NCHEMS

National Center for Higher Education Management Systems

Year Four Final Evaluation Report

State Scholars Initiative

Submitted to the
Western Interstate Commission for Higher Education

The work reported herein was supported under State Scholars Initiative, PR/Award Number V051U050006, as administered by the Office of Vocational and Adult Education, U.S. Department of Education. However, the contents do not necessarily represent the positions or policies of the Office of Vocational and Adult Education or the U.S. Department of Education, and you should not assume endorsement by the Federal Government.

April 28, 2009

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

EVALUATION REPORT FOR STATE SCHOLARS INITIATIVE
Year Four Final Report
October 1, 2008—March 31, 2009

Executive Summary

The Office of Vocational and Adult Education (OVAE) of the federal Department of Education (ED) funds the Western Interstate Commission for Higher Education (WICHE) to administer the State Scholars Initiative (SSI). SSI utilizes state/community business-education partnerships to encourage students to pursue a rigorous high school course of study. The State Scholars Initiative Core Course of Study is comprised of four years of English, three years of mathematics (including algebra 1, algebra 2, and geometry), three years of lab-based sciences (biology, chemistry, and physics), three and a half years of social sciences (chosen from U.S. history, world history, world geography, economics, and government), and two years of the same language other than English.

This document is the annual evaluation report from the National Center for Higher Education Management Systems (NCHEMS) for the period October 1, 2008 through March 31, 2009. This is also NCHEM's last evaluation report of SSI state performance under WICHE's State Scholars Initiative program administration with federal funding.

Twenty-four states received federal funding from the State Scholars Initiative. For the purpose of this and other reports, participating states are categorized by when they received federal SSI funds:

Table 1. States with Business-Education Partnerships Receiving Federal SSI Funds

SSI "Group"	Total Number of States	Joined SSI Network	States
A	14	Pre-2006	Arizona, Arkansas, Connecticut, Indiana, Kentucky, Maryland, Michigan, Mississippi, New Jersey, New Mexico, Oklahoma, Rhode Island, Tennessee, Washington
B	6	April 2006	Louisiana, Massachusetts, Nebraska, Utah, Virginia, West Virginia
C	4	November 2006	Missouri, New Hampshire, South Dakota, Wyoming

The SSI Evaluation Plan (dated January 6, 2006) stated project goals, two of which are covered by this evaluation report:

- Influence high school student course taking patterns (Project Goal 2).
- Influence stakeholders' perceptions regarding high school student course taking patterns (Project Goal 3).

Companion reports, developed by evaluator Diana Robinson, of the Center for Governmental Studies at Northern Illinois University, include evaluative information

on WICHE's administration of the SSI program and Project Goal 1: The use of business-education partnerships to influence high school student course taking.

In this fourth year of WICHE's State Scholars Initiative program administration the evaluation work conducted by NCHEMS was a continuation of efforts from the first three years of program administration to collect student enrollment and perception data. Information in this report reflects new data collected in Year Four that build upon the previous three years of SSI data collection. In the first section, this report discusses lessons learned regarding collection of student data from October 1, 2005-March 31, 2009. In the second section, student enrollment data findings are presented in two parts. The first part includes a summary of data submitted by SSI states and districts for Fall 2008, the most recent academic term. The second part presents course enrollment trend data over five terms. In the third and final section, results from the State Scholars Initiative perception surveys are described, and a short conclusion is given.

Project Goal 1: Use Business-Education Partnerships to Influence High School Student Course Taking

Diana Robinson, of the Center for Governmental Studies at Northern Illinois University, has produced companion evaluation reports, which focus on WICHE's administration of the SSI program and Project Goal 1: The use of business-education partnerships to influence high school student course taking. See http://www.wiche.edu/statescholars.

Project Goal 2: Influence High School Student Course Taking Patterns

Since the beginning of SSI under WICHE's program administration, data on over 1,458,724 student enrollments have been gathered by SSI pilot districts with the associated demographic variables (sex, race/ethnicity, Limited English Proficiency, economic disadvantage, disability) and course grades in most cases. Results of the student course taking data collection for Fall 2008 represent findings from 27 districts in six states. The State Scholars Initiative now has a good foundation of cross-sectional data for five semesters. From those data, trends can be extracted for 18 districts in four states; this information indicates that students are changing their course taking patterns to take rigorous courses in high school.

1. **How many students enrolled in the individual courses required in the State Scholar Initiative rigorous curriculum?**

Cross-sectional data gathered for Fall 2008 from 27 districts in six states show that 9th through 12th grade students enrolled in the individual courses and course types that comprise the SSI Core Course of Study in the following percentages: 83.5% in English courses, 13.0% in other mathematics courses, 24.2% in algebra I, 14.6% in algebra II, 21.4% in geometry, 11.8% in higher mathematics courses, 30.2% in other science

courses, 29.0% in biology, 14.0% in chemistry, 5.0% in physics, 40.3% in language other than English courses, and 68.8% in social studies courses. When these data are viewed in the light of cross-sectional data from previous semesters, the percentages of students enrolling in specific courses increases.

Generally, there is a trend of more students enrolling each Fall term (2006 to 2007 to 2008) in English (from 71.7% to 83.5%), algebra I (from 21.3% to 24.2%), geometry (from 18.2% to 21.4%), higher mathematics (from 8.5% to 11.8%), biology (from 22.9% to 29.0%), chemistry (from 12.1% to 14.0%), physics (from 3.8% to 5.0%), language other than English (from 33.1% to 40.3%), and social studies (from 62.8% to 68.8%). These small but steady increases over time indicate that students are shifting to differentially enroll in courses that comprise the SSI Core Course of Study.

2. **How many students enrolled in the State Scholar Initiative rigorous curriculum in its entirety? How many of those students completed the State Scholars Initiative rigorous curriculum in its entirety?**

These questions cannot be definitively answered because the cross-sectional and trend data that SSI was able to collect do not provide the specific information necessary to follow individual students that would be provided by longitudinal data. However, the data do suggest that only a small percentage of high school students in these 27 districts in six SSI states that reported Fall 2008 data would have taken the SSI Core Course of Study in its entirety. This estimation is based on the percentage of students taking the most restrictive aspects of the SSI Core Course of Study, those courses often not required of all students: chemistry, physics, and language other than English. Course taking patterns and sequences of courses in high school can eventually seriously limit whether a student can graduate with a full complement of rigorous courses such as required by the SSI Core Course of Study. This narrowing of choices is one of the main reasons the State Scholars Initiative targets students in 8th grade before they make high school course taking selections. Year – to – year comparison data presented below reinforce this finding but also show promising gains (although relatively small percentage changes) over time at SSI pilot districts. These findings highlight both the difficulty in gathering data on student course taking but also the positive influence that targeted effort can make in high school student course taking behaviors in a relatively short amount of time.

3. **What difference did enrolling in the State Scholar Initiative rigorous curriculum and its individual courses make in high school students' lives?**

Due to the nature of this question and the longitudinal data required, it is impossible to answer. Future outcome information is not yet available for State Scholars Initiative students because of the limited time frame for the SSI program. States have two or three years of SSI federal funding. SSI states need to sustain not only their programs but also data collection and analysis activities three to four years after federal funding concludes in order to amass four to six years worth of longitudinal data before enrollment patterns and trends as well as post-graduation outcomes are known.

4. **When the State Scholars Initiative curriculum was adapted for local use, did it make a difference in student course enrollments? In other student outcomes?**

Based on trend data drawn from five terms of student enrollment data, the answer is yes. Small but clear increases are seen in enrollments in courses targeted by the State Scholars Initiative. There does not seem to be an attendant increase in failure rates which might signify that students were being enrolled in courses for which they were not ready. However, the effect on other student outcomes is as yet unknown because no longitudinal data are available.

Project Goal 3: Influence Stakeholders' Perceptions Regarding High School Student Course Taking Patterns

The State Scholars Initiative gathered data on how it has affected both the perceptions and behaviors of various stakeholder groups including students, parents, teachers, guidance counselors, and business people. Between September 2007 and February 2009, 18,691 surveys were submitted from 159 individual State Scholar Initiative events held in 11 states including two SSI – A states, five SSI – B states, and four SSI – C states. Results from these surveys show that the State Scholars Initiative is successfully communicating the message regarding the importance of a rigorous high school course of study to students and adult stakeholders. Some key findings include:

- Over fifty percent (53.9%) of students who are planning on taking rigorous courses in high school were positively (42.4%) or somewhat positively (11.5%) influenced in their decisions by the SSI presentation they attended.
- For those students who indicate that they will "probably" take rigorous courses in high school, 15.2% were positively influenced and an additional 13.7% were somewhat positively influenced by the State Scholars Initiative presentation.
- Students do not have the same level of understanding as adults about the importance of high school course taking to future outcomes; student means are lower than all adult stakeholders on these survey questions. This result provides evidence supporting SSI's focus on 8th grade students, a group that requires more intervention than adults, regarding the importance of rigorous high school course taking.
- When asked about the importance of rigorous course taking in high school to future plans for students, parents are the adult stakeholder group with the highest means for both getting a well-paying job after high school as well as attending postsecondary education, and are the only adult stakeholder group for which the postsecondary outcome mean is slightly greater than getting a well-paying job.
- Parents, other family members, and teachers are students' top three choices for which groups influence their high school course taking with parents selected far

more often than the other two. SSI data identify and reinforce the importance of working with parents and family members, who students identify as the biggest influence on their high school course taking.

- Nine percent of students indicated that no one (or no response) had influenced them with regard to high school course taking.
- SSI is making a difference in helping show adults who have an influence on high school students that it matters that they encourage students to take rigorous high school courses.

Conclusion

The fourth and final year of the State Scholars Initiative was successful in terms of gathering student course enrollment and perception data. Since October 2005 SSI has collected data on over 1,458,724 student enrollments representing three separate academic years from SSI pilot districts with the associated demographic variables (sex, race/ethnicity, Limited English Proficiency, economic disadvantage, disability) and course grades in most cases. It is only by using data and going through these processes in an iterative manner that errors can be uncovered and lessons learned. And, now, with five terms of data that can be compared as trend data for 18 districts in four SSI states, there is evidence of change in student course taking patterns. When challenged to do so, students take more rigorous courses such as algebra I, geometry, biology, chemistry, physics, and language other than English. What is more, analysis of failure rates indicates that students succeed in these courses at rates commensurate with previous terms.

Between September 2007 and February 2009, nearly 19,000 perception surveys were submitted from 159 individual State Scholar Initiative events held in 11 SSI states. Results from these surveys show that the State Scholars Initiative effectively communicates the message regarding the importance of taking a rigorous high school course of study to students and adult stakeholders.

Introduction

This report discusses State Scholars Initiative data collection in Year Four, the final year of the program, presents lessons learned during SSI data collection and presents a summary of student data that has been submitted by states throughout the program. The SSI Evaluation Plan (dated January 6, 2006) stated the project goals that are covered by this evaluation report:

- Influence high school student course taking patterns (Project Goal 2).
- Influence stakeholders' perceptions regarding high school student course taking patterns (Project Goal 3).

Companion reports, developed by evaluator Diana Robinson, include evaluative information on WICHE's administration of the SSI program and Project Goal 1: The use of business-education partnerships to influence high school student course taking.

Lessons learned from data collection for the State Scholars Initiative are explained in the first section. The second section presents an update of student course enrollment data submitted by SSI districts in Fall 2008. The course enrollment findings are presented in two parts. The first part includes a summary of data submitted by SSI states and districts for Fall 2008, the most recent academic term. The second part presents course enrollment trend data over five terms. The final section presents data from SSI perception surveys, which indicate that SSI has had a positive influence. The report concludes with a short summary.

Since the beginning of SSI under WICHE's program administration, data on over 1,458,724 student enrollments have been gathered by SSI pilot districts with the associated demographic variables (sex, race/ethnicity, Limited English Proficiency, economic disadvantage, disability) and course grades in most cases. Cross-sectional data gathered for Fall 2008 from 27 districts in six states show that 9th through 12th grade students enrolled in the individual courses and course types that comprise the SSI Core Course of Study in the following percentages: 83.5% in English courses, 13.0% in other mathematics courses, 24.2% in algebra I, 14.6% in algebra II, 21.4% in geometry, 11.8% in other mathematics courses, 30.2% in other science courses, 29.0% in biology, 14.0% in chemistry, 5.0% in physics, 40.3% in language other than English courses, and 68.8% in social studies courses. When these data are viewed in the light of cross-sectional data from previous semesters, the percentages of students enrolling in specific courses increases.

Generally, there is a trend of more students enrolling each Fall term (2006 to 2007 to 2008) in English (from 71.7% to 83.5%), algebra I (from 21.3% to 24.2%), geometry (from 18.2% to 21.4%), higher mathematics (from 8.5% to 11.8%), biology (from 22.9% to 29.0%), chemistry (from 12.1% to 14.0%), physics (from 3.8% to 5.0%), language other than English (from 33.1% to 40.3%), and social studies (from 62.8% to 68.8%). These small but steady increases over time indicate that students are shifting to differentially enroll in courses that comprise the SSI Core Course of Study.

While these data indicate students are enrolling in courses comprising the SSI Core Course of Study, a persistent issue across SSI program years is that it appears that a small percentage of students will be eligible to graduate with a full menu of rigorous courses. Although cross-sectional data drawn from various terms do not represent the exact same sets of students, the percentage of students in SSI districts in language other than English has remained approximately one-fourth to one-third of the total students in those districts and physics enrollments hover at less than ten percent. Based on submitted data, only a small percentage of high school students in participating SSI districts and states will have taken the SSI Core Course of Study. Year – to – year trend data from Fall 2006 through Fall 2008 reinforce this finding but also show some small, yet promising, gains over time in SSI pilot districts. These findings underline the difficulty of changing high school student course taking behavior in a relatively short period of time.

The State Scholars Initiative collected survey data on how it has affected both the perceptions and behaviors of various stakeholder groups including students, parents, teachers, guidance counselors, and business people. Between September 2007 and February 2009, 18,691 surveys were submitted from 159 individual State Scholar Initiative events held in 11 states including two SSI – A states, five of six SSI – B states, and all four SSI – C states. Results from these surveys show that the State Scholars Initiative is successfully communicating the message regarding the importance of a rigorous high school course of study to students and adult stakeholders.

Required Federal Data Collection

Data collection is a critical piece of the State Scholars Initiative. The 2005 *Federal Register* notice (p. 45375) for the State Scholars Initiative requires the collection of student level outcome data, specifically:

> (h) Evaluation
>
> (1) The use of existing data sources, or the establishment of new data sources or systems, to ascertain, at a minimum:
>
> (A) Course enrollment data, including, but not limited to, the percentage of students in participating schools, districts, and States completing the entire rigorous course of study and the percentage of students completing each class that is a component of the rigorous course of study, disaggregated by race and ethnicity, family income level, limited English proficiency, gender, and disability.
>
> (B) The impact of the Initiative on student, teacher, guidance counselor, and parent attitudes, perceptions, and beliefs about the importance of rigorous course taking and its effect on postsecondary and occupational outcomes.

Data requirements continued in a later section of the same 2005 *Federal Register* notice fulfill the needs of the Government Performance and Reporting Act (GPRA) of 1993:

4. Performance Measures: The grantee must collect data, and report annually to the Department, on the effectiveness of the Initiative:
   (i) The number and percentage of students in participating schools, districts, and States who have four-year high school course enrollment plans that include the Initiative's rigorous course of study. If four-year high school course enrollment plans do not exist in a participating school, then the number and percentage of students who have a one- or two-year high school course enrollment plan that includes components of the rigorous course of study.
   (ii) The availability of classes that comprise the rigorous course of study in participating schools, districts, and States.

Performance Measure 4i: The State Scholars Initiative requires students to enroll in the SSI Core Course of Study comprised of 15.5 years of study in mathematics, lab-based science, English, social studies, and a language other than English. To fulfill these SSI requirements, students must enroll in four years of high school; therefore, 100% of students in SSI-participating schools and districts effectively have a four-year high school course enrollment plan, the SSI Core Course of Study. Identifying which students have a specific four-year high school enrollment plan is more problematic. A limited number of schools and districts participating in SSI require students to sign contracts pledging that a student will take the SSI Core Course of Study; in these cases, the contract would then be the four-year high school enrollment plan. But, the schools and districts that require contracts often may not keep this information in an electronic form; usually it is a signed piece of paper stored in each student's file in the guidance office. Because only a limited number of SSI schools and districts require students to sign contracts, and those schools and districts that do, do not keep that data electronically, it is unknown how many students specifically have a four-year high school enrollment plan.

SSI targets 8th graders and assumes the best, that is, that 100% of students in a participating State Scholar Initiative school or district will complete the SSI Core Course of Study. Until student data are available upon graduation, it is unknown whether they have achieved this outcome.

Performance Measure 4ii: In Fall 2008 during Year Four of WICHE program administration, all classes that comprise the rigorous course of study in the State Scholars Initiative were available in all 27 districts in six reporting SSI states including: SSI – B (Louisiana (two districts) and Virginia (eight divisions)) and SSI – C (Missouri, New Hampshire, South Dakota, and Wyoming (four districts each)).

Data gathered for Fall 2008 from 27 districts in six states show that 9th through 12th grade students enrolled in the individual courses and course types that comprise the SSI Core Course of Study in the following percentages:

- 83.5% in English courses,
- 13.0% in other mathematics courses,

- 24.2% in algebra I,
- 14.6% in algebra II,
- 21.4% in geometry,
- 11.8% in higher mathematics courses,
- 30.2% in other science courses,
- 29.0% in biology,
- 14.0% in chemistry,
- 5.0% in physics,
- 40.3% in language other than English courses, and
- 68.8% in social studies courses.

A fuller discussion of "Year-to-Year Trend Analysis of Student Enrollment" begins on page 33.

Lessons Learned from State Scholars Initiative Data Collection

Twenty-four states have received federal funding under the State Scholars Initiative. For the purpose of this and other reports, participating states are categorized by when they received federal SSI funds:

Table 2. States with Business-Education Partnerships Receiving Federal SSI Funds

SSI "Group"	Total Number of States	Joined SSI Network	States
A	14	Pre-2006	Arizona, Arkansas, Connecticut, Indiana, Kentucky, Maryland, Michigan, Mississippi, New Jersey, New Mexico, Oklahoma, Rhode Island, Tennessee, Washington
B	6	April 2006	Louisiana, Massachusetts, Nebraska, Utah, Virginia, West Virginia
C	4	November 2006	Missouri, New Hampshire, South Dakota, Wyoming

In this fourth year of WICHE's State Scholars Initiative program administration much of NCHEMS' evaluation work was a continuation of efforts from the first three years of program administration to collect student enrollment and perception data. The relationship of program year time frames with data collection deadlines and efforts are shown in Appendix A.

Since responding to OVAE's request for proposals in 2005, collection of student enrollment data has been flagged as a potential problem area. The guidelines in the *Federal Register* made it clear that unit record data was required from high schools and districts but no clear mechanism for doing so had been built. As stated in the Year Two Evaluation Report:

> ***While it is necessary to require these data (as listed in the Federal Register) for the evaluation of the State Scholars Initiative model, the infrastructure to gather these data is fragmented or non-existent. Though time-consuming and difficult, supporting the development of this infrastructure at the state and school district levels has been essential to the evaluation of SSI state performance on Goals 2 and 3. Since the beginning of WICHE's project administration, NCHEMS has stressed how difficult gathering student level outcome data would be based on its experience with other such projects. These concerns were included in WICHE's original proposal to ED, Connecting to College and Work: The State Scholars Network, A Proposal Submitted to the U.S. Department of Education for the State Scholars Initiative FY2005 Competition (September 6, 2005).***
>
> ***The evaluation will address a number of potential problems, related to data issues around K-12 student populations, including the following:***
>
> ***School-level data entry will likely need to be done from paper transcripts, a task that will be the responsibility of the local schools and districts.***

In some schools or districts, there may be no data or difficulty getting data. However, NCHEMS has worked with states and individual institutions on gathering unit record data for postsecondary students, which should help facilitate the identification of data sources and collection of data from any unit record systems at the local, district, and state level.

Identification of a control group, if used, will differ by context for each partnership. Some may be able to identify a control group of students in the same school; others may need to draw the control group from a school that is not participating. For others, the only possible control group will be represented by enrollment and completion rates from several years prior to the implementation of the program, which will be compared with new rates.

The project's 24-month timeline will not permit longitudinal evaluation. Many of these interventions begin in the 8th grade, meaning that students will have only progressed to 10th grade by the end of the project; we will be able to tell if they've taken courses that are part of the "rigorous course of study," but not whether that will lead them to college, and to success there. Substantial forethought (and funding) will be required to maintain longitudinal databases that will follow these students for five to nine years: at least, from 8th grade through high school graduation (five years) and at most through college graduation (nine years or more).

Positive features with regard to student enrollment data in the early years of the SSI program included:

- Most schools and districts had data in electronic formats eliminating the need for hand entry of data.
- Identified data personnel at schools and districts were largely amenable to the data extraction task set before them by SSI.

Unfortunately, "the devil is in the details" which is also where most of the obstructions to gathering student data were raised. The main outcome in Year One was establishment of trust and respect between the evaluator and participating pilot district data personnel essential for continuing collaborative relationships that were necessary to collect student data. Other data issues identified in the Year One evaluation report have been addressed; for example, participating districts and schools needed to be clearly specified and that was accomplished through business education partnership/pilot school district memoranda of understanding. In the Revised Year Two Evaluation Report, a lengthy explanation of the context for data collection was presented. Additional issues were listed in the Year Three Evaluation Report. Below is a tabular presentation of the various issues, including those that continued or arose in Year Four, arranged by contextual area including how the issue was addressed and lessons learned from the experience.

Table 3. SSI Data Issues and Lessons Learned

Context Area	Issue	How Issue Was Addressed	Lessons Learned
Federal – state context	What is the relationship of SSI – A states to WICHE (and hence NCHEMS)?	NCHEMS had WICHE and OVAE clarify with which SSI – A states to engage.	Data efforts cannot be done outside of or parallel to the broader program administrator – state relationship.
State-Level General SSI Infrastructure	Was it possible to identify and obtain data collected by previous program administrator?	All available CDs and other materials were reviewed. Very little to no data were available for SSI – A states, even though some had submitted data to the previous program administrator.	NCHEMS requested that data personnel and state directors keep copies of all data submissions.
		One SSI – A state had previously submitted data files but had not kept copies themselves. When the files submitted to the previous program administrator could not be located, it was frustrating for everyone.	NCHEMS requested that data personnel and state directors keep copies of all data submissions. NCHEMS copied state directors, the other evaluator, and WICHE on all communications. NCHEMS kept raw files as they were submitted by districts. This process allowed NCHEMS to return original data sets when local data personnel could not locate what they had done previously.
	How to work with states which had already started SSI but had not collected any student data (AZ and MI)?	NCHEMS made site visits to and met with local data personnel to alleviate concerns. Despite these efforts, these two states did not submit any data.	Data collection must be a priority from the beginning to build a better foundation for working through issues once they are identified.

Context Area	Issue	How Issue Was Addressed	Lessons Learned
State-level SSI Data Infrastructure	Was the SSI state director agreeable to student level data collection?	NCHEMS educated SSI state directors regarding the utility of data to what they were doing. The grantsmanship workshop also reinforced this notion in terms of proposal writing and sustainability efforts.	NCHEMS remained available to answer questions raised by SSI state directors. Unfortunately, explaining the utility of data also created a press from state directors for data that was unavailable until several terms of data had been collected.
	How many districts had to submit data to fulfill SSI data needs?	WICHE worked with OVAE to answer this question, and the number of pilot districts was clearly stated in both the RFP and in state contracts. The result was that SSI – A states were to submit data from 2 districts, and SSI – B and SSI – C states were to submit data from 4 districts.	By clearly stating this requirement up front, it helped focus NCHEMS' efforts once federal funding was approved for new SSI partnerships. It was less of a surprise when NCHEMS contacted these districts about data.

Context Area	Issue	How Issue Was Addressed	Lessons Learned
	Was there a clearly specified data contact for the state SSI efforts?	WICHE required states responding to the RFP that resulted in SSI – B and SSI – C states to identify a data person.	This action helped, but many times the state director was also designated the data contact. Depending on the state context sometimes this worked, other times it did not. Generally, it was better if there was a separate data contact who was not the state director. The separate data contacts tended to understand the intricacies of student information systems and data a little better.
	Were there funds targeted to district data collection? Did the district data personnel and school principals know that they would have to submit data?	WICHE required states to have MOUs with participating pilot districts.	Even with the MOUs, there were a couple of cases when the district or school level personnel were adamant about not sharing their student enrollment data. In these cases, the SSI state director usually had enough supporting evidence to make the case that the district or school had to submit data. In one instance (Sheridan WY), the district withdrew from SSI.

Context Area	Issue	How Issue Was Addressed	Lessons Learned
	Are student data available at the state level?	Site visits and telephone calls clarified much of this information. The short answer is that only in a few states is student course enrollment data with grades available centrally at the state level.	Availability of data at the state level takes many forms. There is no standardization. Some states have central systems and others rely on school districts. Some states gather course grades (such as Louisiana, New Hampshire, and Utah); others do not (such as Massachusetts and Mississippi (which only gather pass/fail as defined by school)).

