

Building College Readiness Across Rural Communities

Implementation and Outcome Findings for the
AVID Central Florida Collaborative Study

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March 2018



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OVERVIEW

In the United States today, more jobs than ever before require at least some postsecondary education. Yet too many young adults are either not enrolling or not succeeding in college. This scenario exists across many different types of communities, but schools in rural areas, particularly those with large populations of low-income students, face unique challenges in preparing and inspiring students to attend college. To address these challenges, the AVID (Advancement Via Individual Determination) Center — a nonprofit organization working to close the achievement gap for minority and low-income students — partnered with three rural school districts and the local state college in central Florida to develop and implement programming focused on strengthening college preparedness among middle school and high school students. Supported by funds from an Investing in Innovation (i3) development grant from the U.S. Department of Education, the partners worked together to implement the AVID College Readiness System (ACRS) across eight schools, train secondary and postsecondary instructors in a shared set of teaching strategies and best practices, strengthen the academic rigor of their classes, and develop a set of “alignment activities” for school staff members focused on collaboration and consistency of teaching and study strategies across middle school, high school, and college.

The i3 grant also includes an evaluation, conducted by MDRC, of implementation and outcomes over the first three years of the project. The implementation study examines how closely the implementation of the ACRS hewed to the model design and examines the drivers of and obstacles to its success. The outcomes study uses a “pre-post” nonexperimental method (which does not capture causation) to compare both school staff outcomes and student outcomes before implementation with outcomes during the implementation years to explore the promise of the system to positively affect schools and students. The report presents several key findings:

- Overall, analyses show that the ACRS was implemented successfully at most schools with fairly high fidelity to the model. There was mixed success implementing the alignment activities.
- Positive change was seen in teachers’ reported use of most ACRS teaching strategies, and in teachers’ and other staff members’ reported attitudes toward academic rigor and college preparation for all students and reported collaboration within and across grade levels and schools.
- Little difference was found between the reported study habits and learning skills, engagement in school, and postsecondary expectations of students surveyed before implementation and of those surveyed after three years of exposure; however, on average, both groups had relatively high positive responses on most of the measures.
- Students were more likely to take advanced courses, such as honors and Advanced Placement, and earned more credits in these courses, which are intended to strengthen their preparation for the rigor of college work.
- Little difference in other measures of students’ academic performance (grade point average and English Language Arts standardized tests), educational attainment (overall credits earned and graduation), and high school persistence were found after three years of implementation compared with the outcomes before implementation.

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PREFACE

Postsecondary credentials have become almost essential to successfully compete in the U.S. labor market, where technical and critical thinking skills are much prized. But many young adults, especially from low-income families, are not acquiring these credentials — in part because many high school graduates across the United States are inadequately prepared for college-level course work. In addition, too often, low expectations for students in middle school, high school, and college leave some students struggling to succeed. Rural communities face particular challenges in ensuring college readiness and success for students. Given the distance from urban centers, geographic size, and low population density in these communities, colleges there often have trouble attracting and retaining skilled teachers and have less opportunity for collaboration across institutions.

The AVID (Advancement Via Individual Determination) Center, a nonprofit organization working with school districts and schools in this country and abroad, is committed to closing the achievement gap for minority and low-income students and ensuring that all secondary school students are prepared for success in college and their careers. The long-standing and widely used AVID elective, a cornerstone of the AVID Center’s approach, supports middle-achieving students (those earning Bs and Cs) in taking and passing rigorous college preparatory courses during middle school and high school. The AVID Center has lately expanded its focus to promote its teaching strategies and to foster strong learning behaviors among students schoolwide. In 2013, with support from an Investing in Innovation development grant, the AVID Center partnered with three rural Florida school districts and a local state college to design and implement a system intended to align curricula and teaching and learning strategies across institutions, to build a communitywide commitment to college readiness and success for all students, and to create opportunities for staff at secondary and postsecondary institutions to collaborate.

After three years, most schools saw positive changes in staff’s reported use of the AVID teaching methodologies, expectations of students to do rigorous course work and prepare for college, and collaboration among staff and across schools. Students were more likely to earn credits in advanced courses, such as honors and Advanced Placement courses — presumably making them better prepared for college work — but little difference was observed in other measures of academic performance, educational attainment, and high school persistence.

This report describes the findings from MDRC’s study of the implementation of the AVID system, including obstacles the partners faced and their successes. While it cannot speak to causation — the study it describes was nonexperimental, and therefore captures only associations — it examines the promise of a partnership like this one to positively affect student attitudes, academic achievement, and persistence in school.

Gordon L. Berlin
President, MDRC

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This report could not have been accomplished without the efforts of a great many people. The study has benefited especially from the time, energy, and commitment put forth by the staff members at participating school districts and schools, the Heartland Educational Consortium, and South Florida State College, all of whom were vital in both supporting the data collection efforts and providing the information detailed in this report. District and school administrators, teachers, guidance counselors, college instructors, and students took time out of their busy schedules to participate in surveys, interviews, and focus groups throughout the years of the study. District and school staff members spent many hours pulling the administrative records data and answering our questions.

The assistance and cooperation of many AVID Center staff members, including Christie McMullen, Sarah Newman, Andrew Evans, Dennis Johnston, and Ellen Nickerson, has been invaluable to the research process and report writing. Christie and Sarah managed our data collection needs with great efficiency, took part in periodic interviews, and were unfailing in their availability to answer questions and provide support. Andrew created the online surveys and managed the administration of each. The AVID team also provided guidance in our creation of survey measures and feedback on earlier drafts of this report.

Meredith Kelsey and Barbara Goodson from Abt Associates ensured that the team understood and met the standards set for Investing in Innovation (i3) Development grants regarding outcomes and implementation research plans and reporting.

At MDRC, Mary Visher led the early phases of the project and offered support and advice throughout the evaluation. Kristin Porter and Marie-Andrée Somers offered assistance during the design phase. Nicole Clabaugh, Sara Staszak, Kateryna Lashko, Deborah Van Kummer, and David Roy provided programming and analysis support. Nicole and Cammie Brown assisted with qualitative data collection and project coordination activities. William Corrin, Alice Tufel, Leigh Parise, Barbara Condliffe, and Erin Valentine carefully reviewed earlier drafts of the report and offered helpful critiques throughout the writing process. Alice Tufel, with Jennie Kaufman, edited the report, and Ann Kottner prepared it for publication.

The Authors

EXECUTIVE SUMMARY

Attaining some postsecondary education or a postsecondary credential is associated with achieving better employment outcomes and earning a living wage in the United States today. According to a 2016 report from the Center on Education and the Workforce, a majority of the 11.6 million new jobs that have been added to the economy since the Great Recession of 2007–2009 have gone to workers with at least some college education.¹ However, less than half (46 percent) of 25- to 29-year-olds across the United States possessed an associate’s degree (or higher) in 2016.² One obstacle to degree attainment may be that many high school graduates arrive at college unprepared for college-level course work. According to the National Center for Education Statistics, only 37 percent of high school seniors scored at or above proficient in reading and only 25 percent of seniors scored at or above proficient in math on the National Assessment of Educational Progress in 2015.³

Rural middle schools and high schools, in particular, face unique challenges in preparing students for college and inspiring them to attend. These schools often serve large geographic areas with lower population density and a more limited tax base than those in urban or suburban settings, forcing them to stretch their resources further.⁴ As a result, rural-area teachers are often asked to cover multiple classes or subjects, requiring more time to prepare and leaving less time to collaborate with their colleagues,⁵ which is important for strengthening teaching and learning skills.⁶ Given their distance from urban centers, many rural schools also face challenges in recruiting and retaining qualified teaching staff and in offering professional development and training.⁷

One response to the difficulties that rural-area schools face has come from the AVID (Advancement Via Individual Determination) Central Florida Collaborative, a group of educators and stakeholders who are focusing on building college preparedness among students in select middle schools and high schools in rural central Florida. To achieve its objective, the Collaborative implemented the AVID

-
1. Anthony P. Carnevale, Tamara Jayasundera, and Artem Gulish, *America’s Divided Recovery: College Haves and Have-Nots* (Washington, DC: Georgetown University Center on Education and the Workforce, 2016).
 2. Joel McFarland, Bill Hussar, Cristobal de Brey, Tom Snyder, Xiaolei Wang, Sidney Wilkinson-Flicker, Semhar Gebrekristos, Jijun Zhang, Amy Rathbun, Amy Barmer, Farrah Bullock Mann, and Serena Hinz, *The Condition of Education 2017*, NCES 2017-144 (Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2017).
 3. National Center for Education Statistics, U.S. Department of Education, *The Nation’s Report Card: 2015 Results, Mathematics & Reading, Grade 12* (Washington, DC: Institute of Education Sciences, 2015).
 4. Cynthia Reeves, *Implementing the No Child Left Behind Act: Implications for Rural Schools and Districts* (Naperville, IL: North Central Regional Educational Laboratory, 2003).
 5. Linda Rosenberg, Megan Davis Christianson, Megan Hague Angus, and Emily Rosenthal, *A Focused Look at Rural Schools Receiving School Improvement Grants*, NCEE 2014-4013 (Washington, DC: Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, April 2014).
 6. Hilda Borko, “Professional Development and Teacher Learning: Mapping the Terrain,” *Educational Researcher* 33, 8 (2004): 3-15.
 7. Rosenberg, Christianson, Angus, and Rosenthal (2014).

College Readiness System (ACRS) in eight public schools in the area. The ACRS provides professional development to build teaching techniques and strategies that foster critical thinking and strong study skills, promotes rigorous course taking and college preparation for all students across a school, and provides additional supports for middle-achieving students who aspire to go to college but may not be attaining the credentials and skills needed for a seamless transition to postsecondary education.

Central to the ACRS is a set of AVID “core values,” which promote academic rigor and supports for meeting academically high standards in order to prepare for college and to reinforce a college-going culture across each school. At the same time, to align curricula, standards, and teaching strategies across grade levels and between secondary and postsecondary schools, and to help foster smooth transitions from middle school to high school to college, the Collaborative developed and piloted a set of “alignment activities” whereby teams of teachers, counselors, and administrators across the participating schools meet to make sure they are implementing the ACRS in the same way and to collaborate and learn best practices from one another.

This report presents the key findings from a three-year study, conducted by MDRC, of the implementation and outcomes of the ACRS and alignment activities in four middle schools and four high schools in rural central Florida. Because the study is nonexperimental, it can identify *associations* between the AVID intervention and any observed outcomes, but it cannot establish that the intervention is the *cause* of those outcomes.

KEY FINDINGS

- Overall, analyses show that the ACRS was implemented successfully at most schools, suggesting fairly high fidelity to the model. In contrast, there was mixed success implementing the alignment activities.
- There was a positive change in teachers’ reported use of most of the ACRS teaching methodologies, in teacher and other school staff members’ reported attitudes and actions related to the AVID core values, and in teacher and other school staff members’ reported levels of collaboration within and across schools during the first year of implementation. These changes tended to be maintained across the three study years.
- Little difference was found in the reported use of learning skills, engagement in school, and postsecondary expectations of the tenth-grade students who were surveyed before full implementation and those who were surveyed after three years of exposure to the ACRS. On average, both groups had relatively high positive responses on most of the measures related to these outcomes.
- Students across all eight schools during the third year of implementation were more likely than students before implementation to take and earn credits in advanced courses, including honors and Advanced Placement courses,⁸ which offer opportunities to attain college credit during high

8. Advanced Placement courses are college-level classes taught at the high school that prepare students for college placement tests that, if passed, can lead to earning college credit.

school. This is important because a key goal of the ACRS and alignment activities was to ensure that more students were participating in and succeeding in a more rigorous curriculum in order to be better prepared for college.

- Little difference was found between students in the third year of implementation and those in the three years before implementation in other measures of their academic performance (grade point average, or GPA, and standardized tests), educational attainment (overall credits earned and graduation), and high school persistence (whether they stayed in school through the end of the school year).

THE AVID CENTRAL FLORIDA COLLABORATIVE

The AVID Central Florida Collaborative is a partnership among the AVID Center, three school districts that border each other in rural central Florida, the local educational consortium, and South Florida State College. The AVID Center is a nonprofit organization whose mission is to support schools in closing the achievement gap for minority and low-income students. First established in 1980 in one San Diego high school, the AVID Center currently serves nearly 1.5 million students in over 6,100 schools that cover kindergarten through twelfth grade and 45 colleges and universities across the country and abroad.⁹

In 2012, the Collaborative won an Investing in Innovation (i3) development grant from the U.S. Department of Education to build its area’s secondary teaching capacity, strengthen the academic rigor of its classes, ensure alignment between grade levels and across secondary and postsecondary standards and expectations, and improve transitions between secondary and postsecondary education for students. The i3 grant also supported an evaluation of implementation and outcomes over the first three years of the project. The implementation study examines the fidelity of the actual implementation to the model design, and examines the factors that helped and hindered successful implementation. The outcomes study uses a pre-post nonexperimental method to compare both school staff outcomes and student outcomes before implementation with similar outcomes during each of the three years of implementation to explore the promise of the system to positively affect schools and students.

Four pairs of schools — with each pair consisting of one middle school (sixth through eighth grades) and one high school (ninth through twelfth grades) — are participating in the study, and in each case all the students from a single middle school move on to attend the high school with which it is paired. South Florida State College, the sole public college in the area, has a satellite campus in each of the three counties (DeSoto, Hardee, and Highland) of the participating school districts.

THE ACRS AND ALIGNMENT ACTIVITIES

The AVID Central Florida Collaborative focused on two core efforts that were new to the participating districts and schools: (1) implementing the ACRS in each of the four pairs of middle schools and

9. See “AVID Snapshot” and “About AVID” at www.avid.org.

high schools, and (2) designing and implementing alignment activities that led to “communities of practice” among administrative staff members and teachers from the districts, schools, and college to align their efforts to implement the ACRS and to share best practices.

The ACRS

The ACRS is focused on building students’ critical thinking, reading, and writing skills and strengthening their study habits and organizational skills. It pursues its goals through its three core components: professional development, an elective class, and school-based “site teams” that work to ensure schoolwide implementation of the AVID methods. Central to the ACRS are the aforementioned AVID core values and the AVID teaching methodologies, called the WICOR (writing, inquiry, collaboration, organization, and reading) model — a set of tools that teachers can use to create a rigorous college preparatory environment in their classrooms. The WICOR model is designed to build students’ reading strategies, study habits, and critical thinking skills in all subject areas, particularly in the core subject areas of English/language arts, math, science, and social studies. Box ES.1 presents more detail about the five WICOR domains.

The ACRS professional development component includes training at a three-day Summer Institute held off-site, local training during the school year, and coaching sessions for the AVID elective teachers and AVID coordinators — teachers or school administrators who ensure ACRS implementation across the school and lead the school’s site team. Teachers are trained in the WICOR model and all school staff members are trained in the AVID core values.

Along with supporting the whole school through teacher and staff professional development, the system also provides targeted support anchored by the AVID elective class, designed for middle-achieving students (those earning mostly Bs and Cs) who have the desire to go to college and the willingness to work hard, but whose grades are not generally high enough to get them into more advanced courses. During the elective class, students develop their organizational and study skills, tackle problems in their school work with the support of trained tutors, and explore college and career options.

Finally, each of the eight schools participating in the study has a site team made up of the school’s principal or assistant principal, AVID coordinator, teachers, and other school staff members who support the implementation of the AVID elective, address issues affecting student access to and success in rigorous courses, and work to ensure schoolwide implementation of AVID methodologies through teacher and staff training.

Alignment Activities

Education research confirms the need for teacher collaboration across grade levels to ease difficult transitions from preschool through postsecondary education and to align content and teaching methodologies.¹⁰ To enable collaboration and alignment across educational institutions in the

10. Joan McRobbie, *School & College Partnerships: The Missing Link*, WestEd Policy Brief (March 2004).
Website: <https://www.wested.org/resources/school-college-partnerships-the-missing-link/>.

BOX ES.1

The WICOR Model

AVID methodologies are used to build students' reading strategies, study habits, and critical thinking skills. The WICOR model strategies represent the AVID teaching methodology, which includes a set of tools teachers can use to create a rigorous college preparatory environment in their classrooms.

- **Writing** includes the AVID notetaking system, an adaptation of the Cornell system, which teaches students to take notes in a right-hand column and formulate questions based on the notes in the left-hand column,* and other activities to engage students in writing for learning.
- **Inquiry** trains students in the inquiry method, which uses levels of questioning — define, analyze, and apply — to encourage students to be responsible for their own learning process.†
- **Collaboration** sets up teachers as guides, facilitators, and coaches in a learning community and creates collaborative structures for successful group work.
- **Organization** is a set of tools for students to organize their study materials and their time to maximize learning — for example, the use of binders to organize class work and homework across classes, creating calendars and agendas to keep on task, and using graphic organizers and reading logs to structure class work.
- **Reading** emphasizes critical reading and uses scaffolding — where teachers first model a method or skill and then gradually shift responsibility over the learning process to the students — to help students develop their reading skills.

*Walter Pauk, *How to Study in College* (Boston: Houghton Mifflin, 2001).

†Arthur L. Costa, *Developing Minds: A Resource Book for Teaching Thinking*, Third Edition (Alexandria, VA: Association for Supervision and Curriculum Development, 2001).

region, the AVID Central Florida Collaborative developed and piloted four core alignment activities especially for this project: four middle school–high school “feeder teams” (one for each middle school–high school pair), teacher content collaboratives, a vertical articulation collaborative, and a partnership with the local state college. The principals (or assistant principals) and the AVID coordinators from the two site teams in a middle school–high school pair make up a feeder team, which is tasked with ensuring the alignment of the ACRS programming and curricula across grade levels as well as facilitating students' transition from middle school to high school. Each teacher content collaborative comprises teachers from a core content area — English/language arts, math, science, or social studies — who meet to align college preparation curricula and share best practices for using the WICOR model. The vertical articulation collaborative includes school principals, district leaders, and representatives from the state college and the AVID Center, who meet to strategize about full implementation of the ACRS and alignment activities, align curricular goals, and share best practices. Both the teacher content collaborative and the vertical articulation collaborative are communities of practice that allow time for professionals (teachers in the content collaboratives and

mostly administrators in the vertical articulation collaborative) to share experiences and learn from one another. Finally, for the state college partnership, state college instructors and administrators receive AVID professional development and participate in the teacher content collaboratives and the vertical articulation collaborative.

THE THEORY OF CHANGE

The theory of change posits that if implemented as designed, the ACRS and alignment activities would lead to more rapid and widespread adoption of the WICOR model and incorporation of AVID core values, along with increased collaboration by teachers and other school staff members, as illustrated in the logic model in Figure ES.1. Those outcomes, in turn, would lead to improved learning skills, heightened engagement in school, and increased motivation to attend college for students across the participating middle schools and high schools, resulting in improved academic achievement and, ultimately, leading to higher college enrollment and success.

THE EVALUATION DESIGN

The evaluation examines the first three years of implementation (the 2013–2014, 2014–2015, and 2015–2016 school years) and includes an implementation study and an outcomes study.

Implementation Study

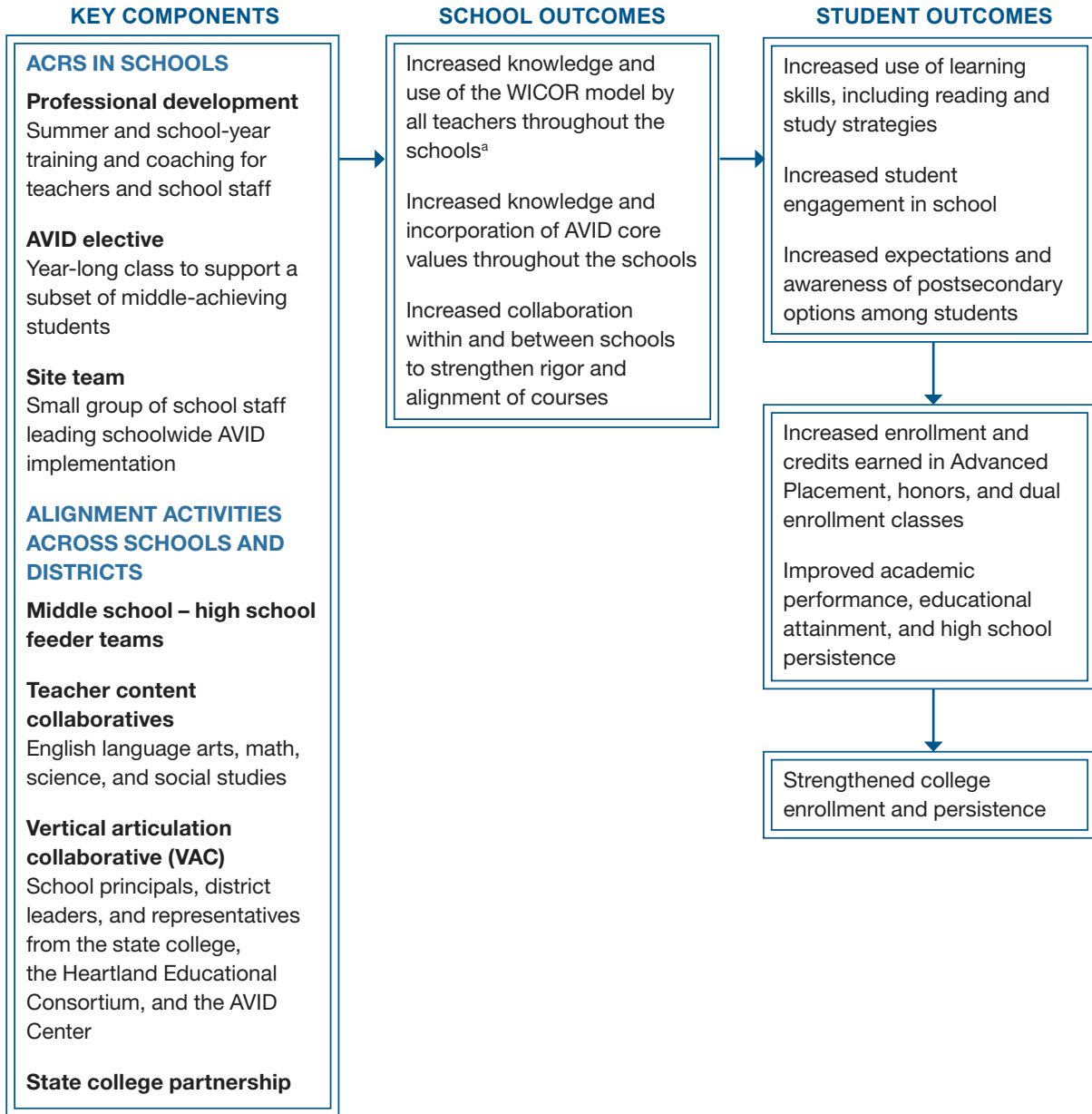
The goal of the implementation study is to learn whether the ACRS and alignment activities were implemented as designed (that is, with fidelity to the model) and what factors may have made implementation easier or more difficult. Two primary questions have guided the implementation study: (1) To what extent was the system implemented with fidelity to the model? and (2) What factors enabled or hindered the implementation of the system?

Two strands of implementation research were employed to answer these questions: measurement of implementation fidelity and qualitative research. For the former, the study team collected yearly measures of implementation of each of the key AVID components to understand the fidelity of the actual implementation in each year compared with the model. The qualitative research explored the challenges and successes in implementation through the collection and synthesis of data from interviews and focus groups of key school, district, college, and AVID Center staff members and middle school and high school students.

Outcomes Study

The outcomes study provides information about how schools and students changed (or did not change) during the first three implementation years. The first part of this study focuses on school outcomes (shown in the middle column of Figure ES.1), addressing questions about teacher practice, expectations for students, and the collaboration of teachers and other school staff members. Research questions related to school outcomes include the following:

FIGURE ES.1
Logic Model for the AVID College Readiness System (ACRS) and
Alignment Activities



NOTES: ^aThe WICOR model includes teaching strategies in writing, inquiry, collaboration, organization, and reading.

- Do teachers in participating schools report annual increases in the use of WICOR model strategies in their classrooms?
- Do teachers, guidance counselors, and principals at participating schools report annual increases in knowledge and incorporation of AVID core values throughout their school? Do they report increases in collaboration in order to strengthen the rigor and alignment of courses within and across participating schools and the college?

School outcomes were measured using a survey of teachers, guidance counselors, and administrators conducted during the spring before implementation began and each spring of the first three years of implementation. The survey was administered at all the participating middle schools and high schools.

The second part of the outcomes study focuses on student behaviors and educational outcomes (shown in the rightmost column of Figure ES.1). Research questions related to the student outcomes include the following:

- Does the system offer promise in terms of strengthening all students' reported use of reading and study strategies, engagement in school, and awareness of postsecondary options and expectations for postsecondary success?
- Does the system offer promise in terms of improving the following outcomes: (1) the likelihood that all students across the schools will enroll and succeed in more advanced courses (honors, Advanced Placement, and dual enrollment); (2) students' average academic performance (GPA and state assessments); (3) students' overall educational attainment (credits earned, promotion to the next grade, and high school graduation); and (4) students' persistence in school throughout the school year?

Student outcomes were measured using both a student survey and student-level administrative records collected from the school districts. The student outcomes findings in this report focus on the outcomes of all students in the school, not just students participating in the AVID elective course. The goal of the study is to understand the promise of the entire system to positively affect *all* the students across the schools. The study team conducted analyses comparing the years before and after implementation began using a pre-post analysis method to measure changes in outcomes over time at the participating schools. These analyses are nonexperimental — that is, the study is not a randomized controlled experiment, in which the outcomes for two equivalent groups (one that receives the intervention and one that does not) are compared to determine the effect. Thus, the study identifies whether outcomes changed over time, but not whether implementation *caused* any change in outcomes.

