendously fulfilling experience. Xueli Wang has been an ideal advisor and a strong advocate for me and for all of her students, and her supportive, responsive, and positive attitude is a model for any educator who aspires to be a great mentor. I also thank the rest of my committee, Carolyn Kelley, Peter Miller, Nicholas Hillman, and Geoffrey Wallace, for their valuable feedback and willingness to engage with this project.

I appreciate the assistance of many individuals from the district where I conducted my research, and although I cannot name them to protect their privacy, their contributions were immensely valuable. The AVID coordinators and teachers I interviewed were a pleasure to work with, and their passion for their work was inspirational. The district's AVID director believed in this project from the beginning, which meant I could always be sure that this research was not being done just for the sake of research. I also thank the district's school board, legal office, and research office for their support of this project.

Many friends and colleagues have helped by providing ideas, answering questions, or just listening to me talk about this project. In particular, Beth Vaade has been an invaluable sounding board, constructive critic, and friend from the time this dissertation was a new idea to the time I finished writing. Without her academic, professional, and personal support, I wouldn't have been able to make it this far. Eleni Schirmer has been another great sympathetic ear, and her own excellent research on AVID shows that she understands how to make research useful to practitioners in the field, which is a rare skill. Sylvia Ramirez, Nik Hawkins, and Noel Radomski also provided useful advice as this project was getting off the ground. It would be remiss if I did

not also thank the members of my soccer team, Help Wanted; although our list of victories is shorter than this sentence, there are few better ways to relieve the stress of research and writing than by playing a game with you all.

I never would have reached this point without the support of my family. My parents have provided unconditional support throughout my life, and for that I will forever be grateful. I am honored to follow in the footsteps of my grandfather, the late Dr. George Gray (who received his doctorate in 1969 from the exact program from which I am receiving mine), and my grandfather Dr. Donald McCready, who still maintains the inquisitive spirit that helped him complete his doctorate. Finally, my wife, Brittany, has been wonderfully patient and understanding since I started this process, and I couldn't ask for a better partner. Thanks for being there for me. I promise I'll have more free time now.

Chapter One: Introduction

In the United States, college attendance has become increasingly ubiquitous over the past four decades. According to the United States Census Bureau, in 1970, 52 percent of high school graduates enrolled in postsecondary education immediately following graduation. By 2009, that rate climbed to 70 percent. In 1980, about 12 million students were enrolled in postsecondary education. By 2009, more than 20 million students were enrolled. The number of degrees conferred across all American postsecondary institutions climbed from about 1.3 million in 1970 to about 3.2 million in 2009 (United States Census Bureau, 2012). This growth in postsecondary enrollment and attainment runs across racial and ethnic groups and genders. By any measure, it is clear that college attendance is more common than ever before.

As college attendance has increased, there is a widening economic gulf between college graduates and individuals with lower levels of education. Median earnings of college graduates in 2008 were 65% higher than those of high school graduates (Baum, Ma, & Payea, 2010). High school graduates have significantly higher unemployment rates than college graduates, and even individuals who attend some college, but do not earn a degree, outperform high school graduates across a variety of economic measures (Baum et al., 2010). As a result, disparities in college attendance and success between demographic groups have troubling implications for equity.

Today, African American and Hispanic students attend college at higher rates than ever before, and their attendance rates have increased much faster than white students. For example, African American students' share of total postsecondary enrollment increased from 11.3% to 14.3% from 2000-2009, and Hispanic students' share increased from 9.5% to 12.5% over the same time frame (National Center for Education Statistics, 2011). African American students' share of bachelor's degrees earned increased from 8.7% to 9.8% and Hispanic students' share

increased from 6.1% to 8.1% (United States Census Bureau, 2012). But even with these increases, these groups remain underrepresented in postsecondary education (Baum et al., 2010).

One significant barrier that stands in the way of postsecondary education access and success is inadequate academic preparation. Colleges make admissions decisions based on high school coursework, standardized test performance, and class rank and GPA, among other variables. According to ACT College Readiness benchmarks, only one in four test-takers are prepared for college coursework in all four core subject areas (ACT, 2011). These academic preparation indicators are particularly problematic for underrepresented students. African American and Hispanic students lag behind their white and Asian peers on all of these key measures; by some measures, more than twice as many white students meet college readiness benchmarks in courses taken, test performance, and GPA relative to their African American and Hispanic classmates (Roderick, Nagaoka, & Coca, 2009). Greene and Forster (2003) argue that because African American and Hispanic students' share of the college-ready population is similar to their share of college freshman, racial disparities in postsecondary education stem from a lack of college-ready skills for African American and Hispanic students. First-generation students also demonstrate lower levels of high school academic preparation (Warburton, Bugarin, & Nunez, 2001).

Another reason students do not succeed in college is a lack of adequate information about the barriers that stand in the way of college attendance and success, including standardized test scores and placement tests (J. E. Rosenbaum, 2011). Underrepresented students suffer from a particularly pronounced "college knowledge" gap, lacking the knowledge necessary to apply to and attend college (Vargas, 2004). In addition, children whose parents want them to attend college locally are 35% less likely to apply to college. Because racial and ethnic minorities are

more locally oriented than whites, the pressure to stay close to home affects these groups disproportionately (Turley, 2006). African American and Hispanic students also can access less of the social capital that facilitates college success, both at the family and school levels. Some research suggests that when controlling for levels of social and cultural capital, enrollment differences between racial groups are reduced or even disappear (Klasik, 2012; Perna, 2000; Perna & Titus, 2005).

Educators and scholars alike recognize that the seeds of postsecondary enrollment are sown many years before students actually enroll. To encourage students to pursue a postsecondary education, public and private organizations have developed many different programs and initiatives focusing on postsecondary aspirations and preparation. Advancement Via Individual Determination, commonly known as AVID, is one such college readiness program that attempts to address both the academic and informational barriers to postsecondary education. AVID is designed to prepare students in the academic middle for postsecondary enrollment and success through a combination of support services and increased expectations.

AVID students, who generally come from groups underrepresented in postsecondary education, enroll in rigorous college preparatory courses and engage in a variety of activities as part of the AVID program. AVID students enroll ina daily elective course as part of their regular school schedule that focuses on study skills and college preparation, which features two days a week of instruction, two days of tutoring support, and one day of activities such as guest speakers or field trips (Hubbard & Mehan, 1999). Instruction focuses on topics designed to prepare students for postsecondary access and success, such as organizational skills, study skills, time management, research, and test-taking (Nguyen, 2011). The specific content of the in-class instruction varies as students progress through high school; a freshman year AVID class covers

different topics from a senior year AVID class. In the district where I conducted my research, students also can participate in mentoring and internship programs. Through their participation in the program, students work to overcome both academic and informational barriers to postsecondary attendance. The first step in the application process involves evaluating all eligible students on a rubric of criteria including things like GPA, standardized test scores, and attendance. Students scoring highly enough on the rubric are then sent invitations to apply. Students who apply are interviewed and evaluated based on this interview and the strength of the application itself. Not all applying students are accepted, with many placed on a waiting list. Participating students sign a contract that outlines their commitment to the core elements of the program.

The AVID program began in 1980 but has gained increased attention in recent years as concerns about educational disparities have entered the public agenda. Increasing numbers of students are joining AVID, which now serves more than 425,000 youth nationwide. But as the program continues to expand, evidence on its effects remains sparse.

The qualitative research base on the effectiveness of AVID is strong and robust. Much of the existing scholarly research on AVID comes from the AVID center at the University of Texas-Pan American (Watt, Powell, & Mendiola, 2004; Watt, Johnston, Huerta, Mendiola, & Alkan, 2008; Watt, Huerta, & Mills, 2010; Watt, Huerta, & Alkan, 2011). The UT-Pan American AVID team has conducted studies on a variety of aspects of the AVID program, including teacher preparation, gender disparities, and the performance of Hispanic students during and post-AVID. These studies provide much of the knowledge base on AVID and the evidence for the program’s continued expansion.

These studies and others demonstrate that AVID is consistently popular among key constituent groups. Students, teachers, parents, and administrators alike believe in the power of AVID. Qualitative evidence also suggests that students feel more prepared to navigate the "hidden curriculum" of postsecondary education and feel empowered to take more rigorous courses because of AVID.

The quantitative research base on AVID, though, provides only mixed evidence. In published studies, as well as a growing pool of dissertations focusing on local AVID programs, AVID students consistently demonstrate positive educational outcomes. But because AVID participation involves both self-selection and teacher or administrator selection, it is possible that AVID students perform well simply because they are more motivated and talented than their peers who do not participate. Comparisons between AVID students and all other students in a school abound throughout the AVID literature, with issues of selection bias rarely addressed.

The Institute of Education Sciences' What Works Clearinghouse (WWC) published an intervention report on AVID in 2010. The authors reviewed 66 studies of AVID and found that only one met their evidence standards, and even then, only with reservations (What Works Clearinghouse, 2010). The WWC prioritizes causality when evaluating studies for these reports, and because only one study approached causality in a way that the WWC favored, the report concluded that AVID has "no discernible effects" (What Works Clearinghouse, 2010). It is important to note, though, that programs like AVID are notoriously difficult to evaluate. The AVID program includes as one of its eleven "Essentials" the requirement that schools practice an intentional selection process; therefore, selection bias is built into the structure of the program, making it difficult to demonstrate causal impacts of AVID using randomized controlled trials, the method favored by the Institute of Education Sciences.

In addition, the AVID program is characterized by very high attrition rates nationwide. This problem is relevant not just for research on AVID nationally, but for research on college access programs in general, which rarely includes substantial discussions of program exits, and for research on all exits from educational settings. If we accept that postsecondary attendance is a desirable goal and a powerful tool for reducing inequality, then exit from programs designed to encourage postsecondary attendance is a key issue deserving of significant attention. The quantitative evidence base for AVID may be mixed, but the qualitative evidence base is strong enough to suggest that the program can have powerful impacts. Scholars have paid great attention to high school and college dropout with good reason, but exit from programs like AVID is just as crucial if these programs have the power to change an individual's aspirations and expectations from high school graduation to college graduation and beyond. Just as dropout prevention programs can turn a student from a dropout into a high school graduate, programs like AVID can turn a high school graduate into a college graduate, leading to a lifetime of economic and social benefits.

However, AVID exit is particularly interesting because the conventional view of exit from educational programs usually is regarded as a failure or a negative outcome but might not hold true for AVID. Instead, AVID exit appears decidedly more complex because students might exit AVID for positive reasons. For example, students might feel that they gained what they intended to gain from the program or decide to take additional advanced courses that might yield college credit. There exists a consensus that dropping out of school altogether affects students negatively, but dropping out of an optional enrichment program like AVID might have entirely different causes and effects.

Program exit is a complex process, and perhaps it is wrong to assume that when students leave an educational program, they are no longer on track to accomplish the goals of that program. Scholars have recognized the complexity of dropout decisions (Tinto, 1975) and even the potential for "positive dropout" from a program (Sork, 1991). Because educational program exit should not necessarily be regarded as a failure, whether AVID exit is really a sign of a student leaving the college track remains an open question with implications far beyond just AVID. In addition, if school districts operate under the assumption that AVID is a successful program, then understanding the causes and effects of AVID exit is crucial.

Therefore, I studied both the process and the effects of AVID exit through a mixed methods case study design. I incorporated quasi-experimental quantitative methods to estimate the quantitative impacts of AVID exit by comparing the educational and behavioral outcomes of students who exit the AVID program against those of their peers who remain in the program. In addition, I used qualitative methods to illuminate teachers' perceptions of the process of becoming ex-AVID and what it means to be an ex-AVID student. The qualitative component of my study builds on elements of the role exit theory developed by Helen Rose Fuchs Ebaugh by applying this theory to a new population: students who exit AVID.

My research question is: **What are the major causes and effects of exit from the AVID program?**

To answer this question, I also will pursue two major subquestions:

- What factors contribute to students' exit from the AVID program?
- What are the academic and behavioral outcomes for ex-AVID students compared to similar peers who remain in the program?

This study contributes to the literature base on college access programs and role exit, as well as the growing body of research on AVID. Because other college access programs have

many similarities to AVID, including a focus on aspirations and navigating postsecondary systems as well as academic preparation, a better understanding of AVID exit will lead to a better understanding of college access program attrition overall. Role exit theory and theoretical models of high school and college dropout have significant intuitive appeal but are not fully satisfying for exit from college access and other educational enrichment programs; role exit theory is incomplete because exit from academic roles is often driven by academic rather than personal factors, and high school and college dropout models recognize the factors unique to an educational context but focus on exit decisions that typically are regarded as poor choices for students to make. This study blends the strengths of both models for educational programs where exit is not an unambiguously negative decision. Finally, AVID serves hundreds of thousands of students in the United States but research on AVID exit remains troublingly sparse. As AVID continues to expand and serve an increasing share of America's youth, understanding the factors that contribute to AVID exit and the consequences of that exit will contribute to the effective implementation and expansion of the program.

Chapter Two: Literature Review and Theoretical Framework

In this chapter, I review the history and notable characteristics of AVID, the theoretical basis for elements of AVID, and the expansion of the program. I then discuss the existing research base on AVID and the problems with this research base, including unconvincing quantitative evidence and rampant selection bias. Next, I cover three ongoing large-scale quantitative studies that have shown promise in overcoming some of the key shortcomings in the literature base. I also discuss the persistent issue of attrition from AVID, which runs throughout the research base and remains a significant issue for the program. I close the section of AVID by offering concluding thoughts about the state of AVID research and the need for higher-quality evidence.

Next, I review the literature on role exit and educational dropout. I first focus on Tinto's model of college dropout, which is appealing for AVID exit because of the optional nature of both postsecondary education and AVID. I also discuss literature on high school dropout decisions because although AVID is an optional program and high school attendance is largely compulsory, my study focuses on high school students in a secondary education context. Finally, I close with a discussion of Ebaugh's role exit theory, which is particularly promising for AVID research because it is largely value-neutral and encompasses both positive and negative exit decisions.

College Access and Advancement Via Individual Determination (AVID)

Much of the existing scholarly research on AVID comes from the AVID center at the University of Texas-Pan American (Lozano, Watt, & Huerta, 2009; Watt, Powell, Mendiola, & Cossio, 2006; Watt, Yanez, & Cossio, 2002; Watt, Huerta, & Lozano, 2007; Watt, Huerta, &

Mills, 2010; Watt, Mills, & Huerta, 2010; Watt, Powell, & Mendiola, 2004; Watt, Johnston, Huerta, Mendiola, & Alkan, 2008; Watt, Huerta, & Alkan, 2011). The UT-Pan American AVID team has conducted studies on a variety of aspects of the AVID program, including teacher preparation, gender disparities, and the performance of Hispanic students during and post-AVID. These studies provide much of the knowledge base on AVID and the evidence for the program's continued expansion.

AVID also releases its own data on AVID student performance. According to AVID, the program is "proven and data-driven" (AVID, n.d.). Graphs on the AVID website show that participating students complete four-year college entrance requirements at much higher rates than national averages, among other things. But these graphs rarely offer more sophisticated comparisons than "AVID vs. non-AVID" and contain information that falls far short of the standard the scholarly community expects to accompany claims that a program or intervention has an effect. In addition, the program website states that of AVID's 27,891 graduates in the high school class of 2011, 91% planned to enroll in postsecondary education (AVID, n.d.h). Merely planning to attend college, though, is a far cry from enrolling and persisting. Based on program literature, it is impossible to tell how many students are lost between planning and matriculation.

The most significant problem with the body of AVID literature is that despite the attention paid to the program in recent years, there is still limited evidence as to whether the program actually works in measurable and quantifiable ways. Most research on AVID shows positive outcomes for students. But because AVID is an optional program that includes an application process driven by self-selection and a selection process driven by teacher and staff selection, AVID students may be more motivated or talented than their peers who do not

participate. Selection bias rarely is addressed in AVID literature, so some claims of positive program effects are dubious.

The Institute of Education Sciences' What Works Clearinghouse reviewed 66 studies of AVID and found that only one study met their evidence standards with reservations and none met their evidence standards without reservations (What Works Clearinghouse, 2010). The report stated that AVID has "no discernible effects" because the AVID literature lacks research that follows the WWC conception of causality (What Works Clearinghouse, 2010). Because of the core principles behind AVID, it may be unrealistic to suggest that AVID sites employ randomized controlled trials as a way to isolate program effects. But researchers can at least take steps toward causality when studying AVID programs, such as comparing AVID students to a well-matched group of their peers rather than an aggregate of all non-participants.

Two years after the WWC AVID intervention report, it is worth revisiting the literature on AVID to see if any compelling themes emerge. According to the WWC, there is no strong evidence base for the AVID program, which continues to expand and serve increasing numbers of students each year. However, it is a mistake to assume that AVID has no effect simply because the WWC report stated as such. Instead, it is important to consider both qualitative and quantitative evidence with less restrictive standards than the WWC to see what conclusions can be drawn about the program. AVID is a rapidly growing program across diverse locations and contexts, and as concerns about college readiness mount, AVID likely will become even more popular. Therefore, it is critical to review the literature base to see if a compelling case emerges for the expansion of AVID.

AVID program history. In 1980, Clairemont High School in San Diego, California faced a judicial order to desegregate. The school, which was more than 95% white, admitted 500 minority students who quickly found themselves in "special" classes. English department chair Mary Catherine Swanson persuaded Clairemont's principal to place 30 minority freshmen into difficult classes on the condition that they spent one class period a day receiving tutoring and support from her. Four years later, all 30 students went on to postsecondary education. This small-scale success story was the launching point for the Advancement Via Individual Determination program (Goldstein, 2001).

AVID targets students in the "academic middle" or "marginal students." Swanson describes the marginal student as "one who gets 'C' grades in courses which are not rigorous, but comes to school regularly and is not a discipline problem by in large [sic]. In other words, a student who does not want to fail, but does not know how to excel" (Shaughnessy, 2005). Part of the rationale for targeting this student group is that students in the middle are often overlooked and underserved, ineligible for support programs designed for the neediest students but also lacking exposure to high-achieving students and the most rigorous academic programs (Watt et al., 2002)\.

The typical AVID program requires students to enroll in an elective course that is offered during the school day. This elective course features two days a week of instruction, two days of tutoring support, and one day dedicated to things like guest speakers or field trips (Hubbard & Mehan, 1999). AVID tutoring support usually comes from external tutors who are often college students or recent college graduates (Nelson, 2009). Meanwhile, instruction focuses on topics such as organizational skills, study skills, time management, research, and test-taking (Nguyen, 2011).

The AVID tutorial sessions focus on WICR (Writing, Inquiry, Collaboration, and Reading) methodology, Cornell notes, and the use of Socratic Seminars are core to the AVID curriculum. The purpose of AVID tutorials is to encourage students to engage in deeper discussions and use probing questions to help solve problems and foster critical thinking skills, rather than merely to receive answers from the tutor. AVID aims for a 7:1 ratio of students to tutors for the tutorial sessions (Nelson, 2009). Research indicates that AVID tutorials are a particularly difficult strategy to implement (Lougee & Baenen, 2008; Social Research and Demonstration Corporation, 2010).

The WICR methodology focuses on writing, inquiry, collaboration, and reading across all subject areas. WICR is sometimes known as WICOR, with the "O" standing for organization. Example strategies for each element of the WICOR curriculum include Cornell notes for writing, Socratic Seminars for inquiry, tutorials for collaboration, specified AVID binders for organization, and practicing deep reading strategies for reading (AVID, n.d.d).

Cornell note-taking involves dividing each sheet of notes into three spaces: a column along the left, the main portion of the paper, and a bottom section that runs across the width of the sheet. The left-hand column is used to note questions and key points and the main portion is used for general notes. Then, as part of the strategy, students review their notes within 24 hours of taking them and the bottom section is used to summarize the main ideas (James Madison University, 2008). Students are encouraged to use symbols and develop shorthand systems when note-taking and to write the summaries for each page in paragraph form (Stevenson AVID, 2010).

Socratic seminars encourage dialogue centered on a piece of assigned reading. Readings "are chosen for their richness in ideas, issues, and values, and their ability to stimulate extended,

thoughtful dialogue" (AVID Region VI, 2011). A Socratic Seminar is not a debate, but a shared reflection. Discussion leaders start each seminar with an open-ended question, and from there, students share their thoughts and learn to use text to support their ideas while finding common ground and meaning--critical skills for postsecondary success (AVID Region VI, 2011; Facing History and Ourselves, 2012).

AVID binders are designed as a tool for students to keep all important academic materials in one place. These binders include sections for each class, tutorial notes and learning logs, and other academic materials. AVID students are subject to graded binder checks on a weekly basis, where teachers check students' Cornell notes and organization (AVID Region 4, 2006). The AVID binder occupies an important symbolic position within the AVID program (Gira, 2011).

To help teachers implement the AVID curriculum, the national AVID Center sponsors summer institutes for professional development. At these summer institutes, AVID teachers and staff who have signed contracts with the AVID center can come together to learn the latest AVID methodologies and strategies. The institutes offer a variety of focus strands for AVID elective and subject area teachers, administrators, counselors, and district directors, including topics like "Culturally Relevant Teaching," "Tutorology," and "Leadership for Expanding Schoolwide/Districtwide" (AVID, 2012b).

Today, more than 425,000 students in 48 states and 16 countries and territories participate in AVID. The program extends to more than 4,700 sites in more than 900 school districts. Although the program has a nationwide presence, more than half of all AVID sites are located in California and Texas (AVID, n.d.h). Although AVID Secondary (the high school elective) is the best-known iteration of AVID, some students also participate in AVID Elementary and AVID Postsecondary programs. AVID Elementary, which currently exists in

more than 20 states, uses similar principles to AVID Secondary but is embedded into the daily routines of all classes instead of offered as an additional elective (AVID, n.d.b). Meanwhile, AVID Postsecondary aims to extend the college support pipeline into college through the creation of campuswide teams and support structures to enhance student success. Currently, 24 postsecondary institutions offer AVID Postsecondary, and 19 of these institutions are in Texas (AVID, n.d.c). The reach of AVID Secondary dwarfs that of AVID Elementary and AVID Postsecondary. In addition, there is little to no existing research on AVID Elementary or AVID Postsecondary, other than in support of the theoretical components of those programs. As a result, my use of the term "AVID" refers to AVID Secondary unless otherwise noted.

AVID Essentials. AVID sites can apply for certification after reaching a certain levels of fidelity to the AVID model. Certification for AVID sites occurred as early as 1986, but the current formalized certification process began in 2005. To attain certification, sites maintain a portfolio of evidence about their adherence to eleven AVID Essentials that AVID considers core to the program. The eleven Essentials are:

1. Students are selected from the middle and would benefit from AVID support to improve their academic records and begin college preparation.
2. Student and teacher participation is voluntary.
3. The school is committed to full implementation: AVID is scheduled as an academic elective.
4. AVID students are enrolled in a rigorous curriculum.
5. A strong and relevant writing and reading curriculum is a basis for learning in the AVID Elective class.
6. Inquiry is used as a basis for instruction in the AVID classroom.

7. Collaboration is also used as a basis for instruction.
8. Trained tutors regularly facilitate student access to rigorous curriculum using AVID methodologies.
9. Program implementation and student progress are monitored through the AVID Data System and results are analyzed to ensure success.
10. The school or district identifies resources for program costs, supports the Essentials, participates in certification and commits to AVID staff development.
11. Active, interdisciplinary site teams collaborate on issues of access to and success in rigorous college preparatory classes. (AVID, n.d.e)

Each essential is rated along a continuum running from “Not AVID” to “Meets Certification Standards” to “Routine Use” to “Institutionalization.” Sites are considered certified when all 11 Essentials reach “Meets Certification Standards” levels. After three years of certification status, sites can apply for demonstration status, which requires at least “Routine Use” for all 11 Essentials (AVID, n.d.g).

AVID’s stated mission is “to close the achievement gap by preparing all students for college readiness and success in a global society.” The program is designed to accelerate learning and encourage “systemic reform and change.” Program materials also state that AVID educators “believe all students can succeed; work well with school personnel; can organize curriculum and activities; and are committed to serving students” (AVID, n.d.a).

The theoretical basis for elements of AVID. AVID features a distinctive curriculum and approach, but the program shares similarities with other programs designed to help students attend and succeed in college, such as GEAR UP and Upward Bound. In fact, the AVID program model is compatible with GEAR UP and Upward Bound, and the national AVID Center's website even states that "the AVID College readiness System is an effective and proven service component of a GEAR UP project designed to significantly increase college readiness" (AVID, 2013). Tierney and Jun (2001) argue that AVID falls under a category of college preparation programs with counseling and academic foci. They state that these programs take on the role of the guidance counselor, focusing on counseling and academic skills to help prepare students for college. Instructors for these programs build relationships with students and attempt to create the conditions necessary for students to go to college. Meanwhile, Heinrich and Holzer (2010, p. 9) identify AVID as an in-school youth program that emphasizes "college-readiness counseling, pre-college course-taking, college field trips and parent education about access to higher education opportunities," similar to GEAR UP and Upward Bound.

AVID is designed to serve students from the academic middle who have the desire and potential to go to college but would benefit from additional support. Program founder Mary Catherine Swanson described these students as follows:

> Generally, they're the silent majority – the kids who come to school regularly, sit in the back of the class, rarely say anything, don't cause trouble, and get by with C's. They are not failing, nor are they the math whiz or star pupil. They are nearly invisible. Their parents and teachers are content that they are making it through and no alarm bells are going off. They constitute a large part of the middle two quartiles of students. They'll

> graduate, but won't be prepared for college. Any many of them will wander around for years in dead-end jobs. (Swanson, 2005)

Swanson argued that these students were consigned to low expectations and did not receive proper attention as schools focused on students at the extreme ends of the performance spectrum: the highest achievers and the most challenging cases.

In 2002, program annual reports stated that the AVID Center "provides school districts with the curriculum, methodologies and training to prepare low-income and culturally diverse students for college eligibility and success" (AVID, 2002, p. 2). By 2005, the phrase "low-income and culturally diverse students" was replaced with "the least served students" (AVID, 2005). Now, the program's mission is "to close the achievement gap by preparing all students for college readiness and success in a global society" (AVID, 2011, p. 2). It is clear that over time, AVID's mission has become more inclusive, encompassing a wider set of students (from *low-income and culturally diverse students* to *the least served students* to *all students*) while still acknowledging persistent achievement gaps.

Still, even though the program's mission refers to all students, AVID is a program that focuses on underserved and underrepresented students who face the greatest barriers to postsecondary access and success. Only one fifth of students participating in AVID nationwide identify as white (AVID, n.d.f). Therefore, it is appropriate to think of AVID in practice as a minority-serving program. White students and minority students alike can fall under the umbrella of underrepresented students, but minority students face particular challenges that elements of AVID are well-suited to address.

Moore, Ford, and Milner (2005) discuss minority students' difficulties in predominantly white gifted education programs. These students struggle to maintain a sense of racial identity

and belonging in these settings. However, because AVID students are usually predominantly members of racial and ethnic minority groups, AVID provides an academically rigorous setting where minority students are less likely to experience feelings of isolation, particularly given the level of parental involvement encouraged through AVID (Moore et al., 2005).

AVID also sometimes is conceptualized as an "untracking" or "detracking" program (Mehan, Villanueva, Hubbard, & Lintz, 1996; Social Research and Demonstration Corporation, 2010). Tracking arose from the idea that not all students were bound for the same future. As a result, their education should be tailored to prepare them for their likely lot in life. Tracking has always existed in one form or another in American high schools. However, Perlmann (1985) argues that in the nineteenth century, tracking did not divide children by social class in the way it would during the twentieth century, citing evidence from Rhode Island that new immigrants shared academic tracks with long-standing, well-off American families. Ability tracking as we know it today developed as a response to increased high school enrollment, as well as increased interest in intelligence testing. Lewis Terman revised Alfred Binet's well-known intelligence test into the Stanford-Binet test, introduced in 1916. Terman believed that this test could be used in schools to create student groups of similar intelligence (P. D. Chapman, 1981). His ideas took hold, and as enrollment boomed, intelligence tests like the Stanford-Binet were used to sort students into academic tracks deemed to be "appropriate" for them (Perlmann, 1985).

Many scholars argue that the origins of tracking had sinister undertones; for example, Losen (1999) argues that tracking "was heavily rooted in racist conceptions of intelligence and jingoistic public education policy" and that it increased in prevalence following *Brown v. Board of Education* as a way to circumvent court-ordered desegregation. In addition, Terman's work with his own test led him to conclude that poor performance was due to inferior natural mental

capacity. Because blacks and recent immigrants scored lower on Terman's test, he provided an apparently scientific source for racism and anti-immigrant sentiment (Chapman, 1981).

In recent decades, however, tracking has faced a series of challenges from educators, researchers, and political leaders. As a result, many schools are making a conscious effort to "detrack" to increase equity and improve educational outcomes. In a 2009 literature review, Gamoran reviews research on tracking and argues that it magnifies inequality while offering "little or no contribution to overall productivity." But he also acknowledges that "most studies of ability grouping and curriculum tracking have found that high-achieving students tend to perform better when assigned to high-level groups than when taught in mixed-ability settings" and that "critics tend to focus on the inequality without acknowledging the effects for high achievers" (Gamoran, 2009, p. 8).

Still, despite mixed quantitative evidence, detracking is a politically popular choice. There is also little doubt that tracking, in its most insidious forms, can be a tool to maintain significant and long-standing inequities in educational opportunities and outcomes. In an educational system in which many students receive limited access to high-level instruction and curriculum, it appears equitable to ensure that all students have access to roughly the same quality of instruction, from the same sources, using the same material. AVID's approach to detracking involves providing underserved students with the same resources and opportunities available to their more advantaged peers.

Research on AVID. In this section, I discuss the existing research base on AVID and evaluate the quality of the claims made in this research. I begin this section with a discussion of research conducted by scholars from the AVID center at the University of Texas-Pan American, which has been the site of the most sustained and in-depth research on AVID to date and has

provided much of the literature used by the AVID Center to support the program's success. I then discuss research conducted by other scholars, which includes additional academic publications and a number of dissertations produced in recent years. Finally, I review research and evaluation work on AVID conducted by school district staff. This district-based research and evaluation is distinct from the rest of the literature because the authors have little interest in producing generalizable findings, but the information that emerges from this work can still contribute to our understanding of the AVID program.

Data and research available from the national AVID Center emphasize positive student outcomes but offer little in the way of critical reflection. This is unsurprising, as the national AVID program is revenue-seeking. Everything connected to the AVID program, from training to lesson plans to posters to summer institutes, costs money (for example, the complete library of books for AVID at the high school level costs $4,915, while summer institute registration costs as much as $839 per teacher for three days) (AVID, 2012a; AVID, 2012b). Therefore, any data coming from the AVID Center should be viewed with an especially critical eye, as their data work serves the dual purpose of program improvement and program marketing. For the purposes of this review, I choose to exclude AVID Center data.

Research conducted by scholars from the AVID Center at UT-Pan American. Much of the existing scholarly research on AVID comes from the AVID center at the University of Texas-Pan American (Watt et al., 2006; Watt et al., 2002; Watt et al., 2007; Watt et al., 2004; Watt et al., 2008; Watt, Huerta, & Mills, 2010; Watt et al., 2011). The UT-Pan American AVID team has conducted studies on a variety of aspects of the AVID program, including teacher preparation, gender disparities, and the performance of Hispanic students during and post-AVID. These studies use a variety of methods and, taken together, represent perhaps the longest-running

strand of AVID research in the United States. However, since 2007, AVID research at UT-Pan American has been funded by the national AVID center, giving rise to concerns about the connections between AVID researchers and an agency that depends on positive research to continue selling its primary product.

Watt, Yanez, and Cossio (2002) conducted an early AVID study that examined AVID implementation in 26 Texas high schools. They found that all 26 schools showed at least some degree of AVID strategy-sharing among teachers. In addition, AVID teachers and students alike modeled ideal behaviors for their peers. AVID students' passing rates on the Texas Assessment of Academic Skills (TAAS) test increased while they were in the program, but whether non-AVID students' passing rates increased as well is not reported. In addition, AVID students passed end-of-course examinations in Algebra and Biology and attended school at higher rates than the average of all other students in their schools. However, the authors do not report group differences between AVID students and all other students at AVID high schools, so the attribution of any differences in performance to AVID is questionable at best. Qualitative evidence presented from this study suggests that AVID influences perceptions and practices, but the evidence that AVID alters student outcomes is unconvincing.

In 2004, Watt, Powell, and Mendiola studied 10 Texas high schools which began AVID implementation under the Comprehensive School Reform Demonstration (CSRD) program and continued to implement AVID after CSRD monies ran out. They found that even though the pool of AVID students in these schools had a disproportionate number of nonwhite, low-income, and Limited English Proficient students, these AVID students still attended school at a rate higher than their classmates. AVID students also outperformed their classmates on standardized tests and achieved test scores that were above state averages. The authors note that "These findings

are not surprising for 'middle' students who have been given the academic and social support, or scaffolding… in the AVID elective class" (Watt et al., 2004, p. 256). Of particular note in this study is the presence of schoolwide performance changes in AVID schools during the study period. The authors connect this improvement to the "AVID Effect," which posits that non-AVID students benefit from the presence of an AVID program. The authors close by acknowledging that "Because of the nature of this study, the relation of the campus rating [on accountability measures crucial in Texas] to the implementation of AVID cannot be determined" (Watt et al., 2004, p. 256). And again, AVID students were compared to all other students at their schools, rather than a group of similar peers.

Watt, Powell, Mendiola, and Cossio (2006) examined 10 AVID high schools in Texas, looking at school- and district-wide measures of accountability to investigate the impact of AVID on performance in AVID schools as a whole, rather than just on AVID students. They found that AVID high schools performed better than non-AVID comparison high schools on many measures, including graduation rates and AP/IB testing. As a result, the authors argue that "AVID can leverage the profile of the entire school even prior to or without direct impact on other [non-AVID] students" (Watt et al., 2006, p. 72).

A 2007 study from the AVID Center focused on students in AVID and students in GEAR UP (Watt et al., 2007). The authors collected data on four groups of 10th-grade students: those in AVID, those in GEAR UP, those in both, and those in neither. The non-participants for the study were selected to match the participants on gender, 8th grade coursework, and 9th grade academic performance. All students in the study were Hispanic. Using ANOVA, the only statistically significant difference among the groups that emerged was that AVID-only students enrolled in advanced courses at a higher rate. No significant differences emerged on college knowledge,

educational aspirations, or math achievement. Focus group data indicated that AVID-only students had higher college aspirations and paid greater attention to college preparatory strategies than the other groups of students.