Context Area	Issue	How Issue Was Addressed	Lessons Learned
	When are student data available at the state level?	For those states that have centralized student data, the availability of course enrollment data may be covered by statute as it is in Utah, where an annual file could be run by the Department of Education but only one time per year in October. In Louisiana, in 2006-07 districts were asked to submit their transcript data on special request at mid-year, something which would not normally be done because no state-level reporting depends on those data files at mid-year. In 2007-08, two Louisiana districts could not provide this mid-year transcript submission; one due to a change in data system, the other because it changed scheduling formats.	When collecting student data it is necessary to clarify ahead of time what types of files (annual or term –by – term) are available and when they are available at the state level. Also, it is important to check whether transcript files (those containing student course data) are gathered at mid-year, or if that requires a special data collection.

Context Area	Issue	How Issue Was Addressed	Lessons Learned
District- and school-level data infrastructure	Does the district or school have data personnel capacity? Many of the districts and schools do not have designated data analysts. In some cases the guidance office secretary fulfills this role. Or, someone who is particularly adept with computer is the "go-to" person. The result is that when reports are due for state and district reporting these take precedence over external programs such as SSI, which are low priority.	WICHE required district-level data submissions in order for SSI monthly reimbursements to be released.	This measure increased the number and timeliness of district data submissions. It also spotlighted how many districts do not have analytic access to their data; they can only use student information as transactional data. In these cases NCHEMS spent additional time helping district data personnel determine how best to extract analytical files.

Context Area	Issue	How Issue Was Addressed	Lessons Learned
	Does the district or school have access to its data in its student information system?	NCHEMS discussed this with several districts. There are two primary scenarios here. First, in Tennessee (at the time these discussions occurred) although many districts were on the same student information system which facilitated porting data up to the state level, districts could not get into and download their own data from the system. Second, at other districts (several in Missouri), although each district had a student information system, the vendors for the systems gave little instruction to local data personnel regarding how to extract data from the system. In some cases, vendors required additional money to help districts get to their data.	NCHEMS mined the knowledge of various data personnel across districts and states. If two districts were running the same student information system, or different versions of similar systems, a conference telephone call was set up to allow data personnel to talk with their colleagues at other districts while they sat in front of their computer terminals. In this manner, three or four districts were aided in learning how to get at their data in their student information systems.

Context Area	Issue	How Issue Was Addressed	Lessons Learned
District- and school-level data infrastructure (continued)	What student information system does the school or district use?	At the beginning of SSI there were about 38 different student information systems being used at K-12 schools across the country. Systems differed widely on how easily SSI data elements could be located and extracted.	In Virginia one of the local data people wrote up the procedures for how she extracted the needed data and shared that with the other ten pilot districts in her state. In other cases, NCHEMS facilitated conference calls to help district data personnel learn more about their systems.
	In what form are data extracted from student information systems?	Because extraction of data for analysis was largely an unknown activity for many schools and districts, NCHEMS took what it could get and then standardized files. This approach meant that some data files were sent in Access, some in Excel, some in comma delimited files. Some districts encrypted their files; some zipped them. One district sent their data file in on a CD. Another district had to send the multiple data elements in approximately 15 separate text files.	While most of these forms were usable, some of them required a lot of work to consolidate data. If SSI had a longer time frame, then NCHEMS might have required schools and districts to ask their SIS vendors how to extract student data for analyses. It seems that SIS vendors would want to facilitate data use, but often it seems like they obstruct data use.

Context Area	Issue	How Issue Was Addressed	Lessons Learned
	Do district or school data personnel understand the population and data elements requested by NCHEMS?	An explanation and list of data elements was developed by NCHEMS (See Appendix A). However, student data files varied widely in what they contained from files that included only enrollments for seniors, to transcript data for seniors, to enrollments for all students, to transcript data for all students.	Those gathering student data (in this case, NCHEMS) must maintain constant attention to the population of students being submitted and the time frame for the courses, as well as the formats of submitted data.

Context Area	Issue	How Issue Was Addressed	Lessons Learned
	Was appropriate documentation and information provided with the student data file?	Because of the concerns schools and districts had about the burden of work, NCHEMS made it clear that districts and schools should do what was easiest for them when extracting data but to make sure to provide necessary variables and complete documentation including definitions so that the data files could be manipulated and analyzed.	Even with vigilance, several cases were uncovered where key variables were left off files. These were not necessarily variables needed for basic SSI analyses but were needed to make sense of data provided. For instance, one district submitted a single school's data for one term, but data for four schools in its data submission for the next term. However, the district failed to provide a variable on the file which allowed for parsing out the single school's data. In another case, definitions for the GPA and grade variables were not provided. And, in another case, although transcript data was submitted, no variable indicating which year of school a student had taken a class was provided.

Context Area	Issue	How Issue Was Addressed	Lessons Learned
	When are student data loaded and updated in student information systems? When are schools and districts able to run data files for SSI?	WICHE and NCHEMS negotiated deadlines with SSI districts and states. Academic terms and course grade availability dates do not coincide well with federal reporting deadlines. And, at K-12 schools and district offices almost everyone is absent from the building during winter break and summer.	Having WICHE and NCHEMS negotiate deadlines helped districts and schools submit complete student course data with grades.
Programming and/or Data Problems	Are data uploaded by districts the same data that make it into files submitted to NCHEMS?	NCHEMS had to constantly check to see if data was usable. One example was the reported low number of seniors in Laramie, WY. The WY state and district data personnel and NCHEMS discovered that the programming code to translate the district data files into the WY Transcript Center did not specifically name the "level" variable, which meant that it was a meaningless variable when it was downloaded by NCHEMS.	NCHEMS compared general enrollments and trends across time, flagged any oddities, and followed up to determine if they were a problem or real changes.

Context Area	Issue	How Issue Was Addressed	Lessons Learned
	Are data accurately loaded and extracted at the district, school, and NCHEMS levels?	Errors can occur at any point along the way during analysis of student data. The only way to keep on top of this is to check and recheck groups and subgroups of the population for anomalies.	NCHEMS compared general enrollments and trends across time, flagged any oddities, and followed up to determine if they were a problem or real changes.

The result is that the State Scholars Initiative has expanded its depth and breadth of understanding about how to gather numerous data elements from varied and multiple locations, how to standardize these data, aggregate them, and analyze them for course taking trends across dozens of schools and districts in up to ten states. Highlights of the lessons learned listed in Table 3 include:

- Establishing relationships with state-level, district-level, and school level data personnel is necessary because data problems may arise at any or all of these levels.
- Even after providing business-education partnerships, states, districts, and schools with specific guidance (see Appendix A) the ability of states and districts to comply and submit data as needed was extremely limited based on data personnel capacities and time available.
- There is little standardization across state and district student information systems, and these systems are often updated with no documentation of how the previous system configures with the new system. For example, when districts change from one data system to another, vendors for the new data system often did not provide information on how to extract files for analysis.
- Individuals gathering student data must maintain constant attention to the population of students being submitted and the time frame, as well as the formats of submitted data. For example, districts might submit data files with variables in one format (course title of length 10 characters and identifier in alphanumeric form) one term and data files with another format the next term (course title of length 35 characters and identifier in numeric form), which hinders the ability to merge files.
- It is especially important when allowing states and districts to submit data in a variety of forms, as the State Scholars Initiative did, to

reinforce the importance of providing complete file and variable definitions. For instance, one state provided student grade point average but not the conversion for how to use this variable as course grade, which was the needed element. Another state provided transcript level data (all courses ever taken by a student) but no variable on the file identifying at what grade level a student took a given course.

These lessons reinforce and echo the caveats put forth early in WICHE's program administration: student data are difficult to collect, student data are messy and require considerable recoding to align variables across entities, and in the absence of trend or longitudinal data, give little concrete guidance. But, it is only by using data and going through these processes in an iterative manner that errors can be uncovered and lessons learned. Having collected five terms of student data for the State Scholars Initiative, the data collection processes at districts and schools, and at NCHEMS, now are more consistent, coding has been standardized, a strong foundation of trend data is available and slight but true changes in student course taking behavior in high school are evident.

Project Goal 2: Influence High School Student Course Taking Patterns

The State Scholars Initiative engages the business community to help influence students' course taking behavior. Therefore, high school course taking patterns are of interest and required in the *Federal Register* notice.

Evaluative Questions:

1. **How many students enrolled in the individual courses required in the State Scholar Initiative rigorous curriculum?**
2. **How many students enrolled in the State Scholar Initiative rigorous curriculum in its entirety? How many of those students completed the State Scholar Initiative rigorous curriculum in its entirety?**
3. **What difference did enrolling in the State Scholar Initiative rigorous curriculum and its individual courses make in high school students' lives?**
4. **When the State Scholar Initiative curriculum was adapted for local use, did it make a difference in student course enrollments? In other student outcomes?**

These four evaluative questions frame the work done for the State Scholars Initiative in terms of student level outcome data. The third year of student enrollment data (which corresponds to Year Four of WICHE program administration) allows for trend analyses including whether more students (in absolute numbers as well as percentages) are taking courses comprising the SSI Core Course of Study and if there are any shifts in characteristics of the students enrolling in these SSI Core Course of Study courses. Note that Evaluative Questions 2, 3, and 4 rely on longitudinal data to make

determinations about the long-term outcome of the State Scholars Initiative. Due to the nature of these questions, which require longitudinal data, they cannot be answered using the available student enrollment data. States have two or three years of SSI federal funding. However, they need to sustain not only their programs but also data collection and analysis in order to amass four to six years worth of longitudinal data before enrollment patterns and trends as well as post-graduation outcomes are known.

The *Federal Register* notice as well as state contracts (in section h.1.A. and the Performance Measures listed in 4.i. and 4.ii) call for these data:

a. The number of students completing each class that is a component of the SSI rigorous course of study. Total number of students in participating schools and districts and for each course offered at the school or district. The following student characteristics should be provided for each set of numbers: race and ethnicity, gender, family income level, limited English proficiency, and disability. The provision of numbers and total numbers will allow for the calculation of pertinent percentages. This data collection activity will allow us to measure the breadth and depth of the implementation. Presumably these numbers can be totaled to arrive at an overall state number that is parallel to those of the schools and districts. If not, then the partnership must provide similar data *for the state* disaggregated by race and ethnicity, gender, family income level, limited English proficiency, and disability.
b. The availability of classes each term that comprise the rigorous State Scholars Core Course of Study in participating schools and districts. This data collection activity will allow us to determine whether full implementation of the program was possible. Presumably these numbers can be totaled to arrive at an overall state number that is parallel to those of the schools and districts. If not, then the partnership must provide similar data *for the state* disaggregated by race and ethnicity, gender, family income level, limited English proficiency, and disability.
c. The number of students in participating schools and districts completing the entire rigorous State Scholars Core Course of Study. The following student characteristics should be provided for each set of numbers: race and ethnicity, gender, family income level, limited English proficiency, and disability. The provision of numbers and total numbers will allow for the calculation of pertinent percentages. This data collection activity will allow us to measure the breadth and depth of the implementation. Presumably these numbers can be totaled to arrive at an overall state number that is parallel to those of the schools and districts. If not, then the partnership must provide similar data *for the state* disaggregated by race and ethnicity, gender, family income level, limited English proficiency, and disability.

Findings from Student Enrollment Data

Student enrollment data findings are presented in three sections below. The first section includes a summary of data submitted by SSI states and districts for Fall 2008, the most recent academic term. The second section presents course enrollment trend data over five terms. The final section is a summary of Project Goal 2.

Every district and state with continued SSI federal funding submitted Fall 2008 data, and some districts and states that are no longer on federal funding submitted data. All of these data are included in the results presented in this report. All totaled since the beginning of SSI under WICHE's program administration, data on over 1,458,724 student enrollments have been gathered over three years by SSI pilot districts with the associated demographic variables (sex, race/ethnicity, Limited English Proficiency, economic disadvantage, disability) and course grades in most cases. Table 4 which provides a summary of districts by state that submitted Fall 2008 data also illustrates state and school district data submission variability across terms.

Table 4. Status of Student Level Outcome Data for SSI States

Updated March 10, 2009

SSI Group	State	District/ School	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008
SSI – B	Louisiana	East Baton Rouge Parish	X	X	X	X	X
		Ouachita Parish	X	X	X	X	No midyear transcript data
		Rapides Parish	X	X	X	X	No midyear transcript data
		West Feliciana Parish	X	X	X	X	X
	Massachusetts	Assabet	X	X	X	Funding complete. Will not be providing additional data.	
		Burlington	X	X	X		
		Chicopee	X	X	X		
		Worcester North	X	X	X		
	Nebraska	Chase County	X	X	X	Funding complete. No longer participating in SSI Network.	
		Grand Island	X	X	X		
		Papillion-LaVista	X	X	X		
		South Sioux City	X	X	X		
	Utah	Granite	X (Annual File)		X (Annual File)		No Fall 2008 submission because Annual File.
		Jordan	X (Annual File)		X (Annual File)		No Fall 2008 submission because Annual File.
		Park City	X (Annual File)		X (Annual File)		No Fall 2008 submission because Annual File.
		Provo	X (Annual File)		X (Annual File)		No Fall 2008 submission because Annual File.
	Virginia	Albemarle County	X	X	X	X	X
		Alexandria	X	X	X	X	Chose not to submit.
		Bristol County	X	X	X	X	X
		Carroll County	X	X	X	X	Chose not to submit
		Chesterfield County	X	X	X	X	Chose not to submit
		Henry County	X	X	X	X	X
		Lancaster County	X	X	X	X	X
		Nottoway County	X	X	X	X	X
		Richmond City	X	X	X	X	X
		Scott County	X	X	X	X	X
		WmByrd HS	X	X	X	X	X

SSI Group	State	District/ School	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008
	West Virginia	Braxton County	X	X	X	X	Funding complete. Will not be providing additional data.
		Monroe County	X	X	X	X	
		Ohio County	X	X	X	X	
		Wood County	X	X	X	X	

SSI Group	State	District/ School	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008
SSI - C	Missouri	Houston	X	X	X	X	X
		Jennings	X	X	X	X	X
		Mexico	X	X	X	X	X
		Rockwood	X	X	X	X	X
	New Hampshire	Claremont	X	X	X (no grades)	X (no grades)	X (no grades)
		Gilford	X	X	X	X	X
		Newport	X	X	X	X	X (no grades)
		Winnisquam	X	X	X	X	X
	South Dakota	Sisseton SD 54-2	X	X	X	X	X
		Sturgis Brown HS, Meade SD 46-1	X	X	X	X	X
		Vermillion SD 13-1	X	X	X	X	X
		Wagner Community SD 11-4	X	X	X	X	X
	Wyoming	Fremont	X	X	X	X	X
		Laramie	X	X	X	X	X
		Natrona	X	X	X	X	X
		Niobrara	X	X	X	X	X

In Year Four of WICHE's SSI program administration, all classes that comprise the rigorous course of study in the State Scholars Initiative were available in all 27 reporting districts in two SSI – B states (Louisiana (two districts) and Virginia (eight districts)) and four SSI – C states (Missouri, New Hampshire, South Dakota, and Wyoming). However, student enrollment percentages available from cross-sectional data continue to indicate that given current student course taking patterns only a small percentage of high school students in these 27 districts would graduate with a complete rigorous SSI Core Course of Study in high school. This estimation is based on the percentage of students taking the most restrictive aspects of the SSI Core Course of Study, those courses often not required of all students: chemistry, physics, and language other than English. This finding has persisted throughout the State Scholars Initiative. However, year-to-year comparison data indicate progress on ameliorating this low percentage. Data on State Scholars Initiative enrollments from Fall 2006 to Fall 2008 are promising; these data indicate increasing enrollments in courses

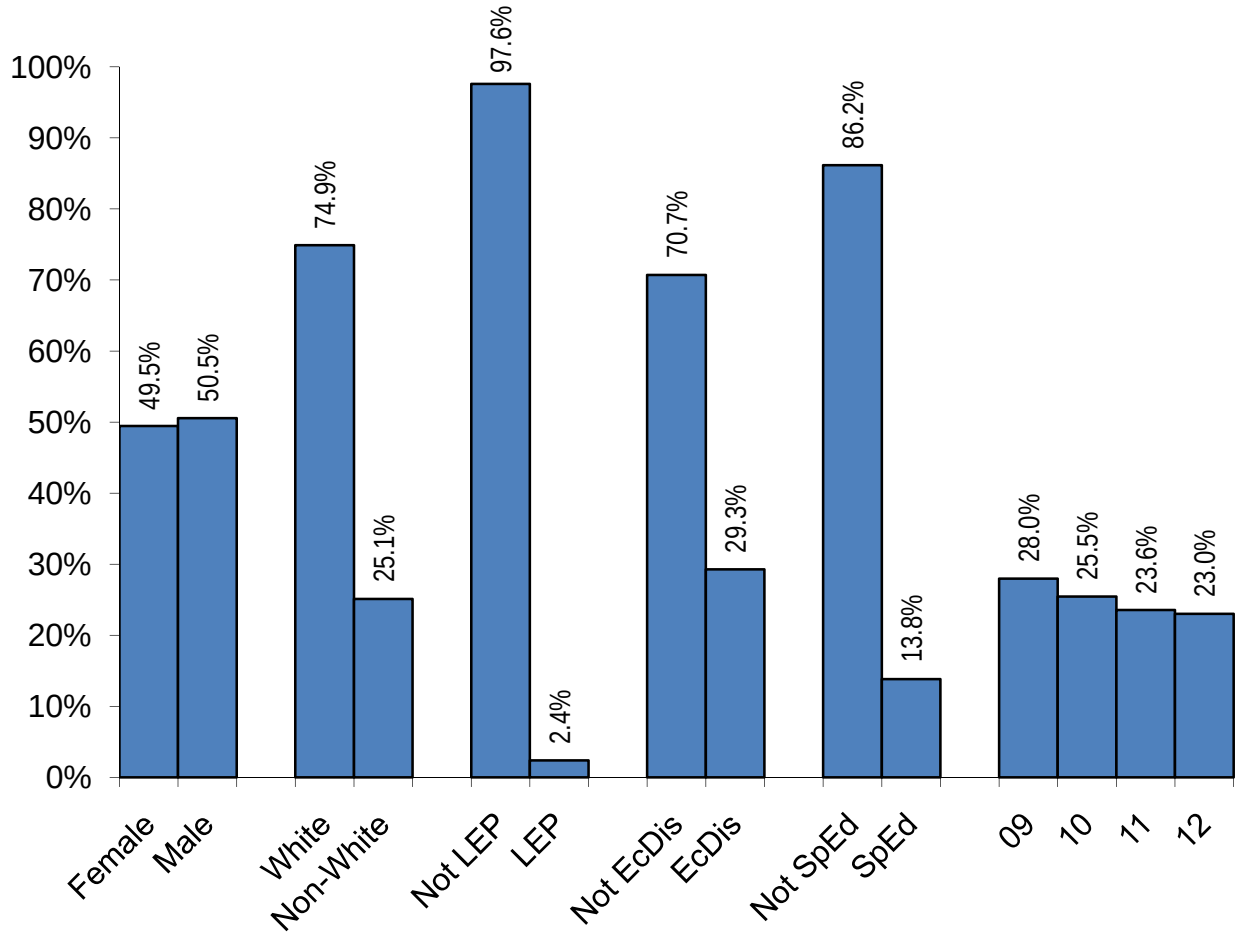
comprising the SSI Core Course of Study. Students are changing their course taking patterns by enrolling in rigorous courses.

Fall 2008 Summary

Two SSI – B states (Louisiana and Virginia) and all SSI - C states (Missouri, New Hampshire, South Dakota, and Wyoming) submitted data files for Fall 2008. However, Louisiana data were available in only two of the four pilot districts (East Baton Rouge and West Feliciana). The Ouachita Parish district in Louisiana moved to a new student information system this year and found errors in the transcript reporting function; therefore, the district only reported data for seniors after Fall 2008 term and no data for 9th, 10th, or 11th graders. Rapides Parish district changed from block scheduling this year and cannot submit transcript data at mid-year. Virginia, which is post-SSI federal funding, has continued to supply data and eight of the eleven pilot districts again provided data for Fall 2008. Albemarle division in Virginia continued to report on additional schools. Other SSI – B states have concluded their SSI federal funding. While in three of these states (Massachusetts, Utah, and West Virginia) SSI programs continue, these states are no longer submitting data to NCHEMS. Nebraska concluded its SSI program December 31, 2007. All pilot districts in the SSI – C states provided Fall 2008 data. As they did in Year Three, Wyoming submitted data for five districts (Big Horn #3, Fremont #25, Laramie #2, Natrona #1, and Niobrara #1). Therefore, enrollment data for this single term (Fall 2008) of SSI come from six states (Louisiana, Missouri, New Hampshire, South Dakota, Virginia, and Wyoming). Since some districts submitted data for additional schools and one state submitted data for an additional district, those are included in these numbers. Figure 1 presents Fall 2008 SSI participation by student demographic category.

Figure 1. SSI Enrollment by Categories

(Based on Fall 2008 data available on 3/10/2009) Includes 27 districts in six states
Total N = 24,316



The percentages of students by demographic category (gender, race/ethnicity, limited English proficiency, economic disadvantage, and special education) have remained relatively constant over the course of the State Scholars Initiative. This result is to be expected since student enrollment data were reported from a limited and constant set of pilot school districts.

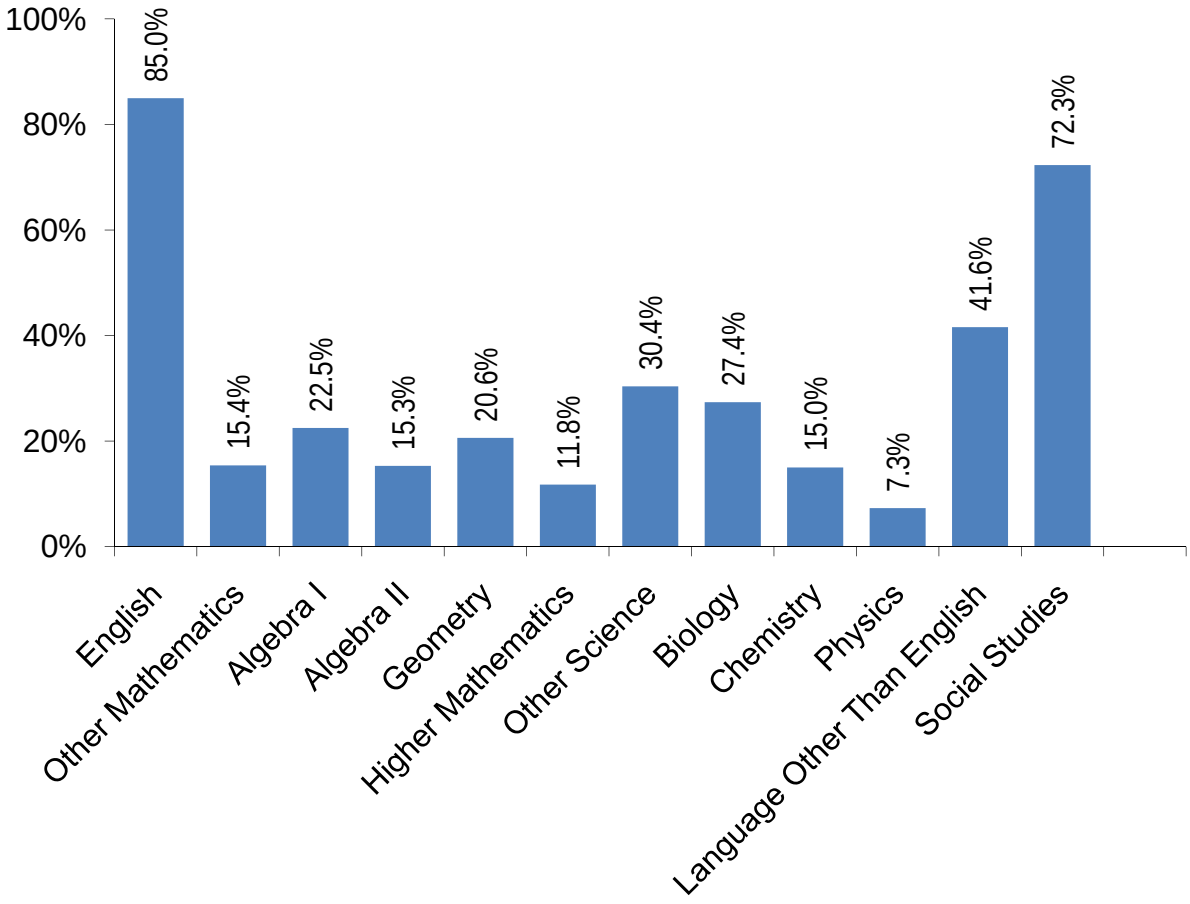
Each of the courses comprising the SSI Core Course of Study was offered in all SSI districts in these six reporting SSI states. Table 5 and Figure 2 contain the number and percent of students enrolled by SSI Course Type in Fall 2008.