STUDY FINDINGS

Implementation of the ACRS and Alignment Activities

In general, the ACRS components were implemented successfully, with some components taking a little longer than others to fully implement.

- The professional development sessions were delivered as planned. Participation among teachers and staff generally met the goals of the model.
- The AVID elective was generally implemented with success throughout the three study years, although some schools struggled to fully implement the tutorial portion of the elective because it was difficult to find and maintain tutors in this rural area.
- Although every school had a site team in the first year, it was not until the third year that all schools were holding regular site team meetings with the appropriate staff members in attendance. High turnover of teachers and administrators at some schools may have hindered the successful implementation of this component.

Because the alignment activities were new features designed specifically for this project, it is not surprising that they were more difficult to implement and took longer to establish than the ACRS components, which the AVID Center had already been using nationwide. As described below, however, some student outcomes improved despite the difficulties implementing the alignment activities — perhaps driven by the more successful implementation of the ACRS, which was designed to improve student outcomes on its own.

- Middle school and high school feeder teams met sporadically in the first two years. The feeder teams were meeting more regularly by the third year, but most of them had still not developed an actionable plan by that time.
- The teacher content collaboratives also struggled to get off the ground, suffering from a lack of definition and focus, as well as attendance challenges; it was difficult to find substitute teachers to take over content teachers' classrooms during the full-day meetings.
- District and school administrators met and created a productive community of practice through the vertical articulation collaborative.
- The college partnership was not successful in that the expected number of college faculty and administrators did not always attend the teacher content collaborative and vertical articulation collaborative meetings. However, college faculty participated in more professional development sessions than were originally planned.

The ACRS and alignment activities benefited from the strong support of the AVID systems coach — an AVID Center employee who guided all the program activities within and across schools — as well as the active engagement of school administrators and the robust community of practice created by the collaboration of district and school administrators and some teachers.

Adoption of the WICOR Model, AVID Core Values, and Collaborative Approach

The growth of the ACRS across the schools may have contributed to the changes found in teachers' reported use of most of the WICOR model strategies — many of which reflect good teaching practices that could have been learned in other training sessions before the AVID study began. Teachers reported using these types of strategies more during the first year of implementation than they had before implementation, and that level of reported use in Year 1 held steady for the subsequent two years. Teachers, guidance counselors, and administrators at the schools also reported a higher level of conviction about the importance and feasibility of instilling academic rigor and creating a college-going culture across the school — which make up the AVID core values — during the implementation years than before implementation.

Student Behaviors, Attitudes, and Academics

The reported use of learning skills, engagement in school, awareness of postsecondary opportunities, and planned postsecondary degree attainment among tenth-graders before implementation compared with another group of tenth-graders after three years of implementation showed little difference between the two groups, but both groups had relatively positive responses on most of these measures. Students increased the number of credits earned in advanced courses, with 8 percent more students passing at least one advanced course in the third year of implementation than passed in the years before implementation. Other student outcomes, including course grades, state assessment scores, educational attainment, and school persistence, did not change substantially on average.

CONCLUSIONS

The findings that teachers increased their use of best-practice instructional methodologies and that staff members across the schools strengthened their conviction that all students can succeed in college both point to an important culture shift at the schools, moving toward a stronger belief that more students should take and can succeed in rigorous course work. This change in attitude may have helped lead to the positive finding that students were taking and succeeding in more advanced courses during the first three implementation years than was observed in the schools before implementation began.

Research suggests that content area teachers across grades and across secondary and postsecondary institutions coming together in communities of practice — to ensure that they share expectations of students and to help pave the way for smooth transitions between grade levels — is key to students' postsecondary education success.¹¹ Establishing this type of community across schools and colleges is not easy, and the difficulties can be exacerbated by the sheer physical distance between schools in rural areas. While the Collaborative partners struggled with implementing the teacher content collaboratives, lessons were learned from the process about the need to include school and district leaders in meaningful ways and about the importance of setting meetings at times when teachers can realistically attend.

11. McRobbie (2004).

One positive finding that might portend future success in this area was the embrace of AVID teaching methodologies by the local state college. The use of shared language and a set of methodologies among secondary and postsecondary educators could allow for more effective future dialogues. Moreover, according to the theory of change, the consistency — or alignment — of methods in the secondary and postsecondary education experiences of students could eventually lead to longer-term college success by easing the transition into postsecondary education for these students.

CHAPTER 1

Introduction

Attaining some postsecondary education or a postsecondary credential is associated with achieving better employment outcomes and earning a living wage in the current United States labor market. According to a 2016 report from the Center on Education and the Workforce at Georgetown University, a majority of the 11.6 million jobs that have been added to the economy since the Great Recession (2007 to 2009) have gone to workers with at least some college education.¹ However, less than half (46 percent) of 25–29-year-olds across the United States had earned at minimum an associate’s degree in 2016.² One obstacle to degree attainment may be that many high school graduates arrive at college unprepared for college-level course work. According to the National Center for Education Statistics, only 37 percent of high school seniors scored at or above proficient in reading and only 25 percent of seniors scored at or above proficient in math on the National Assessment of Educational Progress in 2015.³

Rural secondary schools face many unique challenges in preparing students for college and inspiring them to enroll. Rural schools often encompass large geographic areas with lower population density and a more limited tax base than is found in urban and suburban settings, forcing rural districts to stretch their resources further.⁴ These compromises can affect the quality of instruction. For instance, teachers in rural areas are often asked to cover multiple and different classes or subjects, so they need more time to prepare and they have less time for professional collaboration,⁵ which is important for strengthening teaching and learning skills.⁶ Given their distance from urban centers, many rural schools face challenges in recruiting and retaining qualified teaching staff and in offering the professional development and training needed to build leadership across the school.⁷ Given these challenges, some rural school districts in low-income communities are looking for ways to build their secondary teaching capacity, strengthen the academic rigor of their classes, ensure alignment between grade levels and across secondary and postsecondary standards and expectations,

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1. Carnevale, Jayasundera, and Gulish (2016).
 2. McFarland et al. (2017).
 3. National Center for Education Statistics (2015).
 4. Reeves (2003).
 5. Rosenberg, Christianson, Angus, and Rosenthal (2014).
 6. Borko (2004).
 7. Rosenberg, Christianson, Angus, and Rosenthal (2014).

and build better transitions between middle schools and high schools and between secondary and postsecondary education for their students.

One such effort is the AVID (Advancement Via Individual Determination) Central Florida Collaborative (abbreviated as “Central Florida” throughout this report), a partnership among the AVID Center (described below), three school districts in rural central Florida, the local educational consortium, and the local state college focused on building the college preparedness of the students in middle school and high school across the area. In 2012, these partners won an Investing in Innovation (i3) grant from the U.S. Department of Education to develop a collaborative model that supports a broad group of students attending secondary and postsecondary institutions in a rural area.

To reach its objective, the AVID Center and its Central Florida partners implemented the AVID College Readiness System, referred to as the ACRS throughout this report. The ACRS builds on the longstanding and popular AVID elective program (described below), which offers substantial supports to a set of students within a school by working to ensure that strong study and organizational strategies are being taught to all students and that college readiness is promoted throughout the school. The ACRS provides professional development to build teaching techniques and strategies that foster critical thinking and strong study skills, promotes rigorous course taking and college preparation for all students across a school, and provides additional supports for middle-achieving students (that is, students receiving mostly Bs and Cs in their classes) who aspire to go to college but may not be attaining the credentials and skills needed for a seamless transition to postsecondary education. At the same time, the partners wanted to help teachers align curricula, standards, and instructional strategies across grade levels and between secondary and postsecondary schools, and to help foster smooth transitions from middle school to high school to college. To that end, they developed and piloted a set of alignment activities whereby teams of teachers, counselors, and administrators across the participating middle schools, high schools, and the college meet to align their implementation of the ACRS and to collaborate and learn best practices from one another.

THE AVID CENTRAL COLLABORATIVE PARTNERS

As explained above, the AVID Central Florida Collaborative partners comprised the AVID Center, three central Florida school districts, and a local college. The three districts are part of the Heartland Educational Consortium, a regional nonprofit educational service agency that helped administer the grant.

The Avid Center. The AVID Center is a nonprofit organization whose mission is to support schools in closing the achievement gap for minority and low-income students. First established in 1980 in one San Diego high school, as of 2017 the AVID Center was serving nearly 1.5 million students in more than 6,100 schools comprising kindergarten through twelfth grade, and 40 colleges and universities internationally.⁸ The AVID Center worked closely with the schools and districts to plan and implement the ACRS and alignment activities and provided schools with professional development, support, and materials along the way.

8. AVID (2017a, 2017b).

Central Florida School Districts. The three participating school districts border each other in a rural area of central Florida approximately 80 miles southeast of Tampa. The School District of DeSoto County and Hardee County School District each include one high school and one middle school participating in the project, and the School Board of Highlands County has two middle schools and two high schools participating in the project. These eight schools make up four middle school–high school pairs. In each case, the students from a single middle school (sixth through eighth grades) move on to attend the high school (ninth through twelfth grades) with which it is paired. Staff in each of the three districts helped oversee the implementation of the system, and teachers and staff at all the schools participated in the professional development and alignment activities and in implementing the system across their school. All the schools in the study were new to the ACRS and had not worked with the AVID Center before.

South Florida State College. The sole public college in the area, South Florida State has a satellite campus in each county where the participating school districts are located. College instructors were also trained in AVID instructional strategies and participate in alignment activities along with teachers and administrators from the middle schools and high schools. The college was also new to the ACRS and to working with the AVID Center.

THE EVALUATION

This report presents both implementation and outcome findings stemming from a three-year evaluation, conducted by MDRC, of the Central Florida Collaborative partners' efforts. MDRC has worked with the partners throughout the program implementation, conducting data collection and analyses and providing the AVID Center and other partners with formative feedback along the way. The implementation study examines the fidelity of the actual implementation of the system to the model design, and the enablers of and obstacles to successful implementation, across all eight participating schools and the state college. Program data and qualitative data are collected from staff and students of two middle school–high school pairs in two different districts, the administrators of those two districts, the state college staff, and key AVID Center staff. The outcomes study uses a pre-post nonexperimental method to compare both school staff outcomes and student outcomes before the implementation of the ACRS and alignment activities with similar outcomes during each of the three years of implementation (the 2013–2014, 2014–2015, and 2015–2016 school years); the purpose was to explore the promise of the system to positively affect school and student outcomes. Nonexperimental methods do not capture whether the program implementation *caused* any changes in school or student outcomes — the analyses look at *associations* only.

The rest of this chapter describes the ACRS and the alignment activities in more detail, explains the theory of change, and describes the schools and districts participating in the study.

THE ACRS AND ALIGNMENT ACTIVITIES

The AVID Center and its Central Florida Collaborative partners focused on two core efforts that were both new to the participating districts and schools: (1) implementing the ACRS in each of the four middle school–high school pairings, and (2) designing and implementing alignment activities

that brought together staff and teachers from each of the districts and schools, plus the college, to align their efforts to implement the ACRS and create opportunities for staff members to share best practices.

The AVID College Readiness System

Designed by the AVID Center and implemented to varying degrees in hundreds of secondary schools across the country, the ACRS includes resources and professional development to strengthen and align teaching strategies across the school. These strategies focus on building students' critical thinking, reading, and writing skills, and strengthening their study habits and organizational skills. The AVID Center also works with participating districts and schools to help them align their improvement initiatives, emphasizing college readiness across all schools and for all students. Along with supporting the whole school through teacher and staff professional development, the system provides a targeted service, an elective class, designed for middle-achieving students who want to go to college and are willing to work hard, but whose grades are not generally high enough to get into more advanced courses. Many of the students targeted for participation in the AVID elective class come from backgrounds that have traditionally been underrepresented in higher education, including low-income and minority students. Through participation in the AVID elective, these students are pushed to take more advanced courses and are offered additional academic and social support to help them succeed in these courses.

Central to the ACRS is the WICOR (writing, inquiry, collaboration, organization, and reading) model, which includes a set of teaching and learning methodologies that educators can use to guide students in comprehending concepts and articulating ideas at increasingly complex levels, and the philosophy — represented by AVID's "core values" (described in Box 1.1) — that all students should be held to high academic standards and provided the academic and social support to meet those standards. The WICOR model (described in Box 1.2) is designed to add rigor and engagement to classroom instruction and students' academic work in all subject areas — in particular, in the core subject areas of English/language arts, math, science, and social studies. Furthermore, the WICOR

BOX 1.1

AVID Core Values

The AVID Center's core philosophy is that all students should be held accountable to high academic standards and given the academic and social support they need to meet those standards. The core values that AVID works to spread across a school are that all students should receive a rigorous academic experience and can and should be prepared for college. Incorporating these core values into the school culture is important to the effectiveness of AVID because it ensures that schools will open up rigorous courses such as honors, Advanced Placement, and dual enrollment classes to more students, while offering those students the support they need to succeed in those courses.

model reflects and promotes AVID’s core values, which reinforce a college-going culture across each school.

The ACRS comprises three main components: the schoolwide professional development, the AVID elective, and the site team. Each one has an active role in promoting AVID’s WICOR model and core values. Several staff members across the AVID Center, districts, and schools play key roles in implementing the ACRS. Box 1.3 describes each of these important players. The AVID Center works with district and school staff to align all school improvement and district initiatives in one system. Each school goes through an annual certification process called Certification Self-Study (CSS), which measures the school’s fidelity to the model in implementing all the components, scores the school on a continuum, and identifies areas for improvement during the next year. All the schools in the

BOX 1.2

The WICOR Model

AVID methodologies are used to build students’ reading strategies, study habits, and critical thinking skills. The WICOR model represents the AVID teaching methodologies, which include a set of tools teachers can use to create a rigorous college preparatory environment in their classrooms.

- **Writing** includes the AVID note-taking system, an adaptation of the Cornell system, which teaches students to take notes in a right-hand column and formulate questions based on the notes in the left-hand column,* and other activities to engage students in writing for learning.
- **Inquiry** trains students in the inquiry method, which uses levels of questioning — define, analyze, and apply — to encourage students to be responsible for their own learning process.†
- **Collaboration** sets up teachers as guides, facilitators, and coaches in a learning community and creates collaborative structures for successful group work among students.
- **Organization** is a set of tools for students to organize their study materials and their time to maximize learning — for example, the use of binders to organize class work and homework across classes, creating calendars and agendas to keep on task, and using graphic organizers and reading logs to structure class work.
- **Reading** emphasizes critical reading and uses scaffolding — where teachers first model a method or skill and then gradually shift responsibility for the learning process to the students — to help students develop their reading skills.

*Pauk (2001).

†Costa (2001).

BOX 1.3

Key Roles in the ACRS and Alignment Activities Implementation

The **AVID project systems coach** is a full-time AVID Center employee tasked with supporting the implementation of the AVID College Readiness System (ACRS) and the alignment activities across all the schools and the college, and providing training and coaching to teachers and staff.

The **AVID district director** is a local school district administrator, trained in the WICOR model (writing, inquiry, collaboration, organization, and reading) and the AVID core values, who oversees and manages the program implementation across the schools in the district.

The **AVID coordinator** is a teacher or school administrator who ensures ACRS implementation across the school and leads the school's site team.

The **AVID elective teacher** is assigned to the AVID elective class and, ideally, models and promotes WICOR model learning methodologies and core values throughout the school.

Guidance counselors are school staff members whose duties may vary from school to school but who serve key functions within an AVID school, including serving on the AVID site team, assisting with recruitment and selection of students for the AVID elective, and ensuring access to rigorous courses for AVID students.

Core teachers cover English/language arts, math, science, and social studies; they are the key implementers of the WICOR model within the school.

project were new to the ACRS and the system required a shift in philosophy and mindset for many of the staff members and teachers.

Professional Development

The main format for bringing the WICOR model to all students and for promoting the AVID core values throughout the school is through professional development offered to school administrators, guidance counselors, and teachers. The AVID Center offers a three-day Summer Institute that trains groups of teachers and staff from schools throughout each participating region. Each Institute includes sessions for people who are new to the program as well as for those with varying levels of experience and knowledge of the program so staff can keep building their skills. Two-day sessions, called "Path to Schoolwide," are also offered locally during the school year. The sessions offer training on specific WICOR model methodologies for teachers across the school, as well as providing additional support to AVID site teams (described below) and school leadership for spreading the WICOR model and AVID core values across the school. For this study, the goal was that 60 percent of all teachers at the middle schools and high schools would participate in professional development during the grant period.

The AVID Elective

The AVID elective is a year-long course, taught five days a week, for middle school and high school students who are interested in going to college but who require additional support to be prepared for college by the time they graduate from high school. Before the start of the school year, school staff members identify and recruit a set of students who could benefit from the AVID elective; students who are selected to enroll must sign a formal letter of commitment to the program, acknowledging that they understand the course will require consistent attendance and effort.

The AVID elective gives students a grounding in study, organizational, critical thinking, and reading skills. During two of the five AVID elective classes per week, students participate in small group tutorials led by a trained college student. These tutorials are meant not only to help students with problems they have with their course work, but also to teach them how to identify and summarize a problem and how to engage in a dialogue with peers about solutions. During the other three days, the AVID elective teacher works with students to build their competencies in the WICOR model methodologies and engages students in activities that help them explore and plan for college and careers. (See Box 1.4 for a more detailed description of an AVID elective class.)

Students who take the AVID elective are strongly encouraged to take at least one advanced class per semester, and the schools agree to allow these students to take these rigorous classes. Advanced classes include honors-level courses, dual enrollment courses (which can be taught at the high school or on the college campus and allow students to earn credits from both the high school and the local college simultaneously), and Advanced Placement courses (which are college-level classes taught at the high school that prepare students for college placement tests that, if passed, can lead to earning college credit). Students who enrolled in the AVID elective represent about 10 to 15 percent of the total student population across each school.

Extra professional development support, in the form of group and individual coaching sessions, is also provided to AVID elective teachers and AVID coordinators by the AVID systems coach.

Site Teams

The site team is a small group of teachers and other school staff members who work together to ensure that the AVID elective is fully implemented and who promote the schoolwide use of the WICOR model and incorporation of AVID core values. The site team usually includes an AVID coordinator, the AVID elective teacher, a guidance counselor, an administrator, and a few other teachers. The site team, with the AVID coordinator taking a lead role, actively supports the implementation of the AVID elective, helps identify and recruit new AVID elective students at the beginning of each school year, and provides training and modeling to other teachers, staff, and tutors at the school to advance the schoolwide components of AVID. Site team responsibilities include developing and implementing an annual plan for achieving ACRS goals, coordinating “communities of practice” (described below) among teachers at the school, disseminating information about AVID to parents and the community at large, and fundraising for AVID elective activities such as college field trips. The site team also meets at least monthly to engage in problem solving related to issues with student access to and success in advanced courses.

BOX 1.4

What Happens in a Well-Implemented AVID Elective Class?

Scanning the room of an AVID elective class, you will notice that the walls are filled with encouraging messages, college pennants, and charts tracking students' progress in various ways (such as their high school attendance and their ability to keep their school binders organized and get their course work finished on time). Student-made diagrams explain various reading, writing, and study strategies. Each one provides explicit definitions related to the strategy and examples of how and when to use it. The AVID elective class is designed to make explicit to students all the ways that they can organize their time and all the ways that they can interact with the curriculum to master the material and earn good grades. During the course of the year, an AVID elective teacher will cover (or reinforce, or have students practice or apply) dozens of the WICOR model (writing, inquiry, collaboration, organization, and reading) methodologies.

AVID students also participate in an in-class tutorial during two of the AVID elective classes per week. The tutorial is designed to allow students to practice advocating for themselves, seeking support, and learning through collaboration so they are well versed in those practices before starting college. The tutorial, in which students meet in small groups with a college-age tutor, follows a rigorous protocol that requires every student to prepare and participate. To prepare, students select a problem or concept from their homework or classwork with which they are struggling. They copy the problem or concept, summarize what they have tried to do or what they know about it, and articulate their remaining question(s) or confusion. As the students take turns presenting their problems during the tutorial, the rest of the group practices well-defined roles and responses. For example, rather than telling their fellow students how to solve the problem, students in a well-functioning tutorial will ask probing questions and make comparisons or loose suggestions. A primary goal behind the tutorial is to break students of the habit of expecting teachers and friends to help them with their academic challenges by simply providing answers.

In addition, AVID elective students participate in in-depth college and career awareness activities in middle school and college- and career-readiness activities in high school. These activities include research on actual postsecondary options, full exposure to financial aid options, and tours of local colleges and employers. Often this work is done in groups and is self-directed, with the teacher acting as a guide and offering one-on-one and small group support.

Finally, AVID elective students have fun! Tasked with serving as a source of pride and inspiration at their school, the AVID elective class will often take on community service projects, fundraisers, and schoolwide events to promote school spirit.

To ensure that the three ACRS components were implemented successfully during the years of the grant, the AVID Center and its Central Florida partners designed a plan to accelerate the implementation of the three components compared with the usual rollout of the ACRS in a school. Professional development was offered to many staff members over the course of the three years. Fifteen staff members from each school were invited to the first Summer Institute and eight staff members were invited in the two follow-up years. At least 10 staff members were invited to the Path to Schoolwide trainings each year. The AVID Center also provided a full-time AVID systems coach to work exclusively with the districts that were participating in the grant activities.

A plan was created for rolling out the ACRS in specific grade levels each year to make sure that all grade levels had an AVID elective and were fully implementing the ACRS by the third year. Table 1.1 shows which grade levels were implementing the ACRS during each year of the study. During the first school year (2013–2014), the ACRS was implemented in the seventh and eighth grades at the middle schools and in the ninth and tenth grades at the high schools. During the second year (2014–2015), the program was implemented in all middle school grades (sixth through eighth) and ninth, tenth, and eleventh grades at the high schools, and during the final year of the study (2015–2016), the ACRS was implemented in all grades in both the middle schools and the high schools.

TABLE 1.1
Grade Levels Supported by the AVID College Readiness System (ACRS), by Implementation Year

School Type	Grade	ACRS Implemented		
		Year 1 (2013–2014)	Year 2 (2014–2015)	Year 3 (2015–2016)
Middle schools	6th		◆	◆
	7th	◆	◆	◆
	8th	◆	◆	◆
High schools	9th	◆	◆	◆
	10th	◆	◆	◆
	11th		◆	◆
	12th			◆

Alignment Activities

Although middle schools, high schools, and local colleges may in fact serve the same students, rarely do these schools systemically collaborate to ensure that, from kindergarten through twelfth grade, their students will receive rigorous instruction that prepares them for college.⁹ Education research confirms the need for collaboration across grade levels in addressing transitions from preschool through postsecondary education, aligning college-readiness expectations, and ensuring similarities in preparation for teachers across grade levels.¹⁰ In an attempt to enable collaboration and alignment across educational institutions in the region, the AVID Center and its Central Florida partners developed, piloted, and revised four core alignment activities, or elements: the middle school–high school feeder teams, the teacher content collaboratives, the vertical articulation collaborative, and the state college partnership. The AVID systems coach was responsible for leading the collaborative processes and supporting and guiding the various teams in their planning. At the beginning of the grant period, the ACRS was already being implemented in many other schools across the country; however, the alignment activities were new to the AVID Center and to the participating schools and districts in the study. The alignment activities were designed and piloted especially for this project. For this reason, these components were subject to more trial and error than the ACRS and changed

9. Kirst and Venezia (2001).

10. McRobbie (2004).

from the original design during their rollout over the three years of the study. The original design for each of the four components is described below. Chapter 3 discusses the evolution of these program components.

Middle School–High School Feeder Teams

Each middle school–high school pair was represented by a “feeder team” that was made up of the principal (or assistant principal) and AVID coordinator from each site team in the pair. Thus, there were four feeder teams, each representing one of the four middle school–high school pairs. The partners planned for the four feeder teams to meet twice per year to align programming for students across grade levels and schools. For instance, the teams planned which AVID tools and skills (for example, interactive notebooks, note taking, critical reading, and so on) would be taught and reinforced in which grades. The plan was that each feeder team would create a written plan each year with specific action items to support the use of the WICOR model and implementation of the AVID elective.

Teacher Content Collaboratives

Content-area teachers in rural schools often find themselves isolated and geographically distant from other teachers in their subject area. Teacher content collaboratives were developed to create communities of practice where teachers can learn from each other and can connect college-readiness curricula across middle school, high school, and college. A collaborative was designated for each core content area (English/language arts, math, science, and social studies). The original plan for these collaboratives was that three content teachers from each of the participating middle schools and high schools would meet for a full day, twice per year, to share best practices in implementing the WICOR model and to align the college preparation curricula across schools.

Vertical Articulation Collaborative

It was planned that the vertical articulation collaborative (VAC), composed of school principals from all eight schools and a teacher from some schools, district leaders from the three districts, representatives from the state college, and a representative from the consortium of rural school districts, would meet three times per year. The VAC was intended to strategize full implementation of the ACRS across the participating districts, align curricular goals, and observe and share WICOR best practices. VAC members were also invited to participate in “classroom walk-throughs” held at different schools to observe the WICOR model being implemented in core subject classes.

State College Partnership

The additional partnership of the local state college allows for alignment of teaching strategies and curricula across secondary and postsecondary schools. It was planned that 20 college staff members would participate in AVID professional development each year, either through participation in the Summer Institute or attendance at a training session at the college. In addition, two state college instructors in each core subject area were invited to participate in each of the teacher content collaboratives to help align curricula and instructional strategies across secondary, dual enrollment, and postsecondary courses in each core subject area.

THEORY OF CHANGE

The theory of change predicts that if implemented as designed, the ACRS and alignment activities would lead to widespread adoption of the WICOR model and incorporation of AVID core values, along with increased communication and collaboration by teachers and other school staff. Those outcomes, in turn, would lead to improved learning skills, heightened engagement with school, and increased motivation to attend college for students across the middle schools and high schools, resulting in improved academic achievement and, ultimately, higher college enrollment and success.

