

ALABAMA ARTICULATION AND GENERAL STUDIES COMMITTEE & STATEWIDE TRANSFER AND ARTICULATION REPORTING SYSTEM

EVALUATION PROJECT FINAL REPORT

STEPHEN G. KATSINAS, PH.D.
Principal Investigator, Director

NATHANIEL P. BRAY, PH.D.
Associate Professor and Fellow

JAMES E. "SKIP" DOTHEROW, PH.D.
Senior Fellow

MICHAEL S. MALLEY, JR
Assistant Director

JAKE L. WARNER
Research Fellow

J. LUCAS ADAIR, MPA
JOHN ROBERTS, MPA
UNDRE V. PHILLIPS
Research Associates



TABLE OF CONTENTS

Lists of Figures & Tables	3
List of Appendices	4
Preface	5
Acknowledgements	6
Executive Summary	7
Chapter 1. Introduction	18
Articulation and General Studies Act	23
Accomplishments of the AGSC/ STARS	26
Project rationale	32
Chapter 2. Methodology	33
Study Approach	34
Surveys	35
Focus Groups	36
Interviews	39
Literature Review	42
Chapter 3. Results	47
Survey Results	48
Focus Group Results	78
Interview Results	91
Chapter 4. Implications	98
Context	99
How Are We Doing	103
Achievement of Legislative Intent	106
Organizational Structure	107
Effectiveness of AGSC	108
Impact of Act 94-202	109
Where Do We Go from Here	110
Implications	112
Recommendations	113
Bibliography	118

LISTS OF FIGURES, TABLES, AND APPENDICES

Figures

- Figure 1 From Vertical to Dynamic Transfer
- Figure 2 What Does Transfer In Alabama Look Like?
- Fig 2.1 Transfer Origin and Destination Institutions
- Figure 3 Annual STARS Transfer Guide Requests Since 1998
- Figure 4 AGSC&STARS Two Year Usage Information Table By Major (July 1, 2015 - June 30, 2016)
- Figure 5 Transfer and Articulation Studies Completed and Planned by States, 2008-2014
- Figure 6 Key factors and state policy components associated with successful transfer according to Education Commission of the States, 2014

Tables

- Table 1 It's More Than Vertical Transfer
- Table 2 Credits toward bachelor's degree attainment are earned dynamically
- Table 3 What STARS Covers; The Five Academic Areas of Alabama's Statewide Articulation and Reporting System, 1998-Present
- Table 4 Reaching 60% of Alabamians with a Quality Postsecondary Credential
- Table 5 Schedule for Focus Group Interviews
- Table 6 Transfer Status and Intent
- Table 7 Student Knowledge about STARS
- Table 8 How Students Learn about STARS
- Table 9 General Survey Results for Student Respondents
- Table 10 Student Use of Official and Unofficial Reports
- Table 11 How Students Access STARS
- Table 12 Student Satisfaction with STARS
- Table 13 Do Students Download a Digital or Printed STARS Guide?
- Table 14 Student Preparation to Transfer
- Table 15 General Survey Results for Advisor/Administrator Respondents
- Table 16 Completeness of STARS Data
- Table 17 Advisor/Administrator Use of STARS Reports
- Table 18 How Advisors/Administrators Access STARS
- Table 19 How STARS Is Used by Advisors/Administrators
- Table 20 Respondents' Participation on AGSC Committee and Sub-Committees
- Table 21 AGSC Committee and Sub-Committee Members' Role Use of STARS
- Table 22 AGSC Committee and Subcommittee Members' Use of STARS
- Table 23 How STARS Is Accessed by AGSC Committee and Sub-Committee Members
- Table 24 AGSC Committee and Sub-Committee Evaluation of Accuracy of STARS Data
- Table 25 AGSC Committee and Sub-Committee Use of STARS Data
- Table 26 AGSC Committee/Sub-Committee Members' Accessing STARS from Electronic Devices
- Table 27 Do AGSC Committee/Subcommittee Members Download a Digital or Printed STARS Guide?
- Table 28 Committee and Sub-Committee Member Views on STARS Utility
- Table 29 Comparison of Evaluation Results for Students and Advisors/Administrators, 2016
- Table 30 Summary of Unofficial and Official STARS report usage by group surveyed
- Table 31 Different users access the STARS system through different means
- Table 32 Comparison of Student Survey Responses from 2002 and 2016 STARS External Evaluations
- Table 33 Comparison of Advisor/Administrator Responses in 2002 and 2016
- Table 34 Comparison of Advisor/Administrator Responses Regarding Key STARS Links, 2002 and 2016
- Table 35 Comparison of Advisor/Administrator Views on STARS' Usefulness, 2002 and 2016
- Table 36 Schedule of Focus Interviews

Appendices

Appendix A	Accomplishments of AGSC&STARS from 2002 report
Appendix B	Survey Forms
Appendix C	Student Survey Results
Appendix D	Administrator Survey Results
Appendix E	AGSC, GSAC, and PAC Member Survey Results
Appendix F	Listing of Focus Group Discussions
Appendix G	Compilation of comments from Student Survey
Appendix H	Compilation of comments from Administrator Survey
Appendix I	Compilation of comments from AGSC, GSAC, PAC Survey
Appendix J	Compilation of comments from focus group, in-person, and telephone interviews
Appendix K	Alabama Dean of Students Questionnaire
Appendix L	Focus Group Questionnaire
Appendix M	2016 STARS Evaluation Timeline
Appendix N	Alabama Education Chronology
Appendix O	List of Degree Titles and Abbreviations
Appendix P	Copy of Alabama Section 19-5-7
Appendix Q	Copy of ALSBE Data Use and Governance Policy
Appendix R	Evaluation Team Information Request
Appendix S	AGSC&STARS Organization and Training Charts
Appendix T	Education Commission of the States (ECS) Information
Appendix U	AGSC&STARS Records

PREFACE

ACKNOWLEDGEMENTS

One must go beyond numbers to obtain information that provides a sound basis for judgments that can promote long term positive improvement. We thank the many people who contributed ideas, thoughts, energy and time to this evaluation. Any contributions this evaluation makes to improve articulation and transfer in Alabama will be largely due to the people who took time to openly share their views, criticisms, and suggestions for improvement. We especially appreciated the students, transfer advisors, faculty, and administrators who participated in the surveys, focus groups, and structured interviews. Their candor and desire to improve made this project a productive and pleasant experience. We also thank the presidents, chief academic and student affairs officers, and former AGSC members for their insights.

We want to thank the AGSC chaired by Dr. Bruce Crawford, and its Evaluation Subcommittee chaired by Dr. Sharron Y. Herron-Williams, for their guidance and direction in the planning phase. Dr. Elizabeth French from the Alabama Commission on Higher Education provided a useful summary of the legislation and its accomplishments of AGSC&STARS. We thank our advisory committee including Drs. Donald Crump, William Meehan, Glenda Colagross, James C. Wade, and Joe Morris. Dr. Crump was AGSC's first chair, and directed the 2002 external evaluation. Dr. Morris, AGSC's second chair, was Vice President of Instruction at Jefferson State Community College. Dr. Meehan is President Emeritus of Jacksonville State University. Dr. Colagross is Interim President at Southern Union Community College, and headed the Alabama Community College System's committee that suggested changes to SACSCOC when the new ACCS board was created. Dr. James C. Wade is a former community college dean and president. We thank Drs. Gary Branch and Joe Beatty of Faulkner State Community College; Dr. Hal Fulmer of Troy University; Drs. Constance Relihan and Laura Ann Forrester of Auburn University; Dr. Tomesa Smith of Wallace State Community College, and Dr. Bruce Crawford of Lawson State Community College, and Tomeka Smith and Dr. Michael Hobbs of Jefferson State Community College for help with the site visits. We also thank Mr. Shannon Nichols, Ms. Anita Walker, and Dr. Keith Sessions, Executive Director of AGSC&STARS for their prompt, efficient responses to data requests and assistance. Finally, we thank our national community college experts for informing our thinking on multidimensional transfer: Dr. Linda Serra Hagedorn, Iowa State University, Dr. Mark M. D'Amico, University of North Carolina-Charlotte; Dr. Michael T. Miller, University of Arkansas, Dr. Brent D. Cejda, University of Nebraska; and Dr. James E. "Ed" Davis of Mississippi State University.

Members of the Education Policy Center Evaluation Project Team include Dr. Nathaniel J. Bray, Co-Principal Investigator and EPC Fellow, Dr. James E. "Skip" Dotherow, EPC Senior Fellow; Michael S. Malley, Jr., MPA, EPC Assistant Director; Jake L. Warner, Research Fellow; and EPC research associates J. Lucas Adair, MPA, Candace Medlock MS, Undre V. Phillips, and John Roberts, MPA. The superb contributions of the team throughout this project were much appreciated. Their friendship, advice, and encouragement added much to the value of the final report.



Stephen G. Katsinas
Director, Education Policy Center

EXECUTIVE SUMMARY

This evaluation essentially revolves around two key questions:

How are we doing? & Where do we go from here?

In considering these questions, it is imperative to differentiate between the terms “accountability” and “responsibility,” which all too often are used interchangeably. In determining the duties for which the AGSC&STARS are accountable, we find nearly unanimous compliance, and this is addressed in the first three guiding questions of the evaluation set forth by the five-member AGSC External Review Subcommittee:

Is the AGSC&STARS program effective in meeting the legislative intent stated in Act 94-202, the original authorizing legislation?

Were the recommendations that were made in the 2002 evaluation followed?

Are key constituents satisfied with the services provided by AGSC&STARS?

What recommendations does our study team have for improvements?

Regarding the fourth question, we posit that the AGSC&STARS have a responsibility to serve students throughout Alabama to the highest degree possible, so our report proposes many recommendations for improvement that surpass, in some ways, the duties originally chartered by the Legislature. Many of these recommendations necessitate a recommitment from the state, and we have taken pains to outline a plan for obtaining it. It is ultimately at the discretion of the AGSC to consider which recommendations to heed, and we have done our best to provide them with all the information they will need to prioritize and otherwise facilitate these processes.

The primary evaluation strategies included:

1. Surveys of community college and university students, advisors, faculty, administrators, and other transfer contacts;
2. Focus group discussions with community college and university students (both pre- and post-transfer), advisors, and transfer appeals officials;
3. Focused discussions with Alabama community college chief student affairs officers and presidents;
4. Interviews with a sample of college/university presidents or chief academic officers, former AGSC members including key individuals involved with the creation of the AGSC&STARS, and legislators;
5. Analyses of available data from the STARS, ACHE, and DAX systems;
6. An extensive review of the state-of-the-art transfer and articulation research at the national level and in the various states (Education Commission of the States, National Conference of State Legislatures, Council of State Governments, etc.);
7. An extensive review of the transfer and articulation work funded by major foundations and the federal government.

For comparative purposes, we also considered the three surveys of students, AGSC&STARS members, and transfer counselors, included in the 2002 evaluation. At that time, the AGSC was in its seventh year and STARS in its third.

Then and now, good transfer and articulation creates a “win-win-win”

“Improving transfer and articulation is important in creating ‘win-win-win’ for Alabama businesses and industries. Hard-working Alabama students and families win through the lowering of lost time, credits, and money. Taxpayers win when investments from state appropriations for operating budgets and federal investments in student aid go farther. Our state’s businesses and industries win when our system expands degree and certificate achievement, assisting in business recruitment and retention in a global marketplace.”

— William J. Canary, President and Chief Executive Officer,
Business Council of Alabama

Key findings:

1. Credits today come from many different sources.

Alabama over the past two decades has moved from a static model of vertical transfer to a more dynamic model. Student transcripts no longer consist of just credits earned at a single community college and a single four-year university, as STARS was designed to address in 1994; rather, today’s students earn degree credits at multiple levels and from multiple institutions within those levels.

FIGURE 1: From Vertical to Dynamic Transfer

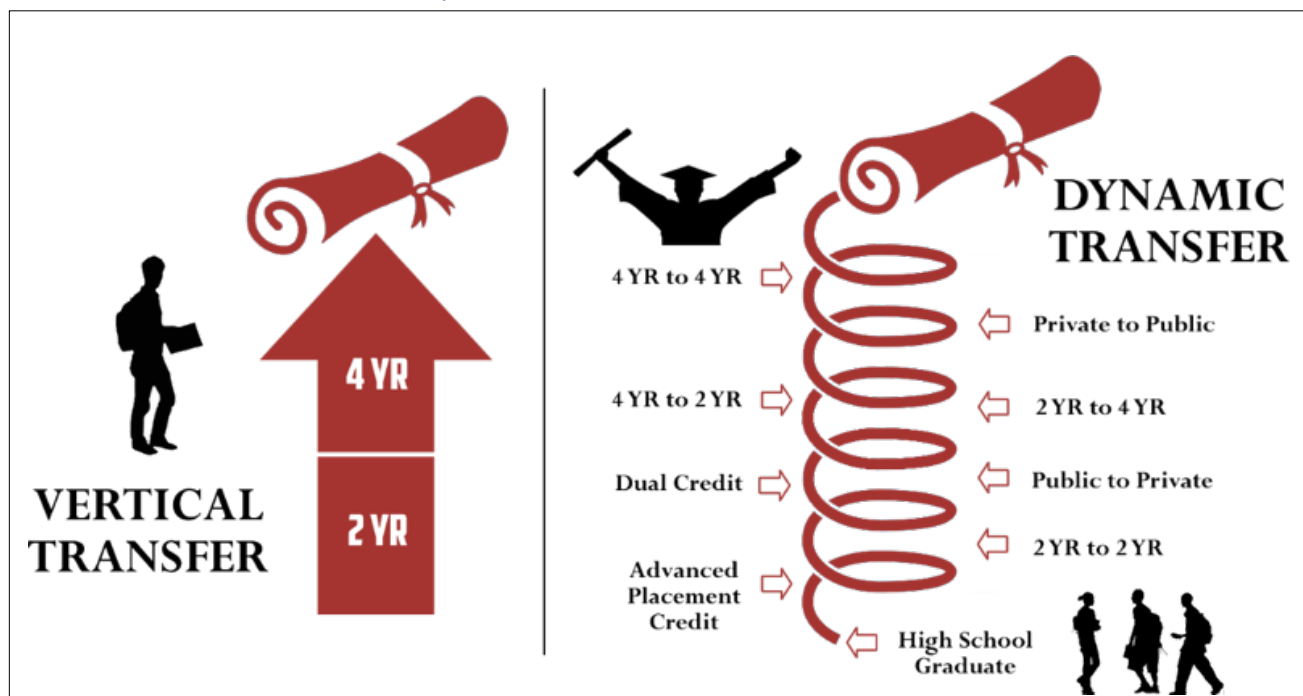


Table 1 shows that large numbers and percentages of transfer students in Alabama earn degrees from more than two institutions. Of students earning a baccalaureate degree in 2015-16, one in four at Auburn University and The University of Alabama and four in ten at Jacksonville State University and Troy University attended three or more institutions. Today's student starts in high school and enrolls at a flagship university, leaves to a community college where most credits toward an associate's degree are earned, and then transfers and earns a bachelor's at a regional university. Students can attend several community colleges, perhaps a rural community college to start, then, when transferring to the flagship university, may simultaneously enroll at both institutions for scheduling convenience around their work schedules.

In the same vein, college transcripts can include Advanced Placement courses that may or may not count for college credit, as well as Dual Enrollment courses that do count. In 2014-15, Dual Enrollment credits constituted 8-13% of the total enrollment at Alabama community colleges, and Advanced Placement credits are earned by ever-increasing numbers of Alabama high school students — the Alabama Legislature invested \$25 million in AP last year alone. Students also earn credits as veterans while in the military, at the workplace experience, and in college. As Arthur M. Cohen, author of *The American Community College*, often says, "Students use the curriculum for their own purposes."

TABLE 1: It's More Than Vertical Transfer

	Awarded All Bachelor's Degrees Awarded (b)	Students earning credits toward the Bachelor's Degree at...		
		this institution only	2 institutions	3+ institutions
NUMBERS				
Auburn University	4,326	1,312	2,032	1,017
Jacksonville State University	1,386	301	559	526
Troy University	2,342	389	981	972
The University of Alabama(c,d)	6,300	1,960	2,626	1,514
PERCENTAGES(a)				
Auburn University	100	30%	47%	24%
Jacksonville State University	100	22%	40%	39%
Troy University	100	17%	42%	42%
The University of Alabama	100	31%	42%	25%

Source: University Institutional Research and Effectiveness Offices analyzed by the Education Policy Center, The University of Alabama.

Notes:

[a] percentages may not add to 100% due to rounding.

[b] The bachelor's degrees awardees are unduplicated headcount for the 2016 degree year (summer, fall, and spring terms).

[c] Among the 6,300 Bachelor's degree awardees at The University of Alabama in 2015-16, 95 received college credit through UA's Early College program, 103 through UA's Early Institutional Credit program, and 55 through UA's International Baccalaureate program.

[d] Credits at UA earned at other institutions excludes advanced placement, CEEB/CLEP credit, departmental placement, eArmyU, EORN course evaluation, international baccalaureate, military credit, experiential voc/tech credit, and proficiency exams.

TABLE 2: Credits Toward Bachelor's Degree Attainment Are Earned Dynamically

	All Bachelor's Degrees Awarded [b]	Credits earned at colleges and universities		Credits earned during high school	
		This Institution Only	Multiple Institutions	Dual Enrollment [e]	Advanced Placement [f]
NUMBERS					
Auburn University	4,326	1,312	3,049	n.a.	1802
Jacksonville State University	1,386	301	1,085	97	59
Troy University	2,342	389	1,953	n.a.	176
The University of Alabama (c,d)	6,300	1,960	4,140	164	1,961
PERCENTAGES(a)					
Auburn University	100	30%	70%	n.a.	42
Jacksonville State University	100	22%	78%	7	4
Troy University	100	17%	83%	n.a.	8
The University of Alabama	100	31%	66%	3	31

Source: University Institutional Research/Effectiveness Offices analyzed by Education Policy Center, The University of Alabama.

Notes: [a] percentages may not add to 100% due to rounding.

[b] The bachelor's degrees awardees are unduplicated headcount for the 2016 degree year (summer, fall, and spring terms).

[c] Among the 6,300 Bachelor's degree awardees at The University of Alabama, 95 received college credit through UA's Early College program, 103 through UA's Early Institutional Credit program, and 55 through UA's International Baccalaureate program.

[d] Credits at UA earned at other institutions excludes advanced placement, CEEB/CLEP credit, departmental placement, eArmyU, EORN course evaluation, international baccalaureate, military credit, experiential voc/tech credit, and proficiency exam.

[e] Dual Enrollment credits are earned in high school and taught by community colleges (most often) or 4-year institutions.

[f] Because Advance Placement Credits are graded on a 1-5 numbering system, while "3" is a passing grade, it is not always counted when transcripts are evaluated for college course credit. Dual Enrollment courses always count with STARS guide.

Of the 4,326 bachelor's degree awardees at Auburn University in 2015-2016, just 1,312 (30%) earned credits only at Auburn; 1,802 (42%) earned credits through Dual Enrollment, Advanced Placement, or both; 2,032 (47%) earned credits at Auburn and one other college; and 1,017 (24%) at Auburn and two or more other colleges. Similar statistics are reported at The University of Alabama.

Richard Millard, the former president of the Council on Postsecondary Accreditation wrote in 1996, argued for a comprehensive approach that reflects today's student usage, suggesting "If what we are concerned about is what Astin has called talent development...then the crucial quality question is a matter of results, not of form." The large numbers of students earning credits from three or more institutions explains why a technologically-friendly transfer and articulation system is needed by Alabama students and businesses.

2. The current system is failing to adapt to rapidly changing environment.

The technological ecosystem today is much different than in 1994, when the AGSC was commissioned, or even 1998, when the STARS was built. The internet has exploded from a leading-edge technology used by fewer than 1 in 20 Americans to a staple shared by 18 of 20, and its near ubiquity has caused a

massive paradigm shift in the way that information is shared, stored, and processed.¹ Those who coopt new protocols enjoy savings of both time and money — savings of which the education sector has recently begun to take advantage. Software such as DegreeWorks has automated the jobs of advisors and admissions counselors and put information more freely in the hands of students. Largely lacking from these systems, however, is intercommunication, and the STARS is no exception.

We find specifically that students are relying more heavily on their smartphones and other mobile devices to access the STARS, and that their browsing sessions transcend single sittings. Because the STARS operates in a sandbox, there is no way for a student to effectively cross-reference material from previous searches and from their college's advising software. As currently designed, the AGSC lacks the formal ties to the campus-based leaders charged with day-to-day management of these technologies.

3. The urgency of now, while a key policy window is open.

State-funded need-based student aid in Alabama is well under \$10 million annually, while federal Pell Grants total just under half a billion dollars at Alabama's public two-year, four-year, and private non-profit institutions combined. Given the historically low levels of state support, Pell Grants are Alabama's *de facto* need-based student aid program.

On June 8, 2016, the U.S. Senate Appropriations Committee, with the strong support of Sen. Richard Shelby, unanimously voted to deploy most of the \$8 billion surplus in the federal Pell Grant program into renewing the year-round (summer) Pell. An additional \$1,650 of federal Pell aid — with the EPC predicting more than \$130 million statewide — is likely on the way for nearly 100,000 Alabama Pell recipients in Summer 2017. A one-time policy window is open for Alabama policymakers, who have a tremendous opportunity to enhancing STARS now, building upon STARS' long record of success in helping students avoid loss of credits, time, and money, to maximize the benefit of the new federal funding. The time is now. Given the historically low levels of support for state-funded aid in Alabama, federal Pell Grants are Alabama's *de facto* need-based student aid program. When year-round Pell was in place in 2010 and 2011, community colleges and regional universities saw all-time record enrollments.¹ Investing in STARS now can maximize the likely increase in federal investments.

Major Recommendations

1. Building on the insight that students earn credits from many sources, and that transfer is a dynamic process, AGSC & STARS should streamline the process for

1: Internet Live Stats (2016). [United States Internet Users](#).

2: Katsinas, S.G., Bray, N.J., Koh, J.P., & Grant, P.D. (2012, November). [A study of Pell Grants in Alabama](#). Commissioned by the Alabama Commission on Higher Education. Tuscaloosa, AL: Education Policy Center, 20 pages.

Financing student aid is a joint responsibility of the federal government and states. But Alabama invests less than \$3 million per year in its need-based student aid program compared to about half a billion in Pell aid.

transfer students by adopting uniform course numbers and titles for 100 and 200 level general education courses at community colleges and universities.

With over 1.2 million STARS guides requested since 1998, the legislative intent of Act 94-202 of helping students save credits, time, and money has clearly been accomplished. But nearly two decades have passed since STARS' establishment, and today the program is too broad to be sustained at current budget levels.

Act 94-202 in 1994 specifically charged AGSC to consider statewide uniform course numbers and titles across general education courses in the first two years at Alabama's two- and four-year public institutions. While AGSC did not choose that course of action, by 1996 uniform course numbers and titles were adopted at all Alabama Community College System institutions. The 2002 external evaluation considered the issue, and recommended against it due to time and costs involved.

Alabama over the past two decades has moved from a static model of vertical transfer to a more dynamic model of multidimensional transfer. Transfer no longer consists of just community college to four-year university, which STARS was designed for in 1994. Today's students earn degree credits at multiple levels and from multiple institutions within those levels. The Dual Enrollment credits taught by community colleges in Alabama high schools now comprise 8 to 13% of total enrollments at the state's community colleges, while Advanced Placement credits continue to expand (the Alabama Legislature invested \$25 million in AP last year). Students also earn credits as veterans while in the military, at the workplace experience, and in college. They earn credits at multiple institutions in multiple ways—student transcripts can show credits earned first at flagship universities, then community colleges, then regional universities; four-year to four-year, two-year to four-year, and simultaneous enrollment at a flagship and a community college. One in four students earning a baccalaureate degree in 2015-16 at Auburn University and The University of Alabama, and four in ten students at Jacksonville State University and Troy University attended three or more institutions. To help today's students requires more than the uniform course numbering that community colleges adopted in 1996. It requires uniform course numbering and titles **across** two- and four-year institutions.

Strong support was voiced in the focus groups of community college deans of student affairs, transfer advisers/administrators and AGSC Committee and Subcommittee members, who know Area V needs improvement and has for many years. And in 2016, a majority of responding AGSC Committee and Subcommittee members expressed support for a statewide course numbering and title system (53% in agreement, 39% in disagreement, and 8% unsure/didn't know).

Area V concerns must be addressed systemically. Transfer includes the whole student—academic program fit, institutional fit, financial aid fit, and cultural fit. The advantages of adopting uniform course numbers and titles across public two- and four-year general education curricula are too great, and the cost of not adopting too high, not to seriously consider it. If STARS responds to the broad needs of today's multidimensional transfer students, it can help them realize their full potential while saving them even more credits, time, and money. Improving degree completion rates is, after all, the goal of Act 94-202.

2. Building on the insight that greater practical interaction between two- and four-year institutions will help students transfer, the AGSC should create a AGSC Registrar's Subcommittee.

We recommend creating a new AGSC committee consisting of members of the Alabama Association of Collegiate Registrars and Admissions Officers (ALACRAO) from Alabama's two-year, four-year public, and four-year private non-profit institutions. The AGSC Registrar's Subcommittee will assist AGSC in operationalizing a better functioning technology-based AGSC & STARS system. All key constituencies should be represented (three nominees from two-year colleges, both flagships and two regional university representatives, one from AAICU, two from public high schools involved with the Dual Enrollment, and representatives from the Alabama Association of Student Financial Aid Administrators and the Alabama Deans of Student Affairs Association). In contrast with the AGSC's appropriate policy role, the Subcommittee is envisioned to be a hands-on "get under the hood" group specifically charged with:

- **Synchronizing catalog updates** — a recommendation from 2002 heard again in 2016 — by proposing three dates per year in the fall, spring, and summer terms for community colleges, universities, and participating non-profit colleges to update their course catalogs. This is a key component of STARS, to allow students access to timely, consistent information;
- **Serving as an Ad-Hoc Reverse Transfer Task Force** — in the year that the Evaluation Team conducted this study, there has been much action on the part of community colleges and universities to move forward with reverse transfer in Alabama. We note that any reverse policy will necessarily require the involvement of registrars in transcript review and approval, building upon STARS' extensive existing "academic fit" services. The goal of improving Associate Degree completion in Alabama is entirely consistent with the intent of Act 94-202, to help students save credits, time, and money.
- **Serving as an Ad-Hoc Task Force on Guaranteed Acceptance** of the Associate's in Arts and Associate's in Science degrees by Alabama universities, making recommendations to AGSC.
- **Serving as an information source for AGSC&STARS staff on national transfer and articulation issues for continuous improvement**, by reviewing major reports issued by the Education Commission of the States, the National Conference of State Legislators, and the Council of State Governments and other national organizations, with the aim of continuous program improvement. This perhaps could occur as part of a report to STARS' annual summer meeting, when AGSC conducts its own annual review (perhaps AGSC's summer meeting could be held in concert with the summer meeting of the Alabama Association of Collegiate Registrars and Admissions Officers).
- **Serving as an Ad-Hoc Task Force on Independent Colleges and STARS**, to make practical recommendations on how Alabama Association of Independent Colleges and Universities members can be integrated into the STARS system to AGSC. Fourteen of Alabama's independent colleges and universities already have signed articulation agreements with the Alabama Community College System that provide transfer guides for selected majors.
- **Hosting annual focus groups of transfer students** in the first two months of the Spring winter, registrars working with STARS staff can assess how their systems are working. These could be presented at AGSC's annual summer meeting. It would be good when hosting transfer student focus groups for the host universities to invite representatives from their financial aid, housing, academic advising, registrar's office, financial accounting, and student activities present, because transfer success requires more than academic program fit. AGSC members and AGSC point of contact representatives, and any discipline- and profession-based AGSC Subcommittees could be invited, to strengthen the "bottom-up" STARS system. Representatives of the local sending community colleges could be invited to provide a feedback loop. The questions that the Evaluation Team asked its student focus groups might be a helpful starting point.

3. Building upon the insight that students use STARS to “shop,” improve STARS’ web-based services by making them accessible on mobile platforms.

We note the great progress made by STARS in response to the 2002 recommendation that “The STARS website be revised with primary emphasis given to students and advisors.” STARS has evolved from a web-based “academic program fit” system to something much more. The past three years have seen a threefold increase in the request of STARS unofficial guides. Based upon the broader multidimensional model of transfer, with 74% of students surveyed indicating they access STARS via smartphones, tablets, and laptops, STARS can become an even more powerful tool for students using it to “shop” for transfer services by becoming 100% accessible on mobile devices:

- STARS’ official guides should be digitized and downloadable on mobile devices.
- A login that saves information would likely increase STARS usage by students, as they would no longer need to re-enter information each time they use it.
- Students indicate discussion boards would be helpful.
- Students (and transfer advisors) indicate that short videos on STARS usage would be helpful.
- Students indicate that they would welcome optional links through STARS to university web pages to improve the shopping experience for vital “institutional fit” and “financial aid fit” issues. These could include departmental, college and school, university-wide scholarship information; housing, both on-campus and off-campus (some larger universities require their freshmen to live on campus but assume their transfer students have the same access and understanding of local off-campus housing markets as do their native freshmen and sophomore students); student work opportunities, both on and off campus; and even student activities (it is possible to create an optional opt-in web-based space for students to list activities they are interested in that university student affairs staff could forward to plug transfer students into student activities even before they arrive on campus).

As STARS becomes the go-to “shopping hub” for other key pieces of information transfer students need, it stands to reason many more students will use it, and by doing so accomplish to an even greater extent the legislative intent of Act 94-202: helping students save credits, time and money.

Practical Recommendations

1. Addressing Area V concerns, the top recommendation from the 2002 external evaluation, are of even greater concern in 2016, and must be addressed by the AGSC.

Our surveys of transfer advisers, faculty, and administrators reported higher levels of concern with Area V in 2016 than 2002. Each student focus group reported Area V pages were confusing and difficult to use. More troubling, while nearly all of the current community college students we met with planned to graduate in four years, more than half of the university students who had already transferred reported they would be unable to do so. Four in 10 of transfer advisers/administrators surveyed in 2016 were in disagreement that information on the college Area V pages was complete, and 4 in 10 were in disagreement that information on college Area V pages agreed with information from other sources—many of these respondents are the very people who advise transfer students. While some stakeholders do not have problems

with Area V pages, all too many do, and this information gap must be addressed systemically. While the evaluation team proposes uniform course numbering and titles in general education courses at community colleges and public universities, should AGSC choose not to go in this direction, STARS' 130 different Area V pages must be simplified.