Table 5. Number of Students by SSI Course Type

SSI Course Type Coding	SSI Course Type	Number of Students (27 districts reporting)	% of Total
		Fall 2008	Fall 2008
1	English	20,662	85.0%
Mathematics			
2	Other Mathematics	3,747	15.4%
3	Algebra I	5,466	22.5%
4	Algebra II	3,722	15.3%
5	Geometry	5,009	20.6%
6	Higher Mathematics	2,860	11.8%
Science			
7	Other Science	7,384	30.4%
8	Biology	6,657	27.4%
9	Chemistry	3,650	15.0%
10	Physics	1,775	7.3%
11	Language Other Than English	10,115	41.6%
12	Social Studies	17,582	72.3%

Figure 2. Enrollment - All Grades (9th - 12th) by SSI Course Type, Fall 2008

(Based on Fall 2008 data available on 3/10/2009) Includes 27 districts in six states
Total N = 24,316



Here is an example of how to interpret Figure 2: the bar indicating the percentage enrolled in English shows that 85.0% of all 9th through 12th graders in these 27 districts in six SSI states were enrolled in at least one English class during the Fall 2008 term.

A key finding is that based on data presented here only a small percentage of high school students in these 27 districts in six SSI states would have taken the SSI Core Course of Study. This estimation is based on the percentage of students taking the most restrictive aspects of the SSI Core Course of Study: chemistry, physics, and language other than English. If only 41.6% of Fall 2008 students are enrolled in language other than English, then nearly 60% are not enrolling in these courses. The percent enrolled in chemistry for this same set of students is 15%; that means that 85% of the students enrolled in Fall 2008 did not take chemistry. While many of the students who are not enrolled in chemistry may be lower division students (9th and 10th graders), among juniors who might be expected to enroll in chemistry only about one-

third (36.8%) did so in Fall 2008 (see Appendix F). Furthermore, the percentage of students enrolled in physics is 7.3% for students overall in Fall 2008. If chemistry courses are considered "prerequisites" for physics enrollment, using Fall 2008 data only 36.8% of juniors will be eligible to enroll in physics as seniors in Fall 2009. Using parallel data for the percent of seniors enrolled in physics in Fall 2008 (see Appendix F); only 15% of seniors take physics. This example illustrates how the funneling effect of course enrollments and taking sequences of courses in high school can eventually seriously limit whether a student can graduate with a full complement of rigorous courses such as required by the SSI Core Course of Study. This narrowing of choices is one of the main reasons the State Scholars Initiative targets students in 8th grade before they make high school course taking selections.

Furthermore, the finding that few students will be eligible to graduate with a full menu of rigorous courses persists across SSI program years. Although cross-sectional data drawn from various terms do not represent the exact same sets of students, the percentage of students in language other than English has remained approximately one-fourth to one-third of the total students and physics enrollments hover at less than ten percent. Based on submitted data, only a small percentage of high school students in participating SSI districts and states will have taken the SSI Core Course of Study. Year – to – year comparison data presented below reinforce this finding but also show promising gains (although relatively small percentage changes) over time at SSI pilot districts. These findings highlight both the difficulty in gathering data on student course taking but also the positive influence that targeted effort can make in high school student course taking behaviors in a relatively short amount of time.

Year–to-Year Trend Analysis of Student Enrollment

Of interest is whether more students are indeed enrolling in courses that comprise the SSI Core Course of Study. Early trend data suggest that students are taking more rigorous courses when challenged to do so.

Longitudinal data are not available, but cross-sectional data from 2006-2007, 2007-2008, and Fall 2008 are available for comparison. Longitudinal data would follow the same students through several years. Cross-sectional data is a "snapshot" of data for students enrolled at a particular time; the particular set of students enrolled in these schools and districts included in cross-sectional data may change from time frame to time frame. These data from four states and 18 districts represent 18,136 students who enrolled in 191,581 courses in Academic Year 2006-07, 16,638 students with 186,417 course enrollments in Academic Year 2007-08, and 14,610 students enrolled in 90,995 courses in Fall 2008.

For comparability, only schools, districts, and states that have complete student enrollment data for all five terms are used in this analysis. Summary information presented here is based on data from the following SSI states:

- Louisiana – two pilot districts (East Baton Rouge and West Feliciana)

- Missouri – all four districts
- South Dakota – all four districts
- Virginia – eight districts (no Alexandria City, Carroll County, or Chesterfield County, and only Monticello schools for Albemarle)

Student characteristics from the districts used for year-to-year (2006-07 to 2007-08 to Fall 2008) comparison are similar across years (see Figure 3 and Table 6). Any differences seen in economically disadvantaged levels are likely attributable to variability in whether states and districts reported this information. The changes in relative percentage of Non-White and White students are suspect because these data are pulled from the same districts across five terms and it is unlikely that these districts are experiencing dramatic shifts in demographic population. It may be that some of these data were extracted incorrectly.

Figure 3. Year-to-Year Comparison of SSI Enrollment by Demographic Categories

(Based on comparable data available on 3/10/2009) Includes 18 districts from four states Total N = 18,136 in 2006-07, Total N = 16,638 in 2007-08, and Total N = 14,610 in Fall 2008

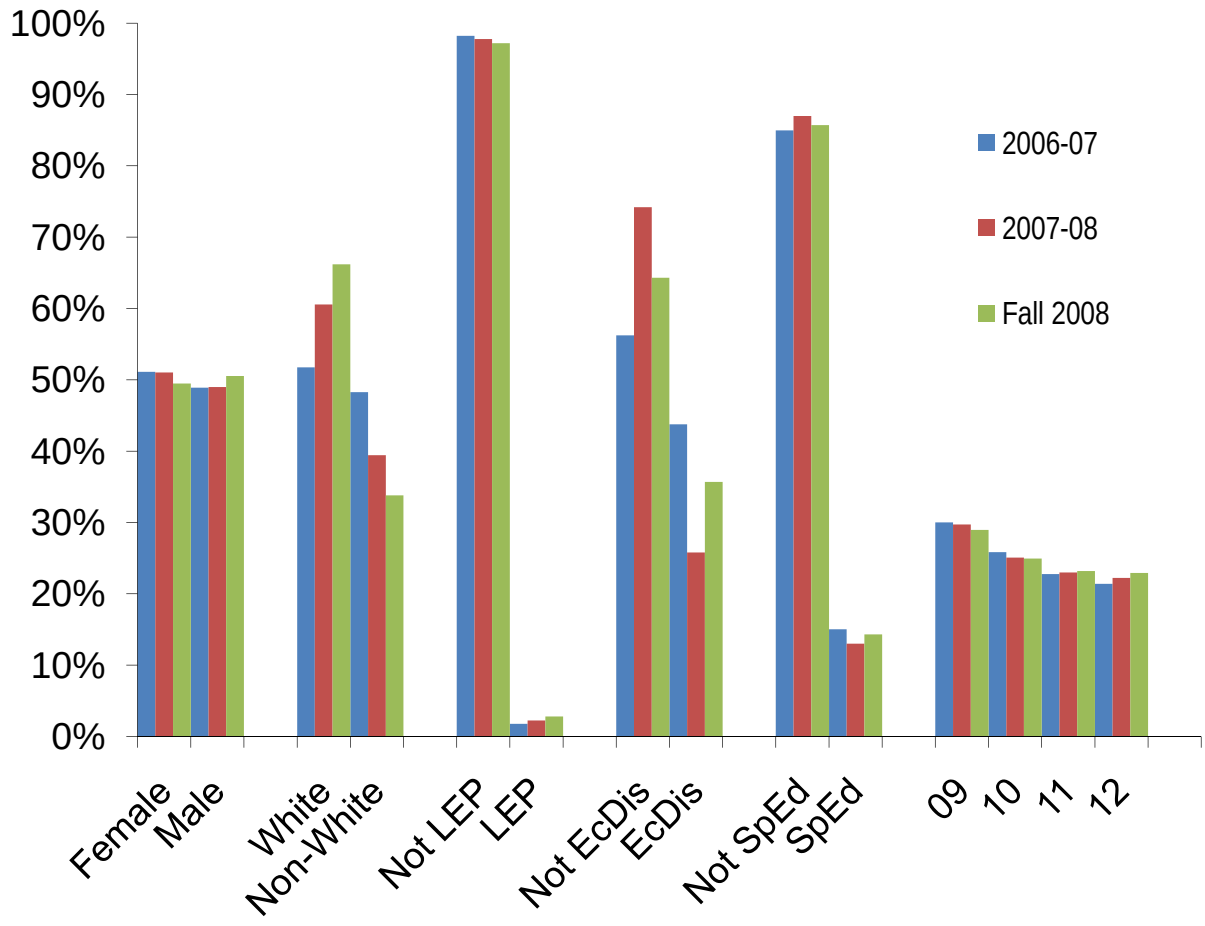


Table 6. Year-to-Year Comparison of Number and Percent of SSI Students by Demographic Categories

Student Characteristics	2006-07		2007-08		Fall 2008	
	Number of Students (18 districts)	% of Total	Number of Students (18 districts)	% of Total	Number of Students (18 districts)	% of Total
Female	9,270	51.1%	8,489	51.0%	7,228	49.5%
Male	8,866	48.9%	8,149	49.0%	7,382	50.5%
White	9,383	51.7%	10,076	60.6%	9,672	66.2%
Non-White	8,753	48.3%	6,562	39.4%	4,938	33.8%
Not Limited English Proficiency	17,816	98.2%	16,267	97.8%	14,201	97.2%
Limited English Proficiency	320	1.8%	371	2.2%	409	2.8%
Not Economically Disadvantaged	10,199	56.2%	12,346	74.2%	9,396	64.3%
Economically Disadvantaged	7,937	43.8%	4,292	25.8%	5,214	35.7%
Not in Special Education	15,411	85.0%	14,474	87.0%	12,521	85.7%
In Special Education	2,725	15.0%	2,164	13.0%	2,089	14.3%
09 graders	5,441	30.0%	4,946	29.7%	4,231	29.0%
10 graders	4,686	25.8%	4,170	25.1%	3,643	24.9%
11 graders	4,129	22.8%	3,825	23.0%	3,389	23.2%
12 graders	3,880	21.4%	3,697	22.2%	3,347	22.9%

For a year-to-year comparison of the percent of enrollment by SSI Course Type (based on the districts with comparable data), see Table 7 below. As with any program such as the State Scholars Initiative, the ability to causally link change specifically to SSI is impossible; nevertheless, these data represent a basis for long-term trend analysis. Lower 2007-2008 enrollments were seen for other mathematics with an increase in Fall 2008. Algebra II also shows a decrease in 2007-08 enrollments with a rebound in Fall 2008 to previous levels. Other science and other mathematics show some variation across these five terms.

Generally, there is a trend of more students enrolling each Fall term (2006 to 2007 to 2008) in English (from 71.7% to 83.5%), algebra I (from 21.3% to 24.2%), geometry (from 18.2% to 21.4%), higher mathematics (from 8.5% to 11.8%), biology (from 22.9% to 29.0%), chemistry (from 12.1% to 14.0%), physics (from 3.8% to 5.0%), language other than English (from 33.1% to 40.3%), and social studies (from 62.8% to 68.8%). These small but steady increases over time indicate that students are shifting to differentially enroll in courses that comprise the SSI Core Course of Study.

Table 7. Year-to-Year Comparison of SSI Enrollments by SSI Course Type

SSI Course Type	Number of Students (18 districts)					% of Total				
	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008
English	13,011	13,906	12,905	12,241	12,201	71.7%	76.7%	77.6%	73.6%	83.5%
Other Mathematics	2,106	2,610	1,934	1,816	1,894	11.6%	14.4%	11.6%	10.9%	13.0%
Algebra I	3,865	3,587	3,841	3,367	3,531	21.3%	19.8%	23.1%	20.2%	24.2%
Algebra II	2,697	2,813	2,279	2,228	2,131	14.9%	15.5%	13.7%	13.4%	14.6%
Geometry	3,304	3,370	3,481	3,281	3,132	18.2%	18.6%	20.9%	19.7%	21.4%
Higher Mathematics	1,535	1,804	1,828	1,779	1,726	8.5%	9.9%	11.0%	10.7%	11.8%
Other Science	5,493	5,151	4,707	4,297	4,413	30.3%	28.4%	28.3%	25.8%	30.2%
Biology	4,155	4,725	4,802	4,516	4,235	22.9%	26.1%	28.9%	27.1%	29.0%
Chemistry	2,203	2,218	2,149	2,066	2,048	12.1%	12.2%	12.9%	12.4%	14.0%
Physics	694	711	914	834	730	3.8%	3.9%	5.5%	5.0%	5.0%
Language Other Than English	6,003	5,007	6,133	5,651	5,881	33.1%	27.6%	36.9%	34.0%	40.3%
Social Studies	11,397	12,079	11,164	10,801	10,045	62.8%	66.6%	67.1%	64.9%	68.8%

Trends in enrollments and percent of students failing by SSI Course Type are shown in Figure 4 through Figure 13. Each SSI Core Course of Study category has two charts associated with it: one showing the trend in percent enrolled and one that shows the percent of students failing by term. Before each set of charts is a paragraph explaining the main findings from those charts.

English enrollments for all 9th, 10th, 11th, and 12th grade students in 18 SSI districts in four states with data for the five terms of interest show a lower overall enrollment (71% to 83%) than might be expected given that all students (including English language learners and students with disabilities) must take English each year of high school. The good news is that across time as measured from Fall term to Fall term, the percentage has been increasing from 71.7% in Fall 2006 to 77.6% in Fall 2007 to 83.5% in Fall 2008. Failure rates in English have remained fairly constant at about 11 to 12 percent over the five terms of enrollment shown in Figure 5. Spring 2007 shows a higher failure rate but it is unknown why this increase occurred.

Figure 4. Comparison of SSI Enrollment All Grades (9th – 12th), 2006-07, 2007-08, and Fall 2008 - ENGLISH

(Based on comparable data available on 3/10/2009) Includes 18 districts from four states
Total N = 18,136 in 2006-07, Total N = 16,638 in 2007-08, and Total N = 14,610 in Fall 2008

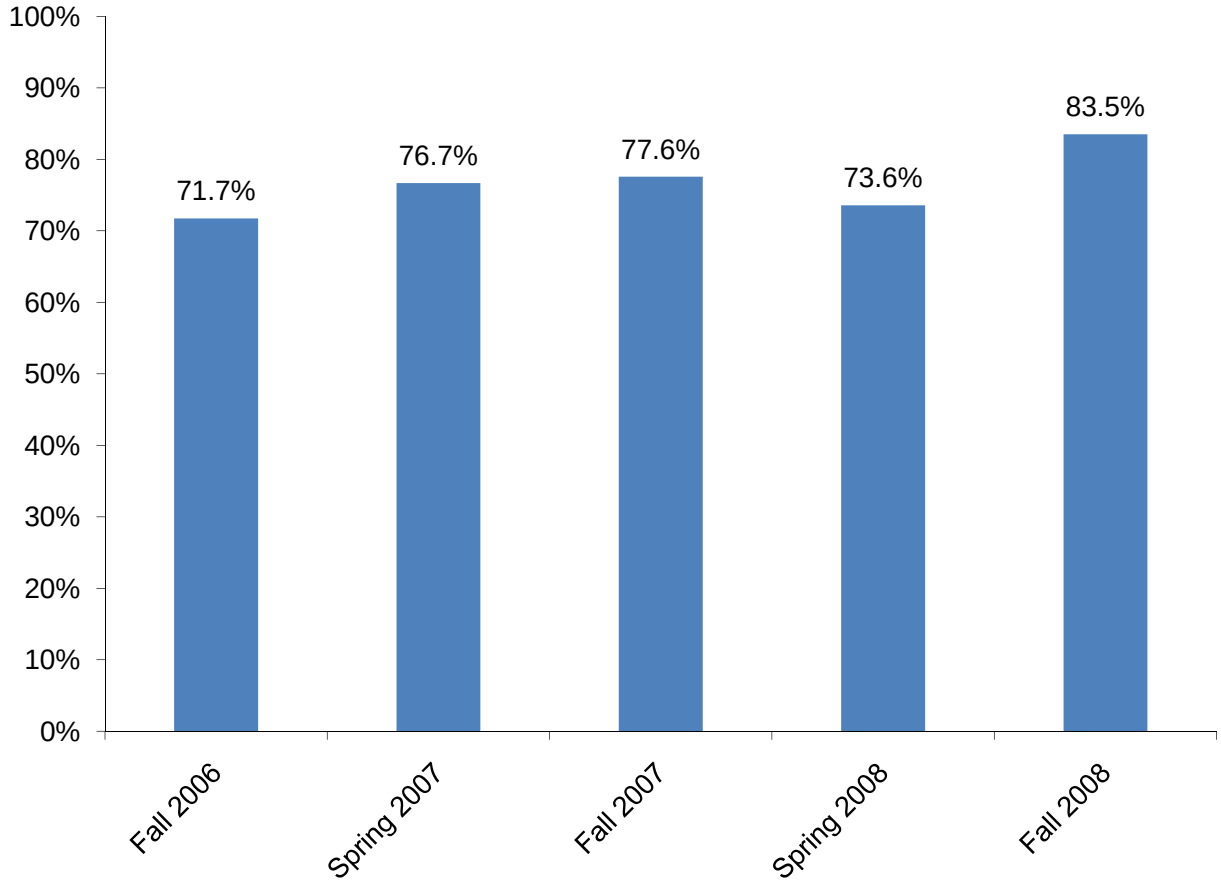
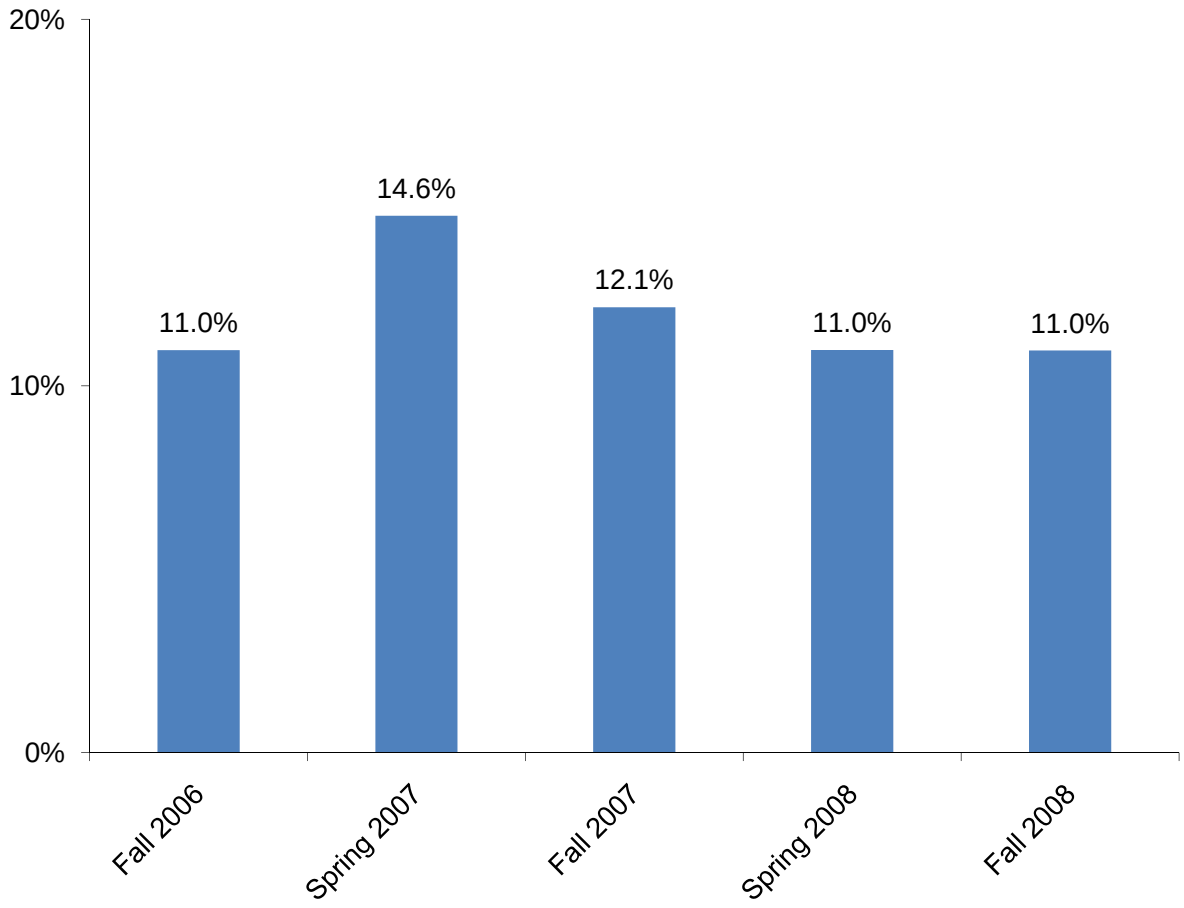

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
71.7%
76.7%
77.6%
73.6%
83.5%
Fall 2006
Spring 2007
Fall 2007
Spring 2008
Fall 2008

Figure 5. Comparison of Failure Rates All Grades (9th – 12th), 2006-07, 2007-08, and Fall 2008 – ENGLISH



The enrollment for each type of mathematics course is shown in Figure 6, and the percentage of students failing each type of mathematics courses is given in Figure 7. Algebra I increased steadily from a Fall 2006 enrollment of 21.3% to 23.1% in Fall 2007 to 24.2% in Fall 2008. Spring enrollments show slight decreases, probably a result of students dropping the class. Geometry, which is usually the second course in a mathematics sequence, also shows a modest but steady increase across the three Fall terms from 18.2% to 20.9% to 21.4%. Enrollments in algebra II remained steady across terms. An encouraging signal in these data is that the percent enrollment in other mathematics is showing some decrease and the percent enrolling in higher mathematics shows an upward trend, which could indicate that students are taking their mathematics courses earlier in high school.

Students failing or withdrawing from the various mathematics courses did not change dramatically from Fall 2006 through Fall 2008. It might be expected that if more students were encouraged to take mathematics courses above their current abilities the failure rates would increase as well. This phenomenon is not seen in data from these

18 districts in four SSI states. Although there is a small increase in rates for algebra I in Fall 2007 and Spring 2008, the failure rate returns to a more moderate level in Fall 2008.