Figure 1.1 displays this theory of change in detail. The key components of the ACRS and alignment activities are represented in the left-hand column. These program components are hypothesized to lead to the key school outcomes displayed in the middle column. They include the increased knowledge and use of the WICOR models during the AVID elective and across all classes at the school; the incorporation of the AVID core values, which hold all students to high academic standards, support them so they can succeed, and incorporate the belief that all students can be prepared for college; and increased collaboration within and across schools by teachers and other school staff, leading to a more cohesive, rigorous, and supported school experience for all students. These school-level goals are hypothesized to lead to several positive student outcomes, displayed in the far-right column of Figure 1.1. The first set of outcomes focuses on students' increased use of learning strategies, including reading and study strategies, their increased engagement and interest in school, and their increased awareness of postsecondary educational options and plans for college. Via these first three outcomes, the implementation of the program is also hypothesized to lead to students enrolling and succeeding in more honors, dual enrollment, and Advanced Placement courses, as well as improved academic performance (measured by a student's grade point average and success on state standardized tests), educational attainment (credits earned, promotion to the next grade level at the end of the school year, and high school graduation), and persistence in high school. The ultimate goal is to increase students' college enrollment and success.

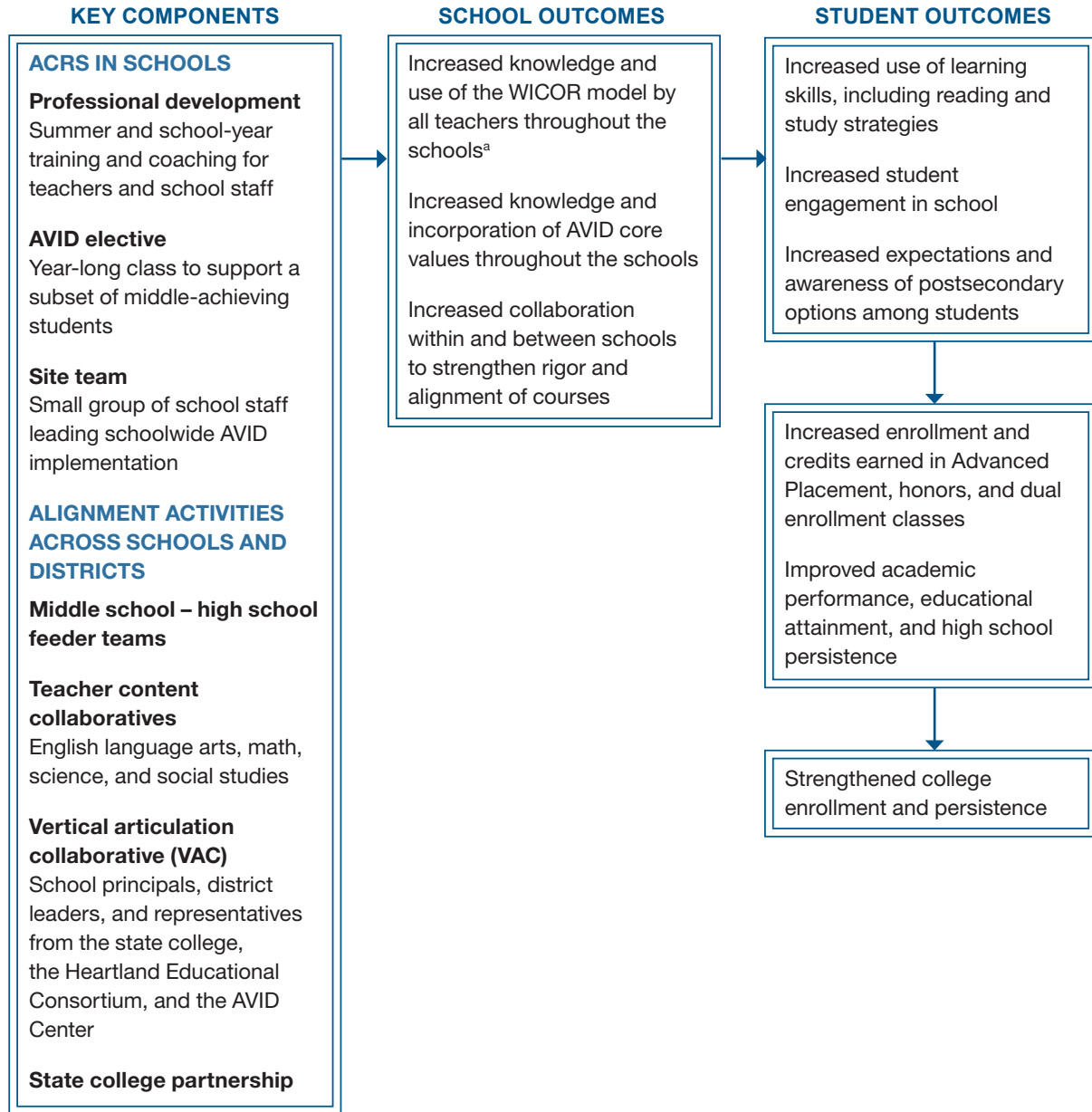
PARTICIPATING DISTRICTS AND SCHOOLS

The AVID Center and its Central Florida partners in this study were particularly concerned about addressing the specific challenges they face in a rural community with many low-income students and families. This section provides more detailed information on the community, the students, and the college.

The Community

The rural counties where the three participating school districts are located make up a large geographic area with low population density. Population estimates from 2016 show that each of the two smaller counties — DeSoto and Hardee — has fewer than 36,000 occupants, while Highlands County has approximately 100,000 people. Based on available geographic data from 2010, Florida's average population per square mile (350.6) is more than three times as great as the average for Highlands County (97.2) and over six times as great as DeSoto County (54.7) and eight times as great as Hardee

FIGURE 1.1
Logic Model for the AVID College Readiness System (ACRS) and
Alignment Activities



NOTES: ^aThe WICOR model includes teaching strategies in writing, inquiry, collaboration, organization, and reading.

County (43.5).¹¹ At the start of the project, each of the school districts was an eligible rural local education agency (LEA) under the Rural and Low-Income (RLIS) grant program, which provides rural districts with federal financial assistance for initiatives aimed at improving student achievement.¹²

The three counties also have lower average incomes, and lower rates of educational attainment, than the statewide averages. From 2012 through 2016, the median annual household income for the state was approximately \$48,900, compared with approximately \$36,000 in each of the three study counties. Across those same years, the percentage of the population age 16 years and older in the civilian labor force was 43.1 to 51.5 percent across the three counties, while across the state, employment for this group was at 58.5 percent. Between 2012 and 2016, the percentage of bachelor's degree holders age 25 years and above was 9.6 to 16.5 percent across the three counties and 27.9 percent statewide.¹³

The Schools

All the participating secondary institutions are Title 1, a status created by the federal Elementary and Secondary Education Act indicating schools with high numbers or high percentages of children from low-income families; more than 60 percent of students across these schools are eligible for free or reduced-price lunch, which is a proxy for children from low-income families. Over half the students at the participating schools are Hispanic or black, but the percentage of English language learners (that is, children whose native language is not English) is low, at about 2 percent. Approximately 48 percent of students meet proficiency standards on sixth grade standardized tests for math, and approximately 53 percent of students met proficiency standards for English.¹⁴ Before the project began, many of the participating schools were low performing according to their school report cards released by the state's education department. One school had a failing report card, three had earned Ds, and the other four had Cs in the year before the start of the program.¹⁵

The College

In 2012, the local community college changed its status to a state college and started offering some four-year degrees along with associate's degrees in arts and sciences. The state college offers dual enrollment opportunities for high school students, including all four high schools participating in this project. The average student age at the college is 23, with 64 percent of students attending part time.¹⁶ The graduation rate is 39.5 percent for full-time, first-time, degree/certificate-seeking undergraduates within 150 percent of normal time to completion (for example, within six years for a four-year bachelor's degree program).¹⁷

11. U.S. Census Bureau (2016).

12. U.S. Department of Education (2017).

13. U.S. Census Bureau (2016).

14. See Appendix Table C.1 for more information about student characteristics.

15. Florida Department of Education (2014).

16. South Florida State College (2017).

17. South Florida State College (2016).

STRUCTURE OF THIS REPORT

This first chapter introduced the partnership and grant, described the ACRS and alignment activities, discussed the theory of change for this project, and described the partner districts, communities, schools, and the participating college. Chapter 2 describes the study design. Chapter 3 describes the findings from the implementation research. Chapter 4 compares the use of the AVID methodologies by school staff during the first three years of implementation with their use during the year before implementation. Chapter 5 discusses student outcomes pertaining to student behavior and engagement, postsecondary expectations, and academic performance and persistence in school. Finally, Chapter 6 sums up the findings across the different parts of the study and offers some concluding thoughts about those findings.

CHAPTER 2

AVID Study Design

Over the three school years included in the AVID study (2013–2014, 2014–2015, and 2015–2016), the study team collected yearly measures of implementation to learn whether the program was actually implemented with fidelity to the model and goals; explored challenges and successes in implementation by collecting and synthesizing qualitative data; surveyed teachers, principals, and guidance counselors to measure how the AVID College Readiness System (ACRS) and alignment activities affected teacher practice and the attitudes of school staff regarding students' college readiness; surveyed students to capture any changes in their activities, attitudes, and perspectives; and collected student-level administrative records data from the districts to measure changes in student academic outcomes.

The focus of the grant that supported the AVID study was on designing and developing an effective system as opposed to measuring the impacts of that system. Accordingly, the study focuses on the successful development and implementation of the ACRS and alignment activities. The analyses of outcomes in this study are all nonexperimental and can only show whether the ACRS and alignment activities are *correlated* with any school or student outcomes. They do not capture whether the implementation of the ACRS or the alignment activities *caused* any changes in school or student outcomes.

This chapter describes the study design, including the research questions, data collection, measurement and analyses, and the study sample for each component of the study. It also explains how the program was rolled out in specific grade levels over the three-year follow-up period.

IMPLEMENTATION OF THE ACRS AND ALIGNMENT ACTIVITIES

The implementation study investigates what it takes to develop and implement the ACRS and alignment activities, examines the fidelity of implementation to the project design, documents experiences of both student and staff participants, and describes contextual factors that may have affected project implementation. The goal of this part of the study is to generate a picture of the implementation process and resources, as well as to learn what may be needed for further development or future replication. The primary implementation questions guiding this part of the study are:

- To what extent was the program implemented with fidelity to the model?
- What factors enabled or hindered the implementation of the program?

Two strands of implementation research were employed to answer these questions: measurement of implementation fidelity and qualitative research. The study sample includes all four pairs of middle schools and high schools as well as the local state college.

Measurement of the Fidelity of Implementation

The fidelity measurement looks at the implementation of each of the three ACRS components (professional development, the AVID elective, and the site teams) and the four alignment activity components (the feeder teams, the teacher content collaboratives, the vertical articulation collaborative, and the state college partnership), discussed in Chapter 1. The study team worked closely with the AVID Center to identify the key components and the best method to measure the fidelity of implementation of each component.

The ACRS

The three components that make up the ACRS were measured at the school level. Scores for the *professional development* component are based on the participation rate compared with the participation goals for each of the three types of professional development offered (Summer Institute, Path to Schoolwide, and coaching of the AVID elective teachers). Scores for fidelity of implementation of the *AVID elective* are based on six elements of the AVID elective component: (1) the elective class being offered at each grade level, (2) meeting student recruitment and enrollment goals,¹ (3) teaching organizational skills during the class, (4) teaching reading and writing strategies, (5) teaching inquiry and collaboration skills, and (6) providing support from trained tutors as part of the AVID elective. Scores for the *site teams* component are based on one element: the existence of an active interdisciplinary AVID site team collaborating on issues of student access to and success in rigorous college preparatory courses.

The six AVID elective elements and one site team element were measured using data from the AVID Center's certification documents, rubrics developed to help schools understand how well they are implementing pieces of the ACRS. Each school received a score of low/no implementation, partial implementation, or full implementation for each of the six elements listed above. The scores for the elements under each component were tallied to create an implementation score for each school, reflecting the extent to which the school implemented the component as designed during each year of the study.

Alignment Activities

For the four alignment activities across schools and districts, the level of measurement depended on the level of the collaboration. Each middle school–high school feeder team received an implementation score each year. Implementation scoring for feeder teams was based on two elements:

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1. These goals include the following: (1) 100 percent of the AVID elective students must meet the school district's defined selection criteria classifying them as students in the academic middle; (2) evidence of a recruitment plan must be provided; (3) the school site team must be involved in recruitment; and (4) all students in the AVID elective must sign a contract and parents must participate in at least one meeting with school staff members focused on gaining parent support.

the level of attendance at each of the meetings by the site team members from the middle schools and high schools, and the development of a written plan for the feeder teams to bring back to their schools and follow. The four *teacher content collaboratives* were each scored on three elements each year: the facilitation of two meetings, the participation rate of teachers from both the middle schools and high schools at each session, and the development of a written plan. The cross-district *vertical articulation collaborative (VAC)* was scored on the facilitation of three meetings per year, the attendance at those meetings, and a written plan coming out of those meetings. The *state college partnership's* implementation scores each year were based on the percentage of participation in the trainings (Summer Institute and local trainings) and the teacher content collaboratives compared with participation goals. For each alignment activity, scores of low/no, partial, or full implementation were awarded for each measure, and total scores were tallied for each year.

Implementation fidelity data were collected from the AVID systems coach twice per year. Data sources include the AVID Center's Certification Self-Study documents for each school, which measure the level at which each school is implementing the AVID elective and site team portions of the program, agendas and attendance rosters from various professional development events and team meetings, and other project documents. See Table 2.1 for a summary of all data sources and the timing of data collection.

TABLE 2.1
Data Sources and Timing of Data Collection, All Data Types

Data Type	Source	Collection Timing
Implementation fidelity	AVID Certification Self-Study (CSS) for each school, agendas and attendance rosters for professional development and meetings, and other project documents	Winter and summer 2014, 2015, 2016
Qualitative research	Interview and focus groups of teachers, other school and district staff members, middle and high school students, and college faculty members	Summer 2013, fall 2014, winter 2016
	Interview with the AVID systems coach	Twice per school year, 2013–2014, 2014–2015, 2015–2016
School outcomes	Survey of teachers, principals, and guidance counselors at all 8 middle schools and high schools	Spring 2013 (pre-AVID year), 2014, 2015, and 2016
Student outcomes	Survey of 10th-grade students in all 4 high schools	Early fall 2013 (start of Year 1) and 2016 (after Year 3)
	Student-level school district administrative records for students in grades 8–12	2010–2011 through 2015–2016 (3 years before and 3 years during implementation)

Qualitative Research

Qualitative data were collected and synthesized to learn about the implementation of the ACRS and alignment activities, to flesh out participants' perspectives on the program and process of implementation, and to learn about the obstacles to and enablers of implementation. For the qualitative research, interview and focus group data were collected from teachers, other school and district staff, middle school and high school students, and college faculty during three site visits: (1) during the first Summer Institute training, (2) at the beginning of the second year of the program, and (3) in the winter of the third year of the program. Qualitative research also included interviews with the AVID systems coach twice per year during the three years of the study. Interviewers asked participants about their experience with the program, the factors that enabled implementation, the obstacles to full implementation, and perceived changes in the school since the project's inception.

During the first site visit, teachers from all schools, principals from some schools, and some instructors from the college participated in focus groups. For the second and third visits, two middle school–high school pairs were chosen to participate in the qualitative research. These middle schools and high schools were chosen because they represented the variety of the schools in the program. Two of the schools were in one of the small school districts and two were in the larger district. They also represented different levels of implementation strength during the first year and different types of challenges as identified by the AVID systems coach and by the first-year fidelity of implementation data. Teachers, other school staff, and students participated in interviews and focus groups during visits to each of the schools. The school staff members who were interviewed included the principal or assistant principal, the AVID coordinator, the AVID elective teacher, and a focus group of teachers. A group of students also participated in a focus group at each of the four schools. The college AVID liaison and college teachers also participated in interviews or focus groups during the second and third visits.

SCHOOL AND STUDENT OUTCOMES

The *school and student outcomes* delineated in Chapter 1 were measured using student and staff surveys and student-level administrative records data collected at all the participating schools. In both cases, the study focuses on the outcomes of all teachers and staff members and all students across the schools. This group includes the AVID elective teacher and students, but they are just a small subsection of the entire school. This study focuses on the schoolwide effects of the program, not those particular to the AVID elective component. For school and student outcomes, the analyses compare the outcomes during the three years of implementation with the same measures in the years before AVID implementation at the same schools.

These analyses are nonexperimental. That is, the study is not a randomized controlled trial in which the outcomes for two similar groups (one that receives the intervention and one that does not) are compared to determine the program's effect. Additionally, this means that the study does not capture whether implementation of the program *caused* any change in outcomes. The school and student outcomes analyses simply compare the outcomes in the years before AVID implementation with the outcomes during the years of the program implementation to identify *correlations* only, without

looking at causation. Other changes in the schools' policies, curricula, or student body could have also led to any changes in outcomes that are found. The implementation of the program was a sizable undertaking and was probably the largest programmatic change at each of these schools during this time period, so any positive outcomes may point to the promise of the program to affect school and student outcomes. A more rigorous study, however, would be needed to measure whether the program has a direct impact on school or student outcomes.

School Outcomes

As discussed in Chapter 1, school outcomes include increased knowledge and use of the WICOR model (writing, inquiry, collaboration, organization, and reading) by all teachers, incorporation of AVID core values by school staff, and increased collaboration by school staff within and across schools. To measure increases in these outcomes, a staff survey was administered to all teachers, guidance counselors, and principals in all participating schools in the spring of 2013 (that is, the spring before AVID began implementation at the schools) and each spring during the three years of program implementation (spring of 2014, 2015, and 2016). The study team created the survey items in partnership with the AVID Center and designed them to capture teachers' reported level of use of the WICOR model in their classrooms, the attitudes of school staff toward the AVID core values of providing academic rigor for all students and preparing all students for college, and the level of collaboration within and across schools. The measures that were included in the analysis were constructed by combining survey items. All the items in each construct were tested using factor analyses to ensure they would hold together as a single measure when combined. (The items that make up each construct along with the Cronbach's alphas for each construct are described in Appendix B.) The survey analysis compares the school averages for each measure from each year of program implementation with the findings from the survey that was administered in the spring before AVID was implemented.

Survey items were compared over time to measure any growth in these outcomes and to answer the following research questions:

- Over the three years of the ACRS and alignment activities implementation, do teachers across the participating schools report annual increases in knowledge about and use of the WICOR model in their classrooms?
- Over the three years of the ACRS and alignment activities implementation, do teachers, guidance counselors, and principals at participating schools report annual increases in knowledge about and incorporation of AVID core values throughout their schools?
- Over the three years of the ACRS and alignment activities implementation, do teachers, guidance counselors, and principals at participating schools report annual increases in collaboration to strengthen rigor and alignment of courses within and across the schools and the college?

These school outcomes are considered mediating outcomes and are hypothesized to lead to the student outcomes discussed below.

Student Outcomes

As discussed in Chapter 1, the hypothesized student outcomes for the program include increased use of learning skills, including study and reading strategies; increased engagement in school; increased expectations and awareness of postsecondary options; increased enrollment and credits earned in advanced courses; improved academic performance, educational attainment, and persistence in school; and strengthened college enrollment and persistence. The first three outcomes were measured using a student survey while the other outcomes were measured using student-level administrative records data. Given the confines of the study timeline, only college enrollment was measured.² The study was not able to look at persistence in college. Since the focus of this project was on systems change across the schools and districts, these analyses focus on the outcomes of all students across the schools as opposed to looking at the outcomes of only the AVID elective students.

Outcomes from the Student Survey

A survey was administered to all tenth-grade students at the four high schools in the early fall of the first implementation year of AVID (fall 2013), before they had much exposure to the program. The same survey was administered again to a new set of tenth-grade students during the fall after three years of implementation (fall 2016). Most of this second set of tenth-grade students experienced the program implementation during their seventh-, eighth-, and ninth-grade years in both middle school and high school. The survey asks students about their learning skills and strategies, including the reading and study strategies they use, their use of critical thinking in school, their study habits, and their use of organizational techniques. The survey also asks about their engagement in school, their awareness of postsecondary opportunities and expectations for their future higher education, and their perspectives on the school environment and the academic rigor of their classes.

Tenth-grade students were chosen to participate in the survey because after three years of implementation most tenth-grade students would have experienced the program for three years in both middle school and high school. They were also chosen because students in later grades would be more likely to drop out or leave the school, which could skew the sample. Two different sets of tenth-grade students were surveyed rather than surveying the same group of students in an earlier and later grade because as students progress into successively higher grades, their academic skills, college knowledge, and school engagement can change, regardless of any school program. Thus, it would have been difficult to interpret these survey findings from the same students in different grades.

The measures included in the analysis are constructed from survey items. (See Appendix B for more detail on the survey analysis and the method for constructing the survey measures.) The analysis for the student survey compares the school averages in the pre-program tenth grade sample — that is, students who entered tenth grade in 2013 — with the school averages from the sample of students who entered tenth grade in the fall of 2016, after the third year of implementation for each measure had ended.

2. College enrollment data used for this study only include counts of high school graduates who enrolled in college and not individual information about each student's enrollment in college.

Outcomes from Administrative Records

Measures of students' advanced course taking, academic achievement, and educational attainment during middle school and high school were created using student-level administrative records data collected from the three school districts. These analyses address the following primary research questions:

- Does the program offer promise in terms of strengthening the following outcomes after three years of implementation? That is, is it associated with these outcomes?
 - The likelihood that high school students across the school will enroll and succeed in more advanced courses (honors, Advanced Placement, and dual enrollment) during the ninth through twelfth grades
 - The average academic performance (grade point average and state assessments) of all ninth-through twelfth-grade students at the study schools
 - The overall educational attainment (credits earned, promotion to the next grade, and high school graduation) of all ninth- through twelfth-grade students at the study schools
 - Students' persistence in ninth through twelfth grades (retention in school) for all students attending the study schools

The study team also looked at a similar set of outcomes for eighth-graders at the end of the third year of implementation. Most of these students participated in ACRS for two years (during seventh grade in 2014–2015 and during eighth grade in 2015–2016). Since the program was implemented in middle schools only in the seventh and eighth grades during the first year, the ACRS was not offered to these students during their sixth-grade year in 2013–2014.

Each district provided data on eighth- through twelfth-grade students' course taking, grades received, and credits earned, their standardized test scores in English/language arts and math (including math and English/language arts for eighth-graders, and English/language arts for ninth- and tenth-grade students), whether they were promoted to the next grade at the end of the school year, whether twelfth-grade students graduated from high school, and whether students stayed in school the entire school year. Data were also collected on students' demographic information — including race and ethnicity, gender, whether they were English language learners or participating in special education, and whether they were receiving free or reduced-price lunch (a proxy for low income) — and their prior scores on standardized state tests in English and math. These data were collected for all students attending the schools in eighth through twelfth grade during the three school years before AVID implementation (2010–2011, 2011–2012, and 2012–2013) and the three years after the program implementation began (2013–2014, 2014–2015, and 2015–2016) — that is, the three study years.

The study team conducted analyses comparing the years before and after program implementation began using a pre-post analysis method to measure changes in outcomes over time at the participating schools.³ All four high schools were included in the analysis (and all four middle schools were

3. See Appendix C for more information on the analytic model.

included in the eighth-grade analysis). For the high school analysis, students in ninth through twelfth grades were included for all measures appropriate for all grade levels. (Some measures, such as high school graduation, are limited to specific grades in the analysis.) Students are compared within each school and grade level, and then the findings for each school and grade level are combined.

The study team also collected data on postsecondary education enrollment for students who graduated some time during the three-year study period (discussed in Chapter 5). These data were not collected by the school districts and are not available to the study team for the years before the ACRS and alignment activities were implemented. Postsecondary records are compared over the three years of implementation with the assumption that given the rollout of the ACRS to lower grade levels first, high school seniors in the first and second years of implementation had less exposure to the system than those in the third year of implementation.

The study sample for the administrative records analyses includes all four high schools that were participating in the study and their four associated middle schools. All students who were enrolled in ninth through twelfth grades at the end of the third implementation year are included in the main analysis. The eighth-grade analysis includes all eighth-grade students who were enrolled in the four middle schools at the end of the third year of implementation.

CHAPTER 3

Implementation

The implementation study examines the fidelity of the implementation of the AVID College Readiness System (ACRS) and the alignment activities to the project design, documents the experiences of both student and staff participants, and describes the contextual factors affecting implementation. This research was done through the collection, analysis, and synthesis of project data as well as via interview and focus group data from site visits to select study schools and phone interviews with the AVID project systems coach.

Key findings from the implementation study include:

- Overall, analyses show that two of the three ACRS components — professional development and the AVID elective — were implemented successfully at most schools, with moderately high fidelity to the model. The third component — site teams — had a slow start at many of the schools, but was moderately successful by the third year.
- In contrast, there was mixed success implementing the alignment activities, collaborative structures that were developed specifically to increase alignment across schools and districts.
- The biggest obstacles to successful implementation for the Central Florida Collaborative partners included teacher and administrator turnover, which made it hard at some schools to build the program over the years; a lack of tutors for the AVID elective, which made it difficult for some schools to fully implement that key component; and struggles to fully define and implement the teacher content collaboratives, which kept teachers across the schools from collaborating in robust ways.
- The ACRS and alignment activities benefited from the strong support of the AVID systems coach, who worked to guide the program activities within and across schools; the active engagement of school administrators and the robust community of practice created by the collaboration across district and school administrators and some teachers; and the state college's embrace of the ACRS, which led to more college faculty participating in AVID professional development than originally anticipated.