2. AGSC should reconsider its current system of 21 General Studies Academic Subcommittees and 16 Pre-Professional Subcommittees, which is not working well.

The 2002 evaluation recommended "The relationship between AGSC&STARS needs clarification." Fifteen years later, when GSAC and PAC subcommittee members were surveyed, 71% agreed with this statement. Focus groups confirmed what STARS office staff previously told us, that due to budgetary restrictions, in recent years there have been no face-to-face GSAC subcommittee meetings, with issues considered only through email; most could not remember meetings, period. The very size of the discipline-based committees is itself cumbersome. Given the need to devote scarce STARS staff time to more important and fruitful purposes (website maintenance/improvement and training), AGSC should consider an overhaul of this process. Again, uniform course numbering and titles would eliminate the need for most of the subcommittees.

3. A simplified, streamlined STARS system allows for additional state investments to be devoted straight into sorely needed training and public awareness.

Two consistent themes from the discussion is that STARS training needs to be dramatically ramped up, as does its public awareness efforts. The two are intertwined, and continuous training is needed to address these issues:

- **Turnover.** Community college and university transfer advisers and recruitment/admissions officers are typically entry level positions that turn over every two to four years. Without continuing education and/or required training or certification, it is tough to maintain consistent efforts/coordination across institutions.
- **Online STARS badge/certification** for high school, community college, and university counselors and advisors, with required training to maintain certification that can be listed on the resumes of completers.
- **Video training clips** aimed at a broad range of constituencies (parents, high school counselors, and admissions recruiters; transfer advisers at two- and four-year levels; university department heads, deans, and associate deans and STARS recruiting reports, etc.).
- **Management software advances.** Rapidly changing university and community college management software platforms and digitized records require training in STARS. Training in STARS, including use of its reports for recruitment of transfer students can improve system throughput degrees awarded rates. Seamless successful transfer is a "networked" success.
- **Rising dual enrollment** which now constitutes between 8 and 13 percent of the typical Alabama community college's enrollment. We expect this number rise even further.
- **Review prominence of STARS information at college and university websites, and in particular, at the state's flagship universities.** To be a system requires acting as a system; STARS is prominently displayed on page one of all community college websites, but is not always easy to find at university websites.
- **Building the STARS brand.** PSAs to build the STARS brand could be developed in consultation with The University of Alabama's Public Relations Program.

4. AGSC should engage in succession planning to replace senior STARS office staff.

At present, the two senior full-time staff in the STARS office each have roughly two decades of experience with STARS. If something was to happen to either or both of them, there is no current backup. With both will likely retire within three to five years, developing a succession plan for the STARS staff should be a high priority for the AGSC.

5. AGSC should have two non-voting student members.

One chosen by the student government associations of universities, and one chosen by the student government associations of the community colleges. There are approximately 700 student trustees on governing boards of universities and colleges in the United States. As a policy-making entity, AGSC would benefit from a continuous infusion of student views.

6. The AGSC should consider extending participation in STARS to all regionally accredited institutions in Alabama.

An articulation agreement similar to the STARS that promotes two-to-four-year vertical transfer from Alabama Community College System Institutions and the 14 regionally accredited members of the Alabama Association of Independent Colleges and Universities already exists. The AAICU 2-to-4 Transfer Program provides the same type of transfer guidelines as the STARS. Furthermore, six of the 14 AAICU members are Historically Black Colleges and Universities. Extending the STARS to include these colleges is consistent with today's dynamic model of transfer, and it can help Alabama students save credits, time, and money and improve degree completion rates.

7. AGSC should commit to periodic external review conducted every four years.

It has been nearly 15 years between this external review and the last one, conducted in 2002. It is good practice to conduct period external reviews every two to five years.

Concluding thoughts:

Leading national organizations suggest scalable technology-based tools to address key information barriers that inhibit college degree and certificate completion. They recognize that transfer is more than academic fit, it's also institutional fit, financial aid fit, and living fit for those who physically must leave their home communities to transfer to four-year institutions.³ STARS is the single most important tool in Alabama policymakers' toolkit to facilitate transfer and college degree success. Arthur M. Cohen, coauthor of *The American Community College*, argues students use the curriculum for their own purposes; in the age of digital mobile media this is true for all web-based transfer platforms like STARS. In Fall 2015, 77,090 Alabamians enrolled at community and technical colleges, while 90,376 Alabamians enrolled in

3: Lumina Foundation for Education (2014). *Building a stronger nation through higher education*. Indianapolis, IN. p. 13.

4: Alabama Commission on Higher Education, [Institutional Student Profiles Fall 2015](#).

5: [Alabama Act 2014-147](#).

6: Alabama Commission on Higher Education, [Institutional Student Profiles Fall 2015](#).

undergraduate programs at the state's 14 public universities.⁴ Upwards of 10 percent of all community college enrollments now come in the form of Dual Enrollment from high school, a number that is rapidly growing.⁵ Nearly 10 percent of all students enrolled in the Fall 2015 term at Auburn University at Montgomery, Jacksonville State University, and the University of West Alabama were simultaneously enrolled at another public institution.⁶ Table 1 in this report shows that about a quarter of all students earning baccalaureate degrees in 2015-2016 at Auburn University and The University of Alabama, Alabama's two largest universities, attended three or more colleges, including community colleges — and better than two of three attended at least two. Those percentages are even higher for students earning baccalaureate degrees at regional universities. Student egress goes in many directions in Alabama today. Given these changing higher education usage patterns, uniform course numbers and titles for general education courses across the public two- and four-year sectors is essential to spur increased degree completion in Alabama.

Today, the AGSC & STARS Program stands at a crossroads in its history. On one hand, Alabama taxpayers should feel encouraged. The AGSC & STARS program is a great example of effective and efficient use of taxpayer dollars to help solve a problem facing transfer students, saving them credits, time, and money when vertically transferring from our public two-year colleges to our public four-year institutions. On the other hand, taxpayers should be concerned. As funding for this program suffers, the positive impact and potential outcomes of the program will decline — with Dual Enrollment on the rise, at the precise time more training is needed to provide more high school counselors, parents, and students with information on STARS, funds for training have been cut. Simply put, AGSC & STARS will not be able to maintain itself in the years to come if funding does not rise above current levels.

For Alabama to graduate more high quality degrees needed by its businesses and industries, strong transfer and articulation accomplished by a systems approach is essential. Nearly 9 of 10 students in higher education enroll at Alabama's public community colleges and public universities. Four of every 5 baccalaureate degrees and nearly all of the professional degrees (e.g., engineering, medicine, etc.) are awarded by Alabama's public institutions.⁷ Increased investments in public higher education lead to higher per capita incomes for Alabamians, which leads to more income tax receipts, which leads to more funds for ALL education sectors, which in turn leads to continuous per capita income increases. The prospective reinstatement by the federal government of the year-round Pell Grant in Summer 2017 presents Alabama with a wonderful one-time opportunity to transform/jump start its college degree throughput rates, and an enhanced 21st-century, more inclusive STARS system is the vehicle to accomplish this.

7: Katsinas, S.G., Koh, J.P., Murphy, D.S., Lacey, V.A., Fincher, M.E., DeMonBrun, R.M., Bray, N.J., Breaux, A.P., Malley, M.S., Adair, J.L., and Shedd, L.E. (2015, August). *The Economic & Social Impacts of Alabama public higher education. Full Report, prepared for the Higher Education Partnership of Alabama.* Tuscaloosa, AL: Education Policy Center, The University of Alabama.

CHAPTER I INTRODUCTION

INTRODUCTION

For those interested in improving college degree completion rates through enhanced transfer and articulation policies, these indeed are exciting times. We see unprecedented attention on the part of major foundations, national advocacy organizations; community college and public university leaders; scholars, the media, and the general public. As change continues to occur at increasing rates so too does the treasure-trove of accessible information.

This accelerating change is evidenced by the introduction of new policy instruments such as College Scorecards, and the College Promise, which would guarantee two-years of free community college. At the state and local levels even more is happening. So why all of the attention, and why now?

The answer is two-fold. First, there is strong recognition that today's globally competitive economy requires growing the number of skilled workers with education beyond high school, thus, "higher-educated" workers; this is especially true in Alabama, where public higher education prepares just under 90% of its aspiring workforce. Second, Alabama can leave no citizen behind — with people without jobs and jobs without people — business leaders and policymakers realize it's "all hands on deck." The need to lower the "spillover" of credits as students transfer from institution to institution has never been more prevalent; by now we know for certain that a student's chance at degree completion is negatively impacted by wasted time and money (i.e. wasted credits). Interestingly, that same metric, degree attainment, is what qualifies Alabama's workforce. But there is nothing to fear, the technological advancements of the previous decade have made possible the type of qualitative improvements, if not quantum leaps, necessary to progress system throughputs and improve overall competitiveness.

Right now, we are witnessing the restoration of the traditional bipartisan coalition of support for public higher education, both at the federal and state-level, that characterized the period from 1944's GI Bill to 1980. In 1980, America stood at the summit among developing nations in terms of adults 25 years old and above with college degrees, but no longer. The good news is that on June 8, 2016, the U.S. Senate Appropriations Committee, with the strong support of Sen. Richard Shelby, unanimously voted to plow the vast bulk of the existing \$8 billion surplus in the federal Pell Grant program into renewing the year-round (summer) Pell Grant. If enacted as predicted, an additional \$1,650 of federal Pell aid will be available to just under 100,000 Alabama public two-year, public four-year, and non-profit four-year college students in Summer 2017. This means an estimated \$130 million of additional Pell aid statewide. In contrast, Alabama's Student Assistance Program receives only about \$3 million annually. When year-round Pell was in place in 2010 and 2011, Alabama's community colleges and regional universities recorded all-time record enrollments.⁸ Thus, if Alabama can improve its transfer and articulation policies and practices *now*, building upon STARS' past record of success in helping students avoid loss of credits, time, and money, it can reap the benefits of higher degree completion rates. *The time is now.*

Today's focus is on results. Degree completion is more important than ever before to Alabama business leaders and policymakers, and effective transfer and articulation policy is a key tool for system improvement. This explains the

8: Katsinas, S.G., Bray, N.J., Koh, J.P., & Grant, P.D. (2012, November). [A study of Pell Grants in Alabama](#). Commissioned by the Alabama Commission on Higher Education. Tuscaloosa, AL: Education Policy Center, 20 pages.

timeliness of this external review of the Alabama General Studies and Articulation Committee and Statewide Transfer and Articulation Reporting System (AGSC & STARS) by The University of Alabama's Education Policy Center.

Lower income students are more likely to attend Alabama's community colleges and public access regional universities than its flagship universities. Low-income students are more likely to be the first in their families to enroll in college; they are more likely to attend Alabama public high schools with newly-hired STEM teachers teaching out-of-subject, with high student-to-counselor ratios. They not only can lack information on academic program fit and institutional fit, they also may lack information on financial aid, housing, and the extra curriculum — all of which are critical in successful transfer and future student success. As Alexander W. Astin wrote in his landmark 1985 book, *Achieving Educational Excellence*, student involvement with faculty and in the extra curriculum is the single factor that correlates highest to degree completion and student satisfaction with college.⁹ Yet we know low-income students often lack access to the same information and supports available to their higher income peers, and this certainly includes rural access issues. The STARS system was designed in the late 1990s just as internet usage rates were exploding; coupled with the technological solutions proposed here, we believe this divide can be bridged.

There are many factors to be considered to effectively work with low income students. Mobile devices (smartphones, tablets, and laptop computers) are the primary vehicle by which low-income students connect to the Internet. It follows that students need tools from mobile responsive websites and applications that use today's technologies. Language must be student-friendly and not assume a high level of familiarity with higher education terminology. In some cases, multilingual tools will allow non-English speaking parents to better assist their children in the college choice process. Pairing college transfer and articulation search tools with links to financial aid tools, on-campus and nearby housing options, and extracurricular student organizations, and others, will help lower the student leakage toward degree completion. Finally, developing the new technologically-based tools in close cooperation with counselors/transfer advisors, as well as with registrars, can maximize impact.

Figure 2 depicts transfer between public two year and public four year institutions in Alabama in Spring 2016. What we have seen in recent decades is that student pathways have shifted from being purely vertical (i.e. two-year institution to four-year institution) to being highly dynamic. Students are transferring between institutions more frequently than ever before, and this underscores the importance of effective articulation and transfer pathways. The percentage of student transfers from four-year institutions to two-year institutions, whether for a single semester or a significant amount of time, was 25.8% in Spring 2016. Further, 28.7% of transfers occurred from one two-year institution to another, and another 33.3% were from a two-year institution to a four-year institution. The remaining 12.2% of transfers took place between four-year institutions. While STARS has been critical in facilitating upward mobility, there is an outstanding need for improved transfer pathways that recognize a more dynamic process.

9: Astin, A. W. (1985). *Achieving Educational Excellence: A critical assessment of priorities and practices in higher education*. San Francisco, CA: Jossey-Bass.

Figure 2: What Does Transfer in Alabama Look Like?

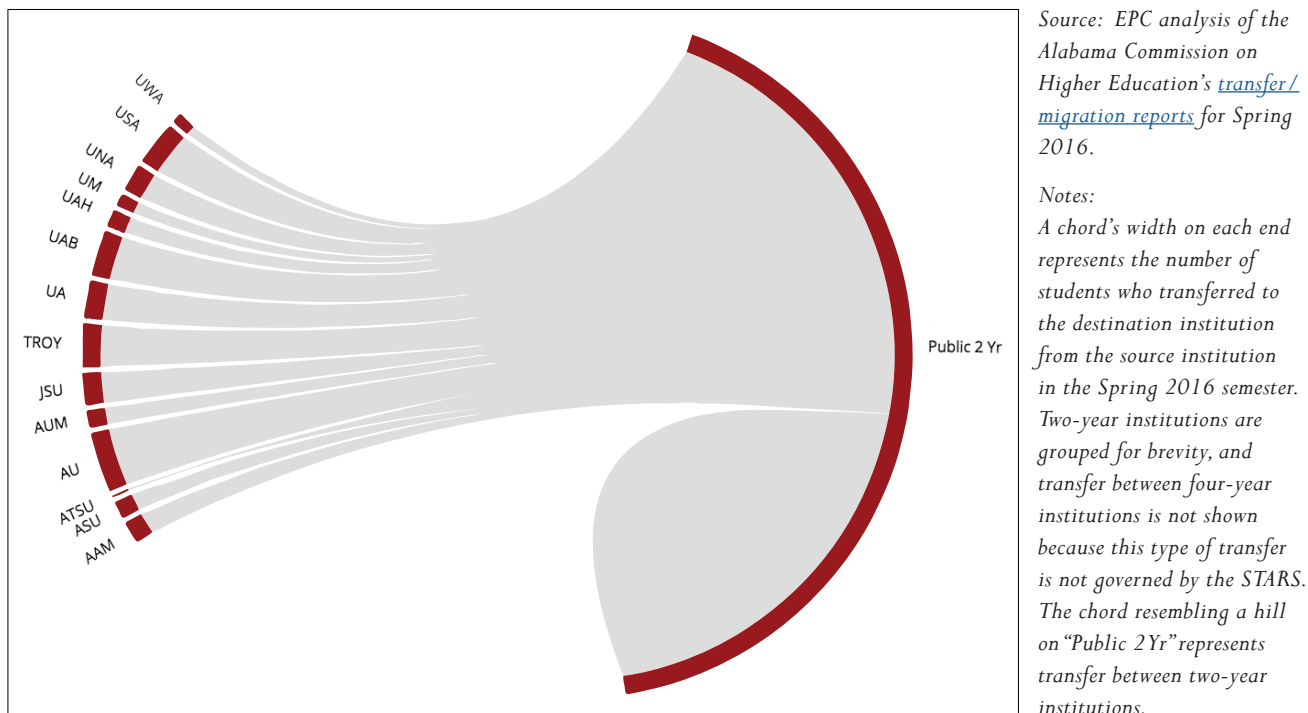


Figure 2.1: Transfer Origin and Destination Institutions

Source: EPC analysis of the Alabama Commission on Higher Education's [transfer/migration reports](#) for Spring 2016.

		TO	
		Two-Year Institution	Four-Year Institution
FROM	Two-Year Institution	1,096	1,272
	Four-Year Institution	988	465

As policy experts and representatives of students and practitioners regarding transfer and articulation issues, the following is our advice to those seeking to enhance STARS as a tool to aid students in saving credits, time, and money. This advice is targeted toward low-income students, including those of color, who are likely the first members of their families to attend college.

Oftentimes, the first step in determining your path forward is to recall whence you came. The story of the Alabama Articulation and General Studies Committee (AGSC) began in March of 1994 when, in response to concerns expressed by students and their parents regarding losses in transfer credit, time, and money, the Alabama Legislature passed the Articulation and General Studies Act (Legislative Act 94-202). The provisions set forth to amend section 16-5-8 of the 1975 Code of Alabama and to improve transfer and articulation across two- and four-year public institutions; these efforts defined the “bottom-up” process by which the AGSC was formed and led to the eventual creation of the Statewide Transfer and Articulation Reporting System (STARS) in 1998.

Now, following guidelines consistent with those of the Southern Association of Colleges and Schools, roughly 300 faculty and department heads participate on the 21 General Studies and 16 Pre-Professional Academic Sub-Committees. The subcommittees make recommendations to the AGSC, which in turn makes administrative decisions. By statute, the AGSC serves as the coordinative policy entity and supervises the STARS office; STARS, in turn, facilitates the underlying process of effective transfer.

What is the AGSC?

- AGSC was created to simplify the transfer of course credit between public institutions of higher education.
- AGSC developed and implemented a statewide general studies and articulation program that facilitates the transferability of coursework among all Alabama public colleges and universities.
- AGSC serves as an on-going monitoring committee for the articulation program.
- AGSC oversees and maintains the program on an ongoing basis (STARS oversight).
- AGSC works to resolve any student appeals related to transfer of coursework as it relates to the articulation program.
- AGSC members are all volunteers appointed by institutions and organizations.

What is the STARS?

- The STARS is a web-accessible database system which provides guidance and direction for students who intend to transfer to public four-year institutions in the State of Alabama.
- The STARS allows public two-year students in Alabama to obtain a Transfer Guide/Agreement for the major of their choice at the public university of their choice.
- The STARS guide/agreement guides the student through their first two years of coursework and prevents loss of credit hours upon transfer to the appropriate public four-year university in Alabama.
- Official STARS transfer guides/agreements can only be printed for two-year to four-year transfers.
- The STARS also provides guidance and direction to transfer students who have a different transfer situation.

Together, the AGSC&STARS:

- Improve the transfer process
- Improve the advising process
- Improve the recruiting process at four-year institutions of talented transfer students
- Encourage students to complete their degree within Alabama
- Promote cooperation and teamwork among public two-year and public four-year institutions
- Reduce duplication of courses
- Save time
- Save taxpayer dollars

ARTICULATION AND GENERAL STUDIES ACT (ACT 94-202)

In March 1994, the Alabama Legislature passed Act 94-202, commonly referred to as the Articulation and General Studies Act. The primary goals with the Act were to:

- Establish a uniform articulation agreement among all public institutions of higher education as well as a statewide general studies curriculum;
- Facilitate the computation of grade point averages for certain transferred students;
- Ensure that the Act would not impede the objectives of the state's publicly-controlled historically black institutions;
- Provide for implementation conditioned on the participation of certain institutions; and
- Specify certain reporting requirements.

Act 94-202 created the Articulation and General Studies Committee (AGSC) to implement specific provisions included in the legislation. Membership on the committee, the appointment process, and the rotation of leadership were statutorily defined. The Act also designated the agency responsible for developing the computerized database and designing student contractual agreements to be honored among all public institutions. Specific tasks assigned to the AGSC included:

- To develop a statewide general studies curriculum by September 1, 1998;
- To develop and adopt an articulation agreement by September 1, 1999 for the transfer of credit among all public institutions of higher education in Alabama;
- To examine the need for a uniform system for course numbering, titles, and descriptions; and
- To resolve problems in the administration or interpretation of the articulation agreement of the general studies curriculum.

The 10-member AGSC began its work in July 1994 and has included alternates to serve in the absence of appointed members. The Executive Director of the Alabama Commission on Higher Education and the Director of Articulation for the Statewide Articulation and Transfer Reporting System serve as non-voting members of the AGSC. By legislation, the Statewide Transfer and Articulation Reporting System (STARS) builds upon a system designed by Troy University. STARS is a web-based data system that allows students, advisors, faculty, and administrators of all public community and technical colleges and universities as well as the general public access to information about the general studies curriculum, articulation of degree program requirements, and the transfer of academic credit. Students using this system can obtain an official transfer guide along with a contract that obligates the receiving state university to honor the equivalent credits identified. The STARS office is involved in the day-to-day operations of the AGSC and in coordinating the activities of the 21 discipline-based General Academic and 16 Pre-Professional Subcommittees, and serves as a collection agency and a clearinghouse for all information concerning the statewide general studies curriculum.

STARS staffing patterns and the training that STARS staff are able to provide reflect the levels at which the STARS is funded. In fact, as the AGSC & STARS budget has been reduced, so too have been full-time staff — from 5 in 2007-08 to just 2 in 2014-15. We note that there are 14 public universities and 25 public two-year colleges in Alabama, as well as high school counselors and other audiences training should reach.

The challenge that STARS office staff faces is readily apparent: training has suffered as STARS funding has eroded, both due to state appropriations reductions and inflation. The proposed budget for AGSC & STARS in 2016-17 allows just 6.1% for operating expenses beyond the 3% allocated for ACHE, the 23% in indirect cost for Troy University to host the program, and the 68% for personnel (salary and benefits). The STARS office staff consists of just two full-time employees and one part-time secretary. A third full-time employee who had worked for nearly a decade with the organization left due to concerns about inconsistent funding of his position.

Both the Executive Director of AGSC & STARS, Dr. Keith Sessions, and STARS' Director of Information Technology, Shannon Nichols, have been continuously employed with STARS since the last external evaluation was conducted in 2002. Sessions worked at Southern Union Community College, and then for the Office of the Provost at Auburn University, where he conducted degree audits for two years using a system called "oncourse," a precursor to today's Banner. He returned to serve as STARS' first full-time Executive Director in 2002 with job responsibilities that include oversight of day-to-day operations, budget management, training in the field (presentations to campuses), marketing and promotion, website design and maintenance, hiring and oversight of personnel, course approval oversight and review, template development and review oversight, legislative liaison, addressing student complaints/problems, strategic planning and annual reports, purchasing oversight, and program report preparation. Shannon Nichols has been with AGSC & STARS since 1994 and currently serves as Director of Information Technology. His responsibilities include managing STARS database and web server, database design and updating, computer programming, oversight of system usage and reporting, managing and updating technology, purchasing of hardware and software, office networking, equipment maintenance, and addressing any technology complaints and problems. There is a part-time secretary and four student workers.

Guidelines and course requirements determined by the AGSC are maintained through personnel and resources of the STARS office. Chart One shows the five academic areas: Area I-Written Composition; Area II-Fine Arts and Humanities; Area III-Mathematics and Science; Area IV-Social Sciences, and Area V-Pre-Professional/Pre-Major.

Area V pages are web pages maintained by each of Alabama's 14 public four-year universities. The primary purpose of Area V pages is to provide transfer students with additional information about transfer coursework beyond the 41 hours of guaranteed transferable general education courses covered in Areas I-IV of STARS. The courses listed are approved by the universities to be taken at community colleges to complete the Area V requirements. Alabama's 14 public universities also use these pages to provide information to transfer students about specific admission criteria and requirements for specific academic programs. There are approximately 130 different Area V pages maintained in the STARS system.

Under the STARS agreement, Alabama public universities can use Area V pages to list "recommended" courses in Areas I-IV that they can take at their community colleges that prepare them for success in pre-professional programs upon successful transfer to the universities, as long as they do not limit choices of transfer students in those areas. We note here the top issue raised in the 2002 external evaluation had to do with the lack of clarity in Area V pages, and problems associated with the failure by some universities to continually update the information in their Area V pages.

TABLE 3: What STARS Covers: The Five Academic Areas of Alabama’s Statewide Articulation and Reporting System, 1998–Present

Area Pages	Required Courses	Total Hours
General Studies: Areas I-IV		
Area I Written Composition	English Composition (6 hours)	6
Area II Fine Arts and Humanities	Literature (3 hours)	12
	Fine arts (3 hours)	
	Fine Arts or Humanities (3 hours)	
	Literature (3 hours)	
Area III Mathematics and Science	Mathematics (3 hours)	11
	Two Lab Sciences courses (8 hours)	
Area IV Social Sciences	History (3 hours)	12
	Social Sciences (6 hours)	
	History or Social Sciences (3 hours)	
Pre-Professional and/or Pre Major Area V		
Area V Pre-Professional/Pre- Major	Courses appropriate to the Area V Pre-Professional/Pre- Major, and/or Electives	19-23
Total hours in Areas I-V: 60-64 hours		

Source: Sessions, K. (2005, April 14). “AGSC & STARS.” Presentation for University of South Alabama Administrators, Faculty, and Staff. Mobile, Alabama: AGSC & STARS.

Notes:

Only in Engineering did the AGSC approve allowing fewer hours in General Studies (Areas I-IV) . In some programs, choices may be limited in certain areas by the AGSC Academic Committees (which include both the discipline-based General Studies Academic Committees, and the Professional Academic Committees).

ACCOMPLISHMENTS OF THE AGSC&STARS

There are many reasons why Act 94-202 stands out as an excellent example of successful public policy development in Alabama, but five stand out: First, the Alabama Legislature laid out broad public policy goals—to help students save credits, time, and money as they transfer. Second, the Alabama Legislature through Act 94-202 created in statute a broadly representative committee (AGSC) comprised of two- and four-year higher education professionals to develop a plan. Third, Act 94-202 gave clear direction to the AGSC of what it wanted accomplished. Fourth, Act 94-202 left it to the dedicated higher education professionals on the AGSC to develop a plan and then execute that plan. Fifth, the Alabama Legislature provided funding to accomplish the plan. Senator Jimmy Holley, one of the original cosponsors, calls Act 94-202 the most successful education reform legislation passed in his forty years in the legislature. An extensive summary of the accomplishments of the AGSC and STARS through September 2000 prepared by Dr. Elizabeth French of the Alabama Commission on Higher Education for the 2002 external evaluation in its early years is provided in Appendix A.

The process created by Act 94-202 is decidedly “bottom-up” in nature. Essentially the statewide AGSC with its *inclusive* membership determined by statute, serves as the overall coordinative policy entity, and it supervises the STARS office that executes that policy through operating of the STARS system. The “bottom-up” process is consistent with Southern Association of Colleges and Schools guidelines: Roughly 300 faculty and department heads participate on the 21 discipline-based faculty-led General Studies Academic Sub-Committees¹⁰ and 16 professions-based, faculty-led Pre-Professional Academic Sub-Committees. The subcommittees make recommendations to the AGSC, which makes the judgment calls.¹¹ This evaluation assesses both parts authorized by Act 94-202.

Act 94-202 was passed just seven years after the fourth and final administration of Governor George C. Wallace ended (see Chronology in Appendix N). In 1986, there were 41 separately accredited publicly two-year colleges in Alabama. The 20 technical colleges were not accredited by the Southern Association of Colleges and Schools’ Commission on Colleges, which meant that the same college chemistry course that a student at a junior college took when taken by a technical college student enrolled in a heating and air conditioning program would not count. Many of the problems AGSC and STARS were created to address were well-known to Alabama educators and identified in a 1985 Articulation Task Force Report presented to Chancellor Charles Payne of the Alabama Department of Postsecondary Education. But it would take nine more years to pass Act 94-202 in addition to much hard work by the early AGSC members to create what became Areas I, II, III, IV, and V in the STARS system. Accomplishments of AGSC & STARS have therefore to be considered in light of key characteristics of higher education in Alabama, to which attention is now turned.

¹⁰ AGSC & STARS (2016, July 13). “[General Studies Academic Committees](#)”.

¹¹ AGSC & STARS (2016, July 13). “[Pre-Professional Academic Committees](#)”.

Key Characteristics of Alabama Higher Education:

The history, development, and character of Alabama's public higher education system underscore the need for a statewide transfer and articulation system that aims to save students credits, time, and money. There are fifty states with fifty different and distinct histories of public higher education. What are some of the key characteristics of Alabama's system of higher education relevant to any external evaluation of AGSC & STARS?

1. In Alabama, public higher education predominates.¹²

Alabama's public universities and public community and technical colleges enroll nearly 9 in 10 of all students in higher education in Alabama in 2014-2015. If Alabama is to have a well-educated citizenry, the public sector must be funded to provide properly prepared engineers, doctors, teachers, nurses, and allied health workers. Further, the workforce training function of community colleges must be funded to provide the continuous training that Alabama's business and industries need. While Alabama's private, nonprofit colleges and universities play an important niche role by adding diversity, choice, and excellence to our citizenry, and serve substantial numbers of economically disadvantaged students (as evidenced by their large percentages of Pell Grant recipients), in Alabama public higher education predominates.

2. Alabama's state-supported need-based student aid program is so small that the federal Pell Grant program is Alabama's de facto state student aid program.

Access to higher education has always been a shared responsibility between the federal and state governments, but there are great differences across state lines. These patterns matter when degree and certificate completion rates are compared. In 2013-14, the State of Alabama invested just \$2,611,069 in its primary need-based grant program for its undergraduate students, the Alabama Student Assistance Program. This figure is less than half of what Arkansas invests (\$5.3 million), a third of what Mississippi invests (\$7.4 million), and 19 times less than what Tennessee invests (\$50.3 million) in need-based student aid. And while Georgia invests zero in need-based student aid, its \$570 million investment in nonneed-based HOPE scholarships aid dwarfs Alabama's tiny investment.¹³ Over 95% of financially needy Alabama's community college students whose low income status qualified them to receive Alabama State Student Assistance Grants do not because the state does not fund the program adequately.¹⁴

Under 3% of the financially needy Alabama community college students whose low income status qualified them to receive Alabama State Student Assistance Grants received them—and 97% do not. Alabama's need-based

12: Katsinas, S.G.; Koh, J.P., Murphy, D.S.; Lacey, V.A.; Fincher, M.A.; DeMonBrun, R.M.; Bray, N.J.; Breau, A.P.; Malley, Jr., M.S.; Adair, J.L.; and Shedd, L.E. (2015, August). *The economic and social impacts of Alabama public higher education*. Tuscaloosa, AL: Education Policy Center, University of Alabama. Research report prepared for the Higher Education Partnership of Alabama. 104 pages.