Figure 6. Comparison of SSI Enrollment All Grades (9th – 12th), 2006-07, 2007-08, and Fall 2008 - MATHEMATICS

(Based on comparable data available on 3/10/2009) Includes 18 districts from four states Total N = 18,136 in 2006-07, Total N = 16,638 in 2007-08, and Total N = 14,610 in Fall 2008

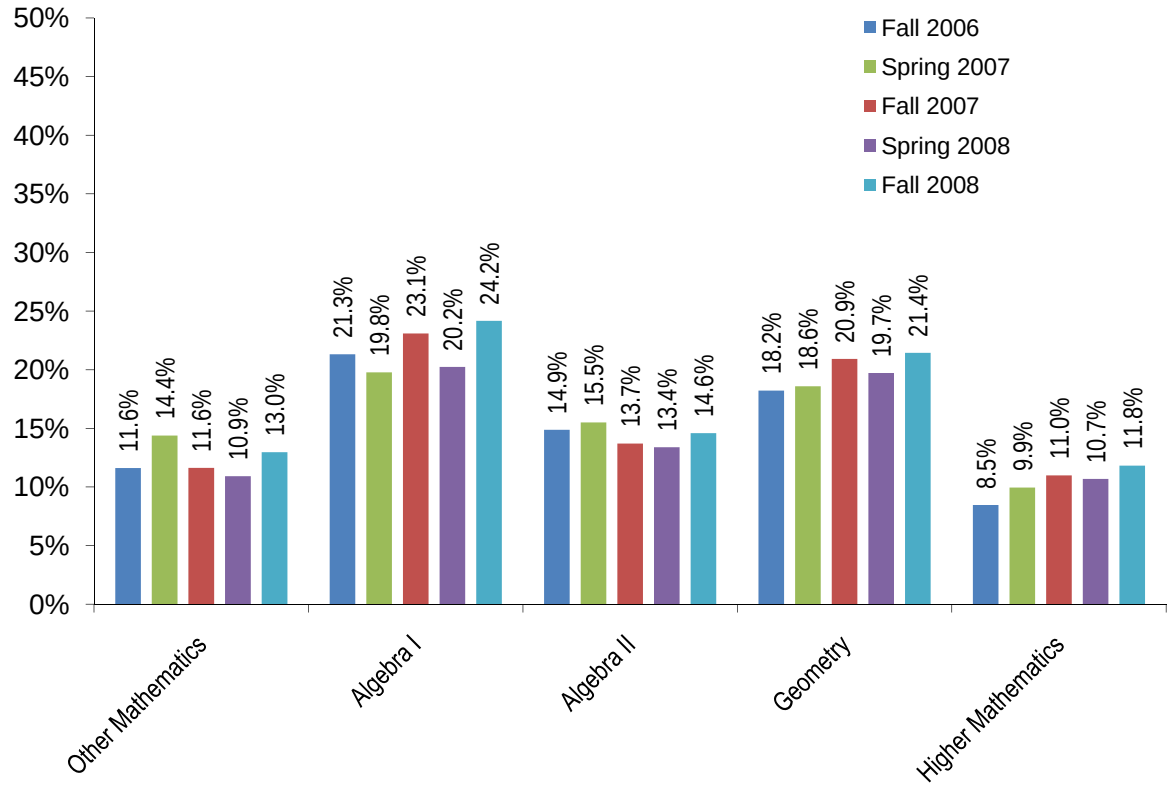
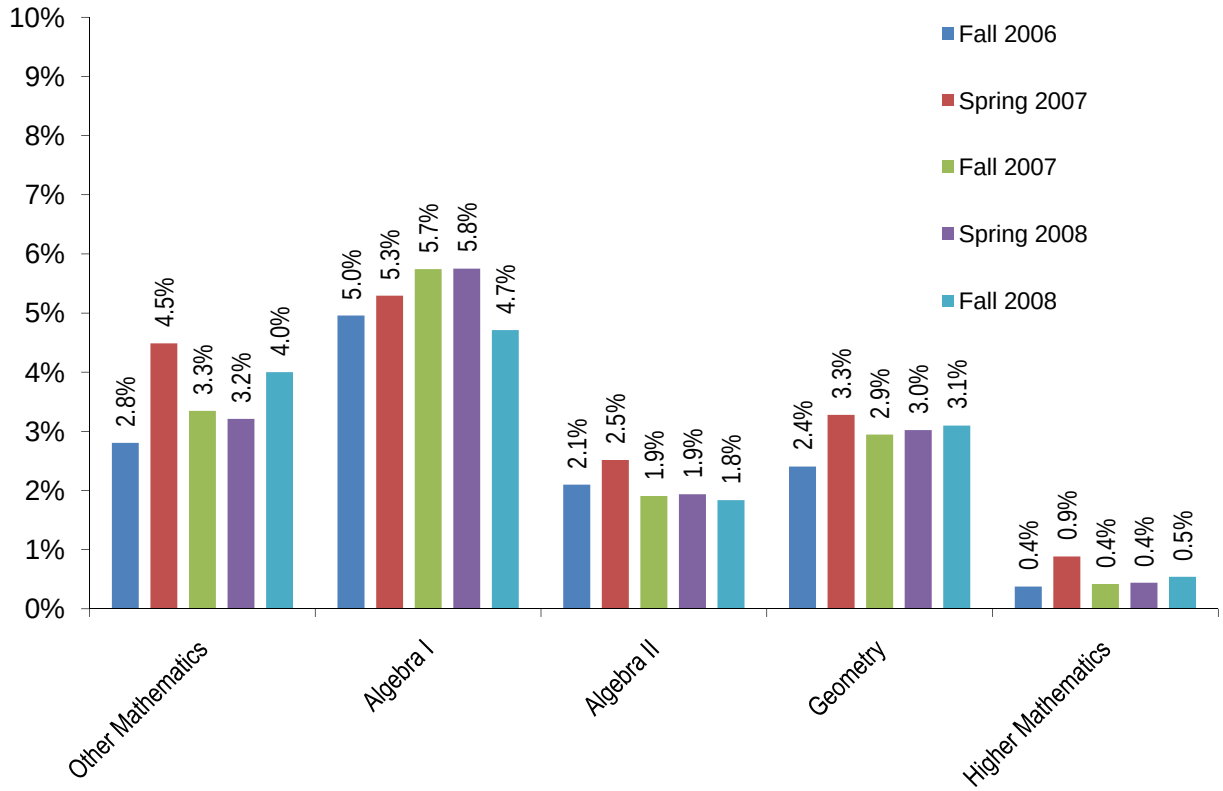


Figure 7. Comparison of Failure Rates All Grades (9th – 12th), 2006-07, 2007-08, and Fall 2008 – MATHEMATICS



Trends in science course enrollments are shown in Figure 8 below. Enrollments in biology increased from 22.9% in Fall 2006 to 28.9% in Fall 2007 to 29.0% in Fall 2008. Similarly, chemistry increased gradually from 12.1% to 14.0% in that time frame. Physics enrollments increased from 3.8% in Fall 2006 to 5.5% in Fall 2007 but fell back slightly in Fall 2008 to 5.0%. Enrollments in other science decreased steadily from Fall 2006 to Spring 2008 but inexplicably increased again to 30.2% in Fall 2008. Only biology failure rates indicate much variation and even those rates are in a limited range (3.4% to 4.8%).

Figure 8. Comparison of SSI Enrollment All Grades (9th – 12th), 2006-07, 2007-08, and Fall 2008 - SCIENCE

(Based on comparable data available on 3/10/2009) Includes 18 districts from four states Total N = 18,136 in 2006-07, Total N = 16,638 in 2007-08, and Total N = 14,610 in Fall 2008

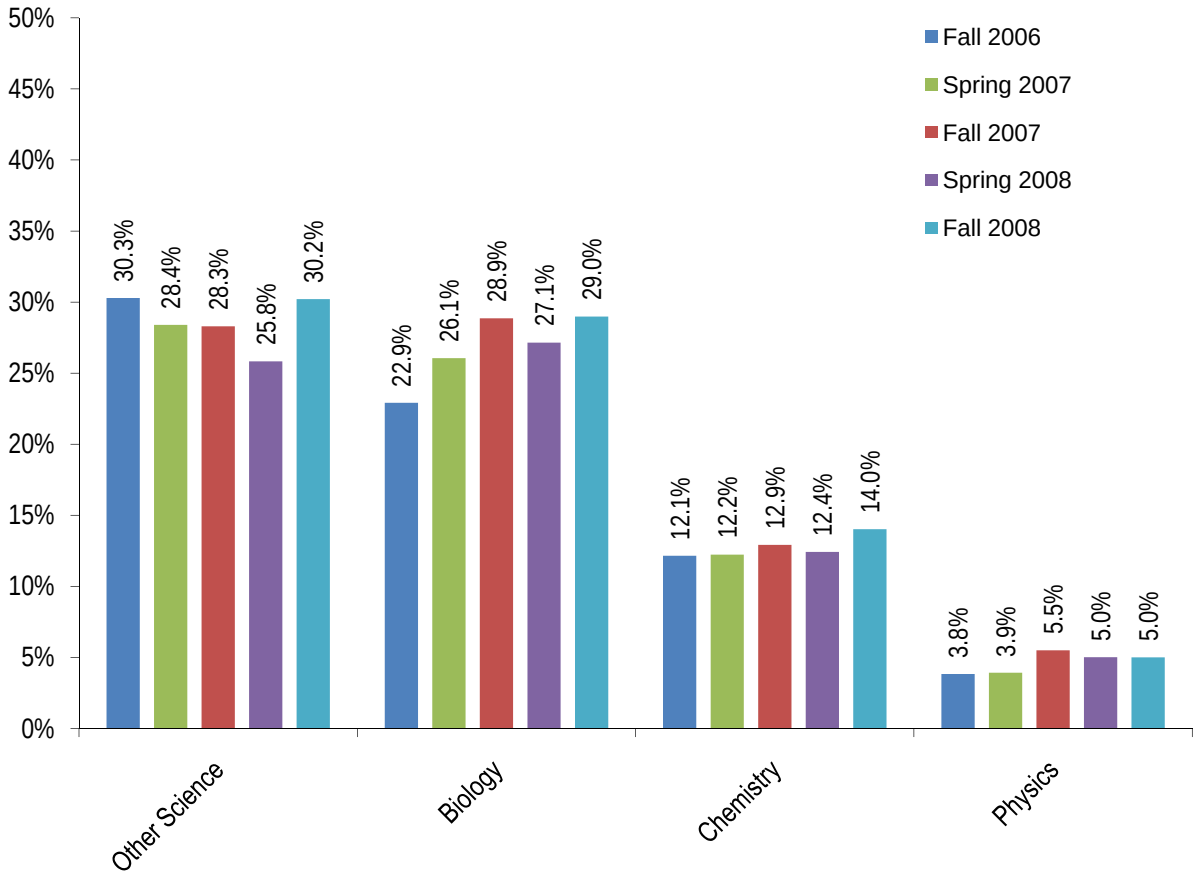
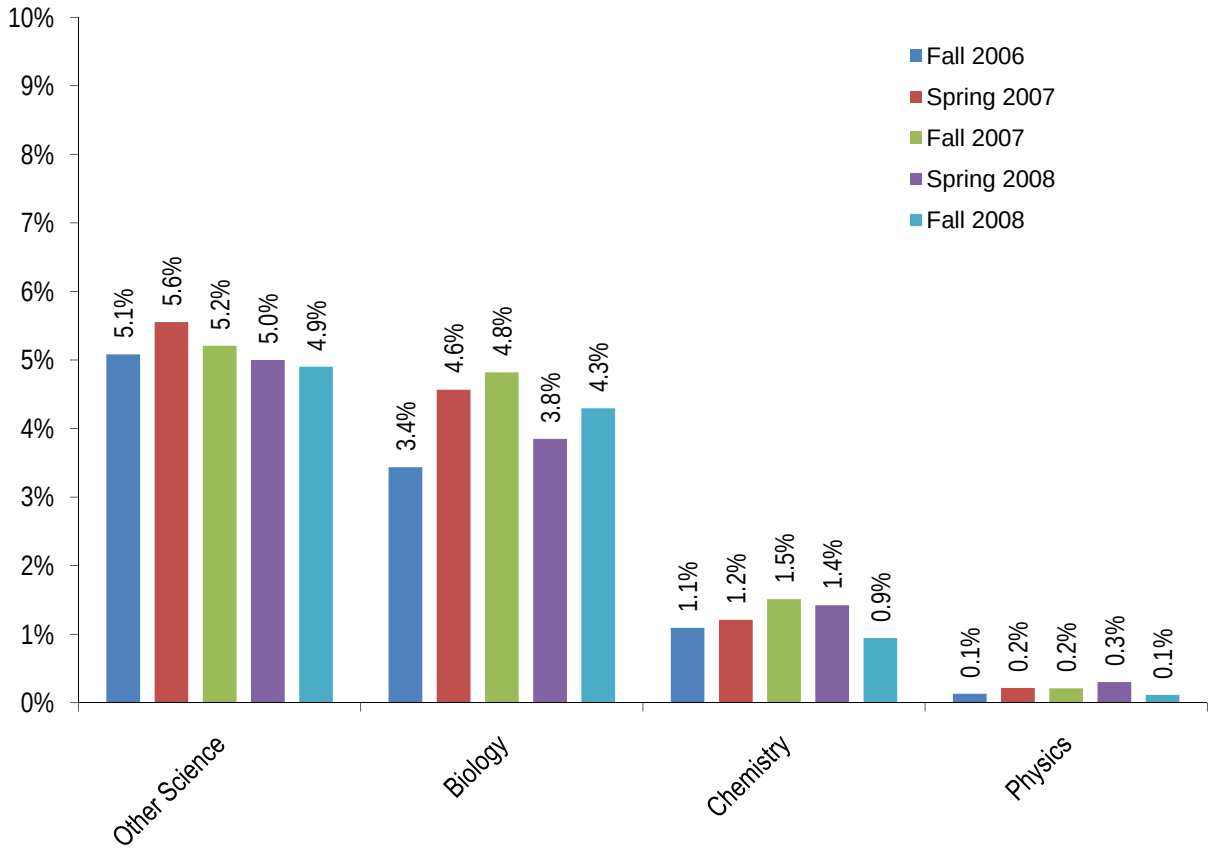


Figure 9. Comparison of Failure Rates All Grades (9th – 12th), 2006-07, 2007-08, and Fall 2008 – SCIENCE



Language other than English enrollments increased progressively from Fall 2006 (33.1%) to Fall 2007 (36.9%) to Fall 2008 (40.3%) (see Figure 10). This outcome is encouraging because early data indicated that language other than English was a deficit area for many students wanting to complete the full SSI Core Course of Study. There was a small increase in students failing language other than English courses in Spring 2008 but all other terms show consistent failure rates. This outcome is another indication that when asked to enroll in more rigorous courses students are capable of doing so.

Figure 10. Comparison of SSI Enrollment All Grades (9th – 12th), 2006-07, 2007-08, and Fall 2008 –
LANGUAGE OTHER THAN ENGLISH

(Based on comparable data available on 3/10/2009) Includes 18 districts from four states Total N = 18,136 in 2006-07, Total N = 16,638 in 2007-08, and Total N = 14,610 in Fall 2008

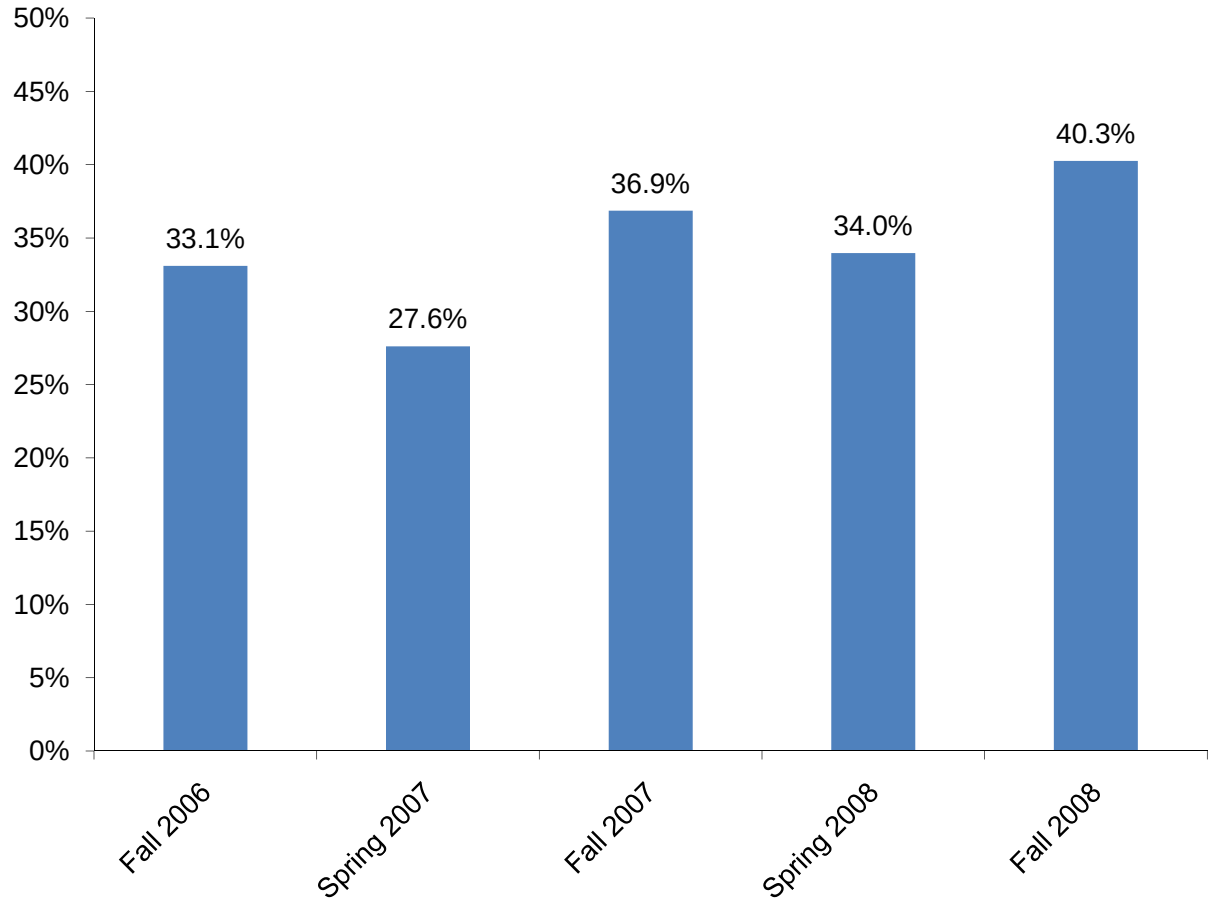
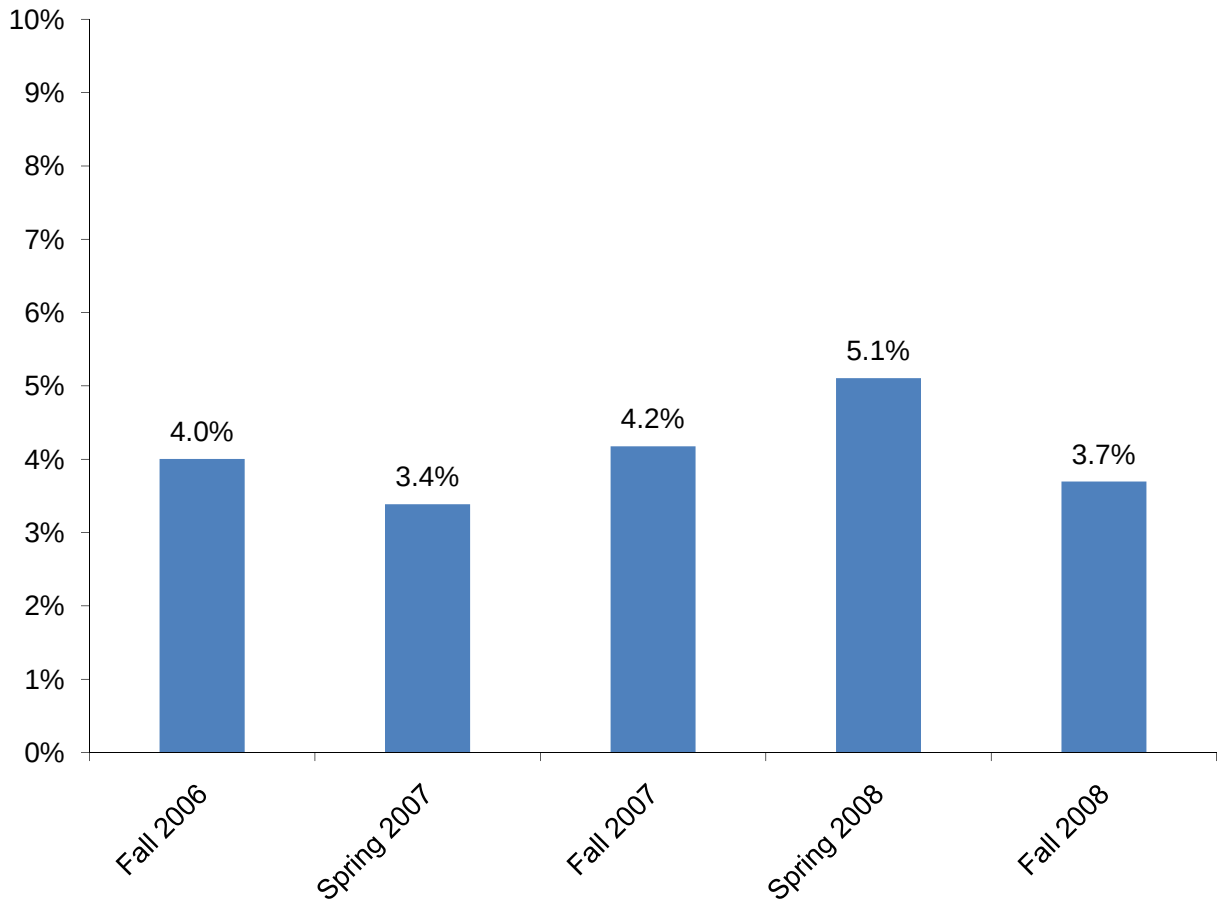


Figure 11. Comparison of Failure Rates All Grades (9th – 12th), 2006-07, 2007-08, and Fall 2008 – LANGUAGE OTHER THAN ENGLISH



The increase in social studies is slow but steady from Fall 2006 to Fall 2008, increasing from 62.8% to 67.1% in Fall 2007 to 68.8% in Fall 2008. This increase (shown in Table 7) may also be predictable since completing three and a half years of social studies might be a relatively easy way for students to complete the entire SSI Core Course of Study.

Trend data for social studies failure rates indicate a prominent increase in Spring 2007 and Fall 2007. This pattern is odd because it crosses two academic years. Other than this difference, failure rates for the other three terms (Fall 2006, Spring 2008, and Fall 2008) are relatively similar.

Figure 12. Comparison of SSI Enrollment All Grades (9th – 12th), 2006-07, 2007-08, and Fall 2008 –
SOCIAL STUDIES

(Based on comparable data available on 3/10/2009) Includes 18 districts from four states Total N = 18,136 in 2006-07, Total N = 16,638 in 2007-08, and Total N = 14,610 in Fall 2008

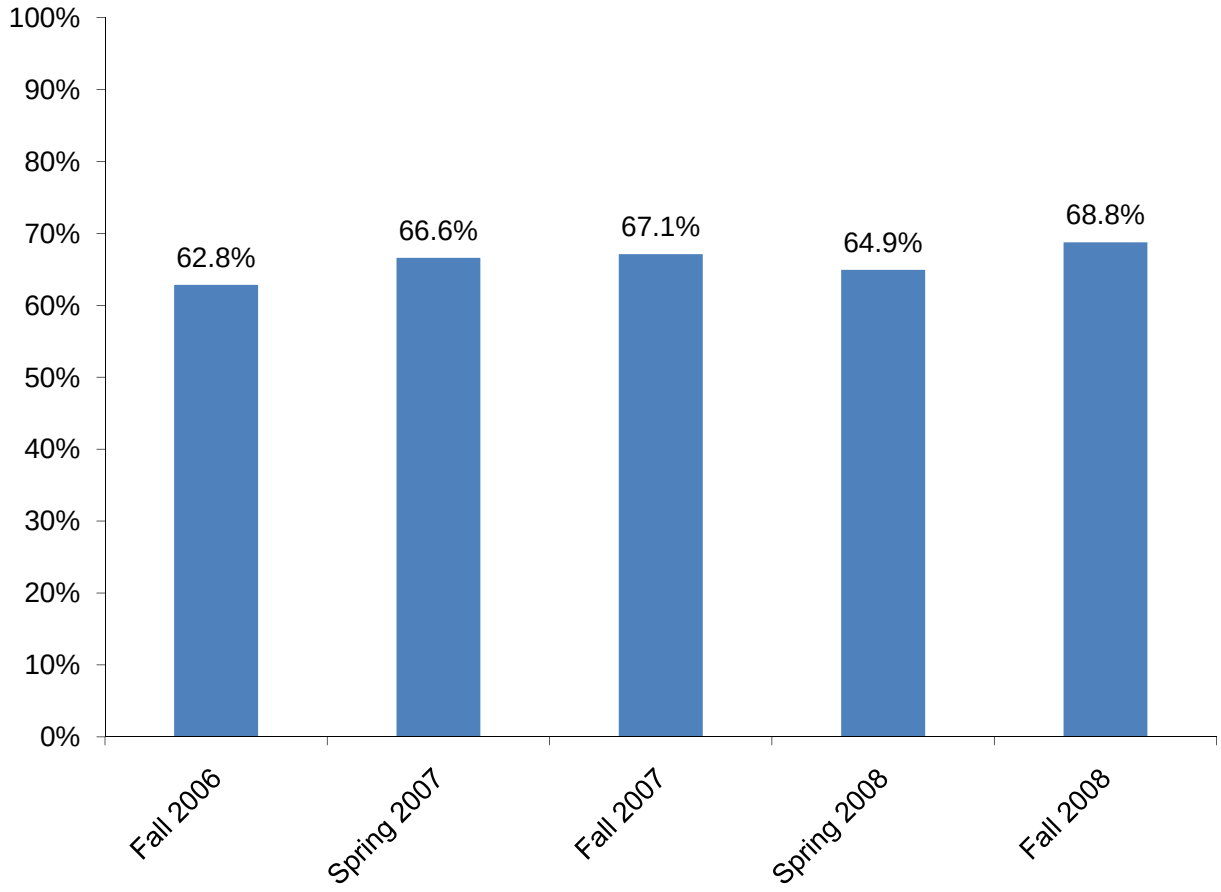
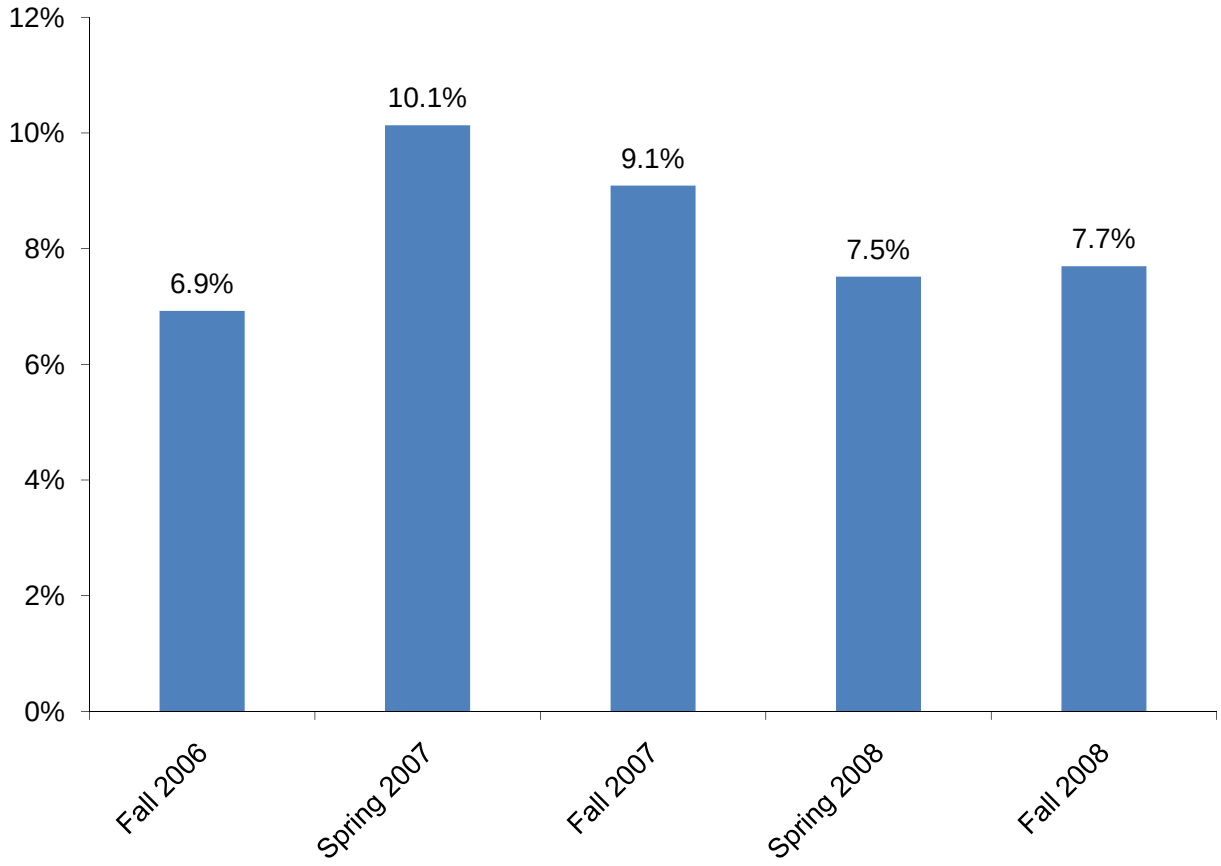


Figure 13. Comparison of Failure Rates All Grades (9th – 12th), 2006-07, 2007-08, and Fall 2008 – SOCIAL STUDIES



State Scholars Initiative enrollments from Fall 2006 to Fall 2008 show promise. There are optimistic indications of increasing enrollments in courses comprising the SSI Core Course of Study. Students are changing their course taking patterns by enrolling in the rigorous courses required by SSI. Grade data submitted by districts show that students are not failing at higher rates in these rigorous courses which suggests that students are capable of taking them. As has been noted in previous reports, additional years of data would allow for continued trend analysis to determine how much variation in the numbers and percents is normal.