Although the use of matching measures is a promising step towards causality, the inclusion of 9th grade academic performance as a matching variable is questionable because students may already have been exposed to AVID and/or GEAR UP in 9th grade, meaning that the matching variable was affected by program participation. In addition, the authors acknowledge substantial differences between the "control group" and the GEAR UP and AVID groups, particularly in parental education, the primary language spoken at home, and the percentage of students born in the United States (Watt et al., 2007). Thus, any differences between AVID/GEAR UP students and the control group are not necessarily due to the programs because the authors cannot demonstrate pre-program similarity between the student groups.

Lozano, Watt, and Huerta (2009) looked at the same students again two years later, when they were high school seniors. They again found no significant differences in educational aspirations between the groups. In addition, they examined educational expectations and found that the control group (no AVID or GEAR UP participation) had the highest expectations. Most students' expectations had changed little from 10th to 12th grade; however, students in both AVID and GEAR UP had *reduced* their expectations. In addition, the control group took more classes for college credit and had higher ACT scores than any other group. The authors again note the lack of similarity between AVID, GEAR UP, and control group students as a way to explain the lack of positive outcomes for AVID students. In addition, they claim that the "AVID effect" might spill over into the rest of the school, causing positive results for control group members as well.

Watt, Johnston, Huerta, Mendiola, and Alkan (2008) conducted a multiple case study of AVID students at eight high schools in California and Texas. In particular, the authors focused on AVID student retention, selecting four schools that were known for retaining students well and four schools that were known for retention problems. They distributed surveys to AVID seniors and teachers and conducted focus groups with both current and former AVID students to identify reasons for retention and exit. The themes that emerged to explain retention were AVID family, senioritis, scheduling, family support, financial pressures, teacher preparedness, and AVID support and strategies (Watt et al., 2008). On the other hand, the authors note that students left AVID for many reasons, including scheduling problems, boredom, and the difficulty of the elective course. They close by arguing that "students drop AVID because of a lack of individual determination. If the AVID student believes that success is possible, the student continues to participate. If the student believes that success is not possible, the student eventually drops out" (Watt et al., 2008, p. 35). The dominant narrative that emerges is that students who succeed in AVID are those who work hard and students who leave the program do not work hard enough. This study provides ample qualitative evidence for the perceived benefits of AVID but places the blame for attrition squarely at the feet of ex-AVID students, whose voices are largely marginalized.

Another major AVID study from UT-Pan American focused on the connection between AVID professional development and school culture and climate. Watt, Huerta, and Mills (2010) surveyed more than 3,100 AVID teachers attending AVID summer institutes (a professional development initiative) across the nation. Survey results indicated that teachers believed AVID had a small to moderate impact on school culture and that schools who implemented AVID properly had more favorable cultures and climates. This study built on prior work that

demonstrated a connection between AVID professional development and teacher leadership (Watt et al., 2010; Watt, Mills et al., 2010) . However, selection bias remains a problem, as the self-reported perceptions of teachers who elected to attend AVID professional development might not be representative of the perceptions of all teachers exposed to the AVID program.

Mendiola, Watt, and Huerta (2010) conducted surveys and focus groups and reviewed the high school and college transcripts of 42 Mexican American students who participated in AVID in high school and went on to attend a Hispanic-serving university in Texas. Survey respondents indicated that they used AVID strategies in college, including Cornell Notes, tutoring sessions, and AVID binders for organization. In addition, 33 of these 42 students were on track to graduate from college in six years or less. This 79% on-track rate is much higher than the university's overall six-year graduation rate of 25-30% (Mendiola et al., 2010).

Watt, Huerta, and Alkan (2011) conducted a similar study that looked at 50 former AVID students from a Hispanic-serving university in Texas and also focused on measures of college preparation. Logistic regression analysis revealed that additional years of AVID participation during high school had no significant impact on college success, defined as a combination of three factors: enrollment in both the fall and spring semesters of college immediately following high school graduation, a GPA of 2.0 or higher after the first year of college, and no remedial courses taken during the first year of college. In addition, only 11 of the 50 students in the study met all three characteristics of college success, as defined by the authors.

Based on the literature from UT-Pan American, AVID appears to be a promising program in many ways. But it is difficult to argue that AVID is the definitive cause of AVID students' positive outcomes. As noted by the What Works Clearinghouse, these studies do little to demonstrate a causal link between AVID and student success because selection bias, when it is

even addressed, is not handled in a convincing manner. In addition, the AVID studies from UT-Pan American focus on relatively small groups of students in limited geographic locations (typically Texas and California) and with a high percentage of Latino participants, so it is uncertain whether these results are generalizable to AVID programs in substantially different contexts. The voices of program participants and staff run throughout this body of research, and what they say suggests that they are pleased with the program. But in an era of increasing accountability and pressure to demonstrate concrete outcomes, will stories like these be enough to justify the continued expansion of the program?

Additional scholarly research on AVID. Outside of the AVID center at UT-Pan American there is limited scholarly research on the AVID program. Guthrie and Guthrie (2000) conducted a longitudinal study that looked at the impact of middle school AVID participation on high school AVID performance and the outcomes of AVID graduates. Students who participated in two years of middle school AVID and enrolled in high school AVID outperformed their AVID classmates on standardized test scores, credit accumulation, and Advanced Placement course enrollment. In addition, AVID graduates who responded to a survey reported positive outcomes in postsecondary education. However, students' perceptions of how AVID prepared them for postsecondary education varied widely. In particular, students were most satisfied with AVID's impact on their college applications and least satisfied with their preparation for math and essay writing (Guthrie & Guthrie, 2000).

Another study, funded by the national AVID Center, focused on the effectiveness of the 11 AVID Essentials mentioned earlier. Guthrie and Guthrie (2002) studied AVID programs at eight high schools in California that were selected as model AVID schools: the "Magnificent Eight." They found that all eight of these schools implemented AVID exactly as designed with

high adherence to the 11 Essentials. In addition, they identified spillover effects of AVID throughout the schools, including data use, increased expectations, and adoption of AVID methodologies.

Mehan, Villanueva, Hubbard, and Lintz (1996) studied AVID students in San Diego as part of a larger examination of what they frame as "untracking programs." They found that these AVID students enrolled in four-year postsecondary education at rates that were favorable relative to local and national averages. African American AVID students' postsecondary enrollment was particularly promising, as 93% enrolled in either a four-year or two-year postsecondary institution. In addition, the authors argue that AVID "overrides to some extent the effects of [parental education and income]" (Mehan et al., 1996, p. 62).

In recent years, AVID has been a popular focus for master's theses and doctoral dissertations. Many of these products were included in the WWC Intervention Report on AVID, but at least 10 dissertations and theses focusing on AVID have been published since the WWC Intervention Report was released. I will highlight relevant findings from several of these dissertations, which represent some of the most current research on the program.

Fosnacht (2011) studied students participating in a variety of pre-college programs, including AVID, to determine the impact of participation in these programs on postsecondary academic involvement and achievement. In addition, Fosnacht used multiple regression and boosted CART models to predict AVID participation among his sample of students, drawn from the University of California System. The predicted probability of AVID participation was then used to match AVID participants with non-participants who attended high schools with AVID programs and were similarly likely to participate in the program but did not. Then, Fosnacht compared AVID students against these similar peers and found that AVID participation "was not

significantly associated with any change in academic involvement or achievement" (Fosnacht, 2011, p. 135). The advanced analytic techniques used in this dissertation lead to reasonable counterfactual inferences about the effect of AVID on postsecondary performance; however, the author does not focus on whether AVID has an effect during high school. In addition, some of the variables used to predict probabilities of AVID participation, including high school grade point average, might have been influenced by AVID participation. Therefore, the matched control group is similar to AVID participants in terms of high school outcomes, but not necessarily in terms of their original likelihood of participating in the AVID program.

Franklin (2011) compared AVID and non-AVID students at 77 public Texas high schools in terms of college readiness. In total, her sample included more than 10,000 AVID participants and more than 140,000 non-participants (Franklin, 2011). She found that AVID students outpaced their peers in attendance, AP course enrollment, and college readiness in language arts and mathematics. However, Franklin did not demonstrate overall group similarities between AVID and non-AVID students. Therefore, it is impossible to attribute differences between the groups to AVID participation because of the pervasive influence of unchecked selection bias in this study.

McKenna (2011) conducted a series of semi-structured interviews with high school seniors in AVID, as well as a series of classroom observations, to examine the influence of AVID in a high-achieving suburban high school using social capital theory. McKenna does an excellent job noting the limitations of his study, including the potential lack of generalizability to schools in different settings and the risks of "euphoric recall" among his interviewees, who were nearing the end of sustained participation in AVID (McKenna, 2011, p. 15). In addition, McKenna's study is notable because it "did not focus on a school with an abundance of at-risk

students" and included a sample of AVID students that was 50% white (McKenna, 2011, p. 73); although AVID tends to draw participants from underserved groups, the program operates in many schools where underserved students are a minority, so studies like McKenna's add to the robustness of the knowledge base on the program.

McKenna finds three emerging themes: the acquisition of cultural capital via the AVID program, the acquisition of social capital from students' AVID teacher and peers, and the acquisition of an academic identity. In particular, AVID students acquired cultural capital that is often limited to individuals with high socioeconomic status, including knowledge about the college application process and how to navigate the "hidden curriculum" throughout their academic careers. Students also benefitted from having an AVID teacher that served as their advocate and from integration into a social network of peers with similar backgrounds and goals. In closing, McKenna argues that "In essence… the students carried themselves with an 'AVID identity'" that reflected the goals of the program (McKenna, 2011, p. 173).

Other studies also have focused on cultural capital and AVID. For example, Ward (2008) builds on earlier work by Stanton-Salazar (2001) and uses AVID as a lens through which to view the acquisition of social and cultural capital by minority low-status students. Ward conducted social network analysis, an uncommon approach to studying AVID, and also included qualitative and ethnographic interviews guided by a critical perspective. She focused on the idea of the AVID teacher as an "institutional agent" who can "access and mobilize social capital for his students" and "expand the whole notion of agency to mobilize social capital for colleagues around him" (Ward, 2008, p. 131).

Ford (2010) evaluated AVID as a tool to reduce the racial achievement gap in a Texas high school. She compared AVID students' academic outcomes against a randomly selected

sample of non-AVID students. In addition, she distributed a survey to each student's English and math teachers asking them to rate the students' levels of cultural capital. Ford found that non-AVID students outperformed the AVID students in math and English and had higher grade point averages. Teachers also believed that non-AVID students had higher levels of cultural capital that affects academic performance than did AVID students. Ford concluded that "the implementation of the AVID program, as a school-wide initiative to close the achievement gap, was not very successful" and "The impact that the implementation of the AVID program has on the academic achievement gap cannot be substantiated" (Ford, 2010, p. 103, p. vii). Because the AVID students and the random sample of non-AVID students were not shown to be equivalent, though, these findings do not necessarily constitute evidence that AVID is ineffective.

Nguyen (2011) conducted a mixed-methods study that included quantitative data on 33 AVID students and focus group data from 11 AVID students. These students enrolled in advanced classes and performed well. In addition, 22 of 33 students improved their standardized test score percentiles while enrolled in the program. Again, though, Nguyen does not compare AVID students to non-participants, so it is uncertain how these students performed relative to even the rest of their school, much less a well-matched group of their peers. From the focus groups, the same themes emerged that run throughout the qualitative research base on AVID: students were more confident, benefitted from their peers and teacher, and felt a greater degree of academic self-efficacy (Nguyen, 2011).

Connors (2010) studied students at six high schools in Florida, focusing on the performance differences on the Florida Comprehensive Assessment Test (FCAT) between AVID students and their peers. Connors used a matching procedure to create a comparison group of non-AVID students matched based on gender, ethnicity, and socioeconomic status for all three of

her research questions. She then added an additional matching variable for each research question to create three separate comparison groups to use depending on the question of interest. These variables included specific subject area courses. Because AVID students in Connors' sample enrolled in all honors classes, the comparison group consisted of non-AVID honors students. AVID students who had no appropriate match were dropped from the study; in total, 39% of AVID students in the six high schools were dropped from the study (CONNORS, 2010). Connors used t-tests to assess group equivalence and found no significant differences between AVID and comparison group students on race, gender, ethnicity, socioeconomic status, and standardized test scores.

Only one significant difference emerged between AVID and non-AVID students: non-AVID students scored better on a 10^{th} grade writing test. However, Connors notes that the similarity between the performance of the two groups may actually be a positive sign for AVID, as AVID students did not perform worse overall than a group of honors students. She argues that "Since the mean gain scores of the AVID students were statistically indistinguishable from the honors level students in the areas of mathematics and reading… the AVID program may be providing the necessary components to facilitate the academic development of 'students in the middle,' although causality cannot be determined given the design of the study" (CONNORS, 2010, p. 127).

Johnson (2010) examined the effect of AVID, GEAR UP, and Upward Bound on high school retention and graduation for Hispanic students in high schools with more than 40% Hispanic students. Johnson found no statistically significant differences among the three programs, arguing that they were either "equally effective or… equally ineffective" (Johnson, 2010, p. xi). However, this study focused not on students enrolled in the three programs, but on

all students in the high schools that offered these programs. Therefore, although the presence of these three programs showed no impacts on schoolwide retention and graduation rates, Johnson's research tells us nothing about what AVID does for its students in particular.

Posthuma (2010) used a critical ethnographic approach to study the impact on a high school's culture of having at-risk students enrolled in AP courses. Although his work is not primarily a study of AVID, his sample of 100 student study participants is drawn from an AVID program in Southern California. Posthuma also interviewed teachers and administrators to discuss the perceived impact of at-risk student enrollment in AP. These AVID students reported that barriers stood in the way of enrolling in AP classes and that even after AVID opened the door to these classes, they were not treated the same as other students. The concept of "gatekeeping" emerged as a prevalent theme, both in terms of what courses students were allowed to take and what teachers were allowed to teach advanced courses. In addition, many teachers were uncertain "how to conduct effective instruction practices to reach the lower-achieving student" (Posthuma, 2010, p. 92).

In the school where Posthuma worked and studied, many obstacles stood in the way of AP course enrollment, including teacher permissions and prerequisite tests that students had only one opportunity to pass. Teachers were accustomed to teaching a certain type of student, and class sizes for AP courses were artificially small to keep test pass rates and scores high. Prior to the implementation of the AVID program, a "culture of inequity" permeated throughout the school, and this culture led to "steadfast beliefs from the past that are difficult to overcome" (Posthuma, 2010, p. 129). Therefore, it is clear that in this school, merely helping AVID students enroll in AP courses was not enough to ensure that they would be successful in these courses.

These other scholarly studies reach many of the same conclusions drawn from the research conducted at UT-Pan American but cover a greater variety of school contexts. The common conclusions of inconclusive quantitative evidence but high-quality qualitative evidence appear across diverse settings. Some of the researchers producing these studies used critical theoretical frameworks, which helped reveal the impact of AVID on social and cultural capital. The effect of AVID on students' confidence and sense of belonging also emerged from these studies. However, as with the research conducted at UT-Pan American, the quantitative research suffers from unchecked selection bias and poorly matched comparison groups when such groups are used at all.

School district research and evaluation of AVID. School district evaluations of AVID programs are another valuable source of evidence. An evaluation of AVID in Austin, Texas compared AVID students against all other students in their schools. In general, AVID students attended school at higher rates than their classmates and met or exceeded their classmates' average scores on End of Course Tests (EOC) that once served as a substitute for the Texas Assessment of Academic Skills (TAAS) graduation exam (Oswald, 2002). However, AVID students lagged behind their classmates on AP test passing rates and ACT and SAT scores. AVID students and parents also filled out surveys about the program. Both students and parents had positive feelings about the program overall, with particular acclaim given to AVID teachers. Sixty-four percent of parents and 57% of students also reported greater student happiness since enrolling in AVID (Oswald, 2002).

An early analysis of the AVID program in Broward County, Florida compared AVID students against all other students in the school district (De Rose & Clement, 2004). In this district, AVID students enrolled in rigorous courses at a higher rate than non-AVID students. No

differences emerged between AVID and non-AVID students on Florida Comprehensive Assessment Test (FCAT) scores. No demographic information for AVID students is presented, so it is uncertain how AVID students compare to their non-AVID peers in terms of background characteristics.

A similar report from the Pleasanton Unified School District in California compared two cohorts of AVID students' performance measures against district averages. Although AVID students' GPAs lagged behind district averages, AVID students actually improved their grades from 8th to 9th grade while their non-AVID peers' grades declined (Gulek & Howell, 2005). AVID students' SAT scores also lagged behind those of non-AVID students in the district, but their scores were roughly in line with national averages and a much higher percentage of AVID students took the test relative to non-AVID students.

In Fairfax County, Virginia, AVID students outperformed a matched sample of non-AVID students on many measures. AVID students planned to attend a four-year college or university at a higher rate, enrolled in more rigorous courses, and passed End-of-Course (EOC) exams at higher rates. Of particular note is that on these exams, AVID students outperformed not just their matched sample, but also the district overall. This finding was consistent across all racial and socioeconomic groups (Sockwell & Hruda, 2011).

The Clark County School District (CCSD) of Las Vegas, Nevada partnered with graduate students at the University of Nevada, Las Vegas to conduct outcome and implementation evaluations of CCSD's AVID program. Marchand, Cullen, Edwards, Lewis, and Jelenic (2007) compared AVID students against a sample of non-AVID students matched based on gender, ethnicity, and 8th grade GPA. The AVID and non-AVID students showed no statistically significant baseline differences on the matching variables. In addition, the authors conducted a

survey of 75 teachers, 313 parents, and 615 AVID seniors about their experiences with the AVID program.

Teachers were generally pleased with the program and used AVID strategies in their teaching. However, they were less pleased with their levels of collaboration with other teachers, particularly AVID teachers outside of their school. Parents believed the program was helpful and reported high levels of confidence that their children would progress to postsecondary education. Parents also responded that AVID helped their children develop "time management, organizational skills, community involvement and leadership aptitude" (Marchand et al., 2007, p. 18). Finally, students expressed similar feelings and were particularly positive about the importance of college and the way the program has inspired them to explore their potential. Quantitative analysis showed that AVID students had higher standardized test scores, more semesters of AP coursework, higher GPAs, and better class rankings than their matched peers. Only 44% planned to attend a 4-year college, though, and only 59% had applied (Marchand et al., 2007).

In the San Francisco Unified School District, AVID students in high school earned GPAs that were 0.4 higher than the district average, although AVID students in middle school underperformed district GPA averages by 0.2 (Tabor, 2010). African American and Latino students in high school outperformed their peers by particularly large margins on both GPA and AP and honors class enrollment. By 11th grade, AVID students as a whole were on track for high school graduation. AVID coordinators reported that "AVID students are more engaged in school and are helping to shape the academic culture of their school" (Tabor, 2010, p. 3). Teachers also noted that AVID students "acted and behaved like a family or club within the school" (Tabor, 2010, p. 15).

Two district evaluations of middle school AVID programs offer lessons that are generalizable to high school programs as well. A Wake County, North Carolina evaluation of middle school AVID identified perceived strengths and weaknesses of the program. For example, a lack of tutors and inconsistent implementation emerged as reasons that this particular AVID program did not meet its goals (Lougee & Baenen, 2008). In addition, the authors expressed concern that students might have to choose between taking AVID and pursuing another interest in an elective course, a problem common in high school AVID. A quasi-experimental evaluation of middle school AVID in Jackson-Madison County, Tennessee found positive gains in academic performance for AVID students compared against a matched comparison group. However, these gains disappeared when AVID teachers left the district and were replaced by teachers with less substantial AVID training, indicating the importance of staff continuity in the development and implementation of a successful AVID program (Jackson-Madison County Schools, 2008).

These school district evaluations provide valuable depth to the literature base on AVID, particularly because the findings that emerge from qualitative school district work appear to mirror the findings coming from scholarly research. The quantitative work from Fairfax County and Clark County (Marchand et al., 2007; Sockwell & Hruda, 2011) also allows for comparisons between AVID students and matched peers, which makes it easier to attribute group differences to AVID participation. But despite these small steps towards quantitative rigor, the district-based research on AVID suffers from many of the same problems inherent in the academic literature: students, teachers, and parents report that the program is effective in myriad ways, but the quantitative evidence base is largely inadequate for answering questions of “how” and “how much?”

Problems in the AVID literature. To consider the overall evidence base on the AVID program at the high school level, it is valuable to first discuss an article on a middle school AVID program with particularly illustrative results. Black, Little, McCoach, Purcell, and Siegle (2008) used a middle school AVID program to demonstrate how outcome measures and data collection methods can affect the outcomes of a program evaluation. After reviewing the literature on AVID, the authors noted that "None of the studies reviewed in our survey of current research were of sufficient scientific rigor to allow for causal inferences related to the AVID program" (Black et al., 2008, p. 114). For their study, the authors used a quasi-experimental design that included both qualitative and quantitative methods. They compared two cohorts of AVID students in two schools against non-AVID students in a third school. Staff at all three schools participated in AVID training, but one school was randomly selected to refrain from implementing the program.

Black et al. found significant differences between AVID and comparison students on quantitative variables including scaled college plans and algebra enrollment rates. However, significant differences were not consistent between the two cohorts studied. In addition, the AVID and comparison groups had substantial demographic differences and sample sizes were small, with only 51 AVID students and 21 comparison students in each cohort (Black et al., 2008).

Qualitative findings from Black et al. fall into line with the rest of the literature on AVID: key stakeholders support the program and believe that it is effective. Therefore, the authors note that the different types of data analyzed would lead to different conclusions about program effectiveness if viewed in isolation. Quantitative data yielded mixed and ambiguous results,

while qualitative data led to the conclusion “that the program was universally successful in affecting student academic outcome variables for both cohorts” (Black et al., 2008, p. 121).

Why discuss this study now? Because the conclusion that Black and her co-authors reach about their study could be applied just as easily to the AVID research base as a whole: the quantitative evidence on AVID is rather unconvincing, but the qualitative evidence points to a tremendously successful program which satisfies participants and other key stakeholders. It is perhaps an elementary point that method selection in program evaluation affects the conclusions reached, but rarely is this point so evident than when reviewing the research on AVID.

As a whole, the qualitative evidence for AVID’s success is strong. Some interesting studies focus on topics which are extremely difficult to quantify, such as cultural capital and the hidden curriculum in American education. The predominant theoretical lens for AVID research is critical theory, at least when a lens is declared. This is unsurprising because of the goals of the AVID program and its intended service population, but it still worth considering whether the positive outcomes that critical theorists discover would be as evident to researchers working through other theoretical lenses.

Mixed methods research on AVID is quite common among both academic researchers and school district evaluation teams. And as noted above, these mixed methods studies tend to provide very convincing qualitative evidence but flawed quantitative evidence. Mixed methods research can offer greater clarity by allowing for multiple ways of looking at a program within a single study. But when different methods yield different conclusions, we must ask what it is about the AVID program that engenders such tremendous verbal support from nearly every connected individual while producing such limited conclusive quantitative support. Much of the blame for this lack of quantitative support can be directed at the inadequate methods used in

quantitative AVID research. If quantitative AVID studies offered better points of reference for AVID students, would we see different results?

In addition, it appears that the scope and breadth of AVID-related research topics is outpacing the depth of program knowledge. In recent years, we have seen studies that focus on things like AVID professional development and implementation strategies when the quantifiable impacts of the program remain uncertain. Certainly, there are many aspects of the AVID program that are worthy of study. But schools today operate in an era of accountability, where data-driven decision-making is a priority and schools face increasing pressure to link outcomes to processes (Means, Padilla, & Gallagher, 2010). Studies that show concrete results, then, are arguable more important than studies focusing on peripheral aspects of the program.

A final issue with AVID research relates to AVID's intended goal of schoolwide transformation. The most persuasive form of quantitative evidence of AVID's success would be a comparison between AVID students and a perfectly-matched group of comparison students with no exposure to the program. However, AVID hopes to affect change not just within the AVID classroom, but also throughout the school. If AVID really does have spillover effects on non-AVID students, then isolating the impact of the program is next to impossible if both AVID and comparison students come from the same school. Perhaps data analysis would reveal no significant differences between AVID and comparison students merely because the comparison students benefitted as well from the presence of the program.

In a 2003 interview with ACCESS: AVID's Research Journal, John Yochelson, head of Building Engineering and Science Talent, noted:

> …how thin the evidence base is… how many decisions are being made on the basis of anecdote, or impressions or sales pitch or, in a more positive way, professional judgment

> of good people… The programs that can show, not just say, but prove that they can produce… those are the programs that should be funded. That's just the way it goes." (Behar, 2003, p. 4)

Yochelson saw AVID as one of those proven programs. Based on qualitative evidence, it is difficult to disagree. But the quantitative evidence is much more mixed, and most attempts to draw a causal link between AVID and specific quantifiable outcomes have fallen far short.

My intent is not to devalue the excellent qualitative work on the AVID program. In fact, the qualitative evidence base on the effects of AVID is so robust that we can be confident that the program is doing something positive. But schools do not operate in a vacuum, and external accountability pressures often create the need for more evidence than a series of positive qualitative findings. Instead, strong and credible quantitative work is necessary in concert with this qualitative work to justify the continuation and expansion of AVID.

Ongoing large-scale quantitative studies. Although the quantitative literature base on AVID has major problems, there are several large-scale studies underway that account for some of the most common issues in AVID research and offer the promise of the most convincing quantitative evidence on AVID's impacts to date. One such study that attempts to deal with the issues discussed above comes from the Social Research and Demonstration Corporation (SDRC). The SDRC study is the first AVID study that uses random assignment in an effort to eliminate the influence of selection bias on study results (Social Research and Demonstration Corporation, 2010). The SDRC identified 1,522 eighth grade students that would be eligible to participate in AVID and randomly assigned these students to program, waitlist, and comparison groups. The authors acknowledge that their design does not allow them to isolate the impact of being in BC AVID for four years but rather the impact of offering students the opportunity to participate

(Social Research and Demonstration Corporation, 2010). The AVID and comparison groups demonstrated no significant pre-AVID differences across a vector of 20 eighth grade variables. As a result, the BC AVID study comes closer to the IES-recommended implementation of a randomized controlled trial than any other AVID study to date, and as such, particular attention should be paid to its results.

To account for the potential spillover effects of AVID, the SDRC researchers surveyed non-AVID students about their exposure to AVID techniques. They then compared non-AVID students' exposure to AVID techniques against the exposure of students in schools where AVID was not part of the curriculum. Because non-AVID students in the study schools showed no higher rates of exposure to AVID techniques than students in schools with no AVID program, the authors concluded that "spillover effects were quite limited" (Social Research and Demonstration Corporation, 2010, p. 97). AVID and non-AVID students in the study exhibited a "treatment differential" in which AVID students were exposed to much higher levels of AVID strategies.

The BC AVID study revealed that AVID students enrolled in rigorous courses at higher rates than their peers. AVID elective enrollment came at the expense of fine arts and "applied skills" courses, in which enrollment dropped by 18 and 14 percent, respectively (Social Research and Demonstration Corporation, 2010). In addition, fewer AVID students failed classes relative to non-AVID students, although their grade point averages were lower overall. AVID students also were absent from classes more often than comparison students.

Qualitative evidence from the BC AVID study aligns with the literature base on AVID. School staff noted that the program "improved students' sense of belonging and friendships" (Social Research and Demonstration Corporation, 2010, p. 142). Staff said that AVID students

also developed better organizational skills and were better prepared for postsecondary education than their peers. Finally, staff noted that students beginning AVID were often "'fearful' or anticipating academic failure," but after participating in the program, these students expected success (Social Research and Demonstration Corporation, 2010, p. 142).

Unsurprisingly, though, the persistent problem of AVID attrition appeared in the BC AVID study. The authors reported that half of the students assigned to participate in BC AVID dropped the AVID elective by the end of their junior years (Social Research and Demonstration Corporation, 2010). Attrition is a serious problem for randomized controlled trials like the BC AVID study because it poses a threat to treatment and comparison group equivalence, as well as a potential confounding relationship between treatment and attrition (Shadish, Cook, & Campbell, 2002).

The Wisconsin Center for the Advancement of Postsecondary Education (WISCAPE) study of the AVID/Teens of Promise (TOPS) program in Madison, Wisconsin also examines the influence of AVID by comparing program participants against non-participants. Program leaders in Madison chose not to assign students to participate in AVID/TOPS at random; instead, students are selected based on their scores on a rubric that includes academic, behavioral, and demographic variables, an approach that follows AVID standards. As a result, the WISCAPE study compares program participants against a comparison group of non-participants created through a multivariate matching procedure that uses variables included in the program selection rubric. The program began as a pilot at Madison East High School in 2007, with districtwide implementation following in 2009.

Early WISCAPE reports on AVID/TOPS are not publicly available. However, media reports indicate that participating minority students outperformed the comparison group on

measures such as grade point average, attendance rates, and standardized test scores (DeFour, 2011). The Madison Metropolitan School District hopes to expand AVID/TOPS and candidates for Madison's school board also cited AVID/TOPS as a promising practice to help reduce the racial achievement gap in MMSD in early 2012 (Wisconsin State Journal, 2012). The WISCAPE study began in 2009 and the first full cohort of participating students graduate from high school in 2013, so there are no available districtwide estimates of the impact of AVID/TOPS on high school graduation or postsecondary enrollment and success. However, all 11 students from the first Madison East pilot class who remained in the program through the end of their senior year planned to attend college (Worland & Yager, 2010).

In addition, in 2013, WISCAPE released its full annual report on the AVID/TOPS program. The report concluded that AVID/TOPS increases student GPAs, AP/Honors enrollment, attendance, and positive behavior. In addition, AVID/TOPS appears to have additional positive effects for students spending a longer amount of time in the program (Wisconsin Center for the Advancement of Postsecondary Education, 2013).

The SDRC and WISCAPE studies are among the most rigorous evaluations of AVID programs that have been conducted to date. Both of these studies suggest that AVID participation improves student outcomes. However, neither study focuses on an AVID program that follows the AVID model in its most common form. The SDRC study uses random assignment, which explicitly contradicts the selection standards outlined in the first of 11 AVID Essentials necessary for certification as an AVID site (AVID, 2007). Because selection is core to the AVID experience, an evaluation of an AVID program that excludes the traditional AVID selection process might produce results that are not consistent with the results of AVID programs that use selection as intended.

The WISCAPE study focuses on a program that uses AVID-sanctioned selection processes and a matched comparison group designed based on the selection process. But it is impossible to isolate the impact of AVID in MMSD from the combined impact of AVID and the Teens of Promise (TOPS) component. Even though the study shows positive early results for the program, it is uncertain to what degree the AVID and TOPS portions contribute separately or in interaction with one another.

A third major AVID study is underway in the Chicago Public Schools (CPS). The University of Chicago Consortium on Chicago School Research (CCSR) surveyed AVID students in 2007. Overall, CCSR researchers found that AVID students were satisfied with the program and positive about the impact of the program. Lower-performing students, girls, and 10th-graders (relative to 9th-graders) exhibited more positive feelings about AVID (Consortium on Chicago School Research, 2007). In addition, CCSR has examined AVID student outcomes against a group of similar non-participants. The AVID work done by CCSR researchers was previewed at the 2011 convention of the American Educational Research Association, and a controversial Education Week article covering this preview stated that "AVID participants in 9th grade gained little advantage that year over peers not taking part in the program, and remained off track for graduation and college" (Sparks, 2011). As of July 2012, CCSR has released no further reports on AVID that detail student outcomes.

AVID attrition. Another significant issue for AVID nationally is the high rate of attrition from the program. As mentioned earlier, the large-scale RCT study of AVID in British Columbia faced AVID attrition of more than 50% (Social Research and Demonstration Corporation, 2010). One study of an AVID program in Virginia found attrition rates of more than 60% from 9th to 12th grade (Whitaker, 2005). Another study of a middle school AVID

program in North Carolina found that 62% of AVID students exited between 6th and 8th grade (Lougee & Baenen, 2008). Nineteen of 30 AVID students who participated in an experimental study in Texas left the program during the study (Cox, 2008). An evaluation of AVID in Las Vegas identified student attrition as a source of concern for AVID site coordinators (Marchand et al., 2007). Watt, Yanez, and Cossio (2002) observed attrition rates of 43% from 9th to 10th grade and 9% from 10th to 11th grade in the schools they observed. Finally, enrollment numbers for AVID schools reporting data to the national AVID center suggest consistent attrition, as the number of AVID students enrolled nationally at each grade level declines from 74,817 in 9th grade to 36,217 in 12th grade, a decrease of 52%. Among all students at reporting schools, enrollment numbers decreased only 19% from 9th grade to 12th grade, suggesting that AVID attrition dramatically outpaces overall attrition in AVID schools (AVID, 2012a).

Although no concrete numbers exist on AVID attrition overall, there is enough evidence in the literature to suggest that attrition is an issue, both for program effectiveness and for the estimation of program effects. However, it is important to consider that AVID attrition is not the same as other educational exits like high school dropout because AVID attrition is not such a clear-cut negative development. AVID occupies a unique position shared by other in-school enrichment programs, as exiting the program is not necessarily indicative of "failure" on the part of the program or the student. AVID students might choose to leave the program for positive reasons, including the desire to take an additional Advanced Placement (AP) or college course or the feeling that they have accomplished enough in the program to allow them to succeed in school without additional support. To date, one major study has focused explicitly on AVID attrition, and the authors argued that attrition was due to a lack of determination (Watt et al., 2008). However, additional research on AVID attrition, including other potential causes of

attrition and the outcomes of students after they exit the program, would be a significant contribution to the knowledge base on the program and its impacts.

Theoretical Framework

The AVID program has been the subject of great deal of research. But attrition from AVID remains largely unstudied, both in terms of causes and effects. This gap in AVID research is important because the AVID program is distinct from many other educational programs in that exit from the program does not necessarily constitute failure. Sork (1991) mentions the concept of "positive dropout" as the idea of participants exiting a program because "they got what they came for." If an AVID program is highly effective, then students may practice "positive dropout" or "positive exit" because they feel they have accomplished their goals related to program participation. In this section, I discuss how the literature on educational dropout and role exit can inform my research.

A logical starting point for research on educational role exit is Vincent Tinto's seminal 1975 piece, "Dropout from Higher Education: A Theoretical Synthesis of Recent Research." Tinto focuses on postsecondary education rather than high school. However, his work is applicable to AVID exit because both postsecondary education and AVID are optional, while conventional high school attendance is largely compulsory. Tinto also notes the failure of scholars to "distinguish dropout resulting from academic failure from that which is the outcome of voluntary withdrawal," a relevant distinction for AVID research given the potential differences between positive and negative reasons for AVID exit (Tinto, 1975, p. 89). Tinto argues that the failure to distinguish between reasons for dropout often led to contradictory findings including the determinations that ability is positively, negatively, and not correlated with dropout. The limited research on AVID attrition faces the same logical problems.