FIDELITY OF THE AVID COLLEGE READINESS SYSTEM TO THE MODEL

Fidelity of the ACRS implementation to the model was measured at the school level, focusing on three key system components (professional development, the AVID elective, and the site team) and 10 individual elements within those components: three elements of the planned professional development, six elements of the AVID elective, and one element of the AVID site team. Each element was scored on a scale of 0 to 2, with 0 equaling low/no implementation, 1 equaling partial implementation, and 2 equaling full implementation with high fidelity to the model. Scores were assigned to each school each year and were combined across the eight participating schools each year to determine whether the project met an implementation threshold set by the AVID Center. Table 3.1 displays the number of schools, out of the eight middle schools and high schools, that met the full implementation goal for each element in each year. The first page of Appendix Table A.1 presents the operational definition and data source for each element of the three ACRS components.

Professional Development

To initiate and support the successful implementation of the ACRS, the AVID Center planned to provide professional development to teachers and school leaders in the Central Florida Collaborative. The professional development focused on the WICOR model (writing, inquiry, collaboration, organization, and reading). The goal for the professional development sessions was for teachers to leave the trainings with new skills, strategies, and tools that would help them increase academic rigor for students. The planned professional development took three main forms: the AVID Summer Institute, local AVID Path to Schoolwide trainings, and specially designed coaching sessions for AVID elective teachers and coordinators (as described in Chapter 1).

Professional development was the most successfully implemented component of the project. Professional development and training sessions were delivered as planned (in some cases more frequently than planned), and a majority of schools usually met the participation benchmarks set by the AVID Center. The Summer Institute was the most successful component of professional development and the Path to Schoolwide training was the least successful.

Summer Institute

AVID Summer Institute trainings were successfully implemented as planned. Taking place over three days, the Summer Institute brings together staff from AVID schools across a geographic region of the United States. The training sessions at the Summer Institute are divided into strands for schools that are newly adopting AVID and for those with more experience. Teams of teachers and staff attend from each school, and participants spend part of their time in workshops and part of their time in team debriefing and planning sessions so that they return to their schools with concrete plans to implement what they have learned. Summer Institute workshops are engaging and high-energy. AVID consistently uses adult learning theory, which promotes hands-on experiences and problem solving, in creating its professional development. In addition, the AVID Center demands that its presenters, who all are experienced AVID teachers, illustrate the WICOR model strategies that teachers are being trained to use.

TABLE 3.1
Number of Schools Meeting Full Implementation Standard on
Key Components and Elements of the AVID College Readiness
System (ACRS), by Year

Key Component or Element	Year 1 (2013–2014)	Year 2 (2014–2015)	Year 3 (2015–2016)
Professional development			
Summer Institute	8	8	8
Path to Schoolwide	5	7	4
Coaching for AVID elective teachers and AVID coordinators	8	8	7
AVID elective			
Class offering	8	8	8
Recruitment and enrollment	7	7	8
Organizational skills	5	7	8
Inquiry and collaboration	5	6	7
Reading and writing	4	6	6
Tutoring	4	5	4
Site team	2	5	6

SOURCE: AVID certification documents for school years 2013–2014, 2014–2015, and 2015–2016.

NOTE: There are eight schools in total.

For this project, AVID provided space for each middle school and high school to send a team of 15 teachers and staff to the Summer Institute during summer 2013 — before the first year of implementation — and a team of 8 teachers and staff to the Summer Institute each summer thereafter. Participation was high: In the first year, each school sent between 13 and 17 attendees. In subsequent years, every school sent at least 8 teachers and staff, with several schools paying the additional fees to send a total of 9, 10, or even 11 participants. When asked about their impressions of the Summer Institute, teachers and staff were almost unanimously positive. One teacher interviewed by the research team shared her perspective:

There is a lot of interaction and [we are] practicing all of the things that she’s teaching us, and when she’s got stuff on the wall [she says,] “Go take pictures. You can have it with you so that you can look back on it later.” It’s just very open and safe. It definitely feels like a safe classroom where you can make a mistake and it’s okay, nobody’s gonna laugh at you, which is good because some teachers are worried . . . so having that presenter that shows you to just do it is fantastic.

In fact, when interviewing teachers at their schools in the second year of the project, the research team heard some teachers express frustration and consternation over not having yet attended the Summer Institute — because they had heard from their peers that it was such a motivating and meaningful professional learning opportunity. It was in part the teachers’ willingness to dedicate

three days of their summer vacation to receiving high-quality professional development that ensured that the project successfully met the implementation threshold for participation. As can be seen in Table 3.1, all eight schools met the implementation threshold for attending the Summer Institute in all three years.

Path to Schoolwide Training

Local AVID Path to Schoolwide training sessions focused on a range of topics, including general implementation challenges, leadership strategies, the AVID tutorial program, and the use of strategic engagement strategies in core classes. AVID committed to providing two full days of Path to Schoolwide professional development each year with spots for 10 teachers and other staff members to participate from each school. In fact, AVID responded to requests from the schools by offering far more training than planned in the first year of the project — up to six days at some schools. While AVID expected that each school would have a participation rate of at least 85 percent for the two days of required training, five of the schools met this expectation in the first year and seven of the schools met the expectation in the second year, but only four of the schools met the expectation in the third year of the project, as shown in Table 3.1. Therefore, despite the initial enthusiasm, the implementation of Path to Schoolwide trainings was only moderately successful.

AVID Elective Teacher and AVID Coordinator Coaching

The third and final type of professional development support provided by the AVID Center was a series of coaching sessions for the AVID elective teachers and the AVID coordinators. AVID provided these coaching sessions once per semester and tailored them to the needs of the AVID elective teachers and AVID coordinators. AVID Center staff expected that the AVID coordinator and at least one AVID elective teacher from the school would participate each time. (In some cases, the same individual was both the teacher and the coordinator. In others, one or multiple individuals taught sections of the AVID elective class, while another individual coordinated the recruitment, student scheduling, hiring, and training of tutors; fundraising; and other tasks associated with managing the AVID elective program at the school.) In the first and second years of the project, the targeted individuals participated at least 85 percent of the time at all eight schools; in the third year, seven of the eight schools met the attendance goals. Despite this slight decline in the third year, the implementation of the AVID coaching sessions successfully met the implementation goals.

AVID Elective

The AVID elective class, although it serves only a small percentage of the students in the school, is the cornerstone of the ACRS. AVID students attend the AVID elective class five days per week to learn critical reading, writing, and thinking skills; participate in collaborative tutorials led by trained college students; and engage in career and college exploration. The project plan stipulated that each school begin offering the AVID elective to select grades in the first year of the program and continue expanding the number of sections until at least one section was offered at each grade level by the third year of the project (forming an unbroken continuum of AVID elective sections in the sixth through twelfth grades in each middle school–high school pair). In addition, the schools were required to ensure that the students who enrolled in the AVID elective were the ones defined

as the target group by the AVID Center (that is, students who were previously not high academic achievers, but who demonstrated some academic capability and motivation to succeed).

Program data collected annually show there was notable variation in implementation fidelity by program element. The first three elements of the AVID elective (class offering, recruitment and enrollment, and teaching of organizational skills) were, for the most part, successfully implemented with fidelity to the model across the study sample: At least seven of the eight schools successfully implemented all three elements in the second and third years of the study; five schools successfully implemented organizational skills in the first year only. The remaining program elements (teaching reading and writing skills, teaching inquiry and collaboration, and use of the tutorial structure) were more challenging to implement, but even these program elements were well implemented at half or more than half of the participating schools (as shown in Table 3.1). In addition, implementation of the AVID elective program elements (except for tutorials) improved during the three years of the project.

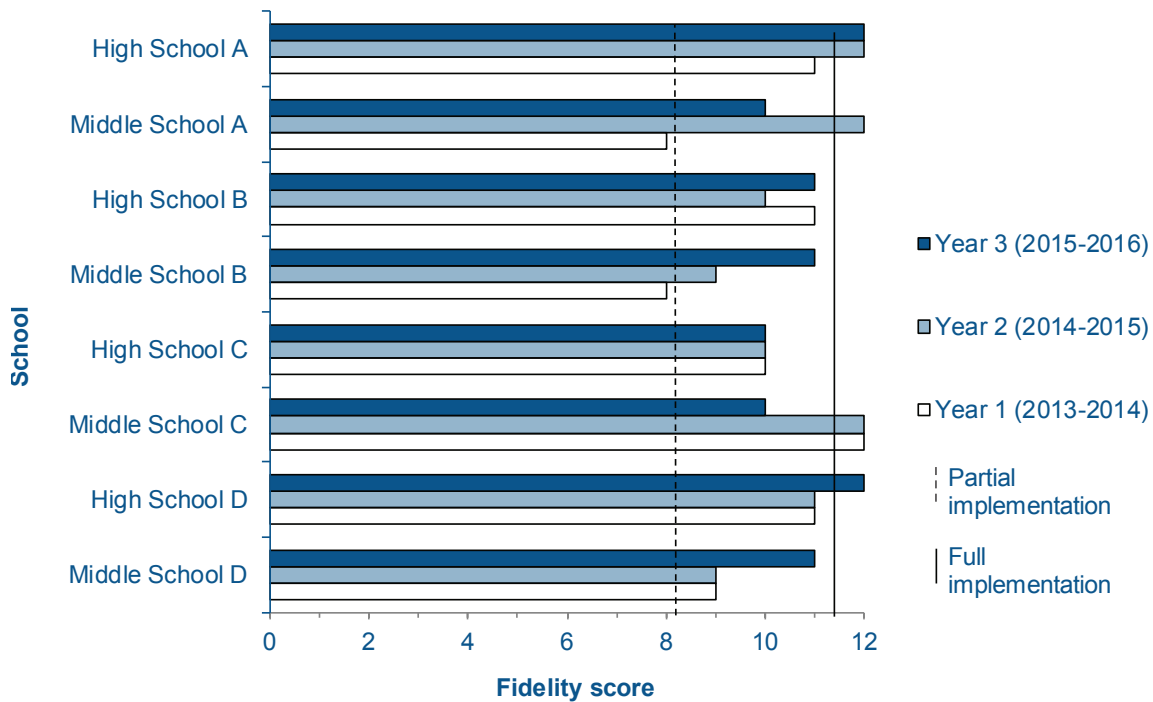
Figure 3.1 shows the AVID elective implementation scores each year separately for each school. Each school could receive a total possible score of 12 points; in other words, each school could receive a score of 2 for each element that was fully implemented, a score of 1 for each element that was partially implemented, and a score of 0 for low or no implementation. Implementation fidelity varied somewhat by school type, with high schools found to have slightly higher fidelity of implementation than did middle schools. However, the dominant finding is that the majority of schools did successfully achieve full implementation of the AVID elective within three years and that the remaining schools were moderately successful.

Students who participated in AVID electives at the four schools that the research team visited had many positive things to say about their experience. College awareness was one theme that the students stressed. For example, one AVID student said, “AVID is a great way to learn about college; you take trips to schools where we might want to go.” Her classmate added, “We do a lot of preparation in AVID to help us figure out what we want to do, what would benefit us...what [our] skills and interests are.”

Another theme that the students stressed was the value of the organizational tools taught in the AVID elective, especially the use of three-ring binders to keep their class notes and homework organized and calendars to keep track of assignments. One student shared that “the binder helps [me] stay organized, and the calendar helps me keep track of deadlines.” Another student agreed, explaining that because of the organizational skills he learned through AVID, he now “turns assignments in before the deadline.” One student admitted that he originally did not want to enroll in the AVID elective class because the easily recognizable binder seemed like “too much” — that is, too much effort and maybe too obvious a sign of a student’s investment in school. But after a year of unsatisfactory grades, this student enrolled in the AVID elective class in tenth grade and credited the required organization of the binder system with helping him to get ahead.

The AVID Center’s theory of change maintains that students in the elective class will not be the only ones to benefit, but rather that over time those students and teachers will help promote a positive school culture — one that evidences student engagement, high expectations, and a sense of collective responsibility. In several instances, the research team heard about the positive influence of the AVID elective teacher and students at the school. For example, students and teachers at one school

FIGURE 3.1
Fidelity Scores for the AVID Elective, by School and Year



SOURCE: AVID certification documents for school years 2013-2014, 2014-2015, and 2015-2016.

NOTES: Total scores are the sum of the six element scores (class offering, recruitment and enrollment, teaching of organization skills, teaching of reading and writing skills, teaching of inquiry and critical thinking skills, and use of tutorials). For each element, a school received a score of 2 for full implementation, 1 for partial implementation, and 0 for no or low implementation.

shared that the AVID elective students had set a very positive example with their community service projects; at another school, teachers remarked that AVID elective students were setting a new standard of organization and preparation in their classes.

AVID Site Teams

Each school participating in the project was required to form an AVID site team to support implementation of the AVID elective and adoption of WICOR strategies schoolwide. Ideally, the AVID site teams comprise individuals in specific roles, including the designated AVID coordinator, the AVID elective teacher(s), the school guidance counselor(s), an administrator (that is, a principal or assistant principal), and a representative from each core academic content area. Site teams were asked to address alignment of the AVID elective curriculum from one grade to the next, continued improvement of challenging program elements like the tutorial program, and strategic planning and communication to ensure AVID elective students have access to and succeed in rigorous academic courses. Finally, the AVID site teams were expected to produce a detailed plan for ongoing program implementation and improvement.

Although every school established a site team to some degree, only two of the schools implemented this component successfully in the first year. Specifically, the research team found that not all the site teams had all of the members and some site teams did not meet at least monthly as required. In addition, although a few teams attempted to address issues of access and equity, other teams focused on more basic programmatic elements like field trip planning and fundraising, and were not able to tackle more systemic challenges. Some AVID coordinators and teachers said that they typically spent their meeting time talking about fundraising. For example, one elective teacher said, “I’m also concerned about money to operate the class; we have to pay for paper and cartridges.” A coordinator said, “Everyone feels overloaded... We need to fundraise for . . . activities, t-shirts, college visits....”

The professional development offered to school leaders, AVID elective teachers, and AVID coordinators eventually began to influence the AVID site team members’ vision of what their teams could accomplish. By the third year of the project, site teams were being more successfully implemented across the eight schools, and were being fully implemented at six of the schools. This means that meetings were being held regularly, the appropriate individuals were attending, and the site teams were taking responsibility for supporting the ACRS at the school in substantive ways.

Overall, data show that implementation of ACRS components was successful at most of the schools and moderately successful at the remainder.

FIDELITY OF THE ALIGNMENT ACTIVITIES TO THE MODEL

This section addresses fidelity of the implementation of the four alignment activities to the model: the middle school–high school feeder teams, the teacher content collaboratives, the vertical articulation collaborative (VAC), and the partnership with the state college. Table 3.2 displays the implementation scores (low, partial, or full implementation) of the four feeder teams for each alignment activity in each school year. Each of the four alignment activities was designed to increase alignment of curriculum, standards, and AVID implementation in sixth grade through college. They were designed by the AVID Center and the Central Florida partners specifically for this project and were under development and evolving continually during the three years of the study. For this reason, the levels expected to meet fidelity were adjusted during implementation. However, the findings for each year shown in Table 3.2 are all measured using the same final set of expectations that were determined by the AVID Center, which reflect their best judgment about what was needed for effective implementation.

Middle School–High School Feeder Teams

The first of the four alignment activities that the AVID Center developed for this project, the middle school–high school feeder teams, was intended to increase communication between the two schools in each middle school–high school pair, specifically regarding implementation of the AVID elective and the WICOR model schoolwide. The AVID Center originally expected that the two site teams for each middle school–high school pair would meet jointly at least once per semester and develop actionable plans to carry over from meeting to meeting (that is, plans indicating clear goals and activities, timelines, and individuals who would be responsible for carrying out the plans). Later, it

TABLE 3.2
Achievement of Implementation Standards on Key Components of the
AVID Alignment Activities, by Year

Key Component	Year 1 (2013–2014)	Year 2 (2014–2015)	Year 3 (2015–2016)
Middle school – high school feeder teams			
Feeder Team A	Low	Low	Partial
Feeder Team B	Low	Low	Partial
Feeder Team C	Low	Low	Low
Feeder Team D	Low	Low	Partial
Teams achieving full implementation (N)	0	0	0
Teacher content collaboratives			
English/language arts	Full	Partial	Full
Mathematics	Partial	Partial	Full
Science	Partial	Full	Partial
Social studies	Partial	Full	Full
Collaboratives achieving full implementation (N)	1	2	3
Vertical articulation collaborative (VAC)	Full	Partial	Partial
State college partnership			
Participation in professional development	Full	Full	Full
Participation in content collaboratives	Partial	Partial	Partial

SOURCE: Attendance rosters and document review in school years 2013–2014, 2014–2015, and 2015–2016.

NOTES: There were four feeder teams, one for each high school and middle school pair. Implementation scoring for each team was based on the rate of attendance at meetings and the development of a written plan for the teams to bring back to their schools and follow.

There were four teacher collaboratives, one for each of the four core content areas. Implementation scoring was based on the facilitation of two meetings per year, the teachers' rate of attendance at those meetings from both the middle schools and the high schools, and the development of a written plan.

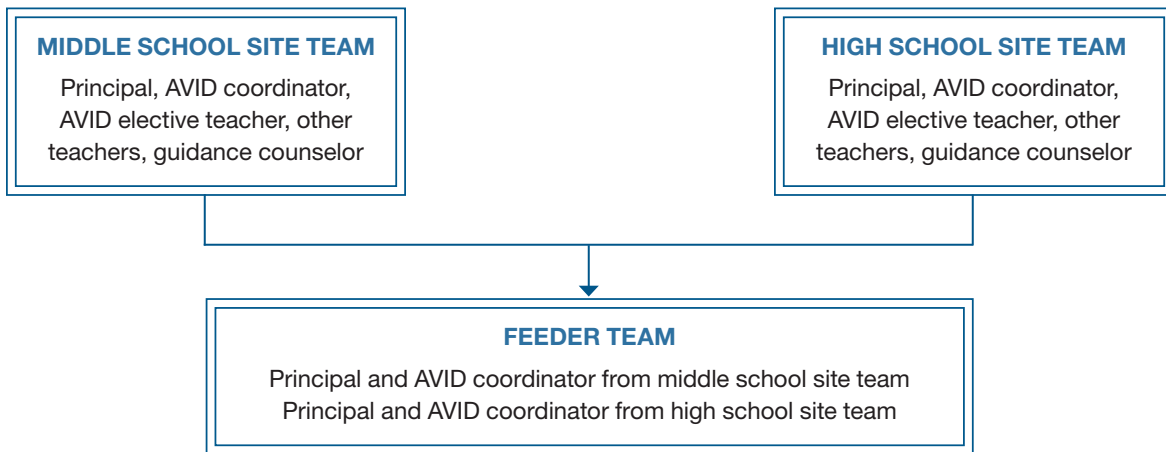
There was one cross-district vertical articulation collaborative, which brings together administrators from all schools and districts, the college, and the consortium. The VAC was scored on the facilitation of three meetings per year, the rate of attendance at those meetings, and the development of a written plan.

There was one state college partnership; implementation scores were based on the rate of attendance from designated college staff members in both the professional development trainings and the teacher content collaboratives.

For each alignment activity, scores of low, partial, or full implementation were awarded for each measure.

was decided that to meet full implementation, just two members from each site team — the principal (or assistant principal) and the AVID coordinator — would make up a feeder team (see Figure 3.2) that would meet only once per year and would still work to create actionable plans to bring back to the full site teams and the rest of the staff members at the schools. This component was implemented with increasing, but still relatively low, fidelity across the three years.

FIGURE 3.2
AVID Site Team and Feeder Team Composition



NOTE: Either the principal or the assistant principal from each school could serve on the site teams and feeder teams.

In fact, the feeder teams met sporadically, if at all, in the first and second years of the project. By the third year, three of the four feeder teams were holding regular meetings with focused agendas, but none of the teams was consistently developing and using actionable plans. As can be seen in Table 3.2, none of the four feeder teams met full implementation in any year, and all four teams had low implementation in the first two years. Interviews with school and program staff indicate potential feeder team members were in many cases unclear on the purpose of the feeder team meetings. In addition, the functionality of a successful middle school–high school feeder team would clearly be dependent upon relatively strong AVID site teams at both schools. Since it took until the third year for the site teams to become truly functional at most of the schools, it is not surprising that the middle school–high school feeder teams were not successfully implemented.

Teacher Content Collaboratives

The second alignment activity that the AVID Center and its partners developed for this project was the teacher content collaborative. Content collaboratives were designed to bring together teachers from all eight schools within a core academic content area: one for math, one for science, one for English/language arts, and one for social studies. Participants met to discuss implementation of AVID instructional methodologies within the content area and worked to align content and strategies across grade levels. The AVID Center intended that teacher content collaborative meetings would take place once a semester for a full day and that a prescribed number of teachers per content area in a school would participate. To ensure that the collaborative conversations included all schools and districts, the fidelity of implementation to the model was measured in part by how many schools were represented at each collaborative meeting. Finally, each collaborative was expected to develop an actionable plan, meaning that specific goals and activities would be documented, with timelines and responsible individuals indicated for each.

As can be seen in Table 3.2, the partners were only partially successful in implementing the teacher content collaboratives in the first and second years of the project, but adjusted over time and were successful in meeting most implementation standards for the teacher content collaboratives in the final year. The AVID systems coach took primary responsibility for facilitating the teacher content collaborative meetings, so the meetings were held according to schedule all three years, but attendance and participation were inconsistent. For example, the AVID Center originally expected schools to send three representatives per content area to each meeting, and several schools were unable to do so because of a shortage of available substitute teachers and its impact on instruction. As one principal explained, “[F]inding subs in rural areas is hard and the standard is low because of the shallow pool. We had to cancel [a teacher content collaborative] because we couldn’t find subs.” The AVID systems coach noted these challenges and made several revisions to the plan, including reducing the number of teacher participants from each content area at each school from three to two, as well as attempting to construct a schedule for the content collaborative meetings that had less impact on the instructional day. As can be seen in Table 3.2 (which uses the revised criteria of two teacher participants per school), while only one collaborative (English/language arts) was able to meet full implementation in the first year, by the third year three collaboratives (English/language arts, mathematics, and social studies) met full implementation.

Vertical Articulation Collaborative

The vertical articulation collaborative was the third alignment activity that the AVID Center developed for this project. The VAC met three times per year to address the alignment of curricula and teaching strategies across grade levels and across the participating schools and districts and to support implementation of AVID activities and core values from sixth grade through college. Designed to support collaboration at the leadership level, the group comprised administrators (school principals or assistant principals), the AVID directors from each school district office, representatives from the state college, and a representative from the regional consortium supporting the grant. At the outset, as many as 16 different individuals were expected to participate in the VAC. Eventually, the AVID Center staff streamlined the list of intended participants down to 13 individuals. Using the revised criteria, the VAC successfully met the attendance thresholds in the first year, but was only partially successful in meeting attendance goals in the second and third years, as shown in Table 3.2. The AVID systems coach noted, however, that while attendance of school administrators declined in the second and third years, participation by teachers increased. Boosting teacher leadership is an explicit goal of the ACRS, so their attendance is viewed as beneficial.

In addition, the AVID systems coach and school administrators who were interviewed by the research team believed that the VAC became a valuable community of practice for school leaders. The practice of conducting classroom walk-throughs at one another’s schools was cited for building engagement and camaraderie among the principals. AVID Center staff had worked with members of the VAC to design a classroom walk-through protocol early in the project; the protocol was an observational tool that was intended to guide members of the VAC as they toured their host school and visited classrooms; the protocol also included a series of questions and checklists to prompt observation and discussion about the characteristics of the teaching and learning they were observing. The classroom walk-throughs were cited as a powerful learning experience by school and district leaders and participating teachers. One principal stated:

It's powerful when teachers see themselves in a situation in a classroom thinking, "I do that, too," but as an observer they see that it's not that effective, or they see "what they are doing is more effective than what I do." One [teacher] just realized something that she's been doing in her classroom . . . how she's doing the work and not her students. . . "lifting the weights" as we say. It was a world of difference on the walk-through. She gets it. I was anxious to get back into the classroom to see how it translated, and [we] walked out saying, "The students are doing the work in that classroom now."

The principal further explained that the walk-throughs provided teachers with the opportunity to reflect on their practice in a safe environment. He said that the debrief following the walk-through spurs productive conversation and improves the instructional environment.

To build on these successes, the AVID systems coach decided to continue using walk-throughs as a tool for observation, reflection, and continuous improvement throughout the project. VAC meetings, therefore, had a routine structure that provided clear roles and responsibilities for participants, and plenty of data on which to base decisions and plans for future action. Although these plans were not always written in a form that AVID would consider actionable (for example, with goals, tasks, timelines, and responsible individuals), it was clear that the VAC meetings offered the opportunity for school leaders to hold meaningful conversations and accomplish meaningful work.

State College Partnership

The goal of the ACRS is to increase enrollment and success in college among the targeted student population. To facilitate better alignment of academic expectations and smoother transitions for students between high school and college, the AVID Center involved the local state college as a key partner in this initiative. The state college also hosts some of the dual enrollment courses, in which students can earn high school and college credit at the same time. Having the dual enrollment instructors at the college trained in the WICOR model could help high school students with their transition into these courses because the students are also using WICOR model strategies in high school. The state college was expected to extend the AVID project to its campuses by having its leaders and faculty participate in professional development and training in the teacher content collaboratives and in the VAC.