Analyses run on aggregated data from those four states and 18 districts that had comparable data from 2006-07, 2007-08, and Fall 2008 yielded additional information. The overall trend analysis by SSI course type shows limited enrollment increases to date, but investigating deeper indicates potential for greater change over the years. The number of enrollments and percentage of enrollments for 9th through 12th graders by grade level for all SSI course types for Fall 2006 and Spring 2007 are in Appendix D, Fall 2007 and Spring 2008 are in Appendix E, and Fall 2008 are in Appendix F.

Appendix G contains the number and percentage of enrollments by SSI course type by all student characteristics (that is, demographic variables) for Fall 2006 and Spring 2007. Appendix H contains similar data for Fall 2007 and Spring 2008, and Appendix O includes the same for Fall 2008.

Some limited but promising Fall-to-Fall trend findings include:

- Enrollments in algebra I are increasing.
    - The percentage of 9th graders taking algebra I is increasing from 48.9% in Fall 2006 to 54.8% in Fall 2007 to 55.8% in Fall 2008.
    - The percentage of 11th graders enrolled in algebra I increased from 5.5% in Fall 2006 to 6.6% the next fall and 9.3% in Fall 2008.
    - The percentage of 12th graders in algebra I increased from 4.2% in Fall 2006 to 6.8% in Fall 2008.
- The percentage of 11th graders taking algebra II increased slowly but steadily from 26.5% in Fall 2006 to 27.7% in Fall 2007 to 28.9% in Fall 2008.
- Sophomores taking geometry has increased from 33.5% in Fall 2006 to 40.6% in Fall 2007 to 41.3% in Fall 2008.
- Higher mathematics enrollments increased for seniors from 21.8% in Fall 2006 to 31.4% in Fall 2008.
- Enrollments in biology are increasing.
    - 9th graders in biology rose from 9.7% in Fall 2006 to 23.8% in Fall 2007 and 22.6% in Fall 2008.
    - 10th grade biology enrollments increased from 50.6% in Fall 2006 to 58.4% in Fall 2007 to 59.3% in Fall 2008.
- The percentage of juniors enrolling in chemistry has increased from Fall 2006 when it was 33.5% to 34.7% in Fall 2007 and 36.9% in Fall 2008.
- The percentage of seniors enrolling in physics increased from 12.8% in Fall 2006 to 16.4% in Fall 2007 and 15.3% in Fall 2008.
- Language other than English enrollments are increasing.
    - 9th grade percentages in language other than English have risen from 32.6% in Fall 2006 to 38.8% in Fall 2007 to 43.3% in Fall 2008.
    - Sophomore level enrollment has increased from 40.6% in Fall 2006 in language other than English courses to 47.8% in Fall 2007 to 53.0% in Fall 2008.

These data indicate that at these State Scholars Initiative pilot districts there seems to be a difference – albeit slowly and limited in its scope – in student high school course taking patterns. Although these changes cannot be attributed to SSI alone, it seems

that when students are challenged to do so they do change their course taking behaviors.

Summary for Project Goal 2

In summary, data on over 1,458,724 student enrollments have been gathered since the beginning of WICHE's program administration of SSI by pilot districts with the associated demographic variables (sex, race/ethnicity, Limited English Proficiency, economic disadvantage, disability) and course grades in most cases. While collection of student enrollment data progressed slowly, the State Scholars Initiative now has a good foundation of cross-sectional data for five terms. From those data trends can be extracted for 18 districts in four states; this information indicates that students are changing their course taking patterns to take rigorous courses in high school.

1. **How many students enrolled in the individual courses required in the State Scholar Initiative rigorous curriculum?**

Data gathered for Fall 2008 from 27 districts in six states show that 9th through 12th grade students enrolled in the individual courses and course types that comprise the SSI Core Course of Study in the following percentages:

- 83.5% in English courses,
- 13.0% in other mathematics courses,
- 24.2% in algebra I,
- 14.6% in algebra II,
- 21.4% in geometry,
- 11.8% in higher mathematics courses,
- 30.2% in other science courses,
- 29.0% in biology,
- 14.0% in chemistry,
- 5.0% in physics,
- 40.3% in language other than English courses, and
- 68.8% in social studies courses.

2. **How many students enrolled in the State Scholar Initiative rigorous curriculum in its entirety? How many of those students completed the State Scholars Initiative rigorous curriculum in its entirety?**

These questions cannot be definitively answered because the cross-sectional and trend data that SSI was able to collect do not provide the specific information necessary to follow individual students that would be provided by longitudinal data. However, the data do suggest that only a small percentage of high school students in these 27 districts in six SSI states that reported Fall 2008 data would have taken the SSI Core Course of Study in its entirety. This estimation is based on the percentage of students taking the most restrictive aspects of the SSI Core Course of Study, those courses often not required of all students: chemistry, physics, and language other than English. Course

taking patterns and sequences of courses in high school can eventually seriously limit whether a student can graduate with a full complement of rigorous courses such as required by the SSI Core Course of Study. This narrowing of choices is one of the main reasons the State Scholars Initiative targets students in 8th grade before they make high school course taking selections. Year – to – year comparison data presented below reinforce this finding but also show promising gains (although relatively small percentage changes) over time at SSI pilot districts. These findings highlight both the difficulty in gathering data on student course taking but also the positive influence that targeted effort can make in high school student course taking behaviors in a relatively short amount of time.

3. **What difference did enrolling in the State Scholar Initiative rigorous curriculum and its individual courses make in high school students' lives?**

Due to the nature of this question and the longitudinal data required, it is impossible to answer. Future outcome information is not yet available for State Scholars Initiative students because of the limited time frame for the SSI program. States have two or three years of SSI federal funding. Data collected to date seem to show what when students are challenged to do so, they do change their course taking behavior. However, they need to sustain not only their programs but also data collection and analysis in order to amass four to six years worth of longitudinal data before enrollment patterns and trends as well as post-graduation outcomes are known.

4. **When the State Scholars Initiative curriculum was adapted for local use, did it make a difference in student course enrollments? In other student outcomes?**

Based on trend data drawn from five terms of student enrollment data, the answer is yes. Small but clear increases are seen in enrollments in courses targeted by the State Scholars Initiative. There does not seem to be an attendant increase in failure rates which might signify that students were being enrolled in courses for which they were not ready. However, the effect on other student outcomes is as yet unknown as no longitudinal data are available.

Project Goal 3: Influence Stakeholders' Perceptions Regarding High School Student Course Taking Patterns

Another desired outcome of the State Scholars Initiative is to influence a variety of stakeholders' perceptions of the importance of rigorous high school course taking.

Evaluative Questions:

1. **What were high school students, their parents, guidance counselors, and teachers' perspectives on rigorous high school course taking before and after exposure to the State Scholar Initiative?**
2. **What were business, community, and state leaders' perspectives on rigorous high school course taking before and after exposure to the State Scholar Initiative?**
3. **What other avenues are available to influence stakeholder perspectives on the importance of rigorous high school course taking?**

This section which focuses on Project Goal 3 begins with a background description of previous SSI perception survey work. Then, a short methodological overview is given followed by aggregate findings from all perception surveys submitted during WICHE's administration of the State Scholars Initiative. This section ends with a short summary.

Background for SSI Perception Survey Work

The previous program administrator did not collect perception data. When WICHE became the SSI program administrator, surveys tailored to five different stakeholders – students, parents, teachers, guidance counselors, and business people –were developed. In Year Two a pilot study was conducted using five stakeholder perception surveys. This pilot study used completed perception surveys submitted by a limited number of SSI states and resulted in about 600 total surveys. The five perception surveys were substantially adapted based on information received during the pilot study. Therefore, due to the changes in question wording, survey format, and the limited number of SSI states that participated, it would be inappropriate to compare results from the pilot study (administered in Year Two) with data gathered in Years Three and Four using finalized survey forms and administration techniques (See Appendix J through Appendix N).

Methodological Overview

Perception surveys were administered by local personnel at State Scholars Initiative events at schools and districts in SSI states. Responses were provided to the SSI perception surveys by stakeholders immediately after they had attended the SSI presentation. States and districts then mailed completed surveys to NCHEMS where

they were cataloged, entered into Excel spreadsheets, and analyzed using both SAS and SPSS statistical software.

The *Federal Register* notice is the basis for the questions posed on the perception surveys: "the impact of the Initiative on student, teacher, guidance counselor, and parent attitudes, perceptions, and beliefs about the importance of rigorous course taking and its effect on postsecondary and occupational outcomes." It should be noted that although business people's perceptions were not specified in the *Federal Register*, WICHE, NCHEMS, and NIU in cooperation with OVAE agreed that a perception survey targeted at business people was essential. Questions, therefore, asked respondents about the importance of taking rigorous courses; note that the qualifying phrase "in high school" was added although this timeframe was not specified in the *Federal Register* notice, which could lead respondents to erroneously believe "rigorous courses" referred to elementary school or postsecondary education. The focus of the State Scholars Initiative Core Course of Study is high school.

Surveys begin with questions on the importance of rigorous course taking in high school to getting a well-paying job after high school and with attending a postsecondary institution. A conscious decision was made not to include a definition for "rigorous courses" on the perception surveys because no single, short definition was available that could be used consistently across type of survey (for students, parents, teachers, etc.) that would not add substantially to the length of the survey forms. Good survey practice counsels shorter rather than longer instruments that adequately capture needed information (Dillman, 2000). Follow-up questions are included on the teacher, guidance counselor, parent, and business person surveys to determine the role that the State Scholars Initiative played in the individual's perceptions. Rather than asking questions in a similar fashion on the student survey, the student survey was adapted to ask students how the State Scholars Initiative presentation influenced their decisions to take rigorous courses in high school.

In addition to changing perceptions, the State Scholars Initiative is trying to change behaviors. The set of surveys has parallel questions about students' perceptions of who encourages them to take rigorous courses in high school and adults' behaviors as to whether they encourage students to take rigorous high school courses and the extent to which SSI has influenced their behavior. Perhaps most important, students are asked whether they are planning on taking rigorous courses in high school and how the SSI presentation influenced that decision. One potential outcome of implementing the State Scholars Initiative would be that students would begin taking rigorous courses earlier during high school (or even middle or junior high school). Therefore, the perception surveys ask teachers, guidance counselors, parents, and business people in what year students should start enrolling in rigorous courses because these stakeholder groups transmit this sort of information to students. Finally, students are asked whether they would tell a friend about the State Scholars Initiative; the purpose of this question was to measure how much affinity students had with the SSI message.

Deadlines were set to gather surveys that would be analyzed at particular points during the program to summarize perception data. The first wave was from September 24, 2007 through February 28, 2008, which can be effectively considered beginning on October 1, 2007, the start of Year Three, because no perception surveys were submitted to NCHEMS between September 24 and September 30, 2007. Data on surveys submitted in this time frame were initially presented at the National Summit on Academic Rigor and Relevance. The second wave was from March 1, 2008 through July 31, 2008, which can be effectively considered the end of Year Three (September 30, 2008) because no perception surveys were submitted to NCHEMS in either August or September 2008. The third, and final, wave of perception surveys was from October 1, 2008 through February 28, 2009. These dates were not chosen based on the SSI intervention; it was simply a functional way to frame and gather data presented at the Summit and for evaluation reporting deadlines. Nevertheless, analyses were done to determine if there were any unforeseen statistical differences in data from the three different waves of surveys. There was no statistical difference between the three waves of data, meaning that it is valid to combine all perception surveys from all three waves. Therefore, the discussion here is based on all perception surveys submitted since final versions were made available (September 24, 2007, effectively October 1, 2007, the beginning of Year Three) to February 28, 2009. (To see numbers and percentages for each question by stakeholder group and wave see Appendix O and Appendix P.)

Between September 24, 2007 and February 28, 2009 perception surveys have been submitted from 159 State Scholars Initiative events in 11 states including two SSI – A states, and five of six SSI – B and four of four SSI – C states (no perception surveys have been submitted by Nebraska). Three sets or "waves" of perception surveys have been analyzed (see Table 8).

Table 8. Basic Information for "Waves" of Perception Surveys

Year Three	Wave One	Wave Two	Wave Three	Total
Time Frame	September 24, 2007 – February 28, 2008	March 1, 2008 – September 30, 2008	October 1, 2008 – February 28, 2009	September 24, 2007 – February 28, 2009
Number of SSI events	42	65	52	159
States that submitted perception surveys in that time frame	Louisiana (9) Massachusetts (1) New Hampshire (1) South Dakota (1) Tennessee (2) Utah (11) Virginia (12) Wyoming (5)	Arkansas (5) Louisiana (16) Massachusetts (3) Missouri (4) South Dakota (3) Utah (17) Virginia (9) West Virginia (5) Wyoming (3)	Arkansas (4) Louisiana (7) Missouri (8) South Dakota (1) Utah (19) Virginia (6) Wyoming (7)	Arkansas (9) Louisiana (32) Massachusetts (4) Missouri (12) New Hampshire (1) South Dakota (5) Tennessee (2) Utah (47) Virginia (27) West Virginia (5) Wyoming (15)
Number by Type of Survey Returned	Student (3,915) Parent (143) Teacher (78) Guidance Counselor (28) Business People (94)	Student (7,546) Parent (103) Teachers (89) Guidance Counselor (12) Business People (92)	Student (6,270) Parent (135) Teachers (97) Guidance Counselor (30) Business People (49)	Student (17,731) Parent (381) Teacher (264) Guidance Counselor (80) Business People (235)

Just as there might be possible differences in results for the three waves of submissions, there could potentially be differences based on SSI state. Both WICHE and the program evaluators have been cautious about comparing SSI states on any process or measure since every situation is different and all SSI states began from different baselines. However, an area of interest is whether there are any differences in stakeholder perceptions for those states that have been in the SSI network for a longer time (SSI – A), for a medium length of time (SSI – B), and new SSI states (SSI – C). These differences were investigated by the evaluator but because of cell size disparities (there are fewer adult stakeholder surveys than student surveys and most surveys have been submitted by SSI – B states), statistical manipulations are not suitable. However, practical review (looking for patterns in the raw data) of the differences by range of responses and direction of change (did mean responses always increase across time for comparable questions, etc.) between SSI state groups also does not indicate any merit to differences by SSI state group. Therefore, all perception data are analyzed as a whole.

Perception Survey Findings

The following perception survey findings are for all surveys submitted to NCHEMS using the final perception survey forms for students, parents, teachers, guidance counselors, and business people. Table 9 contains the number of responses and the percentage of the total responses for each stakeholder group for the range of answers for that item. For instance, taking the student category for the first question, "How important do you think taking rigorous courses in high school is to getting a well-paying job after high school?" there are 13,639 students who chose "very important" as their response to this question. These 13,639 students represent 76.9% of the student

responses (total N=17,731). Data are presented in the table to allow for comparison of percentages across stakeholder groups. For the same question, "very important," was the selected response for 84.1% of teachers, 83.8% of guidance counselors (representing 67 people), 87.2% of business people, and 90.3% of parents (344 of 381 total parents responding).

Table 9. SSI Perception Survey Results

(September 24, 2007 – February 28, 2009)

	Student		Teacher		Guidance Counselor		Business People		Parents	
	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total
Total Respondents	17,731	100.0%	264	100.0%	80	100.0%	235	100.0%	381	100.0%
How important do you think taking rigorous courses in high school is to getting a well-paying job after high school?										
Very Important	13639	76.9%	222	84.1%	67	83.8%	205	87.2%	344	90.3%
Somewhat Important	3108	17.5%	37	14.0%	13	16.3%	26	11.1%	32	8.4%
Neutral	697	3.9%	1	.4%	0	0%	3	1.3%	4	1.0%
Somewhat Unimportant	89	.5%	3	1.1%	0	0%	0	0%	1	.3%
Not Important At All	112	.6%	0	0%	0	0%	0	0%	0	0%
No Response	86	.5%	1	.4%	0	0%	1	.4%	0	0%
How has the State Scholars Initiative influenced this perception?										
Positively	--	--	157	59.5%	49	61.3%	166	70.6%	307	80.6%
Somewhat Positively	--	--	60	22.7%	17	21.3%	34	14.5%	45	11.8%
Neutral	--	--	44	16.7%	12	15.0%	29	12.3%	27	7.1%
Somewhat Negatively	--	--	2	.8%	0	0%	0	0%	0	0%
Negatively	--	--	1	.4%	2	2.5%	6	2.6%	2	.5%
No Response	--	--	264	100.0%	80	100.0%	235	100.0%	381	100.0%
How important do you think taking rigorous courses in high school is to going to a community college, technical institute, or university after high school?										
Very Important	12398	69.9%	210	79.5%	66	82.5%	202	86.0%	343	90.0%
Somewhat Important	3949	22.3%	50	18.9%	14	17.5%	28	11.9%	33	8.7%
Neutral	1025	5.8%	2	.8%	0	0%	3	1.3%	3	.8%
Somewhat Unimportant	114	.6%	2	.8%	0	0%	0	0%	0	0%
Not Important At All	119	.7%	0	0%	0	0%	0	0%	0	0%
No Response	0	0%	0	0%	0	0%	0	0%	1	.3%
How has the State Scholars Initiative influenced this perception?										
Positively	--	--	161	61.0%	47	58.8%	159	67.7%	300	78.7%
Somewhat Positively	--	--	60	22.7%	18	22.5%	34	14.5%	50	13.1%
Neutral	--	--	42	15.9%	12	15.0%	34	14.5%	28	7.3%
Somewhat Negatively	--	--	0	0%	0	0%	0	0%	1	.3%
Negatively	--	--	1	.4%	3	3.8%	8	3.4%	2	.5%
No Response	--	--	161	61.0%	47	58.8%	159	67.7%	300	78.7%
Who has encouraged you to take rigorous courses in high school?										
Parents	13774	77.7%	--	--	--	--	--	--	--	--
Teachers	8828	49.8%	--	--	--	--	--	--	--	--
Guidance Counselors	4612	26.0%	--	--	--	--	--	--	--	--
School Administrators	2463	13.9%	--	--	--	--	--	--	--	--
Other Family Member	7195	40.6%	--	--	--	--	--	--	--	--
Friends	5721	32.3%	--	--	--	--	--	--	--	--
State Scholars Presenter	4850	27.4%	--	--	--	--	--	--	--	--
Other Business People	1782	10.1%	--	--	--	--	--	--	--	--
None of the Above	1565	8.8%	--	--	--	--	--	--	--	--

	Student		Teacher		Guidance Counselor		Business People		Parents	
	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total
Who has been the SINGLE biggest influence on which courses you take in high school?										
Parents	11573	65.3%	--	--	--	--	--	--	--	--
Teachers	1088	6.1%	--	--	--	--	--	--	--	--
Guidance Counselors	403	2.3%	--	--	--	--	--	--	--	--
School Administrators	91	.5%	--	--	--	--	--	--	--	--
Other Family Member	1305	7.4%	--	--	--	--	--	--	--	--
Friends	902	5.1%	--	--	--	--	--	--	--	--
State Scholars Presenter	433	2.4%	--	--	--	--	--	--	--	--
Other Business People	111	.6%	--	--	--	--	--	--	--	--
None of the Above	1660	9.4%	--	--	--	--	--	--	--	--
No response	165	.9%	--	--	--	--	--	--	--	--
Have you actively encouraged students/your child to take rigorous courses?										
Yes	--	--	236	89.4%	80	100.0%	197	83.8%	339	89.0%
No	--	--	22	8.3%	0	0%	31	13.2%	37	9.7%
No Response	--	--	6	2.3%	0	0%	7	3.0%	5	1.3%
How has the State Scholars Initiative influenced your encouraging students to take rigorous courses?										
I have encouraged more students/Positively	--	--	148	56.1%	48	60.0%	153	65.1%	288	75.6%
--/Somewhat Positively	--	--	--	--	--	--	--	--	52	13.6%
No effect/Neutral/Not a factor	--	--	42	43.3%	8	26.7%	15	30.6%	38	10.0%
--/Somewhat Negatively	--	--	--	--	--	--	--	--	0	0%
I have encouraged fewer students/Negatively	--	--	2	.8%	0	0%	1	.4%	0	0%
No Response	--	--	12	4.5%	7	8.8%	24	10.2%	3	.8%
At this point in time, are you planning on taking rigorous courses in high school?										
Yes	10488	59.2%	--	--	--	--	--	--	--	--
Probably	6490	36.6%	--	--	--	--	--	--	--	--
No	621	3.5%	--	--	--	--	--	--	--	--
No Response	132	.7%	--	--	--	--	--	--	--	--
In what grade should students/your child start taking rigorous courses?										
9th grade	--	--	233	88.3%	72	90.0%	204	86.8%	349	91.6%
10th grade	--	--	16	6.1%	3	3.8%	12	5.1%	16	4.2%
11th grade	--	--	3	1.1%	0	0%	4	1.7%	2	.5%
12th grade	--	--	0	0%	0	0%	0	0%	2	.5%
No Response/Don't Know	--	--	8	3.0%	3	3.8%	5	2.1%	5	1.3%
How has the State Scholars Initiative influenced this perception?										
Positively	--	--	156	59.1%	49	61.3%	164	69.8%	300	78.7%
Somewhat Positively	--	--	52	19.7%	14	17.5%	31	13.2%	52	13.6%
Neutral	--	--	53	20.1%	13	16.3%	34	14.5%	28	7.3%
Somewhat Negatively	--	--	0	0%	0	0%	0	0%	0	0%
Negatively	--	--	0	0%	0	0%	0	0%	0	0%
No Response	--	--	3	1.1%	4	5.0%	6	2.6%	1	.3%

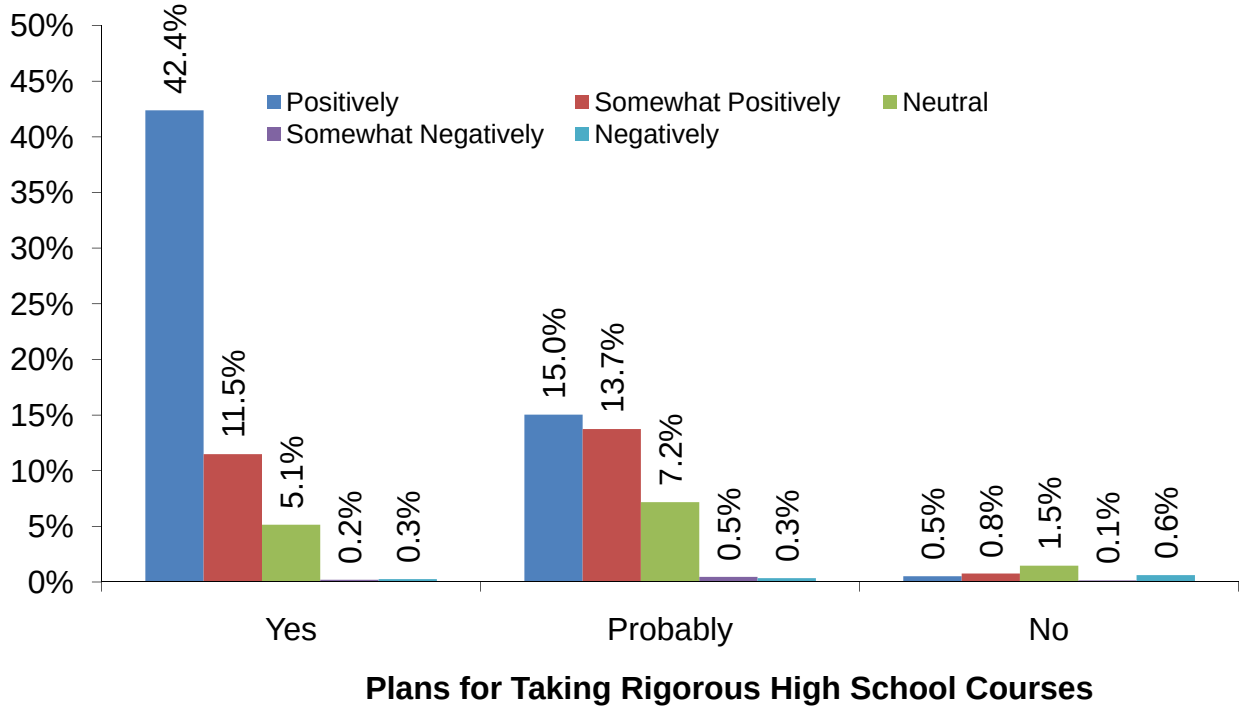
	Student		Teacher		Guidance Counselor		Business People		Parents	
	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total
How has this State Scholars presentation influenced your decision to take rigorous courses in high school?										
Positively	10183	57.4%	--	--	--	--	--	--	--	--
Somewhat Positively	4566	25.8%	--	--	--	--	--	--	--	--
Neutral	2422	13.7%	--	--	--	--	--	--	--	--
Somewhat Negatively	139	.8%	--	--	--	--	--	--	--	--
Negatively	213	1.2%	--	--	--	--	--	--	--	--
No Response	208	1.2%	--	--	--	--	--	--	--	--
Would you tell a friend about State Scholars?										
Yes	13852	78.1%	--	--	--	--	--	--	--	--
No	3556	20.1%	--	--	--	--	--	--	--	--
No Response	323	1.8%	--	--	--	--	--	--	--	--

The results in Figure 14 come from a cross-tabular analysis of two questions posed to students:

- At this point in time, are you planning on taking rigorous courses in high school?
- How has this State Scholars presentation influenced your decision to take rigorous courses in high school?