To address these problems in dropout research, Tinto developed a theoretical model of dropout behavior that builds on Emile Durkheim's theory of suicide. Durkheim posited that suicide is more likely when individuals are "insufficiently integrated into the fabric of society," and Tinto argues that "social conditions affecting dropout from the social system of the college would resemble those resulting in suicide in the wider society" (Tinto, 1975, p. 91). Tinto connected poor integration into society as a cause of "egoistic suicide" to poor integration into college as a cause of dropout. Although Tinto credited this idea to William Spady, Tinto's work had a much greater impact in education and his predictive model is more detailed. However, college dropout has both social and academic components, and Tinto noted that students might drop out of college because of insufficient integration into either the academic or social domains. This logic also applies to AVID, where students might choose to exit for social reasons, or choose or even be compelled to exit for academic reasons.

Tinto also found Durkheim's model inadequate because it did not account well for individual characteristics and psychological attributes. To that end, he suggests a college dropout model that includes "individual characteristics and dispositions relevant to educational persistence": demographic information, high school experiences, level and intensity of educational expectations, and social status, among others (Tinto, 1975, p. 93). He also recognizes past educational experiences and goal commitment as important factors.

Another positive feature of Tinto's model is that it acknowledges that students may drop out because they perceive that an alternative investment of time and money will be more productive. Positive AVID exits might share some characteristics with dropout as conceptualized by Tinto, particularly as Tinto notes that students might exit college for external reasons even

though their postsecondary experience was satisfactory (Tinto, 1975). I expect that this will be the case for AVID exit as well.

Still, Tinto's model is not fully adequate for my research for three major reasons. First, even though Tinto's model is flexible and largely value-neutral, the general consensus among the scholarly community is that postsecondary attendance is beneficial and that dropout is a negative activity. Therefore, I am not comfortable using only a model that focuses on an act (college dropout) that most view as intrinsically bad as the basis for my research. I also must consider research that focuses on individuals transitioning out of formerly held roles for positive or neutral reasons. Second, postsecondary education is similar to secondary education in many ways, but the entirely voluntary nature of postsecondary education means that dropout has a different dimension than exit from a program that exists within a secondary education system that is essentially compulsory, at least until students reach a certain age. Third, Tinto's model focuses on college-age students but my research focuses on high-school age students. College students are developmentally different and the challenges they face, including living independently and adjusting to a postsecondary academic schedule that is typically much different from a high school schedule, are substantially different from those faced by most high school students. Finally, Tinto's model discusses the importance of academic and social integration and the factors likely to influence dropout, but pays little attention to the process of integration or de-integration. Thus, I must supplement Tinto's work with a more process-oriented line of research, as I am interested in the process of role exit as much as the inputs or outcomes.

High school dropout models also must contribute to my research because AVID exit occurs during secondary education. Many researchers have examined the causes of high school dropout and identified personal, academic, and demographic factors that could contribute to

AVID exit as well. Alexander, Entwisle, and Horsey (1997) described high school dropout as "the culmination of a long-term process of academic disengagement" (p. 87). Family stressors, engagement behaviors, and track placement were among the factors identified as contributors to dropout as early as first grade. Engagement was a particularly significant factor in reducing dropout likelihood, as were personal expectations of academic performance and educational attainment. Because AVID seeks to increase students' expectations and aspirations, elements of the program are likely to reduce students' likelihood of dropping out of school.

Jimerson, Egeland, Sroufe, and Carlson (2000) used data from a longitudinal study to identify early predictors of high school dropout. These included socioeconomic status, IQ, academic achievement, and peer relations, among other things. Alexander, Entwisle, and Horsey (1997) identified other important dropout predictors stemming from family backgrounds and personal resources, including parental educational expectations and even the childcare that students received in elementary school. Finally, Archambualt, Janosz, Fallu, and Pagani (2009) demonstrated a link between poor student engagement and early dropout.

Meanwhile, Vallerand, Fortier, and Guay (1997) hypothesized a motivational model of high school dropout. First, low levels of social support from parents, teachers, and administration reduce students' perceptions of their own competence and autonomy. These reduced perceptions then lower their motivation. Lowered motivation leads students to consider dropping out of school and then act upon these thoughts when it is possible to do so. Vallerand, Fortier, and Guay found statistical support for the elements of this model, as students who dropped out showed lower levels of motivation, lower self-perceptions of competence and autonomy, and lower belief in parents' and educators' support for their autonomy.

In the United States, high school dropout rates have decreased over the last 40 years. Dropout rates, though, remain disproportionately high for African American and Hispanic students (Cataldi, Laird, & KewalRamani, 2009; Rumberger, 1983). Writing in 1983, Rumberger argued that "widespread differences in dropout rates… particularly between whites and minorities, can be explained mostly by differences in family origins" (Rumberger, 1983, p. 211). Still, recent research suggests that race, class, and place may intersect to influence educational outcomes, so ignoring possible racial elements to dropout or program exit is improper (Storer et al., 2012).

I am interested in the effects of dropout as well as the causes. Dropping out of high school is correlated with many negative outcomes, including lower future income, higher likelihood of unemployment, worse health, and increased reliance on public services (C. Chapman, Laird, Ifill, & KewalRamani, 2011). High school dropouts also exhibit higher rates of young pregnancy and incarceration than non-dropouts (Sum, Khatiwada, & McLaughlin, 2009).

Prominent literature on high school dropout aligns well with Tinto's model of college dropout, but my work should also be informed by research on activities that lack the negative social stigma of educational dropout. To that end, Helen Rose Fuchs Ebaugh's work on role exit is among the most promising resources for a study of AVID attrition. Ebaugh's research focused not on dropout or educational pathways, but on individuals' transitions out of roles. Her subjects included widows, divorcees, retirees, ex-convicts, former teachers and police officers, and transsexuals, among other groups; these were individuals who changed roles not always because of failure, but sometimes because they reached a point where exiting their former role was desirable or inevitable.

Before beginning her research career, Ebaugh was a nun who eventually left her convent and became a sociology professor, as well as a wife and mother. Driven by her own experience, Ebaugh studied the experiences of dozens of ex-nuns. A number of themes emerged around nuns' decisions to leave the convent, such as a "head and heart" discrepancy, feelings of a void before deciding to leave, "feeling like a stranger in two worlds" when leaving, and concern about societal reactions to ex-nuns (Ebaugh, 1984).

In addition to identifying overall themes, Ebaugh (1984) identified a six-stage exit process for ex-nuns. The stages are: First Doubts, The Freedom to Decide, Trying Out Options, The Vacuum, The Turning Point, and Creating the Ex-Role. She pays particular attention to creating the ex-role, discussing how ex-nuns reinvent themselves and forge new identities while often maintaining connections to the old. She also notes the development of emerging ex-roles for which there are little to no "well-defined normative expectations" (Ebaugh, 1984).

In education, we have normative expectations for high school and college dropouts. But what about students who exit what might be regarded as an academic enrichment program? Ebaugh's framework appears promising for initial work in creating these expectations. A student's decision to exit AVID likely does not result in the same profound lifestyle change as leaving a convent to join mainstream society because AVID exits often remain in the same school and have access to many of the same social networks and resources. However, it is not difficult to imagine how high school students might experience many of the same feelings and processes.

Ebaugh then extended her work to a variety of populations who transitioned out of a former role, including divorcees, alumni, ex-alcoholics, and even recipients of gender reassignment surgery, to produce her major work on role exit theory, *Becoming an Ex: The*

Process of Role Exit (Ebaugh, 1988). Through this work, she developed eleven properties of the role exit process: voluntariness, centrality of the role, reversibility, duration, degree of control, individual versus group exit, single versus multiple exits, social desirability, degree of institutionalization, degree of awareness, and sequentiality (Ebaugh, 1988). At no point did Ebaugh focus on education in particular, other than how education influenced individuals' role exits. But the role exit concepts are universal and not specific to any particular subject area.

Ebaugh identifies four significant stages in the role exit process: First Doubts, Seeking Alternatives, the Turning Point, and Creating the Ex-Role (Ebaugh, 1988). The first stage, First Doubts, refers to "when role incumbents begin to question and experience doubts about their role commitment" (Ebaugh, 1988, p. 41). During this stage, individuals recognize their general dissatisfaction with a situation and then learn to articulate exactly why they find it dissatisfying. Organizational changes, burnout, changes in relationships, and specific events could all provide the necessary conditions to cause individuals to doubt their current roles. For AVID students, organizational changes might manifest as changes in the AVID curriculum or schedule or as structural changes or new opportunities within their school. Based on Ebaugh's conceptualization of burnout as a disjuncture between expectations and reality, AVID students would be most likely to experience burnout when the program failed to meet their expectations. AVID students' relationships with their peers or AVID teacher might sour, weakening their connection to the program. Finally, any number of events might trigger AVID exit, from a bad grade to a family tragedy to the desire to participate in an extracurricular activity.

During the Seeking Alternatives phase, individuals begin to evaluate the costs and benefits of other roles against those of the role they currently hold. Ebaugh observed that her study participants exhibited both rational and spontaneous exploration of role alternatives. For an

AVID student, evaluating alternatives might be as rational as speaking with a counselor about other academic options or as spontaneous as skipping an AVID course. At the close of this phase, individuals tend to reinforce initial doubts, engage in role rehearsal, and ready themselves emotionally "for a turning point event which leads to a final decision to exit" (Ebaugh, 1988, p. 121).

Turning Points are when an individual makes a firm decision to exit a role. In some cases, this decision comes gradually. But according to Ebaugh, it is more common that individuals can point to a single event that pushed them over the edge. In some instances, "the events themselves are relatively insignificant but take on symbolic meaning in the context of the decision-making process" (Ebaugh, 1988, p. 125). For AVID students, a Turning Point might come from a disagreement with a teacher or classmate, or even from poor performance on an assignment. Turning Points often have a temporal element, as well, so students might decide that the conclusion of an academic year is a natural point for exit. After reaching the turning point but before taking on a new role, individuals often find themselves in what Ebaugh describes as "the vacuum," when they do not really belong to any group (Ebaugh, 1988).

The final stage, Creating the Ex-Role, involves creating a role that is not wholly independent but "stems from expectations, social obligations, and norms related to one's previous role" (Ebaugh, 1988, p. 149). In this stage, even though individuals no longer hold a former role, they may face community or societal expectations based on that former role. For AVID students, this may manifest through higher expectations from teachers or a positive or negative social stigma attached to their former AVID status. Ex-AVID students also may experience "role residual," where elements of their former role are difficult to shake, such a friendships with AVID participants and familiar routines.

Another significant contribution of Ebaugh's work to my own comes in the form of terminology. For example, I draw the phrase "role exit" from her work because it appears to be a value-neutral and appropriate term that reflects the process of leaving AVID/TOPS. Ebaugh also adopts the convention of appending "ex-" to the beginning of a role when society has not created a term for individuals who have exited that role. Therefore, I will refer to the students at the center of my study as "ex-AVID" in deference to this convention (Ebaugh, 1988).

Ebaugh's role exit theory is highly applicable to my work, as students exiting AVID/TOPS can be seen as undergoing a role exit process from their roles as "AVID participants." In addition, Ebaugh emphasizes that for many ex-roles, individuals draw part of their identity from their status as a former member of the group. She states that "Past identification with a social category or role lingers in one form or another throughout the lives or role exiters as they struggle to incorporate past identities into present conceptions of self (Ebaugh, 1988). I expect that this is the case for ex-AVID students, as other teachers in their schools will know them as former AVID/TOPS students and perhaps adjust their treatment of these students as a result.

Gaps in the Literature

The Advancement Via Individual Determination program is built on a solid theoretical foundation. There is a strong and robust qualitative evidence base that suggests the program has many benefits, particularly in terms of preparing students for postsecondary education, helping students navigate the "hidden curriculum," and encouraging students to take rigorous courses and believe that they have the potential to succeed. Studies show consistently that AVID is popular among all key stakeholder groups, including teachers, students, parents, and administrators.

But the quantitative evidence base for the effectiveness of AVID lags far behind the qualitative evidence base. Most quantitative research uses poorly-matched comparison groups with significant baseline differences from AVID students, making it difficult to determine which differences between AVID and non-AVID students can be attributed to the program and which merely reflect pre-program variations. Of studies using well-matched comparison groups, the only consistently positive quantitative outcomes relate to enrollment in rigorous courses. Even though existing quantitative research falls short of proving that AVID reaches its key goals, it is important to remember that AVID is a difficult program to evaluate. Randomized controlled trial designs offer arguably the most credible causal evidence for a program's success, but intentional program selection is one of the eleven AVID Essentials and randomization explicitly contradicts the program's intended design. Furthermore, the model AVID program will have spillover effects beyond the AVID classroom. As a result, comparison group students drawn from the same school might benefit from AVID strategies as well, biasing program impacts. Comparison groups drawn from schools with no AVID programs would not face spillover effects, but contextual differences between schools make these kinds of comparisons problematic as well.

Researchers also should consider whether AVID research includes measurement of the right variables. The most obvious goal of AVID is to prepare students for postsecondary success. But very little AVID research actually follows students into postsecondary education, instead focusing on students' middle and high school careers. Perhaps the most noticeable effects of the program do not appear until later in AVID students' educational careers. Or perhaps AVID has other important effects that are less obvious in quantitative analysis. Given the program's focus on underserved students, AVID may have powerful implications for equity. Qualitative evidence supports this idea, as several studies discussed in this paper demonstrated a link between AVID

and the transmission of cultural capital. I have argued that the evidence base for AVID is inadequate, but perhaps part of the problem is that the AVID research community is not asking the right questions.

Even so, contemporary schools face greater pressure than ever before to demonstrate that their efforts are effective in concrete, measurable ways. AVID continues to expand into new districts and schools, even with the evidence base as it currently stands. But in the coming years, there will be more pressure from administrators, policymakers, and other members of the educational community to demonstrate that AVID is more than a politically popular program in which stakeholders believe. Promising long-term studies from British Columbia, Wisconsin, and Illinois offer hope that more credible quantitative evidence will be forthcoming, assuming their findings are made public. But other AVID research takes place across the country, at universities, research centers, and school districts. If the authors of this work focus on better quantitative evidence, starting with more appropriate bases of comparison, then the AVID community well benefit from a greater ability to demonstrate what exactly the program can do. Throughout the literature base on AVID, evidence abounds that attrition is common. Based on empirical research and AVID program data, it is realistic to suggest that half of 9th grade AVID participants will experience AVID exit – perhaps more, given that some may re-enter the program later. This means that many thousands of students nationwide exit AVID every year. But to date, only one study has focused explicitly on AVID attrition, and this study placed the blame for AVID exit squarely at the feet of the students, arguing that those who exited lacked "individual determination," a characteristic that is nearly impossible to measure empirically. Is it truly the case that all of the tens of thousands of students who have exited AVID in recent years

lacked “individual determination?” Or is something else driving program attrition? My study will attempt to answer this question.

Models of educational dropout may help explain a significant amount of AVID attrition. In particular, these models recognize that educational exit depends on both personal and academic factors. But attrition from educational enrichment programs like AVID should be fundamentally different from high school or college dropout. Students may exit an enrichment program because they feel that they have accomplished what they set out to accomplish in the program. High school and college students may drop out of school for the same reason, but the preponderance of evidence suggests that dropping out is detrimental to their future success. Exiting AVID, though, is not an unambiguously bad decision, particularly given the potential positive reasons for exit.

Meanwhile, role exit theory focuses largely on voluntary exits and is not necessarily built to accommodate academic factors that might lead to involuntary program exit. Ebaugh’s role exit theory has significant intuitive appeal. In addition, elements of the theory appeared consistently across individuals undergoing varied forms of role exit, such as divorce, leaving a vocation, or changing their gender identification. But Ebaugh’s research did not focus on educational settings aside from the inclusion of several ex-teachers in her study population. Revisiting Ebaugh’s model by applying a modified version to ex-AVID students will help show whether this model is applicable across even more settings, or if educational role exit is fundamentally different from other forms of role exit.

My study sits at the intersection of research on role exit, educational dropout, and AVID and has the potential to advance all three fields. By studying the AVID exit process, I will produce findings that can inform college access programs, educational enrichment programs, and

even other forms of academically oriented youth-serving programs. I also will add depth to role exit theory by applying an accepted model to a new population: ex-AVID students. Finally, my research will help fill the critical gap in AVID literature that results from an inadequate focus on both the causes and results of attrition. A better understanding of attrition will lead to a better AVID program and may have implications for both program structure and classroom practice.

Chapter Three: Research Design

Research Paradigm

My research includes a combination of quantitative and qualitative methods. Some scholars question the use of multiple paradigms in mixed methods research. This argument is known as the "incompatibility thesis" (Howe, 2004) and is based on the logic that mixing methods results in mixing paradigms, which is problematic. However, I disagree with this argument and instead follow Creswell's (2011) logic that different paradigms can coexist in different stages of a project. I will use the quantitative component to assess easily observable outcomes and estimate the impacts of program exit. Then, I will use the qualitative component to provide context and explore ideas of program exit that build on the quantitative data and existing theory.

Mixing methods and paradigms within a single study is an approach that has gained favor in recent years. As Johnson and Onwuegbuzie note,

> Today's research world is becoming increasingly interdisciplinary, complex, and dynamic; therefore, many researchers need to complement one method with another, and all researchers need a solid understanding of multiple methods used by other scholars to facilitate communication, to promote collaboration, and to provide superior research. Taking a non-purist or compatibility or mixed position allows researchers to mix and match design components that offer the best chance of answering their specific research questions. (Johnson & Onwuegbuzie, 2004)

Johnson and Onwuegbuzie go on to argue that pragmatism is the logical philosophical partner to mixed methods research. Pragmatism, as described by these authors, is compatible with the goals

of my work and my general beliefs about research. I find several of their identified characteristics of pragmatism particularly appealing:

- Rejects traditional dualisms… and generally prefers more moderate and commonsense versions of philosophical dualisms based on how well they work in solving problems
- Endorses fallibilism (current beliefs and research conclusions are rarely, if ever, viewed as perfect, certain, or absolute)
- Theories are viewed instrumentally (they become true and they are true to different degrees based on how well they currently work; workability is judged especially on the criteria of predictability and applicability
- Endorses eclecticism and pluralism (e.g. different, even conflicting, theories and perspectives can be useful; observation, experience, and experiments are all useful ways to gain an understanding of people and the world
- Human inquiry (i.e. what we do in our day-to-day lives as we interact with our environments) is viewed as being analogous to experimental and scientific inquiry. We all try out things to see what works, what solves problems, and what helps to survive. We obtain warranted evidence that provides us with answers that are ultimately tentative (i.e. inquiry provides the best answers we can currently muster), but, in the long run, use of this "scientific" or evolutionary or practical epistemology moves us toward larger Truths."(Johnson & Onwuegbuzie, 2004)

For my work, I interpret eclecticism and pluralism not as ideas that offer free reign to bounce between methods and theoretical perspectives at will, but as further justification for why my study is enhanced by adopting distinct theoretical perspectives for the quantitative and qualitative components. Different types of questions require different approaches to developing appropriate answers. Therefore, I reject the incompatibility thesis and plan to include qualitative and quantitative methods, as well as post-positivist and interpretivist theoretical perspectives, to produce the best possible answers to the research questions I ask.

I approach my initial quantitative data analysis using the theoretical perspective of post-positivism. Post-positivism is derived from positivism, which is in turn rooted in the Enlightenment. French philosopher Auguste Comte coined the term "positivism" to refer to his largely empiricist stance that what was valid and true was that which could be confirmed through observation and sensory data (Zammito, 2004, p. 8). Positivism became intertwined with natural

science as later thinkers refined Comte's ideas, subordinating disciplines in the social sciences and humanities (Zammito, 2004).

In the 1920s and 1930s, a group of philosophers known as the Vienna Circle developed the concept of "logical positivism." Blumberg and Feigl (1931) argued that early positivists "carr[ied] their empiricism too far" and articulated a doctrine of logical positivism that allowed room for logic and theory. However, for these logical positivists, theory was only adequate if it could be confirmed though theory-independent observation (Zammito, 2004). Verification was central for logical positivists, and Blumberg and Feigl (as well as their logical positivist colleagues) dismissed any theoretical assertions that were not verifiable as meaningless – the "verifiability principle."

Of course, as innumerable readers have pointed out, the verifiability principle itself is not verifiable. Neither are many other statements, including any statements of universal truth. Finally, logical positivism depends on the assertion that it is possible to conduct theory-independent observations and experiments. Zammito (2004) uses the phrase "theory-ladenness of observation" to describe what would become a core principle in post-positivism: that theory-independent observation is essentially a myth, and that even individual opinions on what constitutes observation are driven by theory. Post-positivism stems from this branch of thought and rejects the verification principle in favor of refutation. Shadish, Cook, and Campbell (2002) note that logical positivism was "long ago discredited," but that rejection of certain tenets of positivism does not mean that all related positivist ideas must be rejected as well. As an example, they state that even if one does not believe "that quantification and predicate knowledge are the only permissible links between data and theory" one can still believe that "some kinds of

quantification and hypothesis testing may be useful for knowledge growth" (Shadish et al., 2002).

As Creswell (2011) notes, many scholars take issue with post-positivism in mixed methods research because post-positivism is most frequently associated with quantitative research. Qualitative methods are more often associated with critical and interpretive frameworks and could be marginalized in a post-positivist mixed methods study. Perhaps the easiest way to marginalize the qualitative component of my study would be to force my qualitative work into a post-positivist framework that does not fit with the goal of developing a theory of AVID/TOPS program exit and its impacts.

In addition, I follow Lin's argument that a combination of positivist and interpretivist approaches makes more sense than one approach or the other in isolation (Lin, 1998). She states that "If causality exists, it must include both a 'what' and a 'how' – a relationship and a mechanism… Without establishing a causal relationship, one does not know which factors should be addressed by policy; without establishing the mechanism, one will not understand how to address those factors" (Lin, 1998, p. 165). Lin goes on to argue that "The generalizing power of the positivist model gives the researcher a sense of the important variables and the scope of a problem; the intensity of the interpretivist model provides the explanations necessary to conclude that a set of relationships is significant theoretically and substantively" (Lin, 1998, p. 168-69). Given that I am interested in producing policy-relevant findings, particularly given the rapid diffusion of AVID programs, this is perhaps the most compelling argument for mixing approaches and methods for my study of AVID/TOPS exit.

Therefore, I will shift my methodological approach for the qualitative phase, which will be guided by interpretivism. Interpretivism breaks from the certainty and universality that

characterizes pure positivism. Instead, a researcher using an interprevitist approach "looks for culturally derived and historically situated interpretations of the social life-world" (Crotty, 1998). Maxwell (2005) argues that an interpretive approach focuses on meaning and understanding. Lin states that "discovering causal *relationships* is the province of positivist research, while discovering causal *mechanisms* is the province of interpretivists" (emphasis mine) (Lin, 1998). While the quantitative phase will feature relatively certain claims about student outcomes grounded in quantitative data, the qualitative phase will use the lens of interpretivism, allowing room for study participants to construct and create ideas of AVID/TOPS program exit. Using different theoretical perspectives for these complementary components will allow me to create a more complete picture of AVID/TOPS exit that relies on interpretation from multiple perspectives and facilitates the process of developing policy and practice-relevant findings.

Methodology

Case study methodology. My research focuses on a case study of AVID exit in a large urban school district in the Midwest. In the fall of 2010, the AVID program expanded into the four conventional high schools of the district where I conducted my research following a small-scale three-year pilot at one of the district's schools. The AVID program in this district follows the national AVID model, but AVID students also participate in a supplemental private program that includes a mentoring program, field trips, summer internships, and events for participating students.

Quantitative analysis can provide a significant step toward determining the causal impacts of AVID exit. But from the post-positivist standpoint I plan to use for my quantitative analysis, qualitative case study methods may enhance conclusions drawn from the quantitative data in three ways: helping reduce uncertainty about causation, revealing complex forces and

influences that do not appear in experimental or quasi-experimental data, and yielding more types of information than experiments or quasi-experiments (Shadish et al., 2002). But Shadish et al. prefer qualitative case study methods embedded within experiments instead of as alternatives to experiments when causation is an issue. Because I am at least somewhat concerned with the causal impacts of AVID exit, then following the logic of Shadish et al., qualitative work alone does not accomplish the goals of my study.

But quantitative data alone is inadequate as well. This study focuses not just on the outcomes of ex-AVID students, but on their reasons for exit and the perceived consequences of these exits. The data required to answer these questions does not appear in transcript or administrative data, nor would it easily be acquired through observations or recordings alone. Instead, I used case study methodology to inform qualitative data collection and improve the reliability of my findings.

Case study methodology depends on defining each case as a bounded system (Stake, 2000). In essence, a case study researcher must answer the question: a case of *what?* Stake later used the term “thing” to refer to the target of a research project (Stake, 2010). Therefore, I defined the boundaries of my case study, or the “thing” I am researching, as the AVID program at the four major high schools within the district where I conducted my research. My data was collected through interviews with AVID staff, and I also used a large amount of existing quantitative data. My study is not a study of an AVID program, but of *exit from* an AVID program. As a result, I will not seek to determine the effects of the program for students who persist other than as a way to illuminate factors contributing to their persistence and as a point of reference with which to compare ex-AVID students.

Stake (2000) draws a distinction between intrinsic and instrumental case studies. Intrinsic case studies focus on what is interesting about a case in particular, with emphasis on understanding "what is important about that case within its own world" (Stake, 2000). Instrumental case studies, on the other hand, use the case as an instrument to understand a larger phenomenon. Although I am interested in the particulars of the AVID program and plan to explore these details to benefit my study participants and other served by the program, I view my work as an instrumental case study. I focused on AVID/TOPS exit not just on its own merits as an interesting topic, but as part of a larger literature on educational dropout and role exit, as well as on similar programs. In addition, Stake (2000) argues that instrumental case studies "can take greater advantage of already-developed instruments and preconceived coding schemes" because critical issues are known in advance (p. 450). Because I applied Ebaugh's existing theory of role exit to AVID exit, it is more accurate to consider my work instrumental.

In a sense, this is also a collective case study. Although I focused on one program which exists in a similar form across the district, ex-AVID students may experience different role exit processes at the four high schools in the district. However, my focus is on exit at the district level and on exit as a broader phenomenon, so I chose not to disaggregate my data by school.

Generalizability. Case study research often does not focus on obtaining data from a large, representative sample spanning boundaries and contexts. Therefore, case studies may appear less generalizable than other forms of research. However, Stake argues that "case studies will often be the preferred method of research because they may be epistemologically in harmony with the reader's experience and thus to that person a natural basis for generalization" (Stake, 1978, p. 5).

This idea of "naturalistic generalization" is an important concept in case study research. Creswell defines naturalistic generalization as "generalizations that people can learn from the

case either for themselves or to apply to a population of cases" (Creswell, 2007). Stake (2000) describes a similar process, stating that case study work can "describe the case in sufficient descriptive narrative so that readers can experience these happenings vicariously and draw their own conclusions" (p. 450). Stake also writes that naturalistic generalization is "a full and thorough knowledge of the particular, recognizing it also in new and foreign contexts… [it is] arrived at by recognizing the similarities of objects and issues in and out of context and by sensing the natural covariations of happenings" (Stake, 1978). As I interpret the idea of naturalistic generalization, it is less important for me to explain what is generalizable about my work and more important to provide enough description of my particular case, grounded in Ebaugh's theory of role exit, so that readers can make their own connections between my analysis and their particular cases and experiences.

Triangulation. Because case study features a heavy focus on detail and accurate description, triangulation was important during my data collection process (Stake, 2000). Triangulation "reduces the risk that your conclusions will reflect only the systematic biases or limitations of a specific source or method, and allows you to gain a broader and more secure understanding of the issues you are investigating" (Maxwell, 2005). Observations, both direct and participant, are common features of case study methodology. But it is unreasonable to suggest that I could observe the process of program exit, which may be largely invisible, particularly if driven by a student's internal motivations. Instead, I conducted interviews across the district, relying on staff to describe exit. However, as Maxwell (2005) notes, "interviews, questionnaires, and documents are all vulnerable to self-report bias." In fact, every data collection method is fallible and offers distinct weaknesses. Therefore, I compared my

qualitative data with my quantitative data to see if themes identified through interviews were borne out through quantitative data analysis and vice versa.

As mentioned earlier, I took an interpretivist approach to this case study. This means that I did not assume that there is any "true" way to experience AVID exit, but that individuals construct this experience and that exit only takes on meaning as individuals go through the process (Crotty, 1998). However, it is unrealistic to suggest that my own biases did not influence how I presented and analyzed the data. Although I worked to create a value-neutral narrative and conducted objective data analysis, the methods I chose and the data I chose to present still reflect a conscious choice on my part, as does any presentation of research findings; as Stake (2000) notes, "More will be pursued than was volunteered. Less will be reported than was learned… what is necessary for an understanding of the case will be decided by the researcher."

Quantitative data. I used quantitative data as the starting point for exploring both the causes and effects of AVID exit. Evaluation research often focuses on identifying the effects of a treatment on a population, but in this case, I focus on identifying the effects of removing a treatment. In this case, the treatment is AVID participation, which constitutes a package of activities and intended benefits discussed in greater detail in Chapter 1.

To do so, I used student records that included a wide variety of academic, demographic, and behavioral information. Necessary academic variables include students' grade point averages and standardized test scores from the EPAS suite (EXPLORE, PLAN, ACT). I chose to focus on the EPAS suite because it is administered universally on an annual basis in this district. In addition, AVID is designed to prepare students for postsecondary education, and the ACT is the most common college admission test in the Midwest. Therefore, I chose these assessments to improve the generalizability of my results, as they are taken by many students nationwide.

Demographic information included race, gender, English proficiency, special education status, and parental education levels. Behavioral information included attendance rates, behavior referrals, and suspensions. I coded these variables as shown in Table 1:

Table 1

Variable Coding

Variable	Coding	Sample Mean/Distribution
Grade Point Average end of freshman year and end of 2012-13	Continuous – Cumulative GPA at end of each year (0.00-4.00)	2.52 end of freshman year 2.50 end of 2012-13
EPAS Scores	Numerical – PLAN and ACT composite scores (1-36)	17.4 PLAN 18.8 ACT
Race	Series of indicator variables – White (reference category), African American, Hispanic, Asian, Two or more races, Other	21.2% white 27.9% African American 31.4% Hispanic 8.8% Asian 10.0% two or more races 0.6% other
Gender	Binary (female=1, male=0)	55.2% female
English Language Learner	Binary (yes=1, no=0)	38.9% yes
Special education status	Binary (yes=1, no=0)	6.9% yes
Parental education	Binary (Bachelor's degree/advanced degree 1, Less than high school/high school/some college less than bachelor's degree 0)	24.8% bachelor's degree/advanced degree
Attendance freshman year and 2012-13	Continuous – Annual attendance rate (0.00%-100.00%)	94.71% freshman year 92.04% 2012-13
Behavior referrals 2012-13	Numerical – Number of behavior referrals	1.93
Suspensions 2012-13	Numerical – Number of suspensions	1.22

Identifying AVID participants and AVID exits. For this study, I identified AVID participants by looking at all students' transcript records and flagging students who had at least one transcripted AVID course as AVID participants. I then linked these students to demographic records pulled from the end of the academic year for each school year from 2009-10 through 2012-13. I restricted the sample to include only students who were part of districtwide AVID cohorts, which means that students who were freshmen before 2009-10 were excluded and participants in the AVID pilot at one of the district's schools are not part of this study. In total, this resulted in identifying 792 unique students as AVID participants who began in the program as part of the first full cohort or later.

This method of identifying AVID participants has some limitations. For example, some students may have had some exposure to the AVID program but exited before receiving a grade. Other students may have participated in the program but not remained in school until the end of the school year, leaving them with an incomplete demographic record and no attribution to a specific school. However, this method represents the best balance between identifying all AVID participants and including only students for whom adequate demographic and academic data is available.

Meanwhile, I identified AVID exits by mapping out each student's participation in AVID during each semester of their high school career. If a student had AVID on their transcript during one semester but not during the next, they were flagged as an AVID exit. Students who re-entered the program during a later semester were still flagged as AVID exits; although they might have returned to the program and persisted from that point, these students still underwent the exit process at least once and thus should be considered exits for the purposes of my study. Students who entered AVID after the first semester of their freshman year were not flagged as

exits as long as they persisted in the program for as long as possible. This method also has limitations, as students without AVID on their transcripts may have maintained contact with AVID teachers or other elements of the program, but it ensures that all students flagged as exits had enough contact with the program to receive a transcripted grade.

Characteristics of ex-AVID students. Of the 792 students who had AVID on their transcript between 2009-10 and 2012-13 and started high school in the district concurrent with or after full AVID implementation, 318 can be flagged as exiting the program at some point. Exits by cohort appear in Table 2 below:

Table 2

Exits by Cohort

	Expected Graduation Year				
	2013 (2009-10 freshmen)	2014	2015	2016	Total
Did not exit	79	104	121	170	474
Did exit	121	114	65	18	318
Total	200	218	186	188	792

Overall, 121 of 200 students who participated in AVID and were expected to graduate in 2013 exited the program at any point, for an exit rate of 60.5% for the first full AVID cohort. The exit rate for students expected to graduate in 2014 is still more than 50%, but among students expected to graduate in 2016 (2012-13 freshmen), fewer than 10% exited the program. Comparing exit rates between cohorts is, of course, misleading, because students in later cohorts have not yet been in high school for four years and have had less time to exit. Still, this table provides a sense of the scope of AVID exit in the district.

Meanwhile, Table 3 below presents the demographic characteristics of AVID persisters, students who exit AVID, and AVID participants overall.

Table 3

Demographic Characteristics of AVID Exits and Persisters

	AVID persisters	AVID exits	AVID overall
Number of students	474	318	792
Female	55.06%	55.35%	55.18%
African American	**24.68%**	**32.70%**	27.90%
Hispanic	33.33%	28.62%	31.44%
Asian	9.28%	8.18%	8.84%
White	22.78%	18.87%	21.21%
Two or more races	9.49%	10.69%	9.97%
Special Education	5.70%	8.81%	6.94%
English Language Learner	**43.04%**	**32.70%**	38.89%
College-educated parent	25.74%	23.27%	24.75%

Note: Statistically significant differences at p<0.05 bolded for emphasis.

From this table, we can see that the demographic differences between AVID exits and AVID persisters are minor. I conducted chi-square tests to examine significant relationships between AVID exit and each categorical demographic variable. These tests showed that persisters are less likely to be African American, $\chi^2(1, N = 792) = 6.09$, $p = .014$, and more likely to be English Language Learners, $\chi^2(1, N = 792) = 8.55$, $p = .003$. but altogether, exits and persisters are remarkably similar, with no other significant differences.