13: Katsinas, S.G., Bray, N.J., Koh, J.P., & Grant, P.D. (2012, November). *A study of Pell Grants in Alabama*. Commissioned by the Alabama Commission on Higher Education. Tuscaloosa, AL: Education Policy Center, 20 pages.

14: IBID, NASSGAP, 2015, Table 4, Need-based Grant Aid Awarded, by State (in millions of dollars), 2003-4, 2008-9, 2012-13, 2013-14, p. 9.

state student aid program is so small that the Education Policy Center called federal Pell Grants Alabama's *de facto* state student aid program in our 2012 study for the Alabama Commission on Higher Education, *A Study of Pell Grants in Alabama*. From 2008-09 to 2011-12, federal dollars for academically talented, economically disadvantaged Alabama students increased from \$172 million to \$470 million, an increase of \$297 million or 172 percent. Pell dollars at Alabama community colleges rose from \$61 to \$220 million, and at Alabama public universities from \$111 to \$249 million. The number of Pell recipients at public two- and four-year institutions rose from about 58,000 in 2009-10 to just over 100,000 in 2011-12.¹⁵ Put differently, while federal Pell grant aid to Alabama students more than doubled during the Great Recession years, need-based grant aid in Alabama declined from \$19.7 million in 2008-9 to \$6.6 million in 2013-14, a decrease of 66.7 percent.¹⁶

Increasing dependence on federal student aid is why when Congress ratcheted up eligibility for Pell grants, as it did in June 2012 starting with the fall 2012 term, enrollment fell immediately at 11 of Alabama's 14 public universities, and all but one of Alabama's 25 community and technical colleges. Just under 17,000 Alabama students lost Pell eligibility in 2012-13, of whom two-thirds were at public regional universities, and one-third at community colleges. This produced a double-whammy, because the institutions had become so much more reliant on tuition revenue (Jacksonville State University, for example, lost enrollment for five straight years after the Pell changes were made). We note that this likely had negative impacts on our private, non-profit regionally accredited institutions as well.

3. Over the past decade, enrollments have grown while the Alabama has disinvested in institutional operating budgets, forcing institutions to substantially raise tuition.

Since 2008, the cuts in state appropriations for public higher education by the State of Alabama were the second largest of any state, according to the State Higher Education Executive Officers. Had Alabama maintained its historic two-thirds/one-third split between higher education and elementary and secondary education, higher education would receive an additional \$570 million annually.¹⁷

4. Moving the Needle on Degrees Awarded in Alabama: A Critical Policy Objective

In their 2014 annual report, *A Stronger Nation through Higher Education, Closing the Gaps in College Attainment*, the Lumina Foundation for Education urges states to have 60 percent of Americans with a college degree, certificate, or other high-quality postsecondary credential.¹⁸ Lumina suggest that all basic postsecondary

15: Katsinas, S.G., Bray, N.J., Koh, J.P., & Grant, P.D. (2012, November). *A study of Pell Grants in Alabama*. Commissioned by the Alabama Commission on Higher Education. Tuscaloosa, AL: Education Policy Center, 20 pages.

16: IBID, Katsinas, et.al. (2012, November).

17: Katsinas, S.G.; Koh, J.P., Murphy, D.S.; Lacey, V.A.; Fincher, M.A.; DeMonBrun, R.M.; Bray, N.J.; Breaux, A.P.; Malley, Jr., M.S.; Adair, J.L.; and Shedd, L.E. (2015, August). *The economic and social impacts of Alabama public higher education*. Tuscaloosa, AL: Education Policy Center, University of Alabama. Research report prepared for the Higher Education Partnership of Alabama. 104 pages.

18: IBID, Katsinas, et.al. (2015).

credentials, including degrees, should be based on learning, that smarter pathways to degrees and certificates that count all types of learning should be created, and that higher education should be made accessible and affordable to all.¹⁹ This report lays out the annual benchmarks or targets to be reached to obtain a straight-line path to 60% attainment by 2025, comparing each state to the US average, and expected percentages of degree holders among 25- to 64-year olds at the current rate, again to the US average. Table 4 shows there is much work to do in Alabama. This underscores the need for a process like STARS, which allows earned credits by students coming from a variety of sources to be counted.

TABLE 4: Reaching 60% of Alabamians with a Quality Postsecondary Credential

	2012	2014	2016	2018	2020	2022	2024	2025
Annual benchmarks (targets) for a straight-line trajectory to reach 60% attainment by 2025 (%)								
Alabama	33.1	37.2	41.3	45.5	49.6	53.8	57.9	60
US	39.4	42.6	45.7	48.9	51.2	55.2	58.4	60
Expected percentages of degree holders among 25 to 64-year olds at the current rate								
Alabama	33.1	34	35	36	37	38	39	39.5
US	39.4	40.9	42.4	43.8	45.3	46.8	48.3	49

Source: Sessions, K. (2005, April 14). "AGSC & STARS." Presentation for University of South Alabama Administrators, Faculty, and Staff. Mobile, Alabama: AGSC & STARS.

STARS System Usage

Figure 3, below, shows the level of Annual STARS Transfer Guide Requests since 1998. The system was started in 1998-99. Requested guides averaged between 30,000 and just under 50,000 from 1999-00 to 2003-04. Requests jumped to 75,011 in 2004-05, and while usage levels have changed year to year, they have averaged over 80,000 in the eleven years following.

Figure 3 shows how the mix of STARS guides requested has changed over the years. In the years prior to the large jump in 2004-05, the vast majority of STARS guides requested were official guides. The phenomenon of "shopping" — obtaining unofficial STARS guides in large numbers — had yet to occur. This changed starting in 2009-10, and from that point forward, unofficial STARS guides requested have seen steady growth, with a dramatic jump from 14,176 in 2012-13 to 41,516 in 2015-16. During this same period, requests for official STARS guides

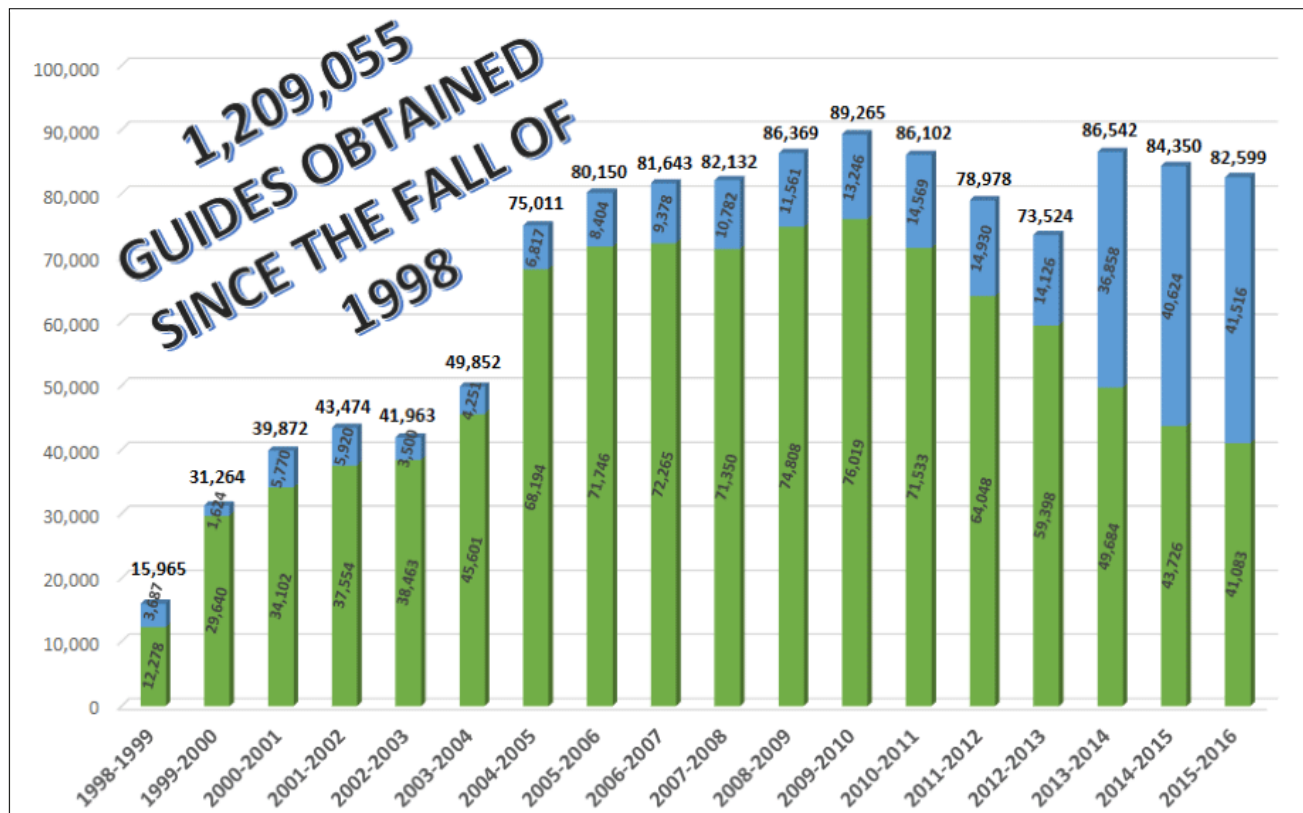
¹⁹: Merisotis, J.P. (2014). *A Stronger Nation Through Higher Education, Closing the Gaps in College Attainment. An Annual Report from the Lumina Foundation.* Indianapolis, IN: Lumina Foundation for Education. 211 pages. p. 1.

have decreased from a record high of 76,019 in 2009-10 to 41,083 in 2015-16. The authors note that the record years of STARS guide requests (both official and unofficial) were in the two years when year-round or summer Pell Grant funding was available, which speaks to the policy window current open. STARS officials, when interviewed, indicated that the decline in 2011-12 is directly attributable to the end of year-round Pell funding.

A total of 1,209,555 STARS guides have been requested since the fall of 1998. The year 2015-16 is the first when the number of unofficial STARS guides requested (41,516) exceeded the number of official STARS guides requested (41,083). This trend of shopping coincides with the great rise in mobile technology usage (smartphones, tablets, and laptops), which has made shopping that much easier to do.

STARS usage varies by month. Requested STARS unofficial guides are more commonly chosen at the beginning of the fall term, while official STARS guides are more commonly chosen deeper into the school year. The highest usage periods are during the fall term, which likely ties to when community colleges offer orientation classes of which STARS training is often a required component. The number of two-year student usage reports and unique students per institution varies; not surprisingly, Alabama's largest community college — Calhoun — reports the largest number of STARS guide requests. The varying usage patterns among the different Alabama community

FIGURE 3: Annual STARS Transfer Guide Requests Since 1998



colleges speaks in part to the different ways that STARS information is initially conveyed to students, and at some level, to the lack of training in STARS that the STARS office cannot provide due to sustained budget cuts in recent years. Additional research is needed on this specific issue.

The first and second choices for transfer institutions for Alabama community college students in 2015-2016 among the 14 public universities are Auburn University and The University of Alabama. Auburn University is the top choice (14,398, compared to 11,568 at The University of Alabama), while the University of Alabama at Birmingham is third at 10,554, the University of South Alabama is fourth at 8,333, and Troy University is fifth at 7,726.

Figure 4 shows STARS usage by academic major, number of STARS guide “hits,” and unique students per guide. Of the 41,083 official guides requested in 2015-16, the five most popular majors were Nursing at 6,638, followed by Business (5,851), Elementary or Early Childhood Education (2,844), Biology (2,003), and Computer Science (1,732). The Unique Student totals take into account that many students who use STARS print multiple guides; this number takes out students who print multiple guides in a given major and only counts them once to provide a more accurate picture of how many individual students have printed guides in specific majors.

FIGURE 4: AGSC&STARS Two Year Usage Information By Major (7/1/2015–6/30/2016)

Majors	STARS Guide Hits	Unique Students per guide *
Nursing	6,638	4,092
Business (All Business Majors)	5,851	3,763
Elementary or Early Childhood Education	2,844	1,642
Biology	2,003	1,230
Computer Science	1,732	1,145
Psychology B.A. or B.S.	1,371	864
Criminal Justice	1,259	826
Social Work	1,093	659
Engineering - Mechanical	1,051	727
Engineering - Electrical	748	508
Engineering - Civil	550	360
Physical Education	527	360
All other majors	15416	10756
Totals	41,083	26,932
* UNIQUE STUDENTS - The Unique Student totals takes into account that many students who use STARS print multiple guides. This number takes out students who print multiple guides in a given major and only counts them one time. This number should provide a more accurate picture of how many individual students have printed guides in specific majors.		

PROJECT RATIONALE

June 2016 marked the completion of the twenty-second year of the AGSC and the eighteenth year of STARS as a statewide information system for facilitating the articulation of degree program requirements and the transfer of academic credit. The last external evaluation of the AGSC&STARS was conducted in 2002. At that time, the AGSC was in its seventh year, and the STARS in its third. The fifteen years since has borne witness to exponential progress, with the advent first of “Web 2.0” signified by the rise of social media, and then of “Web 3.0,” or the “semantic web,” in addition to leaps in computing power far exceeding Moore’s Law. Likewise, the economy has seen an increase of 34% inflation over 15 years, and the education sector in particular has experienced an unprecedented shift toward a cost structure that drives less wealthy students to community colleges rather than to four-year institutions by the busload, making transfer all the more important.

The AGSC’s accomplishments over this period belie steep budget cuts — annual state appropriations have fallen from \$1.2 million at startup to \$500,000 in 1998–2008, and since 2012 to \$374,867 — at a time when the state should be doubling down on expanding effective transfer pathways. In light of budgetary concerns, the increasing demands of the 21st-century workforce, and Alabama’s need to stay competitive, the AGSC commissioned this external evaluation of AGSC&STARS’s performance with the ultimate goal of generating an action plan to meet these demands head-on.

Of foremost consideration are the degree to which the intent of Act 94-202 had been achieved, the effectiveness of the organizational structure of AGSC&STARS, how both fulfill their responsibilities, and the overall impact of the general studies curriculum and the articulation and transfer process on higher education in Alabama (Appendix R).

CHAPTER 2 METHODOLOGY

STUDY APPROACH

The evaluation team's approach stems from constructive criticism, with implementation strategies accompanying every suggestion. To accomplish this task, we surveyed several groups of stakeholders, the state's myriad crude data, and the national perspective, incorporating both qualitative and quantitative methods.

The primary evaluation strategies included:

1. Surveys of community college and university students, advisors, faculty, administrators, and other transfer contacts;
2. Focus group discussions with community college and university students (both pre- and post-transfer), advisors, and transfer appeals officials;
3. Focused discussions with Alabama community college chief student affairs officers and presidents;
4. Interviews with a sample of college/university presidents or chief academic officers, former AGSC members including key individuals involved with the creation of the AGSC&STARS, and legislators;
5. Analyses of available data from the STARS, ACHE, and DAX systems;
6. An extensive review of the state-of-the-art transfer and articulation research at the national level and in the various states (Education Commission of the States, National Conference of State Legislatures, Council of State Governments, etc.);
7. An extensive review of the transfer and articulation work funded by major foundations and the federal government.

For comparative purposes, we also considered the three surveys of students, AGSC&STARS members, and transfer counselors, included in the 2002 evaluation. At that time, the AGSC was in its seventh year and STARS in its third.

SURVEYS

Participants

The 2002 survey of students was conducted by mail. In November 2015 at the suggestion of the Evaluation Team, the STARS office added a simple statement to the STARS website asking those completing a STARS form request if they would also give their consent to be contacted with a survey about their experience using the STARS system. The number of students seeking a STARS guide and who indicated the Evaluation Team could contact them totaled 5,414 students between November 2015 and March 2016 (the surveys themselves were conducted between March and June 2016). Unfortunately, 328 of the responses included email addresses that were not active, were clearly not appropriate email addresses, or were otherwise unusable. These were removed from our group and thus gave us a working sample size of 5,186 students. The STARS survey was sent to all of these students, 100% of whom were STARS users. We received a total number of 205 responses, without providing any financial incentives to fill out the survey. While this is a lower than hoped for response rate, it is still a larger number than the 136 student responses obtained in the 2002 evaluation, and certainly is large enough to shed light on how STARS is working for current students.

For the sample of advisers and administrators, a list of 99 individuals was obtained from the STARS office staff. The lists of the statutorily based (under Act 94-202) statewide Articulation and General Studies Committee, the members of the 21 discipline-based Articulation and General Studies Subcommittees and the members of the 16 pre-Professional Area Subcommittees were drawn from the list on the AGSC webpage by the STARS office staff for the Evaluation Team. A total of 552 AGSC Committee/Subcommittee members were surveyed.

Survey Administration

The questionnaires for the 2016 study were designed principally to address the major question of “how are we doing?” and to provide guidance for the focus group discussion. The questionnaires were designed, administered and results compiled by Dr. Nathaniel J. Bray, Co-Principal Investigator of this project and Fellow at the Education Policy Center, and J. Lucas Adair, Doctoral Student in Political Science and Research Associate at the Education Policy Center. Each of the three surveys included items intended to provide descriptive information about the background and experience of respondents and a range of items that solicited respondents’ ratings of features of the STARS system, including accessibility and usefulness of the information. Copies of each questionnaire used to survey each of the three groups—students, advisors and administrators, and AGSC Committee and Subcommittee members, are provided in the appendix.

Survey items used in this, the 2016 study, drew directly from the last external review of AGSC&STARS led by Dr. W. Donald Crump in 2002, so that comparisons could be made. The 41 items contained in the 2002 surveys were tweaked based upon feedback provided by AGSC&STARS professionals. The focus of the surveys utilized in the current study was to understand how well STARS services were working: were they accessible? Were they clear? Were they accurate? And were they complete?

FOCUS GROUPS

The focus group discussions were a central element of the evaluation project. The focus groups were designed principally to address the major question of “where do we go from here?” Focus groups are a qualitative evaluation strategy, less structured and more exploratory than quantitative research methodologies. They allow the evaluation team to explore subjective judgments, while capturing greater nuanced detail, and to evaluate the degree of consensus among participants. While results are not easily quantifiable, they can provide the basis for valuable insights, suggestions, and recommendations for improvement.

Participants

The chief targets for the use of focus group discussion were those individuals directly involved in the use of the STARS system. These groups were:

1. Students (at both community colleges and those who had transferred to universities);
2. Community college and university advisers/administrators involved in transfer; and
3. Articulation and General Studies Committee and General Studies Academic Subcommittee and Pre Professional Academic Subcommittee members.

Focus Groups Administration

The first step in the focus groups was a preliminary review of the survey results. Following this, objectives for each of the focus groups were developed (see Figure 6, below). As part of its evaluation, the Education Policy Center team conducted focused interviews of students, transfer points of contact/administrators, and AGSC and Subcommittee members at five sites across the State of Alabama (see Table 5, below). One hour sessions were held with each group at each site. To encourage attendance, AGSC & STARS staff and the Evaluation Team reached out to contacts across Alabama’s 14 public universities and 25 two-year colleges.

Key contact people for the focus groups were identified, a schedule developed, and participants were invited. A total of seven meetings were held between June 8 and June 29, 2016. As Table 5 shows, there were five regional focus groups held in different regions of Alabama: Southwest, Southeast, East Central, Northern Alabama, and Central Alabama. These sessions consisted of three one-hour meetings with students, advisers and administrators concerned with transfer issues, and with faculty and administrators who serve on the statewide Articulation and General Studies Committee, the 21 discipline-based General Studies Academic Subcommittees, and the 16 Pre-professional Academic Subcommittees. Dr. Stephen G. Katsinas, Project Director; Michael S. Malley Jr., EPC Assistant Director; and J. Lucas Adair, EPC Research Associate coordinated the meetings, with the assistance of the members of the Alabama Deans of Student Affairs Administration (ADSAA) and officials of the five institutions—three community colleges and two universities—who graciously agreed to host. Preceding the site visits was a very useful two-hour focus group and individual meetings with members of the ADSAA on June 8, 2016, which provided much

useful feedback and direction for the five focus groups held in different regions across Alabama and later an extended meeting with Alabama Community College System Presidents at their annual meeting. The comments from each of the groups and suggestions for improvement will be reported in the section on evaluation results.

Objectives

Community College Students

- Determine how the students learned about the STARS.
- Assess how easily the students found the system to use.
- Identify the difficulties in using and preparing the Transfer Guide.
- Evaluate how the STARS influenced the choice of transfer to a four-year college or university.
- Discuss how the STARS influenced the choice of a major.
- Estimate the number of the four-year colleges and universities web sites viewed by students.
- Delineate any difficulties in transferring academic courses for credit.
- Solicit suggestions for improving the STARS.

University Transfer Students

- Determine how the students learned about the STARS.
- Assess how easily the students found the STARS to use.
- Identify the difficulties in using and preparing the Transfer Guide.
- Evaluate how the STARS influenced the choice of transfer to a four-year institution.
- Discuss how the STARS influenced the choice of a major.
- Estimate the number of college/university web sites that were viewed prior to choosing a major and/or college for transfer.
- Delineate difficulties in transferring academic courses for credit.
- Solicit suggestions for improving the STARS.

Community College Advisors/Counselors/Others

- Determine how the STARS is used to advise students.
- Discuss the perceptions about the accuracy of information found on the STARS.
- Evaluate how the STARS has helped in advising students in choosing a major.
- Assess how the STARS has helped in advising students in choosing a four-year college or university.
- Delineate the major advantages in using the STARS.
- Identify significant problems encountered in using the STARS.
- Solicit suggestions for improving the STARS.

University Transfer Appeals Persons

- Determine how the STARS has affected the overall transfer process at four-year colleges and universities.
- Identify concerns/problems encountered in getting accurate information displayed on the STARS.
- Delineate concerns/problems encountered in maintaining and/or updating information on the four-year college or university website.
- Determine the use made of monthly reports from the STARS.
- Evaluate the overall impact of the STARS on four-year colleges and universities.
- Solicit suggestions for improving the STARS.

AGSC and Subcommittee Members

- Assess how their students learn about STARS, and how they access STARS to advise students.
- Assess their views regarding the ease of access, accuracy, and completeness of information found on the STARS system, including STARS Guides, College Homepages, College Transfer Assistance Pages, Area V pages, College Course Listings, Administrative links and Faculty Links.
- Discuss how official and unofficial STARS reports are used by students in the transfer process, and in particular, the rising use of unofficial STARS reports.
- Assess their interactions with the STARS office in convening meetings and sharing information.
- Assess how STARS training is delivered to various constituencies (high school guidance counselors, transfer advisers at two-year and four year institutions, recruitment officials).
- Evaluate how the STARS system influences the choice of a major (academic program fit).
- Evaluate how the STARS system influences the choice of transfer to a four-year college or university (institutional fit).
- Evaluate how the STARS system can be a 21st century platform to facilitate additional transfer.
- Evaluate if STARS helps students save credits, time, and money in the transfer process, overall satisfaction with STARS, and if the STARS system is meeting the legislative intent of Act 94-202.
- Delineate any difficulties encountered in using the STARS system to transfer course credits
- Solicit suggestions for improving the STARS system.

INTERVIEWS

The in-person and telephone interviews with presidents, chief academic and student affairs officers, former AGSC members, and legislators provided general information on the two major questions of “how are we doing?” and “where do we go from here?” Therefore the chief goal of this component was evaluating the degree to which the intent of the Act 94-202 has been achieved, to evaluate the organizational structure of the AGSC&STARS, to assess the degree to which AGSC is fulfilling its responsibilities, and to assess the overall impact of the general studies curriculum and STARS on higher education in Alabama.

Interview Administration

Similar to the focus group discussions, the interviews employed a qualitative methodological design to explore perceptions, attitudes, and subjective judgments of the participants. Questions and discussions were based on the four goals of the evaluation project. Notes were taken during the interviews and then compiled and grouped by the Project Coordinator and Assistant Director, who met the Alabama Community College President’s Association as part of their annual meeting on June 26 and 27, 2016. More than 20 presidents were spoken with, as well as officials from the Alabama Community College System and the Alabama Association of Independent Colleges and Universities. For former AGSC committee members, the sample was six, with two in-person interviews and four telephone interviews. For the sample of legislators, in addition to a telephone interview with one of the original authors of Act 94-202, meetings with state legislators were held on August 16, 2016 in the Capitol with members of the Senate and members of the House.

TABLE 5: Schedule for Focus Groups and Interviews

Date	Region	Host Institution	Invited Institutions	
			Two-Year	Four-Year
6/8/2016	Statewide	Alabama Deans of Student Affairs Administration	All community college chief student affairs officers	
6/21/16	Southwest Alabama	Faulkner State Community College	Bishop, Jeff Davis, Alabama Southern, & Faulkner	USA
6/22/16	Southeast Alabama	Troy University -Dothan	Wallace-Dothan, Enterprise, LBW	Troy University
6/23/16	East Central Alabama	Auburn University	Central Alabama, Chattahoochee Valley, Southern Union, Trenholm	ASU, AUM, AU, Montevallo
6/28/16	Northern Alabama	Wallace State Community College-Hanceville	Calhoun, Drake, Gadsden, Northeast, Northwest Shoals, Snead, Wallace-Hanceville	A&M, Athens State, UAH, UNA
6/29/16	Central Alabama	Lawson State Community College	Bevill, Jefferson, Lawson, Marion, Shelton	JSU, UAB, UA, UWA

State Officials/Legislators

In addition to the users of the AGSC&STARS, the Evaluation Team interviewed members of Alabama's Legislature who are concerned with transfer and articulation issues. The goals of these interviews was to seek input as to whether or not AGSC&STARS is carrying out Act 94-202 in a manner consistent with the original legislative intent, and to assess what can be done to improve transfer and articulation in Alabama. Senators for whom interviews were requested included Jimmy Holley (one of the original authors of Act 94-202), Gerald Allen, Dick Brewbaker, Gerald Dial, Tripp Pittman, Gregory Reed, Quinton Ross, and Jabo Waggoner. Representatives interviewed include Alan Baker, Terri Collins, and Bill Poole; Christian Becraft, Education Policy Advisor to Governor Robert Bentley was also contacted.

STARS Staff

AGSC Executive Director Keith Sessions, Director of Information Technology Shannon Nichols, and Administrative Assistant Anita Brown all submitted responses to our survey, and both Sessions and Nichols met with Evaluation Team members on several occasions to discuss the evaluation. They have been invaluable resources for our team regarding area pages, system requirements, statewide training and implementation, reverse transfer propositions, and data sources.

Field Experts

Katsinas and members of the Evaluation Team have met leading experts — both national and state — on community college transfer and articulation issues, and who have provided critical insight into the facets of successful processes throughout the country. These include, but are not limited to:

National

Dr. Mark M. D'Amico, *Associate Professor, University of North Carolina-Charlotte*

Dr. D'Amico is a Fellow to the Education Policy Center, and author of the 110 page chapter, "Community Colleges, Workforce, and the College Success Agenda," published in 2015 the prestigious Handbook of Higher Education. His research is focused on community college student success and the role of community colleges in workforce development. He was the 2014 recipient of the prestigious Barbara K. Townsend Emerging Scholar Award from the Council for the Study of Community Colleges.

Dr. Linda Serra Hagedorn, *Senior Associate Dean, College of Human Sciences, Iowa State University*

Dr. Hagedorn headed Transfer and Retention of Urban Community College Students, a study initially funded by the U.S. Department of Education and extended with support from the Lumina Foundation, which examined more than 100,000 student transcripts to examine community college student usage patterns. Dr. Hagedorn is the nation's leading expert on urban community college student transfer.

Dr. Brent Cejda, *Professor and Chair of the Department of Educational Administration, University of Nebraska-Lincoln*

Dr. Cejda has served as Executive Director of the National Council of instructional Administrators, the largest of the American Association of Community Colleges' 32 affiliated councils. NCIA provides

professional development services to CAOs and their staffs at community colleges, and has administered a national awards program for the past twenty years. Dr. Cejda has also participated in numerous National Science Foundation studies to improve undergraduate STEM pathways for community college students.

Dr. Michael T. Miller, *Dean, College of Education and Health Professions, University of Arkansas*

Dr. Miller, who worked at UA from 1992 to 1999, is one of the nation's leading experts on faculty issues and community colleges and has extensive experience in rural community colleges.

Dr. James E. Davis, *Chair, Department of Educational Leadership, Mississippi State University*

Dr. Davis has a 35-year career across numerous high schools, community colleges, and universities. He has been a tenured faculty member at both the community college and university level. Dr. Davis has a great deal of experience with Alabama transfer and articulation issues, and has coauthored numerous reports in collaboration with the Education Policy Center, where he serves as a Senior Fellow.

State

Dr. W. Donald Crump, *Former Associate Executive Director, Commission on Colleges of the Southern Association of Colleges and Schools*

Prior to his five-year tenure as Associate Executive Director of the Commission on Colleges of the Southern Association of Colleges and Schools, Dr. Crump served as a Professor and Associate Vice President for Planning and Evaluation at the University of Alabama. From 1994–1996, he was the first Chairman of the AGSC from 1994 to 1996, and he conducted the first evaluation of the STARS in 2002.

Dr. Joe Morris, *Vice President, Jefferson State Community College*

Dr. Morris attended the first meeting of the AGSC on July 14, 1994. He has served in some capacity on the AGSC since the first meeting. He served two terms as Chair. During one of his terms as chairman he suffered a heart-attack and that was not enough to remove him from the committee! Since 1994, the AGSC has met 125 times. Dr. Morris has attended over 90% of those meetings.

Dr. Glenda Colagross, *Interim President, Southern Union State Community College*

Dr. Glenda Colagross is Interim President at Southern Union Community College; prior to that she was Dean of Instruction (chief instructional officer) at Northwest Shoals Community College. Dr. Colagross headed the Alabama Community College System's committee that recommended the substantive changes to the Southern Association of Colleges and Schools when the state's governance changed from being under the Alabama State Board of Education to the new, independent ACCS Board of Trustees.

Dr. James Wade, *President, Northwest State Community College*

Dr. James C. Wade is a mathematician by training, who was Dean of Instruction at Beville State Community College prior to serving as President of Northwest State Community College. He is keenly familiar with transfer issues, particularly in science, technical education, and mathematics.