Meeting agendas and attendance records indicate that the college's involvement varied by activity: Participation in training and professional development was greater than expected, participation in the teacher content collaboratives was lower than expected, and participation in the VAC was inconsistent. For example, the stated goal of the project was to provide at least three days of professional development to 60 college staff members in total over the three-year study period, or about 20 staff members per year. In the first year of the project, over 20 staff members attended the three-day Summer Institute. Many of these staff members, along with another 10 staff members, also attended other training events offered during the first school year. In the second year, college leadership decided to pursue recognition as an "AVID for Higher Education" institution — a special certification that can be earned from the AVID Center. Faculty on the college's AVID site team shared their own AVID implementation experiences with colleagues through a newsletter and open classroom demonstrations. One faculty member documented that even some of the instructors who had been

traditionally resistant to change became interested in the WICOR model: “When we talk about the engagement component to retain information, that’s more meaningful to them. . . .Curiosity is being piqued. They want in to learn more.” The college subsequently provided six to eight days of AVID professional development per year on site, often attended by 20 college instructors or more. Therefore, the AVID core values and WICOR model were being suffused throughout the college. In addition, the college provided initial training in AVID instructional strategies to its own student education majors so that prospective teachers in the region would be familiar with them. Therefore, the college’s implementation of AVID professional development was highly successful and went beyond the original expectations.

However, many of the teacher content collaboratives were short the two college staff members who were supposed to attend, and college staff were also absent from some of the VAC meetings, making the college’s participation in the alignment activities only partially successful. Interviews conducted with the AVID systems coach, the college dean, and college instructors indicate that it was challenging for college instructors to make time for such meetings in their schedules. The AVID systems coach explained that these scheduling challenges were unanticipated:

The real hurdle is the time of [the teacher content collaborative]. It doesn’t always fit for the college; they would have to cancel their class. It’s not a good model for faculty to be involved ... it’s a struggle to come for the whole day when they have three to four classes in the day. It’s not something that was thought of, how faculty had challenges getting there.

The college partnership was not implemented as originally intended because the college staff members did not fully participate in the alignment activities, which were meant to foster collaboration between the college and the secondary schools and school districts. Still, interest in the WICOR model and AVID’s core values was substantial across the college, as reflected by the strong participation in the AVID professional development. Since the college faculty, like their high school counterparts, were learning and likely using the WICOR model in their classes, including the dual enrollment courses taken by students from participating high schools, these students were more likely to have continuity in the teaching and learning strategies used across their classes at both the high school and college.

FACTORS THAT ENABLED AND IMPEDED PROJECT IMPLEMENTATION

Site visits to the AVID Summer Institute as well as two project high schools and their feeder middle schools conducted in the second and third years of the program, regular interviews with the AVID systems coach, and project data collected annually provided the research team with multiple data points and perspectives on the course of program implementation across the three years of the project. The team identified a few substantial obstacles to implementation and several important factors that may have enabled success.

Obstacles to Implementation

Although the AVID Center provided substantial professional development and training during the years of the study, a notable challenge to implementing the ACRS to the desired level of fidelity was turnover and mobility rates among teachers and principals. Teachers and principals often switched (or were transferred by supervisors) from one role to another or from one school to another, which in some cases made it challenging to select and retain good AVID elective teachers, or to develop and sustain a strong site team.¹ At some other participating schools, school leadership changed unexpectedly during the course of the project, resulting in lost momentum. For example, a teacher interviewed at the Summer Institute shared, “The original principal that brought [AVID] to us is not the principal we ended the year with...so that whole leadership process has just been very cloudy and blurred.” It was similarly challenging to maintain staff in the AVID elective teacher and AVID coordinator roles at some of the schools, which meant that affected schools had some difficulty maintaining consistency and momentum in implementing the program. In one case, a school had to recruit new students for the AVID elective class because so many dropped out when assigned to an AVID elective teacher who was not a good fit for the role.

Another notable challenge in this project was implementation of the AVID tutorial. The tutorial is a key element of the AVID elective; it has a complex design intended to foster specific academic study skills and self-advocacy skills in students. The design relies on the availability of college or college-educated adult tutors who work part time for the school district. With considerable planning, coordination, and support, the tutoring component of the AVID elective program was implemented at most study schools by the end of the second year, but some schools struggled with the ongoing effort of recruiting and retaining tutors from semester to semester, and in some cases high school juniors and seniors acted as tutors when college students were not available.

A third significant challenge of implementing the project as planned was the design of the teacher content collaboratives. The content collaboratives suffered from a lack of definition and focus as well as attendance challenges. Schools were unclear about whether they should send the same teachers to the collaborative meetings each time or rotate them so that different teachers could participate. With different members at each meeting, the content collaboratives were unable to progress in discussion and decision-making. As more than one teacher commented, “[We spend] a lot of time on team building because it’s not a consistent group.” In addition, the design stipulated that at least two teachers attend the full-day meeting from each school, which required that eight core content area teachers be out of school for a full day during the same week. Some schools struggled to address the staffing gaps created by the teachers’ absence or to grapple with the overall effect on the school of having teachers missing class time. Several principals reported that although the districts had grant money set aside for substitute teachers, there were not enough qualified substitutes to go around. Because the content collaboratives met each semester, these logistical challenges had to be confronted twice per school year. And some teachers reported that they felt conflicted about compromising instruction for two full days per year. Finally, some teacher participants were confused

1. Since teacher retention was not a specific goal of the project, quantitative data on teacher turnover and mobility were not collected. However, the issues of teacher turnover and mobility were raised on site visits, where researchers observed first-hand that many roles were filled by different individuals on the second site visit.

about what the content collaboratives were meant to achieve. To address these concerns, the AVID Center experimented with holding collaborative meetings outside of school hours, provided more direction regarding attendance and participation in the content collaboratives, and encouraged principals to follow up on the plans developed by the teachers at the content collaborative meetings.

Enablers of Implementation

Numerous factors seemed to support the more successful aspects of implementation in the AVID Central Florida Collaborative. These factors may be responsible for some of the project's positive outcomes, and therefore they may require attention in the context of any replication efforts. The supportive factors included the resources and support of the AVID systems coach, the influence of strong school leaders, the successful evolution of the VAC into a genuine community of practice, and the state college's substantive adoption of AVID.

Two different individuals served as the AVID systems coach over the course of the three years of implementation; each was an extremely experienced and skilled AVID professional developer. The systems coach was assigned nearly full time to the three districts in the study, which was a much more significant amount of support than a typical AVID district would receive. In addition to all the planned training, professional development, coaching, and meeting facilitation, the systems coach was able to deliver additional professional development sessions and conduct additional classroom walk-throughs as needed. Such proximity allowed for development of integral relationships at all levels. In several cases, the AVID systems coach was able to coordinate with school or district leaders to support identification and placement of the most qualified individuals to serve in AVID-related positions at the schools. The expertise of the AVID systems coach, leveraged intensively for the duration of the project, was fundamental to successful project implementation.

Although this finding likely comes as no surprise, the different school administrators were variously engaged with AVID and exhibited varying degrees of ability to lead their staff in implementing AVID. For example, some principals became well versed in the WICOR model strategies, and they made sure that their staff meetings and professional development days promoted implementation of the ACRS; others who were interviewed by the research team were much less fluent in the language of AVID. The AVID systems coach routinely described the varying levels of engagement and enthusiasm by principals across the three districts and noted that staff buy-in tended to vary according to the level of commitment to the project that the principal demonstrated.

The VAC, which was the alignment activity most frequently cited as valuable by its participants, also played a significant role in implementation of the ACRS and other alignment activities. According to the principals, who were its primary participants, the VAC became a valuable forum for exploring the nuances of the program. By conducting walk-throughs to observe a variety of classrooms in person, principals were able to develop a common language for and an understanding of how various AVID strategies looked when implemented well, the common pitfalls, and how to problem-solve with teachers to improve their use of various strategies. In many education reform programs, school leaders never develop such a deep understanding of the program and are therefore unable to truly support teachers in implementing it. The VAC was also a place where principals talked about other aspects of leadership, including staffing, school climate, and so forth. In some districts, school

leaders have no forum for such discussions; in others the forum exists but it is facilitated and closely moderated by the principals' supervisors. With the VAC, AVID's goal was to develop a collaborative structure that would ultimately be "owned" and "driven" by the principals themselves, which likely supported their ownership of the initiative at their schools as well.

A final factor supporting implementation of the ACRS across this rural central Florida area was the partnership with the state college. As noted above, the college's participation in AVID professional development and training was more substantive than had originally been proposed. Because the college dean became very invested in AVID, the AVID systems coach was able to provide more training and professional development at the college than originally planned. Then the college began pursuing status as an AVID Higher Education Institution, which involved the college developing its own site team and undergoing its own certification process through the AVID Center. Taking that step meant that the college was attempting not just to build a stronger bridge from high school to college, but to change its own internal culture to better foster student achievement.

The AVID Central Florida Collaborative was designed to produce both school-level and individual-level outcomes. The next chapter of this report discusses the school-level outcomes during the three years of project implementation.

CHAPTER 4

School Outcomes: Adoption of AVID Teaching Methodologies, AVID Core Values, and Collaboration by School Staff

The school outcomes that are measured in the AVID evaluation are mediating outcomes hypothesized to come directly from the implementation of the AVID College Readiness System (ACRS) and alignment activities, and that lead to the student outcomes. The school outcomes include increased knowledge and use of the WICOR (writing, inquiry, collaboration, organization, and reading) model, by all teachers; increased incorporation of the AVID core values of academic rigor and college readiness for all students by teachers, guidance counselors, and administrators across each school; and increased collaboration among staff members within and across schools.

Key findings from this chapter include:

- There was a positive change in teachers' reported use of most of the WICOR model teaching methodologies during the first year of implementation. This change was maintained for the most part across the three years of implementation.
- School staff members' reported attitudes and actions related to the AVID core values of academic rigor and college preparation were stronger during the three years of implementation compared with the year before implementation.
- Reported levels of collaboration within schools and across the schools, districts, and college also grew during the years of the implementation.

Table 4.1 displays the school outcomes based on a yearly survey of teachers, guidance counselors, and principals.¹ The survey was administered during the spring before the first year of implementation and during the spring of each of the three study years (2014, 2015, and 2016).² Each measure in the table is the mean for all the teacher responses within each of the eight schools, averaged across all the

1. "Principals" includes both head principals and assistant principals, who are also referred to as school administrators in this report.

2. Response rates for the survey ranged from 80 percent to 83 percent across the years. See Appendix Table B.1 for more information on response rates.

TABLE 4.1
School Outcomes: Composite Staff Survey Measures,
All Schools

Composite Measure	Mean Score			
	Pre-AVID Year	Year 1 (2013–2014)	Year 2 (2014–2015)	Year 3 (2015–2016)
WICOR model^a (1 = never, 7 = daily) ^b				
Writing	3.14	3.83***	3.76***	3.72***
Inquiry	4.61	4.60	4.68	4.59
Collaboration	3.18	3.50***	3.49***	3.48***
Organization	3.35	3.74***	3.75***	3.83***
Reading	3.69	3.91**	3.86	3.82
AVID core values (1 = strongly disagree, 4 = strongly agree)				
Academic rigor	2.96	3.05**	3.12***	3.11***
College preparation ^c	2.19	2.32**	2.41***	2.42***
Collaboration (1 = never, 6 = daily) ^d				
Meetings within and between schools	1.91	2.17***	2.29***	2.33***

SOURCE: Surveys of teachers, administrators, and guidance counselors administered in May 2013, May 2014, May 2015, and May 2016.

NOTES: Across the eight study schools, there were 427 participants in the spring before implementation, 434 participants in Year 1, 435 participants in Year 2, and 421 participants in Year 3.

A two-tailed t-test was used for all statistical tests. Asterisks after the means for “Year 1,” “Year 2,” and “Year 3” represent the statistical significance of the difference between that year and the pre-AVID year. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Data are missing for no more than 10 percent of respondents on any measure.

^aThe WICOR model includes teaching strategies in writing, inquiry, collaboration, organization, and reading.

^bA score of 3 is equal to once a month and a score of 4 is equal to more than once a month but not weekly.

^cThis measure includes only one survey item: Staff members reported that all students at their school can be successful in college.

^dA score of 2 is equal to at least once a month.

schools. The first column in the table shows the average score from the survey that was administered in spring 2013 (“Pre-AVID Year”), before the ACRS and alignment activities began at the schools, and the next three columns show the average scores from the survey that was administered in the spring of each year of implementation. The asterisks indicate whether the change from the mean of the pre-implementation year to the mean for each implementation year is statistically significant (meaning that the probability is low that there is no true difference between the pre-implementation year mean and the implementation year mean — that is, that any differences are not simply chance occurrences). See Appendix B for the Year 3 findings for each school.

USE OF THE WICOR MODEL

The first section of Table 4.1 displays the scores for each of the five domains of the WICOR model, which are described in Chapter 1 (Box 1.2). The WICOR model represents the AVID teaching methodologies, which include a set of tools that teachers can use to create a rigorous college preparatory environment in their classrooms. For each domain, teachers were asked how often they used four to nine different specific strategies with their students. All of the strategies included are taught in AVID's professional development component. For instance, teachers were asked about five different writing strategies and eight different organizational strategies.³ Since the measures of strategy usage show the mean usage across a set of specific strategies rather than the total usage of all the strategies, the expectation would not be for teachers to be using each strategy every day. Expectations for the mean usage of these strategies are between once a week and once a month.

On average, teachers' reported use of writing, collaboration, organization, and reading strategies grew by the end of the first implementation year. During this first year many teachers received initial training in these strategies. The level of reported use of these strategies generally held steady in the second and third years of implementation, with reading being the one exception and dropping slightly in the second and third years. As noted in Chapter 3, during interviews and focus group sessions, some school staff members reported heavy teacher turnover during the three years. Even with these staffing issues, schools were able to maintain the use of these strategies. (See Appendix Table B.3 for the third-year WICOR model outcomes by school.) On average, teachers reported using each of the specific strategies in these domains more than once a month.

On average, teachers' reported use of inquiry strategies did not change much during the three years of implementation, but teachers had reported relatively high use of these strategies even before implementation began. On average, teachers reported using the inquiry strategies slightly less often than weekly.

AVID CORE VALUES

The second section of Table 4.1 reflects teachers', guidance counselors', and principals' reported attitudes and actions related to the AVID core values of academic rigor and college preparation for all students during the year before and three years of implementation. One of the key goals of the ACRS is to create a school environment in which all students, including low-income and minority students, are expected to do well in their classes and are given the tools and skills to succeed in rigorous course work.

Academic Rigor

The measure of academic rigor asks staff to indicate their level of agreement with each of five statements: (1) the school recognizes and acknowledges the academic achievement of its students; (2) the

3. Each outcome measure is created by taking the average of all the strategies under that domain. See Appendix B for more information about the specific survey items that make up each outcome measure.

school values students' academic achievement; (3) staff members feel students at the school try to get good grades; (4) staff members feel students at the school respect other students who work hard; and (5) staff members have a shared understanding of what students should know when they enter and leave each grade. Staff members were asked to rate these five statements on a four-point scale of "strongly disagree" (1) to "strongly agree" (4). On average, school staff members' reported slightly higher levels of academic rigor at their schools during the years of implementation in comparison with the year before implementation began. (See Appendix Table B.4 for the findings in the third year, by school.) On average, staff members agreed that their schools recognized academic achievement, that students worked hard, and that there was shared understanding about the level of academic attainment students should meet in each grade.

College Preparation

In the ACRS, a key factor in creating a rigorous and supportive academic environment for all students is in creating a school culture that promotes the idea that students from all backgrounds can succeed in college. The measure of college preparation represents the attitudes of staff members in regard to students' college readiness, and includes a single survey item that asks teachers, guidance counselors, and principals to indicate how strongly they believe that all the students at the school can be successful in college, on a scale of "strongly disagree" (1) to "strongly agree" (4). Staff members' attitudes about the possibility of college success for all students grew during the course of implementation, but the average score for staff members during the implementation years still fell between disagreement and agreement.

COLLABORATION

The final section of Table 4.1 displays a measure of school staff members' collaboration with other staff members at their own schools and at other schools, including the college. The measure is the average score based on teachers', guidance counselors', and principals' responses to questions about their participation in meetings with other colleagues in their own school and at other schools within the district and across districts and the college. The meetings were convened to discuss students' needs and access to rigorous course work, and to align methodologies, expectations, and curricula across grade levels. On average, staff members' reported that collaboration increased during the three study years. Staff members reported having each type of collaborative meeting with different colleagues an average of at least once per month, suggesting some consistency with collaboration but not a fully robust system of collaboration.

CONCLUSION

During the first year the ACRS and alignment activities were implemented at the participating schools, many of the school outcomes showed positive change on expected dimensions of teacher practice, expectations of students, and staff collaboration, and most of these changes were maintained in the following two years of implementation. As noted in Chapter 3, during interviews and focus group sessions, some school staff members reported high levels of teacher and administrator

turnover during the three years. Even with this staff turnover, most schools were generally able to sustain the progress made in the first year for the following two years. This finding strongly suggests that the ACRS and alignment activities took hold in the schools during the implementation. Still, teachers were asked to share how often they used WICOR model strategies, and school staff members were asked only about general attitudes toward college preparation and classroom rigor and how often they collaborated. From these analyses, it is not possible to gauge the quality of the implementation and any changes in the quality of implementation over the years of the study. These school outcomes were hypothesized to lead to positive outcomes for student behaviors, attitudes, and academic performance. Chapter 5 presents a discussion of the student-level findings.

CHAPTER 5

Student Outcomes: Behaviors, Attitudes, and Academics

The implementation of the AVID College Readiness System (ACRS) and alignment activities is hypothesized to lead to the mediating school outcomes (discussed in Chapter 4), which are, in turn, hypothesized to lead to positive changes in students' learning skills and study habits, attitudes toward school, and academic achievement and persistence. This chapter compares the outcomes of all students who attended the participating AVID schools before implementation began with the outcomes of all students who attended the schools during the three years of implementation. Although exploring these outcomes may shed light on the promise of the ACRS and alignment activities to meet the hypothesized theory of change laid out in Chapter 1, this nonexperimental study cannot identify the *cause* of any changes found in student outcomes during this period. The implementation of the ACRS was likely one of the largest systematic changes at the schools during the three years of implementation, but other factors such as changes in school, district, or state policy; curricular changes; or changes in the student body could also have triggered growth or decline in student outcomes.

Key findings from this chapter include:

- Little difference was found in the reported study habits, engagement in school, and postsecondary expectations between all the tenth-grade students at the school who were surveyed at the start of implementation and those who were surveyed after three years of exposure to the system, but, on average, both groups had relatively positive responses on most of the measures.
- On average, across all students in ninth through twelfth grades at the high schools, students during the third implementation year were more likely to take advanced courses, earn at least one credit in an advanced course, and earn more advanced course credits than were students during the years before implementation.
- On average, across all eighth-grade students attending the middle schools, there was a positive change in the percentage of students taking an honors course and earning at least one honors credit, and in the average percentage of honors credits earned, between students attending eighth grade before implementation and those attending eighth grade during the third implementation year.

- There is little difference in the two groups of students (those in the year before implementation and those in the third year of implementation) in their academic performance, educational attainment, and high school persistence.
- Although each high school shows some fluctuations over the three years, there is little difference across all four high schools in the level of students' postsecondary enrollment in the fall after high school graduation for those students who graduated from high school at the end of the third year of implementation and who experienced three years of the system, compared with students who graduated from high school at the end of the first and second years of implementation and who were in grades that were not targeted for ACRS implementation.

STUDENT OUTCOMES IN LEARNING SKILLS, ENGAGEMENT, AND COLLEGE ASPIRATIONS

The student survey was administered to tenth-grade students across the four high schools at two different times. First, it was administered to tenth-grade students who were attending the four participating high schools in the early fall of the first implementation year (2013) before those students had much exposure to the ACRS. The same survey was administered again to a new set of tenth-grade students who were attending the four high schools during the fall of 2016, after the ACRS and alignment activities had been implemented for three years. Most of the students in this second group had experienced three years of implementation starting in middle school during seventh grade and running into their ninth-grade year at the high school. Participation in the survey was high during both administrations, and approximately 86 percent of tenth-grade students early in Year 1 and 89 percent of tenth-grade students after Year 3 participated in the survey. (See Appendix Table B.2 for more detail on response rates.) The survey measures students' reported use of learning skills, engagement in school, expectations and awareness of postsecondary education options, and perceptions of the school environment.

This survey has some limitations. First, it does not measure growth over time for the same group of students, but instead compares different groups of students. This was a purposeful choice by the study team. If the same students were surveyed at different times, it would have been difficult to interpret findings on postsecondary awareness and expectations, since students' knowledge generally increases naturally over time and they might come to clearer decisions about postsecondary education options as they proceed through high school, regardless of their exposure to the ACRS. Still, surveying different students at different times also has limitations. For one, the reference point for students who are surveyed at the end of the study may have changed in comparison with those who were surveyed at the beginning of implementation. Since the entire school was exposed to the ACRS, many students may have improved their use of study skills and their engagement in school, so that students taking the survey during the two different periods are comparing themselves with a different status quo.

The time of the administration of the survey may also have had some effect on the outcomes. In order to capture students' outcomes before much exposure to the system, the survey administration occurred in early fall 2013 and this timing was matched for the second survey administration (in

early fall 2016) to ensure similarity between the two survey administrations. Even if students had changed their study habits and engagement over the course of the three years of exposure to the system, it is possible that some of the effects of these changes would have worn off or been forgotten over the summer, making any outcomes reported at this period weaker than they may have been if the survey had been administered at a different time in the school year. It is also possible that in the fall of 2013, teachers trained in the WICOR model during the first Summer Institute (the three-day professional development event for AVID teachers) were already exposing their students to these strategies. Still, the students who participated in three years of implementation had a lot more exposure and time to learn and embrace the strategies than those surveyed in the fall of the first year.

Use of Learning Skills

The first section of Table 5.1 displays the reported use of learning skills that are part of the ACRS, by all tenth-grade students across the four high schools.¹ Teachers are trained in these learning strategies through professional development and then can use them in their classrooms and share them with students. For the first measure, “Frequency of use of reading and study strategies,” students were asked how often they used eight different strategies in their studies. For instance, they were asked how often they test themselves by summarizing in their own words something they had read and how often they create diagrams and pictures to help them remember information. Students were also asked how frequently they use critical thinking activities in their classes and homework, such as how often they apply what they learned previously to what they are currently learning. The third measure included items asking students about their frequency of use of study habits such as writing summary sentences of passages they read or grouping their notes into three columns of questions, facts, and steps.

For all these measures, there was little difference in the responses of students at the beginning of implementation and after three years of implementation. But in each case, students in both groups reported relatively high rates of using these learning skills, reporting, on average, that they use each strategy more than “sometimes” or more than once or twice a month. Ideally, some of these strategies could be used more frequently, but these scores suggest that students are using some kind of strategy quite often.

There was also little difference in students’ reported frequency of use of three-ring binders and calendars, two key organizational strategies of the ACRS. A large number of students reported using three-ring binders, while a little over half reported using calendars to track work. In ACRS, students are often required or highly encouraged to use a three-ring binder to organize and store their class notes and homework and are taught a specific organizational format. The use of calendars and other planning and organizational tools are also strongly encouraged.

1. Most outcome measures in Table 5.1 are the average of several survey items. Appendix B includes a list of all the survey items that make up each multi-item measure and the possible responses.

TABLE 5.1

Student Survey Outcomes: Tenth-Grade Students, After Three Years of the AVID College Readiness System (ACRS) and Alignment Activities

Composite Measure	Fall 2013	Fall 2016	Estimated Difference	P-Value
Use of learning skills				
Frequency of use of reading and study strategies (1–4) ^a	2.40	2.42	0.01	0.747
Frequency of use of critical thinking in school (1–5) ^b	3.57	3.49	-0.08	0.218
Frequency of use of study habits (1–5) ^b	3.25	3.25	0.00	0.991
Students report using a three-ring binder (%)	88.0	84.9	-3.1	0.175
Students report using a calendar to track work (%)	55.9	57.5	1.6	0.594
Engagement in school^c				
Tries hard and finds school interesting (1–5)	3.43	3.38	-0.04	0.376
Focuses on long term objectives (1–5)	3.01	3.07	0.05	0.311
Is diligent and a hard worker (1–5)	3.63	3.66	0.04	0.528
Is confident of ability at school (1–5)	3.77	3.71	-0.06	0.287
Postsecondary awareness and expectations				
Has a plan for college (1–5) ^c	3.83	3.79	-0.04	0.504
Had opportunities to learn about college (0–1) ^d	0.60	0.60	0.00	0.862
Planned level of degree attainment (1–7) ^e	5.14	4.99	-0.15	0.167
School environment and academic rigor				
School focuses on success of all students (1–4) ^f	2.89	2.83	-0.06	0.124
School encourages all students to go to college (1–4) ^f	2.75	2.76	0.01	0.858
Environment is collaborative and respectful (1–4) ^f	2.84	2.78	-0.06	0.130
Other students try hard at school (1–4) ^g	2.9	2.62	0.04	0.424
Students report math class was difficult but manageable (%)	38.2	45.7	7.4	0.016 **
Students report English class was difficult but manageable (%)	22.4	37.4	13.0	0.000 ***
Number of students				2,012

(continued)

Engagement in School

The second section of Table 5.1 measures students’ engagement in school, which includes measures of their effort and interest in school, focus on long-term objectives, diligence, and confidence in their school work. These measures include items such as “You try as hard as you can in school.” (See Appendix B for a list of the survey items included in each measure.) Again, there is little difference between the students who were surveyed before implementation began and those who were surveyed after three years of implementation. On average, students across both groups gave answers between “somewhat true” and “mostly true.”

TABLE 5.1 (continued)

SOURCE: Surveys of students administered in fall 2013 and fall 2016.

NOTES: Across four study high schools, 2,012 tenth-grade students participated in the survey, including 925 students in the 2013 survey administration and 1,087 students in the 2016 survey administration.

The “Fall 2013” score is regression adjusted using the mean covariate values for “Fall 2016” as the basis for adjustment.