Predicting exit. To examine the influence of various demographic and academic characteristics on the likelihood of exit, I conducted a series of logistic regressions using AVID exit as the dependent variable. For the first model, I used indicator variables based on race/ethnicity only. For the second model, I added other demographic characteristics. For the third model, I added freshman year attendance and GPA. Finally, I added the binary variable representing whether the student had a college-educated parent.

Propensity score matching. To investigate the outcomes of ex-AVID students relative to their peers who remained in the program and answer my second research question, I used a post-positivist theoretical framework. First, I identified the ex-AVID students and a group of similar peers who persisted in the program. I then conducted tests for group differences to estimate the effect of AVID exit on a set of outcome variables including grade point average, attendance, behavior, and standardized test scores. I cannot make full causal claims about AVID exit, but I took steps toward causality to help ensure relative certainty that any effects of AVID exit that I identify through quantitative analysis are due to exit and not to any other confounding variables – a focus on "approximat[ing] the truth rather than aspiring to grasp it in its totality or essence," which follows the post-positivist tradition (Crotty, 1998, p. 29).

To approximate the true outcomes of AVID exit, it is desirable to estimate a counterfactual, or what would have happened to ex-AVID students had they remained in the program. Given the available data, the best way to do this is to compare ex-AVID students to a comparison group of students who persisted in AVID but are substantially similar to exited students. To identify this comparison group, I used a quasi-experimental method known as propensity score matching (PSM).

Propensity score matching is a method designed to reduce the influence of selection bias when random assignment to a treatment condition did not or cannot occur. Rosenbaum and Rubin introduced the propensity score as "the conditional probability of assignment to a particular treatment given a vector of observed covariates" (P. R. Rosenbaum & Rubin, 1983). They identified the potential of estimating counterfactuals through the use of the propensity score, which could help create group balance between treatment and comparison groups in the absence of randomization (P. R. Rosenbaum & Rubin, 1983). Prior to the development of the

propensity score, it was common to estimate treatment effects for observational studies by comparing individuals who fell into various variable-based subclasses against one another. This method is onerous as more matching variables increase the number of necessary subclasses; however, Rosenbaum and Rubin also illustrated the potential of the propensity score to create a relatively small number of propensity score-based subclasses within which to compare treatment and comparison groups that were balanced across a large number of covariates (P. R. Rosenbaum & Rubin, 1984). Rosenbaum and Rubin later showed how the propensity score could be used to match treated individuals with untreated individuals by pairing those with the nearest propensity scores with one another. They also noted that this form of matching is persuasive and easily understood by nontechnical audiences (P. R. Rosenbaum & Rubin, 1985). As a result, this is the matching approach I used.

Operationalizing the match. To conduct the PSM procedure, I used a variety of high school academic variables as independent variables and used AVID exit as a dependent variable in a prediction model designed to predict the likelihood of AVID exit. In this case, Propensity Score Matching involves calculating a predicted probability of AVID exit based on observable characteristics for each AVID participant. Then, each AVID exit is matched with an AVID persister who had a similarly high probability of exiting the program. By undertaking this procedure, it is possible to develop a group of AVID exits and a comparison group of AVID persisters that are as similar as possible so any differences between these groups can be inferred to result from AVID exit. The model used to predict AVID exit drew upon logistic regression, and coefficients from that model appear in Table 6 later in this work as “Model 4.”

Because no variable for AVID exit exists, I created this variable by identifying students who enrolled in the AVID elective course during one semester but did not in the subsequent

semester. Students who exit AVID may be allowed to re-enter the program, so this process might lead me to identify a student as ex-AVID who had only a one-semester interruption in their AVID participation. However, as discussed previously, even students who left AVID for only one semester will have experienced a process of role exit, so including these students in my sample is appropriate. Across the three cohorts, 33 of 318 exits eventually re-entered the program, or about 10%, with eight of those 33 exiting again after re-entry.

For each ex-AVID student, I selected one match who remained in the program but otherwise appeared academically and demographically similar and had a similar predicted probability of AVID exit as their comparison group counterpart. I elected to use one-to-one nearest neighbor matching without replacement. This means that each ex-AVID student was matched with a student who was similarly likely to exit the program but did not. In addition, each student who persists in AVID can only be used as a match for one ex-AVID student. These matches took place within each cohort of students, so a student in the graduating class of 2013 was not matched with a student in the graduating class of 2015, but with another student from their own graduating class. I do this because AVID students of different ages might have experienced different program components or learned from different teachers, so matching by grade limits the number of unobservable and unobserved characteristics that might be affecting AVID exit.

Caliendo and Kopeinig (2005) caution against nearest neighbor matching without replacement, arguing that allowing replacement decreases bias and increase the average quality of matches. However, they state that this concern “is of particular interest with data where the propensity score distribution is very different in the treatment and the control group” (Caliendo & Kopeinig, 2005, p. 9). To avoid this concern, I dropped students whose propensity scores were

outside of the range of common support between ex-AVID students and persisting AVID students. In addition, matching without replacement increases the size of the comparison group because each persisting AVID student can only be used as a match for one ex-AVID student. Therefore, I am willing to risk lower precision in my matches to increase the size of the comparison group, which in turn increases statistical power as well as the odds that unobserved covariates are distributed at random and can be disregarded.

Appropriate variables for the PSM procedure are those that are likely to predict AVID exit. Because research on AVID exit is nonexistent, I relied on the literature on college and high school dropout, discussed at length earlier, to inform my choice of predictor variables. Thus, I used demographic characteristics including dummy variables for African American, Hispanic, Asian, and multiracial students (with white and other as the omitted reference categories); female; special education status; and English Language Learner (ELL) status as predictor variables. I also included a binary variable representing whether or not the student had a college-educated parent, defined as a bachelor's or advanced degree. Finally, I included attendance and grade point average from students' freshman year.

I conducted separate matching procedures for each of three cohorts of AVID students. Students exiting AVID during the first semester of their freshman year were not considered as AVID exits because of their limited exposure to the program prior to exit. Students enrolling in AVID for such a short amount of time likely have not spent enough time in the program for their exit to represent a significant shift in their academic experience. In addition, there is no way to identify these students from existing administrative data, as AVID never would have appeared on their transcript.

One way to improve the fidelity of nearest neighbor matches is to impose a caliper during the matching procedure (Caliendo & Kopeinig, 2005). A caliper defines the maximum distance between an ex-AVID student's propensity score and the propensity score of their match. In some cases, an ex-AVID student's nearest neighbor might have a propensity score that is far away from that of the ex-AVID student. The caliper ensures that this nearest neighbor will not be included as a match because of their meaningful differences from the ex-AVID student. I defined my caliper to be one half of the standard deviation of the propensity score for each group. Although calipers of one quarter of the standard deviation of the propensity score are common, Rubin and Thomas (1996) note that even calipers of one half of the standard deviation of the propensity score can remove much of the initial bias in matching, and given that I am excluding students outside of the range of common support between groups, a caliper of one half of one standard deviation was tight enough to ensure a strong match, as evidenced by the similarities between my treatment and comparison groups on all matching measures. To confirm the validity of this caliper size, I also conducted the matching procedure for the first full AVID cohort using a caliper of one quarter of the standard deviation of the propensity score, and the comparison group that resulted was identical to the group that resulted from using the larger caliper of one half of the standard deviation of the propensity score.

Matching results. I used a one-to-one nearest neighbor matching procedure without replacement, which means that each AVID exit would be matched with one AVID persister and that each AVID persister could only serve as a match for one AVID exit. To improve the quality of the match, I imposed a caliper of one half of a standard deviation of the propensity score, which means that AVID exits could only a match an AVID persister whose propensity score was within a certain range of their own. Finally, I removed all AVID exits who had a propensity

score which fell outside the region of common support for propensity scores between AVID exits and AVID persisters.

I tested the success of the match in several ways. First, I used the psgraph command to examine the distribution of propensity scores between the AVID exits and the comparison group. I then used the pstest command to test the balance between the two groups on all matching variables. I also conducted a t-test on the propensity score variable between groups for each cohort.

For the first cohort, I began with a group of 200 students who had participated in AVID at any point. I dropped 39 of 200 students who had left the district prior to the end of the 2012-13 school year. Another 47 students were off the range of common support between AVID exits and persisters, and 44 more did not have a successful match after the PSM routine was executed. This resulted in a final match between 35 AVID exits and 35 AVID persisters from the first full AVID cohort.

The graph of propensity scores appears below and indicates a relatively similar distribution of propensity scores between the AVID exits and the comparison group.

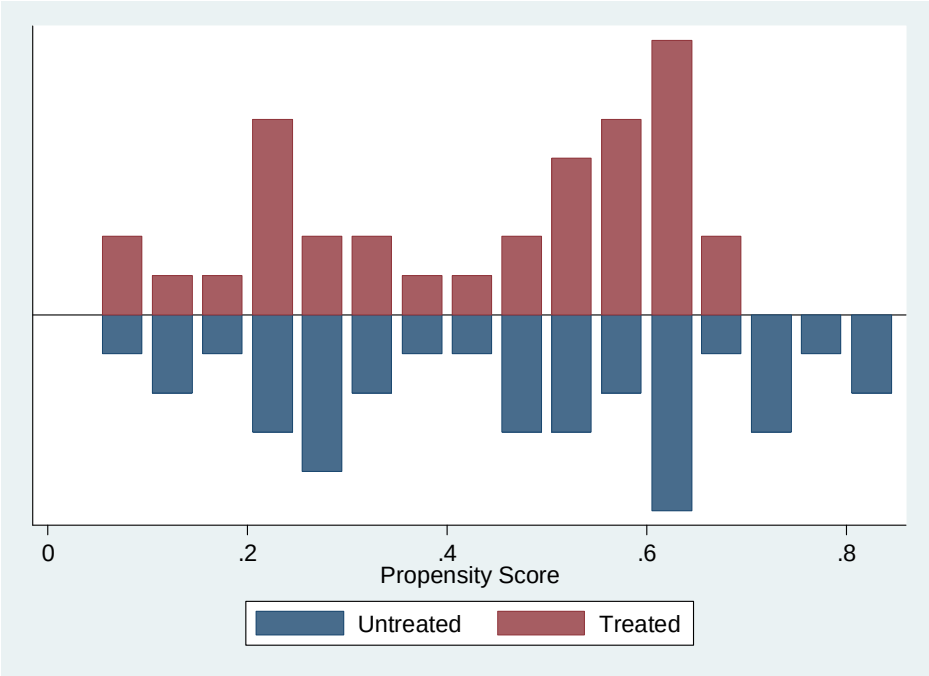

Figure 1. Propensity score distribution for Cohort 1 matched groups. This figure shows the balance between the matched groups of AVID exits ("Treated") and AVID persisters ("Untreated") on the propensity score variable for Cohort 1.

After creating the matched groups, I conducted two-sided t-tests using a 95% confidence level between the groups, focusing on their attendance during the 2012-13 school year, their GPA at the end of 2012-13, their suspensions and behavior events during 2012-13, and their highest ACT composite score. There were no statistically significant differences between the groups on any variable. This suggests that based on data from this cohort, two students who are similar across a vector of demographics and had similar freshman year performance but differed in their AVID persistence had outcomes that were statistically indistinguishable.

I then repeated the process for the second and third full AVID cohorts. For the second cohort, I started with a total of 218 participants. I then dropped 17 students who left the district prior to the end of 2012-13 and dropped 37 more students who were off the range of common support for propensity scores between AVID exits and persisters. Finally, 44 students did not

have a successful match after the PSM routine was executed, leaving me with a match between 60 AVID persisters and 60 AVID exits. The graph of propensity scores for the two groups appears below.

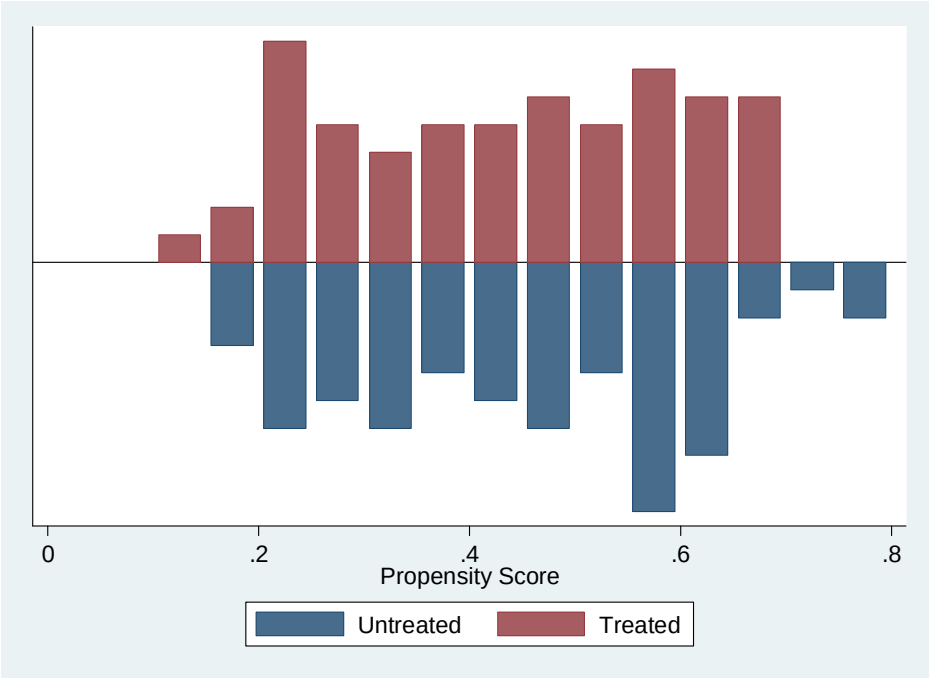

Figure 2. Propensity score distribution for Cohort 2 matched groups. This figure shows the balance between the matched groups of AVID exits ("Treated") and AVID persisters ("Untreated") on the propensity score variable for Cohort 2.

The second full cohort also was well-matched, with no statistically significant differences on any matching variables.

For the third full cohort, I began with 186 participants and dropped seven who left the district and 28 who were off common support. In addition, 91 students had no successful match, leaving me with a matched group of 30 AVID exits and 30 AVID persisters. The graph of propensity scores for the two groups appears below. These groups also showed no statistically significant differences on any matching variables.

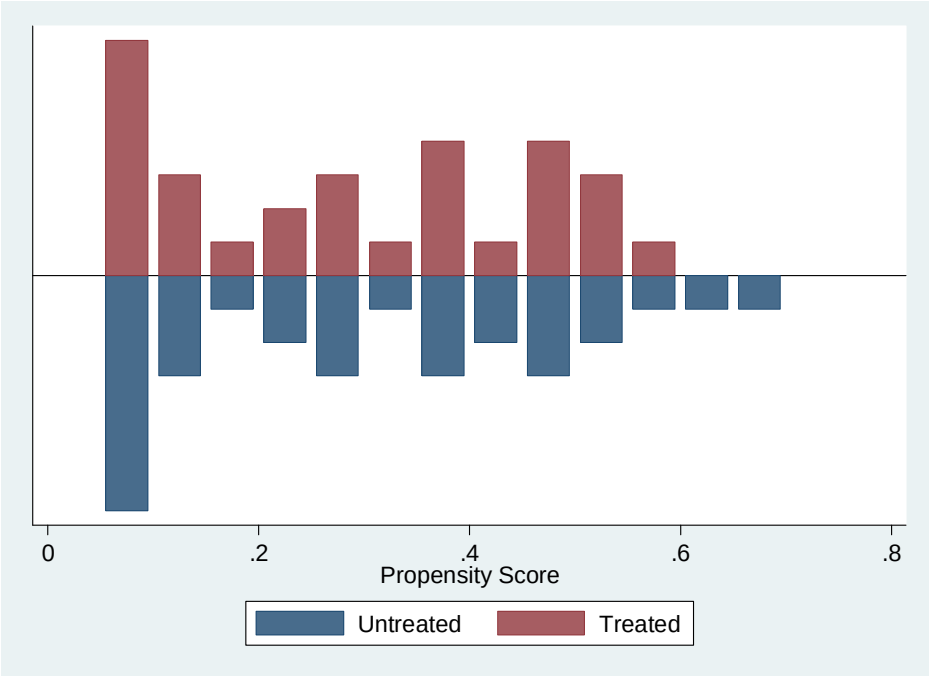

Figure 3. Propensity score distribution for Cohort 3 matched groups. This figure shows the balance between the matched groups of AVID exits ("Treated") and AVID persisters ("Untreated") on the propensity score variable for Cohort 3.

Although PSM is a promising way to reduce selection bias, there are limitations to the method. The chief limitation is that even though PSM can reduce selection bias, the method still cannot illuminate the effects of unobserved and unobservable variables. In a randomized controlled trial, researchers assume that unobserved characteristics are uncorrelated with participation in the treatment group (Burtless, 2002). In PSM, however, no such assumption can be made.

One way to ameliorate this problem is to use the STATA *sensatt* program created by Tommasso Nannicini. The *sensatt* program implements a sensitivity analysis to test the robustness of any estimated treatment effects (in this case, the effect of exiting AVID). The program simulates a theoretical unobserved confounding variable and estimates the magnitude of effects that this variable must have on selection into treatment and on the outcome variable of

interest so that the treatment effect is explained by this confounding variable. If it seems implausible that a confounding variable exists with the effects that *sensatt* identifies, then the researcher can assume that the vector of covariates used in the matching process reasonably approximates selection into treatment and that the estimated treatment effect is a result of treatment participation (Nannicini, 2007).

In using this process, I attempted to simulate "killer confounders," the existence of which would make the estimated effects invalid. To do so, I created a set of hypothetical confounding variables that drove the estimated effect of AVID exit (Baseline ATT) to zero (Simulated ATT). The results of the sensitivity analysis appear in Table 4 below:

Table 4

Sensitivity Analysis

Variable	Baseline ATT	Simulated ATT	Variance Explained	Standard Error	Outcome Effect	Selection Effect
GPA	-0.167	-0.027	84%	0.114	0.272	12.813
Attendance	-2.35	-0.119	95%	2.433	0.16	22.985
ACT composite	-0.199	-0.054	73%	1.462	1.411	43.521
PLAN composite	-0.207	0	100%	1.214	1.509	29.271
Average Suspensions	0.1	0.027	73%	0.08	1.12E+21	26.588
Average Behavior Events	0.276	0.03	89%	0.216	22.286	18.192

These results indicate that as the estimated ATT approaches zero, for the estimated effect of AVID exit on GPA and attendance to be invalid, there would have to be an unobserved variable that reduced student GPAs and attendance significantly while increasing their likelihood of exiting AVID by a factor of 12.8 and 23.0, respectively. Meanwhile, for ACT and PLAN composite scores, an unobserved confounder would have to increase their ACT and PLAN

scores while increasing their likelihood of exiting AVID by a likelihood of 43.5 and 29.3, respectively. Finally, for average suspensions and behavior events, there would have to exist an unobserved variable that increased suspensions by a sextillion and behavior events by a factor of 22.3, as well as the likelihood of exiting AVID by a factor of 26.6 and 18.2, respectively. Taken together, these results indicate that it is highly unlikely that a confounding variable explains the estimated effect of AVID exit, supporting the validity of my findings.

Estimating exit effects. Once the comparison group was finalized, I conducted t-tests to identify significant group differences between ex-AVID and comparison group students on a vector of outcome variables from the 2012-13 school year, the last school year for which I had complete data. These variables included cumulative GPA, highest ACT score, highest PLAN score, attendance, behavior referrals, and suspensions. T-tests are designed to test the hypothesis that the difference between two groups on a variable of interest is zero. If the t-test returns a significant result, then the difference between the groups is significant and unlikely to be random. I conducted these t-tests separately for each of three cohorts. I then combined the three cohorts together and conducted the same series of t-tests. Finally, I calculated effect sizes for the estimated effect of exit for the three combined cohorts on the six outcome variables.

Qualitative data. I used qualitative data to illuminate elements of AVID exit that cannot emerge through my quantitative data, including descriptions of the exit process and students' outcomes post-exit that are not easily quantified.

Recruiting participants. My chief data source for this qualitative case study was a series of interviews with AVID coordinators and teachers. I engaged in maximum variation sampling from these key subgroups, selecting coordinators and teachers at various high schools who were

responsible for elective classes offered in various grades. Creswell (2007) recommends maximum variation sampling as part of case study methodology. He argues that maximum variation sampling "Documents diverse variations and identifies important common patterns," which is a relevant goal for my work (Creswell, 2007).

I chose not to interview students as part of my study. Students potentially are great sources of information for data that confirms or disconfirms many of the tenets of Ebaugh's theory of role exit, as these individuals can perhaps speak to their internal feelings and motivations much better than can any other actors. However, speaking with students has several potential disadvantages relative to speaking with staff. First, students would be less likely to be able to reflect on the phenomenon of exit overall, particularly if they spent only a short amount of time in the program. In addition, although I do not work for AVID or in any of the schools where I conducted my research, students may not have differentiated my role from the role of a teacher, and because leaving a program is traditionally considered to be a negative action, their willingness to be open about the reasons they left may be limited.

Finally, recruiting ex-AVID students poses both logistical and ethical challenges. From a researcher's standpoint, identifying an ex-AVID student is extremely difficult, and essentially impossible for in-person recruitment efforts. Considering high student mobility, finding these students and contacting them would be a large undertaking. Even if a suitable recruitment method were identified, recruiting students to participate in a study based on AVID exit may be challenging if these students perceive that they are being singled out because of a negative event in their past. In addition, recruiting ex-AVID students likely would lead to a biased sample, as program staff believed that the students most likely to respond to recruitment efforts would be

those who still had positive feelings about the program after leaving. Due to these challenges, I chose to focus on interviews with adult participants.

To begin, I assembled a list of the district's seven AVID site coordinators and requested their participation. All AVID site coordinators are AVID elective teachers in addition to their role as AVID coordinators. All teachers are also part of the AVID program's staff, so the words "teachers" and "staff" refer to the same participants. After completing interviews with all seven site coordinators, I met with the district's AVID coordinator to identify five additional AVID elective teachers to increase the diversity of the pool of participants. Two of these five additional elective teachers agreed to participate. In total, I contacted twelve potential participants, of which nine participated. Of my nine participants, seven were female and two were male. I did not ask these participants to identify their race or ethnicity, but all appeared to be white. These nine participants represented all four conventional high schools in the district, with two high schools represented by three participants each, one represented by two participants, and one represented by one participant. These four conventional high schools also were the source of all of my quantitative data, so my interviewees' experiences with AVID student exit are based on working with my quantitative sample. To avoid the risk of coercion, I contacted potential participants myself and offered clarification that my research was being conducted for my dissertation only, not as part of my professional duties, and that their participation was optional.

As mentioned above, my sample of interviewees included members of two groups. First, I spoke with AVID site coordinators, who are the individuals responsible for overseeing the AVID program at their schools. These individuals may have a role in the AVID classroom as AVID elective teachers, but their role as coordinators allows them to gain a bigger picture perspective on the program as a whole and on exit in particular. Then, I spoke with AVID

elective teachers at all high schools in the district where I conduct my research. Because AVID elective teachers spend time with AVID students during every school day, these teachers will have witnessed the process of exit firsthand and can speak to their perceptions of why students exited the program.

Interview methods. A list of interview questions and the consent form for participants appears in Appendix A. At the outset of each interview, I asked teachers to describe how they became involved with the AVID program. Next, I asked them to describe what they believed to be the benefits of AVID participation for students. Just as Tinto argued that it was impossible to model college dropout without knowing the level and intensity of students' educational expectations, it is also impossible to study AVID exit from a teacher's perspective without knowing "the psychological orientations the individual brings" to their role in AVID, which is reflected in both how they became involved with the program and how they perceive the program (Tinto, 1975, p. 93). I ascribed minimal structure to each interview and instead allowed each conversation to evolve organically both to avoid pre-fitting an inappropriate model to these conversations and to allow my participants to select their own points of emphasis. That being said, I guided the conversation around elements of role exit theory and intervened with specific questions to ensure that the data I collected allowed for a comparison with Ebaugh's model. For example, I asked all staff participants about whether AVID exit was something that happened suddenly or whether it was something they could see coming long in advance to help identify whether the phenomenon of "Turning Points" appeared to play out for students. In general, interviews focused on the reasons that teachers observed for student exit, whether exit was predictable, what happened to students after they left the program, and teachers' general feelings about student exit.

Qualitative data analysis. I began the qualitative analysis process by using my interview data to create a detailed description of my "case": AVID exit. For my study, this meant discussing how staff described the benefits of the program to provide context around what students were losing when they left the program, as well as the basics of the exit process.

For the first stage of data analysis, I first planned to analyze my qualitative data using an *a priori* coding system applied with the aid of qualitative software. Although a grounded theory approach like that espoused by Strauss and Corbin is appealing, that type of analysis is more appropriate when the researcher begins without a clear theoretical framework. Because I view my research as an extension of Ebaugh's role exit theory, I planned to use a coding scheme that relates to the major stages of role exit. Saldana refers to this process as "provisional coding," noting that it is "appropriate for qualitative studies that build on or corroborate previous research and investigations" (Saldana, 2009, p. 121).

I started my analysis using the following five provisional codes inspired by Ebaugh and research on AVID:

1. Experiencing doubts
2. Seeking alternatives
3. Community inclusion/exclusion
4. Turning points
5. The ex-role

The first, second, fourth, and fifth codes come directly from Ebaugh's work. I added the third code (community inclusion/exclusion) because one of the most-cited benefits of AVID is belonging to the AVID community, so I assumed that students' level of engagement with the

community would be predictive of exit in ways that are worth separating explicitly from the other stages of role exit.

I chose to use a combination of Initial Coding and Process Coding for my first stage coding and Elaborative Coding for my second stage coding. Saldana says that Initial Coding is "an opportunity… to reflect deeply on the contents and nuances of your data and to begin taking ownership of them," and "not necessarily a specific formulaic method," but rather an open-ended approach that can incorporate Process Coding, as well as other methods (Saldana, 2009, p. 81). Meanwhile, Process Coding uses gerunds (-ing words) to connote actions in the data (Saldana, 2009). I used this approach during initial coding, developing codes like "belonging" and "scheduling" to organize the interview data. I also allowed for multiple coding, as in some cases, a single quote applied to multiple codes.

The first stage coding process included the following codes:

Behaving - This code pertained to student behavior.

Belonging - This code pertained to students' sense of belonging in the AVID program and the development of an AVID community.

Building Skills - This code pertained to the academic and self-advocacy skills that students gained as part of the program.

Buying In - This code pertained to students' willingness to "buy in" to the AVID program and commit to the expectations laid out.

Doubting - This code pertained to students questioning whether AVID was right for them, as well as the program not meeting their preconceived expectations.

Exiting - This code pertained to students' final exit decisions and the mechanical process of exit.

Exploring Options - This code pertained to students exploring other opportunities to pursue besides AVID, such as fine arts or Advanced Placement courses.

Moving - This code pertained to students leaving the AVID program because they enrolled at a different school.

Needing - This code pertained to students' needs, including the unique role the AVID program plays in serving middle achievers and the ability of the program to provide students with the necessary support.

Returning - This code pertained to the possibility and reality of students returning to the program once they exited.

Scheduling - This code pertained to scheduling issues that led to AVID exit, including a limited number of periods in the day and the desire to take alternative classes.

Struggling - This code pertained to students' academic struggles either before or after exiting the program.

Succeeding - This code pertained to students' successes either as AVID or ex-AVID students.

Supporting - This code pertained to the supportive atmosphere that exists in the AVID program and why that support is meaningful.

Taking Responsibility - This code pertained to students being responsible for their own actions and decisions.

For the second stage of analysis, I then used Elaborative Coding, described by Saldana as "appropriate for qualitative studies that build on or corroborate previous research and investigations" (Saldana, 2009, p. 168). To do this, I looked to fit the codes I developed during

the first stage of coding into the set of codes I mentioned above, which were inspired by Ebaugh's role exit theory. Saldana cautions that a researcher looking for something is likely to find it, so I worked to avoid the tendency to "fit qualitative data into a set of codes and categories that may not apply" (Saldana, 2009, p. 122). Still, the codes I developed during initial coding worked well during the second stage coding process. I followed Miles and Huberman's recommendation of visual mapping of first stage codes to pattern codes. The fit between first and second stage codes is complicated to represent visually, as several first stage codes fit across multiple second stage codes. Still, the graphic below is a simplistic representation of how these codes fit together, with the smaller boxes representing first stage codes and the larger colored boxes representing second stage codes:

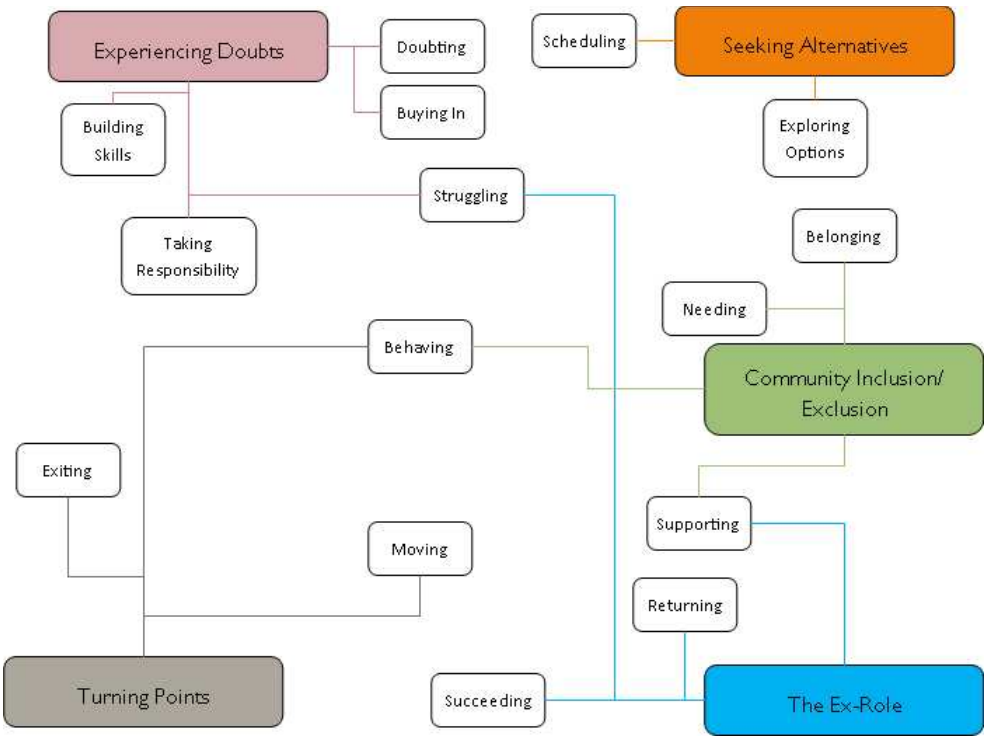

Figure 4. First and second stage coding pattern. This figure shows how first stage codes aligned to second stage codes.

I present my findings guided by the concept of naturalistic generalizations, or "generalizations that people can learn from the case either for themselves or to apply to a population of cases" (Creswell, 2007, p. 163). This population of cases should be not just AVID programs, but all college access programs, and perhaps even a broader spectrum of academic enrichment programs serving high school-aged youth. When I speak of AVID exit, I do not claim that my findings pertain to AVID exit nationwide or to exit from other similar programs; instead, I offer conclusions designed to encourage readers to connect my findings with their experiences, looking for commonalities that inform a conception of truth that applies to their context.

To test my findings, I focused on several strategies recommended by Miles and Huberman (1994). First, I considered the representativeness of my quantitative and qualitative samples. On the quantitative side, my dataset was comprehensive and included all AVID students in the district, so there are no concerns about representativeness. On the qualitative side, I interviewed staff at all four conventional high schools in the district, including the AVID site coordinator(s) at each school, which allowed me to maximize variation across the district and talk with teachers who had experience with AVID exit in every place where exit occurred.

Second, I took steps to mitigate researcher effects. These effects are usually more problematic for research involving extensive field work than research involving mainly interviews, but it is possible that my involvement and role could have altered participants' responses. I was particularly concerned about AVID teachers and staff and their willingness to be open about the program. Even though I have no supervisory authority over teachers in the district where I conducted my research, I work closely with upper level administrators that do have this authority. However, I was clear about my intentions to do research for improvement,

not justification or criticism, and clear about how my research was being conducted as part of an independent study and not as part of any work for the district. In addition, I interviewed staff at their schools in locations of their choosing to reduce feelings of vulnerability and discomfort. Overall, I found staff to be highly accommodating and willing to talk quite openly about their experiences, but it is still possible that some information was reserved during interviews.

Because this is a mixed methods study, my ability to use quantitative data and qualitative data in concert facilitated triangulation. For example, I could compare staff perceptions of the frequency of AVID exit and re-entry against the patterns that emerged in the quantitative data. The students referenced during my interviews with staff are part of the sample in the quantitative dataset I used, facilitating direct comparisons between the conclusions drawn from the two types of data.

Finally, I sought feedback from my informants through member checks of direct quotes. If my findings appear irrelevant to teachers and program staff, then my work will not have achieved its intended purposes. However, allowing participants to comment on my findings leads to the risk that participants will take issue with my findings if they are not favorable. What I find might be entirely accurate, but participants might wish to suppress my findings for a variety of reasons and, therefore, claim that my findings are invalid. Therefore, I chose to share only direct quotes of more than a sentence in length with participants as part of the member check process.

Mixing Methods. Mixing qualitative and quantitative methods will facilitate triangulation in my research, but mixed methods research offers significant advantages beyond triangulation. As Stake notes, "'mixed methods' is using multiple methods interactively, not just using them somewhere in the same study" (Stake, 2010, p. 125). In this spirit, I used quantitative and qualitative evidence in complementary ways, as quantitative data illustrated relationships and

patterns that were not clear from the qualitative data, while the qualitative data provided the means to develop theory that cannot be developed purely through quantitative evidence.

Protecting Participants. This study poses no substantial risk to my participants. However, it is possible that my findings could reflect negatively on some participants. As Miles and Huberman recommend, "It's wise to assume that the chances of some type of harm are better than even, and to consider, in advance, ways of reducing that likelihood" (1994, p. 292). Therefore, given the most likely harms that could result from my study, the best way for me to protect my study participants is to preserve their anonymity.

For the quantitative component of my study, I will present data only in aggregate. In addition, I will not present data for groups of fewer than five students. For example, if I find that three Native American students exited AVID, I would use data on these students when they were part of larger groups (e.g. all students, special education students) but suppress that data when reporting by racial group. Reporting quantitative data for groups of five or more increases the difficulty of identifying individual students even for individuals who are extremely familiar with the program.

For the qualitative component, I refer to staff only in generic terms, such as "a teacher" or "a staff member." I also have removed personal details about students mentioned during my interviews that could lead to identification of that student. In general, because dozens of staff are involved with the AVID program districtwide, I expect that it will be difficult to identify my individual study participants even if they reveal personal details in their interviews.