LITERATURE REVIEW

An extensive literature review, conducted by EPC Research Fellow Jake L. Warner, Assistant Director Michael S. Malley, and Director Stephen G. Katsinas resulted in hundreds of different transfer and articulation studies and journal articles from across the country. Candace Medlock, a doctoral student in Higher Education at The University of Alabama, used this work to develop an annotated bibliography of key works that is found in the appendix of this report. Specifically examined were the following five issue areas:

1. Articulation policy
2. Transfer Policy
3. Reverse Transfer
4. Vocational/Technical Transfer
5. The impact of Dual Enrollment on transfer and articulation

We paid special attention to the funded programs of the Lumina Foundation for Education and the Bill & Melinda Gates Foundation, evaluations of other state transfer and articulation systems, published works from Education Commission of the States, Council of State Governments, and the National Council of State Legislatures, and key scholars long identified with transfer and articulation research. Of principal inquiry were two questions:

1. Which state and community college factors may influence transfer?
2. Which state policy components are associated with successful transfer?

Few areas of research in American higher education that have seen greater growth in recent years than transfer and articulation. The sheer volume of the literature is large and growing. Figure 5, right, is drawn from the Access and Finance Surveys of National Council of State Directors of Community Colleges members conducted annually by The University of Alabama's Education Policy Center. It shows that the vast majority of states have conducted planned and completed studies of transfer and articulation issues between 2008 and 2014. It is clear that transfer and articulation issues are of an enduring concern to community college practitioners, scholars, and policymakers.

FIGURE 5: Transfer and Articulation Studies Completed and Planned by States, 2008–2014

Year	Completed this year	Planned for next year	Planned & Completed	Completed	Planned	P&C
2014	HI, LA, ME, OH, SC, WV, WY	CT, IL, MI, OH, SC, WV, WY	AK, AR, GA, ID, IN, MD, MN, NJ, NY, TN	7	7	10
2013	AK, AR, GA, HI, IN, ME, MT, NY, SD, TN, TX	ID, LA, MO, NH, NM, ND, PA, RI	CA, CT, KS, MA, MS, NC, OH	11	8	7
2012	AL, CA, GA, MN, NV, OR, TX	AK, CT, HI, ID, MD, MO, NE, NM, RI	IA, KS, MA, MT, NJ, NY, OH, UT, WI	7	9	9
2011	AR, CA, CO, KS, KY, LA, MA, MT, NH, NJ, PA, TN, WA	AZ, CT, GA, NV, NC, OK, OR, SD, VA, WV	AL, GA, HI, IA, MN, MS, NY, TX	13	10	8
2010	AR, CO, DE, KY, LA, ME, MA, MN, MT, NE, NH, ND, OR, TX, WA, WI	AZ, CA, FL, HI, NV, NC, OK, VA	IA, MS, NJ, PA, SD	16	8	5
2009	AL, AR, CT, MA, MT, NY, ND, OH, OR, RI, TN, TX, WA	FL, IA, ME, MD, NJ	HI, LA, UT	13	5	3
2008	IN, MA, MS, MO, NV, NJ, OH, OR	GA, ID, IA, KS, MT, RI, VA, WY	HI, UT	8	8	2

Source: Education Policy Center, The University of Alabama

Given the mass of research, only a few key selected items are cited here:

- **The Interstate Passport Network** was started in 2010 and is managed by the Western Interstate Commission on Higher Education. Interstate Passport is a consortium of public and private postsecondary institutions that articulates block transfer of lower division general education across nine knowledge and skill areas that has been developed and rolled out in phases with funding from the Carnegie Corporation of New York, the Bill & Melinda Gates Foundation, Lumina Foundation, and a First in the World grant from the U.S. Department of Education.
- *Implementing Statewide Transfer and Articulation Reform, An Analysis of Transfer Associate Degrees in Four States* (2010), by Carrie B. Kisker, Richard L. Waggoner, and Arthur M. Cohen of the Center for the Study of Community Colleges, analyzed transfer and articulation practices in Arizona, New Jersey, Ohio, and Washington. Funded by the Bill & Melinda Gates and Walter S. Johnson Foundations, this study examined transfer as seven curricular and policy related elements: (1) a common general education package, (2) common lower division pre-major and early-major pathways, (3) a focus on credit applicability, (4) junior status upon transfer, (5) guaranteed and/or priority university admission, (6) associate and/or bachelor's degree credit limits, and (7) an acceptance policy for upper-division courses. Arthur M. Cohen, a colleague of EPC Director Katsinas for more than three decades, is the lead author of the six editions of *The American Community College*, and our nation's leading scholar on community colleges.

Key recommendations, many of which are relevant to Alabama, include: (1) when necessary, use legislation to incent or compel the implementation of systemic transfer reforms; (2) ensure leadership

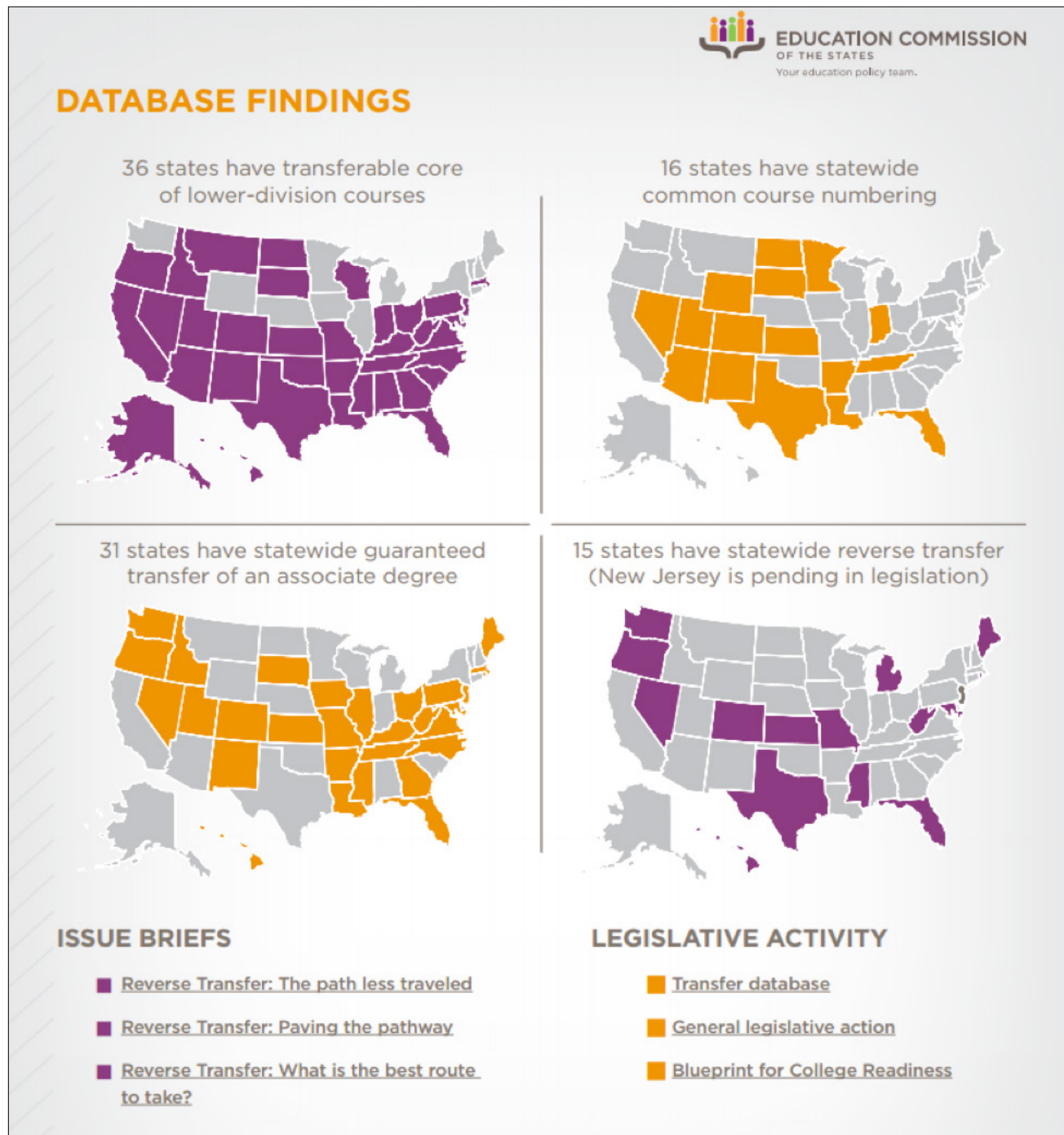
and buy-in among college and university presidents, as well as statewide governing or coordinating agencies; (3) implement a clear and ongoing organizational structure; (4) articulate a common goal and shared understanding of why it is important to engage in systemic transfer reform; (5) strive for a balance between autonomy/freedom and efficiency, student centeredness, and the common good; (6) use learning outcomes to determine course equivalency; (7) implement processes for reviewing and revising transfer degrees to ensure relevancy with evolving curricula; (8) market transfer associate degrees to students and advisers; (9) explain how technology may facilitate systemic transfer and articulation reform; (10) incorporate K-12 educators and/or college-readiness standards into statewide transfer and articulation conversations; (11) use transfer associate degrees to help resolve institutional and programmatic capacity issues; (12) see alternative funding scenarios for implementing, maintaining, and/or improving transfer associate degrees; and (13) continue gathering and publicizing data related to the ability of transfer associate degrees to improve system efficiency, increase postsecondary degree completion, and generate cost savings (see centerforcommunitycolleges.org).

- **Transfer Assembly Studies, mid-1980s to mid-2000s, various studies:** Conducted by the Center for Community Colleges and directed by Arthur M. Cohen, and supported by grants from the Ford Foundation's Urban Transfer program, these studies had two key findings: First, that institutions that are good at transfer are good at transfer, which means that they line up their internal and external support systems to make transfer a priority; they monitor and evaluate it, and take it seriously internally as part of the institutional DNA. A second key finding is that for the vast majority of community colleges, three to five senior institutions accept the vast majority of their transfers; conversely, for senior institutions three to five community colleges send the vast majority of their transfer students. These two findings have major impact on policy and practice for both community colleges and senior institutions today, both in Alabama and nationally.
- [*Who Transfers and Where Do They Go? Community College Students in Florida*](#) (2015, February), by Ben Backes and Erin Dunlop-Velez. CALDER Working Paper No. 126, 38 pages. This report utilized a longitudinal dataset containing every public high school student in Florida to describe two- to four-year transfer patterns. The main finding was that distance matters, and that community college students are far more likely to transfer to nearby four-year institutions.
- *Factors, Practices, and Policies Influencing Students' Upward Transfer to Baccalaureate- Degree Programs and Institutions* (2014, February), by Robin LaSota. National Institute for the Study of Transfer Students. Conference Presentation. Examined 5,1010 students in federal BPS data set and supplemental data, 2003-09, and conducted case studies of six colleges in three states (Florida, Georgia, and Washington). The positive predictors associated with upward transfer probability were planned to transfer at entry (0.21), primarily enrolled full-time (0.12), aged 15-19 at entry (0.09), worked under 20 hours a week on average (0.09), GPA in first year (0.08), sports participation often or sometimes (0.07), STEM, Humanities, or Education Major (0.06). The three top negative predictors associated with upward transfer probability were attending primarily part-time (-0.19), first-generation, low income (-0.15), and first generation, not low income (-0.14). Improving college transfer-out rates, attending full-time and early transfer intention are "particularly influential student factors." Implications include policy

intervention in high schools, helping students to create specific plans for obtaining bachelor's degrees aligning two- and four-year institutions (pathways), and promote continuous attendance.

- *Tackling Transfer* (2016). By Public Agenda, Community College Research Center, and The Aspen Institute. This report found eighty percent of community college students plan to get a bachelor's degree or higher, but that "transfer is broken" with credits, time, and money wasted on the part of students (and taxpayers). This report suggests that four-year colleges need to pay much more attention to transfer students. Transfer students are already a large and growing part of their student body. Universities need to help transfer students succeed instead of primarily focusing on first-year students, the report concludes.
- *Redesigning America's Community Colleges, A Clearer Path to Student Success* (2015). By Thomas R. Bailey, Shanna Smith Jagers, and Davis Jenkins. Cambridge, MA: Harvard University Press. The authors advocate for pathways for baccalaureate degree success to be established at the time students first enter community colleges, and that if students change majors they immediately change their degree pathways so that they do not lose credits, time, and money. The implication of this for Alabama is to require community college students to create a new STARS guide each and every semester prior to enrollment, as several colleges currently require of theirs (see ISBN 978-0-674-36828-6).
- [*Diagnosis: Alabama Ranked 47th in National College Affordability*](#) (2016, April 27). By Joni Finney, William Doyle, Pat Callan, and Darcie Harvey. Philadelphia, PA: University of Pennsylvania Graduate School of Education. The report notes that higher education "has gone from expensive to unaffordable for most American families." According to the report, Alabama ranks 14th nationally in providing affordable higher education to students enrolled in public two-year colleges, but has the third-least affordable public research institutions in the country. The report documents the extremely low levels of state need based student aid—the national average of total state financial aid dollars per student at public two- and four-year institutions in 2013 was \$474, and other aid (including merit aid) was \$210 dollars; Alabama those figures were \$14 and \$7, respectively, underscoring the Education Policy Center's observation in 2012 that federal Pell Grants are Alabama's de facto state student aid program.
- [*Higher Education Accountability Report: Alabama*](#) (2008). By Education Sector, Washington, DC. This report provides a scorecard regarding how Alabama gathers information on student outcomes, institutional practices, economic and community development, overall quality of information, and state- and systemwide information, and how information is used for governance and strategic planning, funding, and transparency and markets. Alabama's alignment with pre-K-12 education is rated a "best practice," but most of the gradients are in need of improvement. The University of Alabama System is cited several times for the quality of its data reporting on various scorecard elements.
- *Fifty State Comparison of Transfer* (2014). By Lexi Anderson. Denver: Education Commission of the States. This report shows 36 states including Alabama have a transferable core of lower-division courses; 16 states have statewide common course numbering (not including Alabama); 31 states have statewide guaranteed transfer of an associate degree (not including Alabama); and 15 states have statewide reverse transfer. As Figure 6 shows, Alabama is one of the 15 states that do not.

FIGURE 6: Key factors and state policy components associated with successful transfer according to Education Commission of the States, 2014



Source: [*Education Commission of the States \(ECS\)*](#)

CHAPTER 3

RESULTS

SURVEY RESULTS

Students

As Table 6 shows, the bulk of student respondents (63%) had not yet transferred to a 4-year institution, but 60% of those who had not yet transferred did in fact plan to transfer. Thus, there is an active group of respondents who are using the STARS report as they work through their respective community colleges and prepare to successfully transfer.

TABLE 6: Transfer Status and Intent

	Yes	No	N/A	N	Mean	Std. Dev.
Have you transferred from a 2-year to a 4-year institution?	34%	63%	3%	191	1.69	0.519
If you answered NO to the previous question, are you applying to transfer to an Alabama 4-year institution?	60%	12%	29%	174	1.69	0.891

Note: Percentages may not add to 100% due to rounding.

Unfortunately, as Table 7 shows, the number of students saying they have friends who do not know about STARS is relatively high: 43% say they do know another student who they believe is considering transfer but who does not know about STARS. This suggests an information gap about STARS may well exist among a substantial percentage of students intending to transfer. We note that this is the exact population STARS aims to serve.

TABLE 7: Student Knowledge About STARS

	Yes	No	N	Mean	Std. Dev.
Do you have/have you had any classmates who were interested in transfer but did not know about STARS?	43%	57%	188	1.57	0.496

Note: Percentages may not add to 100% due to rounding.

So that begs the question, how do students learn about STARS? The general feeling we received from interviews and discussions was overwhelmingly positive about the STARS program. That coincided with a general sense that STARS was fairly ubiquitous for those familiar with it. That 43% of responding

students personally knew a friend interested in transfer but not familiar with STARS shows that knowledge about STARS is not as widespread as would be hoped. This makes sense, however, when considering our finding that community college advisors are by far the most prevalent source for how students gain their information about STARS.

The timing of student meetings with high school advisors, professional advisors at community colleges, or faculty involved with advising at community colleges therefore becomes critical. Table 8 shows the diversity of sources of initial knowledge about STARS among the students surveyed. It should be noted that at Alabama's smaller rural community colleges, faculty typically advise students, while at larger community colleges, professional advisers perform this task.

The role of advisers cannot be understated. Students may take courses that don't fit with their STARS "contract," and thus may not count upon transfer, if they fail to meet with their adviser soon enough. In light of the rapidly changing complexion of community college enrollments in Alabama—with 8 to 13% of total enrollments coming in the form of Dual Enrollment at Alabama high schools, good advisement at the high school level – something never contemplated by the AGSC when it created STARS between 1994-5 and 1998-9 – has never been more important. Expanding the knowledge base of what Alabama High School Counselors know regarding transfer and articulation issues is clearly tied to the legislative intent of Act 94-202 that created STARS: to help students save credits, time, and money as they access Alabama's public community colleges to obtain credits that transfer to 4-year university academic programs.

TABLE 8: How Students Learn About STARS

	HS Counselor	CC Advisor	Faculty Member	Friend	Other	N	Mean	Std. Dev.
How did you learn about STARS?	8%	48%	25%	5%	14%	190	2.68	1.149

Note: Percentages may not add to 100% due to rounding.

There is much positive to note about STARS. For comparison purposes, Table 9 was reverse-coded to match the 2002 Evaluation's labels, and thus included 1 = "Strongly Disagree", 2 = "Disagree", 3 = "Agree", and 4 = "Strongly Agree." A fifth option existed for each response of "Not Applicable." If more than 15% of respondents indicated "Not Applicable," the item was dropped from this report following the methodology used in the 2002 Evaluation (although it is important to note that we did make some exceptions to this rule so that critical items would not be missed). Consistent with the 2002 Evaluation, responses indicating "Not Applicable" were not included in calculating the means and standard deviations.

Responses indicate that, generally, students have ready access to the STARS website (90%), STARS guides (87%), college home pages (93%), college transfer assistance pages (84%), and college course listings.

Furthermore, as in the 2002 external evaluation, students continue to find the STARS Guides information provided to be complete (84%), accurate (87%), agreed with information from other sources (83%), and useful (88%). Satisfaction extends to college webpages (93%), Area V pages (86%), and college course listings (90%).

Similar to the 2002 external evaluation, Area V pages continue to be the largest weakness in terms of student responses. Nine in 10 students agree/strongly agree that STARS information is incredibly helpful to them — 90% say they find the STARS website without difficulty, 92% say they can maneuver through the website without difficulty, and 87% say they found the guide they wanted without any difficulty. Area V pages show the lowest overall scores, but even still, they remain helpful sources of information to students.

TABLE 9: General Survey Results for Student Respondents

	Response Choices					Item Statistics		
	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A	N	M	SD
STARS Guides								
I found the STARS website without difficulty.	54%	36%	6%	3%	2%	200	3.43	0.737
I moved around the STARS website without difficulty.	50%	42%	6%	2%	2%	200	3.42	0.671
I was able to locate the college transfer guide(s) I wanted without difficulty.	48%	39%	10%	1%	3%	199	3.39	0.683
Information in the college major transfer guide(s) was complete.	38%	50%	7%	2%	4%	199	3.29	0.668
Information in the college major transfer guide(s) was accurate.	33%	51%	6%	2%	8%	199	3.26	0.652
Information in the college major transfer guide(s) was useful to me.	48%	41%	5%	2%	5%	199	3.4	0.691
College Home Pages								
I located the college homepage(s) I wanted without difficulty.	52%	41%	4%	1%	3%	197	3.47	0.629
Information on the college homepage(s) was complete.	42%	47%	5%	3%	4%	199	3.33	0.71
Information on the college homepage(s) was accurate.	41%	50%	3%	1%	5%	199	3.39	0.596
Information on the college homepage(s) was useful to me.	44%	49%	4%	1%	3%	199	3.39	0.612
Information on the college homepage(s) agreed with information from other sources.	33%	49%	7%	1%	10%	199	3.34	0.641
I located college transfer assistance page(s) I wanted without difficulty.	41%	43%	8%	2%	6%	199	3.3	0.717
Information on the college transfer assistance page(s) was complete.	39%	45%	7%	2%	7%	199	3.31	0.697

TABLE 9 Cont'd: General Survey Results for Student Respondents

Information on the college transfer assistance page(s) was accurate.	37%	48%	6%	1%	9%	200	3.32	0.638
Information on the college transfer assistance page(s) agreed with information from other sources.	39%	44%	7%	1%	10%	199	3.33	0.66
Information on the college transfer assistance page(s) was useful to me.	40%	46%	4%	2%	9%	199	3.36	0.663
Area V Pages								
I located college Area V page(s) I wanted without difficulty.	42%	38%	11%	3%	7%	199	3.29	0.773
Information on the college Area V page(s) was complete.	40%	43%	7%	3%	8%	200	3.29	0.773
Information on the college Area V page(s) agree with information from other sources.	35%	45%	7%	1%	13%	200	3.3	0.656
Information on the college Area V page(s) was useful to me.	42%	44%	3%	2%	10%	199	3.38	0.661
College Course Listings								
Information on the college-approved course listing(s) was complete.	41%	46%	6%	2%	7%	198	3.34	0.664
Information on the college course listing(s) was accurate.	40%	48%	4%	1%	8%	200	3.37	0.614
Information on the college-approved course listing(s) agreed with information from other sources.	39%	49%	4%	2%	7%	200	3.33	0.662
Information on the college-approved course listing(s) was useful to me.	42%	48%	5%	2%	5%	200	3.36	0.649
Overall satisfaction with STARS								
STARS information helped make the decision for me to transfer to a 4-year institution.	45%	32%	11%	4%	9%	199	3.3	0.823
STARS information helped me make the decision about which 4-year institution to attend.	39%	34%	14%	3%	11%	199	3.22	0.825
STARS information helped me make the decision about which major to choose.	33%	33%	18%	5%	12%	199	3.06	0.895
STARS information made it easier for me to transfer to a 4-year institution.	43%	40%	5%	4%	10%	199	3.34	0.75
STARS information helped me avoid taking courses that would not transfer.	52%	34%	6%	5%	4%	199	3.39	0.804

Note: Percentages may not add to 100% due to rounding.

Our survey of student usage of the STARS website did show a high number of unofficial reports being downloaded. The STARS website was updated in 2012-2013, and the unofficial STARS guide was placed side-by-side with the official STARS guide.¹⁹ From that year forward, unofficial STARS guide requests have dramatically increased. For 2015-2016, which showed that 41,516 unofficial STARS guides were requested, as compared to 41,083 official STARS guides requested, making this the first year where more unofficial than official STARS guides were requested.²⁰ This may also be related to the data presented in Table 10, which show that 62% of students have run unofficial STARS reports, compared to 47% who had had run official STARS reports. If it is true that one in five students are experiencing problems with Area V pages, it may be that students are reporting that institutions asked for more / different credits than they had taken. If students are downloading unofficial reports, the “contract” is not established and institutional requirements can continue to shift through no fault of STARS; its information may have been accurate at all times and still had such a problem occur.

TABLE 10: Student Use of Official and Unofficial Reports

	1	2	3	More than 3	N/A	N	Mean	Std. Dev.
How many unofficial STARS reports have you run?	13%	22%	7%	20%	38%	188	2.55	1.156
How many official STARS reports have you run?	22%	12%	6%	7%	53%	186	1.93	1.076

Note: Percentages may not add to 100% due to rounding.

Table 11, below, shows that the use of phone and tablet for accessing STARS data is growing, but that PC use is still by far the largest source of access. Furthermore, students use these options far more than transfer advisors and administrators and AGSC committee and subcommittee members (see results below). The Evaluation Team believes that this result may mask a serious problem with the STARS system: As the use of mobile communications exponentially grows—smart phones, which carry more complex technology in your hand than what the Apollo astronauts had to guide them to the moon—we see a decline in the printed number of STARS guides, from a high of 76,019 in 2009-2010 to 41,083 just six years later, a precipitous decline of 46%. Only about 15% of Americans owned smartphones in 2005; by 2013, 143.9 million Americans owned one—a figure that is estimated to grow to 220 million by 2018.²¹

The Evaluation Team is concerned that the STARS system may be being overwhelmed by the rapidly changing technologies, and that for the system to move forward, it clearly must adopt the new mobile technologies. Table 11 shows that 74% of the students surveyed were using mobile devices to access the

19: Articulation and General Studies Committee (2014, November 20). [Minutes](#).

20: STARS Usage Report (2015-2016). “[Annual STARS Transfer Guide Requests Since 1998](#).”

21: Mahajan, A.C. (2014, December 18). “[Worldwide Active Smartphone Users Forecast 2014-2018: More Than 2 Billion By 2016](#).”

services provided by the STARS system, while just 23% were using the stationary computers at their high schools, community colleges, or universities. Additional investigation is needed to see if and to what extent this is related to the use of unofficial versus official reports in terms of students' perceptions. If the purpose of the STARS system is to help students save credits, time, and money, this question is of fundamental importance.

TABLE 11: How Students Access STARS

	Mobile Devices				Stationary Devices				
	Phone	Tablet	Personal Computer (laptop)	% Total	School Computer	N/A	N	Mean	Std. Dev.
How did you access the STARS system (if more than one, select your main form of usage)?	6%	3%	65%	74%	23%	4%	191	3.15	0.794

Note: Percentages may not add to 100% due to rounding.

Table 12 shows that even with use of other platforms, satisfaction with the STARS website is relatively high, with 80% saying it works extremely or very well.

	Extremely Well	Very Well	Moderately Well	Slightly Well	Not Well at All	N	Mean	Std. Dev.
How well did the STARS system work on your electronic device (i.e., formatting made sense, was legible, etc.)?	45%	35%	16%	3%	1%	190	3.24	0.817

Note: Percentages may not add to 100% due to rounding.

Table 13 shows that when students were asked if they downloaded a digital or printed STARS guide, 24% report downloading digital versions, 50% print, and 27% report downloading both digital and printed versions. What this means, is that 77% are using a paper/print copy—the only official version that actually protects them from loss of credits, time, and money while transferring—but that 24% are using digital. This means that a quarter of the STARS users are printing a version that does not necessarily protect them as the system intended. Again, further study is needed of this issue.

TABLE 13: Do Students Download a Digital or Printed STARS Guide?

	Digital	Print	Both	N	Mean	Std. Dev.
Did you digitally download a STARS guide or print one?	24%	50%	27%	188	2.03	0.712

Note: Percentages may not add to 100% due to rounding.

In terms of how complete and helpful data is to prepare students to transfer (Table 14), 79% of respondents said that institutions accepted all the credits they had taken. It is worth noting that only 34% of students had transferred, so 79% of those who transferred responded positively to this item. 9% disagreed, and 13% weren't sure. Additionally 55% of students indicated that institutions they are transferring to require that they take additional courses prior to admission. Three of four (75%) indicate that institutions clearly identified the point person they should speak with at their institution of interest.

TABLE 14: Student Preparation to Transfer

	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A	N	Mean	Std. Dev.
The 4-year institutions that I wanted to attend accepted all credits according to the STARS guide and AREA V pages.	42%	37%	5%	4%	13%	189	3.34	0.771
The 4-year institutions that I wanted to attend required that I take additional courses prior to admittance to my major.	24%	31%	20%	6%	20%	190	2.91	0.909
The STARS website provides easily accessible information for a contact person for my institution of interest.	36%	40%	10%	4%	11%	190	3.19	0.816

Note: Percentages may not add to 100% due to rounding.

Advisors/Administrators

Evaluation results for the STARS system also included responses from 92 administrators of a total of 119 surveyed. Results included on Table 15 below include response percentages for each item as well as mean scores and standard deviations. For Table 15, responses are coded from 1 – 4, which were later reverse coded to match Crump’s labels, which included 1 = “Strongly Disagree”, 2 = “Disagree”, 3 = “Agree”, and 4 = “Strongly Agree.” A fifth option existed for each response of “Not Applicable.” If more than 15% of respondents indicated “Not Applicable” the item was dropped from this report, following the evaluation methodology used in 2002.

Over 85% of respondents said they found and moved around the STARS webpage without difficulty, in addition to finding the college transfer guide they wanted easily (88%). However, 30% of respondents indicated that the information in the college major transfer guides was not complete and not accurate. These numbers represent a troubling indicator, and resulted in a much lower mean score on these two items than other similar items.

The college homepage information was similarly deemed useful. 87% said they found the college homepage they wanted without difficulty, but 30% again said the information found there was not accurate. Another 30% said that college website information did not match information from other sources. Given that these percentages match (30% each time) with the number citing inaccuracies in the STARS information, it may be that the STARS guide match the college’s own website, but that they both contain the same inaccuracies; this would merit further study and review. In other words, the STARS office may be receiving poor information.

Unfortunately the college area assistance and Area V pages saw lower levels of students indicating the information was useful or accurate. 29% indicated that the college area assistance pages were not complete; while 23% claimed they were not accurate, and 28% said the information did not match with information from other sources. Similarly for Area V, 40% said the information was not complete, 32% said it was inaccurate, and 38% said the information did not match with that found from other sources. A further 27% indicated that the Area V information was difficult to find.

Yet again, even with these difficulties there was a great deal positive that respondents had to say about STARS. The course listing information proved especially helpful. 89% said the information was useful to them personally while 89% also indicated that the information helped students in making their transfer decision. Further detailing the usefulness of this information, 82% said it helped student select the institution to which to transfer, 75% said it helped students actually select their major, 86% said it helped students to transfer, and 89% said it helped students avoid taking courses that would not transfer.