These data indicate the influence of the State Scholars Initiative presentations on students. Over fifty percent (53.9%) of the students who are planning on taking rigorous courses in high school were positively (42.4%) or somewhat positively (11.5%) influenced in their decisions by the SSI presentation they attended. For those students who indicate that they will "probably" take rigorous courses in high school, 15.2% were positively influenced and an additional 13.7% were somewhat positively influenced by the State Scholars Initiative presentation. These data are consistent with earlier perception findings.

Figure 14. Student Plans to Take Rigorous Courses in High School and State Scholars Initiative Influence on Those Plans (N=6,182)



Also of interest are various stakeholders' perspectives on the importance of rigorous course taking in high school to post-graduation outcomes, specifically getting a well-paying job or attending some form of postsecondary education. Means for these items are presented in Figure 15. (Note that to calculate means (average) response items were recoded to a 0-4 point scale for ease of understanding.) This chart facilitates comparison within stakeholder group (how do students' perceptions of the importance of rigorous high school course taking to getting a well-paying job compare to students' perceptions of the importance to attending a community college, technical institute, or university after high school) as well as across stakeholder groups (how do students' means compare to parents' means, etc.). All means indicate stakeholders know the importance of rigorous course taking. However, student means are lower than adult stakeholders for both outcomes, which points out that students do not have the same level of understanding of the importance of high school course taking to future outcomes. Parents have the highest means for both outcomes and are the only stakeholder group for which the postsecondary outcome mean (3.90) is slightly greater than the job outcome mean (3.89). Business people have the next highest set of means for both outcomes. Students have the lowest means for the importance of rigorous high school course taking to both outcomes – well-paying job and postsecondary education. The State Scholars Initiative and its associated presentations target 8th grade students, a group that requires more intervention than the other stakeholder groups

regarding the importance of rigorous course taking in high school. These data are consistent with previous perception findings.

Figure 15. Mean Perception of Importance of Taking Rigorous Courses in High School to Future Behaviors by Various Stakeholders

The State Scholars Initiative is premised on getting good information into the hands of students before or when they are making crucial decisions about which courses to enroll in during high school. This reason is why SSI presentations are primarily aimed at 8th graders. Early on it became evident that there are other adults who influence students when they are choosing courses. Data presented in Figure 16 show which groups students say have some influence on their course taking behaviors and who has the biggest influence on their course taking behaviors. Parents are the top choice, reinforcing SSI state activities focused on parents as a method for influencing student course taking. Other family members and teachers are also strong influences. Nine percent of students indicated that no one (or no response) had influenced them with regard to high school course taking. This finding could indicate a certain subset of students who are self-motivated and directed. These data are consistent with earlier perception findings.

Figure 16. Student Perceptions of Who Has an Influence on Them with Regard to Rigorous High School Course Taking

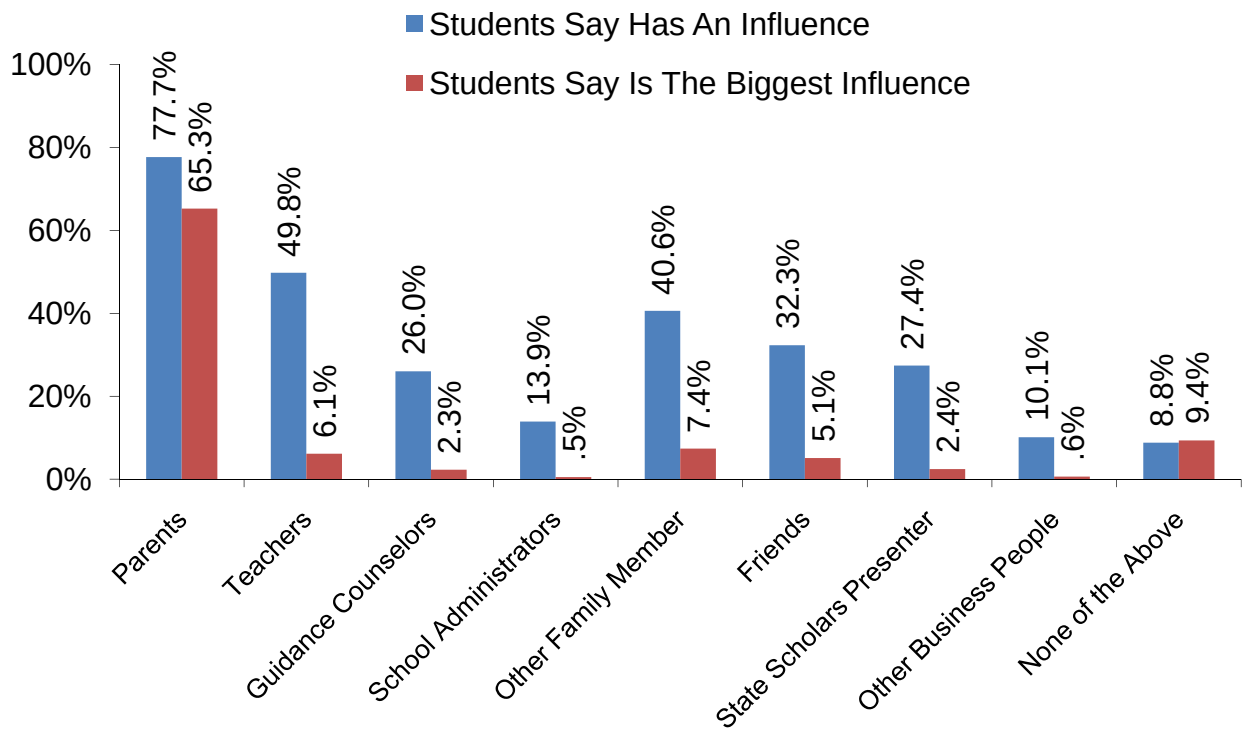
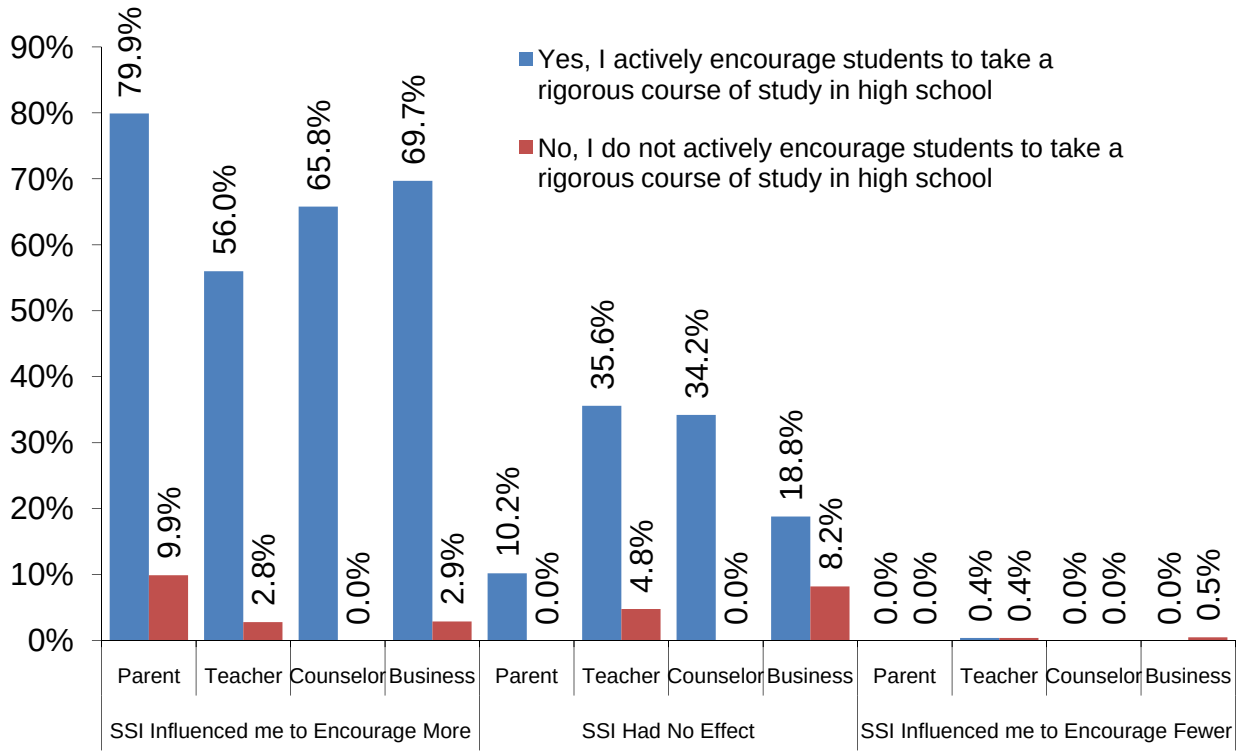


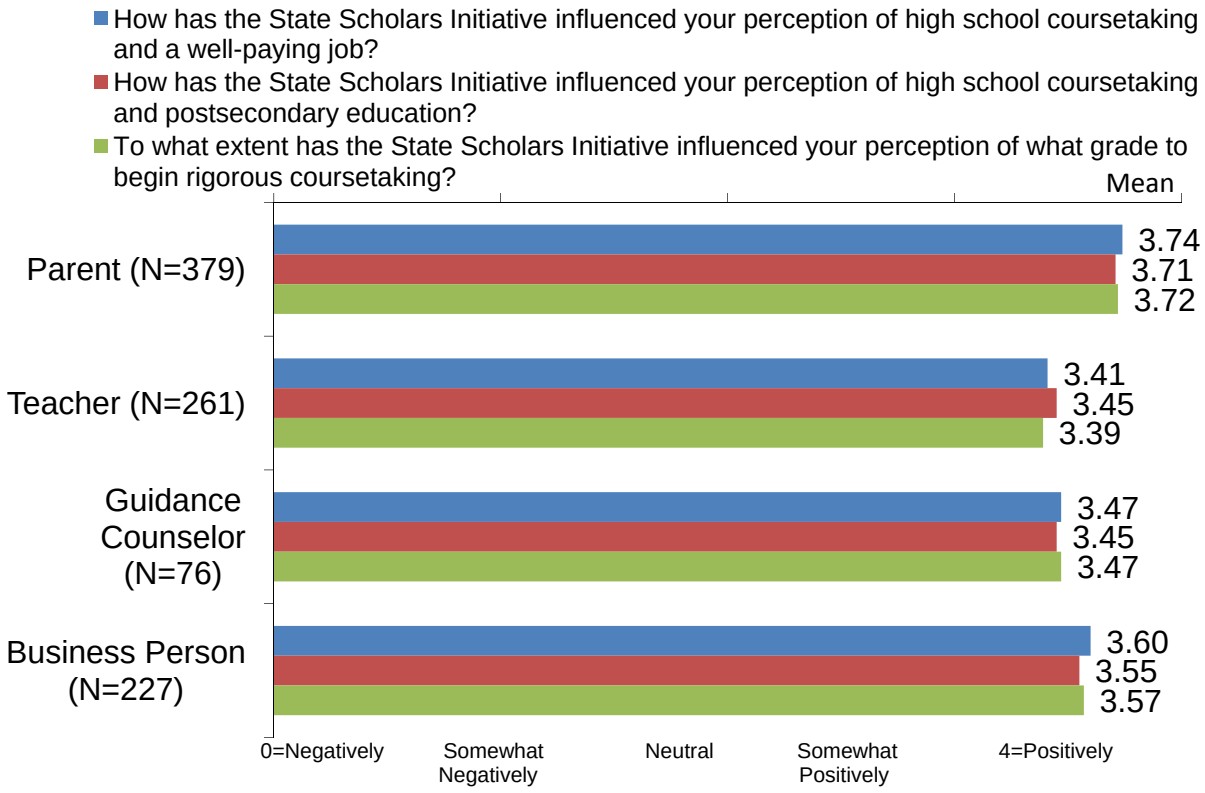
Figure 17 contains data on whether adult stakeholders (parents, teachers, guidance counselors, and business people) self-report that they encourage students to take rigorous high school courses. The crosstab data shown indicate that 79.9% of parents who actively encourage students to take a rigorous course of study in high school also reported that SSI positively influenced them to encourage more students to do so. SSI had the biggest influence on parents and business people, this result might be expected since teachers and guidance counselors are already well-versed in the importance of taking a rigorous course of study in high school. The State Scholars Initiative is having a strong positive influence on two key stakeholder groups: parents and business people.

Figure 17. Adult Stakeholders Self-Report on Encouraging Students and the Influence of SSI on Their Encouragement



In addition to influencing students' perceptions, the State Scholars Initiative seeks to persuade adults who can also influence students' behaviors as they select high school courses. Therefore, several items are asked of adult stakeholders; the extent to which SSI influenced their perceptions is shown in Figure 18. The State Scholars Initiative plays an important role in educating both parents and business people regarding the importance of rigorous high school course taking to future success. These data are consistent with previous perception findings.

Figure 18. SSI Influence on Perceptions of Adult Stakeholders



Finally, perhaps the best indicator of whether a program such as the State Scholars Initiative resonates with high school students is whether or not they would tell their friends about the program. Seventy-eight percent of students said that they would tell their friends about SSI. This percentage has been consistent throughout the program period.

Summary for Project Goal 3

A key finding from the 18,691 State Scholars Initiative perception surveys returned over the course of the program is that SSI makes a positive difference. It is successfully communicating the message regarding the importance of a rigorous high school course of study to students, parents, and business people and reinforcing what teachers and guidance counselors already know. SSI is making a difference in helping show adults who have an influence on high school students that it matters that they encourage

students to take rigorous high school courses. SSI data identify and reinforce the importance of working with parents and family members, groups that students identify as the biggest influences on their high school course taking.

1. **What were high school students, their parents, guidance counselors, and teachers' perspectives on rigorous high school course taking before and after exposure to the State Scholars Initiative?**

The State Scholar Initiative positively influences high school students, parents, guidance counselors and teachers with regard to the importance of rigorous high school course taking, particularly in terms of future opportunities such as getting a well-paying job and potentially attending postsecondary education. The State Scholars Initiative plays an important role in educating not only students both also parents regarding the importance of rigorous high school course taking to future success.

2. **What were business, community, and state leaders' perspectives on rigorous high school course taking before and after exposure to the State Scholars Initiative?**

Business people are also positively influenced by SSI in terms of the importance of rigorous high school courses to getting a well-paying job and attending postsecondary education. In addition, SSI has influenced business people to behave differently by encouraging more students to pursue rigorous courses in high school.

3. **What other avenues are available to influence stakeholder perspectives on the importance of rigorous high school course taking?**

The current perception surveys do not specifically ask for alternative methods for influencing the various stakeholders, but this adaptation could be considered for the future. SSI perception data underscore the importance of working with parents and other family members in addition to students when communicating the importance of rigorous course taking in high school to future success, whether that is a well-paying job, the military or postsecondary education of some form.

Conclusion

This Year 4 and final evaluation report for SSI state performance documents successes in terms of identifying lessons learned with regard to gathering student and perception data. Highlights of lessons learned (listed above in Table 3) include:

- Establishing relationships with state-level, district-level, and school-level data personnel is necessary because data problems may arise at any or all of these levels.
- Even after providing partnerships, states, districts, and school districts with specific guidance the ability of states and districts to comply and submit data as needed was extremely limited based on data personnel capacities and time available.

- There is little standardization across state and district student information systems, and these systems are often updated with no documentation of how the previous system configures with the next.
- Individuals gathering student data must maintain constant attention to the population of students being submitted and the time frame, as well as the formats of submitted data.
- It is especially important when allowing states and districts to submit data in a variety of forms as we did with the State Scholars Initiative to reinforce the importance of providing complete file and variable definitions.

These lessons reinforce issues identified in the SSI proposal to ED: student data are difficult to collect, student data are messy and require considerable recoding to align variables across entities, and in the absence of trend or longitudinal data, give little concrete guidance. Since the beginning of WICHE's program administration of SSI, data on over 1,458,724 student enrollments in SSI pilot districts have been collected with the associated demographic variables (sex, race/ethnicity, Limited English Proficiency, economic disadvantage, disability) and course grades in most cases. It is only by using data and going through these processes in an iterative manner that errors can be uncovered and lessons learned. And, now, with five terms of data that can be compared as trend data for 18 districts in four SSI states, there is evidence of change in student course taking patterns. When challenged to do so, students take more rigorous courses such as algebra I, geometry, biology, chemistry, physics, and language other than English. What is more, analysis of failure rates indicates that students succeed in these courses at rates commensurate with previous terms.

In addition to student enrollment data, the State Scholars Initiative has successfully developed and gathered data on how the Initiative has affected both the perceptions and behaviors of various stakeholder groups including students, parents, teachers, guidance counselors, and business people. Between September 2007 and February 2009, nearly 19,000 surveys were submitted from 159 individual State Scholar Initiative events held in 11 SSI states. Results from these surveys show that the State Scholars Initiative is successfully communicating the message regarding the importance of a rigorous high school course of study to students and adult stakeholders.

Ultimately the State Scholars Initiative is about students and their course taking patterns. SSI is changing students' behavior in terms of taking rigorous courses in high school, such as the SSI Core Course of Study. Perhaps the best indicator of SSI's success is whether students would tell their friends about the program -- fully 78% of students said that they would tell their friends about SSI.

References

Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method*. (2nd ed.). New York: John Wiley & Sons, Inc.

Appendix A. Time Frames for Program Administration and Data Collection

	Program Year			
	Year One	**Year Two**	**Year Three**	**Year Four**
WICHE Program Administration Dates	October 1, 2005 – September 30, 2006	October 1, 2006 – September 30, 2007	October 1, 2007 – September 30, 2008	October 1, 2008 – September 30, 2009
Perception Data	None	Pilot surveys	Final surveys	Final surveys
Perception Survey Collection Time Frames	n/a	n/a	September 24, 2007 (effectively October 1) – February 28, 2008 ("Wave One") March 1, 2008 – September 30, 2008 ("Wave Two")	Ongoing with final due date February 23, 2009
Student Data	None	Academic Year 2006-07 (Fall 2006 and Spring 2007)	Academic Year 2007-08 (Fall 2007 and Spring 2008)	Fall 2008 including grades
Student Data Submission Deadline	n/a	February 22, 2008	October 1, 2008	February 23, 2009

Appendix B. SSI Student Outcome Evaluation Design

State Scholars Initiative
Student Outcome Evaluation Design
NCHEMS
Questions? Contact Karen Paulson, Karen@nchems.org, 303.497.0354

The State Scholars Initiative (SSI) is a national program designed to encourage students to choose a rigorous high school course of study. It uses business leaders to motivate students to complete a rigorous course of study in high school in pursuit of higher paying jobs, the military, and post-secondary education opportunities. The high school courses required in the State Scholars Initiative Core Course of Study are:

- 4 years of English
- 3 years of Math to include Algebra, Geometry, Algebra II
- 3 years of Science to include Biology, Chemistry, Physics
- 3.5 years of Social Science chosen from U.S. History, World History, World Geography, Economics, Government
- 2 years of a Language other than English

The Federal Register notice contains the following language with regard to student outcome data:

- The number and percentage of students in participating schools and districts completing the entire rigorous State Scholars Core Course of Study and the percentage of students completing each class that is a component of the rigorous Course of Study, disaggregated by race and ethnicity, family income level, limited English proficiency, gender, and disability.
- The number and percentage of students in participating schools and districts who have four-year high school course enrollment plans that include the rigorous State Scholars Core Course of Study. If four-year high school course enrollment plans do not exist in a participating school, then the number and percentage of students who have a one- or two-year high school course enrollment plan that includes components of the rigorous State Scholars Core Course of Study; and
- The availability of classes that comprise the rigorous State Scholars Core Course of Study in participating schools and districts.

Disaggregating these bullet points into specific questions to be asked and answered by each high school and/or district:

1) How many students choose to be State Scholars?
    a. In absolute numbers?
    b. As a percentage of a high school's population? A district's population?
    c. Does this vary by demographic variable (see list of data file elements, variables C1 – C6)?

2) How many students take the individual courses that are part of the State Scholar Core Course of Study (see list above)?
    a. In absolute numbers?
    b. As a percentage of a high school's population? A district's population?
    c. Does this vary by demographic variable (see list of data file elements, variables C1 – C6)?
3) How many students successfully complete the individual courses that are part of the State Scholar Core Course of Study (see list above)?
    a. In absolute numbers?
    b. As a percentage of a high school's population? A district's population?
    c. Does this vary by demographic variable (see list of data file elements, variables C1 – C6)?
4) In what high school year(s) do students take the individual courses that comprise the State Scholars Core Course of Study?
    a. Does this vary by demographic variable (see list of data file elements, variables C1 – C6)?
5) How many students take the full complement of courses comprising the State Scholars Core Course of Study?
    a. In absolute numbers?
    b. As a percentage of a high school's population? A district's population?
    c. Does this vary by demographic variable (see list of data file elements, variables C1-C6)?
6) How many students successfully complete the full complement of courses comprising the State Scholars Core Course of Study?
    a. In absolute numbers?
    b. As a percentage of a high school's population? A district's population?
    c. Does this vary by demographic variable (see list of data file elements, variables C1-C6)?

<u>Identifying State Scholar Students</u>

Basically, for the evaluation of the State Scholars Initiative we would like all data for all four years of courses (freshman through senior years) submitted for all students starting with the first cohort listed in the table below for each participating high school or district in each SSI state. We need data for all enrolled students because we want to compare the characteristics and course taking behaviors of SSI students and non-SSI students.

In order to compare State Scholars Initiative students with others, we need to know first whether a student was considered a State Scholar. In some states, districts, and/or high schools, this identification will be easy because each student who is a State Scholar has been required to complete a State Scholars oath or contract, which is presumably kept in their advising files. (Note that oaths or contracts are not required but are standard operating procedures in several SSI states.) If it is not already kept electronically, this variable (see list of data file elements in Appendix A, variable B1 and/or B2) will need to be entered into the electronic data file.

If all students in a high school or district are presumed to be State Scholars by default until they do not follow the SSI Core Course of Study any longer, then the comprehensive collection of all data for all four years of courses (freshman through senior years) for all students must be fulfilled. These data are necessary in order to determine who in the end was actually a State Scholar by analyzing each student's course taking pattern to determine which students were indeed—behaviorally—State Scholars.

Aggregate data vs. unit record data

How these data are supplied to NCHEMS varies by whether the participating high school or district is in an SSI state that joined the network prior to 2006 or is a new state to the SSI network. A few SSI states that joined the network prior to 2006 have been collecting aggregate data using a form created by the previous program administrator. If your state has already been collecting data in this manner and it is working for you, please continue. However, if you have not yet collected any data (which is most SSI states), please work to collect unit record data as explained here.

Why? The problem with the aggregated data form is that it is minimally useful because the data collected cannot be further disaggregated to answer additional questions. While aggregate data illustrate trends from year to year, that alone is not very informative about the questions we have been asked (listed earlier). It would be more useful to know how many students in each grade level took each course; in fact, a number of principals and superintendents have asked for this information when asked what data analyses they would like. Such data could be used to forecast teaching loads for various types of courses in future years. Furthermore, being able to disaggregate data by two or more demographic variables at a time will likely yield practical information (while not violating federal standards of cell size less than three or being able to determine identity by subtraction from table to table).