The entire research protocol has been approved by the Education and Social/Behavioral Science Institutional Review Board at the University of Wisconsin–Madison as protocol number 2013-103. See Appendix B for the IRB approval letter.

Limitations

One limitation of my study which is common to research employing case study methodology is that the generalizability of my work is limited if the district where I conducted my research is not representative of a typical AVID district. This district has had significant positive attention around its AVID program and has an AVID National Demonstration School, one of about 120 schools nationwide identified as exemplary in its AVID practices, so it is likely that AVID in this district conforms to the national model very well. However, as with any case study, it is possible that there are contextual or temporal issues around this district's AVID program that make it less representative than it appears. In addition, this district has had four full years of AVID and graduated its first full class of seniors in 2013, so it is possible that some of the observed patterns and themes around exit would be more prevalent in a developing AVID program than they would in a more mature AVID program.

My quantitative data is overall robust but has a couple of key limitations. First, due to the district's interpretation of federal guidelines around the use of free/reduced lunch status, I was unable to use any variable that accounts for students' family incomes. Given the clear link between income and academic outcomes in the United States, having no available income-related data is, although unavoidable, a limiting factor.

In addition, the available measure of achievement used in my study (grade point average and standardized test scores) are, although highly predictive of postsecondary success, not necessarily reflective of all the academic benefits that could come from AVID participation. For instance, there are no available variables to illustrate outcomes such as increased confidence and improved study skills. To be sure, these factors are likely to affect grades and test scores, but

some of the areas where AVID is designed to make the most direct and immediate impact do not lend themselves to easy quantification.

Although the quality of the quantitative data I used was very high, the observable variables used in this study may not represent all theoretically relevant observable variables. There were few instances of missing or erroneous data, so I am confident in the accuracy of all quantitative findings. However, even though I selected relevant observable outcomes for which to test the effect of AVID exit, I could have made legitimate and defensible choices to use other measures. For example, instead of using all out-of-school suspensions as a measure of behavior, I could have chosen in-school suspensions or limited suspensions only to certain violations. Instead of using the tests in the EPAS suite, I could have focused on state-administered standardized tests. I also did not include data such as Advanced Placement or Honors participation, as course-taking patterns were beyond the scope of this study. I am confident that I chose the most appropriate outcome variables to answer my research questions, but I acknowledge that choosing different outcome variables could have led me to reach different conclusions.

Propensity Score Matching is a promising method for approaching causality, but the method still does not allow for definitive causal inference. Through the PSM procedure, I created treatment and comparison groups that were extremely similar on key observable variables, but even the best-specified PSM model cannot account for unobserved variables. The sensitivity analysis discussed above means that unobserved variables likely do not threaten the validity of my quantitative findings, but I still cannot say definitively that AVID exit causes the outcomes discussed later, only that it appears to be predictive of those outcomes.

Another limitation of this study is that the qualitative component does not include student interviews. I interviewed teachers from across the district who have witnessed hundreds of student exits and provide the best source of information on overall exit trends. However, the patterns and student behaviors they observe only help illuminate student opinions and preferences to the extent that students make their opinions known to their teachers. My qualitative work involves testing the applicability of a theory of role exit to the population of ex-AVID students, and I believe interviewing teachers is the most efficient way to gain the broadest and most varied possible description of student exit, but it is possible that students are not entirely honest with their teachers about their reasons for exit and their perceptions of the program.

Researcher's Relationship to the Topic

I worked as part of a team conducting an evaluation of this district's AVID program from 2009 through 2012. In my work on the evaluation of this AVID program, I analyzed AVID data and presented findings to AVID teachers and staff, as well as other community stakeholders. I also used AVID data to conduct analyses presented in academic venues. Through this work, I became familiar with the nature of the program and its political context. I also met many program stakeholders and gained understanding of how they use and analyze data to improve the program. However, my work on this project did not include any work on student exit, and as a third-party evaluator, I had no authority over any program staff or any of my study participants.

Since August of 2012, I have held a position with the district where I conducted my research. As part of my role with the district, I have access to detailed student records for all students, including those participating in the AVID program. However, I have no regular interaction with AVID teachers, staff, or students. My professional duties do not include any

evaluation of AVID, as the only evaluation of the program that is currently underway is conducted by a third party. I also have no supervisory authority over program teachers and staff. I no longer participate in the AVID evaluation on which I once worked aside from consulting on methods and assisting with data requests, and the status of the AVID program has no bearing on my professional career. I also am not a former AVID student. Therefore, status relationships likely posed no problems in my research, and I have no vested interest in producing findings that are favorable or unfavorable to the AVID program.

Chapter Four: Results

The Causes of Exit

In this section, I discuss the causes of AVID exit that emerged through my research. First, I provide context around the AVID program, including teachers' descriptions of what it means to be an AVID student and what benefits these students receive, as well as what it means to exit the program. Then, I discuss the characteristics of ex-AVID students and the patterns of exit that can be observed over time. I also conduct a series of logistic regressions to attempt to predict AVID exit using observable covariates. Finally, I discuss qualitative findings around student exit and how they relate to the first four stages of the modified role exit process: experiencing doubts, seeking alternatives, community inclusion/exclusion, and turning points.

What AVID represents. At the outset of each interview, I asked teachers to discuss how they became involved with the AVID program, as well as what they believe participating in AVID means for students. Several expressed that they became involved because they were drawn to the program's focus on serving certain types of students. One teacher said "this is why we're teachers," and another said that AVID students were "the population of students I had been trying to reach my whole career." Some heard about the program on their own and asked to get involved, while others were approached by their principal.

When describing what AVID participation means for their students, teachers focused on academic and social benefits. On the academic side, teachers said that students gained the skills they need to be successful after graduating from high school, including study skills, note-taking, organization, and asking good questions. They also mentioned that they taught students to advocate for themselves and navigate the "hidden curriculum" that students need to know to apply, be accepted, and succeed in college.

Meanwhile, teachers described many social benefits of AVID participation. The words "community" and "family" were used frequently to describe the group of AVID students. Others described AVID as a "safe" space where students could feel free to ask questions and show vulnerability in front of their classmates. As one teacher said, "a lot of first-generation students don't have a place like that oftentimes within a school, unless there's a program like AVID where they are allowed to learn and grow and essentially compete with students who have more advantages than themselves." Several teachers also discussed the benefit of being surrounded by peers who have similar goals and aspirations, as well as similar experiences and struggles. Teachers described many different social benefits, but all centered on the idea of how having a strong community helps students grow and succeed.

Defining exit. In the district where I conducted my research, the mechanics of AVID exit varied somewhat between schools. In general, though, there are two types of exits: self-exits and forced exits. Students who self-exit choose to leave the program of their own volition. When these students choose to exit, they typically must undergo a series of conversations with their AVID teacher or other AVID staff, with efforts made to keep the student in the program. Students may be encouraged to take some more time to think about their decision to exit. However, if after reflecting on their options, they still want to exit, they are allowed to do so at any point.

Meanwhile, students who are forced to exit the program generally must leave as a result of academic performance or behavioral issues. AVID students are expected to maintain a 2.0 cumulative grade point average (GPA), and although schools vary in whether a 2.0 is a hard cutoff point or a cutoff point with some flexibility, in general, students dropping below a 2.0 are exited from the program. Students being exited for behavioral reasons are handled on a case-by-

case basis. There is no way to tell from the available administrative data whether students exited voluntarily or were forced to exit the program, and I did not investigate this question further to protect student privacy and avoid revealing sensitive information.

Once students exit, they are not necessarily out of the program for good. In fact, for many students who want to re-enter, they have the opportunity to enter into an agreement with AVID staff that outline conditions that, once met, will lead to them being welcomed back into the program. Because exit is not permanent, it is possible for students to come in and out of the program throughout their high school career, although this pattern is rare (with about 10% of exits ever returning to the program).

Quantitative findings: Identifying and predicting AVID exits. In this section, I use a variety of quantitative approaches to describe the phenomenon of AVID exit. I present the timing of exits for the first three cohorts of AVID students in the district, as well as patterns of exit, entry, and re-entry. I close by using logistic regressions to predict AVID exit.

The timing of exit. Among the first full AVID cohort, the majority of exits occurred during or after their freshman year. The graph below illustrates the number and percent of total exits by semester for that cohort.

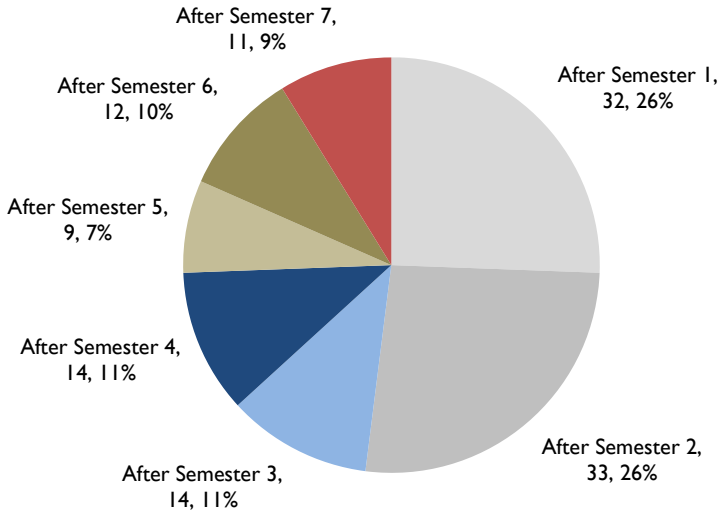

Figure 5. Distribution of exits for the first full AVID cohort (Class of 2013). This figure shows the timing of exit for ex-AVID students in the first full AVID cohort.

Given that programs rarely are perfect upon implementation, it is important to further examine exit rates between cohorts, particularly for programs like this with defined selection processes that have changed over time. To better compare exit rates between cohorts of students, it is worth disaggregating exits to look at when ex-AVID students most commonly leave the program and whether exit rates at certain milestones that more than one cohort has passed have changed over time. The graph below shows exit rates after each semester for each of the four full AVID cohorts.

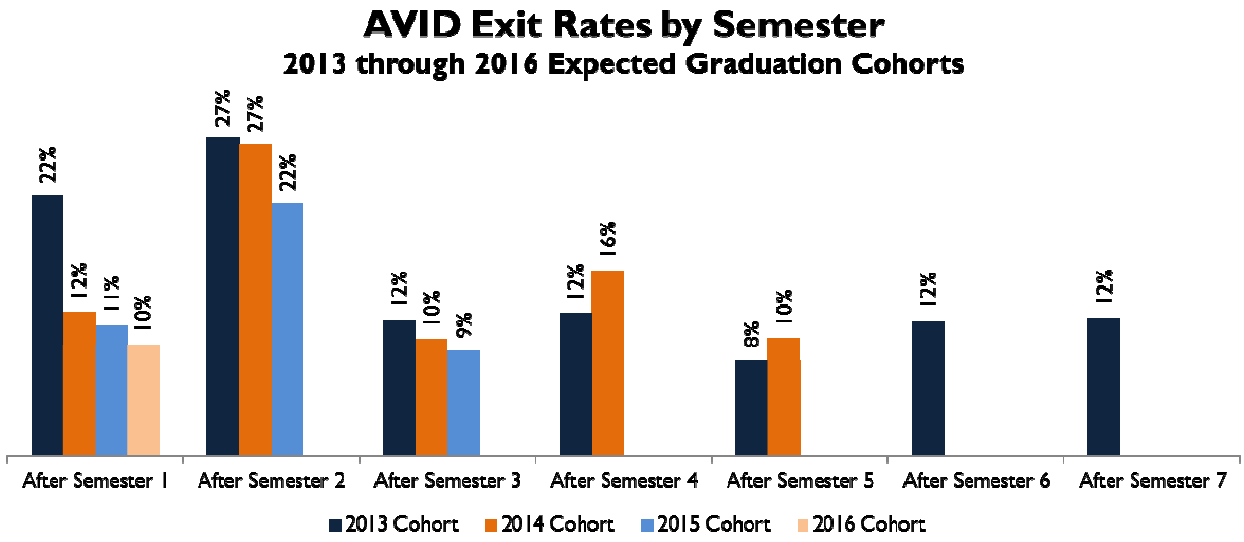

Figure 6. AVID exit rates by semester, 2013 through 2016 expected graduation cohorts. This figure shows exit rates by semester for each of the four cohorts included in this study.

Overall, exit rates appear highest during students' freshman years, after their first and second semesters in high school. Although data for later semesters is limited because only one full cohort has gone through four years of the program, exit rates beyond freshman year appear to hover around 10% per semester. In addition, this graph highlights declining exit rates for cohorts after the first full AVID cohort. Among the first cohort, 22% of students left AVID after their first semester. By the fourth full cohort, this rate declined to 10%.

Table 5 below shows AVID participation by semester for each of the four cohorts, including the number of new students, continuing students from the previous semester, students who re-entered after previously exiting AVID, and exits since the prior semester.

Table 5

AVID Participation by Semester

Graduation Cohort		Sem. 1	Sem. 2	Sem. 3	Sem. 4	Sem. 5	Sem. 6	Sem. 7	Sem. 8
2013	New	143	10	31	6	9	1	0	0
	Continuing	0	111	88	106	100	101	92	82
	Re-Entry	0	0	1	2	1	2	1	1
	Exits	0	-32	-33	-14	-14	-9	-12	-11
	Total	**143**	**121**	**120**	**114**	**110**	**104**	**93**	**83**
	Exit Rate		-21%	-27%	-11%	-12%	-8%	-12%	-12%
2014	New	194	2	13	6	3	0		
	Continuing	0	170	126	126	116	116		
	Re-Entry	0	0	1	6	10	4		
	Exits	0	-24	-46	-14	-22	-13		
	Total	**194**	**172**	**140**	**138**	**129**	**120**		
	Exit Rate		-12%	-27%	-10%	-16%	-10%		
2015	New	169	7	10	0				
	Continuing	0	150	123	121				
	Re-Entry	0	0	0	5				
	Exits	0	-19	-34	-12				
	Total	**169**	**157**	**133**	**126**				
	Exit Rate		-11%	-22%	-9%				
2016	New	188	0						
	Continuing	0	170						
	Re-Entry	0	0						
	Exits	0	-18						
	Total	**188**	**170**						
	Exit Rate		-10%						

From this table, we can track the evolution of AVID cohorts over time. For example, the first full AVID cohort started with 141 students receiving grades in AVID during the fall semester of their freshman year. By the time this cohort had reached their eighth semester of high school, 83 students had AVID on their transcript. We also see that students re-entering the program after exiting is uncommon. Among the first AVID cohort, only eight re-entries occurred. Among the second cohort, 21 re-entries have occurred as of the end of 2012-13.

Finally, it is clear that relatively few new students enter the program later in their high school careers. The first full AVID cohort had no new students enter for semesters 7 and 8 after having a total of 40 enter in semester 2 and 3.

The graphic below illustrates the evolution of the first full AVID cohort, from the first semester of their freshman year in Fall 2009-10 to the last semester of their fourth year in high school in Spring 2012-13.

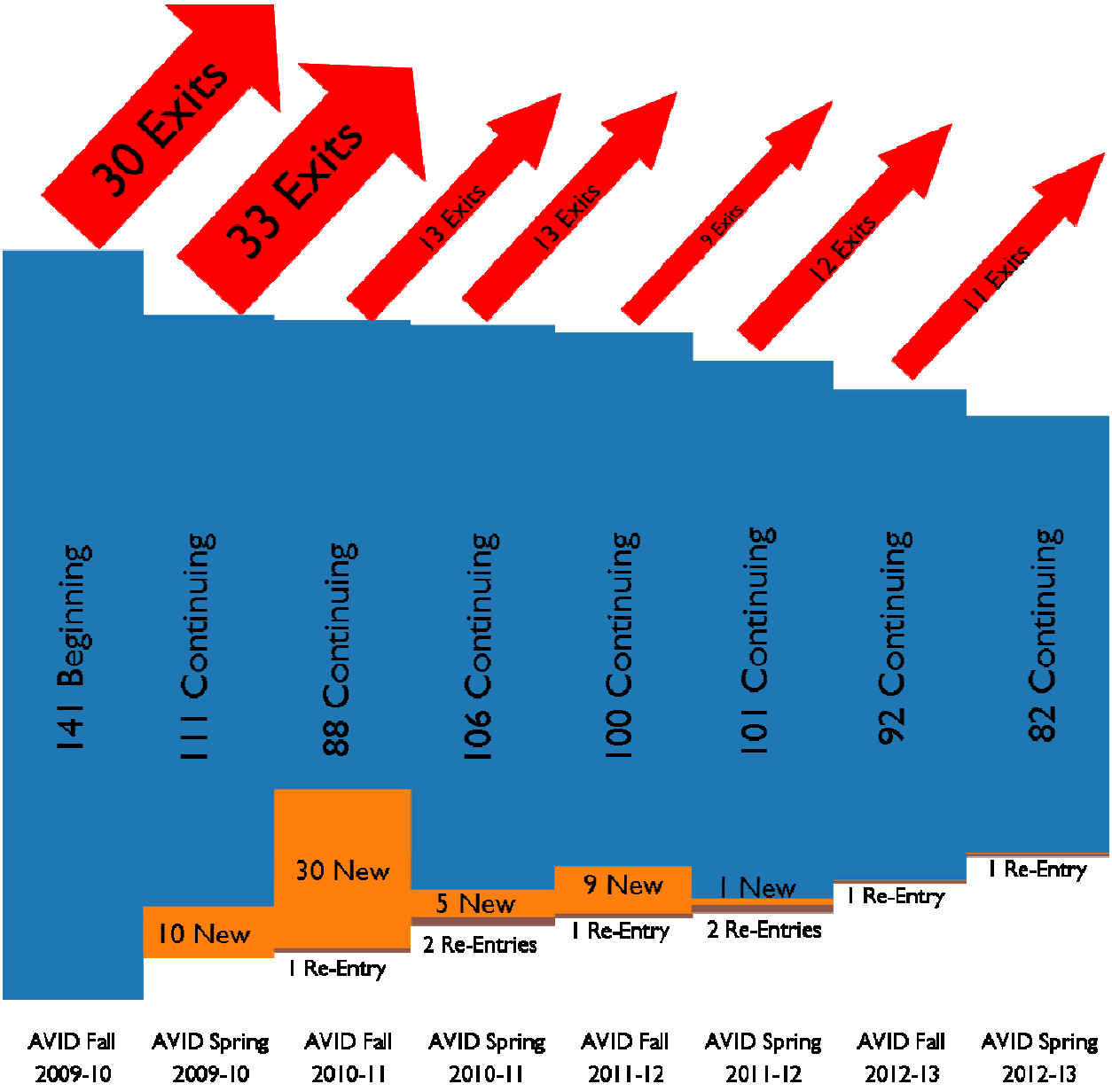

Figure 7. Evolution of the first full AVID cohort. This figure shows how the first full AVID cohort evolved from the Fall of 2009-10 through the Spring of 2012-13, including exits, new entries to the program, and re-entries.

Factors predicting AVID exit. We saw above that AVID exits were more likely to be African American and less likely to be English Language Learners. However, more sophisticated analysis is needed to see if any demographic characteristics appear to be predictive of AVID exit or if the demographic differences between ex-AVID students and AVID persisters are more

likely attributable to other factors. A series of results from logistic regressions using AVID exit as the binary dependent variable appear in Table 6 below. I began by using racial characteristics as the only independent variables because we know that students from certain ethnic groups are more likely to drop out of high school, Next, I added additional demographic variables traditionally associated with differential academic outcomes. For the third model, I added freshman year attendance and GPA to test whether these demographic variables appear to predict exit beyond what can be predicted simply by looking at student performance. For the fourth model, I added an indicator variable representing whether a student had a college-educated parent as a proxy for postsecondary knowledge acquired outside of the AVID program. The results appear below, including both coefficients and odds ratios. As noted earlier, Model 4 is the model used for the Propensity Score Matching procedure.

Table 6

Results of Logistic Regressions Predicting AVID Exit

	Model 1		**Model 2**		**Model 3**		**Model 4**	
	Coeff.	Odds Ratios	Coeff.	Odds Ratios	Coeff.	Odds Ratios	Coeff.	Odds Ratios
African American	**0.44****	**1.55****	**0.51****	**1.66****	0.13	1.14	0.17	1.19
	(-0.21)	(-0.32)	(-0.21)	(-0.35)	(-0.23)	(-0.27)	(-0.24)	(-0.28)
Hispanic	0.01	1.01	**0.52***	**1.68***	0.17	1.19	0.19	1.21
	(-0.21)	(-0.21)	(-0.27)	(-0.46)	(-0.31)	(-0.37)	(-0.31)	(-0.37)
Asian	0.03	1.03	0.58*	1.78	**0.73***	**2.08***	**0.75***	**2.12***
	(-0.29)	(-0.3)	(-0.35)	(-0.62)	(-0.4)	(-0.82)	(-0.4)	(-0.84)
Two or More Races	0.28	1.32	0.26	1.29	0.12	1.13	0.15	1.16
	(-0.28)	(-0.37)	(-0.28)	(-0.36)	(-0.31)	(-0.35)	(-0.31)	(-0.36)
Female			0	1	0.07	1.08	0.08	1.09
			(-0.15)	(-0.15)	(-0.17)	(-0.18)	(-0.32)	(-0.18)
Special Education			0.42	1.52	0.28	1.33	0.26	1.3
			(-0.29)	(-0.44)	(-0.32)	(-0.43)	(-0.27)	(-0.42)
English Language Learner			**-0.62*****	**0.54*****	-0.43	0.65	-0.39	0.68
			(-0.23)	(-0.12)	(-0.26)	(-0.17)	(-0.27)	(-0.18)
Freshman Year GPA					**-1.08*****	**0.34*****	**-1.11*****	**0.33*****
					(-0.13)	(-0.04)	(-0.13)	(-0.04)
Freshman Year Attendance					**-0.08*****	**0.92*****	**-0.08*****	**0.92*****
					(-0.02)	(-0.02)	(-0.02)	(-0.02)
College-educated Parent							0.24	1.26
							(-0.2)	(-0.25)
Constant	**-0.56*****	**0.57*****	**-0.57*****	**0.56*****	**9.67*****	**15855.42*****	**9.69*****	**16160.43*****
Pseudo R^2	0.01	0.01	0.02	0.02	0.17	0.17	0.17	0.17

*Note:**=p<0.10, **=p<0.05, ***=p<0.01. Statistically significant coefficients and odds ratios of at least p<0.10 bolded for emphasis.

These results suggest that across a vector of observable characteristics, freshman year GPA and freshman year attendance are by far the strongest predictors of AVID exit. Students with higher GPAs and higher attendance are significantly less likely to exit. Asian students may be more likely to exit than their white peers, but the coefficients for Asian students in models 3 and 4 are

significant only at the 90% level. Altogether, these models suggest that freshman year achievement and attendance are much more powerful predictors than any demographic characteristics.

Qualitative findings: AVID students and the role exit process. In addition to the quantitative work outlined above, I conducted interviews with nine AVID coordinators and teachers to gain their perspective on AVID exit and provide additional context for the quantitative data. I coded the data collected from these interviews using a two-stage coding scheme inspired by Helen Rose Fuchs Ebaugh's work on role exit theory. The second stage of coding centered around five codes inspired by the stages discussed in Ebaugh's research: experiencing doubts, seeking alternatives, community inclusion/exclusion (my addition to Ebaugh's framework), turning points, and the ex-role. The first four of these stages pertain to students' experience pre-exit and provide significant evidence to help explain why exit happens. In the next sections, I discuss my qualitative findings connected to these four stages.

Experiencing doubts. AVID teachers described the beginnings of the exit process in ways that aligned clearly with the idea of experiencing doubts. In general, students sometimes found that AVID did not meet their expectations, and many struggled to "buy in" to key tenets of the program. Failing to buy in was a reflection of their doubts about whether the program was beneficial and whether it was the right fit for them. In addition, students experienced academic doubts, both related to whether AVID work was helpful and necessary and whether AVID had the potential to lower their grades rather than raise them.

One teacher described students who "self-exit because they realize [AVID is] not what they thought it was going to be… there's a misconception out there when they enter AVID that it's a study hall and [they're] going to get tutors." Another described early doubts about the

program as “fairly common, where some kids are questioning, you know, do I really want to be in this program.” Another talked about how misconceptions were becoming less frequent with time, especially as AVID expanded into the district’s middle schools:

> In the early years AVID would often fight the perception of, well it’s a study hall, okay, where it’s really not. It’s an academic class. And students who come in with the idea that it’s a study hall are often the ones who don’t like the workload; who don’t like the challenge and who don’t see the benefit. With more and more students who are coming from a middle school AVID experience they come with a realistic perception of what the program is. And there are far fewer students who sort of revolt upon hearing they need to take notes in a certain way and keep a binder and things like that.

Lack of buy-in was a consistent theme, as students manifested their doubts through failing to engage fully in the program. Teachers used terms like “buy-in,” “commitment,” “taking responsibility,” and “determination” as necessary qualities for students to succeed in AVID. One teacher said “most of the students who choose to leave, who self-exit, are students who it’s pretty clear don’t buy into AVID and buy into the program… [they] sort of refuse to do what we ask of them.” Another talked about students who were “not committed to the full rigor.” A third referenced how for students struggling to commit to the program, “It’s not just ‘I don’t know how to do it.’ It’s ‘I’m not gonna do it, and I’m not gonna do what AVID expects me to do.’” Several teachers mentioned the idea that the “ID” part of “AVID” stands for individual determination, and if students didn’t show determination, they would not succeed. One believed “you have to really want to be willing to surrender yourself to the system.”

Students experiencing doubts and failing to buy in manifested their doubts in various ways. Some did so actively, expressing concerns to teachers and staff about their future in the program. In these cases, teachers all described their tendency to coach students to stay and to come up with plans to enhance their success in the program. In many cases, students who expressed doubts about staying in the program were not allowed to exit, but were asked to remain in the program a little longer and decide if they truly wanted to exit. Others manifested their doubts passively, by failing to engage in essential AVID practices like keeping an AVID binder, which was described as a "total turn-off" for some students.

Many of the doubts students experienced stemmed from academic issues. Some students "see [AVID] as extra work and not just the kind of work that you should already be doing in your class… it seems like more work than they're wanting to put in." Others see the program as too difficult, with a common refrain that AVID is "bringing their grades down." As one teacher said, "It seems like at the beginning stages of AVID students at high school, they're like, this seems like a lot more work, and what am I getting out of it, and, you know, they kind of are thinking, hey, my grades are slipping because of AVID, and trying to get that whole sense of what is AVID really doing for me."

Seeking alternatives. Seeking alternatives appears to be very common for AVID students. In many cases, the actions they take during the seeking alternatives stage appear to be most closely linked to their final decision to exit the program. The cases where alternatives appear to be the primary driver of exit offer the cleanest and simplest explanations for why students choose to leave the program. The major themes under seeking alternatives are scheduling, the desire to take other courses (which are closely related), and pursuing a different future for which AVID is not the right form of preparation.

Scheduling came up in all nine interviews, with most teachers agreeing that scheduling is a significant contributor to exit. School schedules can "[make] it really difficult for kids to get courses that they want to get, especially if they are a music kid or an art kid, [because] sometimes the only time that those higher level music courses are offered is the same time that AVID is offered." At one school, because of the timing of the AVID class, all AVID students had to take a 45-minute study hall for their entire high school career.

Scheduling issues were mentioned around multiple subject areas, but the most common conflicts were around art, music, and Advanced Placement:

> It's really hard to be a music kid and to be in AVID because of our other requirements around four years of the five core classes, including language… when you have a seven-hour day, and five hours are just taken up by that, and then you have other requirements like gym and health, you have kids who want to experience other things. And that's fair. Sometimes it's scheduling around, like, AP, so sometimes there's a conflict. Some [Advanced Placement courses] are only offered one hour of the day, and what if that's against AVID?

This theme was consistent across interviews. Choosing between AVID and these other areas became "a decision kids have to make… they don't have a lot of space to do anything enjoyable [beyond core classes] and AVID takes up one of those electives and foreign language takes up the other one." Overall, students exiting to pursue these other types of coursework was less of a concern to teachers than other types of exit, because as one teacher said, students who "don't have any room in their schedule to maybe try some more challenging classes… those are usually really top-notch students that probably didn't need AVID to start with as much as somebody else who's more of a struggling student."

Two teachers acknowledged that scheduling could be an issue but thought it should not lead to exit. One believed that scheduling was used as "an excuse" for exit because they still had plenty of opportunities to pursue elective classes, especially if they took some required courses during summer school. Another credited the school's scheduling principal for making AVID fit with other opportunities and believed that scheduling was only a "small problem."

Finally, some students realized that they did not want to attend college and left AVID because the type of preparation AVID provided did not seem relevant to them. For example, multiple students left AVID after choosing to enter the military post-graduation. Teachers believed other students found out through the rigors of AVID that they were not as serious about going to college as they had initially thought. The parents of one student contacted his teacher about leaving AVID because the student only planned to attend a two-year college and didn't see the value in AVID given his future plans. Thus, some AVID exits may be explained by students simply changing their future goals and finding an alternative academic pathway they believe will better prepare them for their future.

Community inclusion/exclusion. The theme of community inclusion emerged clearly from the qualitative data, as the strength of the AVID community consistently was mentioned as a reason that students would choose not to exit AVID. During primary coding, belonging was the second most common theme that emerged from my interviews. Teachers used the words "community" and "family" to refer to the group of AVID students and described the AVID classroom as a "safe" space for students. One teacher commented that the shared experience bound students together and was representative of larger themes:

> I think one of the big benefits is actually the social component, the fact that they have a peer group, which oftentimes looks like them, has similar experiences as them, has

> similar struggles even as them, because we ask them to – we ask them to trust each other. And I think the fact that they have those shared experiences, even if they're never outwardly discussed, I think that makes students more comfortable to do the other parts that are really big for them, like asking each other questions, working collaboratively. Those skills that they absolutely have to have comes from the social aspect of "I'm in a group that's like me, that has similar goals as me, similar aspirations as me, and that I feel comfortable maybe looking stupid in front of." 'Cause asking questions with kids is hard, if it means that they might look ignorant or not as bright as other kids, and so you have to create an environment that opens those doors, and AVID does a really nice job of that. I think as a program overall, it's hard to not have a class, no matter who the teacher is, that is open in that way, at least with the kids being open with each other. So even if the teacher isn't that kind of personality, the kids will open up to each other. And that's huge.

One teacher said that losing the AVID community was "the hardest part for kids when they either choose to exit or are forced to exit." Another, when reflecting on students who considered leaving but chose to remain as part of AVID, stated: "Why did they stay? I think a big part is the sense of the community, you know the community building that all of our AVID elective teachers do."

The AVID community was viewed as a key reason that students stayed in the program, but exclusion from the community was not viewed as a key reason for exit. As one teacher said, "nobody's ever told me… that they don't have any friends in the class." In addition, teachers described students remaining a part of the community up until the time they exited and even

beyond. Perhaps students themselves would have a different take, but from the standpoint of the adults running the program, community exclusion was not a noticeable driver of student exits.

Still, the theme of community exclusion was not entirely absent. For some students, simply having different needs than the rest of the community led to exit. One teacher told the story of a student who "at this time and place in her life where all of the class is applying to colleges and that's where they're focused, she's not in that place." This teacher went on to discuss how students on different pathways struggled to fit in:

> I think as a class gels and moves together I think sometimes we lose kids who aren't on that same trajectory, right? It's hard for them to fit in and I think they're questioning if that's what they want to do.

Another talked about an academically prepared student who felt "the stuff that we were doing freshman year didn't seem to pertain to him quite as much." Finally, another teacher said that some ex-AVID students who are performing well "maybe don't need that smaller community that our AVID elective teachers create."

Another exception came from one teacher's descriptions of personality conflicts not between students, but between students and teachers. This teacher said these personality conflicts were "inevitable, given the structure of AVID... you're really working closely with a teacher and a group of students hopefully over a long period of time. And if you don't get along with that teacher it can be tough to make that adjustment." Another teacher discussed "power struggles" between staff and students contributing to exit.

Turning points. Ebaugh's conception of turning points involves individuals who are usually able to point to a single moment or event as the time they knew they would exit a role they currently held. But teachers described student exit as a much more gradual process, and one

without a noticeable turning point. All teachers said that in general, student exit is something they could see coming long ahead of time.

> Usually I think we have decent-enough relationships that kids will be telling me "I gotta go talk to [my counselor] because I want to get out of this class," or they're questioning me, "Why is AVID bringing my grades down?" and things like that. They're usually fairly open about that, and we'll be talking about it before some kind of thing about exiting actually happens.

Another added that "we know they're coming. And the kids – the kids do, too. They kind of wait for that exit interview. They know it's coming. They kind of hang around your desk a little bit more, knowing that it's just a matter of time." A third said "I haven't had a kid who's just really clicking and then all of a sudden saying, 'No, I don't want to do this anymore.'" This sentiment was common. In particular, students' lack of adherence to the AVID binder was mentioned as an early indicator of exit: one teacher said "you can tell if a kid has bought in or not… they have to turn in a binder every week with their Cornell notes and there's a kid who just never does it," while another said "if they're not doing the binder, you know then it's kind of a matter of time." Teachers also believed that exit was largely predictable because the AVID program includes such regular academic check-ins and close relationships with students that there is very little potential for surprise. Some surprising exits happened, but they were a clear exception.

The concept of Turning Points as conceptualized by Ebaugh as a moment at which exit seemed inevitable did not emerge through my interviews, as teachers believed that exit was the result of a more gradual process of doubts, struggles, and/or disengagement. However, I would not suggest that AVID students do not experience identifiable turning points based on these

interviews. It is certainly possible that students themselves could point to a moment when they decided to exit or when they realized the program was not for them; although teachers were not able to identify these moments, and although their descriptions of the exit process as gradual were universally consistent, students might have a very different perspective.

Interpretation of findings on the causes of exit. The primary focus of this section was to answer the research question:

- What factors contribute to students' exit from the AVID program?

Based the logistic regression results discussed earlier, demographic characteristics are not highly predictive of AVID exit when controlling for freshman year attendance and GPA. This aligns with the qualitative data, as there was no mention of students with certain demographics being more likely to exit the program. Instead, teachers focused on student characteristics like motivation, commitment, and engagement, which likely are reflected through attendance and GPA, which did appear to predict AVID exit. Therefore, multiple sources of evidence point to demographics not being a significant predictor of AVID exit beyond other factors that can be easily observed.

If students from certain demographic groups truly are not more likely to exit AVID, as all evidence from this study appears to indicate, then this is a particularly interesting finding in light of the characteristics of the teachers I interviewed. My qualitative sample was all white and largely female, which does not mirror the characteristics of AVID participants. Although I did not interview every AVID teacher in the district, this district's teachers are overwhelmingly white and female, so my participants likely are representative of the AVID teaching staff as a whole.