A two-tailed t-test was used for all statistical tests presented in this table. Asterisks after the “P-Value” column represent the statistical significance of the difference between fall 2013 and fall 2016. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Data are missing for no more than 11 percent of respondents on any measure except “Planned level of degree attainment,” where data are missing for 15 percent of respondents.

^aThis measure includes several items using the following scale: 1 = rarely, 4 = almost always.

^bThis measure includes several items using the following scale: 1 = never or rarely, 5 = more than once a week.

^cThis measure includes several items using the following scale: 1 = not at all, 5 = always or very much.

^dThis measure includes several items using the following scale: 0 = no, 1 = yes.

^eThis measure uses the following scale: 1 = not graduate high school, 7 = get advanced degree (e.g., master’s, doctorate).

^fThis measure includes several items using the following scale: 1 = strongly disagree, 4 = strongly agree.

^gThis measure includes several items using the following scale: 1 = none, 4 = all.

Expectations and Awareness of Postsecondary Options

The third section of Table 5.1 includes measures of students’ postsecondary awareness and expectations. The two groups of surveyed students differed little in the extent to which they reported that they had a plan for college and had opportunities to learn about college, as well as their reported level of planned degree attainment. On average across both groups, students reported that it was “mostly true” that they had a plan for college and that they had opportunities to learn about college options by the start of tenth grade. While little difference was observed in the responses of *all* tenth-grade students before and after implementation, some difference was observed when the responses for the *AVID elective students* were compared before and after implementation. After the third year, *AVID elective students* were reporting that they had more opportunities to learn about college than did *AVID elective students* early in the first year of implementation. (See Appendix Table B.5.)

School Environment and Academic Rigor

The final section of Table 5.1 includes measures of students’ perceptions of their schools’ environments and academic rigor, including the focus on academic success for all students, the emphasis on college readiness, the collaborative environment of the school, and whether students across the school try hard. There was little difference in the responses across the two survey groups on any of these measures. The first three measures in this section are scored on a scale of 1 to 4, where 1 is “strongly disagree,” 2 is “disagree,” 3 is “agree,” and 4 is “strongly agree.” The scores average from 2.6 to 2.9, which means that, on average, students agreed with statements about there being a positive school environment and academic rigor, but there was still some room for improvement. While improvement was not seen across all students, *AVID elective students* after three years of

implementation were more likely to report that their school encouraged all students to go to college compared with AVID elective students at the beginning of the first year. (See Appendix Table B.5.)

More students in the group responding after three years of implementation did report that their math and English/language arts courses were difficult but manageable as opposed to “not too difficult,” “too easy,” or “too difficult.” This is important because AVID strives to stretch students a bit beyond their comfort zone in their course taking by encouraging more middle-achieving students to take more rigorous courses but also giving them the tools and supports they need to succeed in those more difficult courses.

STUDENT ACADEMIC OUTCOMES

To measure any changes in student academic outcomes during the implementation of the ACRS and alignment activities, the study team compared the administrative records and transcripts of students attending the four participating high schools in the three years before implementation with the records of students attending the four high schools during implementation.² Table 5.2 compares the combined average academic outcomes of ninth- through twelfth-grade students attending the four participating high schools during the third year of implementation (the 2015–2016 school year) with the combined average academic outcomes for ninth- through twelfth-grade students attending the four study high schools during the three years before implementation.³

Most students attending ninth through twelfth grades at the four study high schools during the third implementation year had been exposed to the ACRS during all three years of implementation. Since the ACRS was implemented at both the middle schools and the high schools, most ninth- and tenth-grade students in 2015–2016 would have experienced the system during both middle school and high school over the three years, and most eleventh- and twelfth-grade students would have experienced the ACRS in high school for all three years of implementation.⁴ No version of the ACRS was implemented in the study’s middle schools or high schools before the first implementation year. Therefore, the ninth- through twelfth-grade students in the three years before implementation represent a group of students who did not experience the ACRS. Table 5.2 compares these two groups of students (those with no exposure to the system and those with three years of exposure), but, as noted above, these two groups may also have experienced other differences in programming and curricula, so this study does not show whether the ACRS and alignment activities *caused* any differences found in the outcomes of the two groups.

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2. Appendix Table C.1 compares the characteristics of these two groups of students. The groups are similar, but there were more Hispanic students and fewer white and Asian students in the implementation years compared with the years before implementation. There was also a higher percentage of students with special education status in the third implementation year than in the years before implementation began. These characteristics were controlled for in the analysis.
 3. Appendix Table C.2 displays similar outcomes for students during the first year of implementation and Appendix Table C.3 displays outcomes for students during the second year of implementation.
 4. Students who transferred into the study schools during the three years of implementation did not experience the full three years of exposure to the program.

TABLE 5.2

Student Outcomes in the Third Year of the AVID College Readiness System (ACRS) and Alignment Activities, Ninth- through Twelfth-Grade Students Combined

Outcome Measure	Pre-AVID Years	Year 3 (2015–2016)	Estimated Difference	P-Value
Credits earned in advanced course work^a				
Earned at least one credit in an advanced course (%)	30.1	38.1	8.0	0.000 ***
Total advanced credits earned	0.87	0.98	0.11	0.062 *
Core advanced credits earned ^b	0.74	0.88	0.13	0.004 ***
Dual enrollment college credits earned (11th–12th grades)	0.64	0.44	-0.20	0.012 **
Honors and Advanced Placement credits earned (11th–12th grades)	0.75	0.92	0.17	0.012 **
Academic performance				
Grade point average (0–4, 9th–10th grades)	2.52	2.56	0.03	0.380
State English Language Arts achievement level ^c (1–5, 3 = passing, 9th–10th grades)	2.25	2.23	-0.01	0.837
Educational attainment				
Total credits earned	5.15	5.11	-0.04	0.580
Core credits earned ^b	3.27	3.27	0.01	0.922
Promotion to the next grade (%)	77.9	80.5	2.6	0.135
High school graduation (%)	85.7	83.2	-2.5	0.383
High school persistence				
Retention in school through the school year (%)	88.6	88.4	-0.2	0.847
Sample size				17,669

SOURCE: MDRC calculations are based on student records obtained from school districts for 2010–2011 through 2012–2013 (pre-AVID years) and 2015–2016 (Year 3).

NOTES: Across four study high schools, 12,942 students were included in the pre-AVID implementation sample, which includes students in the study high schools during the three years before AVID implementation, and 4,727 students were included in the post sample, which includes all students in the study high schools during the 2015–2016 school year.

The “Pre-AVID Years” column displays the regression-adjusted average scores for all students in ninth through twelfth grades during the three years before the first year of implementation, and the “Year 3” column displays the average scores at the end of the third year of implementation of the ACRS and Alignment Activities.

A two-tailed t-test was used for all statistical tests presented in this table. Asterisks after the “P-Value” column represent the statistical significance of the difference between Year 3 and the pre-AVID years. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Data are missing for no more than 4 percent of respondents on any measure except for the state English Language Arts achievement level. On that measure, 14 percent of the data are missing for the students after three years of implementation, and 21 percent of the data are missing for the pre-AVID implementation group. Also, in the pre-AVID implementation group, most data were missing for tenth-grade students in one district during 2010–2011 and 2011–2012, so only 2012–2013 data were included for that district and grade.

^aOne district did not provide data on dual enrollment courses taken and passed. For this district, dual enrollment courses are not included in the measures of advanced credits earned, and the district is not included in the measure of dual enrollment credits earned.

^bCore courses include all English/language arts, math, science, and social studies courses.

^cStarting in spring 2015, the Florida state assessment changed from the Florida Comprehensive Assessment Test to the Florida Standards Assessment. The achievement levels for these tests are not equivalent, and some caution should be taken when interpreting these findings.

Credits in Advanced Course Work

The first section of Table 5.2 displays student outcomes on enrollment and credits earned in honors, dual enrollment, and Advanced Placement courses. According to the AVID philosophy, ensuring that a broader cross-section of students take more advanced and rigorous courses, and offering those students additional support to succeed in those courses, will lead to higher levels of college readiness across the school. Approximately 8 percent more students earned at least one advanced credit during the third year of implementation compared with the years before implementation, and, on average, students in the third year also earned slightly more credits in advanced courses than did students in the years before implementation.⁵

Students also attempted more advanced credits during the implementation year than in the years before implementation. This finding suggests that, on average, students were taking more advanced courses and succeeding in those courses. Although it is not possible in this analysis to determine the cause of the change in rigorous course taking and success, the findings match with a key goal of ACRS to first push students to stretch themselves by taking more difficult courses, and at the same time, to ensure that those students have a strong foundation in learning strategies and study habits to help them succeed in those tougher classes.

Dual enrollment courses are offered in many different subject areas sponsored by the local college. The courses, which can be offered at the high school or on the college campus and are taught by high school or college teachers, give students the opportunity to earn both high school and college credits simultaneously. The ACRS is intended to encourage students to take more of those courses, and one of the goals of the alignment activities in the AVID study was to build collaboration between the high schools and the college. Still, eleventh- and twelfth-grade students earned fewer dual enrollment college credits during the third year of implementation than did students during the years before implementation. One probable reason for this decline in dual enrollment may have been a lack of resources at some schools, including a lack of certified teachers to cover the dual enrollment courses. When fewer teachers at the high schools are able to take responsibility for these courses, students need to take the courses at the college campus, but associated schedule and transportation limitations make it difficult for students to do this.⁶

Although students were earning fewer dual enrollment credits in the third year, on average, those courses were supplanted by Advanced Placement and honors courses.⁷ Eleventh- and twelfth-grade students earned more honors and Advanced Placement credits during the third implementation year than students in those grades during the years before implementation. A past study has shown that

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5. Although there is a positive difference in advanced credit earning between the third year of implementation and the average of the three years before implementation, advanced credit earning did steadily increase during the three years before program implementation. The change in advanced credit earning during the program years could be due to this steady increase and not be connected to implementation.
 6. As shown in Appendix Table C.5, one of the high schools shows a particularly large drop in dual enrollment credit earning during the third program year, while having a higher level of dual enrollment credit earning in the pre-AVID implementation years than the other schools. This finding may be fueled in part by changes in dual enrollment offerings at that high school over the study years.
 7. Advanced Placement courses are courses taken at the high school that prepare students for Advanced Placement exams. If students take and earn passing scores on the exams, they can earn college credit.

taking more Advanced Placement courses and exams is related to higher scores on college entrance exams and higher matriculation into college.⁸

Academic Performance

The second section of Table 5.2 displays students' academic achievement by measuring their average grade point average (GPA) across all high school grades, and ninth- and tenth-grade students' average English/language arts achievement level on the Florida State English Language Arts assessment. GPA is measured on a 4.0 scale, where 4 is an A average and 0 is failing. The state assessments are scored on a scale of 1 to 5, with 5 the highest score a student can achieve. Students scoring a 3 or above meet the state proficiency level. The Florida State English Language Arts assessment changed from the Florida Comprehensive Assessment Test (FCAT and FCAT 2.0) in the pre-implementation years to the Florida Standards Assessment in English Language Arts in the third year of implementation. The standard for proficiency is different across the tests.

The average outcomes for students on these measures are similar in the third year of implementation to the average of the outcomes during the three years before implementation, suggesting that there was little change in English Language Arts state test performance and GPA after the AVID program was implemented. As noted above, the state test changed during the pre- and post-implementation years, and the proficiency levels of the two tests are not directly comparable. A 2.56 GPA is equivalent to a B-minus or C-plus average across classes. This is an unweighted GPA, meaning that honors and other advanced-level courses are not given additional points. Even though students were earning at least one more advanced-level credit during the third year of implementation than in the years before implementation, they were not getting lower grades. The fact that the average GPA across the schools is maintained while students were taking more advanced courses on average may suggest some growth in students' academic performance during implementation.

Educational Attainment

The third section of Table 5.2 displays the outcomes for students' overall educational attainment, including their total credits earned during the school year, their core course credits earned during the school year (core courses include English/language arts, math, science, and social studies), whether they were promoted to the next grade at the end of the school year, and, for twelfth-grade students, whether they graduated and received a high school diploma. Little difference is seen between the third year of implementation and the years before implementation on these measures. Although there is little difference in promotion seen for all grades averaged together, there is almost a 10 percentage point difference for ninth-grade students (as shown in Appendix Table C.4) — that is, after three years of AVID implementation, ninth-graders were 10 percentage points more likely to be promoted to tenth grade than were those in the pre-implementation years. This difference (which is statistically significant) is important because ninth grade is a transition year and is often the time when struggling students fall behind.

8. Jackson (2010).

High School Persistence

The final section of Table 5.2 displays students' persistence in high school during the school year. Although some students drop out of school or leave the district during each school year, the rate of persistence in school, approximately 88 percent, remains about the same in the third year of implementation as it was in the pre-implementation years.

Eighth-Grade Students

Table 5.3 displays similar outcomes for eighth-grade students, including their credits earned in honors classes, their GPA, their achievement level on the Florida State Reading test, their total and core credits earned, and their promotion to the next grade. Because the ACRS was rolled out to only seventh- and eighth-grade students in the middle schools during the first year of implementation (2013–2014), eighth-grade students in the third year of implementation (2015–2016) had experienced the ACRS for only two years (in seventh grade in 2014–2015 and in eighth grade in 2015–2016).

Similar to the high school findings, eighth-grade students, on average, took and succeeded in more advanced courses during implementation than in the years before implementation. Fifteen percent more students earned at least one honors credit in the third implementation year and students in the third year earned more honors course credits, on average, than did their counterparts in the years before the study.

There was little difference in academic performance (students' average GPA and reading achievement level) or educational attainment (total and core credits earned and promotion to the next grade) between the third implementation year and the prior years.

Postsecondary Outcomes

Table 5.4 displays the percentage of high school graduates who enrolled in any public or private U.S. college in the fall directly after graduation from each school and overall. The first section shows the results for students who graduated in 2016. These are the twelfth-grade students who had three years of exposure to the ACRS — in grades 10, 11, and 12 — if they attended the school for all three years. The second and third sections of the table display the outcomes for students who graduated during the prior two years, 2015 and 2014. Although the system was being implemented during these years, these students were in grades that were not targeted for ACRS implementation (eleventh and twelfth grades were not targeted in the 2013–2014 school year, and twelfth grade was not targeted in the 2014–2015 school year) and so only received limited exposure to program components that may have filtered across the grade levels. For instance, these students may have taken some classes with teachers who had been trained in the WICOR model, but those strategies were not being implemented across their classes as they were with the targeted grades. The districts in the study started collecting postsecondary data as part of the implementation study, and the data are not available for the years before implementation. Each high school showed some fluctuation in postsecondary enrollment over the three years, but on average across the high schools, approximately 50 percent of high school graduates enrolled directly into college during each of the three implementation years,

TABLE 5.3
Student Outcomes in the Third Year of the AVID College Readiness System (ACRS) and Alignment Activities, Eighth-Grade Students

Outcome Measure	Pre-AVID Years	Year 3 (2015–2016)	Estimated Difference	P-Value
Credits earned in honors classes				
Earned at least 1 credit in an honors course (%)	19.7	35.1	15.4	0.002 ***
Total honors credits earned	0.40	0.81	0.41	0.016 **
Core honors credits earned ^a	0.42	0.75	0.33	0.017 **
Academic performance				
Grade point average (0–4)	2.93	2.90	-0.03	0.720
State English Language Arts achievement level ^b (1–5, 3 = passing)	2.26	2.40	0.14	0.259
Educational attainment				
Total credits earned	4.53	4.99	0.46	0.391
Core credits earned ^a	3.45	3.48	0.03	0.890
Promotion to the next grade (%)	94.9	91.8	-3.1	0.102
Sample size				4,839

SOURCE: MDRC calculations are based on student records obtained from school districts for 2010–2011 through 2012–2013 (pre-AVID years) and 2015–2016 (Year 3).

NOTES: Across the four study middle schools, 3,613 students were included in the pre-AVID implementation sample, which includes eighth-grade students in the study middle schools during the three years before AVID implementation, and 1,226 students were included in the Year 3 implementation sample, which includes all students in the study middle schools during the 2015–2016 school year.

The “Pre-AVID Years” column displays the average scores for all students in ninth through twelfth grades during the three years before the first year of implementation, and the “Year 3” column displays the average scores at the end of the third year of implementation of the ACRS and alignment activities.

A two-tailed t-test was used for all statistical tests presented in this table. Asterisks after the “P-Value” column represent the statistical significance of the difference between Year 3 and pre-AVID years. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Data are missing for no more than 5 percent of respondents on any measure except for the the state English Language Arts achievement level. On that measure, 13 percent of the data are missing for the students after three years of implementation, and 8 percent of the data are missing for the pre-AVID implementation group.

^aCore courses include all English/language arts, math, science, and social studies courses.

^bOne middle school is not included in this analysis due to missing data. Starting in spring 2015, the Florida state assessment changed from the Florida Comprehensive Assessment Test to the Florida Standards Assessment. The achievement levels for these tests are not equivalent, and some caution should be taken when interpreting these findings.

TABLE 5.4
Enrollment in College in the Fall Following High School
Graduation: 2014, 2015, and 2016 High School Graduates

Graduate Year	High School				Total
	A	B	C	D	
2016 graduates					
High school graduates (N)	216	166	212	257	851
Enrolled in postsecondary institution (%)	52.3	51.2	38.7	55.6	49.7
2015 graduates					
High school graduates (N)	179	161	194	237	771
Enrolled in postsecondary institution (%)	58.1	54.7	33.0	56.5	50.6
2014 graduates					
High school graduates (N)	205	160	172	250	787
Enrolled in postsecondary institution (%)	49.8	58.1	44.2	51.6	50.8

SOURCE: National Student Clearinghouse reports for each school district for 2014, 2015, and 2016.

and little difference in the percentage can be seen between the years. This level of college enrollment is below the Florida state average, which was approximately 62 percent in 2015.⁹

CONCLUSION

Although little difference was found in reported study habits, engagement in school, and college aspirations between the group of tenth-graders before implementation and the tenth-graders after the third year of implementation, students who had participated in the ACRS were more likely than their counterparts before implementation to report that their math and English/language arts classes were difficult but manageable as opposed to too easy or too difficult. At the same time, more high school students were taking an advanced course and 8 percent more were earning at least one credit in an advanced course in the third year than in the years before implementation, and the average number of credits earned across all students was also higher. Although it cannot be determined whether the ACRS and alignment activities caused this positive change in advanced credit earning, a key goal of the ACRS is to ensure that more students take advanced courses and have the support needed to succeed in those courses. While, on average, students' advanced credits earning grew during the implementation years, other measures of their academic performance, educational attainment, and high school persistence remained similar. Still, the fact that students were taking and succeeding in more advanced courses suggests that they were likely becoming better prepared for college-level work by the time of high school graduation. Postsecondary enrollment for high school graduates fluctuated across high schools, but remained similar across all four high schools during the study, with approximately 50 percent of students enrolling directly into college in the fall after high school graduation. While the growth in advanced credits earning is important for adequate college preparation, further work may be needed to raise students' college aspirations and enrollment.

9. Florida Education and Training Placement Information Program (2017).

CHAPTER 6

Conclusion and Reflections

The AVID Central Florida Collaborative is a partnership between the AVID Center and key stakeholders in secondary and postsecondary education across a rural area in central Florida that was created in an effort to build college readiness and tackle low college enrollment and completion. To achieve this goal, the AVID College Readiness System (ACRS) was implemented in four sets of middle schools and high schools across three school districts. At the same time, the school districts, schools, and local state college piloted a set of alignment activities that created avenues for collaboration across grade levels, schools, districts, and content areas, and between the local middle schools and high schools and the postsecondary institution. This chapter summarizes the study findings and offers some reflections on implementing the program and building on the program's successes.

SUMMARY OF FINDINGS

The ACRS components (professional development, the AVID elective, and the site team) were implemented with more success more quickly than the alignment activities, in all likelihood because although the ACRS components were new to the participating schools, the AVID Center has been developing and implementing them in schools across the country for many years. Professional development was implemented with the most success. The AVID elective was also successful despite some schools' struggles throughout the three years with recruiting and keeping college student tutors for the tutorial component of the elective. The site teams took longer to establish in several of the schools, but they were successfully implemented in most schools by the third year.

The alignment activities — middle school and high school feeder teams, teacher content collaboratives, the cross-district vertical articulation collaborative, and the state college partnership — were new features designed specifically for this project. Not surprisingly, they were often more difficult to implement and took longer to establish than the ACRS components. Middle and high school feeder teams met sporadically in the first two years and most of them did not have actionable plans even in the third year. The teacher content collaboratives also struggled to get off the ground, suffering from a lack of definition and focus, as well as attendance challenges, but were more successful by the third year. The vertical articulation collaborative, through which district and school administrators met and created a productive community of practice, was generally implemented with fidelity to the program model. While the college enthusiastically embraced the WICOR (writing, inquiry,

collaboration, organization, and reading) model, the teacher content collaboratives and vertical articulation collaborative were poorly attended by college faculty and administrators.

The successful implementation of the ACRS components and the strong community of practice created across districts and secondary schools through the vertical articulation collaborative meant that the schools and districts did embrace some of the new programming despite the obstacles and the incomplete implementation of the alignment activities. The growth of the ACRS across the schools likely contributed to the positive changes found in teachers' reported use of the AVID teaching methodologies and strategies, in school staff members' expectations of students, and in collaboration by school staff within and across schools as well as across secondary and postsecondary institutions. Regardless of the specific causes of these changes, the findings suggest that the AVID methodologies and philosophy did begin to take hold across the schools during the three years of the study.

A comparison of students' reported use of educational strategies, of their engagement in school, and of their postsecondary expectations before implementation and after three years of implementation showed little change in students' reported attitudes, actions, and expectations, but student responses were relatively high for both groups on many of the measures. Students took more advanced courses during the implementation years compared with the years before implementation. There was growth in students' credit earning in advanced courses, including honors and Advanced Placement, with 8 percent more high school students earning at least one advanced course credit in the third year of implementation compared with the years before implementation. Although this finding cannot be directly attributed to the program, this change in advanced credit earning was a key program goal. Earning more credits in advanced courses is closely related to some successfully implemented program components, including professional development and the AVID elective. Other student outcomes, including academic performance, educational attainment, and school persistence, did not change substantially. Likewise, little change was observed in the number of students who enrolled in college directly after high school, but it is possible that more time is needed to affect these outcomes.

ACADEMIC RIGOR

There are some interesting connections between certain study findings reported by school staff and students and found in the analysis of student records. These connections convey a possible story about how the ACRS and alignment activities may have taken hold at the schools, affected the school culture, and led to changes in students' outcomes. Teachers and other school staff reported growth in the schools' recognition of students' academic achievement, their shared understanding of what students should know in each grade level, and the efforts of students to do well in school. Staff members at the schools during the implementation years were also more likely to report feeling that all students at the school could be successful in college in comparison with staff members' beliefs during the pre-implementation years. Teachers also reported a wider use of many of the WICOR model strategies meant to build academic rigor in the classroom and to support students' study and learning habits during the implementation years.

These changes in teacher practice and in school staff members' expectations for students could be connected to an increased likelihood among students after experiencing the program to report that

their math and English/language arts classes were “difficult but manageable” as opposed to “too easy” or “too difficult.” This finding also seems closely related to the finding that students were taking and passing more advanced courses during the ACRS implementation than before it. All these findings point to a culture change across the staff at the schools toward a stronger belief that more students can succeed in rigorous course work and attend college, and toward ensuring that more students are given the opportunity to take rigorous college-track courses.

COMMUNITIES OF PRACTICE FOR TEACHERS

Research suggests that teacher communities of practice are key to students’ successful transitions through school and their postsecondary education success.¹ These communities provide a forum for content area teachers across grades and across secondary and postsecondary institutions to come together to align their curricula and teaching strategies across grade levels and to work together to clearly identify expectations for students in each grade. Establishing this type of community is difficult anywhere, as teachers’ busy days allow little time for any additional effort, and it is particularly difficult to connect secondary and postsecondary educators given that they work in separate institutions that allow for little interaction.² These hurdles can be exacerbated in a rural area where geographic distance and the smaller teaching staff at schools can play a large role in isolating teachers from this kind of community.

The AVID Central Florida Collaborative struggled with these issues in creating a successful community of practice through the teacher content collaboratives. One of the biggest challenges was finding enough substitute teachers to fill in when teachers attended content collaboratives, which were scheduled during the school day. After-school meetings were also attempted, but teachers did not have the time or the energy to devote to these meetings after teaching all day. Rural secondary and postsecondary schools that are interested in this type of collaboration may need to identify a realistic time for teachers to attend and offer compensation for the additional effort in order to ensure strong teacher participation, which is probably necessary for this kind of effort to be effective.

Beyond ensuring that kindergarten through twelfth grade and postsecondary faculty attend, much structure and guidance may be needed, at least during the first few meetings, to set a standard for success so that the value of these meetings is immediately evident to participating teachers. Including more school and district leadership and district-level content and curriculum specialists may have been useful in fostering structure and goal setting. School and district leadership may need to be involved in initiatives like the content collaborative, the site teams, and the middle school and high school feeder teams to identify the teachers and other staff members who are most able to take on these tasks, to support effective implementation, and to ensure alignment across all school and district leadership.

1. McRobbie (2004).

2. Barnett et al. (2012).

DUAL ENROLLMENT VERSUS ADVANCED PLACEMENT COURSES

Across the high schools in the study, dual enrollment credit earning for eleventh- and twelfth-grade students declined during the implementation years, while other advanced course taking (honors and Advanced Placement courses) grew during the implementation of the program. A school's decision to emphasize Advanced Placement, honors, or dual enrollment courses to reach the goal of better preparing students for college may be based on a number of factors. Dual enrollment courses may offer students a chance to acquire some college credits so they have a head start on college completion, but taking and passing an Advanced Placement test is another option toward earning college credit during high school.