TABLE 15: General Survey Results for Advisor/Administrator Respondents

	Response Choices					Item Statistics		
	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A	N	Mean	Std. Dev.
STARS Guides								
I found the STARS website without difficulty.	50%	44%	4%	1%	1%	92	3.44	0.636
I moved around the STARS website without difficulty.	36%	53%	9%	1%	1%	92	3.25	0.66
I was able to locate the college major transfer guide(s) I wanted without difficulty.	27%	61%	10%	1%	1%	92	3.15	0.631
Information in the college major transfer guide(s) is complete.	10%	56%	26%	4%	3%	91	2.74	0.703
Information in the college major transfer guide(s) was accurate.	7%	60%	30%	0%	3%	91	2.76	0.567
Information in the college major transfer guide(s) was useful to me.	34%	60%	1%	1%	4%	92	3.32	0.558
College Homepage								
I located the college homepage(s) I wanted without difficulty.	29%	58%	13%	0%	0%	91	3.15	0.631
Information on the college homepage(s) was complete.	13%	53%	30%	0%	4%	91	2.83	0.651
Information on the college homepage(s) was accurate.	10%	65%	21%	0%	4%	91	2.89	0.559
Information on the college homepage(s) was useful to me.	18%	74%	7%	0%	1%	90	3.11	0.487
Information on the college homepage(s) agreed with information from other sources.	7%	57%	30%	1%	6%	91	2.73	0.602
College Transfer Assistance Page								
I located college transfer assistance page(s) I wanted without difficulty.	10%	61%	27%	1%	1%	92	2.8	0.619
Information on the college transfer assistance page(s) was complete.	7%	62%	28%	1%	3%	91	2.76	0.587
Information on the college transfer assistance page(s) was accurate.	6%	67%	22%	1%	4%	91	2.8	0.619
Information on the college transfer assistance page(s) agreed with information from other sources.	7%	60%	27%	1%	6%	90	2.76	0.591
Information on the college transfer assistance page(s) was useful to me.	11%	78%	6%	1%	4%	90	3.03	0.471

TABLE 15 Cont'd: General Survey Results for Advisor/Administrator Respondents

Area V Pages								
I located college Area V page(s) I wanted without difficulty.	11%	60%	25%	2%	1%	91	2.81	0.652
Information on the college Area V page(s) was complete.	8%	48%	39%	1%	4%	90	2.65	0.647
Information on the college Area V page(s) was accurate.	8%	56%	29%	3%	3%	89	2.71	0.666
Information on the college Area V page(s) agree with information from other sources.	4%	52%	34%	4%	4%	90	2.59	0.658
Information on the college Area V page(s) was useful to me.	13%	63%	14%	3%	6%	90	2.92	0.658
College Course Listings								
I can locate information on the college approved course listing(s) without difficulty.	11%	66%	19%	2%	2%	90	2.88	0.622
Information on the college approved course listing(s) was complete.	7%	67%	17%	3%	7%	90	2.82	0.604
Information on the college course listing(s) was accurate.	6%	72%	14%	2%	6%	90	2.86	0.538
Information on the college approved course listing(s) agreed with information from other sources.	4%	69%	20%	1%	6%	90	2.81	0.523
Information on the college approved course listing(s) was useful to me.	13%	76%	6%	0%	6%	90	3.08	0.442
Using STARS Information								
STARS information helps students make the decision to transfer to a 4-year institution.	42%	47%	11%	0%	0%	90	3.31	0.664
STARS information helps students make the decision about which 4-year institution to attend.	34%	48%	13%	1%	3%	91	3.19	0.709
STARS information helps students make the decision about which major to choose.	24%	51%	21%	2%	2%	91	2.99	0.746
STARS information makes it easier for students to transfer to a 4-year institution.	50%	46%	3%	0%	0%	91	3.47	0.565
STARS information helped students avoid taking courses that would not transfer.	52%	37%	9%	0%	2%	91	3.44	0.656

Note: Percentages may not add to 100% due to rounding.

As Table 16 shows, the vast majority of respondents found the administrative and faculty links to be useful and complete, although a large number also indicated they were not applicable or didn't know. Seven of ten (71%) indicated that the information on the administrative links of STARS was complete, 72% indicated it was accurate, and 83% found the information included there to be useful. The information on the faculty links through STARS received slightly lower scores in general, with only 64% finding it complete, 60% suggesting it was accurate, and 65% finding the information useful to them. Of particular interest was the item about information on faculty links; 20% responded "N/A" meaning they either do not use the information or do not know if it is accurate or not.

TABLE 16: Completeness of STARS Data

	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A	N	Mean	Std. Dev.
Information on the Administrative links of STARS is complete.	11%	60%	16%	0%	13%	90	2.95	0.556
Information on the Administrative links of STARS is accurate.	9%	63%	16%	0%	12%	90	2.92	0.526
Information on the Administrative links of STARS is useful to me.	16%	67%	7%	0%	11%	90	3.1	0.493
Information on the Faculty links of STARS is complete.	8%	56%	16%	0%	1%	90	2.88	0.58
Information on the Faculty links of STARS is accurate.	8%	52%	17%	0%	20%	90	2.86	0.597
Information on the Faculty links of STARS is useful to me.	12%	53%	10%	2%	22%	90	2.97	0.636

Note: Percentages may not add to 100% due to rounding.

Table 17 shows that many respondents either are not downloading / accessing reports at all, or else are doing so more than 3 times in the past year. 28% indicated they had not downloaded any unofficial reports while 52% had not downloaded an official report. This represents an interesting conundrum, as these officials are helping students to run their reports. If they are not running reports, how can they best advise students on transfer issues? On the other hand, 55% downloaded more than 3 unofficial reports and 33% downloaded more than 3 official reports, indicating that these particular advisors are very knowledgeable about the STARS.

TABLE 17: Advisor/Administrator Use of STARS Reports

	1	2	3	More than 3	N/A	N	Mean	Std. Dev.
How many unofficial STARS reports have you run in the past year?	8%	7%	3%	55%	28%	91	3.88	1.124
How many official STARS reports have you run in the past year?	3%	10%	2%	33%	52%	91	4.2	1.098

Note: Percentages may not add to 100% due to rounding.

Table 18 asks how advisors and administrators access STARS. While we have seen through other surveys that tablets and phones have started being used by students and AGSC committee and subcommittee members, it appears that administrators and advisors have only used personal and school computers to access their STARS reports, and not mobile devices.

TABLE 18: How Advisors/Administrators Access STARS

	Mobile Devices				Stationary Devices				
	Phone	Tablet	Personal Computer (laptop)	% Total	School Computer	N/A	N	Mean	Std. Dev.
How did you access the STARS system (if more than one, select your main form of usage)?	0%	0%	24%	24%	66%	10%	91	3.86	0.569

Note: Percentages may not add to 100% due to rounding.

Table 19 shows the results of survey items related to the myriad of roles STARS plays. The good news is that STARS is strongly seen as fulfilling one of its main roles very well. One of the biggest takeaways and most consistent responses came when administrators and advisors were asked if STARS saved students time, credits, and money. An overwhelming 93% responded affirmatively. In fact, the role of STARS goes well beyond this function: 78% indicated it was not just a tool for advising, but also for developing catalog and course offerings, over 80% said it was a tool and training guide, and 68% even said it was helpful as a recruiting guide.

TABLE 19: How STARS Is Used by Advisors/Administrators

	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A	N	Mean	Std. Dev.
How well did the STARS system work on your electronic device (i.e., did formatting make sense, was legible, etc.)?	23%	56%	17%	2%	1%	86	3.01	0.715
My college uses the STARS system to assist in developing catalog and course offerings.	31%	47%	12%	0%	10%	90	3.21	0.666
My college uses the STARS system to assist in training and/or as a tool for advisors and counselors.	42%	44%	9%	1%	4%	91	3.32	0.69
The STARS system is a resource for contacts and information points at both two- and four-year institutions.	37%	54%	7%	0%	2%	90	3.31	0.594
Departments, Divisions, and Colleges at my institution use the STARS system as a recruiting tool.	20%	48%	18%	1%	13%	90	3	0.703
The STARS system saves students at my college time, credits, and money.	43%	50%	2%	0%	6%	91	3.43	0.543

Note: Percentages may not add to 100% due to rounding.

AGSC and Subcommittee Members

The results from committee members, as listed on the AGSC&STARS website, provided a sample of 61 respondents out of a total 543 surveyed. However, several were not on the 16 PAC or 21 GSAC subcommittees indicated. Table 20 shows that, while all surveyed showed up on official AGSC&STARS webpages as PAC and/or GSAC members, 51% indicated they belonged to neither anymore. Thus, we uncover here at least one form of inaccuracy advisors and administrators may have noticed in their responses within the previous section.

TABLE 20: Respondents' Participation on AGSC and Subcommittees

	Pre-Professional Subcommittee	General Studies Articulation Subcommittee or the AGSC	Both	N/A	N	Mean	Std. Dev.
I serve on a...	7%	39%	3%	51%	61	2.98	1.088

Note: Percentages may not add to 100% due to rounding.

Table 21 depicts how AGSC Committee and Subcommittee members use the STARS system. However, all respondents' data were used as all were assumed to have been on a PAC or GSAC at one point and thus providing important information, with the proviso that those replying "Not Applicable" were removed from calculations of means and standard deviations. As seen in Table 21 below, respondents used STARS as a resource frequently, with 100% of respondents saying they either Agree or Strongly Agree.

TABLE 21: AGSC and Subcommittee Members' Role Use of STARS

	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A	N	Mean	Std. Dev.
I use the STARS website in my role as an AGSC member/point of contact committee member.	67%	33%	0%	0%	0%	63	3.67	0.475

Note: Percentages may not add to 100% due to rounding.

How AGSC Committee and Subcommittee members they use STARS, though, differed as seen in Table 22 below. That one in five, or 20%, report in the N/A category suggests they do not use STARS at all. Another 18% indicate STARS is not useful to them in evaluating new courses. Yet another 18% suggest they cannot find the college transfer guide they want without difficulty. As noted above, this may be due to difficulty with the site or with lack of training; we did not probe further on this particular point in the survey.

TABLE 22: AGSC Committee and Subcommittee Members' Use of STARS

	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A	N	Mean	Std. Dev.
I use the STARS website in evaluating new course proposals/discipline templates.	20%	43%	13%	5%	20%	61	2.96	0.815
I can find the STARS website without difficulty.	29%	48%	15%	2%	7%	62	3.12	0.727
I can move around the STARS website without difficulty.	15%	61%	16%	0%	8%	62	2.98	0.582
I am able to locate the college transfer guide(s) I want without difficulty.	15%	57%	18%	0%	11%	62	2.96	0.607

Note: Percentages may not add to 100% due to rounding.

We see from the Table 23, below, that STARS has evolved into more than just a computer-based platform. This goes beyond student use as well; 12% of respondents state they are using a tablet or laptop to access STARS. Compared with students and administrators, it shows committee members are more like students than are administrators / advisors in their use of the system in that the former both are starting to use alternative platforms, while advisors/administrators are not.

TABLE 23: How AGSC and Subcommittee Members Access STARS

	Mobile Devices				Stationary Devices				
	Phone	Tablet	Personal Computer (laptop)	% Total	School Computer	N/A	N	Mean	Std. Dev.
How did you access the STARS system (if more than one, select your main form of usage)?	0%	5%	7%	12%	85%	3%	60	1.3	0.85

Note: Percentages may not add to 100% due to rounding.

While the percentages presented in Table 24 below seem lower in terms of those responding “Strongly Agree” or “Agree” that the information for their area was appropriate, these percentages are reduced by the number of respondents who no longer were on their committee and thus responded N/A. These responses were removed from the calculation of mean values, which showed higher/better mean scores. Even with that taken into account, however, 16% disagree that their area information is complete,

13% disagree that their area information is accurate, and 16% disagree that their area information agrees with other sources. Committee and sub-committee members should be part of a unified overhaul to correct the information they know is not accurate or complete.

Table 24 shows that 39% disagree that there is good communication between committees, universities, and STARS. Perhaps this is part of why 77% of respondents either do not know or are not part of monthly reports to the university. Another 22% indicate that the website is not easily navigated by students and advisors. Three in 10, or 31%, do not feel the STARS system is visible statewide, and 30% did not believe there was adequate participation in STARS by state community colleges and 4-year institutions.

The majority of respondents favor a standardized course numbering system for the state; 53% indicated their support for a shared system wide course numbering.

TABLE 24: AGSC and Subcommittee Evaluation of Accuracy of STARS Data

	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A	N	Mean	Std. Dev.
Area Information								
Information in the area for which I am a committee member was complete in STARS.	8%	57%	16%	0%	19%	62	2.9	0.544
Information in the area for which I am a committee member was accurate.	12%	53%	13%	0%	23%	61	2.98	0.571
Information in the area for which I am a committee member agreed with information from other sources	8%	44%	16%	0%	31%	61	2.88	0.593
Information in the area for which I am a committee member was useful to me.	12%	59%	5%	0%	25%	61	3.09	0.463
STARS Guides								
I can locate the college homepage(s) I wanted without difficulty.	23%	52%	11%	2%	13%	62	3.09	0.68
STARS provides a valuable function to the state and its students.	34%	52%	8%	0%	7%	62	3.28	0.615
Area V pages are clear and easily understood.	8%	52%	11%	10%	19%	62	2.72	0.809
There is good coordination and communication about curricular and degree programs among committees, universities, and STARS.	5%	37%	32%	7%	19%	62	2.5	0.735

TABLE 24 Cont'd: AGSC and Subcommittee Evaluation of Accuracy of STARS Data

The STARS website is easily navigable by students and advisors.	5%	48%	15%	7%	26%	62	2.7	0.726
Monthly reports to universities are clear and easy to understand.	3%	13%	3%	3%	77%	62	2.71	0.914
STARS is easily visible and recognized statewide.	7%	48%	26%	5%	15%	62	2.66	0.706
STARS' Link to Institutions								
There is adequate participation in STARS by all community colleges and state universities.	7%	44%	25%	5%	20%	61	2.65	0.723
Community colleges introduce STARS to students in their first semester of enrollment.	12%	20%	5%	2%	62%	61	3.09	0.793
There is alignment of associate degree requirements and those for the baccalaureate degree.	8%	46%	10%	3%	33%	61	2.88	0.678
The AGSC should not pursue a statewide course numbering and title system.	21%	18%	28%	25%	8%	61	2.39	1.123
The relationship between AGSC and STARS needs clarification.	12%	59%	18%	0%	12%	61	2.93	0.578
The AGSC needs to conduct a carefully designed study to evaluate the success of community college students who transfer to state universities.	33%	48%	10%	0%	10%	61	3.25	0.645
Newly approved courses show up in the STARS system within an acceptable amount of time.	39%	18%	2%	0%	41%	61	2.64	0.543

Note: Percentages may not add to 100% due to rounding.

TABLE 25: AGSC and Subcommittee Use of STARS Data

	1	2	3	More than 3	N/A	N	Mean	Std. Dev.
How many unofficial reports have you run in the past year?	3%	3%	5%	22%	65%	58	4.43	0.993
How many official reports have you run in the past year?	7%	2%	0%	10%	81%	58	4.57	1.094

Note: Percentages may not add to 100% due to rounding.

Many respondents are not using official or unofficial STARS reports, but instead are using links and information found on STARS pages. As shown in Table 25 above, the majority of respondents, perhaps by virtue of no longer serving on committees while still listed on the AGSC&STARS pages, listed N/A in terms of number of reports downloaded, suggesting they are not using any. This seems to indicate at least one area in which web page information is not accurate.

TABLE 26: AGSC and Subcommittee Members' Accessing STARS from Electronic Devices

	Extremely Well	Very Well	Moderately Well	Slightly Well	Not Well	N	Mean	Std. Dev.
How well did the STARS system work on your electronic device (i.e., formatting made sense, was legible, etc.).	12%	57%	26%	6%	0%	51	2.75	0.744

Note: Percentages may not add to 100% due to rounding.

Responses in Table 26 indicate that STARS is considered to be convenient and works well on the various systems people use to access it. About 7 of 10 respondents (69%) said it worked either Extremely Well or Very Well.

TABLE 27: Do AGSC and Subcommittee Members Download a Digital or Printed Guide?

	Digital	Print	Both	N	Mean	Std. Dev.
Did you digitally download a Stars guide or print one?	51%	20%	29%	49	1.78	0.872

Note: Percentages may not add to 100% due to rounding.

Table 27 shows that the percent of respondents using digital copies here is high; 80% use digital STARS guides of some kind, as opposed to 49% using some kind of printed form. As “Both” is an option, the percentages do not add up to 100%.

TABLE 28: AGSC and Subcommittee Member Views on STARS Utility

	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A	N	Mean	Std. Dev.
The STARS system is a resource for contacts and information points at both two- and four-year institutions.	9%	75%	11%	2%	4%	55	2.94	0.534
The STARS system is a valuable recruiting tool for departments, divisions, and colleges at my institution.	9%	34%	29%	5%	23%	56	2.6	0.791
The STARS system saves students at my college time, credits, and money.	12%	54%	12%	4%	18%	57	2.91	0.686

Note: Percentages may not add to 100% due to rounding.

In Table 28 above, 84% of respondents agree that STARS is a helpful resource for finding information points at state institutions, which is interesting considering how many respondents for this survey were no longer part of the committees for which they were listed on the webpage. Four in 10 respondents, or 43% indicate STARS is a valuable recruiting tool for their institution, saying that their institution, department, division use STARS to this end. Responses show that STARS is seen by committee members as saving students time, credit, and money (66% Agree or Strongly Agree).

Comparison of 2016 Results Across the Three Groups

Table 29 provides a quite useful side-by-side summary of the survey results, comparing the means and standard deviations of the ratings on each of the items common to both groups of responding students and transfer advisers/administrators. Similar analysis was performed by the 2002 Evaluation Team. Table 29 clearly indicates students are much more comfortable and confident finding information on STARS, college web pages, and even on Area V pages, than were their advisers or administrators. Students similarly were much more likely to indicate that the information they found was useful to them. At the very least, the usefulness of the data to students seems to have been clearly communicated to advisers and administrators, as the groups scored almost identically on the last item – that the STARS information helps students make decisions to attend a 4-year institution (means of 3.30 vs. 3.31 respectively). On the other hand, it is disconcerting that advisers and administrators score consistently lower in agreement that data available to is complete or accurate on each and every scale. Further research on this is needed.

It is problematic that the students have much higher rates regarding the Area V pages than do their advisers/administrators. This can mean several things at once: that there is a lack of training on how to use STARS services; that students may trust that the system is accurate when it may not be; or that perhaps the system is more accurate than given credit for, as technologically savvy students will shop at levels to insure that the information on college Area V pages agrees with information from other sources. What we can predict is that it will be the most vulnerable student—most likely the poorest, who lack the funding for laptops and tablets, who cannot afford the monthly internet services—who will be most negatively impacted. This is an important area AGSC should study further.

TABLE 29: Comparison of Evaluation Results for Students and Advisers/Administrators, 2016

	Student Responses (n=205)			Advisor/ Administrator Responses (n=92)		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.
STARS Guides						
I found the STARS website without difficulty.	200	3.43	0.737	92	3.44	0.636
I moved around the STARS website without difficulty.	200	3.42	0.671	92	3.25	0.66
I was able to locate the college transfer guide(s) I wanted without difficulty.	199	3.39	0.683	92	3.15	0.631
Information in the college major transfer guide(s) was complete.	199	3.29	0.668	91	2.74	0.703
Information in the college major transfer guide(s) was accurate.	199	3.26	0.652	91	2.76	0.567
Information in the college major transfer guide(s) was useful to me.	199	3.4	0.691	92	3.32	0.558
College Homepages						
I located the college homepage(s) I wanted without difficulty.	197	3.47	0.629	91	3.15	0.631
Information on the college homepage(s) was complete.	199	3.33	0.71	91	2.83	0.651

TABLE 29 Cont'd: Comparison of Results, 2016

Information on the college homepage(s) was accurate.	199	3.39	0.596	91	2.89	0.559
Information on the college homepage(s) was useful to me.	199	3.39	0.612	90	3.11	0.487
Information on the college homepage(s) agreed with information from other sources.	199	3.34	0.641	91	2.73	0.602
College Transfer Assistance Pages						
I located college transfer assistance page(s) I wanted without difficulty.	199	3.3	0.717	92	2.8	0.619
Information on the college transfer assistance page(s) was complete.	199	3.31	0.697	91	2.76	0.587
Information on the college transfer assistance page(s) was accurate.	200	3.32	0.638	91	2.8	0.619
Information on the college transfer assistance page(s) agreed with information from other sources.	199	3.33	0.66	90	2.76	0.591
Information on the college transfer assistance page(s) was useful to me.	199	3.36	0.663	90	3.03	0.471
AREA V Pages						
I located college Area V page(s) I wanted without difficulty.	199	3.29	0.773	91	2.81	0.652
Information on the college Area V page(s) was complete.	200	3.29	0.773	90	2.65	0.647
Information on the college Area V page(s) was accurate.	199	3.32	0.711	89	2.71	0.666
Information on the college Area V page(s) agree(s) with information from other sources.	200	3.3	0.656	90	2.59	0.658
Information on the college Area V page(s) was useful to me.	199	3.38	0.661	90	2.92	0.658
College Course Listings						
I can locate information on the college approved course listing(s) without difficulty.	199	3.3	0.746	90	2.88	0.622
Information on the college approved course listing(s) was complete.	198	3.34	0.664	90	2.82	0.604
Information on the college course listing(s) was accurate.	200	3.37	0.614	90	2.86	0.538
Information on the college approved course listing(s) agreed with information from other sources.	200	3.33	0.662	90	2.81	0.523
Information on the college-approved course listing(s) was useful to me.	200	3.36	0.649	90	3.08	0.442
Using STARS Information						
STARS information helped make the decision for me (students) to transfer to a 4-year institution.	199	3.3	0.823	90	3.31	0.664

Note: Percentages may not add to 100% due to rounding.

Table 30, below, shows the wide range patterns of the three groups surveyed of STARS services. Within the students, just 13% printed out a single unofficial STARS guide and 22% a single official STARS guide. The phenomenon of “shopping”—the printing out of multiple unofficial STARS guides indicated in Chapter II is reflected in these data: 53% of students did not indicate printing out any official STARS guides. That 38% of responding students had not printed out any unofficial STARS guides, when combined with data that shows relatively high levels of student satisfaction with STARS services, demonstrates how different students use STARS services in different ways, and how quickly STARS usage patterns are changing.

That more advisors/administrators report printing out unofficial than official STARS guides may be problematic. That 6 in 10 students surveyed printed out an unofficial STARS guide to the Evaluation Team it likely means students are self-advising. In turn, this means that how and when students are introduced to STARS is more important than ever before. Those reporting STARS usage are likely returning often—repeat customers if you will.

Not surprisingly, the individuals responsible for advisement and academic administration printed out many more unofficial STARS reports (55% printed out four or more STARS reports/guides). In sharp contrast, the group with the least usage of the three are AGSC Committee and Sub-Committee members (GSACs

TABLE 30: Summary of Unofficial and Official STARS Report Usage By Group Surveyed

	How many unofficial STARS reports have you run?								
	N	1	2	3	≥4	run 1 or more	N/A	Mean	Std. Dev.
Students	188	13%	22%	7%	20%	62%	38%	2.55	1.156
Advisors/ Administrators	91	8%	7%	3%	55%	73%	28%	3.88	1.124
AGSC Committee/ Sub-Committee Members	58	3%	3%	5%	22%	33%	65%	4.43	0.993
	How many official STARS reports have you run?								
	N	1	2	3	≥4	run 1 or more	N/A	Mean	Std. Dev.
Students	186	22%	12%	6%	7%	47%	53%	1.93	1.076
Advisors/ Administrators	91	3%	10%	2%	33%	48%	52%	4.2	1.098
AGSC Committee/ Sub-Committee Members	58	7%	2%	0%	10%	19%	81%	4.57	1.094

Note: Percentages may not add to 100% due to rounding.

and PACs)—of the 58 responding, just a third reported printing out unofficial guides at all, and better than four of five had not printed official STARS reports. This reflects the inability of the STARS staff to provide sufficient training, another point we will return to below.

Table 31 shows how different users access the STARS system through different means. Three out of four students are using mobile devices, while 2 of 3 advisors and administrators are using stationary non-mobile school computers, a figure even higher for AGSC committee and subcommittee members.

TABLE 31: Different Users Access STARS Through Different Means

	N	How did you access the STARS system? (if more than one, select your main form of usage)							
		Phone	Tablet	Personal Computer	One or more Mobile Device	School Computer	N/A	M	SD
Students	191	6%	3%	65%	74%	23%	4%	3.15	0.794
Advisors/ Administrators	91	0%	0%	24%	24%	66%	10%	3.86	0.569
AGSC Committee & Subcommittee members	60	3%	5%	7%	15%	85%	0%	1.3	0.85

Note: Percentages may not add to 100% due to rounding.

Comparison of Results of 2002 and 2016 Surveys

Table 32 below shows, when comparing student responses from the two external evaluations, nearly every category measuring student levels of satisfaction, use, access, and completeness of data in 2002 and 2016, the mean score improved in almost every single category. Of the 29 survey items, 26 reported higher averages in 2016 than in 2002 (the higher rating is provided in bold). While many of the gains were relatively small in size, the preponderance of evidence suggests that the STARS program continues to work very well (it is important to note the higher number of responses in 2016 as well). From finding the STARS website and navigating it with ease to finding major transfer guides, college homepage information, college transfer assistance, and even Area V information all improved in terms of student ratings of it. In fact, only three items, all dealing with the college major transfer guide (which ties to college major transfer guide issues), saw any lowering in score between 2002 and 2016. Here, on accuracy, completeness of information, and usefulness, the mean scores went down by .04, .02, and .02 respectively. As with the 2002 external evaluation responses, responses indicating “Not Applicable” were not included in calculating the means and standard deviations.

TABLE 32: Comparison of Student Responses From 2002 and 2016 Evaluations

	2002			2016		
	Item Statistics			Item Statistics		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.
STARS Guides						
I found the STARS website without difficulty.	127	3.29	0.74	200	3.43	0.737
I moved around the STARS website without difficulty.	130	3.36	0.58	200	3.42	0.671
I was able to locate the college transfer guide(s) I wanted without difficulty.	130	3.36	0.66	199	3.39	0.683
Information in the college major transfer guide(s) was complete.	134	3.33	0.65	199	3.29	0.668
Information in the college major transfer guide(s) was accurate.	132	3.28	0.7	199	3.26	0.652
Information in the college major transfer guide(s) was useful to me.	134	3.42	0.63	199	3.4	0.691
College Homepages						
I located the college homepage(s) I wanted without difficulty.	127	3.4	0.58	197	3.47	0.629
Information on the college homepage(s) was complete.	129	3.28	0.62	199	3.33	0.71
Information on the college homepage(s) was accurate.	127	3.34	0.58	199	3.39	0.596
Information on the college homepage(s) was useful to me.	129	3.36	0.58	199	3.39	0.612
Information on the college homepage(s) agreed with information from other sources.	117	3.29	0.63	199	3.34	0.641

TABLE 32 Cont'd: Comparison of Student Responses From 2002 and 2016 Evaluations

College Transfer Assistance Pages						
I located college transfer assistance page(s) I wanted without difficulty.	123	3.23	0.64	199	3.3	0.717
Information on the college transfer assistance page(s) was complete.	122	3.29	0.58	199	3.31	0.697
Information on the college transfer assistance page(s) was accurate.	121	3.29	0.57	200	3.32	0.638
Information on the college transfer assistance page(s) agreed with information from other sources.	116	3.27	0.61	199	3.33	0.66
Information on the college transfer assistance page(s) was useful to me.	122	3.34	0.58	199	3.36	0.663
AREA V Pages						
I located college Area V page(s) I wanted without difficulty.	112	3.16	0.68	199	3.29	0.773
Information on the college Area V page(s) was complete.	110	3.25	0.64	200	3.29	0.773
Information on the college Area V page(s) agree(s) with information from other sources.	105	3.22	0.62	200	3.3	0.656
Information on the college Area V page(s) was useful to me.	111	3.28	0.65	199	3.38	0.661
College Course Listings						
Information on the college approved course listing(s) was complete.	126	3.25	0.68	198	3.34	0.664
Information on the college course listing(s) was accurate.	125	3.26	0.71	200	3.37	0.614
Information on the college approved course listing(s) agreed with information from other sources.	116	3.24	0.69	200	3.33	0.662
Information on the college-approved course listing(s) was useful to me.	127	3.31	0.69	200	3.36	0.649
Using STARS Information						
STARS information helped make the decision for me to transfer to a 4-year institution.	107	3.06	0.89	199	3.3	0.823
STARS information helped me make the decision about which 4-year institution to attend.	103	2.91	0.91	199	3.22	0.825
STARS information helped me make the decision about which major to choose.	111	2.87	0.94	199	3.06	0.895
STARS information made it easier for me to transfer to a 4-year institution.	111	3.32	0.74	199	3.34	0.75
STARS information helped me avoid taking courses that would not transfer.	126	3.35	0.74	199	3.39	0.804

Note: Percentages may not add to 100% due to rounding.

Table 33 below highlights the comparison in administrator and advisor responses in 2002 and 2016. The table indicates that overall, satisfaction scores have declined on 27 of the 29 items, and one of the two is a tie. Only the item “information on the college Area V page is accurate” received a higher rating in 2016 than in 2002.

Scores on the ability of advisors and administrators to find web pages and information without difficulty (3.57 to 3.44) or maneuver around those webpages easily has dropped (3.35 to 3.25). In fact, in almost every area scores were down, if moderately. It is problematic that advisors are having less success or facing more difficulty in accessing data. It could be due to lack of training or other criteria, but this is cause for concern. Still, while scores do fall in some areas, overall satisfaction in some of them remains over 85 to 90%.

Two items did indicate improvement from 2002 to 2016. First, there was slight improvement on the completeness of Area V as reported by advisors and administrators. Second, their responses show that administrators and advisors believe that STARS helps students make the decision to transfer. This is an incredibly powerful part of the transfer process. In addition, some of the decreases overall must be taken in the larger consideration that on many items, over 90% of the respondents indicate they either Agree or Strongly Agree that the given item is accurate, complete, or useful.