Therefore, we should consider whether there is something about the design of the AVID program or about its implementation in this district that allows demographic characteristics to be absent from the conversation on exit when we know that students from certain academic groups are much more likely to drop out of high school, and when we know that the characteristics of the teaching staff and the pool of AVID participants are quite different. I would suggest that the strong emphasis on "community" and "family" in discussions about the program implies an approach to teaching that may be particularly successful for students like those in AVID regardless of the characteristics of the teacher. If this approach is successful in AVID, then perhaps it can extend to other courses as well.

Equally absent from the conversation on the causes of exit, though, was any sense of teachers' responsibility for students leaving the program. Only one teacher suggested that perhaps ex-AVID students felt the program had not met their needs. Instead, the perceived reasons for exit were all because of the student. To be fair, teachers did not always blame students for exit, as they mentioned many reasons for exit that they saw as very legitimate. But no one suggested that perhaps students left the program because the program could have been better designed or because teachers could have done a better job meeting the needs of the student. It is fair to say that based on my interviews, teachers believed that when a student exits AVID, it is because of choices the student made, not because of anything about the program or its staff.

In fact, the hypothesized reasons for student exit appear to fall outside of teachers' locus of control, which is troubling if exit is a problem for which we should find solutions. Still, finding adult actions that contribute to student exit may be as simple as encouraging staff to reframe their perceptions. For example, the idea that some students exited because they did not

"buy in" to the program emerged as a common theme that seems particularly ripe for an adult-centered solution. To reframe this student-centered problem as an adult-centered problem, teachers could say "we do not have the systems and structures in place to convince all AVID students that AVID is valuable for them." Identifying problems centered on student actions outside of teachers' locus of control encourages little in the way of solutions, but identifying problems centered on adult action encourages action steps that can lead to meaningful change.

It is worth considering why exit was described as the result of student actions and not adult actions in the context of the program. In this district, the AVID program has received significant positive attention and has often been held up as an example of successful practices. It is possible that teachers working for a program with positive media coverage and support from administration would naturally be inclined to believe that everything about the program is working well, and that if students do not fit within the program, it is the fault of the students because the program has been so successful. On the other hand, AVID in this district is still relatively new, so it is possible that teachers are unwilling to admit potential problems with the program and areas where they could be performing in better in fear of making the program vulnerable, or even that teachers are unaware that these problems exist. AVID in this district appears successful, but is not quite institutionalized, so teachers might believe they need to share only positive elements until the program is such an integral part of practice that the revelation of problems will not threaten its continued existence.

Another potential explanation lies in the quantitative data around the timing of student exit. This data indicates that exit rates have decreased across the last few cohorts and that exit becomes less frequent as students spend more time in the program. Teachers did not mention the decrease in exits for each subsequent cohort, but several mentioned that exit is less common later

during a student's high school career (with the exception of an uptick for seniors). Accordingly, teachers may believe that because students who spend more time in the program exit less frequently and because exit rates are improving over time, any adult-based issues around exit have been resolved and the remaining problems are student-centered. I would argue that this is untrue, and that refocusing these problems around adult actions is the best way to encourage productive action and continuous improvement, but the improvement that has already happened might have led teachers to believe that from their perspective, all necessary changes have been made.

A final potential explanation for this phenomenon lies in the manner in which AVID teachers are trained. The AVID Center provides summer institutes where teachers learn about AVID methods and strategies, as well as local trainings. It is possible that these trainings affect teachers' perceptions of program exit because AVID offers what is often a highly prescriptive set of guidelines for local AVID programs, perhaps giving the impression that because these guidelines have worked elsewhere, any local struggles are due to the students and not possible issues with the program model.

Also interesting was the remarkable consistency across interviews in descriptions of the exit process. Many elements of the AVID program are mandated, so it is not surprising to see some commonalities across interviews that took place in different schools, but even stories of student experiences and explanations of the reasons students leave AVID showed little variation. In addition, teachers had little trouble answering questions about exit; on the one hand, this is to be expected, as they certainly have significant experience with exit, but on the other hand, simpler questions about exit rarely seemed to prompt any reflection, indicating that their opinions about exit were already well-formed.

During the year I conducted my interviews in this district, it became clear that issues of AVID selection, retention, and exit had been a significant focus for program staff. Therefore, it seems likely that many commonalities emerged across interviews because teachers at different schools had communicated with one another and struggled collectively through forming an understanding of exit before I conducted my interviews. If I had conducted these interviews a year earlier, it is possible I would have heard very different things, or at least less-formulated responses.

The idea of scheduling as a significant contributor to student exit has interesting implications that are beyond the scope of this study but should be considered further. Scheduling problems likely go beyond even the issues described earlier in the section on Seeking Alternatives. If students are exiting AVID to pursue other courses like art and music, it also stands to reason that some students are choosing not to enter AVID because of these other opportunities. Students choosing not to enter the program for this reason would likely not be obvious to program staff, who may never know that this is an issue. But the impact of scheduling on AVID entry and exit likely cannot be overstated, as structural factors like the time of day AVID is offered and the other classes offered at that time likely have a significant impact on participation, and scheduling decisions made by administrators could lead to large changes in exit rates and patterns without any significant changes to the program itself.

The Effects of Exit

In this section, I discuss the effects of AVID exit. I use propensity score matching (PSM) to identify matched pairs of demographically and academically similar AVID exits and AVID persisters, comparing their academic and behavioral outcomes in an attempt to isolate the

measurable effect of AVID exit. In addition, I use qualitative data to explore how AVID exit appears to correspond to the sixth stage of my modified role exit theory: the ex-role.

Performance variation among ex-AVID Students. From the pool of 792 students who participated in AVID between 2009-10 and 2012-13, we know that grade point averages as of the end of 2012-13 were significantly higher for AVID persisters than for ex-AVID students. Ex-AVID students averaged a 2.15 GPA at the end of 2012-13, while AVID persisters averaged a 2.74. But looking only at average GPAs for these groups obscures important nuances contained in the data. For example, grade point averages at the end of 2012-13 for AVID persisters ranged from 0.33-4.0, but GPAs for ex-AVID students ranged from 0.0 to 3.94, indicating that both AVID persisters and ex-AVID students exhibited massive variation in academic performance.

In addition, students who exited the AVID program did not necessarily exit because of low grade point averages. Among the 339 ex-AVID students, 53 had GPAs of 3.0 or above during their last year in AVID. Another 129 had a GPA between 2.00-2.99 during their last AVID year. Thus, although a lower GPA appears to be a statistically significant predictor of AVID exit when holding demographic characteristics constant, there is enough variation within the ex-AVID group that academic performance alone cannot explain AVID exit.

To dig further into differences between ex-AVID students, I divided the group of ex-AVID students into three groups: “high-performing,” with a GPA of 3.0 or above during their last year in AVID; “middle-performing,” with a GPA between 2.0 and 2.99 during their last AVID year; and “low-performing,” with a GPA below 2.0 during their last AVID year. The demographic differences between these three groups are presented in Table 7 below:

Table 7

Characteristics of AVID Exits by Performance

	Exit type		
	High-performing	Middle-performing	Low-performing
Number of students	53	113	153
Female	63.46%	55.75%	52.29%
African American	13.46%	32.74%	39.22%
Hispanic	32.69%	24.78%	30.07%
Asian	11.54%	11.50%	4.58%
White	26.92%	18.58%	16.34%
Two or more races	15.38%	9.73%	9.80%
Special Education	3.85%	9.73%	9.80%
English Language Learner	40.38%	29.20%	32.68%
College-Educated Parent	36.54%	33.63%	11.11%
GPA as of last year in district	3.26	2.32	1.50
Attendance last year in district	92.13%	90.05%	85.76%

Overall, high-performing exits were more likely to be female and white. In addition, their cumulative GPAs at the end of 2012-13 or their last year in the district were nearly a point higher than middle-performing exits and almost two points higher than low-performing exits. Therefore, it is clear that the ex-AVID student does not have a defined set of characteristics, nor does being an ex-AVID student imply a certain level of academic performance. Rather, ex-AVID students are diverse demographically and academically, and some clearly meet with success after leaving the program.

Post-AVID outcomes for ex-AVID students. There were 203 ex-AVID students who left the program between 2009-10 and 2011-12 and had a GPA available for their first year post-AVID. These students' cumulative grade point averages as of their last year in AVID averaged 1.96. By the end of their first year after AVID, their cumulative grade point averages had dropped only 0.03 points on average, to 1.93. This suggests that ex-AVID students' grades

changed little after leaving the program. Of these 203 students, 100 had their GPAs decline post-AVID, 95 had their GPAs improve, and eight had unchanged GPAs.

Additional detail appears in Table 8 below. Among high-performing exits, cumulative GPAs declined from 3.40 to 3.26; for middle-performing exits, the GPA decline was from 2.40 to 2.29; and among low-performing exits, average cumulative GPA actually increased the year after leaving the program, from 1.29 to 1.40. In total, 59% of low-performing exits improved their GPAs post-AVID. The lack of a large drop-off in academic performance for ex-AVID students after leaving the program may be due to an easier course load after leaving the program, but as a whole, the data does not suggest that all students struggle post-AVID.

Table 8

Pre- and Post-Exit GPA by Pre-Exit Performance

		Cumulative GPA	Attendance
High-performing	Last Year in AVID	3.40	95.82%
	First Year Post-AVID	3.26	91.31%
Middle-performing	Last Year in AVID	2.40	92.85%
	First Year Post-AVID	2.29	89.73%
Low-performing	Last Year in AVID	1.29	88.35%
	First Year Post-AVID	1.40	84.58%
All exits	Last Year in AVID	1.96	90.91%
	First Year Post-AVID	1.93	87.10%

More striking differences emerge when looking at attendance, though. On average, ex-AVID students who left the program before 2012-13 had an attendance rate of 90.9% during their last year in the program but an attendance rate of 87.1% during the first year after AVID – a difference that corresponds to nearly seven days of school. This trend held among high-performing, middle-performing, and low-performing ex-AVID students. In total, 64% of ex-

AVID students had lower attendance rates during their post-AVID year relative to their last year in AVID. About 33% improved their attendance rates and 3% had unchanged attendance rates.

Semesters in AVID, attainment, and achievement. The first full AVID cohort was expected to graduate from high school in 2013. Among the 200 students participating in the first full AVID cohort, 161 remained enrolled in the district at the end of the 2012-13 academic year; 79 of them had never exited AVID, while 82 had exited at some point. Among students who had never exited AVID, 99% graduated from high school. Among the group of exits, 89% graduated.

When disaggregating these students not by exit status, but by the number of semesters they spent in AVID, students spending more time in AVID graduated at higher rates. However, even students spending only one or two semesters in AVID graduated at higher rates than recent district averages, which tend to fall around 75%. Table 9 below shows graduation rate and GPA differences by time spent in AVID.

Table 9

Graduation Rates and GPA by Semesters in AVID, First Full Cohort

Semesters in AVID	Number of Students	Four-Year Graduation Rate	GPA at end of 2012-13
1	18	83.33%	2.00
2	26	92.31%	2.27
3	7	85.71%	2.47
4	17	88.24%	2.69
5	7	85.71%	2.09
6	30	100.00%	2.84
7	13	100.00%	2.51
8	43	97.67%	2.80

Among the 39 students from the first AVID cohort who were no longer enrolled in the district at the end of the 2012-13 academic year, only five had dropped out of school. Eight had graduated

earlier in 2012-13, one was still enrolled in the district, and 25 had transferred to other districts. Altogether, among the first cohort of 200 AVID students, 159 of the 175 students who did not transfer out of the district graduated in four years, for a graduation rate of 91%.

Meanwhile, students spending more semesters in AVID exhibited noticeably higher GPAs as of the end of the 2012-13 academic year. Students spending only one semester in AVID averaged a 2.00, while students spending a full eight semesters in the program averaged a 2.80. Interestingly, students spending only six semesters in AVID had the highest GPA, at 2.84. Overall, students with six or more semesters in AVID averaged a 2.77, while students with fewer than six semesters in AVID averaged a 2.35.

Quantitative findings: Creating comparison groups to estimate exit effects. Even though there were few demographic differences between AVID persisters and AVID exits overall, simply comparing outcomes between these two groups is not the most precise way to estimate an "effect" of AVID exit on students' outcomes. Instead, I used quasi-experimental methods, focusing on AVID students who participated in the first full AVID cohort, to identify a comparison group of AVID persisters that is as similar as possible to the group of ex-AVID students across a vector of observable characteristics.

As discussed in Chapter 3, I used Propensity Score Matching (PSM) to create matched groups of AVID exits and AVID persisters who are academically and demographically similar and differ only in their continued participation in AVID (or lack thereof). I used this method for each cohort separately. I conducted a series of tests, also outlined in Chapter 3, to assess the success of the matching process. Taken together, the results of these tests indicate that the treatment group of ex-AVID students and the resulting comparison group of AVID persisters are extremely well-matched for each cohort. Although the results of t-tests of group differences are

sensitive to sample size, the demographic similarities between the two groups also are immediately apparent when looking simply at the composition of the two groups. No statistically significant differences emerged between AVID exits and AVID persisters on any matching variable or on the propensity score variable for any cohort.

Estimated effects of exit by cohort. The first full AVID cohort is the only cohort that has been in high school for four years (the intended length of a student's high school career). I can compare these students' outcomes at (or near) the end of high school, so results from this cohort are particularly important. Among this cohort, the similarity between AVID exits and AVID persisters on cumulative GPA at the end of 2012-13 is particularly remarkable. AVID exits finished the year with a GPA of 2.65, while AVID persisters finished with a GPA of 2.64. The average 2012-13 attendance rate for AVID exits was 87.6% while the average rate for persisters was 90.1% -- a difference of about 4.5 days of school; however, this difference was not statistically significant, $t(68) = 1.05$, $p = .15$. Exits and persisters also showed almost identical 2012-13 suspensions and behavior events, as well as an almost identical average highest ACT score (20.1 for exits vs. 19.9 for persisters).

For the second cohort, the difference in cumulative GPA between persisters and exits at the end of 2012-13 was statistically significant, with persisters averaging a 2.65 and exits averaging a 2.38, $t(117) = 2.52$, $p = .006$. Statistically significant differences also emerged for 2012-13 attendance, with persisters averaging 95.1% and exits averaging 91.0%, $t(118) = 3.77$, $p < .001$, a difference of more than seven days of school. In addition to ACT scores, I tested the difference in highest PLAN score for the two groups. The PLAN is the 10th grade test given as part of ACT's EPAS suite and scores were first available for this cohort. Exits and

persisters had almost identical PLAN and ACT scores, but exits received significantly more suspensions at 90% confidence, at 0.2 vs. 0.07 average suspensions, $t(118) = -1.91$, $p = .06$.

Among this cohort, there were no statistically significant differences in GPA or 2012-13 attendance between exits and persisters, with both groups averaging a 2.65 GPA and approximately 94% attendance. This cohort also exhibited no significant differences between groups in suspensions and highest PLAN score. Because these students have only progressed through 10th grade, I was unable to test ACT score differences between groups, as very few of these students had taken the ACT by the end of 2012-13. Exits had a significantly higher number of average behavior events at 90%, with 0.97 for exits and 0.2 for persisters, $t(58) = -1.71$, $p = .09$.

Table 10 below shows comparisons by cohort on each matching variable and the six outcome variables. Statistically significant differences are bolded, with one star indicating 90% confidence, two stars indicating 95%, and three stars indicating 99%.

Table 10

Comparisons Between Exits and Persisters on Matching and Outcome Variables by Cohort

	Cohort 1		Cohort 2		Cohort 3	
	Exits	**Persisters**	**Exits**	**Persisters**	**Exits**	**Persisters**
Number of Students	35	35	60	60	30	30
African American	20.0%	25.7%	33.3%	25.0%	23.3%	23.3%
Hispanic	42.9%	37.1%	30.0%	36.7%	23.3%	23.3%
Asian	5.7%	11.4%	6.7%	10.0%	**10.0%***	**0.0%***
Two or more races	17.1%	14.3%	11.7%	11.7%	10.0%	10.0%
Female	48.6%	51.4%	55.0%	55.0%	40.0%	33.3%
Special Education	0.0%	5.7%	6.7%	6.7%	6.7%	6.7%
English Language Learner	40.0%	37.1%	38.3%	46.7%	33.3%	26.7%
College-educated Parent	22.9%	17.1%	16.7%	13.3%	36.7%	33.3%
Freshman Year GPA	2.79	2.68	2.67	2.68	2.72	2.69
Freshman Year Attendance	96.6%	96.2%	95.9%	96.1%	96.6%	95.5%
GPA as of 2012-13	2.65	2.64	**2.38****	**2.65****	2.65	2.65
2012-13 Attendance	87.6%	90.1%	**91.0%*****	**95.1%*****	94.0%	93.6%
2012-13 Average Suspensions	0.06	0.06	**0.2***	**0.07***	0.07	0
2012-13 Average Behavior Events	0.20	0.20	0.28	0.47	**0.97***	**0.20***
Highest PLAN Score	N/A	N/A	17.0	17.0	18.4	18.7
Highest ACT Score	20.1	19.9	18.8	18.8	N/A	N/A

Note: *=p<0.10, **=p<0.05, ***=p<0.01. Statistically significant differences of at least p<0.10 bolded for emphasis.

I also conducted a similar analysis using the matched groups for all three cohorts pooled together. Comparing groups containing students from multiple cohorts could be problematic because each cohort ended 2012-13 at a different point in high school, and a sophomore and a senior, for example, might have very different grade point averages and attendance records. However, because these students all attended the same schools and because there are an equal number of AVID persisters and exits in each cohort, the benefit from testing group differences based on larger student groups outweighs the concern about mixing cohorts.

Combining the three cohorts together yielded treatment and comparison groups of 125 students each. Group differences in outcome variables appear in Table 11 below. Although only one of three cohorts exhibited a statistically significant difference in GPA between AVID exits and persisters, the combination of three cohorts resulted in a GPA difference that was statistically significant at the 90% level, $t(247) = 1.72$, $p = .08$. AVID persisters averaged a 2.65, while exits averaged a 2.52. Meanwhile, persisters averaged 93.4% attendance in 2012-13, while exits averaged 90.7%. This difference was statistically significant at 95% and corresponds to nearly five days of school, $t(248) = 2.44$, $p = .02$.There also were significant differences between the groups on suspensions, $t(248) = -2.05$, $p = .04$, and behavior events, $t(248) = -2.04$, $p = .04$.

Table 11

Comparisons Between Exits and Persisters on Matching and Outcome Variables, All Cohorts Combined

	Combined Cohorts	
	Exits	**Persisters**
GPA as of 2012-13	**2.52***	**2.65***
2012-13 Attendance	**90.7%****	**93.4%****
Highest ACT Composite (Cohorts 1 & 2)	19.2	19.2
Highest PLAN Composite (Cohorts 2 & 3)	17.7	17.7
2012-13 Average Suspensions	**0.13****	**0.05****
2012-13 Average Behavior Events	**0.51****	**0.24****

Note: *=p<0.10, **=p<0.05, ***=p<0.01. Statistically significant differences of at least p<0.10 bolded for emphasis.

The cohort-by-cohort comparisons yielded few statistically significant differences between AVID exits and persisters. But because the matched groups from each cohort are relatively small, the tests I conducted may be underpowered because it is more difficult to

identify statistically significant differences between small groups. In these cases, it is important to consider the practical significance of group differences. For example, given a large enough sample of students, it would be possible to detect a statistically significant difference between grade point averages of 2.62 and 2.63. In practical terms, though, this difference is negligible.

Obviously, the practical significance of the differences between attendance and GPA for cohort 3 and GPA for cohort 1 are minimal. But the difference in attendance for cohort 1, while not statistically significant, corresponds to about 4.5 days of school, or nearly a week of extra instruction for AVID persisters relative to AVID exits within the matched group. Therefore, it is difficult to argue that this difference is not substantial and worthy of further examination, particularly considering the overall statistically significant attendance difference for the combined cohorts.

In terms of behavior, although a couple of statistically significant differences emerged across cohorts, both exits and persisters showed consistently strong behavior, with neither group for any cohort averaging even a single behavior event per student. Therefore, behavior is a case where even when a significant difference emerges as it did for suspensions in cohort two and behavior events in cohort three, behavior is not a concern for AVID students whether or not they persisted in the program.

To provide additional context, I disaggregated the data for the 125 ex-AVID students who formed the group of AVID exits based on the number of semesters they spent in the AVID program. The disaggregated data appears below:

Table 12

Ex-AVID Student Outcomes by Semesters in AVID

Semesters in AVID	Number of Students	GPA as of 2012-13	2012-13 Attendance	2012-13 Average Suspensions	2012-13 Average Behavior Events
1	17	2.47	92.0	0.12	0.88
2	37	2.55	92.0	0.08	0.46
3	24	2.59	91.5	0.13	0.46
4	20	2.53	89.8	0.15	0.55
5	14	2.34	91.8	0.21	0.36
6	6	2.71	90.0	0.33	0.50
7	7	2.43	79.6	0.00	0.29

This table illustrates that the overall differences between ex-AVID students and AVID persisters are not driven largely by students spending a certain amount of time in the program; instead, outcomes for ex-AVID students are relatively similar regardless of the number of semesters they were enrolled in AVID. The most noticeable exception is among ex-AVID students spending seven semesters in the program before exiting, as these students averaged 79.6% attendance during 2012-13. However, this group consists of only seven students.

To estimate the strength of the estimated effect of AVID exit, I calculated Cohen's d effect sizes for each of the six tested variables. The graph below illustrates the estimated effect size of AVID exit on each of the six tested outcome variables.

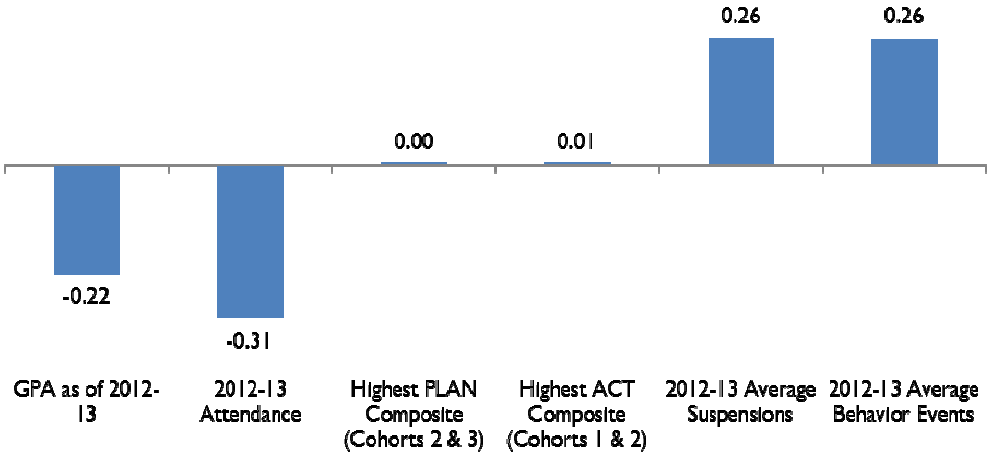

Figure 8. Effect sizes associated with AVID exit. This figure shows the estimated effect size associated with AVID exit on each of the outcome variables tested, measured in terms of standard deviations.

This graph illustrates that AVID exit has the largest impact on attendance, with an estimated negative effect of almost one third of a standard deviation. Exit increases suspensions and behavior by about a quarter of a standard deviation, decreases GPA by slightly more than one fifth of a standard deviation, and has a negligible effect on PLAN and ACT composite scores.

The effect sizes for attendance, behavior, suspensions, and GPA are all considered "small" under the traditional conception of Cohen's d. However, Hill, Bloom, Black, & Lipsey (2008) argue in favor of examining effect sizes in context rather than simply applying Cohen's standard. They present data from meta-analyses in education that illustrate that typical interventions in education lead to effect sizes on achievement ranging between 0.2-0.3. With this context in mind, although the comparison is imperfect, it appears that the negative effect of AVID exit on GPA, attendance, suspensions, and behavior is enough to counteract the effects of an average educational intervention.

Qualitative findings: the Ex-Role and the exit problem. The fifth stage of the role exit process, the Ex-Role, pertains to ex-AVID students' experiences after leaving the program. In

this section, I discuss the qualitative findings connected to this stage, driven by teachers' perceptions of what it means to be an ex-AVID student. In addition, I discuss teachers' thoughts on whether AVID exit is truly a problem in all cases or whether there are situations where exit can be beneficial.

The Ex-Role. The ex-role proved to be a viable concept that was borne out through my interviews, but not in all the ways I expected. I assumed that ex-AVID students would face expectations from members of the school community based on their role as former AVID students. However, it was clear through my interviews that teachers believed they did not, and that "ex-AVID" was not an identity that led to different treatment and perceptions throughout the school. Still, other anticipated elements of the ex-role emerged clearly. In general, teachers believed the role of an ex-AVID student was characterized by an ongoing social connection to former teachers and peers, occasional continuation of essential academic practices, the potential to re-enter the program, continued connection to support and advocates, and a more difficult pathway to future success.

In general, there was little perception among staff that ex-AVID students were viewed or treated any differently by their peers and teachers as a result of leaving the program. As one teacher said,

> I think a lot of teachers probably don't know right away that a kid has been exited. If they do, maybe, you know, they've kind of known that perhaps the kid is struggling in their class. If it's not someone that's struggling in their class, then perhaps they have no idea. We don't really publicize it. You know, their schedule might change. They might just be picking up a study hall, which doesn't really change their schedule. So if the

> teacher doesn't really know, I'm not sure if the student would be broadcasting that in any way that it would make a huge difference.

Other teachers agreed with this idea. Several components of the ex-role were consistent across interviews, but the concept of exit shaping community perceptions of a student was not.

Some teachers indicated that students maintained a connection to the program even after leaving. One stated that "I think [students] still feel a part of our community so they pop in and say hi to all the other kids in the class." Another discussed how AVID elective teachers "open their rooms during lunch and [ex-AVID students] come in and kind of socialize during those times." Some maintained visible ties to the program; one teacher mentioned that she had seen ex-AVID students wearing their AVID t-shirts around school. The extent to which AVID remains part of a student's identity might depend on their time spent in the program, with one teacher suggesting that "students who leave after a semester or maybe after a year, I think, sort of lose that AVID identity." But many ex-AVID students "still want the group, they still want that family, and so AVID is definitely a place in the school where there's safety."

Teachers were mixed on whether ex-AVID students continued essential AVID practices. One described an ex-AVID student she was in regular touch with who "uses some of the AVID system in his own personal way," "tweaking" AVID practices to fit his ex-AVID career. Another talked about how ex-AVID students who exit later in high school "tend to try to do AVID stuff, stay with the binder for organization, try to keep taking Cornell notes and things like that. And their success is kind of a mixed bag." Others questioned whether these practices continued after students left, which is unsurprising given how frequently these practices were cited as reasons that students wanted to leave the program.

To several staff members, a key component of the ex-role was the potential to re-enter the program and how that potential guided students' actions. All teachers discussed the potential of ex-AVID students to return to AVID, particularly those who had been forced to exit the program because their GPA had dropped below a 2.0. Teachers did not describe re-entry as particularly common, which is supported by the quantitative data, but the potential for re-entry was a powerful driver. As one teacher said, "I want to make sure [ex-AVID students] know that this is still a home for them, that we're not jettisoning them to the winds. That it is still an option [to be in AVID], but the ball is in their court." Several teachers said they stressed during the exit process that students could come back, and many laid out plans and requirements upon exit that, if fulfilled, would allow students to return. For example, teachers "might make a contract with [students] that if they can get their grades up in the next term, if they keep doing a binder, if they come and check in with [their teacher] every week, they can reenter the program." "Open door" and "open arms" were terms used to describe AVID teachers' approach to ex-AVID students who demonstrated commitment and success post-exit.

One teacher's sentiment that "whether they leave us or not, we want them to be successful in the future" echoed throughout the interviews. Not all students who left the program were cut off from the benefits they used to enjoy; for instance, one ex-AVID student continued to work with the school's AVID college continuation coordinator, and the open door policy for returning to the program if students improved their grades indicates that an ex-AVID student does not need to stay ex-AVID. Even for ex-AVID students who never returned, "they've built advocates that they can still come back and use for college references or whatever they need."

Teachers generally believe, though, that ex-AVID students faced a more difficult path than they faced while enrolled in the program. One teacher described the ex-role as one that

usually involved a significant decline in academic performance for students who left the program early in their high school careers:

> With younger kids, 9 times out of 10, their grades drop anywhere from a half a point [in GPA] to – we've seen them go all the way down a point, too. Some stay exactly the same. I don't think we've seen a kid yet who's done better once they left us, even the ones who say we're bringing their grades down and we're so hard. Sometimes you see them stay consistent, but more often than that, you see a pretty precipitous drop. And a lot of kids who exit want to come back, because they see that drop, too. Some… have done the "I'm gonna leave" after a semester, sometimes after a week, then they come back and say, "You know what? I do need this. I need someone who's checking up on me. I do need someone questioning me."

Staff also expressed a perception that spending a certain amount of time in the program led to benefits whether or not a student exited, with a particular thought that three years in the program yielded the most benefits. As one teacher said,

> By junior year they've really for the most part bought in and they understand the program and they're doing it on their own. Whereas freshman and sophomore year you're really spoon-feeding them, you're really pushing them, you're really checking in constantly. So I think if they can make it to that third year, they at least have the ability to self-advocate and to continue the skills on their own, whatever the reason for exit may be.

Another indicated that "there seems to be a real increase in students' achievement once they're in the program for three years. We're not quite sure yet if it's junior year or if it's just a third year… But now the data is also kind of confirming what I kind of thought, right? That there is some

long-term benefit from being in the program in a prolonged way." For these staff, then, students' experience in the ex-role varied based on their length of exposure to the program.

Overall, being ex-AVID conforms to Ebaugh's theory of the ex-role. In various ways, AVID continues to shape and define ex-AVID students after they exit. According to the teachers I interviewed, the ex-AVID role does not appear to come with an obvious label or identity implications that define how students are perceived by their peers and teachers. But ex-AVID students retain aspects of AVID as part of their identity, whether academic (like using Cornell notes or binders) or social (like continuing to visit the AVID classroom or even wearing an AVID t-shirt).

When exit is and isn't a problem. Near the end of each interview, I asked staff to reflect on whether, on the whole, AVID exit was a bad thing. Interviewees generally felt that AVID exit was something that should be avoided and spoke to their efforts to keep students in the program. They believed that ex-AVID students struggled academically and socially and that many declined significantly after leaving the program. However, there was nearly a universal consensus that in some cases, exit was the right thing for the student and might not hinder them in the future.

Teachers generally believed that students experienced both social and academic struggles upon leaving AVID. From a social standpoint, they believed that being removed from the AVID community was detrimental. As one teacher said, "there's just a sense of community and family and I think that's the hardest part for kids when they either choose to exit or are forced to exit… is that they're leaving that support system." Another said that ex-AVID students "might still be friends with [AVID students], but they don't have that daily involvement with that family like they would when they were in AVID." In addition, they believed that students' grades declined

post-exit. The first-stage code of "struggling" emerged throughout conversations about what happens to ex-AVID students, with teachers saying that "academically, there's no doubt [exit] is bad for kids" and "9 and a half times out of 10, people who leave AVID, their grades get worse."

However, as mentioned earlier, staff described many situations where exit could be, if not beneficial for the student, at least not particularly harmful. These situations involved self-exits by students who showed the motivation to pursue different opportunities and use the skills they learned in AVID to move on to new challenges. One teacher said "I'd feel really happy if they all were self-exiting because then they do have the determination, they know what they want, they know where they're going. They maybe don't need that smaller community that our AVID teachers create." Another described how students leaving for certain academic reasons likely were not a problem:

> We get those kids, too, that you know, they just said, "I'm really fine without it. I have these skills already." Or "I really needed help with organization, but now that I've had it for a year, I'm good. I'm solid. I'm out. I didn't need all the rest of it. What I did need, I got out of it what I could, and I'm gone." And that's a lot of times what happens kinda with our music. And if it's an AP issue, then obviously they're okay. And they probably at that point have gotten out of it what they were gonna get out of it, too. But as far as the music or the art – that goes, they're in a good place for them without us, probably.

Multiple teachers discussed students who were "ready to… tackle those next steps on their own," including one student whose time in AVID gave him the confidence to achieve great things after exiting:

> He has a 4.0 [GPA], full ride to UW, amazing kid. He needed AVID his freshman and sophomore year, not for the academic, he needed it for the social [aspect] and I think

> through AVID he gained confidence. He found his feet. It was a great thing that he exited, I think. I think he was so far ahead of many of my students; he really was our upper-cut of the kids we took in as a freshman… he needed to go and experience what else [the school] could offer him.

The idea that post-exit success depended on the reasons students left appeared throughout the interviews: "The ones who really leave because of scheduling I think really knew where they were going or know at that point where exactly they're going and they know how to get there and jump through all those hoops, or feel they do… those are the ones that have moved onto graduation."

Another teacher felt, though, that students don't choose to move on from the program for any reason if they've built a strong connection to their teacher:

> I feel like when a student is connected to the teacher they don't make that determination. There are very few students who say, "Oh, I really like this class. I really feel connected to the teacher and the class but I got what I needed and I'm going to move on"… [those] are students who, for some reason, could not make or didn't make that connection as strongly as others.

In addition, in some cases, exit might not be beneficial for the student who exits but might be beneficial for other students participating in the program. One teacher spoke of a student who did not feel she belonged in AVID, which "led to a lot of pretty toxic and destructive behaviors for the classroom, for herself, for the tutors, for the teachers… it was coming at the expense of everybody else." This teacher moved on to describe other behavioral issues and their effect on the AVID community:

> So that's tricky as a classroom teacher, because you've got to take control of that, right? And who's going to have power in your classroom? Is it going to be the kids that want to go onto post-secondary options or is it going to be the kids who are going to just spin their wheels and make a mockery of that? I think that probably happens in every other classroom-- who's going to win out, right? The kids who want it and the kids who just don't even know what that is. I think you kind of come to a head and I think that happens junior year, kind of that transition from sophomore to junior year.
>
> I did have a few students question like, "I don't know if I want this anymore, because we have six kids in here who just aren't taking it seriously," and that bothered them. So we worked through it. And the tide has turned you know where I'd say I've got 75 percent truly onboard I would say, genuinely. You still have some outliers where… I still feel like they waver from day-to-day about what they want to do with themselves.