Anecdotally, some high school principals said they preferred offering more Advanced Placement courses than dual enrollment courses at their schools because they believe that Advanced Placement courses are “more indicative of the rigorous instruction of a college class.” Still, passing a dual enrollment course leads directly to college credit earning at the sponsoring college, while students need to take and pass an additional test to earn college credits through Advanced Placement courses. High school and secondary-postsecondary collaborative partnerships should pay attention to how their students are best able to attain college credits (through dual enrollment or Advanced Placement courses or a mixture of both), and also try to compare the rigor of these different types of courses to be as thoughtful as possible about which offerings for students lead to the best college preparation and college success for the most students.

COLLEGE COLLABORATION

While state college faculty did not fully participate in the teacher content collaboratives and the vertical articulation collaborative, enthusiasm for the WICOR model was strong across the institution. The use of the WICOR model by a local postsecondary institution could encourage and strengthen the use of these methodologies, along with the AVID core values, across grade levels at secondary institutions. That is, if middle school and high school teachers know and understand that many of their students will be expected to use the WICOR model strategies and will be exposed to these teaching methods during college, it may promote their use in secondary school and help to build a continuum of rigorous teaching methods and learning strategies across secondary and postsecondary education in a community. The use of shared language and a set of methodologies across secondary and postsecondary educators could also allow for more effective future dialogues between these educators. Moreover, the consistency of methods across grades and schools could lead to longer-term success by helping to ease the transition into postsecondary education for these students.

APPENDIX
A

**Implementation Research Supplemental
Materials**

APPENDIX TABLE A.1

AVID College Readiness System (ACRS) and Alignment Activities Fidelity Matrix

Key Component or Element	Operational Definition	Data Source(s)
ACRS		
Professional development		
Summer Institute	15 staff members per school participate in 3 full days of training in summer 2013; 8 staff members per school participate in 3 full days of training in summer 2014 and 2015.	Attendance rosters
Path to Schoolwide	10 staff members per school participate in 2 full days of training in spring 2014, 2015, and 2016.	Attendance rosters
AVID elective teacher and AVID coordinator coaching	At least 1 AVID elective teacher and the AVID coordinator from each school participate in 1 coaching meeting per semester in school years 2013–2014, 2014–2015, and 2015–2016.	Attendance rosters
AVID elective		
Class offering	Year-long AVID elective classes are held during the regular school day, taught by trained AVID teachers.	AVID certification form
Recruitment and enrollment	Prescribed recruitment and enrollment strategies are used; enrollment in the AVID elective classes meets AVID criteria.	AVID certification form
Organizational skills	Instructional strategies are taught in AVID elective classes to develop organizational skills that promote academic self-management.	AVID certification form
Inquiry and collaboration	Inquiry and collaboration are used as a basis for instruction in the AVID elective classes.	AVID certification form
Reading and writing	A strong, relevant writing and reading curriculum provides a basis for instruction in the AVID elective classes.	AVID certification form
Tutoring	Students in the AVID elective classes receive support from trained tutors.	AVID certification form
Site team	An active interdisciplinary AVID site team collaborates on issues of student access to and success in rigorous college preparatory courses.	AVID certification form

(continued)

APPENDIX TABLE A.1 (continued)

Key Component or Element	Operational Definition	Data Source(s)
Alignment activities		
Middle school–high school feeder teams		
Meeting attendance	The principals and AVID coordinators from a middle school–high school pair meet for 1 hour, once per year, in school years 2013–2014, 2014–2015, and 2015–2016.	Attendance rosters
Plans	Feeder teams develop written plans, which include specific action items to support the implementation of the ACRS at the schools.	Document review
Teacher content collaboratives		
Facilitation	AVID convenes and facilitates two full-day meetings per year for each content area (English/language arts, math, science, and social studies) in school years 2013–2014, 2014–2015, and 2015–2016.	Document review
Meeting attendance	At least 2 content area teachers per school attend each meeting.	Attendance rosters
Plans	Written plans are developed each year addressing alignment of curricula across grades, student engagement, and use of the WICOR model. ^a	Document review
Vertical articulation collaborative (VAC)		
Facilitation	AVID convenes and facilitates VAC meetings 3 times per year for a full day in school years 2013–2014, 2014–2015, and 2015–2016.	Document review
Meeting attendance	8 principals, 1 representative from Heartland Educational Consortium, 1 representative from South Florida State College, and the 3 district directors (13 people) attend each meeting.	Attendance rosters
Plans	The VAC develops written plans addressing calibration of rigor, leadership, student engagement, and the implementation of the WICOR model. ^a	Document review
State college partnership		
AVID training	20 state college staff members participate in 3 full days of training in school years 2013–2014, 2014–2015, and 2015–2016.	Attendance rosters
Participation in teacher content collaboratives	2 state college instructors per content area participate in teacher content collaboratives.	Attendance rosters

(continued)

APPENDIX TABLE A.1 (continued)

SOURCE: AVID i3 Implementation Fidelity Matrix.

NOTES: Implementation of each program element was measured against criteria established in advance. The level of implementation fidelity for each element was based on these criteria (for example, the degree to which actual rates of participation in meetings and professional development sessions matched desired rates of participation).

^aThe WICOR model includes teaching strategies in writing, inquiry, collaboration, organization, and reading.

APPENDIX
B

**Staff and Student Survey Supplemental
Materials**

This appendix includes supplementary materials connected to the staff and student surveys discussed in Chapters 4 and 5. The first section describes the response rates for each of the surveys in each of the years they were administered. The second section describes the creation of the measures used in the analyses where more than one survey item is combined. The final section provides some additional analyses of staff and student surveys.

STAFF AND STUDENT SURVEY RESPONSE RATES

Appendix Table B.1 describes the response rates and sample sizes for the staff surveys. Findings from the analyses of data from the staff survey can be found in Chapter 4, Table 4.1. The survey was administered during the spring before program implementation (2013) and in each spring for the three years of program implementation that are included in this evaluation (2014, 2015, and 2016). Appendix Table B.1 shows the response rate for teachers, administrators, and guidance counselors separately, as well as the combined response rates for all three. Response rates were 70 percent or above for all types of respondents.

Appendix Table B.2 displays the response rates and sample sizes for the student survey that was administered to all tenth-grade students in the early fall of the first year of implementation (2013), before students had much exposure to the program, and again to a new set of tenth-grade students in the early fall after the third year of implementation (2016) when tenth-grade students had experienced the program for three years in both middle school and high school. Findings from the analyses of the student survey data can be found in Chapter 5, Table 5.1. Appendix Table B.2 shows the response rates for the two survey administrations at each of the four high schools. As can be seen from the table, response rates were 70 percent or higher for each group of respondents.

STAFF AND STUDENT SURVEY MEASURE CREATION AND FACTOR ANALYSIS

Many of the school and students outcomes that were measured using data from the staff and student surveys (found in Chapters 4 and 5, Tables 4.1 and 5.1, respectively) were created by combining more than one survey item. The descriptions on the following pages include each constructed survey item and explain the creation of the measure, the survey items included, the scale used, and the Cronbach's alpha from the factor analysis.

**APPENDIX TABLE B.1
Staff Survey Response Rates**

Time of Survey	Teachers	Administrators	Guidance Counselors	Total
Pre-AVID year				
Response rate (%)	82.5	71.4	89.5	82.3
Sample size	479	21	19	519
Year 1 (2013-2014)				
Response rate (%)	81.8	90.9	100.0	82.8
Sample size	483	22	19	524
Year 2 (2014-2015)				
Response rate (%)	81.5	74.1	90.5	81.5
Sample size	486	27	21	534
Year 3 (2015-2016)				
Response rate (%)	79.2	85.7	94.7	80.0
Sample size	486	21	19	526

**APPENDIX TABLE B.2
Student Survey Response Rates**

Time of Survey	High School			
	A	B	C	D
Fall 2013				
Response rate (%)	70.8	70.4	100.0	93.6
Sample size	250	186	293	346
Fall 2016				
Response rate (%)	91.9	87.1	82.1	94.8
Sample size	270	232	312	402

SCHOOL OUTCOMES

WICOR Model

Writing. The value for this construct was determined by calculating the average of the survey item responses (five items, Cronbach's alpha = 0.84).

How often during a term did you do the following?

- Ask students to revise their notes and/or create a summary of their notes (from readings, classroom lectures, etc.).
- Ask students to write about what they have read, reflecting on a section, chapter, or unit.
- Ask students to write a summary sentence in order to synthesize a passage.
- Ask students to write in journals or logs reflecting on what they have been learning in their classes, as well as how they are doing and/or what goals they have for themselves.
- Provide your students with class time to write to a prompt that is tied to your curriculum.

Scale: 1 = never, 2 = once per term, 3 = at least once a month, 4 = more than once a month but not weekly, 5 = once a week, 6 = more than once a week but not daily, and 7 = daily

Inquiry. The value for this construct was determined by calculating the average of the survey item responses (four items, Cronbach's alpha = 0.65).

How often in a term did you do the following?

- Ask students to agree/disagree with a prompt where one student speaks at a time going back and forth from the pro to the con.
- Ask students to work in small groups, asking each other questions about the subject matter or texts to discover answers to questions as a group.
- Spend time helping students learn the meaning of new words.
- Ask students to apply what they have previously learned to do what they are currently doing in the classroom.

Scale: 1 = never, 2 = once per term, 3 = at least once a month, 4 = more than once a month but not weekly, 5 = once a week, 6 = more than once a week but not daily, and 7 = daily

Collaboration. The value for this construct was determined by calculating the average of the survey item responses (six items, Cronbach's alpha = 0.8178).

How often in a term did you do the following?

- Ask students to work in small groups on a product with a rubric of expectations.
- Ask students to debate a statement or question in written form only, utilizing chart paper.
- Showcase student work by posting it around the room and then moving in small groups from example to example discussing the work with them.
- Ask students in a group to each read a separate “chunk” of text, summarize what they read to others in their group who read different chunks, and then work together to learn the entire meaning of the text.
- Ask students to think about a question prompt on their own, and then discuss it with a classmate or classmates.
- Ask students to respond to a prompt through dialogues with the student sitting next to them.

Scale: 1 = never, 2 = once per term, 3 = at least once a month, 4 = more than once a month but not weekly, 5 = once a week, 6 = more than once a week but not daily, and 7 = daily

Organization. The value for this construct was determined by calculating the average of the survey item responses (eight items, Cronbach's alpha = 0.75).

How often in a term did you do the following organizational tools in your classroom?

- Three ring binders to keep work in and keep it orderly.
- Assignment logs to record work and grades on that work.
- Agendas or calendars were used in the classroom to record due dates, homework and expectations on assignments.
- Spiral notebooks for recording notes in an interactive format (i.e., lecture notes, notes and handouts on one side, and student-generated work on the other).
- Notes chunked into three categories/columns of questions, facts, and steps.
- Rubrics or other clear guidelines to explain expectations for assignments including the point value of specific components, which is given to the students when an assignment is made.
- Use of “foldables” that is folding paper to help students organize and record information into categories.

- Essay planning where students first formulate and state a clear thesis and organize details and facts to support that thesis writing prior to writing.
- A form for writing assignments to assist students with organizing the facts/details to use, identify a thesis statement, etc.

Scale: 1 = never, 2 = once per term, 3 = at least once a month, 4 = more than once a month but not weekly, 5 = once a week, 6 = more than once a week but not daily, and 7 = daily

Reading. The value for this construct was determined by calculating the average of the survey item responses (eight items, Cronbach's alpha = 0.89).

How often during a term did you do the following?

- Ask students to read complex texts in the classroom.
- Have students number the paragraphs, circle key terms, underline author's claims, and use this information to engage in activities about the text.
- Use guided reading techniques that assist students in determining the meaning of the passage and the author's purpose.
- Employ close reading techniques that allow for the students to repeat and/or fill in the blanks as the class reads together.
- Use rereading techniques that require students to read a passage more than once, with a different focus each time, to ensure comprehension.
- Have students participate in Socratic seminars—that is, engage in collaborative dialogue about the text through the use of higher level questioning.
- Ask students to summarize texts, pulling out the most important information in a concise wrap up.
- Ask students to use tables, graphs, or pictures to organize the information in the text into a more understandable form (such as Venn Diagrams, Acrostics, Spider Diagrams, Timelines, etc.).

Scale: 1 = never, 2 = once per term, 3 = at least once a month, 4 = more than once a month but not weekly, 5 = once a week, 6 = more than once a week but not daily, and 7 = daily

AVID Core Values

Academic rigor. The value for this construct was determined by calculating the average of the survey item responses (three items, Cronbach's alpha = 0.76).

How strongly do you disagree or agree with the following statements about your school and students?

- Your school recognizes and acknowledges the academic achievement of its students.
- Your schools values students' academic achievement.
- Teachers, administrators, and staff at your school have a shared understanding of what each student should know when they enter and leave each grade level at your school.
- Students at your school respect other students who work hard to get good grades.
- Students at your school try to get good grades.

Scale: 1 = strongly disagree, 2 = somewhat disagree, 3 = somewhat agree, and 4 = strongly agree

Collaboration and Vertical Alignment

Meetings within and across schools. The value for this construct was determined by calculating the average of the survey item responses (four items, Cronbach's alpha = 0.79).

How often during a month did you do the following?

- Met with colleagues at your school during a designated time.
- Met with colleagues from other schools during a designated time.
- Met with colleagues to discuss the needs of specific students.
- Met with colleagues to discuss issues of student access and success in rigorous college preparatory courses?
- Participated in meetings with colleagues within your school to align teaching methodologies, expectations, and/or curriculum across grade levels.
- Participated in meeting with colleagues from both middle and high schools in your district to align teaching methodologies and/or curriculum across grade levels.
- Met with postsecondary teachers in your area to align teaching methodologies and/or curriculum across grade levels.

Scale: 1 = never, 2 = at least once a month, 3 = more than once a month but not weekly, 4 = once a week, 5 = more than once a week but not daily, and 6 = daily

Student Outcomes

Use of Learning Skills

Frequency of use of reading and study strategies. The value of this construct was determined by calculating the average of the survey item responses (eight items, Cronbach's alpha = 0.90).

Please tell us how frequently you do each of the following.

- As you read, you stop sometimes and mentally summarize what you have read and put it into your own words.
- You underline or make notes on the important information from a reading assignment.
- You test your understanding by trying to explain the information in your own words as you review the material you have read.
- You organize notes from class into main ideas and details or examples.
- As you review your notes, you test your understanding by trying to explain information in your own words.
- When you have a lot of material to remember, you break material into parts before attempting to learn it.
- You create diagrams or pictures to help you remember information.
- You test yourself sometimes to practice remembering material you have studied.

Scale: 1 = rarely, 2 = sometimes, 3 = frequently, 4 = almost always

Frequency of use of critical thinking in school. The value of this construct was determined by calculating the average of the survey item responses (four items, Cronbach's alpha = 0.81).

In general, about how often do you...

- Solve problems in your classes or for homework that require you to think for yourself?
- Work on assignments or projects that require you to think creatively in school?
- Learn about or discuss strategies for time management and how to stay organized in school?
- Get asked to apply what you have previously learned to what you are currently doing in your classes or your homework?

Scale: 1 = never or rarely, 2 = occasionally (less than once a month), 3 = once or twice a month, 4 = several times a month to weekly, 5 = more than once a week

Frequency of use of study habits. The value of this construct was determined by calculating the average of the survey item responses (seven items, Cronbach's alpha = 0.88).

How often do you...

- Revise your notes and/or create a summary of your notes (from readings, classroom lectures, etc.)?
- Write about what you have read, reflecting on a paragraph, section, chapter, or unit?
- Write a summary sentence in order to synthesize a passage from a text?
- Write in journals or logs reflecting on what you have been learning in your classes or how you are doing and/or what your goals are?
- Write notes grouped into three categories/columns of questions, facts, and steps?
- Use paper folded a few times to help you organize and record information into categories?
- Plan your essays before writing, by first formulating and stating a clear thesis and organizing details and facts to support that thesis?

Scale: 1 = never or rarely, 2 = occasionally (less than once a month), 3= once or twice a month, 4 = several times a month to weekly, 5 = more than once a week

Engagement in School

Tries hard and finds school interesting. The value of this construct was determined by calculating the average of the survey item responses (seven items, Cronbach's alpha=0.85).

How much do you agree with these statements about your current school experiences?

- You pay attention in class.
- You work very hard on your school work.
- There is a strong connection between what you are studying in school and what you want to study in college.
- There is a strong connection between what you are studying in school and what you want to do for a career.
- You think what you are learning in class is interesting.
- You understand what is expected of you in class and on your assignments.
- You try as hard as you can in school.

Scale: 1 = not at all true, 2 = not really true, 3 = somewhat true, 4 = mostly true, 5 = always true

Focuses on long-term objectives. The value of this construct was determined by inverting the survey responses and then calculating the average of the survey item responses (four items, Cronbach's alpha = 0.77).

For each of the following statements, indicate how much they describe you.

- New ideas and projects sometimes distract you from previous ones.
- You have been obsessed with a certain idea or project for a short time but later lost interest.
- You often set a goal but later choose to pursue a different one.
- You often have difficulty maintaining your focus on projects that take more than a few months to complete.

Scale: 1 = not at all like you, 2 = not much like you, 3 = somewhat like you, 4 = mostly like you, 5 = very much like you

Diligent and a hard worker. The value of this construct was determined by calculating the average of the survey item responses (three items, Cronbach's alpha = 0.83).

For each of the following statements, indicate how much they describe you.

- You are a hard worker.
- You finish whatever you begin.
- You are diligent.

Scale: 1 = not at all like you, 2 = not much like you, 3 = somewhat like you, 4 = mostly like you, 5 = very much like you

Confident of ability at school. The value of this construct was determined by calculating the average of the survey item responses (four items, Cronbach's alpha = 0.94).

Please indicate how true each statement is for you.

- You feel you are confident in your ability to learn.
- You are capable of learning the material in your classes.
- You are able to achieve your educational goals.
- You are able to meet the challenge of performing well in your classes.

Scale: 1 = not at all true, 2 = not really true, 3 = somewhat true, 4 = mostly true, 5 = always true

Postsecondary Awareness and Expectations

Has a plan for college. The value of this construct was determined by calculating the average of the survey item responses (four items, Cronbach's alpha = 0.87).

How true is each of these statements about you right now?

- You have a good idea of what level of education is required for the kind of career you want.
- You have a good idea of what kind of career you want to have.
- You believe you will be able to get the kind of career you want.
- You plan on going to college.

Scale: 1 = not at all true, 2 = not really true, 3 = somewhat true, 4 = mostly true, 5 = always true

Had opportunities to learn about college. The value of this construct was determined by calculating the average of the survey item responses (nine items, Cronbach's alpha = 0.86).

Have you ever...

- Learned about what level of education is needed for various careers?
- Visited a 4-year college, community college, or career-technical school campus?
- Talked with a parent or other family member about college?
- Discussed with anyone at your school what types of careers would suit your interests, talents, and skills?
- Discussed with anyone at your school how to decide which college to attend?
- Discussed with anyone at your school your chances of being accepted at different types of colleges?
- Discussed with anyone at your school what ACT/SAT scores you need to get into the colleges you want to attend?
- Discussed with anyone at your school how to pay for college?

Scale: 0 = no, 1 = yes

Planned level of degree attainment. The value of this construct corresponds to a single survey item.

As things stand now, how far do you think you will go with your education?

Scale: 1 = You probably won't graduate high school, 2 = you will get a GED, 3 = you will graduate from high school and get a high school diploma, 4 = you will get a license or a certificate from a community college or a technical/vocational school, 5 = you will get a two-year college degree, 6 = you will get a four-year college degree, 7 = you will get an advanced degree (master's or doctorate)

School Environment and Rigor

School focuses on success of all students. The value of this construct was determined by calculating the average of the survey item responses (seven items, Cronbach's alpha = 0.88).

How much do you agree with the following statements? At your school...

- Teachers make sure that all students are planning for life after graduation.
- Teachers work hard to make sure that all students are learning.
- High school is seen as preparation for the future.
- All students are encouraged to continue their education after graduation from high school.
- Teachers pay attention to all students, not just the top students.
- Teachers work hard to make sure that all students stay in school.
- Teachers help students develop skills to be successful in life beyond high school.

Scale: 1 = strongly disagree, 2= disagree, 3= agree, 4 = strongly agree

School encourages all students to go to college.— The value of this construct was determined by calculating the average of the survey item responses (eight items, Cronbach's alpha = 0.89).

Please indicate how much you agree or disagree.

- You have been encouraged by at least one of your teachers to take honors, advanced placement, or dual enrollment classes.
- You have been encouraged by your guidance counselor to take honors, advanced placement, or dual enrollment classes.
- At least one of your teachers and guidance counselor has encouraged you to take classes that will be challenging to you.
- You know where to go to get the help you need to succeed in your classes, such as tutoring, homework help, etc.
- At least one of your teachers has encouraged you to start planning for college.
- Your guidance counselor has encouraged you to start planning for college.
- At least one of your teachers has encouraged you to start planning for a career and life after high school.

- Your guidance counselor has encouraged you to start planning for a career and life after high school.

Scale: 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree

Collaborative and respectful environment. The value of this construct was determined by calculating the average of the survey item responses (five items, Cronbach's alpha = 0.81).

Please indicate how much you agree or disagree.

- Teachers and students show respect for different cultures, backgrounds, beliefs, and opinions.
- Teachers and students treat each other with courtesy and respect.
- Students in your classes help each other with their homework.
- Students in your classes work well in groups.
- Students in your classes listen to each other during class discussions.

Scale: 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree

Other students try hard at school. The value of this construct was determined by calculating the average of the survey item responses (four items, Cronbach's alpha = 0.89).

At your school, how many students in your grade...

- Feel it is important to come to school every day?
- Feel it is important to pay attention in class?
- Think doing homework is important?
- Try hard to get good grades?

Scale: 1 = none, 2 = some, 3 = most, 4 = all

SUPPLEMENTARY ANALYSES OF STAFF AND STUDENT SURVEY DATA

Table 4.1 in Chapter 4 shows the composite staff survey findings for each of the key WICOR strategies across all the schools. Appendix Table B.3 breaks out the Year 3 scores for each of the schools. The table shows that many of the schools saw considerable growth in the Writing and Organization strategies by the third year. Most schools did not see statistically significant growth in Inquiry. The outcomes of a few specific schools bolstered the Collaboration and Reading scores, while other schools did not show statistically significant differences. On all measures, middle school staff reported higher scores than high school staff.

Appendix Table B.4 displays the school-level findings for the third implementation year on the measures of academic rigor, college preparation, and collaborative communication and vertical alignment. Almost all schools showed positive growth in staff members' reporting of collaboration and vertical alignment. While schools tended to have similar scores on how staff members rated the school's academic rigor, the level of growth on this measure varied across schools. In all the schools, average responses to the question of whether all students can be successful in college are between agreement and disagreement, suggesting a mixed response across all schools.

Table 5.1 in Chapter 5 displays the average student outcomes from the student survey across all tenth-grade students. Appendix Table B.5 displays the same findings but only includes those students participating in the AVID elective. AVID elective students in both groups (those who had just started the program and those who had been participating in the program for up to three years) had higher average scores across the measures than the full sample of students. The AVID elective students in the third year of implementation did tend to report having more opportunities to learn about college than their counterparts at the beginning of the first year. They also agreed more with the idea that their school encouraged all students to go to college.

APPENDIX TABLE B.3
Use of the WICOR Model as Measured by the Staff Survey, by School, Year 3

School	Writing		Inquiry		Collaboration		Organization		Reading	
	Year 3	Difference	Year 3	Difference	Year 3	Difference	Year 3	Difference	Year 3	Difference
All schools	3.72	0.562***	4.59	-0.018	3.48	0.279***	3.83	0.515***	3.82	0.155
Middle school A	3.88	0.872**	4.83	-0.034	3.74	0.475	4.03	0.317	4.04	-0.166
High school A	3.36	0.374	4.22	-0.420*	3.07	0.045	3.31	0.040	3.51	0.060
Middle school B	3.86	0.743**	4.86	0.232	3.65	0.657*	3.86	0.624**	4.10	0.308
High school B	3.47	0.440	4.43	-0.232	3.43	0.377	3.77	0.265	3.36	0.061
Middle school C	3.70	0.590*	4.65	0.179	3.55	0.284	4.07	0.583**	4.08	0.269
High school C	3.92	0.505*	4.49	-0.192	3.36	-0.201	3.60	0.188	3.56	-0.074
Middle school D	4.09	1.288***	4.73	0.328	3.65	0.771***	4.24	1.201***	4.24	0.674**
High school D	3.49	-0.056	4.48	-0.015	3.43	0.023	3.78	0.675***	3.71	0.036
Range	0.73	1.244	0.64	0.748	0.67	0.973	0.93	1.161	0.88	0.840

SOURCE: Surveys of teachers, administrators, and guidance counselors administered in May 2013 and May 2016.

NOTES: Across eight study schools, there were 395 teacher participants in the spring before implementation and 385 teacher participants in Year 3.

All composite measures included in this table were measured on a scale of 1 to 7, where 1 = never and 7 = daily.

The "Difference" columns display the difference between the score at the end of the third implementation year and the pre-score measured before implementation. A two-tailed t-test was used for all statistical tests presented in this table. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Data are missing for no more than 12 percent of respondents on any measure.

Rounding may cause slight discrepancies in calculating sums and differences.