TABLE 33: Comparison of Advisor/Administrator Responses From 2002 and 2016

	2002			2016		
	N	Mean	Std. Dev.	N	M	Std. Dev.
STARS Guides						
I found the STARS website without difficulty.	115	3.57	0.55	92	3.44	0.636
I moved around the STARS website without difficulty.	113	3.35	0.67	92	3.25	0.66
I was able to locate the college transfer guide(s) I wanted without difficulty.	113	3.35	0.67	92	3.15	0.631
Information in the college major transfer guide(s) is complete.	107	2.8	0.75	91	2.74	0.703
Information in the college major transfer guide(s) was accurate.	102	3.04	0.54	91	2.76	0.567
Information in the college major transfer guide(s) was useful to me.	113	3.42	0.51	92	3.32	0.558
College Homepages						
I located the college homepage(s) I wanted without difficulty.	108	3.32	0.56	91	3.15	0.631
Information on the college homepage(s) was complete.	103	2.83	0.7	91	2.83	0.651
Information on the college homepage(s) was accurate.	101	2.98	0.6	91	2.89	0.559
Information on the college homepage(s) was useful to me.	104	3.24	0.49	90	3.11	0.487

TABLE 33 Cont'd: Comparison of Advisor/Administrator Responses From 2002 and 2016

Information on the college homepage(s) agreed with information from other sources.	97	2.91	0.61	91	2.73	0.602
College Transfer Assistance Pages						
I located college transfer assistance page(s) I wanted without difficulty.	107	3.01	0.68	92	2.8	0.619
Information on the college transfer assistance page(s) was complete.	100	2.86	0.7	91	2.76	0.587
Information on the college transfer assistance page(s) was accurate.	95	3.01	0.61	91	2.8	0.619
Information on the college transfer assistance page(s) agreed with information from other sources.	95	2.94	0.65	90	2.76	0.591
Information on the college transfer assistance page(s) was useful to me.	99	3.27	0.47	90	3.03	0.471
Area V Pages						
I located college Area V page(s) I wanted without difficulty.	105	2.95	0.84	91	2.81	0.652
Information on the college Area V page(s) was complete.	102	2.63	0.81	90	2.65	0.647
Information on the college Area V page(s) was accurate.	98	2.77	0.76	89	2.71	0.666
Information on the college Area V page(s) agree with information from other sources.	98	2.71	0.73	90	2.59	0.658
Information on the college Area V page(s) was useful to me.	101	3.16	0.61	90	2.92	0.658
Approved Course Listings						
I can locate information on the college approved course listing(s) without difficulty.	108	3.18	0.58	90	2.88	0.622
Information on the college approved course listing(s) was complete.	101	3.05	0.59	90	2.82	0.604
Information on the college course listing(s) was accurate.	99	3.08	0.57	90	2.86	0.538
Information on the college approved course listing(s) agreed with information from other sources.	96	3.02	0.6	90	2.81	0.523
Information on the college approved course listing(s) was useful to me.	106	3.29	0.48	90	3.08	0.442

Note: Percentages may not add to 100% due to rounding.

Table 34, below, shows that information on administrator and faculty links in particular are seen as having dropped in accuracy, completeness, and usefulness. These particular figures show some of the most consistent and largest mean decreases in the entire study.

TABLE 34: Comparison of Advisor/Administrator Responses Regarding Key STARS Links

	2002			2016		
	Item Statistics			Item Statistics		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.
Information on the Administrative links of STARS is complete.	59	3.17	0.59	90	2.95	0.556
Information on the Administrative links of STARS is accurate.	59	3.15	0.55	90	2.92	0.526
Information on the Administrative links of STARS is useful to me.	57	3.32	0.51	90	3.1	0.493
Information on the Faculty links of STARS is complete.	58	3.19	0.58	90	2.88	0.58
Information on the Faculty links of STARS is accurate.	58	3.19	0.51	90	2.86	0.597
Information on the Faculty links of STARS is useful to me.	56	3.27	0.52	90	2.97	0.636

Note: Percentages may not add to 100% due to rounding.

Table 35, below, compares responses on administrative and faculty links in 2002 and 2016. Responses show that while scores have dropped slightly on the helpfulness of STARS in helping students select a major and avoiding courses that would not transfer (perhaps a result of continued Area V challenges), STARS is seen as increasingly making it easier for students to transfer in general.

TABLE 35: Comparison of Advisor/Administrator Views on STARS' Usefulness, 2002 and 2016

	2002			2016		
	Item Statistics			Item Statistics		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.
STARS information helps students make the decision to transfer to a 4-year institution.	104	3.23	0.66	90	3.31	0.664
STARS information helps students make the decision about which 4-year institution to attend.	105	3.2	0.64	91	3.19	0.709
STARS information helps students make the decision about which major to choose.	103	3.14	0.64	91	2.99	0.746
STARS information makes it easier for students to transfer to a 4-year institution.	108	3.4	0.53	91	3.47	0.565
STARS information helped me avoid advising students taking courses that would not transfer.	112	3.49	0.55	91	3.44	0.656

Note: Percentages may not add to 100% due to rounding.

Summary of Survey Data

The data show STARS is widely used, seen as incredibly helpful, and largely accurate, Area V issues notwithstanding. The average student response on 100% of items was above a 3.00, indicating an average score of “Strongly Agree” or “Agree”. However, advisors/administrators had widely variant responses from those of our student respondents, with only 13 of the 36 items receiving a score of 3.00 or above. As with the 2002 external evaluation, the biggest differences often centered around items on the accuracy and completeness of data, and again as in 2002, students always scored higher in their evaluations than administrators/advisors did. However, students also rated finding data more easily than advisors/administrators. Both rated strongly the importance of STARS to student success and easing the transfer process.

Our findings come with several important ideas for improvement as well. First, the timing and manner in which students learn about STARS needs to be reconsidered. That 43% of student respondents indicate they knew another student who they believe is considering transfer but who does not know about STARS, raises concerns about awareness of STARS services. Students also indicate they most often learn information when already in community college, and are enrolled taking courses. In other words, they may already be taking courses that will not transfer. Advising about STARS needs to be more ubiquitous throughout the process of moving from high school to college as well as between colleges. Only 8% of students listed high school guidance counselors as the source through which they learned about STARS.

Furthermore, it is important that there are efforts to continue to develop STARS for other data platforms other than stationary desktop computers. Students and faculty are trending toward alternative mobile platforms to access STARS data, while administrators tend to be continuing to use more traditional modes of access that are less mobile, such as desktops.

While student scores improved in almost every category from 2002 to 2016, advisors and administrators scores dropped slightly across most categories. The specific results indicate that more support for the STARS program is needed to clarify Area V issues in particular, and to more completely unify data across webpage and other sources. There are still a large number of respondents who are part of the STARS network either through being an advisor, administrator, or current or past AGSC committee or sub-committee member, who have identified that these inconsistencies exist. They can and should be a ready resource to help identify and quickly correct those inaccuracies across different sources.

Finally, there is a desire by the majority of respondents for a statewide college course numbering system. This may help remove one manner in which inconsistencies and inaccuracies can arise between and across websites and sources. By moving to a unified system, which is preferred by the majority of respondents of whom we asked this question, a clear articulation becomes easier and more accessible.

FOCUS GROUP RESULTS

Focus groups were conducted with community college students, university students who had transferred, community college and university advisors and administrators associated with transfer, and with members of the AGSC full committee, and members of the 21 discipline-based General Studies Academic Subcommittees and the 16 Pre-Professional Academic Subcommittees. The focus groups built upon survey results discussed in the previous five sections of this report, and were a critically important element of our 2016 AGSC&STARS evaluation design process. They expanded our understanding of key issues, and provided suggestions for improvement. Key questions guiding the discussions and comments were compiled from notes taken during the sessions and organized in response to each question. Comments were combined separately for the each constituency group, and are reported in appendices. Table 36 shows the schedule of focus group interviews conducted.

In addition to a close review of the preliminary results of the surveys of the three groups, the Evaluation Team had an extended two-hour session with the entire membership of the Alabama Deans of Student Affairs Association at their annual summer meeting on June 8, 2016 to discuss STARS. Since student advisement is often under the chief student affairs officer at many community colleges (and if not, the CASOs are still intimately involved in advisement), this provided an excellent opportunity for the Evaluation Team to frame questions to be asked at the five sites around Alabama when meeting with students, advisors/administrators, and AGSC committee and subcommittee members.

TABLE 36: Schedule of Focus Group Sessions

Date	Site	Host Institution	Invited Institutions	
			Two-Year	Four-Year
6/8/16	statewide	Alabama Deans of Student Affairs Association	All community college chief student affairs officers statewide	
6/21/16	Southwest Alabama	Faulkner State Community College	Bishop, Jeff Davis, Alabama Southern, & Faulkner	USA
6/22/16	Southeast Alabama	Troy University -Dothan	Wallace-Dothan, Enterprise, LBW	Troy University
6/23/16	East Central Alabama	Auburn University	Central Alabama, Chattahoochee Valley, Southern Union, Trenholm	ASU, AUM, AU, Montevallo
6/28/16	Northern Alabama	Wallace State Community College-Hanceville	Calhoun, Drake, Gadsden, Northeast, Northwest Shoals, Snead, Wallace-Hanceville	A&M, Athens State, UAH, UNA
6/29/16	Central Alabama	Lawson State Community College	Bevill, Jefferson, Lawson, Marion, Shelton	JSU, UAB, UA, UWA

Note: Percentages may not add to 100% due to rounding.

Chief Student Affairs Officers (CASOs)

Below are the comments and suggestions discussed at our extended meeting with the ADSAA members. The CASOs are highly committed to STARS—as one dean said “STARS means our students save time and money through easier transfer.” But there is a clear consensus that STARS can be improved: Only a few indicated STARS staff had provided training at their colleges in recent years, due to declining budgetary support that resulted staff cuts and insufficient training. There are major differences in the technology platforms currently in use at Alabama community colleges, with roughly half using Banner (as do Alabama and Auburn), while half do not. Alabama Community College System Chancellor Mark Heinrich told the state’s presidents at their Summer 2016 meeting “funding just wasn’t going to be there” to get the entire state system onto a single platform. One dean said, “because of the different systems, each registrar’s website requires different ways to search for transfer information, and at the two biggest universities it’s difficult to easily find information on STARS.”

A clear consensus exists that community colleges are highly committed to STARS and see transfer as a core function, but improvements in Area V can be made. Another dean said, “changes in and/or new programs approved can be better synched with the publication schedules of community college catalogs, so that students and their advisors get the right information at the right time.”

A sample of further comments related to key issues and insights follow:

“In business and engineering, students have to send CLEP and Dual Enrollment courses and credits to UA directly for us to be able to accept it at the community college (in other words, if the CLEP is tied to a community college, the university doesn’t count it, so we have the students send it to UA first). There’s nothing on the University of Alabama’s website about STARS, while everything is very clear and prominently displayed at ours as to what will and won’t automatically transfer. We want it to be immediately posted to the student records electronically, but this is hard to do if (a) it’s not in there, and (b) the Area V pages are not regularly updated.”

“Other states are moving ahead of Alabama. Virginia’s Genie System, a statewide database, is where Alabama needs to go. The Iowa Transit system is another model transfer system Alabama should be considering. Said another, Dual Enrollment is an opportunity and a challenge for STARS. Advanced Placement courses don’t always count, but Dual Enrollment courses always do. I can name three high schools that only in the past two years have let us in to teach, each of which now enrolls over 100 students. It’s a game-changer for us.”

“At the university level, registrars typically review and approve what counts at the 100 and 200 levels, and at the 300 and 400 levels, colleges and schools do the transcript evaluation. At community colleges that have DegreeWorks, the software takes the old paper checklist and puts the entire thing online. We can count Dual Enrollment, but because the advanced placement scores are numerical, they do not necessarily count toward degree completion. The AP proponents like to tout that a passing score is “3,” but 70% does not guarantee credit will be accepted for transfer. Dual enrollment always counts, but STARS needs better training for high school counselors.”

“We need to get everyone on the same page. New programs/changes in existing programs that might be approved by ACHE are not always readily shared with community college. Statewide, community colleges have a uniform schedule for the publication of course catalogs, and we generate our STARS guides inside our online catalogs via software like DegreeWorks. But the placement by universities of new and revised programs on their Area V pages is not in synch with our regular catalog schedule (on their checklist for new program approval, ACHE does not suggest sharing the request with STARS).”

Key insights:

- Transfer is a critically important function at community colleges.
- The evaluation of generated credits for transfer acceptance used to be solely vertical in nature (two- to four-year); today it is more of swirl (Dual Enrollment, A/P, Early College, four-year to four-year, simultaneous enrollment at two- and four-year, etc.).
- The STARS system benefits community college students by making transfer easier.
- Area I, II, III, and IV information is accurate, Area V is not and needs improvement.
- About half use STARS’ summary statistics feature to generate institutional reports.
- Community colleges typically require orientation of new students that includes STARS, but the nature of that orientation varies (some have a required two-three hour workshops, others require attendance in a regular course throughout a term).
- Current STARS training is insufficient, few hosted STARS trainers in past three years.
- STARS is marketed on the front page of two-year, but not four-year websites.
- Dean’s welcome the opportunity to work to improve reverse transfer in Alabama.

Suggestions for improvement:

- Reverse Transfer represents a tremendous opportunity to deploy the discipline-specific academic fit STARS system to expand numbers of degrees awarded to benefit students.
- STARS training for advisors, often entry level positions, is desperately needed.

- STARS training for administrators to use the report generation features, is needed.
- All university websites should all prominently display STARS information.
- University changes in Area V should regularly updated, with updates tied to the publication schedule of community college catalogs, which are tied to STARS.
- Encourage students to send original transcripts to universities for early evaluation.
- Create a Registrar's subcommittee that reports to the AGSC to assist in implementation issues tied to technology-based data platforms that registrars are highly familiar with.

Students

A total of 28 students sat for the focus groups held at five community colleges and universities across Alabama. Comments are organized according to each of the questions used to guide the focus group sessions. Key insights based on considerations such as the frequency of comments, the degree of concern expressed by students, and the professional judgment of the evaluators are presented below, along with suggestions for improvement.

We note here that nearly all of the students reported having one part-time job, and most two and sometimes three. The majority of the students we talked with were on Pell grants, which means that they have achieved a threshold of being financially needy. Most of the community college students we met with believe they will graduate in four years, but most of the former community college students who have successfully transferred and are attending four year universities say they cannot transfer in four years.

Key insights:

- Students appreciate the STARS system, but believe it can be improved.
- Transfer is a complex process that includes academic program fit, institutional fit, and financial fit. Students use STARS to “shop” and compare “academic program fit”—the purpose for which STARS was established—but also for other purposes.
- Students overwhelmingly use mobile devices (laptops, tablets, smart phones) to access the STARS system. They use STARS’ web-based services for their own purposes.
- STARS information on Areas I, II, III, and IV is accurate, Area V is not.
- Most students still report losing credits when they transfer, even when using STARS.
- Community college students trust the system and believe they can graduate in four years; transfers already at universities don’t believe they can graduate in four years.

Suggestions for improvement:

- Official STARS guides should be available on mobile devices, with a STARS login that saves their information, so they do not have re-enter it each time they use STARS.
- Students need to know about STARS in high school.
- A discussion board would be extremely helpful.
- Area V pages need to be cleaned up.
- An ad-hoc task force of community college chief student affairs officers should assess best practices in how STARS information is conveyed in two-hour orientation sessions and in courses taken over the course of a longer semester.
- Short videos on STARS could help understand required vs. strongly recommended.
- STARS should have optional links to university departmental and college scholarships.
- STARS should have optional links so community college students can list their student organization preferences that allow university-based organizations to link them even before they arrive on campus.

These results both reinforce the student survey data and add depth as well. For the most part, students believe STARS information is accurate, the web-based system is easy to understand and use, and that they appreciate how it helps them in developing appropriate academic program fit as they consider transfer choices. What is different is that more than half of the students who have already transferred indicated that they lost credits. So what is happening?

The answer is that the majority of STARS users are now using the system to “shop” and not “buy” (i.e. print) hard copies of official STARS guides. Mobile technology is making the shopping process much, much easier if not instantaneous. The students would be more inclined to obtain official STARS guides if it were app-based. Every student in two of the focus groups who had already transferred indicated that they had their official STARS guide. Students told us that from talking with their friends, etc., they knew transferring to a flagship in a professional program such as business that they would likely lose a course credit or two—that was par for the course and accepted. To them, the transfer decision is broader than the academic program fit information available through STARS, and includes institutional fit, housing once they transfer, and fit in terms of campus activities, as well as for many, employment. What concerned the students was inaccurate information, particularly in Area V (more on this below), and the relative unavailability of certain key required courses in their majors that prevent them from transferring and completing their degrees in four years. There was unanimous agreement that if STARS had optional links to university departmental and college scholarships, housing information, jobs on and near campus, etc., it would be helpful.

The Area V pages were a concern with comments indicating the pages were difficult to access, information was often confusing, out-of-date, inconsistent with other sources, and incomplete. A few indicated that courses numbered at the 300 level were included on Area V pages. Moreover, students commented that faculty and advisors at some universities had indicated, “We don’t follow the STARS guide,” which clearly shows the need for additional staff training in STARS, because Area V pages should not be used as a replacement to circumvent the state-approved official STARS Transfer Guide, whose requirements are protected by the AGSC Transfer Agreement.

What students do not know is that if a contradiction exists between the STARS Guide and the information presented on an AREA V page, the STARS Transfer Guide always takes precedent over the content on the AREA V page. Since students are using their mobile technology and do not often print the official STARS guides, they are effectively not protected. In addition, students trust what they read and assume in reading the phrase “Strongly recommended” on Area V pages that it means the courses prescribed as choices on the STARS Transfer Guide are required, and do not know that the official STARS guide takes precedence. We note that the student focus groups in the 2002 evaluation reported “Difficulties in transferring revolve around Area V” and suggested “The system can be improved by: introducing students to the system very early, even in high school; improving Area V; and clearing up confusion about 200 and 300 level courses that are the same.” With the exception of mobile technology the rest of today’s suggestions for improvement are very similar to the student focus groups fifteen years ago. Finally, many students commented that they had learned about STARS incidentally and expressed some concern that a significant number of students do not take advantage of the STARS system.

A sample of student commentary recorded from our focus groups follows:

“I lost lost credits for the fact that two three-hour statistics courses at my community college equaled one four-hour statistic course at UA.”

“I used all of my electives before transferring from my community college, but not all were needed in my major, engineering, at the university. This meant I had to take a harder schedule of only math, science, and engineering classes in my first two terms (at the university). It would help if my electives were spread out over four years.”

“I have to work to afford college. It matters when I have to spend an extra semester because it’s not possible for me to fit everything in. High school counselors should introduce students to STARS so that they know about it in advance of their orientations. With Dual Enrollment, STARS has to start with the high school counselors.”

“Reinstating summer Pell would be a big help because courses are cheaper at the community college. Summer living at home is where many students knock out their electives.”

“The transfer process at my community college is very clear. But the four-year institutions need work. More collaboration is badly needed!”

“While I appreciate the information STARS provides, I don’t like having to start over logging in credentials each and every time I enter the system.”

“Why didn’t I know about STARS when I signed up for AP credit? This information should automatically be introduced to STARS. A student discussion board would be helpful, too.”

Advisors/Administrators

Each of the five focus groups of advisors and administrators from community colleges and four-year institutions provided informative and engaging discussion about the general studies curriculum and the STARS system. A compilation of the comments from the 28 participants in these three focus groups is provided in Appendix M-1 and is organized according to the six questions used to guide the discussion. The key insights and suggestions for improvement are presented below.

Key insights:

- Transfer advisers/administrators believe STARS saves students time, credits, and money.
- They are less satisfied with STARS than their students, and are less satisfied than in 2002.
- Significant problems in using STARS are: unfamiliarity among 4-year advisors; ambiguity, and outdated information in Area V and the absence of that area in some majors; conflicts created by a disconnect between those responsible for STARS at 4-year institutions and those advising students at the 4-year institutions; lack of a statewide course numbering system; and the absence of guidelines for pre-professional majors.
- The recent trend by community colleges to sign memoranda of understanding for transfer credit acceptance with regional universities and private, non-profit colleges, is an apparent effort to assist their students with Area V issues at flagship universities.
- Most report no STARS training on their campuses in many years due to budget cuts. With the majority of transfer advisement delivered by entry-level admissions officers, this means the most financially needy students receive least amount of professional guidance.
- Most of the 21 General Studies Academic Subcommittees and the 16 Pre-Professional Academic Subcommittees have not physically met in years.
- Dual enrollment means high school guidance counselors need STARS training.
- STARS information is featured on all community college home pages and most regional university home pages, but is not easily found at the two flagship university websites.
- An information gap exists regarding where students earn degree credits in Alabama.

Suggestions for improvement:

- Students often fail to realize STARS official guides are a contract. Making STARS mobile can better meet the legislative intent of Act 94-202.
- There is concern about the accuracy of information related to Area V.
- For advisors to accurately tell students what courses transfer, common course numbering across 2- and 4-year institutions is needed. When combined with STARS' very detailed program-by program academic program fit, Alabama can be a leader in reverse transfer.
- Students should be required to declare a major each term prior to enrolling at community colleges, and then access the appropriate STARS forms. Students' degree pathways (majors) may change, and this helps them keep current with STARS (seamless transfer).

- Funding for training is desperately needed at all levels, including high schools. At Alabama's larger universities, STARS training is needed so that colleges and schools understand how STARS reports can be used for transfer student recruitment.
- Reinstatement of year-round Pell is huge opportunity for Alabama. If students start at universities in the summer after community college graduation, transfer shock is lower.
- STARS should survey students to provide feedback in usage each year.
- STARS should work with university officials to (a) survey students who have transfer success each year and (b) host focus groups each year of transfer students.
- STARS should have optional links to university departmental and college scholarships.
- STARS should have optional links so community college students can list organization involvement at the community college and preferences, so that university student affairs officials can get them involved at the university even before they arrive on campus.

A sampling of comments recorded from these participants follows:

"Students often change their career goals, and in turn change majors. A student might come to my university and say they are interested in nursing, with a long term interest in medical school, but momma is pushing me to physical therapy. Finding common courses even within these issues is difficult."

"One of the key ways we could minimize the transfer shock is to encourage the students to transfer in the summer. One student transferred to my university in the summer and was able to get acclimated with the curriculum before the masses of students came back in the fall. Her grades did not suffer. With Congress on the verge of reinstituting summer Pell, this is a great opportunity to transfer and articulation together to dramatically improve their completion rates."

"At my community college, the benefit from summer Pell when we had it in 2010 and 2011 was extraordinary. Bishop State had students coming in from Alabama and Auburn to take their math courses. The summer Pell skyrocketed enrollments, and allowed us to offer a wider array of courses to our native students."

AGSC and Subcommittee Members, Transfer Points of Contact

Each of the five focus groups of AGSC Committee and Subcommittee members, transfer points of contact from two- and four-year institutions provided informative and engaging discussion about the general studies curriculum and the STARS system. A compilation of the comments from the 33 participants in these three focus groups is provided in Appendix I and is organized according to the six questions used to guide the discussion. The key insights and suggestions for improvement are presented below.

Key insights:

- Belief that STARS saves students time, credits, and money.
- They are less satisfied with STARS than their students, and are less satisfied than in 2002.
- Most of the 21 General Studies Academic Subcommittees and the 16 Pre-Professional Academic Subcommittees have not physically met in years
- Most report no STARS training on their campuses in many years due to budget cuts.
- For those aware of its existence, the STARS monthly reports are a useful tool primarily to recruit students, but many if not most are not aware of it and do not use it.
- Significant problems in using STARS are: unfamiliarity among 4-year advisors; ambiguity, and outdated information in Area V and the absence of that area in some majors; conflicts created by a disconnect between those responsible for STARS at 4-year institutions and those advising students at the 4-year institutions; lack of a statewide course numbering system; and the absence of guidelines for pre-professional majors.
- An information gap exists regarding where students earn degree credits in Alabama

Suggestions for improvement:

- STARS can be improved by providing training on the use of STARS' monthly reports; training for high school counselors, and new admissions and recruitment officers; and participants on General Studies Academic Subcommittees and Pre-Professional Academic Subcommittees.
- There is concern about the accuracy of information related to Area V. The GSAC and PAC subcommittees need to be regularly convened to address these issues.
- STARS should create video-based training (short clips).
- Accredited non-profit colleges and universities should be included in STARS.
- Reinstatement of year-round Pell is tremendous opportunity for STARS in Alabama.
- STARS should survey students to provide feedback in usage each year, and work with university officials to (a) survey students who have transfer success and (b) host focus groups on each university campus each year of transfer students to which GSAC and PAC members should be invited.
- Optional links: STARS should have optional links to university departmental and college scholarships, and a place for community college students to list organization involvement so that university officials can get them involved prior to arrival on campus.

A group of twelve transfer advisers and administrators nine two- and four-year institutions were unanimous in saying that STARS makes life easier for students and the website is easy to manage, but that Area V problems persist. None can remember STARS staff coming to their institutions for training in recent years. “How can we help the student get to the magic number of 120, while maintaining the integrity of the program,” one asked.

A sampling of the commentary recorded during focus groups with AGSC and Sub-committee members follows:

“Area V is still an issue. At my institution, we tell students STARS is a contract, but many of our faculty do not view it as a contract. On the other hand the students already have an accountability with their phone to order things and pay for things. This is where our faculties and administrators lag behind: they would rather have the paper copy of the printed STARS agreement in front of them, rather than an electronic version. But if we want to help the students, we have to go where they are.” —Associate Provost

“From the perspective of some of our faculty, students get a richer, higher quality class at our institution than at others, whereas students think this is ridiculous because they already took a similar class that won’t necessarily count.” —Flagship University Dean

“STARS could be improved by solidifying dates where members come together to update their programs and STARS information once, maybe twice a year. Even a one time annual thing would be helpful. Why can’t faculty and administrators get the deadlines well in advance to update their STARS information, and if they did not do this, their program or course simply won’t be offered for that term?” —Community College Chief Instructional Officer

“We know we need common course numbering, and guaranteed acceptance of the entire associate degree, so we can get on top of reverse transfer. But the egos at the AGSC committee are still there. It’s going to be difficult to get consistency from the four-year officials. You have some individuals that are still going to say “we have the best program, why should we lower our standards? Someone is going to have to give a little.” —Regional University Registrar

“The interpersonal relationships are needed, especially when it’s a first generation student, or a student from a low socioeconomic background. The notion that you have a name and a face is important. If STARS is going to become something more, it needs to become more interpersonal. Why can’t there be discussion boards and optional facebook posting opportunities?” —Community College Faculty Member

“I used STARS a lot and relied heavily on the STARS agreement. Again there are times when courses won’t transfer because some specific institution wants the student to take their course instead of the one they already took. The bigger institutions want the autonomy (chemistry and biology are examples), and this results in a loss of time. My community college provides workshops twice a year for the region’s high school counselors that always includes a component on STARS. High school students hear about STARS in their career prep courses beginning in 9th grade. They actually begin AP courses in 10th grade now. This is when we need seminars and workshops for parents and students informing them about STARS.” — Community College Dual Enrollment Counselor

“STARS is one of the best things to have happened to our community colleges in our state. Prior to STARS, students and advisors had to go to the institutional programs to see what courses lined up and not. STARS increases opportunities to go to the community colleges. The value of STARS is in what it adds to retention. It allows students to have a long-range academic goal. STARS ensures accountability of the student and the advisors. The promotion of STARS and the accountability of STARS staff since this has been lagging in the past few years (budget restraints). Getting to the information to HS parents and guidance counselors should be a future goal of STARS. STARS information needs to be spread sooner. The sooner the students and families know about STARS, the better prepared and accountable they will be when they get the higher education institutions.” — Veteran Chief Academic Officer

“Continuous training is beneficial rather than long sessions —the longer sessions yield a potential information overload. A monthly newsletter/reminder would be extremely beneficial, as would video clips aimed at different users (high school counselors, community college recruiters, faculty advisors, administrators, four-year deans who generate STARS reports for recruiting, etc.).”

“Different community colleges use STARS different ways. Some use it in their orientation classes; some use it in pre-orientation workshops. Nearly all market STARS on the front pages of their home pages. Our college looks at the usage reports to compare how we are doing with institutions of similar size.”
“One administrator when asked “what can be done to improve Area 5?” said “If an institution wants a student to have a course, tell them to take it, don’t recommend. Area 5 pages are different across institutions; that can be more standardized.”

“The function of STARS should be that we take this specific course and credits at one institution and apply it to this course (substitution) for the credits at another institution. To make transfer truly seamless, we need a top down approach with accountability! “You guys are not fulfilling your role and not helping the students.” Every time we add a class at an institution, we are almost adding a \$1,000 in cost. If a student has to repeat classes, they are adding a couple thousand dollars to their education, which they cannot afford. One of the goals of the 2-year institutions is to knock out the electives at a cheaper rate so they don’t have to pay the 4-year price tags for a full four years. You either agree to take a course or not. Assessment test shouldn’t be considered. It’s with the institution. Take the course or don’t. You have to let the student know.”

“I’ve been around for a long time, and remember when STARS was first implemented, how much it was promoted, and the large push we got from the institutions. This has faded away. STARS needs a revamped marketing program, not just from the STARS people, but from the institutions and recruiters within these institutions that are actually going to the high school. This could be used when recruiters go through their financial awareness seminars and programs. How much does the new Alabama State Board for Community Colleges Board know about STARS? If the Board is not aware of how successful STARS is, how are we supposed to keep improving the program?”

INTERVIEW RESULTS

In-person and telephone interviews with presidents and chief student affairs officers and chief academic officers, former AGSC members, and legislators focused on information and opinions related to the four primary goals of the evaluation project. The Evaluation Team met with 20 of the state's community college presidents at the Alabama Community College System President's Association annual meeting on June 26 and 27, 2016 as a group and individually. Presidents and chief academic officers from four universities were interviewed as well. A two hour listening session with chief student affairs officers at Alabama's community colleges was discussed in detail above. Notes were taken during the interviews and comments were compiled in response to each of the four questions.

Presidents and Chief Academic and Student Affairs Officers

Results from interviews with this group generally were consistent with the feedback from both surveys and focus groups. Community college presidents were consistent in their enthusiastic response regarding the legislation and the degree to which the intent of the legislation had been achieved. Comments ranged from "The legislation that created the AGSC&STARS program is probably the greatest piece of consumer legislation ever passed in our state" to "Progress has been made, but problems in Area V need to be worked out." Most community college and university presidents agree Act 94-202 set a climate for cooperation and that the improved articulation and transfer has benefitted the state.

Dr. David Campbell, President of Northeast Alabama Community College, said:

"I was an employee with responsibility to advise students among other duties in the Alabama Community College System before the system was developed, and can say without any hesitation or reservation that the establishment of the STARS/Articulation System is one of the most important and outstanding breakthroughs for students in Alabama in all the years I have worked in higher education. As a SACSCOC chair (approaching thirty visits), I can further say that many states in the South envy our STARS/Articulation program and wish that they had one like it."

And another President, Dr. Vicki Hawsey Karolewics, of Wallace State Community College-Hanceville, said:

"Alabama has been a leader for many years in transfer policy between public institutions of higher education. Legislative leaders in the '90s were visionaries in developing legislation providing that core academic credits earned by community college students were guaranteed to transfer to Alabama's public universities according to defined statewide articulation agreements. Consequently tens of thousands of our state's students have benefitted through defined pathways in articulation guides that served as contracts and saved students money toward their degrees."

Overall, the presidents agree that the intent of the legislation has been achieved. There are two concerns, one of which is Area V (mentioned above), and budget. There is major concern among the presidents that insufficient budget support for STARS is weakening the system. There is widespread recognition that the lack of funding for STARS means that the needed training of admissions and registrar staff—positions that often are entry points into the community college where employee turnover is high—is not occurring, with a loss of institutional memory.