These data needs and the types of crosstabular cuts of the data that are required led NCHEMS to the belief that student unit record data would be most useful. No student identifiers can be shared outside of the local environment because we do not want to violate the Federal Education Rights and Privacy Act (FERPA). A positive aspect is that local data personnel can create a data file and send it to NCHEMS that does not contain individual identifiers. NCHEMS can then do the necessary analyses and send information and analytic techniques back to high schools and districts for long-term use. In addition, it will allow NCHEMS more freedom to do meta-analyses as well as to create constructive aggregate information within a state, across SSI states, or for the entire SSI network.

New SSI states and those SSI states that joined the network prior to 2006 that have not yet collected data should create data files to be sent to NCHEMS for analysis and for long-term use locally. Those few states that joined the SSI network prior to 2006 and are already collecting data using the aggregated data form should continue doing so.

Cohorts

By definition, a cohort is "a group of individuals having a statistical factor in common." For State Scholars, we can consider each group of students entering the ninth grade each fall as a cohort; therefore, the most recent cohort of students entered high school in Fall 2006. Students who were 8th graders in Spring 2003 (and participated in SSI presentations) who continued into 9th grade in August or September 2003 are members of the Fall 2003 Cohort. Because we are interested in the courses these students take in high school, we would like to have information on cohorts each year of their high school experience. Table 1 below illustrates student cohort progression; the left column is year of school (8th grade through senior year) and the next column, title AY03-04 (Academic Year (AY), 2003-04, spanning (as appropriate) August or September 2003 through May or June 2004), and represents a full academic year. After a state joins the SSI network and eighth grade students receive presentations, then when those students enter ninth grade they become the first cohort of State Scholars for that state. (Note that this is the case for students who received an eighth grade presentation and will move through the entire high school curriculum; it is understood that there is a set of students who are State Scholars who do not fit this criteria, namely those students who were in their junior or senior years and were recognized as State Scholars although they were too old to receive an eighth grade presentation.) As an example: Arizona and Michigan joined the network in 2003, therefore the first cohort of SSI students for those two states is Fall 2004.

Table 1. Illustration of Student Cohort Progression through High School

School Year	AY03-04	AY04-05	AY05-06	AY06-07	AY08-09
8th Grade	Presentation (data from here would be entered in Section B of the data element list)				
9th Grade		Cohort 1A (data from this year would be entered in Section D of the data element list)	Cohort 2A	Cohort 3A	Cohort 4A
10th Grade			Cohort 1B (data from this year would be entered in Section E of the data element list)	Cohort 2B	Cohort 3B
11th Grade				Cohort 1C (data from this year would be entered in Section F of the data element list)	Cohort 2C
12th Grade					Cohort 1D (data from this year would be entered in Section G of the data element list)

Ideally, each participating high school and district would gather data for the following cohorts in each SSI state based on when their federal SSI monies began (see Table 2):

Table 2. SSI States, Start Year, Base Data Year, and Cohorts

SSI State	SSI Start	Base Data Year	Cohorts
Arkansas	2003	End-of-Spring-Term 1997 – entire school enrollment	Fall 1998, Fall 1999, Fall 2000, 2001, 2002, 2003, 2004, 2005, 2006…
Arizona	2005/6	End-of-Spring-Term 2006 – entire school enrollment	Begin with Fall 2007
Connecticut	2003	End-of-Spring-Term 2003 – entire school enrollment	Fall 2004, Fall 2005, Fall 2006…
Indiana	2003	End-of-Spring-Term 2003 – entire school enrollment	Fall 2004, Fall 2005, Fall 2006…
Kentucky	2003	End-of-Spring-Term 2003 – entire school enrollment	Fall 2004, Fall 2005, Fall 2006…
Louisiana	2006	End-of-Spring-Term 2006 – entire school enrollment	Begin with Fall 2007
Maryland	2003	End-of-Spring-Term 2003 – entire school enrollment	Fall 2004, Fall 2005, Fall 2006…
Massachusetts	2006	End-of-Fall-Term 2006, and End-of-Spring-Term 2007 – entire school enrollment	Begin with Fall 2007
Michigan	2005	End-of-Spring-Term 2005 – entire school enrollment	Fall 2006, continue with Fall 2007….
Mississippi	2003	End-of-Spring-Term 2003 – entire school enrollment	Fall 2004, Fall 2005, Fall 2006…
Nebraska	2006	End-of-Fall-Term 2006, and End-of-Spring-Term 2007 – entire school enrollment	Begin with Fall 2007
New Jersey	2003	End-of-Spring-Term 2003 – entire school enrollment	Fall 2004, Fall 2005, Fall 2006…
Oklahoma	2003	End-of-Spring-Term 2003 – entire school enrollment	Fall 2004, Fall 2005, Fall 2006…
Rhode Island	2003	End-of-Spring-Term 2003 – entire school enrollment	Fall 2004, Fall 2005, Fall 2006…
Tennessee	2003	End-of-Spring-Term 2003 – entire school enrollment	Fall 2004, Fall 2005, Fall 2006…
Utah	2006	End-of-Fall-Term 2006, and End-of-Spring-Term 2007 – entire school enrollment	Begin with Fall 2007
Virginia	2006	End-of-Fall-Term 2006, and End-of-Spring-Term 2007 – entire school enrollment	Begin with Fall 2007
West Virginia	2006	End-of-Fall-Term 2006, and End-of-Spring-Term 2007 – entire school enrollment	Begin with Fall 2007

Other Student Outcomes

The goal of the State Scholars Initiative is to encourage students to take a rigorous course of study in high school in order to better prepare them for all types of future activities including employment, entering the military, and college work. We begin by gathering those data most easily captured: SSI participation, high school courses taking and grades along with key student demographics.

In some states, we have started conversations to link with postsecondary databases to determine college-going rates among State Scholars as well as remediation rates for State Scholars; we will continue those discussions on a state-by-state basis. Long term, we hope to link with labor databases in some states and possibly military entrance. But, for now, we are working on getting basic high school student course taking data.

Perception Data

We also need to work on gathering perception data. Previously a form was used at 8th grade presentations to gather "perceptions." Not surprisingly, these forms gathered data about presentation quality, not necessarily perception of the "SSI message." NCHEMS is doing more research and study on how best to collect perception data that is constructive for all parties involved. A couple of the SSI state's data personnel will be working with NCHEMS to develop stronger perception measures.

Specific Data Elements

In Appendix A, please find a list of the specific data elements NCHEMS would like to have gathered from each participating high school or district in terms of unit record data. A short description and explanation for why the variables should be gathered is given here.

A. Student Identifier(s)

First, do not violate FERPA. We do not want you to share any individually-identifiable variables (such as social security number, state-generated student identification number, etc.) with NCHEMS. But, a field containing the student's local identification number should be kept in a "key code" file by the appropriate data personnel at the high school or district in a secure environment. The data file forwarded to NCHEMS should have a separate variable (A1) that is a student identifier unique to the file and the State Scholars Initiative project. (A suggested code structure for this variable might be to use a shorthand code for the school name and then a number (similar to an Access-generated primary key) for each student; for example, a student at Smith High School would be given the identifier Smith0001, the next student might be Smith0002, etc.). The reason to keep both identifiers in a file is to facilitate linking of additional data in the future such as adding in a student's subsequent courses and grades as they progress through high school.

B. State Scholar Initiative Data

These variables will be used in analyses to determine if there are any differences between those students who are participating in the State Scholar Initiative compared with those students who are not participating in terms of their demographics, course taking patterns, academic behaviors, and outcomes.

C. Demographics

The Federal Register notice requires that we analyze data using a variety of demographic variables (C1-C5) including the student's sex (male/female), race (African American, American Indiana, Asian, or White), ethnicity (Hispanic/non-Hispanic), whether the student has limited English proficiency and whether the student has a disability. The final variable, Cohort Designator (C6), should be the four-digit year that the student first entered high school (ninth grade) (for example, this year's cohort would be 2006). This variable will allow us to disaggregate to determine the characteristics of students who take specific courses in the ninth grade, tenth grade, junior and senior years.

The income level of the student's family is also of interest, but usually not available. Therefore, we suggest the use of a student's eligibility for "Free and Reduced Meal/Lunch" as a proxy variable. Because student eligibility for free and reduced meals can change year-to-year, it is included as a variable for each year of a student's enrollment at high school (see the data element list).

D. First Year Data

All data in this section are for a student's first year of high school of enrollment. As stated above, because circumstances may change year-to-year, the first variable (D1) is whether the student was eligible for--not that the student necessarily took advantage of--free or reduced meals. The next variable is the student's official level in school (D2); that is, freshman, sophomore, junior, or senior. In their first year of enrollment students will likely be classified as freshmen, but students who fail to complete or withdraw from key classes may also be classified as "freshman" *even though* they are enrolled in their second year of high school.

The next variables listed reflect each specific area of the SSI Core Course of Study beginning with the title or course number of the student's English class and the grade that the student received in the class at the end of the year and continues similarly with Math, Science, Social Science, and Foreign Language. Additional spaces (D13 through D24) are shown here as placeholders because each and every course that a student took in a particular year should be included in the file. For instance, if a student took both U.S. History and Economics in her first year of high school, then one of the classes would be included as the Social Science class and the other class would be listed as an additional course.

A note about the single entries for the five subject areas of the SSI Core Course of Study—English, Math, Science, Social Science, and Foreign Language—this database structure assumes these classes to be year-long, rather than single term courses. If, instead, they vary by term, please include all courses and indicate that they are based on term-long length of study rather than year-long length of study.

Finally, if a high school or district chooses to report and use a course number rather than a title in the file, a "look up" database or file that crosswalks course numbers with correct titles of classes must accompany the student data file.

E. Second Year Data

All data in this section are for a student's second year of high school enrollment. The variables parallel those requested for the first year and all of the notes and assumptions are the same. Note that if students fail or withdraw from enough of their courses in their first year of enrollment to NOT be officially considered "sophomores" in their second year of enrollment, then their data for their second year of high school enrollment should still be entered into this section but their "level" in this section should reflect their official standing which may still be "freshman."

F. Third Year Data

All data in this section are for a student's third year of high school enrollment. The variable parallel those requested for the first two years and all of the notes and assumptions are the same. Note that if students fail or withdraw from enough of their courses in their second year of enrollment to NOT be officially considered "juniors" in their third year of enrollment, then their data for their third year of high school enrollment should still be entered into this section but their "level" in this section should reflect their official standing which may still be "sophomore."

G. Fourth Year Data

All data in this section are for a student's fourth year of high school enrollment. The variables parallel those requested for the previous years of enrollment and all of the notes and assumptions are the same. Note that if students fail or withdraw from enough of their courses in their third year of enrollment to NOT be officially considered "seniors" in their fourth year of enrollment, then their data for their fourth year of high school enrollment should still be entered into this section but their "level" in this section should reflect their official standing which may still be "junior."

H. Fifth Year Data (if needed)

This section of data is reserved for those students who do not graduate from high school in four years and who may need an additional—fifth—year of enrollment. It includes variables parallel to those requested for the other high school years and all of the notes and assumptions are the same. This section is needed only if there are students who take five years to move through high school.

I. Student Academic Outcomes

The first variable is a yes/no answer to "did the student graduate from high school at the end of their fourth year of attendance?" H2 is the cumulative high school grade point average for the student; note please that you should send an explanation of how the final grade point average is calculated, as these calculations tend to vary from school to school and district to district.

J. Student Perception Data

This final section of variables is included as a placeholder. If a high school or district is able to gather perception data that they can identify as being from a specific student, then that data can be linked with that student's course data in the file to see how perceptions may be related to the other variables. It is unlikely, however, that many high schools or districts will be able to do this.

Appendix A
SSI Data Element List

Data Element List needed for State Scholars Initiative
NCHEMS
Questions: Contact Karen Paulson, Karen@nchems.org, 303.497.0354

Population: All students enrolled at a participating SSI high school or district

Key File
First, do not violate FERPA. We do not want you to share any individually-identifiable variables (such as social security number, state-generated student identification number, etc.) with NCHEMS. But, a field containing the student's local identification number should be kept in a "key code" file by the appropriate data personnel at the high school or district in a secure environment. The data file forwarded to NCHEMS should have a separate variable (A1) that is a student identifier unique to the file and the State Scholars Initiative project. (A suggested code structure for this variable might be to use a shorthand code for the school name and then a number (similar to an Access-generated primary key) for each student; for example, a student at Smith High School would be given the identifier Smith0001, the next student might be Smith0002, etc.). The reason to keep both identifiers in a file is to facilitate linking of additional data in the future such as adding in a student's subsequent courses and grades as they progress through high school. Additionally, if we are able to partner with postsecondary and/or employment data you will need to work with other agency's secure data personnel to link the correct data together using the student identifier.

Data File Elements – NOTE: data elements do not need to appear *in this order* on your data file, but appropriate documentation should be provided so the evaluator can locate all necessary variables in the file.

A. UNIQUE IDENTIFIER FOR THE PURPOSES OF SSI
A1. SSI Student Identifier – created locally for SSI use and for future linking of additional student data with previous student data

B. STATE SCHOLAR INITIATIVE DATA (as available)
B1. Is the student participating in State Scholars? [NOTE: This question may be answered by the next data element (is there a signed contract for each student participating in the State Scholars Initiative?). If not, there must be a variable included on the data file to identify a student as participating in the State Scholar Initiative. If all students in a high school or district are assumed to be participants in the State Scholars Initiative, then that policy must be clear and all data must be submitted for all students in the high school or district.]
B2. Signed SSI contract? (Y/N)
B3. Participated in 8th Grade presentation? (Y/N)
B4. Participated in 9th Grade presentation? (Y/N)
B5. Participated in 10th Grade presentation? (Y/N)
B6. Participated in 11th Grade presentation? (Y/N)
B7. Participated in 9th Grade recognition event? (Y/N)
B8. Participated in 10th Grade recognition event? (Y/N)
B9. Participated in 11th Grade recognition event? (Y/N)

C. DEMOGRAPHICS
C1. Sex (Female, Male)
C2. Race (African American, American Indian, Asian, White, Other)
C3. Ethnicity (Hispanic, non-Hispanic)
C4. Limited English Proficiency? (Y/N)
C5. Student has a disability? (Y/N)
C6. Cohort Designator (year of first-year/first year fall enrollment) (YYYY)

D. FIRST YEAR OF ENROLLMENT DATA
D1. Free and Reduced Meal/Lunch Eligible? (Y/N)
D2. Student's Official Level (freshman, sophomore, junior, senior)
D3. English Course Title or Number (if "course number" is used, an appropriate look-up table should be provided to cross-reference course number with course title)
D4. English Course Grade including drops and withdraws
D5. Math Course Title or Number
D6. Math Course Grade including drops and withdraws
D7. Science Course Title or Number
D8. Science Course Grade including drops and withdraws
D9. Social Science Course Title or Number
D10. Social Science Course Grade including drops and withdraws
D11. Foreign Language Course Title or Number
D12. Foreign Language Course Grade including drops and withdraws
D13. Additional Course 1 Title or Number
D14. Additional Course 1 Grade including drops and withdraws
D15. Additional Course 2 Title or Number
D16. Additional Course 2 Grade including drops and withdraws
D17. Additional Course 3 Title or Number
D18. Additional Course 3 Grade including drops and withdraws
D19. Additional Course 4 Title or Number
D20. Additional Course 4 Grade including drops and withdraws
D21. Additional Course 5 Title or Number
D22. Additional Course 5 Grade including drops and withdraws
D23. Additional Course 6 Title or Number
D24. Additional Course 6 Grade including drops and withdraws

E. SECOND YEAR OF ENROLLMENT DATA
E1. Free and Reduced Meal/Lunch Eligible? (Y/N)
E2. Student's Official Level (freshman, sophomore, junior, senior)
E3. English Course Title or Number (if "course number" is used, an appropriate look-up table should be provided to cross-reference course number with course title)
E4. English Course Grade including drops and withdraws
E5. Math Course Title or Number
E6. Math Course Grade including drops and withdraws
E7. Science Course Title or Number
E8. Science Course Grade including drops and withdraws

E9. Social Science Course Title or Number
E10. Social Science Course Grade including drops and withdraws
E11. Foreign Language Course Title or Number
E12. Foreign Language Course Grade including drops and withdraws
E13. Additional Course 1 Title or Number
E14. Additional Course 1 Grade including drops and withdraws
E15. Additional Course 2 Title or Number
E16. Additional Course 2 Grade including drops and withdraws
E17. Additional Course 3 Title or Number
E18. Additional Course 3 Grade including drops and withdraws
E19. Additional Course 4 Title or Number
E20. Additional Course 4 Grade including drops and withdraws
E21. Additional Course 5 Title or Number
E22. Additional Course 5 Grade including drops and withdraws
E23. Additional Course 6 Title or Number
E24. Additional Course 6 Grade including drops and withdraws

F. THIRD YEAR OF ENROLLMENT DATA
F1. Free and Reduced Meal/Lunch Eligible? (Y/N)
F2. Student's Official Level (freshman, sophomore, junior, senior)
F3. English Course Title or Number (if "course number" is used, an appropriate look-up table should be provided to cross-reference course number with course title)
F4. English Course Grade including drops and withdraws
F5. Math Course Title or Number
F6. Math Course Grade including drops and withdraws
F7. Science Course Title or Number
F8. Science Course Grade including drops and withdraws
F9. Social Science Course Title or Number
F10. Social Science Course Grade including drops and withdraws
F11. Foreign Language Course Title or Number
F12. Foreign Language Course Grade including drops and withdraws
F13. Additional Course 1 Title or Number
F14. Additional Course 1 Grade including drops and withdraws
F15. Additional Course 2 Title or Number
F16. Additional Course 2 Grade including drops and withdraws
F17. Additional Course 3 Title or Number
F18. Additional Course 3 Grade including drops and withdraws
F19. Additional Course 4 Title or Number
F20. Additional Course 4 Grade including drops and withdraws
F21. Additional Course 5 Title or Number
F22. Additional Course 5 Grade including drops and withdraws
F23. Additional Course 6 Title or Number
F24. Additional Course 6 Grade including drops and withdraws

G. FOURTH YEAR OF ENROLLMENT DATA
G1. Free and Reduced Meal/Lunch Eligible? (Y/N)

G2. Student's Official Level (freshman, sophomore, junior, senior)
G3. English Course Title or Number (if "course number" is used, an appropriate look-up table should be provided to cross-reference course number with course title)
G4. English Course Grade including drops and withdraws
G5. Math Course Title or Number
G6. Math Course Grade including drops and withdraws
G7. Science Course Title or Number
G8. Science Course Grade including drops and withdraws
G9. Social Science Course Title or Number
G10. Social Science Course Grade including drops and withdraws
G11. Foreign Language Course Title or Number
G12. Foreign Language Course Grade including drops and withdraws
G13. Additional Course 1 Title or Number
G14. Additional Course 1 Grade including drops and withdraws
G15. Additional Course 2 Title or Number
G16. Additional Course 2 Grade including drops and withdraws
G17. Additional Course 3 Title or Number
G18. Additional Course 3 Grade including drops and withdraws
G19. Additional Course 4 Title or Number
G20. Additional Course 4 Grade including drops and withdraws
G21. Additional Course 5 Title or Number
G22. Additional Course 5 Grade including drops and withdraws
G23. Additional Course 6 Title or Number
G24. Additional Course 6 Grade including drops and withdraws

H. FIFTH YEAR OF ENROLLMENT DATA (Only if needed)
H1. Free and Reduced Meal/Lunch Eligible? (Y/N)
H2. Student's Official Level (freshman, sophomore, junior, senior)
H3. English Course Title or Number (if "course number" is used, an appropriate look-up table should be provided to cross-reference course number with course title)
H4. English Course Grade including drops and withdraws
H5. Math Course Title or Number
H6. Math Course Grade including drops and withdraws
H7. Science Course Title or Number
H8. Science Course Grade including drops and withdraws
H9. Social Science Course Title or Number
H10. Social Science Course Grade including drops and withdraws
H11. Foreign Language Course Title or Number
H12. Foreign Language Course Grade including drops and withdraws
H13. Additional Course 1 Title or Number
H14. Additional Course 1 Grade including drops and withdraws
H15. Additional Course 2 Title or Number
H16. Additional Course 2 Grade including drops and withdraws
H17. Additional Course 3 Title or Number
H18. Additional Course 3 Grade including drops and withdraws
H19. Additional Course 4 Title or Number

H20. Additional Course 4 Grade including drops and withdraws
H21. Additional Course 5 Title or Number
H22. Additional Course 5 Grade including drops and withdraws
H23. Additional Course 6 Title or Number
H24. Additional Course 6 Grade including drops and withdraws

I. Student Academic Outcomes
I1. Graduated? (Y/N)
I2. Cumulative High School GPA [NOTE: While not required in the data file, please forward any documentation on how HSGPA is calculated at the specific high school or district, such as heavier weighting for AP courses, etc.]

J. Student Perception Information
If your high school or district is fairly data savvy, we can talk about how to link any identifiable student perception data (if collected) with outcome data. However, this ability is not required of participating high schools and districts.

[NOTE: if your SSI program has additional requirements set at the state or local level feel free to also include those variables in your data file, but please make sure that they are clearly labeled and do not replace any of the requested data elements.]

Appendix B
Old Aggregate Data Form
Used by Some SSI States that joined the network prior to 2006

Acceptable Only for those SSI states that joined the network prior to 2006

[STATE] SCHOLARS – 2006

___Baseline Data
___YEAR ONE DATA
___Year Two Data
___Year Three Data

_____
School District

_____
Completed by

Number of students (last quarter of 2006)

9th Grade	
10th Grade	
11th Grade	
12th Grade	

[State] Scholars Course of Study

- 4 English credits
  - 3 Math credits (Algebra 1, Geometry, Algebra 2)
- 3 Lab Science credits (Biology, Chemistry, Physics)
- 3.5 Social Studies credits (US History, World History, Government)
- 2 Foreign Language credits (same language)

Number/percentage of 2006 graduating seniors who completed all [State] Scholars courses

Class of 2006	2.5-4.0 GPA Number	2.5-4.0 GPA Percent	3.5+ GPA w/Honors Number	3.5+ GPA w/Honors Percent
All seniors				
Male				
Female				
White				
African Amer.				
Hispanic				
Asian				
Amer. Indian				
FARM				
ESL				

Number of freshman who completed Algebra 1 and/or a Foreign Language credit by 2006 (incl. in middle school)

Class of 2009	Algebra 1	Foreign Lang.
All freshmen		
Male		
Female		
White		
African Amer.		
Hispanic		
Asian		
Amer. Indian		
FARM		
ESL		

Number of students (all grades) completing these courses in 2006

	Algebra 2	Chemistry	Physics	1st credit of a Foreign Lang.	2nd credit of a Foreign Lang.
All students					
Male					
Female					
White					
African Amer.					
Hispanic					
Asian					
Amer. Indian					
Other					
FARM					
ESL					

(exceeding district requirements)

Number of students (all grades) completing these courses in 2006

	Pre-Calculus	Calculus	Trigonometry	4th credit Science	3rd credit same Foreign Lang.
All students					
Male					
Female					
White					
African Amer.					
Hispanic					
Asian					
Amer. Indian					
Other					
FARM					
ESL					

(exceeding [State] Scholars requirements)

High school enrollment 2005-2006
(by gender, ethnicity and SES)

All students (all grades)	
Male	
Female	
White	
African American	
Hispanic	
Asian	
American Indian	
Other	
FARM	
ESL	

Appendix C. Student Enrollment Data with Corrections

Annotated 3/10/2009

SSI Group	State	District/ School	Fall 2006	Spring 2007	Full Year 2006-2007	Fall 2007	Spring 2008	Full Year 2007-2008	Fall 2008
SSI – B	Louisiana	East Baton Rouge Parish	9214	8345	89	7981	5528	11	6701
		Ouachita Parish	6820	6025	19873	6046	5355	20301	---
		Rapides Parish	685	782	4473	576	600	4395	---
		West Feliciana Parish	3987	3815	1	3932	3909	5	758
	Massachusetts	Assabet	0	0	925	0	0	929	---
		Burlington	0	0	990	0	0	1024	---
		Chicopee	0	0	1367	0	0	1324 – comp 1155 – hs	---
		Worcester North	0	0	1203	0	0	907	---
	Nebraska	Chase County	1314	1318	0	1277	---	---	---
		Grand Island	16395	14640	0	16434	---	---	---
		Papillion-LaVista	17386	17356	0	18088	---	---	---
		South Sioux City	5064	6752	0	8980	---	---	---
	Utah	Granite							
		Jordan							
		Park City							
		Provo							
	Virginia	Albemarle County	7336 Only Monticello	6817 Only Monticello	0	6814 Only Monticello 25965 with additional schools	7070 Only Monticello 25564 with additional schools	0	7564 Only Monticello 26441 with additional schools
		Alexandria	18012	19588	0	18736	19944	0	---
		Bristol County	4520	3608	0	4405	3293	0	4460
		Carroll County	3348	5075	0	4523	4987	0	---
		Chesterfield County	7129	7088	0	6575	0	0	---
		Henry County	9398	9306	0	9178	8996	0	8634
		Lancaster County	3157	3157	0	3011	3146	0	2873
		Nottoway County	2488	2583	0	2619	2491	0	2595
		Richmond City (only TJ and Huguenot)	12019	14923	0	13305	13642	0	13716
		Scott County	4272	4283	0	4481	4371	0	4435
		Wm Byrd HS	9117	8045	0	7743	8912	0	7638
	West Virginia	Braxton County	0	0	5489	5462	5399	0	---
		Monroe County	3836	5675	0	2890	6517	0	---
		Ohio County	5109	6383	0	10865	11045	0	---
		Wood County	22524	22723	0	23027	14438	0	---

Notes:

LA, Ouachita Parish – no Fall 2008 data; trouble with submitting transcript records to state system after changing student information systems

LA, Rapides Parish – no Fall 2008 data; changed from block scheduling, can no longer submit transcript records at mid-year

MA – no grades were reported for either academic year; asserted that F07 data were for entire academic year (AY2007-2008); no longer submitting student data since SSI federal funding ended

NE – no longer submitting student data since SSI federal funding ended

NE, South Sioux City – 8,980 is correct from the raw data file

VA, Albemarle – 2007-08 numbers are larger compared to 2006-07 because additional schools submitted data; for year-to-year comparison purposes only Monticello school is used

VA, Chesterfield – Spring 2008 has been included in this table

VA, Richmond City – only represents Thomas Jefferson and Huguenot schools

WV, Monroe County – Larger Spring enrollments, the same pattern is seen in both years

WV, Ohio County – 2007-08 numbers are larger compared to 2006-07; plausible based on recent enrollment trends in the federal Common Core of Data

WV, Wood County - unclear why Spring 2008 number is lower, these data correspond with the raw data file

SSI Group	State	District/ School	Fall 2006	Spring 2007	Full Year 2006-2007	Fall 2007	Spring 2008	Full Year 2007-2008	Fall 2008
SSI - C	Missouri	Houston	2439	2410	0	2440	2474	0	2445
		Jennings	5816	5618	0	6586	6147	0	6296
		Mexico	4777	4565	848	5096	4832	0	5070
		Rockwood	9407	8173	0	8905	8588	0	9989
	New Hampshire	Claremont	3222	3283	0	3385	6378		2812
		Gilford	1787	3684	0	15292	15407		22983
		Newport	1588	1528	495	1490	3726		3311
		Winnisquam	871	781	2480	3468	6662		7514
	South Dakota	Sisseton	1695	1655		1768	1656		2119
		Sturgis Brown HS	3195	3060		2981	2912		2764
		Vermillion	2542	2450		2484	2375		1785
		Wagner	1264	1187		1188	1143		1153
	Wyoming	Big Horn #3			---			5269	1063
		Fremont			11171			22535	5063
		Laramie			5721			9533	1946
		Natrona			122025			120829	21112
		Niobrara			8271			8454	923

Notes:

NH, Claremont – no grades were reported for 2007-08 or Fall 2008

NH, Gilford – 2006-07 student demographics are incorrect

NH, Newport – no grades were reported for Fall 2008

NH – due to inconsistencies across years NH is not included in the year-to-year comparisons

WY – Big Horn #3 district started submitting data in Spring 2008. 2006-07 data are incorrect due to translation and extraction issues, updated file requested but due to short time frame given WY Department of Education will not be able to fulfill the request; WY is not included in the year-to-year comparisons

Appendix D. Aggregated Year-to-Year Comparison Data, Fall 2006 and Spring 2007, By Grade Level

Includes data from four states (Louisiana, Missouri, South Dakota, and Virginia) and 18 districts (all four pilot districts in Missouri and South Dakota; two districts in Louisiana (East Baton Rouge and West Feliciana); and eight districts in Virginia (no Alexandria City, Carroll County, or Chesterfield County and only Monticello schools for Albemarle)) representing 18,136 students who enrolled in 191,581 courses in AY2006-2007.