APPENDIX TABLE B.4
AVID Core Values and Collaboration as Measured by the Staff Survey, by School, Year 3

School	Academic Rigor		College Preparation ^a		Collaboration	
	Year 3	Difference	Year 3	Difference	Year 3	Difference
All schools	3.11	0.115***	2.42	0.193***	2.33	0.348***
Middle school A	3.11	0.273**	2.33	0.350	2.23	0.493***
High school A	3.18	0.033	2.24	0.203	2.10	0.353**
Middle school B	3.36	0.248*	2.58	0.306	2.63	1.060***
High school B	3.34	0.320***	2.51	0.147	2.18	0.500***
Middle school C	3.05	0.156	2.63	0.264	2.49	0.442***
High school C	2.92	0.168	2.26	-0.204	2.51	0.114
Middle school D	2.79	-0.138	2.42	0.398**	2.31	0.502***
High school D	3.14	0.044	2.43	0.143	2.21	-0.182
Range	0.57	0.458	0.38	0.602	0.54	1.243

SOURCE: Surveys of teachers, administrators, and guidance counselors administered in May 2013 and May 2016.

NOTES: Across eight study schools, there were 427 participants in the spring before implementation and 421 participants in Year 3.

“Academic Rigor” and “College Preparation” were measured on a scale of 1 to 4, where 1 = strongly disagree and 4 = strongly agree. “Collaboration” was measured on a scale of 1 to 6, where 1 = never and 6 = daily.

The “Difference” columns display the difference between the score at the end of the third implementation year and the pre-score measured before implementation. A two-tailed t-test was used for all statistical tests presented in this table. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Data are missing for no more than 17 percent of respondents on any measure.

Rounding may cause slight discrepancies in calculating sums and differences.

^aThis measure includes only one survey item: Staff members reported that all students at their school can be successful in college.

APPENDIX TABLE B.5

Student Survey Outcomes: Tenth-Grade Students in AVID Elective, After Three Years of the AVID College Readiness System (ACRS) and Alignment Activities

Composite Measure	Fall 2013	Fall 2016	Estimated Difference	P-Value
Use of learning skills				
Frequency of use of reading and study strategies (1-4) ^a	2.60	2.59	-0.01	0.948
Frequency of use of critical thinking in school (1-5) ^b	3.97	3.80	-0.17	0.353
Frequency of use of study habits (1-5) ^b	3.73	3.55	-0.19	0.337
Students report using a three-ring binder (%)	91.2	97.3	6.1	0.213
Students report using a calendar to track work (%)	85.1	83.2	-1.9	0.775
Engagement in school^c				
Tries hard and finds school interesting (1-5)	3.72	3.62	-0.11	0.478
Focuses on long-term objectives (1-5)	3.40	3.22	-0.18	0.293
Is diligent and a hard worker (1-5)	3.92	3.86	-0.06	0.717
Is confident of ability at school (1-5)	3.96	3.93	-0.04	0.838
Postsecondary awareness and expectations				
Has a plan for college (1-5) ^c	4.09	3.99	-0.10	0.535
Had opportunities to learn about college (0-1) ^d	0.65	0.76	0.11	0.066*
Planned level of degree attainment (1-7) ^e	5.53	5.45	-0.07	0.812
School environment and academic rigor				
School focuses on success of all students (1-4) ^f	2.93	2.97	0.04	0.764
School encourages all students to go to college (1-4) ^f	2.83	3.05	0.22	0.089*
Environment is collaborative and respectful (1-4) ^f	2.92	2.95	0.02	0.828
Other students try hard at school (1-4) ^g	2.70	2.70	0.00	0.986
Students report math class was difficult but manageable (%)	37.1	55.5	18.4	0.050**
Students report English class was difficult but manageable (%)	26.4	39.9	13.5	0.133
Number of students				246

(continued)

APPENDIX TABLE B.5 (continued)

SOURCE: Surveys of students administered in fall 2013 and fall 2016.

NOTES: Across four study high schools, 246 tenth-grade students in the AVID elective class participated in the survey, including 115 students in the 2013 survey administration and 131 students in the 2016 survey administration.

The “Fall 2013” score is regression adjusted using the mean covariate values for “Fall 2016” as the basis for adjustment.

A two-tailed t-test was used for all statistical tests presented in this table. Asterisks after the “P-Value” column represent the statistical significance of the difference between Fall 2013 and Fall 2016. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Data are missing for no more than 11 percent of respondents on any measure.

^aThis measure includes several items using the following scale: 1 = rarely, 4 = almost always.

^bThis measure includes several items using the following scale: 1 = never or rarely, 5 = more than once a week.

^cThis measure includes several items using the following scale: 1 = not at all, 5 = always or very much.

^dThis measure includes several items using the following scale: 0 = no, 1 = yes.

^eThis measure uses the following scale: 1 = not graduate high school, 7 = get advanced degree (e.g., master’s, PhD).

^fThis measure includes several items using the following scale: 1 = strongly disagree, 4 = strongly agree.

^gThis measure includes several items using the following scale: 1 = none, 4 = all.

APPENDIX
C

**Student Academic Outcomes Supplemental
Materials**

This appendix includes supplemental materials for the student academic outcomes discussed in Chapter 5. These analyses use students' administrative records to explore the promise of the AVID College Readiness System (ACRS) and alignment activities to affect student outcomes, including advanced course credit earning, overall academic performance, educational attainment, and school persistence. The first section describes the analyses and compares the characteristics of the students during the years before program implementation with the characteristics of those students during implementation. The second section looks at supplemental analyses, including outcomes in the first and second years of implementation, outcomes by grade, and outcomes by high school.

ANALYTIC METHOD AND CHARACTERISTICS OF STUDENTS IN THE ANALYSIS SAMPLE

As noted in the report, this study is nonexperimental. The analysis is a comparison of the combined average academic outcomes for students during the three years before program implementation (the 2010-2011, 2011-2012, and 2012-2013 school years) with the students' average academic outcomes during the third year of implementation. Since the analysis combines the outcomes of four high schools and ninth- through twelfth-grade students in each of those schools, a multilevel model was used so that student outcomes are being compared within schools and grades and then averaged across the included schools and grades. To control for the differences in the student populations before and during program implementation, the analysis includes covariates for race and ethnicity and special education, as well as gender and each student's proficiency level (1 to 5) on the Florida State standardized reading and math tests during sixth grade, which took place before the students participated in the program. Eligibility for free or reduced-price lunch was not included. This measure is somewhat problematic because two of the school districts in the study adopted the Community Eligibility Provision (CEP) during the study years. The CEP is a federal program for districts with high levels of low-income students that removes the need to collect applications from each student's family and allows schools to provide breakfast and lunch for the entire student body. For this reason, students in the years before the study began are more likely to have up-to-date eligibility information in comparison with students in the program during the third year of the study, regardless of their actual eligibility. English language learner status was also not included because only about 2 percent of students in these schools were designated with that status.

Appendix Table C.1 compares the characteristics of the students in each of these two groups. As can be seen from the table, the two groups of students are similar to each other on many of the measures. But there are some differences between the two groups: There are more Hispanic students and fewer white and Asian students in the third year of implementation than in the years before implementation, and there is a higher percentage of special education students in the third year of implementation compared with the years before implementation. The study team also compared the same baseline characteristics for eighth-grade students. Similar to the high school students, there is a higher percentage of Hispanic students by the third year of implementation than in the years before implementation, and a smaller percentage of both white and black students (not shown in table). These differences suggest a slight change in the population of students during the years of the study, with a higher percentage of minority and high-needs students at the schools during the program years than there had been in the years before the study that are being used for the comparison. As noted above, these changes are controlled for in the analysis.

APPENDIX TABLE C.1

Characteristics of Students in the Analytic Sample, Before and During the Third Year of the AVID College Readiness System (ACRS) and Alignment Activities

Characteristic	Pre-AVID Years	Year 3 (2015-2016)	Estimated Difference	P-Value
Eligible for free/reduced-price lunch (%)	66.9	63.8	-3.1	0.223
Race and ethnicity (%)				
Black	14.0	14.0	0.0	0.941
Hispanic	39.6	44.7	5.1	0.000***
Asian	1.2	0.8	-0.4	0.046**
White	41.6	37.4	-4.2	0.000***
Other	3.5	3.1	-0.5	0.380
Gender (%)				
Male	51.2	50.4	-0.7	0.490
English language learners (%)	2.6	2.0	-0.7	0.112
Special education status (%)	11.2	14.0	2.8	0.007***
State assessment achievement level (1–5, 3 = passing, 6th grade)				
English Language Arts	2.60	2.59	-0.01	0.770
Math	2.45	2.48	0.03	0.603
Number of students				17,669

SOURCE: MDRC calculations are based on student records obtained from school districts for 2010-2011 through 2012-2013 (pre-AVID years) and 2015-2016 (Year 3).

NOTES: Across four study high schools, 12,942 students were included in the pre-AVID implementation sample, which includes students in the study high schools during the three years before AVID implementation, and 4,727 students were included in the Year 3 sample, which includes all students in the study high schools during the 2015-2016 school year.

The “Pre-AVID Years” column displays the average scores for all students in ninth through twelfth grades during the three years before the first year of implementation, and the “Year 3” column displays the average scores during the third year of implementation of the ACRS and alignment activities.

A two-tailed t-test was used for all statistical tests presented in this table. Asterisks after the “P-Value” column represent the statistical significance of the difference between Year 3 and the pre-AVID years. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Data are missing for no more than 1 percent of respondents on any measure except for the state English language arts achievement level, the state math achievement level, and eligibility for free/reduced-price lunch. On these measures, 22 percent of data are missing for the students after three years of implementation, and 25 percent of data are missing for the pre-AVID implementation group.

SUPPLEMENTAL STUDENT OUTCOMES FINDINGS

Table 5.2 in Chapter 5 displays the student outcomes for students in the third year of implementation. This section includes the findings for similar outcomes during the first and second years of implementation. This section also includes findings by grade level (ninth through twelfth grade) and findings for students attending each of the four high schools participating in the program and the study.

Appendix Table C.2 shows similar outcome measures as Table 5.2 but for students after the first year of implementation. This table includes only ninth- and tenth-grade students because in the high schools, only ninth- and tenth-grade students participated in the program during the first year. Appendix Table C.3 displays similar outcomes for students in the second year of implementation. This table includes outcomes for ninth-, tenth-, and eleventh-grade students, as the program added eleventh grade in the second year and was then targeting ninth-, tenth- and eleventh-grade students at the high schools. The Florida state assessment in reading was not included in this table because this was the first year that a new test was administered across the state and, during this year, proficiency levels were not provided.

Appendix Table C.4 includes the same sample of students as in Table 5.2, but includes the findings by grade level (ninth through twelfth grade). Similarly, Appendix Table C.5 also includes the same sample as in Table 5.2 but includes the findings for each high school separately.

APPENDIX TABLE C.2
Student Outcomes in the First Year of the AVID College Readiness System (ACRS) and
Alignment Activities: Ninth- and Tenth-Grade Students Combined

Outcome Measure	Pre-AVID Years	Year 1 (2013-2014)	Estimated Difference	P-Value
Credits earned in advanced course work^a				
Earned at least 1 credit in an advanced course (%)	31.1	35.1	4.0	0.003***
Total advanced credits earned	0.76	0.82	0.06	0.254
Core advanced credits earned ^b	0.70	0.79	0.09	0.075*
Academic performance				
Grade point average (0-4)	2.39	2.26	-0.13	0.022**
State English Language Arts achievement level (1–5, 3 = passing) ^c	2.32	2.41	0.09	0.183
Educational attainment				
Total credits earned	4.98	4.95	-0.03	0.800
Core credits earned ^b	3.17	3.16	-0.01	0.903
Promotion to the next grade (%)	71.6	74.5	2.9	0.204
High school persistence				
Retention in school through the school year (%)	87.4	90.0	2.6	0.131
Sample size				9,952

SOURCE: MDRC calculations are based on student records obtained from school districts for 2010-2011 through 2012-2013 (pre-AVID years) and 2013–2014 (Year 1).

NOTES: Across four study high schools, 7,449 students were included in the pre-AVID implementation sample, which includes students in the study high schools during the three years before AVID implementation, and 2,503 students were included in the post sample, which includes all students in ninth through tenth grades in the study high schools during the 2013–2014 school year.

The “Pre-AVID Years” column displays the average scores for all students in ninth through twelfth grades during the three years before the first year of implementation, and the “Year 1” column displays the average scores at the end of the first year of implementation of the ACRS and alignment activities.

A two-tailed t-test was used for all statistical tests presented in this table. Asterisks after the “P-Value” column represent the statistical significance of the difference between Year 1 and pre-AVID years. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Data are missing for no more than 4 percent of respondents on any measure except for the state English Language Arts achievement level. For the students in the first year of implementation, 10 percent of data for reading achievement are missing, and for the pre-AVID implementation group, 21 percent of the data for reading achievement are missing.

^aAdvanced course work consists of honors, dual enrollment, and Advanced Placement courses.

^bCore courses include all English/language arts, math, science, and social studies courses.

^cStarting in spring 2015, the Florida state assessment changed from the Florida Comprehensive Assessment Test to the Florida Standards Assessment. The achievement levels for these tests are not equivalent, and some caution should be taken when interpreting these findings.

APPENDIX TABLE C.3

Student Outcomes in the Second Year of the AVID College Readiness System (ACRS) and Alignment Activities: Ninth, Tenth, and Eleventh Grades Combined

Outcome Measure	Pre-AVID Years	Year 2 (2014-2015)	Estimated Difference	P-Value
Credits earned in advanced course work^a				
Earned at least 1 credit in an advanced course (%)	29.1	36.2	71	0.000***
Total advanced credits earned	0.80	0.90	0.11	0.063*
Core advanced credits earned ^{a,b}	0.71	0.83	0.12	0.014**
Academic performance				
Grade point average (0–4)	2.43	2.43	0.00	0.973
Educational attainment				
Total credits earned	5.07	5.06	-0.01	0.944
Core credits earned ^b	3.25	3.25	0.00	0.958
Promotion to the next grade (%)	74.1	78.4	4.2	0.034**
High school persistence				
Retention in school through the school year (%)	87.7	90.3	2.7	0.107
Sample size				13,820

SOURCE: MDRC calculations are based on student records obtained from school districts for 2010–2011 through 2012–2013 (pre-AVID years) and 2014–2015 (Year 2).

NOTES: Across four study high schools, 10,276 students were included in the pre-AVID implementation sample, which includes students in the study high schools during the three years before AVID implementation, and 3,544 students were included in the Year 3 sample, which includes all students in ninth through eleventh grades in the study high schools during the 2014–2015 school year.

The “Pre-AVID Years” column displays the average scores for all students in ninth through twelfth grades during the three years before the first year of implementation, and the “Year 2” column displays the average scores at the end of the second year of implementation of the ACRS and alignment activities.

A two-tailed t-test was used for all statistical tests presented in this table. Asterisks after the “P-Value” column represent the statistical significance of the difference between Year 2 and the pre-AVID years. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Data are missing for no more than 4 percent of respondents on any measure.

^aAdvanced course work consists of honors, dual enrollment, and Advanced Placement courses.

^bCore courses include all English/language arts, math, science, and social studies courses.

APPENDIX TABLE C.4
Student Outcomes in the Third Year of the AVID College Readiness System (ACRS)
and Alignment Activities, by Grade

Outcome Measure	Pre-AVID Years	Year 1 (2013-2014)	Estimated Difference	P-Value
Credits earned in advanced course work^a				
Earned at least 1 credit in an advanced course (%)				
9th grade	23.9	28.6	4.7	0.025**
10th grade	26.4	35.6	9.2	0.003***
11th grade	35.7	45.5	9.8	0.013**
12th grade	38.8	48.4	9.5	0.014**
Total advanced credits earned				
9th grade	0.57	0.68	0.11	0.193
10th grade	0.74	0.93	0.19	0.096*
11th grade	1.13	1.27	0.14	0.313
12th grade	1.24	1.19	-0.05	0.673
Core advanced credits earned ^b				
9th grade	0.54	0.68	0.14	0.094*
10th grade	0.66	0.86	0.20	0.042**
11th grade	0.95	1.11	0.16	0.116
12th grade	0.93	0.95	0.02	0.805
Dual enrollment college credits earned				
9th grade	0.50	0.36	-0.14	0.174
10th grade	0.77	0.52	-0.25	0.050**
Honors and Advanced Placement credits earned				
9th grade	0.82	1.04	0.22	0.038**
10th grade	0.68	0.81	0.13	0.161
Academic performance				
Grade point average (0–4)				
9th grade	2.30	2.34	0.04	0.605
10th grade	2.37	2.33	-0.04	0.626
11th grade	2.63	2.69	0.06	0.412
12th grade	2.91	3.05	0.14	0.088*
State English Language Arts achievement level ^c (1–5, 3 = passing)				
9th grade	2.24	2.27	0.03	0.622
10th grade	2.24	2.20	-0.04	0.733
Educational attainment				
Total credits earned				
9th grade	4.65	4.91	0.27	0.188
10th grade	5.15	5.07	-0.08	0.588
11th grade	5.31	5.19	-0.12	0.443
12th grade	5.55	5.37	-0.17	0.132

(continued)

APPENDIX TABLE C.4 (continued)

Outcome Measure	Pre-AVID Years	Year 1 (2013-2014)	Estimated Difference	P-Value
Core credits earned^b				
9th grade	2.68	2.85	0.17	0.321
10th grade	3.53	3.43	-0.09	.0590
11th grade	3.70	3.64	-0.07	0.599
12th grade	3.24	3.33	0.09	0.341
Promotion to the next grade (%)				
9th grade	67.8	77.6	9.8	0.012**
10th grade	72.4	74.9	2.4	0.494
11th grade	80.9	83.3	2.3	0.535
12th grade	92.2	89.9	-2.3	0.429
High school persistence				
Retention in school through the school year (%)				
9th grade	85.5	86.8	1.3	0.586
10th grade	87.2	88.0	0.8	0.762
11th grade	88.1	87.3	-0.9	0.793
12th grade	94.6	92.4	-2.1	0.242
Sample size				17,669

SOURCE: MDRC calculations are based on student records obtained from school districts for 2010-2011 through 2012-2013 (pre-AVID years) and 2015-2016 (Year 3).

NOTES: Across four study high schools, 12,942 students were included in the pre-AVID implementation sample, which includes students in the study high schools during the three years before AVID implementation, and 4,727 students were included in the Year 3 sample, which includes all students in the study high schools during the 2015-2016 school year.

The “Pre-AVID Years” column displays the average scores during the three years before the first year of implementation, and the “Year 3” column displays the average scores at the end of the third year of implementation of the ACRS and alignment activities.

A two-tailed t-test was used for all statistical tests presented in this table. Asterisks after the “P-Value” column represent the statistical significance of the difference between the Year 3 and the pre-AVID years. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Data are missing for no more than 5 percent of respondents on any measure except for the state English Language Arts achievement level. On that measure, 14 percent of the data are missing for the students after three years of implementation, and 21 percent of the data are missing for the pre-AVID implementation group. Also, in the pre-AVID implementation group, most data were missing for tenth-grade students in one district during 2010-2011 and 2011-2012, so only 2012-2013 data were included for that district and grade.

^aOne district did not provide data on dual enrollment courses taken and passed. For this district, dual enrollment courses are not included in the measures of advanced credits earned, and the district is not included in the measure of dual enrollment credits earned.

^bCore courses include all English/language arts, math, science, and social studies courses.

^cStarting in spring 2015, the Florida state assessment changed from the Florida Comprehensive Assessment Test to the Florida Standards Assessment. The achievement levels for these tests are not equivalent, and some caution should be taken when interpreting these findings.

APPENDIX TABLE C.5
Student Outcomes in the Third Year of the AVID College Readiness System (ACRS) and Alignment Activities, by High School Attended

Outcome Measure	Pre-AVID Years	Year 3 (2015-2016)	Estimated Difference	P-Value
Credits earned in advanced course work				
Earned at least 1 credit in an advanced course (%)				
High school A	30.8	42.1	11.3	0.001***
High school B	33.2	44.7	11.6	0.001***
High school C	30.6	32.1	1.5	0.499
High school D	27.5	36.8	9.4	0.028**
Total advanced credits earned				
High school A	0.86	1.28	0.42	0.002***
High school B	0.98	1.16	0.19	0.050*
High school C	1.03	0.83	-0.20	0.109
High school D	0.67	0.77	0.10	0.179
Core advanced credits earned ^a				
High school A	0.71	1.05	0.35	0.001***
High school B	0.82	1.02	0.20	0.030**
High school C	0.80	0.75	-0.05	0.646
High school D	0.67	0.77	0.10	0.179
Dual enrollment college credits earned				
High school A	0.59	0.69	0.10	0.371
High school B	0.58	0.37	-0.21	0.022**
High school C	0.75	0.30	-0.46	0.001***
High school D				
Honors/Advanced Placement credits earned (11th–12th grades)				
High school A	0.57	0.97	0.40	0.032**
High school B	1.02	1.21	0.19	0.054*
High school C	0.80	0.78	-0.02	0.898
High school D	0.73	0.86	0.13	0.258
Academic performance				
Grade point average (0–4)				
High school A	2.62	2.67	0.04	0.399
High school B	2.66	2.86	0.19	0.002***
High school C	2.51	2.49	-0.02	0.847
High school D	2.40	2.36	-0.04	0.643
State English Language Arts achievement level ^b (1–5, 3 = passing)				
High school A	2.19	2.16	-0.03	0.833
High school B	2.26	2.28	0.02	0.842
High school C	1.96	2.09	0.13	0.063*
High school D	2.44	2.38	-0.06	0.695

(continued)

APPENDIX TABLE C.5 (continued)

Outcome Measure	Pre-AVID Years	Year 3 (2015-2016)	Estimated Difference	P-Value
Educational attainment				
Total credits earned				
High school A	5.70	6.02	0.32	0.116
High school B	6.00	6.18	0.19	0.065*
High school C	6.05	5.53	-0.52	0.001***
High school D	3.56	3.38	-0.17	0.135
Core credits earned ^a				
High school A	3.06	3.47	0.41	0.001***
High school B	3.24	3.51	0.28	0.009***
High school C	3.33	2.85	-0.48	0.001***
High school D	3.56	3.38	-0.17	0.135
Promotion to the next grade (%)				
High school A	72.6	77.0	4.4	0.250
High school B	72.1	77.9	5.8	0.007***
High school C	76.3	78.3	2.0	0.620
High school D	88.0	86.6	-1.4	0.715
High school graduation				
High school A	0.83	0.83	0.00	0.956
High school B	0.87	0.89	0.02	0.570
High school C	0.83	0.75	-0.09	0.418
High school D	0.89	0.88	-0.01	0.849
High school persistence				
Retention in school through the school year (%)				
High school A	87.3	88.9	1.7	0.279
High school B	87.5	93.2	5.7	0.002***
High school C	89.9	83.4	-6.5	0.000***
High school D	90.8	89.7	-1.1	0.776
Sample size				17,669

(continued)

APPENDIX TABLE C.5 (continued)

SOURCE: MDRC calculations are based on student records obtained from school districts for 2010–2011 through 2012–2013 (pre-AVID years) and 2015–2016 (Year 3).

NOTES: Across four study high schools, 12,942 students were included in the pre-AVID implementation sample, which includes students in the study high schools during the three years before AVID implementation, and 4,727 students were included in the Year 3 sample, which includes all students in the study high schools during the 2015-2016 school year.

The “Pre-AVID Years” column displays the average scores for all students in ninth through twelfth grades during the three years before the first year of implementation, and the “Year 3” column displays the average scores at the end of the third year of implementation of the ACRS and alignment activities.

A two-tailed t-test was used for all statistical tests presented in this table. Asterisks after the “P-Value” column represent the statistical significance of the difference between the Year 3 and the pre-AVID years. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Data are missing for no more than 6 percent of respondents on any measure except for the state English Language Arts achievement level. On that measure, no more than 23 percent of the data are missing for any one school for the students after three years of implementation, and no more than 38 percent of the data are missing for any one school for the pre-AVID implementation group.

^aCore courses include all English/language arts, math, science, and social studies courses.

^bStarting in spring 2015, the Florida state assessment changed from the Florida Comprehensive Assessment Test to the Florida Standards Assessment. The achievement levels for these tests are not equivalent, and some caution should be taken when interpreting these findings.

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ABOUT MDRC

MDRC IS A NONPROFIT, NONPARTISAN SOCIAL AND EDUCATION POLICY RESEARCH ORGANIZATION DEDICATED TO learning what works to improve the well-being of low-income people. Through its research and the active communication of its findings, MDRC seeks to enhance the effectiveness of social and education policies and programs.

Founded in 1974 and located in New York; Oakland, California; Washington, DC; and Los Angeles, MDRC is best known for mounting rigorous, large-scale, real-world tests of new and existing policies and programs. Its projects are a mix of demonstrations (field tests of promising new program approaches) and evaluations of ongoing government and community initiatives. MDRC's staff members bring an unusual combination of research and organizational experience to their work, providing expertise on the latest in qualitative and quantitative methods and on program design, development, implementation, and management. MDRC seeks to learn not just whether a program is effective but also how and why the program's effects occur. In addition, it tries to place each project's findings in the broader context of related research — in order to build knowledge about what works across the social and education policy fields. MDRC's findings, lessons, and best practices are shared with a broad audience in the policy and practitioner community as well as with the general public and the media.

Over the years, MDRC has brought its unique approach to an ever-growing range of policy areas and target populations. Once known primarily for evaluations of state welfare-to-work programs, today MDRC is also studying public school reforms, employment programs for ex-prisoners, and programs to help low-income students succeed in college. MDRC's projects are organized into five areas:

- Promoting Family Well-Being and Children's Development
- Improving Public Education
- Raising Academic Achievement and Persistence in College
- Supporting Low-Wage Workers and Communities
- Overcoming Barriers to Employment

Working in almost every state, all of the nation's largest cities, and Canada and the United Kingdom, MDRC conducts its projects in partnership with national, state, and local governments, public school systems, community organizations, and numerous private philanthropies.