Two of Alabama’s community colleges had this to say:

“The Statewide Transfer & Articulation Reporting System (STARS) is a program which provides guidance and direction on course selection for prospective community college transfer students in the State of Alabama. If used correctly, this program enables students enrolled at state community colleges to participate in transfer programs in a safe environment whereby loss of community college credit is avoided upon transfer to a state four-year college or university. The STARS program is an invaluable advising tool and is introduced to students matriculating at Wallace Community College Dothan (WCCD). We consider this program to be of vital importance to the success of our students, and it is our hope that it will continue for years to come. In this regard, it is imperative that this program be funded at a level that is reflective of its importance to the state and the constituents we serve.” — Dr. Linda C. Young, President of Wallace Community College Dothan

“A major part of the mission of Enterprise State Community College has historically been, and still is, preparing students for transfer to public 4-year colleges and universities in Alabama. A user-friendly and robust STARS is critically important for the execution of that mission, for the success of the College, and for the success of our transferring students. The need for better funding of STARS by the State and continued support for STARS throughout the higher education community cannot be overstated.” — Dr. Vicki Ohlson, Interim President at Enterprise State Community College

Former AGSC Members

Five former AGSC members were interviewed. They were uniformly supportive of the AGSC & STARS program, and believe it to have had a very positive impact on student success in Alabama. All former members of the AGSC agreed that the intent of the legislation has been achieved, with some indicating it was achieved to a high degree, with a sound curriculum design, and within the schedule mandated by the legislation. Some indicated they seldom hear complaints about problems with transfer of credit, except in Area V.

As one former AGSC member noted:

“There’s a growing number of side articulation agreements out there. For example, the University of Alabama has a side agreement with Alabama Southern Community College between its Capstone College of Nursing in Thomasville. Our concern is that the side agreements could erode, over time, the overall AGSC-STARS agreement framework.

The STARS programs are institution-specific (say, a program that is only offered at Auburn University is campus specific). If AGSC determines that a program is campus specific, then the campus is free to prescribe whatever courses are needed to get in. If on the other hand, AGSC determines the program is not campus specific, we then should look at curricular similarity across all 14 public universities to insure that basic engineering, for example, is consistent.

What makes it work is how clear the instructions are to the students about the courses that they need to take within Area V for the 1 or 2 or 3 institutions of higher education that they are considering transferring to. How we convey the information, and how clear that information is, is key.”

Another former AGSC Committee member noted that Area V concerns tied to high school readiness and Dual Enrollment:

“In Alabama, the first course of math that is acceptable has in effect, been defined to be pre-Calculus/Algebra. This is tied to developmental education... which means we have defined developmental education here in Alabama.

Four of our universities have said that they do not do developmental education. If they do courses below pre-calculus, well then they actually do developmental education by this definition.

This has serious implications for the parents of high school seniors thinking

about community colleges or four-year universities. The high school juniors and seniors need assurance that if they go to the community college, their work will transfer, and they'll be OK."

A major concern has to do with budget reductions which have negatively impacted STARS staffing and training.

One former AGSC committee member said:

"We are lost without the funding for training new people. With the focus on growing enrollments, side agreements could bleed into the AGSC-STARS space. At present, there is no inventory of the side agreements. These are recruiting tools, often tied to financial aid and scholarships (such as the University of Alabama's Alabama Promise Program)."

A former regional university AGSC committee member echoed similar concerns, saying:

"STARS needs travel, robust technology, and training."

Another former AGSC committee member said:

"There are three key groups that need to know about STARS: high school guidance counselors, superintendents, and principals. STARS needs to be reaching out on a regular basis to their statewide associations, such as the Alabama Counseling Association and the School Superintendents Association.

What are the formal linkages between STARS and these groups? STARS needs funding to be the nexus between these groups, in order to be even more effective. It does not start with community colleges anymore, particularly in an era of dual enrollment. We really want to help 2 + 2 +2 to save time, money, and credit, informing way down the line parents and students about options and how to exercise them."

State Officials/Legislators

The following members of the Alabama were contacted for interviews related to this study: Senators Gerald Allen, Dick Brewbaker, Gerald Dial, Jimmy Holley, Tripp Pittman, Greg Reed, Quenton Ross, and Jabo Waggoner, and Representatives Alan Baker, Alan Booth, and Bill Poole. A complete list of the legislators we approached is listed in the Appendix.

When asked if AGSC & STARS accomplishing the legislative intent of Act 94-202, the legislators we interviewed were emphatically, enthusiastically positive.

State Senator Jimmy Holley, one of the original co-sponsors of Act 94-202 when a House member, said.

“It is an unqualified success. In my 40 years here in the Alabama Legislature, there has been no education reform package at any level that has had a greater enduring impact than STARS. It is easily the most successful education legislation that we’ve passed.

I do not hear the complaints from my colleagues in the legislature that I used to hear before STARS about loss of credits, time and money. Transfer credit loss is not an issue. I don’t know what we would have done without it.

My only concern is that it’s been so successful that it’s taken for granted.”

As a veteran legislator said:

“My concern is that STARS is running so well today that some of our newer House and Senate leaders have no memory of the problems the Articulation STARS act was designed to solve. When they don’t hear of problems, they have no focus as to see needs. It’s taken for granted.”

Members of the Alabama Legislature strongly support STARS’ mission of saving students credits, time, and money. They very well grasp how transfer in Alabama has evolved from vertical transfer to multidimensional transfer, with multiple credits earned from multiple institutions. As the ultimate funders of STARS they appreciate how STARS has saved students credits, time, and money. They hear only occasional complaints from students and parents, but are concerned about improving the system. Their frame of reference is that any legislation passed in 1994 likely needs, as several legislators told us, “some tweaking.”

“We know that this program serves an important purpose and is needed,” one senior senator said. Legislators said that, consistent with the legislative intent of Act 94-202, they welcome further efforts to

improve STARS to save even more credits, time and money. They want the system to be able to accept the entire Associate's of Arts and Associate's in Arts degrees, and very much want reverse transfer. "We want to see Alabama become a leader in Reverse Transfer" they told us, and want STARS to be part of this if possible.

The legislators expect Dual Enrollment in particular to expand in future years, as well as Advanced Placement, and understand the idea that more credits toward the associate's degree and baccalaureate degree are going to be earned at multiple levels of Alabama's education system (high schools, military, experiential learning in the workforce, and in higher education) and at multiple levels within higher education (community colleges, regional universities, flagship universities, private non-profit universities). We note that several legislators expressed concern over the quality of the community college Dual Enrollment courses. There is support for bringing the SACSCOC-accredited members of the Alabama Association of Independent Colleges and Universities into the STARS system.

When asked their thoughts about how can STARS be improved, increased training, digitalization and mobilization of the STARS guides, and increased public awareness to the K-12 levels were consistently heard. One legislator said:

"We clearly need to have an expanded training function for our two-year counselors, given all of the Dual Enrollment that we're doing these days. We need more training of our four-year people to, ultimately, improve transfer, articulation, and degree success in our state."

There is support for the three major recommendations of this study: (1) uniform course numbering and titles across public two- and four-year institutions in Alabama; (2) the creation of an AGSC Subcommittee consisting of registrars who could make recommendations to make Alabama a leader in all transfer areas, and (3) digitizing STARS for mobile devices. On the first and third recommendations, there is particular enthusiasm. As one member said,

"In the future to move forward, we've got to sit down with the leadership of the House and Senate, and the Governor, and the leading presidents of the two- and four-year institutions. We cannot do it with one big show. It's leadership we need over a continuum over time, if we're to meet the new challenges on the horizon, especially with dual enrollment and staff training, and with the new hardware and software that's available. And again, of all of the education reforms passed over the past forty years, STARS endures."

Finally, there is widespread recognition of the urgency of now, in that, thanks to the efforts of Senator Richard Shelby and others in Alabama's congressional delegation, year-round Pell funding will likely be reinstated in Summer 2017. Alabama legislators are well aware that the federal Pell Grant program is Alabama's de facto state need-based student aid program, in light of the small size of Alabama's state need-based student aid program (half a billion compared to under \$3 million). The Education Policy Center at The University of Alabama estimates that the summer Pell of \$1,650 per student could bring up to \$130

million of additional funding to students at Alabama's community colleges and four-year universities. Alabama legislators understand that with Dual Enrollment and Advanced Placement in high school, and summer Pell, we may be moving toward the three year baccalaureate degree advocated for many years by U.S. Senator Lamar Alexander (TN).

Some of the comments we heard include:

“STARS is a way to help the average Alabama family educate their kids, without breaking the bank and without a 5 year plan.”

“We want to do all we can to help students save credits and graduate as fast as possible, and STARS helps.”

“Prior to STARS, all of our two-year colleges had their own curriculum. Some of the two-year branch campuses wouldn't accept credits within a single two-year college. There was no uniformity on hours to degree—some could earn 120 hours, others 220 hours. The same situation existed within the four-year schools, including within the UA System institutions, Troy's campuses, the entire state. The paramount issue was transfer and articulation of credits. Too much was being lost.”

CHAPTER 4 IMPLICATIONS

CONTEXT

The charge from the AGSC to the Evaluation Team emphasized the importance of involving key constituents in the evaluation project and including data and information from a variety of perspectives in addressing the two key questions and the four goals of the evaluation. The previous section reported results for the major constituency groups included in the evaluation project. The following sections provide some synthesis of the results and their implications in relation to the key questions and goals of the evaluation project.

The years since the 2002 external evaluation have seen unprecedented interest in community colleges. They have been mentioned in every presidential State of the Union Address but one. There have been two White House Summits on Community Colleges. National foundations, most notably the Bill & Melinda Gates Foundation and the Lumina Foundation for Education, among many others, have become involved. The Education Commission of the States and the National Conference of State Legislatures now assess state policies toward community colleges.

Key findings:

1. Credits today come from many different sources.

Alabama over the past two decades has moved from a static model of vertical transfer to a more dynamic model. Student transcripts no longer consist of just credits earned at a single community college and a single four-year university, as STARS was designed to address in 1994; rather, today's students earn degree credits at multiple levels and from multiple institutions within those levels.

FIGURE 1: From Vertical to Dynamic Transfer (reproduced for convenience)

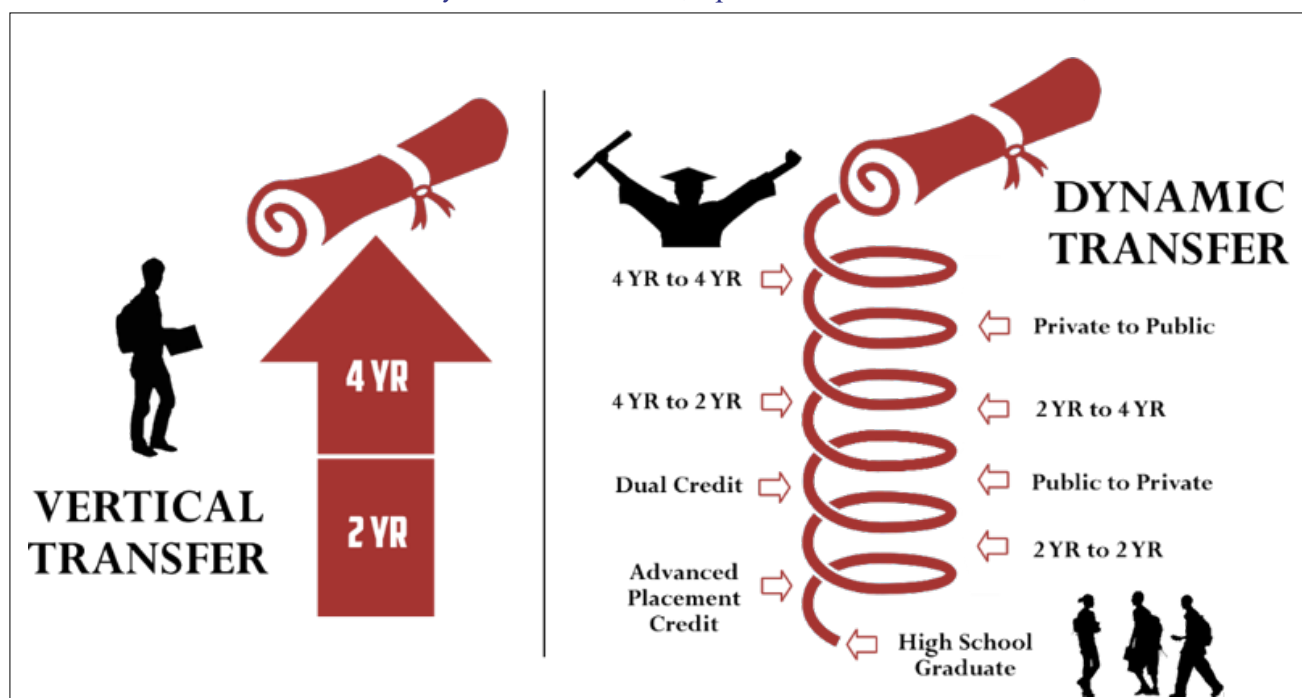


Table 1 shows that large numbers and percentages of transfer students in Alabama earn degrees from more than two institutions. Of students earning a baccalaureate degree in 2015-16, one in four at Auburn University and The University of Alabama and four in ten at Jacksonville State University and Troy University attended three or more institutions. Today's student starts in high school and enrolls at a flagship university, leaves to a community college where most credits toward an associate's degree are earned, and then transfers and earns a bachelor's at a regional university. Students can attend several community colleges, perhaps a rural community college to start, then, when transferring to the flagship university, may simultaneously enroll at both institutions for scheduling convenience around their work schedules.

In the same vein, college transcripts can include Advanced Placement courses that may or may not count for college credit, as well as Dual Enrollment courses that do count. In 2014–15, Dual Enrollment credits constituted 8–13% of the total enrollment at Alabama community colleges, and Advanced Placement credits are earned by ever-increasing numbers of Alabama high school students — the Alabama Legislature invested \$25 million in AP last year alone. Students also earn credits as veterans while in the military, at the workplace experience, and in college. As Arthur M. Cohen, author of *The American Community College*, often says, “Students use the curriculum for their own purposes.”

TABLE 1: It's More Than Vertical Transfer (reproduced for convenience)

	Awarded All Bachelor's Degrees Awarded (b)	Students earning credits toward the Bachelor's Degree at...		
		this institution only	2 institutions	3+ institutions
NUMBERS				
Auburn University	4,326	1,312	2,032	1,017
Jacksonville State University	1,386	301	559	526
Troy University	2,342	389	981	972
The University of Alabama(c,d)	6,300	1,960	2,626	1,514
PERCENTAGES(a)				
Auburn University	100	30%	47%	24%
Jacksonville State University	100	22%	40%	39%
Troy University	100	17%	42%	42%
The University of Alabama	100	31%	42%	25%

Source: University Institutional Research and Effectiveness Offices analyzed by the Education Policy Center, The University of Alabama.

Notes:

[a] percentages may not add to 100% due to rounding.

[b] The bachelor's degrees awardees are unduplicated headcount for the 2016 degree year (summer, fall, and spring terms).

[c] Among the 6,300 Bachelor's degree awardees at The University of Alabama in 2015-16, 95 received college credit through UA's Early College program, 103 through UA's Early Institutional Credit program, and 55 through UA's International Baccalaureate program.

[d] Credits at UA earned at other institutions excludes advanced placement, CEEB/CLEP credit, departmental placement, eArmyU, EORN course evaluation, international baccalaureate, military credit, experiential voc/tech credit, and proficiency exams.

TABLE 2: Credits Toward Bachelor's Degree Attainment Are Earned Dynamically (reproduced for convenience)

	All Bachelor's Degrees Awarded [b]	Credits earned at colleges and universities		Credits earned during high school	
		This Institution Only	Multiple Institutions	Dual Enrollment [e]	Advanced Placement [f]
NUMBERS					
Auburn University	4,326	1,312	3,049	n.a.	1802
Jacksonville State University	1,386	301	1,085	97	59
Troy University	2,342	389	1,953	n.a.	176
The University of Alabama (c,d)	6,300	1,960	4,140	164	1,961
PERCENTAGES(a)					
Auburn University	100	30%	70%	n.a.	42
Jacksonville State University	100	22%	78%	7	4
Troy University	100	17%	83%	n.a.	8
The University of Alabama	100	31%	66%	3	31

Source: University Institutional Research/Effectiveness Offices analyzed by Education Policy Center, The University of Alabama.

Notes: [a] percentages may not add to 100% due to rounding.

[b] The bachelor's degrees awardees are unduplicated headcount for the 2016 degree year (summer, fall, and spring terms).

[c] Among the 6,300 Bachelor's degree awardees at The University of Alabama, 95 received college credit through UA's Early College program, 103 through UA's Early Institutional Credit program, and 55 through UA's International Baccalaureate program.

[d] Credits at UA earned at other institutions excludes advanced placement, CEEB/CLEP credit, departmental placement, eArmyU, EORN course evaluation, international baccalaureate, military credit, experiential voc/tech credit, and proficiency exam.

[e] Dual Enrollment credits are earned in high school and taught by community colleges (most often) or 4-year institutions.

[f] Because Advance Placement Credits are graded on a 1-5 numbering system, while "3" is a passing grade, it is not always counted when transcripts are evaluated for college course credit. Dual Enrollment courses always count with STARS guide.

Of the 4,326 bachelor's degree awardees at Auburn University in 2015-2016, just 1,312 (30%) earned credits only at Auburn; 1,802 (42%) earned credits through Dual Enrollment, Advanced Placement, or both; 2,032 (47%) earned credits at Auburn and one other college; and 1,017 (24%) at Auburn and two or more other colleges. Similar statistics are reported at The University of Alabama.

Richard Millard, the former president of the Council on Postsecondary Accreditation wrote in 1996, argued for a comprehensive approach that reflects today's student usage, suggesting "If what we are concerned about is what Astin has called talent development...then the crucial quality question is a matter of results, not of form." The large numbers of students earning credits from three or more institutions explains why a technologically-friendly transfer and articulation system is needed by Alabama students and businesses.

2. The current system is failing to adapt to rapidly changing environment.

The technological ecosystem today is much different than in 1994, when the AGSC was commissioned, or even 1998, when the STARS was built. The internet has exploded from a leading-edge technology

used by fewer than 1 in 20 Americans to a staple shared by 18 of 20, and its near ubiquity has caused a massive paradigm shift in the way that information is shared, stored, and processed.¹ Those who coopt new protocols enjoy savings of both time and money — savings of which the education sector has recently begun to take advantage. Software such as DegreeWorks has automated the jobs of advisors and admissions counselors and put information more freely in the hands of students. Largely lacking from these systems, however, is intercommunication, and the STARS is no exception.

We find specifically that students are relying more heavily on their smartphones and other mobile devices to access the STARS, and that their browsing sessions transcend single sittings. Because the STARS operates in a sandbox, there is no way for a student to effectively cross-reference material from previous searches and from their college's advising software. As currently designed, the AGSC lacks the formal ties to the campus-based leaders charged with day-to-day management of these technologies.

3. The urgency of now, while a key policy window is open.

State-funded need-based student aid in Alabama is well under \$10 million annually, while federal Pell Grants total just under half a billion dollars at Alabama's public two-year, four-year, and private non-profit institutions combined. Given the historically low levels of state support, Pell Grants are Alabama's *de facto* need-based student aid program.

On June 8, 2016, the U.S. Senate Appropriations Committee, with the strong support of Sen. Richard Shelby, unanimously voted to deploy most of the \$8 billion surplus in the federal Pell Grant program into renewing the year-round (summer) Pell. An additional \$1,650 of federal Pell aid — with the EPC predicting more than \$130 million statewide — is likely on the way for nearly 100,000 Alabama Pell recipients in Summer 2017. A one-time policy window is open for Alabama policymakers, who have a tremendous opportunity to enhancing STARS now, building upon STARS' long record of success in helping students avoid loss of credits, time, and money, to maximize the benefit of the new federal funding. The time is now. When year-round Pell was in place in 2010 and 2011, community colleges and regional universities saw all-time record enrollments.¹ Investing in STARS now can maximize the likely increase in federal investments.

HOW ARE WE DOING?

The data and information from practically all sources provide high marks and strong support for the mission of AGSC&STARS to save students credits, time and money. Among students, 86% were in agreement that STARS helped them avoid taking courses that would not transfer, 83% were in agreement that STARS information made it easier to transfer to a four-year institution, 66% said STARS information helped them decide about which major to choose, and 71% said STARS helped them make the decision about which four-year institution to attend. Among transfer advisers and administrators, 87% said STARS information helps students to make the decision to transfer, 83% said STARS information helps students make the decision about which 4-year institution to transfer to, and 71% said STARS information helps students make the decision about which major to choose. Among AGSC committee and subcommittee members, 96% said STARS information makes it easier for students to transfer to a 4-year institution, and 89% said STARS information helped students avoid taking courses that would not transfer. The strong if not enthusiastic support for the mission of STARS was confirmed in each and every focus group, as well as in interviews.

There are concerns, though. While students report no difficulty in using the STARS website, we note that the majority (64%) of students responding to surveys had not yet transferred to 4-year institutions. The focus groups revealed that nearly all students who had yet to transfer believed they could graduate in four years, while a majority of students who had already transferred did not believe it was possible to do so (surveys revealed 55% of students said 4-year institutions required them to take additional courses prior to admittance, and only 26% said this was not the case, and another 20% not applicable). These students transferred to variety of institutions in a variety of majors. It appears that students have faith in the transfer of their credits and their ability to complete a baccalaureate in four years right up until the point of transfer.

Significant problems in using STARS are: unfamiliarity of it by four-year advisors; lack of clarity, ambiguity, and outdated information in Area V and the absence of that area in some majors; conflicts created by a disconnect between those responsible for STARS at 4-year institutions and those advising students at the 4-year institutions; the lack of statewide uniform course numbers and titles in general education courses across two- and four-year institutions; and the absence of guidelines for pre-professional majors. Reverse transfer is also a topic of concern in Alabama.

As in 2002, the top problem identified by all groups were in the 130 Area V pages. Student survey responses were higher than advisors/administrators responses across 25 of 27 items in groupings that include STARS guides, college homepages, college transfer assistance pages, Area V pages, college course listings, using STARS information. Among transfer advisers and administrators, 37% say the information in the college major transfer guides does not agree with information from other sources, 30% say information on the college homepage is not complete, 27% say that information on the college transfer assistance page is incomplete, 39% say information on the college Area V page is incomplete, and 34% say information on the college Area V page does not agree with information from other sources. Not one administrator said they accessed STARS through a phone or tablet and 46% did not know that STARS provides training. In particular, that the advisors and administrators charged with responsibility to assist transfer students report lower ratings on Area V pages' completeness and accuracy (2.65 and 2.71, compared to 3.29 and 3.32 for students) is problematic. There appears to be considerable confusion on the part of AGSC committee and subcommittee members as to the updating of Area V pages, and many of the discipline-based committees appear to lack an understanding of what their assignment actually is. Incomplete and unclear information in Area V results in students having to take extra courses upon transfer.

We note from our field work the need for AGSC to push colleges to share "best practices" with STARS. This is important, because transfer advising is done by faculty at smaller community colleges and by professional transfer advisors at larger ones. This is why we support AGSC having its annual summer meeting in conjunction with the Alabama Association of

Collegiate Registrars and Admissions Officers. We found the following good practices that were present at colleges using STARS revealed in our field work include:

- Academic leaders who champion students transfer in its broadest sense (not just academic program fit, but institutional fit, financial aid assistance, and student activity connectedness), and successfully engage others in this work.
- Mandatory student advising models.
- Student affairs/services staff dedicated to coaching students' on transfer.
- Faculty contracts which include student advising hours.
- Faculty and staff engaged in planning out of class supports and enrichments experiences for students that aid transfer (e.g. orientation programs).
- Campus supports for TRIO and similar STEM programs for low-income, minority, and first generation students.
- The monthly STARS reports are powerful tools in recruiting students, though some officials within colleges and schools at larger institutions do not use it regularly, and consider it somewhat unwieldy.

Recent years have seen a significant change in how students use STARS information. The “shopping” phenomenon, which was not a factor in 2002, is reflected by the fact that most students (67%) run at least one unofficial report, of which 22% run at least two, and 27% run more than three. As expected, a majority of the students turn to the unofficial report as opposed to its contractual counterpart; for sure this is because unofficial guides require much less effort (i.e. students are not required to input as much personal information, etc.). It may be that the rise of “shopping” which has occurred at the same time printed official STARS guides has declined may be reflected in the higher percentage of students who did not believe STARS information helped them make a decision about which institution to attend (about 20% disagree that STARS information helped them decide on a major). STARS assists students in choosing courses for the major and appears to help them as they consider changing their minds about previously chosen majors because of the visibility of the requirements. That students learn about STARS in a variety of ways may itself be related to lack of a strong public awareness campaign and the lack of consistent training in STARS.

All participating groups strongly agree as to the need for a public awareness campaign for STARS. The rise of Dual Enrollment has broadened the base of STARS' audience: there is a clear need for STARS information to be put in the hands of parents and high school counselors. A majority of the students learned about STARS from transfer advisors (48%) or faculty (24%), and 43% of students stated they have had classmates that were interested in transfer, but did not know about STARS. When asked to respond to the item “STARS is easily visible and recognized statewide,” while 55% of AGSC committee and subcommittee members surveyed were in agreement, 31% were in disagreement, and 15% did not know or did not respond.

Community college advisors, faculty and administrators participating in focus groups were very strong advocates for STARS, the general studies curriculum, and the articulation of degree programs. They cited Act 94-202 and the achievements of the AGSC&STARS as instrumental in creating a climate of cooperation and communication between community colleges and Alabama's public four-year universities. They were complimentary of the STARS staff and their courteous and professional manner. Participants acknowledged several additional benefits from STARS and how the program provides a base of information upon which to build even better statewide articulation of degree programs to help students save credits, time, and money. Presidents and legislators provided additional support for the accomplishments of the AGSC&STARS.

The major concerns are Area V, and the lack of training of transfer advisors, high school counselors, and university department heads on the effective use of STARS, and the need to make this web-based system usable via mobile devices (smartphones, tablets, laptops). The preponderance of evidence supports the conclusion that the AGSC&STARS have fulfilled their responsibilities with great success. The progress achieved can continue to benefit a significant number of students served in community colleges and universities in Alabama, and perhaps private nonprofit colleges and universities as well. Additional work is needed, however, to improve STARS and to ensure that the general studies curriculum and provisions for articulation continue to be viable in response to rapidly changing academic programs. This work includes, but is not limited to surveys of key STARS users including high school dual enrolled and advanced placement students; transfer-intending students at community colleges; and students at universities and independent colleges who have successfully transferred. It also includes surveys of high school counselors, transfer advisors (at two- and four-year institutions), as well as other constituencies needed to round out the feedback loop, which is known to improve system performance.

ACHIEVEMENT OF LEGISLATIVE INTENT

There is strong support from all sources as to the success of the AGSC&STARS in fulfilling the initial intent of Act 94-202. The major goals of the legislation were achieved within the time frame specified; this was well documented in the 2002 External Evaluation. AGSC&STARS have brought a spirit of cooperation between sectors within the higher education community that clearly did not exist before. In this regard, STARS has been an unqualified success.

Of particular note in 2016 is the genius of Act 94-202 in laying out the broad goal — helping to improve articulation and transfer that helps Alabama students save credits, time, and money — and then leaving it to the professionals in the field (AGSC, STARS staff) to carry out these broad objectives. Act 94-202 did specify that AGSC should examine if a statewide uniform course numbering system including course titles was needed. The 2002 evaluation revealed support was divided on this issue, with some community college advisors advocating such a system and some opposition expressed from university transfer appeals officials, and concluded that the benefits to be gained in convenience were far outweighed by the costs both in dollars and personnel time. With the rise of mobile technology, however, this issue should be reconsidered. The 2016 evaluation team believes the benefits (increased transfer in STEM fields, allied health and nursing, and other fields of interest to Alabama's dynamic business community) clearly outweighs any costs associated with the implementation of uniform course numbers and titles.

EVALUATION OF ORGANIZATIONAL STRUCTURE

The AGSC's organizational structure, once relatively strong, has been hurt by the budget reductions STARS has taken over the past fifteen years. While AGSC has accomplished many of its goals thus far, changes are needed. The discipline-based General Studies Academic Subcommittee structure is cumbersome and not working well. Area V concerns are still real for students, transfer advisers and administrators, and AGSC subcommittee members.

The 2002 external evaluation noted that among the challenges facing the committee in the future, there would be “the need to require significant attention to detail and careful coordination among STARS and individual institutions, particularly state universities.” The very different patterns of transfer across Alabama's flagship and regional state universities revealed in this 2016 report (see Transfer Swirl table above), demonstrate the farsighted nature of Dr. Crump's 2002 observation, which is even truer today. To help the AGSC focus on its responsibilities primarily as a policy-making and appeals committee, we strongly recommend the creation of an AGSC Registrar's Subcommittee, which can focus bringing strategic recommendations for policy implementation in many areas directly to AGSC for approval and action. The long tradition of inter-institutional cooperation that AGSC has brought to the table, when combined with the “get under the hood” experience of Alabama's talented registrars who are typically responsible for the web-based enrollment management platforms at their respective institutions, together can help Alabama become a national leader in reverse transfer, acceptance of entire associate's in arts and associate's in science degrees, and a host of other innovations to help 21st century students reduce loss of credits, time, and money.

EFFECTIVENESS OF THE AGSC

There is general satisfaction with how the AGSC is fulfilling its responsibilities. There are concerns about clear lines of communication, the proliferation of members of discipline-based AGSC subcommittees, and some ambiguity about the role and responsibilities of STARS personnel and the AGSC. Appeals by students of decisions to accept or not accept transfer credits in the official STARS guide, a problem identified in the 2002 external evaluation, no longer exist. The AGSC&STARS system has accomplished much since it went live in 1998.

Moving forward, what is lacking now is staff support for training. The inability of the STARS budget to maintain pace with inflation has resulted in a reduction of staff in recent years, threatening training opportunities. Field training opportunities have been scaled back over the past decade, and many cannot remember the last time STARS conducted training at their institutions. It should be noted that the lack of STARS training was identified as a shortcoming, and should be corrected. This would be seen as a significant step in addressing the concerns voiced in the field focus groups, interviews, and discussions. The choice AGSC faces is to either streamline the current system via uniform course numbers and titles which in turn will allow, over time, STARS staff to be deployed in the field for training and better public awareness, or continue to endure problems with Area V that cost students loss of credits, time and money. The practical matter of succession planning is also a major challenge, one that AGSC must address head-on.