One teacher who was among the first in the district to teach AVID explained why, from her perspective, exits were not problematic:

> Actually, I don't see [exit] as harmful like a lot of other people do. To me, what I've gained from this program, one of the things I've gained from it, and I have gained many, but one of the things that I gained is basically what it's doing is it's putting college on an accelerated path to find out if you really are serious about going to college. Now it's really easy to say, "I want to go to college," but it's much harder to actually do what you need to do prepare to succeed there. So, to me, it just accelerates that realization. So, if they're not in AVID, they go through all of high school, they take the bare minimum to

> get accepted to college, they get accepted, and they find out there's no way they're gonna survive.
>
> Kids find that out in AVID in high school if they're willing to put in that amount of time and effort to actually prepare themselves to succeed. I don't really see it as a detriment. I think it's a reality check for some kids, that they have to figure out, "What do I really want in life?" And I'm not saying everybody should want to go to a four-year college, because it's not for everybody.

This teacher explained further that even though exiting students is emotionally difficult, it is necessary to maintain the best possible program.

> I think that, for the integrity of the program, you have to exit kids that aren't meeting the requirements of that program. I don't think that it's fair to the kids who are in there that are doing the right thing if we just let kids stay in who aren't doing the right thing. And I also think that it's more patronizing them than to really show them this is for real, this is what you have to do to be considered an AVID student. And it doesn't do them any good if we let them get away with things or not hold up their end of the bargain or be accountable for their grades, because they aren't gonna make it through their freshman year if they aren't prepared.
>
> I just think that it has to be part of it, and nobody wants to do that…It's not fun. It doesn't feel good. You develop relationships with these kids, and you see potential in them.

> But I've also realized after a number of years that there are some kids that just shouldn't be in the program, simple as that, and that it's probably best for everyone that they do exit. Tugs at your heart, though. It really does, especially kids that you know you've put a lot of extra time and effort in, and that it just didn't seem to pay off by them doing what needs to be done to stay in the program.

Another teacher expressed similar ideas, saying that "a good portion is about individual determination. And if you don't have it, despite our efforts to teach it and coddle it, it's hard to feel like it's a terrible thing for those students." A third understood why the program does not like to exit students for academic reasons but wondered about the implications of not providing consequences for students who do not meet expectations. The potential for exit also may serve as a motivating factor for students. Two teachers expressed this idea, with one discussing a student for whom exiting "was probably a good thing, because it's making him work harder, more up to his potential, and he wants to come back." Across the district, it is clear that AVID students have ample supports and many factors working to help them avoid exit. But personal responsibility matters, and there is a point at which students are held accountable for their actions, which might mean being exited from the program.

Another of the district's first AVID teachers talked about the unintended consequences of the program and how in some cases, participation was restrictive:

> I guess in some ways, that's the bad part of AVID, right? There's a lot of jobs and careers that they don't get to explore in high school because they're doing AVID, which is really great for getting into college, but if you want to be an artist, and art is your love, and that's what you want to do in your future, we'll get you into that college where you can pursue art, but we don't give you a lot of time in high school to do that. Same thing

> with music. I mean, we get 'em into the college where they can then pursue it, but we don't give 'em time in here to pursue it. So there's a lot of – I mean, that's a flaw in the system. Well, I mean it's a flaw in a seven-period day, right? I mean, if you had an eight or nine period day, well, then, they could do whatever. But that's the problem, so all those careers – the woodworking, metals, all those career areas, they don't really get to explore, which is unfortunate. It's not AVID's fault. I mean, AVID nationally would probably say it's a good thing to have those things, too, but it's a scheduling problem.

Interpretation of findings on the effects of exit. The primary focus of this section was to answer the research question:

- What are the academic and behavioral outcomes for ex-AVID students compared to similar peers who remain in the program?

The quantitative evidence points to a likely negative effect of AVID exit on attendance and GPA, with a concomitant increase in suspensions and behavior referrals due to exit. Still, these effects are relatively small, with the outcome most strongly affected by exit (attendance) showing an effect of less than a third of a standard deviation. Both quantitative and qualitative evidence suggest that many ex-AVID students achieve success post-exit. Therefore, although AVID exit appears to have a negative effect on some variables, we should not look at AVID exit as a moment that likely portends a large decline in student performance, nor should we assume that exit will be harmful in all cases.

We should consider whether the high AVID exit rates identified in this study truly are problematic or whether an exit rate of 50% or more should be accepted as a reality of the program. This is worth considering in light of not only the small observed negative effects of

exit, but also other findings that emerged from the data. After all, there is no guarantee that the program's benefits would be maintained if fewer students were exited, especially given the many stories from teachers. For instance, I presented graduation rates and GPAs for the first full cohort of AVID students, disaggregated by semesters spent in the program. Although students spending more time in the program did better than those spending less time, even students with only one semester in AVID graduated at rates above the district average, which is particularly remarkable given that AVID is largely made up of students from groups who graduate at below-average rates. This suggests that perhaps some AVID participation is better than no participation, and that any exposure to the program might lead to positive results. Granted, proving this point through quantitative measures is beyond the scope of this study, but the benefits of AVID participation stated throughout my interviews suggest that even short-term participants could benefit.

Therefore, if we operate under the assumption that some AVID exposure is better than none, then a high exit rate offers not just a challenge, but a unique opportunity: the ability to expose more students to the program. In theory, assuming that AVID has demand beyond the available spots, and that some students who do not participate would be willing to do so, every ex-AVID student could be replaced with a new student who could then be exposed to AVID and receive the associated benefits. Of course, it would be a mistake to assume that the program would be just as beneficial if students cycled in and out of the program in this manner, particularly given the widespread discussion about the benefits of the AVID community and consistent peer group. But at the same time, students' AVID peer group already is not as consistent as teachers suggest. If it is possible to run an AVID program with an exit rate of 50% or more that is, by all appearances, successful, then perhaps refreshing students into the program more regularly would not harm the program's success.

Another reason that an exit rate of 50% or higher might not be a problem is that teachers could identify many situations where exit was beneficial, or at least not harmful, including students who had a great experience in the program and gained a lot of new skills, making them ready to move on to a new challenge. In theory, these cases will be more and more common if the AVID program in this district continues improving in quality. If so, could a high exit rate become not an area of concern, but a signal of quality, as students gain skills efficiently and no longer need the extra support?

If exit is beneficial in some cases, especially to maintain the cohesion or integrity of the program, it is worth considering whether there is such a thing as an "ideal" exit rate. This question would not be impossible to research given an adequately robust set of data on AVID programs across the country, as a researcher could look at measured effects of each program relative to program exit rates to see how results and exits covary. As I have discussed at length, though, the paucity of high-quality quantitative research on AVID makes such an endeavor nearly impossible at this juncture, especially given the lack of transparency of exit rates nationwide. In the long term, this question is worthy of examination, perhaps for a researcher who can gain access to data on a large set of AVID programs. But in the short term, an "ideal" exit rate must be viewed as whatever each local AVID program finds acceptable given their context. If a program seems highly successful with a 50% exit rate, can we really say with any confidence that exits from that program are too high?

Based on my interviews, teachers believed that students experienced significant academic struggles post-exit. However, the quantitative data does not confirm that idea, with only a small observed effect of exit on GPA, no observed effect on EPAS scores, and evidence that high- and middle-performing exits had only small GPA decreases post-exit while low-performing exits

improved their grades post-exit. I do not believe this is because teachers have inaccurate information about what happens to their students post-exit; teachers in this district have access to large amount of on-demand data on their students, so it is extremely unlikely that they could have data-driven misconceptions.

Why, then, do teachers seem to have a perception of the negative effects of exit that goes beyond the reality indicated in the quantitative data? I would suggest that teachers are not thinking about the full spectrum of exits when they think about post-exit outcomes. I would also suggest that their perceptions of post-exit outcomes are driven largely by anecdotal evidence rather than a review of the data around exit. In short, individual cases where students experience substantial struggle likely make more of an impression than cases where students remain roughly steady in their performance or even improve. As a result, the struggling students are the first that come to mind when thinking about ex-AVID students, creating a narrative of substantial struggle that, on average, does not appear to be confirmed by the quantitative data.

On the other hand, perhaps the kinds of negative outcomes teachers are talking about when they refer to struggling ex-AVID students do not lend themselves to easy quantification or appear in variables we tend to measure when discussing student performance. Teachers described exit as leading to significant declines in GPA, which is not confirmed by the data. But perhaps ex-AVID students experience social/emotional struggles that do not necessarily lead to poor academic performance but affect the student's overall well-being.

The strongest observed effect of exit, although still small, pertained to attendance. In the absence of a better measure, perhaps decreased attendance reflects social disengagement which, even when GPA effects are not significantly negative and standardized test score effects are negligible, means that AVID exit truly does harm students in ways we are not measuring. Again,

no currently available data allows us to test this idea, but perhaps the effects of exit truly are substantial and would emerge through explicit research into students' social/emotional outcomes post-exit.

Summary

The causes of exit. Altogether, the quantitative evidence indicates that student exit is common, with an attrition rate of about 60% for the first full cohort of AVID students in this district from the start of high school through their fourth year. Most students exit after their first or second semester in the program. AVID exits and persisters look very similar demographically, and demographic characteristics do not appear to be strong predictors of student exit. Instead, freshman year GPA and attendance are the strongest quantitative predictors of exit.

Through a series of interviews with nine AVID teachers, I asked questions about the role exit process and the factors that appear to contribute to student exit. When describing the role exit process, teachers did not identify demographic factors as contributing to role exit, nor did they identify any other easily observed and quantified factors other than engagement and academic issues. This supports the quantitative data, which also did not reveal meaningful relationships between demographic characteristics and the likelihood of exit.

Teacher's descriptions of the role exit process fit into four themes inspired by Ebaugh's role exit theory: experiencing doubts, seeking alternatives, community inclusion/exclusion, and turning points. During the first stage, experiencing doubts, teachers believed that students who exited struggled to buy in to the program and doubted whether the program was right for them, sometimes because of misplaced expectations about what AVID was. Students who exited also doubted whether AVID was really beneficial to them, especially given the additional work

required by the program. Some also questioned whether AVID would lower their grades rather than help them.

During the seeking alternatives phase, teachers described many students taking actions that seemed to be most closely linked to their final decision to exit the program. Scheduling was a common theme, as scheduling issues prevented students from taking other classes in which they had interest. In particular, students often had to choose between AVID and art, music, and Advanced Placement courses. Some students also exited because they developed alternative postsecondary plans for which AVID was no longer a good fit.

Community inclusion/exclusion was a clear theme, as the AVID community was a commonly cited reason for student persistence. In particular, teachers used words like “family” and “safe” to describe the program. Community exclusion was not identified as a key reason for student exit, but in some cases, teachers pointed to specific students who left because of a failure to fit in or because of personality conflicts with teachers.

The turning points phase showed the weakest alignment with Ebaugh’s role exit theory. Teachers did not point to specific moments when they knew students would leave the program, which would have fit with Ebaugh’s conception of a “turning point.” Instead, they believed the exit process was gradual and largely predictable. The close relationships between students and teachers and regular academic check-ins emerged as reasons that AVID exit might be particularly easy to foresee.

The effects of exit. After looking at descriptive statistics for different types of AVID exits, as well as using more advanced quasi-experimental methods to attempt to isolate the impact of AVID exit on achievement and attendance, a clear pattern emerges that AVID exit does not appear to have a large impact on achievement, at least when measured by GPA and

standardized test scores. High- and middle-performing exits tended to see their grades drop slightly immediately after leaving the program, while low-performing exits tended to see their grades increase slightly. Among matched samples of exits and persisters, two of three cohorts showed no statistically significant difference in GPA, and the combined groups of all three cohorts showed a difference of about 0.1 that was only statistically significant at 90%. The estimated effect size of AVID exit on GPA was -0.22, typically considered "small." Meanwhile, the effect on standardized test scores was negligible.

However, AVID exit does appear to have a more significant impact on attendance, suspensions, and behavior. In particular, the impact of AVID exit on attendance is robust across multiple methods. High-, middle-, and low-performing AVID exits all had lower attendance in their first-year post-AVID relative to their last year in the program. In addition, the groups of AVID exits and AVID persisters created through PSM exhibited noticeable differences in attendance during the 2012-13 academic year for two of three cohorts tested and for the combined group of all three cohorts. Among the combined group, ex-AVID students attended about five fewer days of school than their similar peers who persisted, an entire week of instruction. Taken together, the quantitative evidence suggests that ex-AVID students are likely to attend school less frequently after leaving the program. In addition, there is some evidence that ex-AVID students have higher suspensions and behavior events, but negative behaviors appear very uncommon for both ex-AVID students and persisters. The estimated effect sizes of exit on behavior and attendance were larger than that for GPA, ranging between 0.25-0.31, but still within the range typically considered small.

Meanwhile, the qualitative evidence on exit revealed that teachers believed the role of an ex-AVID student was characterized by academic and social struggles overall, an ongoing social

connection to former teachers and peers, occasional continuation of essential academic practices, and the potential to re-enter the program. Teachers believed that students experienced significant academic challenges post-exit and that students' grades dropped significantly after leaving the program, although the quantitative data suggests this is not the case. Teachers did point to social struggles for ex-AVID students as well, which aligns with the declines in attendance and increased negative behaviors identified as likely effects of AVID exit. Teachers believed that ex-AVID students sometimes continued essential AVID practices like keeping a binder and using Cornell notes, but their use and fidelity varied. They also believed that ex-AVID students kept some social connections to their AVID teachers and peers, who could continue to serve as their advocates and provide them with mutual support. Finally, for many ex-AVID students, the potential to re-enter the program guided their actions and outcomes post-exit, with some successfully returning to and succeeding in AVID post-exit, although this was relatively rare.

When asked whether AVID exit is a problem that should be avoided whenever possible, teachers generally agreed that exit was bad for students but that there were many cases where exit was acceptable and even beneficial. For example, some students had tremendous success post-exit because they had gained the skills they needed from AVID and were ready to move on to new challenges. Some exits helped preserve the social harmony of the AVID "family," as disruptive students and students who did not buy into the program could have negative effects on other participants. Other exits happened when students realized that they no longer wanted to attend a four-year college, so they decided to pursue other opportunities better tailored to their future plans. Finally, some teachers suggested that AVID exit maintains the integrity of the program, providing consequences for students who do not meet expectations and offering motivation for students to work hard.

Chapter Five: Discussion, Implications, and Future Research

Discussion

My research illustrates areas where AVID exit aligns with what we know about high school dropout, even though AVID exit is a very different phenomenon. The turning points phase of Ebaugh's role exit theory had the least support from my qualitative data, since teachers believed that AVID exit was a long and largely predictable process. Although this belief did not conform well to Ebaugh's research, it does align with Alexander, Entwisle, and Horsey's (1997) description of high school dropout as "the culmination of a long-term process of academic disengagement" (p. 87). In this sense, AVID exit conforms to a well-established idea about high school dropout. Burrus & Roberts (2012) mention poor attendance and poor grades as predictors of dropout, and these variables emerged as predictors of AVID exit as well.

However, although lower freshman year attendance rates and grades were predictive of exit, it would be a mistake to characterize exits as poor academic performers. I showed that a sizeable population of ex-AVID students performed well prior to exit. Low grades may predict exit, but students with high grades exit, too. In addition, even ex-AVID students who spend only a semester in the program graduated at higher rates than the district average, which is especially notable given the large share of AVID students who belong to groups with historically low graduation rates. Therefore, ex-AVID students are unlike high school dropouts, because high-performing high school dropouts are likely exceedingly rare, while high-performing AVID exits are not.

In addition, demographic characteristics typically associated with higher high school dropout rates do not appear to predict AVID exit in the same way. Research on high school dropout shows that demographic characteristics are a consistent predictor of dropout, and we

know that students from certain groups drop out at much higher rates (Cataldi, Laird, & KewalRamani, 2009; Rumberger, 1983). Burrus & Roberts (2012) identify a set of factors associated with increased risk of high school dropout, which includes being male or a member of a racial or ethnic minority group. But my research shows that among the population I studied, the demographic characteristics of AVID exits were largely similar to those of AVID persisters, with males and nonwhite students not overrepresented in the group of AVID exits. In addition, demographic characteristics were not a significant predictor of exit when controlling for freshman year attendance and achievement.

Tinto's (1975) model of college dropout aligns well with my findings. Tinto mentioned that college dropout could occur when students believe another investment of time and money might be more efficient. Similarly, teachers believed some AVID students exited because AVID did not seem like the best use of their limited time in school. In addition, Tinto discussed how some college dropouts may have been satisfied with their college experience but still chose to drop out, just as my data indicated that some AVID students exit the program despite being satisfied. Tinto also focuses on a failure to integrate which was evident in descriptions of some AVID exits.

It appears that AVID exit conforms more closely to what we know about college dropout than what we know about high school dropout. This is unsurprising, as AVID participation and postsecondary education are both optional, while high school attendance is compulsory (at least until a certain age). But even Tinto's model of college dropout does not explain AVID exit as tightly as Ebaugh's role exit theory, and both my quantitative and qualitative evidence show that AVID exit is not as damaging as high school or college dropout, nor is it necessarily viewed with the same negative social stigma. Therefore, when thinking about whether theories of high school

and college dropout explain AVID exit, the best answer I can give is “somewhat, but we can do better.”

My attempt to do better was to fit AVID exit to a modified version of Ebaugh’s role exit theory, which originated outside of education and has been applied in K-12 education in only a limited fashion, if at all. Overall, this was highly successful, and I believe my work supports the applicability of Ebaugh’s role exit theory in an educational context. Although the fit is not perfect, particularly regarding the “turning points” phase, it is remarkable how well teachers’ descriptions of student exit fit a model that has proven to be robust in a variety of contexts but not yet in K-12 education. The fact that a model inspired by the experience of nuns leaving the convent seems to apply to high school students leaving a program designed to prepare them for college suggests that regardless of the situation and context, when we leave a role, we share a common experience with others transitioning out of roles.

Still, part of the reason that Ebaugh’s theory (and Tinto’s dropout model, to a lesser extent) appear so applicable to AVID exit is that they are broad enough to be applicable to a variety of situations. This is not a criticism of these models, as any model that seeks to be explanatory across a variety of situations will be necessarily simplistic, with significant flexibility and generous parameters. Instead, I mention the broadness of these models to argue that the success of these models in explaining AVID exit is, although interesting, not particularly surprising.

Research on AVID exit is nearly nonexistent, so the extent to which my research builds directly on other AVID studies is limited. Still, my work provides further evidence supporting several emerging themes in the AVID literature. For one, I have provided a further example of what AVID attrition rates can look like. Other AVID studies reporting attrition rates showed that

attrition near or exceeding 50% is not uncommon (AVID, 2012a ; Cox, 2008; Lougee & Baenen, 2008; Marchand et al., 2007; Social Research and Demonstration Corporation, 2010; Watt, Yanez, & Cossio, 2002; Whitaker, 2005). My study showed an attrition rate of just above 60% for the first full cohort from the beginning to the end of high school, and an attrition rate above 50% for the second full cohort, with a year of high school remaining for this cohort during which more students may yet exit.

In addition, qualitative evidence provided support for many benefits of AVID identified in prior research. For instance, scholars like McKenna (2011), Ward (2008), and Stanton-Salazar (2001) identified the role of AVID in increasing students' cultural capital. Although the teachers I interviewed never invoked that term, their descriptions of teaching students about "hidden curriculum," how to apply for college, and how to ask effective questions clearly indicated a transfer of the cultural capital to encourage postsecondary success. Nguyen's (2011) finding that AVID participation helped students gain confidence and academic self-efficacy was echoed by my study participants as well. Tabor (2010, p. 15) described AVID students as behaving "like a family or club within the school;" the term "family" also was used throughout my interviews. Finally, the Social Research and Demonstration Corporation (2010) discussed how AVID participation improved students' sense of belonging -- another clear theme in my interviews. Although the focus of my study was not to isolate the benefits of AVID, I collected additional evidence to support the commonly held notion of AVID as a program with a strong community that helps students gain cultural capital and build stronger relationships.

I also provide additional evidence that AVID leads to scheduling complications. The Social Research and Demonstration Corporation (2010) showed that AVID elective enrollment came at the expense of fine arts and "applied skills" coursework. Watt et al. (2008) also

identified scheduling as a reason that students exit AVID, in the only other study focused on student exit. Scheduling issues were a consistent theme in my qualitative data, with particular attention paid to conflicts between AVID and fine arts courses. Although it is intuitive that students taking the AVID elective course would naturally have more trouble finding room for other electives, we need to be conscious of this fact and its effect on the program.

As discussed earlier, the quantitative research base on the effects of AVID is exceedingly limited. As such, although my study was designed to investigate the causes and effects of exit rather than evaluate the impact of the program in this district, it still offers some compelling pieces of quantitative evidence that contribute to the research base on the effect of AVID. I showed relatively high graduation rates for the first full AVID cohort for even students with limited exposure to the program, which, although far from causal, is a promising piece of data. In addition, I showed that exit appears to have a measurable and significant effect on attendance and the frequency of negative behaviors, and a possible effect on grade point average as well. Showing that exit, on average, led to negative outcomes in some areas is very different than saying that AVID participation causes positive outcomes. But the areas where I identified the strongest average effect of exit are some of the same areas where AVID has been shown to have a positive effect (Wisconsin Center for the Advancement of Postsecondary Education, 2013).

Still, the strongest contribution of this piece to the AVID literature base is the conclusion that exit is not necessarily problematic and can, in many cases, be beneficial. Watt, Johnston, Huerta, Mendiola, and Alkan (2008) are the only authors to focus explicitly on AVID exit. In their research, they reached the conclusion that “students drop AVID because of a lack of individual determination. If the AVID student believes that success is possible, the student continues to participate. If the student believes that success is not possible, the student eventually

drops out" (Watt et al., 2008, p. 35). Through my study, I have shown that this is a massive and troubling oversimplification of a complicated issue. Although a couple of my study participants did invoke the idea of individual determination, saying that this factor explains exit and persistence decisions ignores the myriad reasons for exit that emerged through my work, many of which have little to do with students' "determination." AVID exit is complicated and multifaceted. We are doing both ex-AVID students and the AVID program itself a disservice when we dismiss exited students as lacking determination, rather than acknowledging that they may exit the program to pursue other opportunities or to gain skills that are a better fit for their future; that they may be asked to exit to maintain the harmony or integrity of the program; and that some exhibit *so much determination* that they choose to exit AVID to pursue even more challenging coursework. My findings lead me to disagree strongly with Watt et al., and to hope that their characterization of AVID exit has not gained significant traction.

The ex-AVID student is not a failure, and the ex-AVID student will not necessarily decline after exiting the program. Many are extremely successful both pre- and post-exit, and the absence of research on these students (who may account for half or more of the students who ever participate in AVID) limits our understanding of the AVID program. This study has taken an important step in illuminating the causes and effects of AVID exit, as well as illustrating exactly why we should pay greater attention to exits. It is my hope that the literature base, not just on AVID, but on other similar programs and other educational interventions overall, expands to include a more nuanced treatment of why students sometimes choose to stop pursing a particular course and what happens after they do so.

Implications

One obvious quantitative finding is that exit rates from this AVID program are high, with an exit rate of about 60% for the first full cohort that progressed through to graduation. Exit rates appear lower for subsequent cohorts, and a large portion of this attrition likely comes from students moving as opposed to students choosing or being asked to leave the program. But it is still clear that exit is a sizeable part of the program, and that expecting a cohort of AVID freshman to remain roughly intact until graduation would be a mistake, even among those students who remain enrolled at their school.

My finding of high exit rates fits in with other AVID studies that have presented exit rates, providing more evidence that AVID exit is relatively common and can be expected. Therefore, it is troubling that so little AVID research has dealt with exit, and that available quantitative data from AVID glosses over exit rates. To be fair, it may be unrealistic to suggest that the AVID program should publish data on its exit rates, given that AVID has a commercial element and discussion of high exit rates could imply that the program is ineffective.

I suggest that data from large-scale AVID evaluations and from the national AVID program should include information on exits, though, particularly because my study has helped show how exit does not necessarily constitute failure by the program or student, nor does it necessarily predict failure post-exit. In fact, I would argue that all college access and academic enrichment programs could benefit from further discussion of exits. When we evaluate and present data on programs with high exit rates by looking only at students who remain in the program, we provide an incomplete picture of the program's effects. If an evaluation shows positive results for persisting students, but we know that many students do not persist, we should

be hesitant in our certainty that the program "works." Selection bias affects our findings not just when students decide to enter the program, but also when they decide to stay.

Just as reporting only on persisting students might conceal program struggles, though, it also might obscure successes. For example, my interviews with AVID staff revealed stories of students achieving great success post-exit. Disaggregating graduation rates by time spent in the program showed that students who participated for as little as one semester showed graduation rates above the district average, which is particularly remarkable considering the demographic makeup of the AVID program. I have presented ample evidence that AVID exit does not necessarily portend failure, and I would encourage AVID programs and evaluators alike to embrace the data around exits, which can help provide a much more nuanced look at the impact of a program.

In addition, my study revealed that re-entry into the AVID program is not particularly common but does occur, and that even students who are no longer participating in the program sometimes maintain a connection to certain elements and may even still be in regular contact with their AVID teacher. Given that AVID exit is not permanent and that students who exit the program are not always entirely cut off, perhaps it is appropriate to consider ex-AVID students not just in presentations of program data, but in terms of practice within schools. Once students are admitted to AVID, could schools make a four-year commitment to their success whether or not they remain enrolled in the AVID elective? Could ex-AVID students receive some of the same benefits as students persisting in the program on a more formal basis? Could the students I define as "ex-AVID" instead be considered AVID students, but with a lower level of involvement because they are no longer enrolled in the elective class? I pose these ideas as questions and not as recommendations because they may be infeasible, creating a system where

students have no incentive to remain enrolled in the AVID elective if they can still receive many of the same benefits when no longer enrolled. In addition, some students are exited because their presence is potentially damaging to the program, so it is difficult to argue that these students should still be part of the very community that they may have endangered. But the way programs like AVID conceive of who is and who is not an "AVID student" has significant implications for policy and practice, and if some of who I have defined as ex-AVID students could maintain a formal and official connection to the program, perhaps the post-AVID struggles that teachers perceived could be lessened.

As discussed earlier, a high exit rate alone does not necessarily mean something is wrong; instead, we must reflect on whether high exit is really a problem. If programs do view exit as a problem, then we should be concerned about anticipating exit and taking steps to avoid it whenever possible. When looking at the quantitative factors that appear to predict AVID exit, it is telling that demographic characteristics appear to play a minimal role when controlling for freshman year achievement and attendance. Even when looking at simple descriptive statistics on demographics, we see that on the whole, AVID exits look a lot like AVID persisters. This implies that this particular AVID program is not struggling to retain students with certain demographic characteristics, although this trend may not hold nationwide. Meanwhile, low grades during freshman year do appear to predict student exit, which is an intuitive conclusion considering that students can be forcibly exited from the program for poor academic performance. Low freshman year attendance also predicts student exit; again, not a surprising finding. But the absence of demographic effects in models featuring GPA and attendance shows that demographics have no quantifiable predictive impact on exit beyond the influence they already have on grades and attendance.

More illuminating, though, is the overall trend staff described of exit being something they could see coming far in advance of when it actually happened. There was little qualitative evidence to support the Turning Points stage of Ebaugh's role exit theory, as exit appeared to be something that hinged less on a singular event and more on a gradual process of disengagement, whether due to academic struggle or the desire to seek other opportunities. If we believe that exit is something that should be avoided in programs like AVID, then it is important to consider that exit does not appear to be an unforeseeable event (with the notable exception of students moving to another school), but rather something we can see coming based on a set of warning signs and intervene early to prevent. It is clear that the district where I conducted my research is taking steps in that direction.

But agreeing that exit is a negative event that we should strive to avoid is not as simple as it appears. The results of the PSM procedure found no significant effect of exit on EPAS test scores and only a small effect on GPA, which was significant only at 90% confidence. Yes, students who exit may not exhibit a noticeable decline in GPA on aggregate because they are enrolling in easier courses. But course difficulty is highly subjective and contextual, and AVID students enjoy academic supports that should decrease the relative difficulty of their advanced coursework, so it is difficult to dismiss the evidence around GPA for this reason. In addition, it is easy to criticize the validity of standardized test results, but the EPAS suite is designed to test students' college readiness, and because a major goal of the AVID program is to prepare students for college, EPAS scores are a convincing source of evidence.

Through my qualitative evidence, my findings directly challenge the idea that AVID exit should be avoided whenever possible. Staff had no trouble identifying situations where exit was beneficial. From students choosing to join the military, to choosing to take an additional AP

class, to simply being ready to move on from AVID after acquiring skills and confidence, there are many situations where it would be very difficult to label a student leaving AVID as a failure. Nor is it fair to say that ex-AVID students exited because of a lack of determination, as the sparse previous research on exit suggests. In some cases, this is likely true, and this idea was present during my interviews. But the preponderance of evidence suggests a wide variety of productive reasons for exit. Some of these reasons extend beyond the individual, including exits to maintain the harmony of the "AVID family," exits as a motivating factor to encourage students to perform, and exits as a way to maintain the integrity of the program. There is so much more nuance to the phenomenon of exit that even my more extensive study only begins to scratch the surface, so ascribing exit to any one factor would be overly reductive.

If we accept, as I suggest, that program exit can be okay and even beneficial, we should reflect on whether there is an "ideal" exit rate for college access or academic enrichment programs, above which we should be concerned about the success of the program. Identifying an ideal exit rate that could apply across programs seems like an impossible undertaking, as program goals, context, and selection practices surely vary in meaningful ways. But individual AVID programs and other similar programs could work to determine a target exit rate that fits their program's goals and then track exit rates relative to that target. It is difficult to provide guidance on what that rate should be, other than to suggest that it should be meaningfully higher than 0%, knowing that there can be many good reasons for exit. In addition, as I suggested earlier, depending on whether AVID programs believe even short exposure can lead to great benefits, a higher exit rate offers an opportunity to expose more students to the program. Exiting a program like AVID is not the same as dropping out of high school, so targeting 100% retention just as schools might (aspirationally) target 100% graduation does not seem appropriate.

I would not go so far as to suggest that exit does not have an effect, though, and that high exit rates should not trigger additional thought. The quantitative evidence shows that AVID exit appears to impact student attendance and behavior, and because attendance and behavior often are viewed as a strong indicator of student engagement, it is reasonable to suggest that students leaving AVID disengage from their educational experience. Based on the combined analysis of all three cohorts for which I created matched samples of AVID exits and persisters, AVID exit appeared to lead to a drop in attendance of about 5 school days during the 2012-13 school year, which corresponds to dozens of hours of lost instruction. In addition, exits and persisters showed differences in behavior, with exits exhibiting higher suspensions and behavior events during 2012-13. For both groups, negative behaviors were uncommon, but is still worth noting that exits were suspended and had recorded behavior events more than twice as often as persisters.

What is impossible to ascertain from the quantitative data is whether students exiting AVID disengaged as a result of their exit from the program, or whether their exit was merely a step along a path of disengagement that began while they were still in the program. Thus, it is possible that AVID exit is not a causal factor for disengagement, but instead merely a quantitative proxy that indicates a broader disengagement process happening independently of the program.

When thinking about college access or academic enrichment programs with some record of success, where there exists evidence that students experience negative outcomes after leaving the program, we must consider whether it is truly leaving the program that leads to these negative results. If a student is beginning the disengagement process before they leave a program, will working to keep them in the program reverse or slow their disengagement? In some cases, the answer is almost certainly yes; if the program is beneficial, then continuing to

participate should lead to better outcomes than exiting. But in other cases, depending on the causes of disengagement and other factors in a student's life, simply remaining as a part of a program might make little difference in their future career as a student and beyond.

The quantitative effect of exit on student performance appears to be minimal, at least for many of the variables measured in this study. Therefore, perhaps it is not student exit that is a problem, but rather students not spending enough time enrolled in the program. In this study, I presented graduation rates and grade point averages for the first full cohort of AVID students disaggregated by the number of semesters they spent in AVID. The higher graduation rates and grades for students with more semesters in AVID suggest that this issue is worthy of further examination. In particular, it appears that students spending six or more semesters in AVID had the best outcomes, but that there was little difference between students spending six, seven, and eight semesters in the program. If this pattern holds for future cohorts or across AVID programs, then perhaps program staff should consider three years in AVID as the bar that AVID students should plan to cross.

Overall, though, evidence from the qualitative data might offer insight into why the effect of exit can be observed for behavioral variables but not clearly for academic variables. Early in each interview, I asked staff about what students gain from being a part of the AVID program. Without fail, staff talked about a sense of community and belonging, describing how much it meant to these students to be part of a supportive group that is striving for the same goals. Staff did also discuss academic benefits, study skills, and college preparation, but it is almost as if these benefits were positive side effects of being part of such a strong community rather than a core part of the program. Staff believed in the academic benefits, but were noticeably more engaged when discussing the social and emotional benefits. Thus, it would stand to reason that

students leaving a program where the spirit of community is the defining characteristic would exhibit more negative behaviors when leaving that community while not necessarily showing dramatic declines in achievement. Therefore, my study leads to the conclusion that when students leave AVID and other similar academic programs where a consistent group is united by a common goal and common experiences, perhaps we should worry less about their academic needs than their social and emotional needs.

Finally, the education community needs to be cognizant of the unintended consequences of programs like AVID that take time out of the school day and might prevent students from taking other courses that would be beneficial. Scheduling was a common reason for exit, with many students leaving the program because they could not fit certain desired courses into their schedule. These students chose these other courses over AVID, but we can assume that for many students staying in the program, they are choosing AVID over other courses. There are many reasons to believe that AVID is beneficial, but so are the fine arts, world languages, and courses that allow students to explore career interests and opportunities. In a sense, programs like AVID compete with other curricular areas, as students have only so many hours in the day and can take only so many courses during their time in high school. If we encourage students to join and persist in programs like AVID, will we force them out of courses in other areas? How should we react to the student who wants to leave AVID to take a music course? In those situations, should staff counsel the student and convince them to persist, or encourage them to pursue this other opportunity? There is nothing wrong with encouraging AVID persistence, but staff may want to come to a shared understanding of when to encourage persistence and when to support students' decisions to exit, particularly in cases when persistence would prevent the student from pursuing another valuable opportunity.

Future Research

The most obvious direction for future research on AVID exit is to include student voices in a discussion of the exit process and what it means to be an ex-AVID student. The teachers I interviewed have had experience with hundreds of exits and are very well-qualified to speak to overall trends. However, students may have somewhat different conceptions of what exit means and the reasons they chose to leave the program. For instance, the data around the turning points stage had the least congruence with the role exit model, as teachers believed that exit was largely predictable and viewed the exit process as much more gradual than an event or moment that led to exit. But it is possible that these moments happened for students in ways that were invisible to their teachers.

I also would suggest interviewing students who achieved great success after exiting AVID to identify what it was about AVID, if anything, that propelled them forward to success. Both quantitative and qualitative evidence pointed to the potential of post-AVID success. Knowing that AVID exit likely is inevitable for many students, if we can isolate the elements of AVID that contributed to that success, then we can consider how to structure AVID programs so students who exit receive the greatest possible benefits before exit occurs.

Program exit has the potential to affect a wide variety of student outcomes. Using GPA, test scores, attendance, and behavior to reflect achievement and engagement is a valuable starting point. But achievement and engagement manifest in many ways. Additional research on AVID exit, for example, might attempt to isolate the effect of exit on other measures of engagement like extra-curricular activity participation, or other measures of achievement like Advanced Placement test performance. Ideally, a longer-term study could even follow students

beyond high school to see if AVID exits and persisters attend college and attain postsecondary credentials at similar rates.

Another interesting direction for quantitative research could involve not just sorting students into categories based on whether or not they exited the program, but also on how much time they spent in the program. We know that some students demonstrate success after leaving AVID, so leaving the program does not necessarily signify that a student will have undesirable outcomes. But perhaps there is a threshold for length of time in the program below which students are likely to have negative outcomes after leaving and above which they are likely to have positive outcomes. Put differently, is there an amount of time spent in the program that is "enough" to lead to future success? In this study, I illustrated that even students spending only a single semester in the program had relatively high graduation rates, but that students spending six or more semesters had a graduation rate of nearly 100%. This suggests that the effect of duration in the program is worthy of further examination.

Although GPA is a useful achievement measure, it is somewhat coarse because it does not account for course difficulty. Of course, difficulty is subjective and highly dependent on a student's background knowledge and experiences. A research study focused on whether students take less difficult classes after leaving the program, though, could attempt to develop some measure of course difficulty and compare student transcripts before and after program exit to see if any patterns emerge. This study did not show a large effect of AVID exit on GPA, and low-performing exits improved their grades after leaving the program, but AVID encourages students to take rigorous coursework, so the lack of an observed effect of exit on achievement may simply be due to students' decisions to pursue a less rigorous academic course load post-exit.

It also would be valuable to replicate the quantitative approaches used in this study with other AVID programs in varying locations and levels of program maturity. My study focuses on only one AVID program that only recently graduated its first full cohort of students. As such, it is possible that the observed quantitative causes and effects of AVID exit depend on district context and would not exist across AVID programs in different geographic locations or in earlier or later stages of implementation and integration.

Finally, it would be interesting to compare data on AVID exit against data on exit from other similar programs where exit does not necessarily represent failure. My research has implications for AVID as well as similar types of programs, but it would be worth attempting similar analysis with other college access programs to see if leaving these programs leads to similar quantitative results or if there is something about AVID that makes the effect of AVID exit unique. Overall, research on exit from college access programs like AVID is extremely sparse, and we have almost no understanding of the situations that may exist where student exit is not detrimental. This study is a step toward developing a shared understanding of the quantifiable effect of college access program exit, but quantitative research on many more programs is necessary to answer the question of whether leaving a college access program actually means that a student is leaving the college track.

Conclusion

In this study, I used a mixed methods approach to investigate the causes and effects of student exit from the Advancement Via Individual Determination (AVID) program in a large urban school district in the Midwest. For my qualitative work, I conducted interviews with nine AVID coordinators and teachers focused on student exit, examining the extent to which their accounts of student exit fit within a modified version of Helen Rose Fuchs Ebaugh's role exit

theory that I developed for the purposes of this study, as well as considering the question of whether AVID exit is a problem. For my quantitative work, I used logistic regressions to predict AVID exit and reported descriptive statistics on the frequency and timing of AVID exit. I also used Propensity Score Matching (PSM) to create matched groups of AVID exits and AVID persisters in an attempt to isolate the measurable effect of AVID exit of academic and behavioral variables.

Overall, exit from AVID appears to conform to a modified version of Ebaugh's role exit theory, as interview data collected from teachers placed student exit within the framework of Experiencing Doubts, Seeking Alternatives, Community Inclusion/Exclusion, Turning Points, and the Ex-Role. During the experiencing doubts phase, some ex-AVID students questioned whether the program was right for them and found it did not meet their expectations. During the seeking alternatives phase, students looked for other options, often including courses in the fine arts. Community inclusion appears to be a significant deterrent to AVID exit, while some students exited partially because of exclusion, although teachers described exclusion as rare. The turning points phase had the weakest evidence, as teachers believed that exit was largely predictable and the culmination of a slow process; they did not identify events or moments when they were sure a student would exit, as theorized by Ebaugh. Meanwhile, students in the ex-role, who I described as ex-AVID, continued to maintain social connections to the program and occasionally continued program practices post-exit, but teachers believed they experienced significant struggles after leaving the program.

Teachers did not mention demographic characteristics as contributing to student exit, but instead talked about academic struggle and engagement issues. Their descriptions are supported by the logistic regressions I used to predict exit, which showed that low freshman year GPA and

attendance are significant predictors of exit while demographic characteristics do not play an observable role beyond GPA and attendance. However, even though low GPA and low attendance predicted exit, it is important to note the presence of many high-performing exits in this district who had high grades prior to leaving the program.

Attrition rates from this AVID program are as high as 50% or more, although these rates appear to be improving for each subsequent cohort. Exit is the most common after students' first and second semesters in high school. There are no significant demographic differences between exits and persisters, providing more evidence that in this case, exit does not appear to be particularly problematic for certain demographic groups.

After conducting the PSM procedure. I conducted tests to attempt to isolate the effect of AVID exit. Overall, AVID exit appears to have a significant effect on attendance and behavior (measured by out-of-school suspensions and behavior referrals) with 95% confidence and a significant effect on GPA with 90% confidence, although the observed effect size for all of these variables is considered small, with the largest observed effect being an estimated decrease in attendance of less than a third of a standard deviation. In addition, no significant effect emerged on PLAN or ACT composite scores. The quantitative data showed that exit might have a small negative effect, but it did not confirm teachers' perceptions of ex-AVID students as experiencing large academic declines post-exit.

AVID teachers described many occasions when ex-AVID students were successful post-exit, as well. They also mentioned situations where AVID exit was beneficial to maintain the harmony or integrity of the program. These qualitative findings, combined with the fact that the estimated effect of AVID exit on the outcome variables I measured was small or nonexistent, serve to question the idea that AVID exit is truly a problem.

This study is one of the first to focus explicitly on AVID exit, which has been largely ignored in existing research. I find that AVID exit appears to have much more in common with college dropout than high school dropout, although neither literature base is fully applicable to AVID exit because AVID exit does not necessarily represent failure, which is how we typically regard high school or college dropout. I argue that AVID exit fits well with Ebaugh's role exit theory, which is flexible enough to be applicable to a wide variety of role exit situations.

More research into exit from programs like AVID is needed, including college access and academic enrichment programs. There are many programs available to high school students from which exit is not necessarily a failure on the part of the student or the program, and in these cases, we need to understand why students leave and what happens after they do so. I also argue that additional research on AVID exit in particular is needed, including research that includes student voices. AVID exit rates should be reported along with findings about the program, as a program with exit rates of 50% or higher that reports only on persisting students offers an incomplete picture, as well as conceals many important stories of struggle and success.

This study does not prove definitively that AVID exit is not problematic, but it offers compelling evidence that exit is not necessarily harmful to students, and that exit is a highly nuanced issue with myriad causes. Although all observed effects of exit were small, the observed effects were largest for attendance and behavior. Therefore, I argue that AVID programs should perhaps be more concerned with students' social/emotional needs post-exit than with their academic needs. Finally, given the many positive reasons that students may exit the program, including the desire to take challenging coursework or pursue a passion in the arts, as well as the strong programmatic reasons for exit, including maintaining the harmony and integrity of the program, I would suggest that AVID programs accept exit as a natural part of AVID. In the

district where I conducted my research, the AVID program appears highly successful. If a thriving AVID program can exist with exit rates of 50% or more, if students can exit for good reasons, and if students can succeed post-exit, then exit is perhaps something that AVID programs should seek to understand, plan around, and report data on, rather than something that should be avoided in all cases. This study included student opinions only as filtered through their teachers, some possible outcomes of exit were not measured, and additional research is needed to confirm or challenge my findings. But this study offers early evidence that AVID exit does not necessarily constitute failure, that students leave the program for many positive reasons, and that ex-AVID students can experience success both before and after leaving the program.

References

ACT. (2011). *The condition of college & career readiness: 2011.* Iowa City, IA: ACT, Inc.

Alexander, K. L., Entwisle, D. R., & Horsey, C. S. (1997). From first grade forward: Early foundations of high school dropout. *Sociology of Education, 70,* 87-107.

Archambault, I., Janosz, M., Fallu, J. S., & Pagani, L. S. (2009). Student engagement and its relationship with early high school dropout. *Journal of Adolescence, 32*(3), 651-670.

AVID. (2002). *Year in review 2002.* (Year in Review). San Diego, CA: AVID Center.

AVID. (2005). *Celebrating 25 years of college dreams: Year in review 2005.* (Year in Review). San Diego, CA: AVID Center.

AVID. (2007). AVID certification report and self-study continuum. Retrieved February 13, 2012, from http://www.avidregion8.org/pdf/ISS_CSS_FORM.pdf.

AVID. (2011). *AVID year in review 2011: Decades of college dreams.* (Year in Review). San Diego, CA: AVID Center.

AVID. (2012a). 2011-2012 year general data report. Retrieved June 20, 2012, from https://data.avidcenter.org/AnnualReports/Year.aspx.

AVID. (2012b). Opening doors to opportunity: AVID summer institute 2012. Retrieved June 24, 2012, from http://avid.org/dl/eve_si/si2012_registrationposter.pdf.

AVID. (2013). AVID and GEAR UP. Retrieved April 14, 2014 from http://avidcenter.org/res_gearup.html.

AVID. (n.d.a). Advancement via individual determination [brochure]. Retrieved May 7, 2012, from avid.org/dl/about/brochure_whatisavid.pdf

AVID. (n.d.b). *AVID elementary [brochure]*. San Diego, CA: AVID Center.

AVID. (n.d.c). AVID postsecondary. Retrieved May 10, 2012, from http://www.avid.org/sta_avidpostsecondary.html.

AVID. (n.d.d). AVID WICOR poster set. Retrieved July 1, 2012, from https://www.avidonline.org/products/?ID=836.

AVID. (n.d.e). AVID's eleven essentials. Retrieved May 7, 2012, from http://teacherpages.nhcs.net/schools/Williston/sabrinahillblack/Pages/AVID%27sElevenEssentials.aspx.

AVID. (n.d.f). Data & results. Retrieved May 9, 2012, from http://www.avid.org/abo_dataandresults.html.

AVID. (n.d.g). Validation of the AVID certification self study (CSS): A measure of AVID secondary program implementation fidelity. Retrieved May 10, 2012, from www.avid.org/dl/res_research/research_validationoftheavidcss.pdf.

AVID. (n.d.h). What is AVID? Retrieved May 7, 2012, from http://www.avid.org/abo_whatisavid.html.

AVID Region 4. (2006). AVID binder check. Retrieved July 1, 2012, from http://www.avidregion4.org/resources/documents/teacher_counseler/BinderCheck.pdf.

AVID Region VI. (2011). Unit twelve: Socratic seminar. Retrieved July 1, 2012, from http://www.avidregion6.org/documents/321201131134PM.pdf.

Baum, S., Ma, J., & Payea, K. (2010). *Education pays 2010: The benefits of higher education for individuals and society* (Trends in Higher Education Series). Reston, VA: College Board Advocacy & Policy Center.

Behar, A. (2003). An interview with John Yochelson. *ACCESS: AVID's Research Journal, 9*(2), 4-5.

Black, A. C., Little, C. A., McCoach, D. B., Purcell, J. H., & Siegle, D. (2008). Advancement via individual determination: Method selection in conclusions about program effectiveness. *The Journal of Educational Research, 102*(2), 111-124.

Burrus, J., & Roberts, R. D. (2012). *Dropping out of high school: Prevalence, risk factors, and remediation strategies.* Princeton, NJ: Educational Testing Service.

Burtless, G. (2002). Randomized field trials for policy evaluation: Why not in education? In F. Mosteller, & R. Boruch (Eds.), *Evidence matters: Randomized trials in education research* (pp. 179-197). Washington, D.C.: Brookings Institution Press.

Caliendo, M., & Kopeinig, S. (2005). *Some practical guidance for the implementation of propensity score matching.* (Discussion Paper No. 1588). Bonn, Germany: IZA.

Cataldi, E. F., Laird, J., & KewalRamani, A. (2009). *High school dropout and completion in the United States: 2007.* (No. 2009-064). Washington, DC: National Center for Education Statistics.

Chapman, C., Laird, J., Ifill, N., & KewalRamani, A. (2011). Trends in high school dropout and completion rates in the United States: 1972-2009. compendium report. NCES 2012-006. *National Center for Education Statistics*, 108.

Chapman, P. D. (1981). Schools as sorters: Testing and tracking in california, 1910-1925. *Journal of Social History, 14*(4), 571-608.

Connors, L. C. (2010). *Achievement for Advancement Via Individual Determination (AVID) students and non-AVID students in select central Florida high schools in 2007-2009: a comparative study.* Orlando, Florida: University of Central Florida.

Consortium on Chicago School Research. (2007). *Responses from the 2007 AVID survey.* Chicago, IL: Consortium on Chicago School Research at the University of Chicago.

Cox, H. C. (2008). *The effect of a smaller learning community on students in a large high school.* (Doctoral Dissertation).Retrieved from ProQuest Dissertations and Theses. (UMI No. 3316054).

Creswell, J. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: SAGE Publications.

Creswell, J. (2011). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston: Pearson Education.

Crotty, M. (1998). *The foundations of social research*. Thousand Oaks, CA: SAGE Publications.

De Rose, D., & Clement, R. (2004). *An analysis of the Advancement Via Individual Determination (AVID) program.* (Evaluation Brief No. 87). Broward County, Florida: Office of the Superintendent, School Board of Broward County, Florida.

DeFour, M. (2011, December 1). Low-income, minority students shine in Madison schools' college prep program, analysis shows. *Wisconsin State Journal*.

Ebaugh, H. R. F. (1984). Leaving the convent: The experience of role exit and self-transformation. In J. A. Kotarba, & A. Fontana (Eds.), *The existential self in society* (pp. 156-176). Chicago: University of Chicago Press.

Ebaugh, H. R. F. (1988). *Becoming an ex: The process of role exit*. Chicago: University of Chicago Press.

Facing History and Ourselves. (2012). Socratic seminar. Retrieved July 1, 2012, from http://www.facinghistory.org/resources/strategies/socratic-seminar.

Ford, C. S. (2010). *Impact of the Advancement Via Individual Determination (AVID) program on closing the academic achievement gap.* (Doctoral Dissertation). Retrieved from

http://dspace.uta.edu/bitstream/handle/10106/4857/Ford_uta_2502D_10476.pdf?sequence=1.

Fosnacht, K. J. (2011). *Access is not enough: How pre-college programs impact students after college entry.* (Doctoral Dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3452114)

Franklin, S. L. G. (2011). *An analysis of the relationship of the AVID program on the educational outcomes attributed to college ready graduates.* (Doctoral Dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3462627)

Gamoran, A. (2009). *Tracking and inequality: New directions for research and practice.* (WCER Working Paper No. 2009-6). Madison, WI: Wisconsin Center for Education Research.

Gira, R. (2011). AVID binders: We like them big, but are they obsolete? Retrieved July 1, 2012, from http://avidcollegeready.org/college-career-readiness/2011/2/2/avid-binders-we-like-them-big-but-are-they-obsolete.html.

Goldstein, A. (2001, September 17). Mary Catherine Swanson: The upgrader. *Time.* Retrieved from http://content.time.com/time/magazine/article/0,9171,1000829,00.html.

Greene, J. P., & Forster, G. (2003). *Public high school graduation and college readiness rates in the United States.* (Education Working Paper No. 3). New York, NY: Center for Civic Innovation at the Manhattan Institute.

Gulek, J. C., & Howell, D. (2005). *Advancement via individual determination (AVID) 2004-05 program evaluation report.* Pleasanton, CA: Pleasanton Unified School District.

Guo, S. Y., & Fraser, M. W. (2009). *Propensity score analysis: Statistical methods and applications*. Thousand Oaks, CA: SAGE Publications.

Guthrie, L. F., & Guthrie, G. P. (2000). *Longitudinal research on AVID 1999-2000: Final report*. Burlingame, CA: Center for Research, Evaluation And Training in Education (CREATE).

Guthrie, L. F., & Guthrie, G. P. (2002). *The magnificent eight: AVID best practices study*. Burlingame, CA: Center for Research, Evaluation, and Training in Education (CREATE).

Heinrich, C. J., & Holzer, H. J. (2010). *Improving education and employment for disadvantaged young men: Proven and promising strategies.* (Discussion Paper No. 1374-10). Madison, WI: Institute for Research on Poverty.

Hill, C. J., Bloom, H. S., Black, A. R., & Lipsey, M. W. (2008). Empirical benchmarks for interpreting effect sizes in research. *Child Development Perspectives, 2*(3), 172-177.

Howe, K. R. (2004). A critique of experimentalism. *Qualitative Inquiry, 10*(1), 42-61.

Hubbard, L., & Mehan, H. (1999). Scaling up an untracking program: A co-constructed process. *Journal of Education for Students Placed at Risk (JESPAR), 4*(1), 83-100.

Jackson-Madison County Schools. (2008). Advancement Via Individual Determination (AVID) evaluation: 2007-08 academic year. Retrieved June 25, 2012, from http://images.pcmac.org/Uploads/JacksonMadison/JacksonMadison/Departments/DocumentsCategories/Documents/Advancement%20Via%20Individual%20Determination%20Evaluation.pdf.

James Madison University. (2008). Cornell notes. Retrieved July 1, 2012, from http://coe.jmu.edu/learningtoolbox/cornellnotes.html.

Jimerson, S., Egeland, B., Sroufe, L. A., & Carlson, B. (2000). A prospective longitudinal study of high school dropouts examining multiple predictors across development. *Journal of School Psychology, 38*(6), 525-549.

Johnson, J. R. (2010). *An analysis of the impact of intervention programs on the completion I rate of Hispanic students in high school.* (Doctoral Dissertation). Retrieved from ERIC. (ERIC Number ED516230)

Johnson, R. B. & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher, 33*(7), 14-26.

Klasik, D. (2012). The college application gauntlet: A systematic analysis of the steps to four-year college enrollment. *Research in Higher Education, 53*, 506-549.

Lin, A. C. (1998). Bridging positivist and interpretivist approaches to qualitative methods. *Policy Studies Journal, 26*(1), 162-180.

Losen, D. J. (1999). Silent segregation in our nation's schools. *Harvard Civil Rights-Civil Liberties Law Review, 34*, 544-571.

Lougee, A., & Baenen, N. (2008). *Advancement Via Individual Determination (AVID): WCPSS program evaluation.* (E&R Report No. 08.07). Raleigh, NC: Evaluation & Research Department, Wake County Public School System.

Lozano, A., Watt, K. M., & Huerta, J. (2009). A comparison study of 12th grade Hispanic students' college anticipations, aspirations, and college preparatory measures. *American Secondary Education, 38*(1), 92-110.

Marchand, G., Cullen, J. C., Edwards, O., Lewis, A., & Jelenic, M. (2007). *Advancement Via Individual Determination (AVID): 2006-2007 evaluation study.* Las Vegas, NV: Clark County School District.

Maxwell, J. A. (2005). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: SAGE Publications.

McKenna, M. R. (2011). *Examining the Advancement Via Individual Determination (AVID) program using the framework of social capital theory a case study of the AVID program in a high-achieving, suburban high school.* (Doctoral Dissertation). Retrieved from http://digital.library.temple.edu/cdm/ref/collection/p245801coll10/id/143282.

Means, B., Padilla, C., & Gallagher, L. (2010). *Use of education data at the local level: From accountability to instructional improvement*. Washington, D.C.: U.S. Department of Education Office of Planning, Evaluation and Policy Development.

Mehan, H., Villanueva, I., Hubbard, L., & Lintz, A. (1996). *Constructing school success: The consequences of untracking low achieving students*. Cambridge, UK: Cambridge University Press.

Mendiola, I. D., Watt, K. M., & Huerta, J. (2010). The impact of Advancement Via Individual Determination (AVID) on Mexican American students enrolled in a 4-year university. *Journal of Hispanic Higher Education, 9*(3), 209-220.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis*. Thousand Oaks, CA: SAGE Publications.

Moore, J. L., Ford, D. Y., & Milner, H. R. (2005). Recruitment is not enough: Retaining African American students in gifted education. *Gifted Child Quarterly, 49*(1), 51-67.

Nannicini, T. (2007). A simulation-based sensitivity analysis for matching estimators. *STATA Journal, 7*(3), 334-350.

National Center for Education Statistics. (2011). Fast facts: Enrollment. Retrieved July 6, 2012, from http://nces.ed.gov/fastfacts/display.asp?id=98.

Nelson, J. (2009). As we educate our youth tutors play an essential role. *ACCESS: AVID's Research Journal, 15*(2), 3.

Nguyen, H. T. (2011). *Students in the middle: The influence of Advancement Via Individual Determination (AVID) on middle and high school students' academic achievement and academic decision making.* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3486437)

Oswald, K. J. (2002). *The AVID program in AISD, 1999-2002.* (No. 01.20). Austin, TX: Austin Independent School District Office of Program Evaluation.

Perlmann, J. (1985). Curriculum and tracking in the transformation of the American high school: Providence, R.I. 1880-1930. *Journal of Social History, 19*(1), 29-55.

Perna, L. W. (2000). Differences in the decision to attend college among African Americans, Hispanics, and whites. *Journal of Higher Education, 71*(2), 117-141.

Perna, L. W., & Titus, M. A. (2005). The relationship between parental involvement as social capital and college enrollment: An examination of Racial/Ethnic group differences. *Journal of Higher Education, 76*(5), 485-518.

Posthuma, D. (2010). *The impact of at-risk students enrolled in advanced placement courses on a high school culture.* (Doctoral dissertation). Retrieved from ProQuest Disserations and Theses. (UMI No. 3410552).

Roderick, M., Nagaoka, J., & Coca, V. (2009). College readiness for all: The challenge for urban high schools. *The Future of Children, 19*(1), 185-210.

Rosenbaum, J. E. (2011). The complexities of college for all: Beyond fairy-tale dreams. *Sociology of Education, 84*(2), 113-117.

Rosenbaum, P. R., & Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika, 70*(1), 41-55.

Rosenbaum, P. R., & Rubin, D. B. (1984). Reducing bias in observational studies using subclassification on the propensity score. *Journal of the American Statistical Association, 79*(387), 516-524.

Rosenbaum, P. R., & Rubin, D. B. (1985). Constructing a control group using multivariate matched sampling methods that incorporate the propensity score. *American Statistician, 39*(1), 33-38.

Rubin, D. B., & Thomas, N. (1996). Matching using estimated propensity scores: Relating theory to practice. *Biometrics, 52*(1), 249-264.

Rumberger, R. W. (1983). Dropping out of high school: The influence of race, sex, and family background. *American Educational Research Journal, 20*(2), 199-220.

Saldana, J. (2009). *The coding manual for qualitative researchers*. Thousand Oaks, CA: SAGE Publications.

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Boston, MA: Houghton Mifflin.

Shaughnessy, M. F. (2005, November 21). An interview with Mary Catherine Swanson: About (AVID) Advancement Via Individual Determination. *EducationNews.* Retrieved from http://www.educationnews.org/articles/an-interview-with-mary-catherine-swanson-about-(avid)-advancement-via-individual-determination-.html.

Social Research and Demonstration Corporation. (2010). *BC AVID pilot project: Interim impacts report-executive summary.* Ottawa, Ontario: Social Research and Demonstration Corporation.

Sockwell, R. V., & Hruda, L. Z. (2011). *Advancement via individual determination program: Year one executive report SY 2008-09.* (Executive Report). Fairfax County, VA: Fairfax County Public Schools Office of Program Evaluation.

Sork, T. J. (1991). Learning about planning from success and failure. *New Directions for Adult and Continuing Education, 1991*(49), 5-13.

Sparks, S. D. (2011, May 6). Chicago study finds mixed results for AVID program. *Education Week.*

Stake, R. E. (1978). The case study method in social inquiry. *Educational Researcher, 7*(2), 5-8.

Stake, R. E. (2000). Case studies. In N. Denzin, & E. Lincoln (Eds.), *Handbook of qualitative research* (pp. 435-454). Thousand Oaks, CA: SAGE Publications.

Stake, R. E. (2010). *Qualitative research: Studying how things work.* New York: Guilford Press.

Stanton-Salazar, R. D. (2001). *Manufacturing hope and despair: The school and kin support networks of U.S.-mexican youth*. New York: Teachers College Press.

Stevenson AVID. (2010). Cornell notes. Retrieved July 1, 2012, from http://stevensonavid.weebly.com/uploads/8/2/6/6/8266226/cornell_notes_description.pdf

Storer, H. L., Mienko, J. A., Chang, Y., Kang, J. Y., Miyawaki, C., & Schultz, K. (2012). Moving beyond dichotomies: How the intersection of race, class and place impacts high school graduation rates for African American students. *Journal of Sociology & Social Welfare, 39*(1), 17-44.

Sum, A., Khatiwada, I., & McLaughlin, J. (2009). The consequences of dropping out of high school. Retrieved from http://www.northeastern.edu/clms/wp-content/uploads/The_Consequences_of_Dropping_Out_of_High_School.pdf.

Swanson, M. C. (2005). It's time to focus on the forgotten middle. *Education Week, 25*(10), 31-33.

Tabor, A. (2010). *Advancement via individual determination.* (Evaluation Report). San Francisco, CA: San Francisco Unified School District Program Evaluation & Research Unit.

Tierney, W. D., & Jun, A. (2001). A university helps prepare low income youths for college. *Journal of Higher Education, 72*(2), 205-225.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89-125.

Turley, R. (2006). When parents want children to stay home for college. *Research in Higher Education, 47*(7), 823-846.

United States Census Bureau. (2012). *Statistical abstract of the United States: 2012.* (). Washington, DC: United States Census Bureau.

Vallerand, R. J., Fortier, M. S., & Guay, F. (1997). Self-determination and persistence in a real-life setting: Toward a motivational model of high school dropout. *Journal of Personality and Social Psychology, 72*(5), 1161-1176.

Vargas, J. H. (2004). *College knowledge: Addressing information barriers to college*. Boston, MA: The Education Resources Institute (TERI).

Warburton, E. C., Bugarin, R., & Nunez, A. (2001). Bridging the gap: Academic preparation and postsecondary success of first-generation students. *Education Statistics Quarterly, 3*(3), 73-77.

Ward, M. (2008). *An AVID program investigation: Examining and intervention program within the context of social capital theory.* (Unpublished Doctor of Education). University of Southern California, Los Angeles, CA.

Watt, K. M., Powell, C. A., Mendiola, I. D., & Cossio, G. (2006). Schoolwide impact and AVID: How have selected texas high schools addressed the new accountability measures? *Journal of Education for Students Placed at Risk, 11*(1), 57-73.

Watt, K. M., Huerta, J., & Lozano, A. (2007). A comparison study of AVID and GEAR UP 10th-grade students in two high schools in the Rio Grande valley of Texas. *Journal of Education for Students Places at Risk, 12*(2), 185-212.

Watt, K. M., Huerta, J., & Mills, S. J. (2010). Advancement via individual determination (AVID) professional development as a predictor of teacher leadership in the United States. *Professional Development in Education, 36*(4), 547-562.

Watt, K. M., Mills, S. J., & Huerta, J. (2010). Identifying attributes of teacher leaders within the advancement via individual determination program: A survey of school principals. *Journal of School Leadership, 20*(3), 352-368.

Watt, K. M., Yanez, D., & Cossio, G. (2002). AVID: A comprehensive school reform model for texas. *National Forum of Educational Administration and Supervision Journal, 19*(3), 43-59.

Watt, K. M., Huerta, J. J., & Alkan, E. (2011). Identifying predictors of college success through an examination of AVID graduates' college preparatory achievements. *Journal of Hispanic Higher Education, 10*(2), 120-133.

Watt, K. M., Huerta, J., & Mills, S. J. (2010). The impact of advancement via individual determination (AVID) professional development on teacher perceptions of school culture and climate in the United States. *International Journal of Educational Reform, 19*(3), 172-184.

Watt, K. M., Johnston, D., Huerta, J., Mendiola, I. D., & Alkan, E. (2008). Retention of first-generation college-going seniors in the college preparatory program AVID. *American Secondary Education, 37*(1), 17-40.

Watt, K. M., Powell, C. A., & Mendiola, I. D. (2004). Implications of one comprehensive school reform model for secondary school students underrepresented in higher education. *Journal of Education for Students Placed at Risk (JESPAR), 9*(3), 241-259.

Whitaker, V. L. (2005). *The effects of the Advancement Via Individual Determination on course taking patterns and achievement of high school students.* (Doctoral Dissertaion).Retrieved from http://scholar.lib.vt.edu/theses/available/etd-03112005-115109/unrestricted/Dissertation.pdf.

Wisconsin Center for the Advancement of Postsecondary Education (2013). *AVID/TOPS 2012-2013 District Findings: Annual Report.* Madison, WI: Wisconsin Center for the Advancement of Postsecondary Education.

Wisconsin State Journal. (2012, February 12, 2012). Q&A with Madison school board candidates. *Wisconsin State Journal*.

Worland, G., & Yager, A. (2010, June 10). Program helps 'students in the middle' graduate, go to college. *Wisconsin State Journal*.

Zammito, J. H. (2004). *A nice derangement of epistemes: Post-positivism in the study of science from Quine to Latour*. Chicago, IL: University of Chicago Press.

Appendix A

Interview Protocol

1. Can you describe how you became involved with the AVID program?
2. What does it mean for students to be a part of AVID? What benefits do they gain from participation?
3. What are the reasons you see students leaving the program?
4. When students leave the program, is their exit typically surprising or predictable?
5. Overall, is exiting AVID a bad thing for students?

Consent Form

UNIVERSITY OF WISCONSIN-MADISON
Research Participant Information and Consent Form for Teachers/Staff

Title of the Study: Leaving the College Track? The Causes and Effects of High School Student Exit from Advancement Via Individual Determination (AVID)

Principal Investigator: Xueli Wang (phone: (608) 263-5451) (email: xwang273@wisc.edu)
(address: 270-H Education Building, 1000 Bascom Mall, Madison, WI 53706)

Student Researcher: Bo McCready (mccready@wisc.edu)

DESCRIPTION OF THE RESEARCH

You are invited to participate in a research study about why students leave or stop participating in the AVID program.

You have been asked to participate because you are an AVID teacher or staff member.

The purpose of the research is to gain a better understanding of why students exit AVID and other similar programs, as well as what happens after they exit.

This study will include students who left the AVID program and AVID teachers and staff.

The research will be conducted at your school, either during lunch or after school.

Audio tapes will be made of your participation. Only the research team will hear the audio recordings. Recordings will be retained until the completion of the study before they are destroyed.

WHAT WILL MY PARTICIPATION INVOLVE?

If you decide to participate in this research you will be asked to participate in an interview about AVID that will last between 30 minutes and one hour.

You will also be asked to help identify and forward a recruitment email on behalf of the researcher to high school seniors in your school who formerly participated in AVID but left the program at some point during high school.

Your participation will last approximately 30-60 minutes per session and will require one interview session which will require 30-60 minutes in total. Identifying potential student participants may take additional time.

ARE THERE ANY RISKS TO ME?

We don't anticipate any risks to you from participation in this study.

ARE THERE ANY BENEFITS TO ME?

There are no direct benefits to participants.

WILL I BE COMPENSATED FOR MY PARTICIPATION?

There is no compensation for your participation in this study.

HOW WILL MY CONFIDENTIALITY BE PROTECTED?

While there will probably be publications as a result of this study, your name will not be used. Only group characteristics will be published. No information that is sensitive, could easily be used to identify you, or is unrelated to the research project will be published or recorded.

If you participate in this study, we would like to be able to quote you directly without using your name. If you agree, please check the box at the bottom of this form.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?

You may ask any questions about the research at any time. If you have questions about the research after you leave today you should contact the Principal Investigator Xueli Wang at (608) 263-5451. You may also contact the student researcher, Bo McCready at mccready@wisc.edu.

If you are not satisfied with response of research team, have more questions, or want to talk with someone about your rights as a research participant, you should contact the Education Research and Social & Behavioral Science IRB Office at 608-263-2320.

Your participation is completely voluntary. If you decide not to participate or to withdraw from the study it will have no effect on any services or treatment you are currently receiving.

Your signature indicates that you have read this consent form, had an opportunity to ask any questions about your participation in this research and voluntarily consent to participate. You will receive a copy of this form for your records.

	Yes	No
I will participate in this study.	☐	☐
I give my permission for this interview to be audio recorded.	☐	☐
I give my permission to be quoted directly in publications without using my name.	☐	☐

Name of Participant (please print):_____

Phone number: _____ Email: _____

_____ _____

Signature Date

Appendix B

IRB Approval Letter

Education Research IRB
2/15/2013

Submission ID number: 2013-0103

Title: Leaving the College Track? The Causes and Effects of High School Student Exit from Advancement Via Individual Determination

Principal Investigator: XUELI WANG

Point-of-contact:

IRB Staff Reviewer: JEFFREY NYTES

A designated ED IRB member conducted an expedited review of the above-referenced initial application. The study was approved with administrative hold by the IRB member for the period of with the expiration date of 2/14/2014. The study qualified for expedited review pursuant to 45 CFR 46.110 and, if applicable, 21 CFR 56.110 and 38 CFR 16.110 in that the study presents no more than minimal risk and involves:

Category 5: Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis)
Category 6: Collection of data from voice, video, digital, or image recordings made for research purposes
Category 7: Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, or quality assurance methodologies

ADMINISTRATIVE HOLD REQUIREMENTS:

Site Permission

Data Use Agreement

In order to receive final approval, you must log into your ARROW account and submit an Administrative Hold Response. NOTE: You may not need to take any action if this

submission requires VA R&D Committee approval.

To access the materials approved by the IRB, including any stamped consent forms, recruitment materials and the approved protocol, if applicable, please log in to your ARROW account and view the documents tab in the submission's workspace.

If you requested a HIPAA waiver of authorization, altered authorization and/or partial authorization, please log in to your ARROW account and view the history tab in the submission's workspace for approval details.

Prior to starting research activities, please review the Investigator Responsibilities guidance (http://go.wisc.edu/m0lovn), which includes a description of IRB requirements for submitting continuing review progress reports, changes of protocol and reportable events.

Please contact the appropriate IRB office with general questions: Health Sciences IRBs at 608-263-2362 or Education Research and Social & Behavioral Science IRBs at 608-263-2320. For questions related to this submission, contact the assigned staff reviewer.