IMPACT OF ACT 94-202

Previous sections have discussed the question of how are we doing with AGSC & STARS, the degree to which the legislative intent of Act 94-202 has been achieved, and the impact Act 94-202 has had on higher education in Alabama. The AGSC members and STARS personnel are to be commended for the significant service they have provided in facilitating communication among and across higher education institutions in Alabama. They have maintained and expanded STARS' web-based services that have extended opportunities for higher education to a significant segment of Alabama's citizenry, even as the state has contended with the most severe fiscal crisis since the Great Depression.

The Evaluation Team observed that many students they met in focus groups, on campuses, and in telephone conversations are first-generation college students, typically on Pell grants (which are to higher education what free and reduced school lunch is to K-12). Often, these students feel intimidated by aspects of the collegiate experience including regulations and degree requirements are confusing; classes that move at a more rapid pace than expected; and holding two and even three part-time jobs that can interfere with times for consultation and advising. These students often aspire to careers in human service professions including education, nursing, social work, criminal justice, and counseling, and have a strong motivation to succeed. The better articulation of degree programs STARS provides has been invaluable to these students, and saved them credits, time, and money.

WHERE DO WE GO FROM HERE?

In 2002, when the last external evaluation of STARS was conducted, the system was in its relative infancy. Between 1994, when Act 94-202 was passed, to 1998, the initial AGSC was set up, and innumerable meetings were hosted to develop the discipline-based and pre-professional based programs. The web-based system went “live,” and usage jumped from 15,965 in 1998-1999 to 43,474 in 2001-2002, the last year of data which the 2002 evaluation team had available.

Today the AGSC & STARS system is more mature. The AGSC is a well accepted part of the firmament of public higher education in Alabama. Annual STARS system usage has jumped to an average in the low 80,000s of official and unofficial STARS guides requested between 2005-2006 and 2015-2016.

There have been major changes in the usage patterns recently, however. In 2012-2013, four of every five of the 78,978 STARS guides requested were official, whereas by 2015-2016, more than half of the 82,599 STARS guides requested were unofficial, the first year in which unofficial requests exceeded official requests. The evaluation team encourages AGSC&STARS to incorporate the increased use of mobile technology to allow student access of digitized STARS official guides, and in particular, no longer require printed versions.

As the 2002 evaluation said in characterizing the challenges facing the AGSC in improving STARS and in facilitating the articulation of degree programs and the academic transfer process, “the devil is in the details” The data and comments from surveys, the key insights and suggestions for improvement from the focus groups, and the comments from interviews identified a number of concerns to be addressed by the AGSC&STARS. Area V related to pre-professional/pre-major studies was the foremost topic of concern for all groups; these pages for some institutions are difficult to access, with information that is incomplete or confusing, and such pages are lacking for some degree programs, especially for pre-professional programs in engineering and nursing. Uniform course numbering was adopted across all of Alabama’s community colleges in 1996, but this is still not true for Alabama’s four-year public universities. Given the support on the part of AGSC committee members for uniform statewide course numbers and titles, we suggest AGSC move in this direction. If not, we suggest that AGSC commission the proposed AGSC Registrar’s Subcommittee to create a task force that reports suggestions to improving Area V to the AGSC, starting with the detailed issues raised in the recommendations section below.

The disparity in information in catalogs and on the websites was cited frequently in focus groups, and not just by students but by the persons charged with transfer advising and AGSC subcommittee members as well. This inconsistency and the infrequent but recurring comments students told us that some university advisers told them “we don’t follow STARS here” creates credibility problems for community college advisors and diminishes the confidence of students in the advising process (a problem made worse by the lack of staff support for STARS training). A digitized mobile STARS system would put students in a better position in meetings with their university transfer advisers. The 2002 evaluation reported community college advisors said suggest that the annual meeting of the Academic Subcommittees in the fall semester is out of synchrony with deadlines for publishing community college catalogs, and contributes to the problem. In 2016, we found due to budget cuts, the Academic Subcommittees have rarely, if ever, held face-to-face meetings. This suggests a need for an overhaul of the subcommittee structure within AGSC & STARS.

Today, as in 2002, the website format and procedures for signing in and accessing information were a concern, as well as the monthly reports that are generated. Students today want a system that does not require login of information each time a new STARS guide is requested. The universities that use the monthly reports find them useful, but not all use them well (this likely related to the lack of support for regular STARS field training). The proposed AGSC Registrar's Subcommittee and the inclusion of students on AGCS can help provide opportunities for STARS users (students, transfer advisers, etc.) to "test drive" revisions in the website and procedures to access information.

There is wide variance in how high schools and community colleges approach introducing STARS to students. Some institutions systematically require students access STARS as a part of an academic credit course, while others provide the information in a required or optional orientation that many do not attend. While STARS is well known to most community college faculty and advisors, it is not widely known among university faculty and advisors, and 43% of students surveyed said they knew someone who did not know about STARS. It appears that many high school counselors are unaware of STARS, which is problematic given the rapidly rising Dual Enrollment numbers. Efforts are needed to increase the visibility of STARS and to encourage community colleges to systematically introduce STARS to students early in their initial semester of enrollment. Training videos would help at all levels, including to reach high school counselors, students, and parents.

Comments from some transfer students in the focus groups indicate a disparity exists in the required courses for the associate degree and those courses that would be applicable to the baccalaureate degree. Apparently some courses required for the associate degree (e.g., physical education) at some community colleges are not required for the baccalaureate degree. Even though virtually all of the students at community colleges we met at the focus groups said they intended to transfer and complete their degrees in four years, a majority of the transfer students already at Alabama universities did not think this was possible.

How efficiently and effectively the response is to the concerns discussed above will be important in improving STARS and Alabama's general studies curriculum. We note that the degree of attention to detail and the amount of time required to carefully coordinate with individual institutions will likely present a significant challenge to the AGSC. This is one reason we encourage the establishment of an AGSC Registrar's Subcommittee, to help AGSC focus on key policy concerns.

The challenge moving forward is to make this web-based system even more user-friendly, and to make STARS a platform that encompasses the broader definition of transfer — not just academic program fit, but institutional fit, financial aid fit, and student organization fit as well. With a refocus of STARS mission, combined with changes that are coming in the form of year-round Pell renewal, Alabama can move forward toward the three year baccalaureate degree for its first generation students, and moving forward, STARS can be that vital platform that helps students save even more credits, time and money as it fosters even greater student success.

IMPLICATIONS

1. State

- Incentives and support for college-level innovation are needed.
- Support for measuring innovations effectiveness is needed.
- Accountability mechanisms must be implemented to facilitate effective transfer.

2. Colleges

- Collaborative problem solving regarding transfer is needed.
- Broad implementation of personalized learning and transfer advising is needed.
- Incentives are most likely to produce transfer champions.
- Two-year to four-year collaboration on articulation and transfer is critically important.

3. Both

- State-level and college-level academic collaboration on policy design is key.
- More efficient, accessible processes to use data for decision support regarding student transfer is needed.
- Robust communications and data-based problem solving focused on increasing step-by-step outcomes to baccalaureate degree attainment is needed.

RECOMMENDATIONS

Major Recommendations

1. Building on the insight that students earn credits from many sources, and that transfer is a dynamic process, AGSC & STARS should streamline the process for transfer students by adopting uniform course numbers and titles for 100 and 200 level general education courses at community colleges and universities.

With over 1.2 million STARS guides requested since 1998, the legislative intent of Act 94-202 of helping students save credits, time, and money has clearly been accomplished. But nearly two decades have passed since STARS' establishment, and today the program is too broad to be sustained at current budget levels.

Act 94-202 in 1994 specifically charged AGSC to consider statewide uniform course numbers and titles across general education courses in the first two years at Alabama's two- and four-year public institutions. While AGSC did not choose that course of action, by 1996 uniform course numbers and titles were adopted at all Alabama Community College System institutions. The 2002 external evaluation considered the issue, and recommended against it due to time and costs involved.

Alabama over the past two decades has moved from a static model of vertical transfer to a more dynamic model of multidimensional transfer. Transfer no longer consists of just community college to four-year university, which STARS was designed for in 1994. Today's students earn degree credits at multiple levels and from multiple institutions within those levels. The Dual Enrollment credits taught by community colleges in Alabama high schools now comprise 8 to 13% of total enrollments at the state's community colleges, while Advanced Placement credits continue to expand (the Alabama Legislature invested \$25 million in AP last year). Students also earn credits as veterans while in the military, at the workplace experience, and in college. They earn credits at multiple institutions in multiple ways—student transcripts can show credits earned first at flagship universities, then community colleges, then regional universities; four-year to four-year, two-year to four-year, and simultaneous enrollment at a flagship and a community college. One in four students earning a baccalaureate degree in 2015-16 at Auburn University and The University of Alabama, and four in ten students at Jacksonville State University and Troy University attended three or more institutions. To help today's students requires more than the uniform course numbering that community colleges adopted in 1996. It requires uniform course numbering and titles **across** two- and four-year institutions.

Strong support was voiced in the focus groups of community college deans of student affairs, transfer advisers/administrators and AGSC Committee and Subcommittee members, who know Area V needs improvement and has for many years. And in 2016, a majority of responding AGSC Committee and Subcommittee members expressed support for a statewide course numbering and title system (53% in agreement, 39% in disagreement, and 8% unsure/didn't know).

Area V concerns must be addressed systemically. Transfer includes the whole student—academic program fit, institutional fit, financial aid fit, and cultural fit. The advantages of adopting uniform course numbers and titles across public two- and four-year general education curricula are too great, and the cost of not adopting too high, not to seriously consider it. If STARS responds to the broad needs of today's multidimensional transfer students, it can help them realize their full potential while saving them even more credits, time, and money. Improving degree completion rates is, after all, the goal of Act 94-202.

2. Building on the insight that greater practical interaction between two- and four-year institutions will help students transfer, the AGSC should create a AGSC Registrar's Subcommittee.

We recommend creating a new AGSC committee consisting of members of the Alabama Association of Collegiate Registrars and Admissions Officers (ALACRAO) from Alabama's two-year, four-year public, and four-year private non-profit institutions. The AGSC Registrar's Subcommittee will assist AGSC in operationalizing a better functioning technology-based AGSC & STARS system. All key constituencies should be represented (three nominees from two-year colleges, both flagships and two regional university representatives, one from AAICU, two from public high schools involved with the Dual Enrollment, and representatives from the Alabama Association of Student Financial Aid Administrators and the Alabama Deans of Student Affairs Association). In contrast with the AGSC's appropriate policy role, the Subcommittee is envisioned to be a hands-on "get under the hood" group specifically charged with:

- **Synchronizing catalog updates** — a recommendation from 2002 heard again in 2016 — by proposing three dates per year in the fall, spring, and summer terms for community colleges, universities, and participating non-profit colleges to update their course catalogs. This is a key component of STARS, to allow students access to timely, consistent information;
- **Serving as an Ad-Hoc Reverse Transfer Task Force** — in the year that the Evaluation Team conducted this study, there has been much action on the part of community colleges and universities to move forward with reverse transfer in Alabama. We note that any reverse policy will necessarily require the involvement of registrars in transcript review and approval, building upon STARS' extensive existing "academic fit" services. The goal of improving Associate Degree completion in Alabama is entirely consistent with the intent of Act 94-202, to help students save credits, time, and money.
- **Serving as an Ad-Hoc Task Force on Guaranteed Acceptance** of the Associate's in Arts and Associate's in Science degrees by Alabama universities, making recommendations to AGSC.
- **Serving as an information source for AGSC&STARS staff on national transfer and articulation issues for continuous improvement**, by reviewing major reports issued by the Education Commission of the States, the National Conference of State Legislators, and the Council of State Governments and other national organizations, with the aim of continuous program improvement. This perhaps could occur as part of a report to STARS' annual summer meeting, when AGSC conducts its own annual review (perhaps AGSC's summer meeting could be held in concert with the summer meeting of the Alabama Association of Collegiate Registrars and Admissions Officers).
- **Serving as an Ad-Hoc Task Force on Independent Colleges and STARS**, to make practical recommendations on how Alabama Association of Independent Colleges and Universities members can be integrated into the STARS system to AGSC. Fourteen of Alabama's independent colleges and universities already have signed articulation agreements with the Alabama Community College System that provide transfer guides for selected majors.
- **Hosting annual focus groups of transfer students** in the first two months of the Spring winter, registrars working with STARS staff can assess how their systems are working. These could be presented at AGSC's annual summer meeting. It would be good when hosting transfer student focus groups for the host universities to invite representatives from their financial aid, housing, academic advising, registrar's office, financial accounting, and student activities present, because transfer success requires more than academic program fit. AGSC members and AGSC

point of contact representatives, and any discipline- and profession-based AGSC Subcommittees could be invited, to strengthen the “bottom-up” STARS system. Representatives of the local sending community colleges could be invited to provide a feedback loop. The questions that the Evaluation Team asked its student focus groups might be a helpful starting point.

3. Building upon the insight that students use STARS to “shop,” improve STARS’ web-based services by making them accessible on mobile platforms.

We note the great progress made by STARS in response to the 2002 recommendation that “The STARS website be revised with primary emphasis given to students and advisors.” STARS has evolved from a web-based “academic program fit” system to something much more. The past three years have seen a threefold increase in the request of STARS unofficial guides. Based upon the broader multidimensional model of transfer, with 74% of students surveyed indicating they access STARS via smartphones, tablets, and laptops, STARS can become an even more powerful tool for students using it to “shop” for transfer services by becoming 100% accessible on mobile devices:

- STARS’ official guides should be digitized and downloadable on mobile devices.
- A login that saves information would likely increase STARS usage by students, as they would no longer need to re-enter information each time they use it.
- Students indicate discussion boards would be helpful.
- Students (and transfer advisors) indicate that short videos on STARS usage would be helpful.
- Students indicate that they would welcome optional links through STARS to university web pages to improve the shopping experience for vital “institutional fit” and “financial aid fit” issues. These could include departmental, college and school, university-wide scholarship information; housing, both on-campus and off-campus (some larger universities require their freshmen to live on campus but assume their transfer students have the same access and understanding of local off-campus housing markets as do their native freshmen and sophomore students); student work opportunities, both on and off campus; and even student activities (it is possible to create an optional opt-in web-based space for students to list activities they are interested in that university student affairs staff could forward to plug transfer students into student activities even before they arrive on campus).

As STARS becomes the go-to “shopping hub” for other key pieces of information transfer students need, it stands to reason many more students will use it, and by doing so accomplish to an even greater extent the legislative intent of Act 94-202: helping students save credits, time and money.

Practical Recommendations

1. Addressing Area V concerns, the top recommendation from the 2002 external evaluation, are of even greater concern in 2016, and must be addressed by the AGSC.

Our surveys of transfer advisers, faculty, and administrators reported higher levels of concern with Area V in 2016 than 2002. Each student focus group reported Area V pages were confusing and difficult to use. More troubling, while nearly all of the current community college students we met with planned to graduate in four years, more than half of the

university students who had already transferred reported they would be unable to do so. Four in 10 of transfer advisers/administrators surveyed in 2016 were in disagreement that information on the college Area V pages was complete, and 4 in 10 were in disagreement that information on college Area V pages agreed with information from other sources—many of these respondents are the very people who advise transfer students. While some stakeholders do not have problems with Area V pages, all too many do, and this information gap must be addressed systemically. While the evaluation team proposes uniform course numbering and titles in general education courses at community colleges and public universities, should AGSC choose not to go in this direction, STARS’ 130 different Area V pages must be simplified.

2. AGSC should reconsider its current system of 21 General Studies Academic Subcommittees and 16 Pre-Professional Subcommittees, which is not working well.

The 2002 evaluation recommended “The relationship between AGSC&STARS needs clarification.” Fifteen years later, when GSAC and PAC subcommittee members were surveyed, 71% agreed with this statement. Focus groups confirmed what STARS office staff previously told us, that due to budgetary restrictions, in recent years there have been no face-to-face GSAC subcommittee meetings, with issues considered only through email; most could not remember meetings, period. The very size of the discipline-based committees is itself cumbersome. Given the need to devote scarce STARS staff time to more important and fruitful purposes (website maintenance/improvement and training), AGSC should consider an overhaul of this process. Again, uniform course numbering and titles would eliminate the need for most of the subcommittees.

3. A simplified, streamlined STARS system allows for additional state investments to be devoted straight into sorely needed training and public awareness.

Two consistent themes from the discussion is that STARS training needs to be dramatically ramped up, as does its public awareness efforts. The two are intertwined, and continuous training is needed to address these issues:

- **Turnover.** Community college and university transfer advisers and recruitment/admissions officers are typically entry level positions that turn over every two to four years. Without continuing education and/or required training or certification, it is tough to maintain consistent efforts/coordination across institutions.
- **Online STARS badge/certification** for high school, community college, and university counselors and advisors, with required training to maintain certification that can be listed on the resumes of completers.
- **Video training clips** aimed at a broad range of constituencies (parents, high school counselors, and admissions recruiters; transfer advisers at two- and four-year levels; university department heads, deans, and associate deans and STARS recruiting reports, etc.).
- **Management software advances.** Rapidly changing university and community college management software platforms and digitized records require training in STARS. Training in STARS, including use of its reports for recruitment of transfer students can improve system throughput degrees awarded rates. Seamless successful transfer is a “networked” success.
- **Rising dual enrollment** which now constitutes between 8 and 13 percent of the typical Alabama community college’s enrollment. We expect this number rise even further.
- **Review prominence of STARS information at college and university websites, and in particular, at the state’s flagship universities.** To be a system requires acting as a system; STARS is prominently displayed on page one of all community college websites, but is not always easy to find at university websites.

- **Building the STARS brand.** PSAs to build the STARS brand could be developed in consultation with The University of Alabama's Public Relations Program.

4. AGSC should engage in succession planning to replace senior STARS office staff.

At present, the two senior full-time staff in the STARS office each have roughly two decades of experience with STARS. If something was to happen to either or both of them, there is no current backup. With both will likely retire within three to five years, developing a succession plan for the STARS staff should be a high priority for the AGSC.

5. AGSC should have two non-voting student members.

One chosen by the student government associations of universities, and one chosen by the student government associations of the community colleges. There are approximately 700 student trustees on governing boards of universities and colleges in the United States. As a policy-making entity, AGSC would benefit from a continuous infusion of student views.

6. The AGSC should consider extending participation in STARS to all regionally accredited institutions in Alabama.

An articulation agreement similar to the STARS that promotes two-to-four-year vertical transfer from Alabama Community College System Institutions and the 14 regionally accredited members of the Alabama Association of Independent Colleges and Universities already exists. The AAICU 2-to-4 Transfer Program provides the same type of transfer guidelines as the STARS. Furthermore, six of the 14 AAICU members are Historically Black Colleges and Universities. Extending the STARS to include these colleges is consistent with today's dynamic model of transfer, and it can help Alabama students save credits, time, and money and improve degree completion rates.

7. AGSC should commit to periodic external review conducted every four years.

It has been nearly 15 years between this external review and the last one, conducted in 2002. It is good practice to conduct periodic external reviews every two to five years.

BIBLIOGRAPHY

- Adelman, C. (1988). Transfer rates and the going mythologies: A look at community college patterns. *Change: The Magazine of Higher Learning*, 20(1), 38-41.
- [Anderson, G., Sun, J. C., & Alfonso, M. \(2006\). Effectiveness of statewide articulation agreements on the probability of transfer: A preliminary policy analysis. *The Review of Higher Education*, 29\(3\), 261-291.](#)
- Anderson, L. (2015). Reverse Transfer: Paving the Pathway. Education Commission of the States.
- Anderson, L. (2015). Reverse Transfer: The Path Less Traveled. Education Commission of the States.
- Anderson, L. (2015). Reverse Transfer: What is the Best Route to Take?. Education Commission of the States.
- Backes, B. & Velez, E.D. (2015). Who Transfers and Where Do They Go? Community College Students in Florida. Calder: National Center for Analysis of Longitudinal Data in Education Research. Working paper 126.
- Berman, P. (1990). Enhancing transfer effectiveness: A model for the 1990's. First year report to the national effective transfer consortium. Executive summary.
- [Boswell, K. \(2004\). Bridges or barriers? public policy and the community college transfer function. *Change*, 36\(6\), 22-29.](#)
- [Carlan, P. E., & Byxbe, F. R. \(2000\). Community colleges under the microscope: An analysis of performance predictors for native and transfer students. *Community College Review*, 28\(2\), 27-42.](#)
- [Cheslock, J. J. \(2005\). Differences between public and private institutions of higher education in the enrollment of transfer students. *Economics of Education Review*, 24\(3\), 263-274.](#)
- CollegeBoard. (2012) Understanding the Transfer Process: A Report by the Institute for Higher Education Policy for the Initiative on Transfer Policy and Practice. Institute for Higher Education Practice.
- [D'Amico, M.M., Dika, S.L., Elling, T.W., Algozzine, B., Ginn, D.J. \(2014\). Early Integration and Other Outcomes for Community College Transfer Students. *Research in Higher Education*. 55:370-399.](#)
- [Doyle, W. R. \(2006\). Community college transfers and college graduation: Whose choices matter most? *Change: The Magazine of Higher Learning*, 38\(3\), 56-58.](#)
- Education Commission of the States. (2016). Transfer and Articulation: Transferable Core of Lower-Division Courses: 50-State Comparison. Education Commission of the States (ECS). <http://ecs.force.com/mbdata/MBquest3RTA?Rep=TR1601>
- Education Commission of the States. (2016). Transfer and Articulation: All State Profiles. Individual State Profile. Education Commission of the States (ECS). <http://ecs.force.com/mbdata/mbprofallrta?Rep=TA16STA>
- Education Commission of the States. (2016). Transfer and Articulation: Statewide Reverse Transfer. Education Commission of the States (ECS). <http://ecs.force.com/mbdata/MBquest3RTA?Rep=TR1604>
- Education Commission of the States. (2016). Transfer and Articulation: Statewide Common Course Numbering. Education Commission of the States (ECS). <http://ecs.force.com/mbdata/MBquest3RTA?Rep=TR1602>
- Education Commission of the States. (2016). Postsecondary—Transfer and Articulation: State Legislation. . Education Commission of the States (ECS). ECS State Policy Database. <http://b5.caspio.com/dp.asp?AppKey=b7f93000695b3d0d5abb4b68bd14&id=a0y70000000CbrGAAS>
- Education Commission of the States. (2016). Transfer and Articulation: Statewide Guaranteed Transfer of an Associate Degree: 50-State Comparison. Education Commission of the States (ECS). <http://ecs.force.com/mbdata/MBquest3RTA?Rep=TR1603>
- [Goldhaber, D., Gross, B., & DeBurgomaster, S. \(2008\). Community colleges and higher education: How do state transfer and articulation policies impact student pathways? CRPE working paper 2008-4. Center on Reinventing Public Education.](#)
- [Gross, B. & Goldhaber, D. \(2009a\). Can transfer and articulation policies propel community college students to a Bachelor's Degree—and is this the only goal? \[Policy Brief\] Center on Reinventing Public Education.](#)

- Gross, B., & Goldhaber, D. (2009b). Community college transfer and articulation policies: Looking beneath the surface. CRPE working paper 2009-1. Center on Reinventing Public Education.
- Habash, T. & Shireman, R. (2016). How College Enrollment Contract Limit Students' Rights. The Century Foundation. (19 pages).
- Hagedorn, L. S., Moon, H. S., Cypers, S., Maxwell, W. E., & Lester, J. (2006). Transfer between community colleges and 4-year colleges: The all-american game. *Community College Journal of Research and Practice*, 30(3), 223-242.
- Higgins, C. S., & Katsinas, S. G. (1999). The relationship between environmental conditions and transfer rates of selected rural community colleges: A pilot study. *Community College Review*, 27(2), 1-25.
- Hossler, D., Shapiro, D., Dunder, A., Ziskin, M., Chen, J., Zerquera, D., & Torres, V. (2012). Transfer and mobility: A national view of pre-degree student movement in postsecondary institutions. Signature Report 2. National Student Clearinghouse.
- Ignash, J.M. & Townsend, B.K. Evaluating State-Level Articulation Agreements According to Good Practice. *Community College Review*. Volume 28, No. 3
- Jenkins, D & Fink, J. (2016). Tracking Transfer: New Measures of Institutional and State Effectiveness in Helping Community College Students Attain Bachelor's Degrees. Community College Research Center. The Aspen Institute. National Student Clearinghouse Research Center.
- Kintzer, F. C. (1996). A historical and futuristic perspective of articulation and transfer in the united states. *New Directions for Community Colleges*, 1996(96), 3-13.
- Kisker, C.B., Wagoner, R.L., Cohen, A.M. (2011). Implementing Statewide Transfer & Articulation Reform: An Analysis of Transfer Associates Degrees in Four States. Center for the Study of Community Colleges. Report #11-1.
- Knoell, D. (1990). Transfer, articulation, and collaboration: Twenty-five years later. ERIC.
- Jones, E. B. (1991). A model for deriving the transfer rate. Report of the transfer assembly project.
- Laanan, F. S. (2007). Studying transfer students: Part II: Dimensions of transfer students' adjustment. *Community College Journal of Research and Practice*, 31(1), 37-59.
- Millard, M. (2014). Students on the move: How states are responding to increasing mobility among postsecondary students. [Postsecondary Transfer & Articulation] Education Commission of the States.
- Montondon, L., & Eikner, A. E. (1997). Comparison of community college transfer students and native students in an upper level accounting course. *Community College Review*, 25(3), 21-38.
- Mullin, C. M. (2012b). Transfer: An indispensable part of the community college mission. (Policy Brief 2012-03PBL). Washington, DC: American Association of Community Colleges.
- Reindl, T. & Reyna, R. (2011). From Information to Action: Revamping Higher Education Accountability Systems. 2010-2011 National Governors Association Chair's Initiative. Church Street Editorial.
- Research, Hanover. (2016). Developing Major Pathways and Gateway Courses. Hanover Research.
- Romano, R.M. & Wisniewski, M. (2005). Tracking Community College Transfers Using National Student Clearinghouse Data. Association of Institutional Research. Number 94.
- Roksa, J., & Keith, B. (2008). Credits, time, and attainment: Articulation policies and success after transfer. *Educational Evaluation and Policy Analysis*, 30(3), 236-254.
- Simone, S.A. (2014). Transferability of Postsecondary Credit Following Student Transfer or Coenrollment: Statistical Analysis Report. National Center for Education Statistics.
- Smith, M. (2010). Transfer and articulation policies. Education Commission of the States. StateNotes. Denver CO.
- Townsend, B. K. (2001). Redefining the community college transfer mission. *Community College Review*, 29(2), 29-42.

Wassmer, R., Moore, C., & Shulock, N. (2004). Effect of Racial/Ethnic composition on transfer rates in community colleges: Implications for policy and practice. *Research in Higher Education*, 45(6), 651-672.

Yang, P. (2006). UCLA community college review: Reverse transfer and multiple missions of community colleges. *Community College Review*, 33(3-4), 55-70.

College Opportunity & Effectiveness

Bailey, T., Jenkins, D., & Leinbach, T. (2005). Graduation rates, student goals, and measuring community college effectiveness. CCRC Brief Number 28. Community College Research Center, Columbia University.

Baime, D. S., & Mullin, C. M. (2011). Promoting educational opportunity: The pell grant program at community colleges. AACC Policy Brief 2011-03PBL.

Calcagno, J. C., Bailey, T., Jenkins, D., Kienzl, G., & Leinbach, T. (2008). Community college student success: What institutional characteristics make a difference? *Economics of Education Review*, 27(6), 632-645.

Carnevale, A. P., Rose, S. J., & Hanson, A. R. (2012). Certificates: Gateway to gainful employment and college degrees. Executive Summary. Georgetown University Center on Education and the Workforce.

Cataldi, E. F., Green, C., Henke, R., Lew, T., Woo, J., Shepherd, B., & Siegel, P. (2011). 2008-09 baccalaureate and beyond longitudinal study (B&B: 08/09). first look. NCES 2011-236. National Center for Education Statistics.

Cook, B. & Pullaro, N. (2010). College Graduation Rates: Behind the Numbers. American Council on Education: Center for Policy Analysis. (37 pages).

D'Amico, M.M., Morgan, G.B., Robertson, S., Rivers, H.E. (2013). Dual Enrollment Variables and College Student Persistence. *Community College Journal of Research and Practice*. 37: 769-779. Taylor & Francis Group.

Doyle, W. R. (2009). The effect of community college enrollment on bachelor's degree completion. *Economics of Education Review*, 28(2), 199-206.

Egan Jr, M. K., & Jaeger, A. J. (2009). Effects of exposure to part-time faculty on community college transfer. *Research in Higher Education*, 50(2), 168-188.

Heller, D. E. (1997). Student price response in higher education: An update to Leslie Brinker. *The Journal of Higher Education*, 68(6), 624-659.

Hemelt, S.W., & Marcotte, D. E. (2011). The impact of tuition increases on enrollment at public colleges and universities. *Educational Evaluation and Policy Analysis*, 33(4), 435-457.

Hom, W. C. (2009). The denominator as the "target". *Community College Review*, 37(2), 136-152.

Jackson, G. A., & Weathersby, G. B. (1975). Individual demand for higher education: A review and analysis of recent empirical studies. *The Journal of Higher Education*, 623-652.

Leslie, L. L., & Brinkman, P.T. (1987). Student price response in higher education: The student demand studies. *The Journal of Higher Education*, 181-204.

Makela, J. P., Ruud, C. M., Bennett, S., & Bragg, D. D. (2012). Investigating applied baccalaureate degree pathways in technician education. Urbana-Champaign, IL: Office of Community College Research and Leadership.

Mullin, C. M. (2011). The road ahead: A look at trends in the educational attainment of community college students. AACC policy brief 2011-04PBL. American Association of Community Colleges (NJ1).

Mullin, C. M. (2012a). Student success: Institutional and individual perspectives. *Community College Review*, 40(2), 126-144.

Mullin, C. M. (2012c). Why access matters: The community college student body. (Policy Brief 2012-01PBL). Washington, DC: American Association of Community Colleges.

Provasnik, S., & Planty, M. (2008). Community colleges: Special supplement to the condition of education 2008. statistical analysis report. NCES 2008-033. National Center for Education Statistics.

Rouse, C. E. (1995). Democratization or diversion? the effect of community colleges on educational attainment. *Journal of Business & Economic Statistics*, 13(2), 217-224.