	Total	Total		%	%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
English	3,930	4,146	**9th graders**	72.2%	76.2%
	3,345	3,849	**10th graders**	71.4%	82.1%
	3,050	3,387	**11th graders**	73.9%	82.0%
	2,686	2,524	**12th graders**	69.2%	65.1%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Other Mathematics	682	793	**9th graders**	12.5%	14.6%
	420	839	**10th graders**	9.0%	17.9%
	536	581	**11th graders**	13.0%	14.1%
	468	397	**12th graders**	12.1%	10.2%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Algebra I	2,659	2,548	**9th graders**	48.9%	46.8%
	814	671	**10th graders**	17.4%	14.3%
	229	227	**11th graders**	5.5%	5.5%
	163	141	**12th graders**	4.2%	3.6%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Algebra II	250	277	**9th graders**	4.6%	5.1%
	808	924	**10th graders**	17.2%	19.7%
	1,095	1,130	**11th graders**	26.5%	27.4%
	544	482	**12th graders**	14.0%	12.4%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Geometry	719	760	**9th graders**	13.2%	14.0%
	1,572	1,553	**10th graders**	33.5%	33.1%
	669	742	**11th graders**	16.2%	18.0%
	344	315	**12th graders**	8.9%	8.1%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Higher Mathematics	45	53	**9th graders**	0.8%	1.0%
	83	160	**10th graders**	1.8%	3.4%
	563	644	**11th graders**	13.6%	15.6%
	844	947	**12th graders**	21.8%	24.4%

	Fall 2006	Spring 2007		Fall 2006	Spring 2007
Other Science	3,433	3,192	**9th graders**	63.1%	58.7%
	729	572	**10th graders**	15.6%	12.2%
	710	786	**11th graders**	17.2%	19.0%
	621	601	**12th graders**	16.0%	15.5%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Biology	528	779	**9th graders**	9.7%	14.3%
	2,372	2,712	**10th graders**	50.6%	57.9%
	657	711	**11th graders**	15.9%	17.2%
	598	523	**12th graders**	15.4%	13.5%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Chemistry	50	43	**9th graders**	0.9%	0.8%
	352	472	**10th graders**	7.5%	10.1%
	1,385	1,404	**11th graders**	33.5%	34.0%
	416	299	**12th graders**	10.7%	7.7%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Physics	15	16	**9th graders**	0.3%	0.3%
	11	15	**10th graders**	0.2%	0.3%
	172	166	**11th graders**	4.2%	4.0%
	496	514	**12th graders**	12.8%	13.2%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Language Other Than English	1,772	1,710	**9th graders**	32.6%	31.4%
	1,903	1,526	**10th graders**	40.6%	32.6%
	1,533	1,234	**11th graders**	37.1%	29.9%
	795	537	**12th graders**	20.5%	13.8%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Social Studies	3,560	3,810	**9th graders**	65.4%	70.0%
	3,005	3,350	**10th graders**	64.1%	71.5%
	2,880	2,928	**11th graders**	69.8%	70.9%
	1,952	1,991	**12th graders**	50.3%	51.3%

Appendix E. Aggregated Year-to-Year Comparison Data, Fall 2007 and Spring 2008, By Grade Level

Includes data from four states (Louisiana, Missouri, South Dakota, and Virginia) and 18 districts (all four pilot districts in Missouri and South Dakota; two districts in Louisiana (East Baton Rouge and West Feliciana); and eight districts in Virginia (no Alexandria City, Carroll County, or Chesterfield County and only Monticello schools for Albemarle)) representing 16,638 students who enrolled in 186,417 courses in AY2007-2008.

	Total	Total		%	%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
English	3,886	3,627	**9th graders**	78.6%	73.3%
	3,206	3,148	**10th graders**	76.9%	75.5%
	3,045	2,878	**11th graders**	79.6%	75.2%
	2,768	2,588	**12th graders**	74.9%	70.0%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Other Mathematics	555	550	**9th graders**	11.2%	11.1%
	345	367	**10th graders**	8.3%	8.8%
	494	443	**11th graders**	12.9%	11.6%
	540	456	**12th graders**	14.6%	12.3%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Algebra I	2,712	2,304	**9th graders**	54.8%	46.6%
	709	661	**10th graders**	17.0%	15.9%
	252	258	**11th graders**	6.6%	6.7%
	168	144	**12th graders**	4.5%	3.9%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Algebra II	145	202	**9th graders**	2.9%	4.1%
	674	699	**10th graders**	16.2%	16.8%
	1,061	967	**11th graders**	27.7%	25.3%
	399	360	**12th graders**	10.8%	9.7%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Geometry	865	805	**9th graders**	17.5%	16.3%
	1,693	1,541	**10th graders**	40.6%	37.0%
	664	685	**11th graders**	17.4%	17.9%
	259	250	**12th graders**	7.0%	6.8%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Higher Mathematics	49	62	**9th graders**	1.0%	1.3%
	126	136	**10th graders**	3.0%	3.3%
	672	599	**11th graders**	17.6%	15.7%
	981	982	**12th graders**	26.5%	26.6%

	Fall 2007	Spring 2008		Fall 2007	Spring 2008
Other Science	2,724	2,464	**9th graders**	55.1%	49.8%
	526	522	**10th graders**	12.6%	12.5%
	753	692	**11th graders**	19.7%	18.1%
	704	619	**12th graders**	19.0%	16.7%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Biology	1,175	1,048	**9th graders**	23.8%	21.2%
	2,435	2,288	**10th graders**	58.4%	54.9%
	620	664	**11th graders**	16.2%	17.4%
	572	516	**12th graders**	15.5%	14.0%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Chemistry	58	49	**9th graders**	1.2%	1.0%
	464	447	**10th graders**	11.1%	10.7%
	1,326	1,253	**11th graders**	34.7%	32.8%
	301	317	**12th graders**	8.1%	8.6%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Physics	19	24	**9th graders**	0.4%	0.5%
	29	33	**10th graders**	0.7%	0.8%
	258	220	**11th graders**	6.7%	5.8%
	608	557	**12th graders**	16.4%	15.1%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Language Other Than English	1,920	1,750	**9th graders**	38.8%	35.4%
	1,994	1,801	**10th graders**	47.8%	43.2%
	1,464	1,386	**11th graders**	38.3%	36.2%
	755	714	**12th graders**	20.4%	19.3%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Social Studies	3,243	3,206	**9th graders**	65.6%	64.8%
	2,815	2,657	**10th graders**	67.5%	63.7%
	2,984	2,806	**11th graders**	78.0%	73.4%
	2,122	2,132	**12th graders**	57.4%	57.7%

Appendix F. Aggregated Year-to-Year Comparison Data, Fall 2008, By Grade Level

Includes data from four states (Louisiana, Missouri, South Dakota, and Virginia) and 18 districts (all four pilot districts in Missouri and South Dakota; two districts in Louisiana (East Baton Rouge and West Feliciana); and eight districts in Virginia (no Alexandria City, Carroll County, or Chesterfield County and only Monticello schools for Albemarle)) representing 14,610 students who enrolled in 90,995 courses in Fall 2008.

	Total		%
	Fall 2008		**Fall 2008**
English	3,566	**9th graders**	84.3%
	3,003	**10th graders**	82.4%
	2,843	**11th graders**	83.9%
	2,789	**12th graders**	83.3%
	Fall 2008		**Fall 2008**
Other Mathematics	533	**9th graders**	12.6%
	503	**10th graders**	13.8%
	498	**11th graders**	14.7%
	360	**12th graders**	10.8%
	Fall 2008		**Fall 2008**
Algebra I	2,360	**9th graders**	55.8%
	628	**10th graders**	17.2%
	315	**11th graders**	9.3%
	228	**12th graders**	6.8%
	Fall 2008		**Fall 2008**
Algebra II	148	**9th graders**	3.5%
	686	**10th graders**	18.8%
	981	**11th graders**	28.9%
	316	**12th graders**	9.4%
	Fall 2008		**Fall 2008**
Geometry	792	**9th graders**	18.7%
	1,506	**10th graders**	41.3%
	624	**11th graders**	18.4%
	210	**12th graders**	6.3%
	Fall 2008		**Fall 2008**
Higher Mathematics	39	**9th graders**	0.9%
	79	**10th graders**	2.2%
	557	**11th graders**	16.4%
	1,051	**12th graders**	31.4%

	Fall 2008		Fall 2008
Other Science	2,514	**9th graders**	59.4%
	421	**10th graders**	11.6%
	794	**11th graders**	23.4%
	684	**12th graders**	20.4%
	Fall 2008		**Fall 2008**
Biology	955	**9th graders**	22.6%
	2,160	**10th graders**	59.3%
	578	**11th graders**	17.1%
	542	**12th graders**	16.2%
	Fall 2008		**Fall 2008**
Chemistry	22	**9th graders**	0.5%
	475	**10th graders**	13.0%
	1,249	**11th graders**	36.9%
	302	**12th graders**	9.0%
	Fall 2008		**Fall 2008**
Physics	5	**9th graders**	0.1%
	14	**10th graders**	0.4%
	198	**11th graders**	5.8%
	513	**12th graders**	15.3%
	Fall 2008		**Fall 2008**
Language Other Than English	1,832	**9th graders**	43.3%
	1,931	**10th graders**	53.0%
	1,342	**11th graders**	39.6%
	776	**12th graders**	23.2%
	Fall 2008		**Fall 2008**
Social Studies	2,972	**9th graders**	70.2%
	2,582	**10th graders**	70.9%
	2,540	**11th graders**	74.9%
	1,951	**12th graders**	58.3%

Appendix G. Aggregated Year-to-Year Comparison Data, Fall 2006 and Spring 2007, By Student Characteristic

Includes data from four states (Louisiana, Missouri, South Dakota, and Virginia) and 18 districts (all four pilot districts in Missouri and South Dakota; two districts in Louisiana (East Baton Rouge and West Feliciana); and eight districts in Virginia (no Alexandria City, Carroll County, or Chesterfield County and only Monticello schools for Albemarle)) representing 18,136 students who enrolled in 191,581 courses in AY2006-2007.

	Total	Total		%	%
	Fall 2006	Spring 2007		Fall 2006	Spring 2007
English	6,633	7,168	Female	51.0%	51.5%
	6,378	6,738	Male	49.0%	48.5%
	7,512	7,174	White	57.7%	51.6%
	5,499	6,732	Non-White	42.3%	48.4%
	12,725	13,656	Not LEP	97.8%	98.2%
	286	250	LEP	2.2%	1.8%
	7,662	7,672	Not EcDis	58.9%	55.2%
	5,349	6,234	EcDis	41.1%	44.8%
	11,488	12,038	Not SpEd	88.3%	86.6%
	1,523	1,868	SpEd	11.7%	13.4%
	Fall 2006	Spring 2007		Fall 2006	Spring 2007
Other Mathematics	1,010	1,285	Female	48.0%	49.2%
	1,096	1,325	Male	52.0%	50.8%
	732	608	White	34.8%	23.3%
	1,374	2,002	Non-White	65.2%	76.7%
	2,045	2,577	Not LEP	97.1%	98.7%
	61	33	LEP	2.9%	1.3%
	1,301	1,201	Not EcDis	61.8%	46.0%
	805	1,409	EcDis	38.2%	54.0%
	1,624	1,889	Not SpEd	77.1%	72.4%
	482	721	SpEd	22.9%	27.6%
	Fall 2006	Spring 2007		Fall 2006	Spring 2007
Algebra I	1,897	1,750	Female	49.1%	48.8%
	1,968	1,837	Male	50.9%	51.2%
	2,132	1,990	White	55.2%	55.5%
	1,733	1,597	Non-White	44.8%	44.5%
	3,775	3,508	Not LEP	97.7%	97.8%
	90	79	LEP	2.3%	2.2%
	1,854	1,679	Not EcDis	48.0%	46.8%
	2,011	1,908	EcDis	52.0%	53.2%
	3,357	3,121	Not SpEd	86.9%	87.0%
	508	466	SpEd	13.1%	13.0%

	Fall 2006	Spring 2007		Fall 2006	Spring 2007
Algebra II	1,430	1,544	**Female**	53.0%	54.9%
	1,267	1,269	**Male**	47.0%	45.1%
	1,660	1,645	**White**	61.5%	58.5%
	1,037	1,168	**Non-White**	38.5%	41.5%
	2,660	2,774	**Not LEP**	98.6%	98.6%
	37	39	**LEP**	1.4%	1.4%
	1,740	1,768	**Not EcDis**	64.5%	62.9%
	957	1,045	**EcDis**	35.5%	37.1%
	2,535	2,632	**Not SpEd**	94.0%	93.6%
	162	181	**SpEd**	6.0%	6.4%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Geometry	1,705	1,772	**Female**	51.6%	52.6%
	1,599	1,598	**Male**	48.4%	47.4%
	2,087	1,782	**White**	63.2%	52.9%
	1,217	1,588	**Non-White**	36.8%	47.1%
	3,256	3,325	**Not LEP**	98.5%	98.7%
	48	45	**LEP**	1.5%	1.3%
	2,001	1,900	**Not EcDis**	60.6%	56.4%
	1,303	1,470	**EcDis**	39.4%	43.6%
	2,994	3,002	**Not SpEd**	90.6%	89.1%
	310	368	**SpEd**	9.4%	10.9%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Higher Mathematics	866	1,021	**Female**	56.4%	56.6%
	669	783	**Male**	43.6%	43.4%
	1,250	1,189	**White**	81.4%	65.9%
	285	615	**Non-White**	18.6%	34.1%
	1,520	1,795	**Not LEP**	99.0%	99.5%
	15	9	**LEP**	1.0%	0.5%
	1,141	1,272	**Not EcDis**	74.3%	70.5%
	394	532	**EcDis**	25.7%	29.5%
	1,490	1,725	**Not SpEd**	97.1%	95.6%
	45	79	**SpEd**	2.9%	4.4%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Other Science	2,783	2,593	**Female**	50.7%	50.3%
	2,710	2,558	**Male**	49.3%	49.7%
	2,951	2,702	**White**	53.7%	52.5%
	2,542	2,449	**Non-White**	46.3%	47.5%
	5,377	5,056	**Not LEP**	97.9%	98.2%
	116	95	**LEP**	2.1%	1.8%
	3,105	2,661	**Not EcDis**	56.5%	51.7%
	2,388	2,490	**EcDis**	43.5%	48.3%
	4,773	4,342	**Not SpEd**	86.9%	84.3%
	720	809	**SpEd**	13.1%	15.7%

	Fall 2006	Spring 2007		Fall 2006	Spring 2007
Biology	2,150	2,465	**Female**	51.7%	52.2%
	2,005	2,260	**Male**	48.3%	47.8%
	2,589	2,568	**White**	62.3%	54.3%
	1,566	2,157	**Non-White**	37.7%	45.7%
	4,093	4,663	**Not LEP**	98.5%	98.7%
	62	62	**LEP**	1.5%	1.3%
	2,458	2,626	**Not EcDis**	59.2%	55.6%
	1,697	2,099	**EcDis**	40.8%	44.4%
	3,780	4,220	**Not SpEd**	91.0%	89.3%
	375	505	**SpEd**	9.0%	10.7%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Chemistry	1,259	1,272	**Female**	57.1%	57.3%
	944	946	**Male**	42.9%	42.7%
	1,395	1,340	**White**	63.3%	60.4%
	808	878	**Non-White**	36.7%	39.6%
	2,178	2,200	**Not LEP**	98.9%	99.2%
	25	18	**LEP**	1.1%	0.8%
	1,465	1,433	**Not EcDis**	66.5%	64.6%
	738	785	**EcDis**	33.5%	35.4%
	2,115	2,120	**Not SpEd**	96.0%	95.6%
	88	98	**SpEd**	4.0%	4.4%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Physics	331	358	**Female**	47.7%	50.4%
	363	353	**Male**	52.3%	49.6%
	481	438	**White**	69.3%	61.6%
	213	273	**Non-White**	30.7%	38.4%
	687	706	**Not LEP**	99.0%	99.3%
	7	5	**LEP**	1.0%	0.7%
	506	492	**Not EcDis**	72.9%	69.2%
	188	219	**EcDis**	27.1%	30.8%
	674	682	**Not SpEd**	97.1%	95.9%
	20	29	**SpEd**	2.9%	4.1%
	Fall 2006	**Spring 2007**		**Fall 2006**	**Spring 2007**
Language Other Than English	3,338	2,755	**Female**	55.6%	55.0%
	2,665	2,252	**Male**	44.4%	45.0%
	3,785	3,631	**White**	63.1%	72.5%
	2,218	1,376	**Non-White**	36.9%	27.5%
	5,898	4,918	**Not LEP**	98.3%	98.2%
	105	89	**LEP**	1.7%	1.8%
	4,000	3,225	**Not EcDis**	66.6%	64.4%
	2,003	1,782	**EcDis**	33.4%	35.6%
	5,714	4,791	**Not SpEd**	95.2%	95.7%
	289	216	**SpEd**	4.8%	4.3%

	Fall 2006	Spring 2007		Fall 2006	Spring 2007
Social Studies	5,857	6,272	**Female**	51.4%	51.9%
	5,540	5,807	**Male**	48.6%	48.1%
	6,630	6,037	**White**	58.2%	50.0%
	4,767	6,042	**Non-White**	41.8%	50.0%
	11,193	11,904	**Not LEP**	98.2%	98.6%
	204	175	**LEP**	1.8%	1.4%
	6,840	6,663	**Not EcDis**	60.0%	55.2%
	4,557	5,416	**EcDis**	40.0%	44.8%
	10,096	10,520	**Not SpEd**	88.6%	87.1%
	1,301	1,559	**SpEd**	11.4%	12.9%

Appendix H. Aggregated Year-to-Year Comparison Data, Fall 2007 and Spring 2008, By Student Characteristic

Includes data from four states (Louisiana, Missouri, South Dakota, and Virginia) and 18 districts (all four pilot districts in Missouri and South Dakota; two districts in Louisiana (East Baton Rouge and West Feliciana); and eight districts in Virginia (no Alexandria City, Carroll County, or Chesterfield County and only Monticello schools for Albemarle)) representing 16,638 students who enrolled in 186,417 courses in AY2007-2008.

	Total	Total		%	%
	Fall 2007	Spring 2008		Fall 2007	Spring 2008
English	6,631	6,314	Female	51.4%	51.6%
	6,274	5,927	Male	48.6%	48.4%
	7,366	7,054	White	57.1%	57.6%
	5,539	5,187	Non-White	42.9%	42.4%
	12,630	11,944	Not LEP	97.9%	97.6%
	275	297	LEP	2.1%	2.4%
	9,690	9,151	Not EcDis	75.1%	74.8%
	3,215	3,090	EcDis	24.9%	25.2%
	11,331	10,701	Not SpEd	87.8%	87.4%
	1,574	1,540	SpEd	12.2%	12.6%
	Fall 2007	Spring 2008		Fall 2007	Spring 2008
Other Mathematics	950	910	Female	49.1%	50.1%
	984	906	Male	50.9%	49.9%
	601	527	White	31.1%	29.0%
	1,333	1,289	Non-White	68.9%	71.0%
	1,851	1,737	Not LEP	95.7%	95.6%
	83	79	LEP	4.3%	4.4%
	1,427	1,323	Not EcDis	73.8%	72.9%
	507	493	EcDis	26.2%	27.1%
	1,407	1,308	Not SpEd	72.8%	72.0%
	527	508	SpEd	27.2%	28.0%
	Fall 2007	Spring 2008		Fall 2007	Spring 2008
Algebra I	1,899	1,674	Female	49.4%	49.7%
	1,942	1,693	Male	50.6%	50.3%
	2,160	1,870	White	56.2%	55.5%
	1,681	1,497	Non-White	43.8%	44.5%
	3,731	3,247	Not LEP	97.1%	96.4%
	110	120	LEP	2.9%	3.6%
	2,568	2,205	Not EcDis	66.9%	65.5%
	1,273	1,162	EcDis	33.1%	34.5%
	3,394	2,959	Not SpEd	88.4%	87.9%
	447	408	SpEd	11.6%	12.1%

	Fall 2007	Spring 2008		Fall 2007	Spring 2008
Algebra II	1,227	1,234	**Female**	53.8%	55.4%
	1,052	994	**Male**	46.2%	44.6%
	1,426	1,433	**White**	62.6%	64.3%
	853	795	**Non-White**	37.4%	35.7%
	2,259	2,197	**Not LEP**	99.1%	98.6%
	20	31	**LEP**	0.9%	1.4%
	1,886	1,831	**Not EcDis**	82.8%	82.2%
	393	397	**EcDis**	17.2%	17.8%
	2,131	2,084	**Not SpEd**	93.5%	93.5%
	148	144	**SpEd**	6.5%	6.5%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Geometry	1,805	1,696	**Female**	51.9%	51.7%
	1,676	1,585	**Male**	48.1%	48.3%
	2,059	1,970	**White**	59.1%	60.0%
	1,422	1,311	**Non-White**	40.9%	40.0%
	3,428	3,229	**Not LEP**	98.5%	98.4%
	53	52	**LEP**	1.5%	1.6%
	2,622	2,447	**Not EcDis**	75.3%	74.6%
	859	834	**EcDis**	24.7%	25.4%
	3,117	2,965	**Not SpEd**	89.5%	90.4%
	364	316	**SpEd**	10.5%	9.6%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Higher Mathematics	991	958	**Female**	54.2%	53.9%
	837	821	**Male**	45.8%	46.1%
	1,438	1,416	**White**	78.7%	79.6%
	390	363	**Non-White**	21.3%	20.4%
	1,820	1,770	**Not LEP**	99.6%	99.5%
	8	9	**LEP**	0.4%	0.5%
	1,544	1,480	**Not EcDis**	84.5%	83.2%
	284	299	**EcDis**	15.5%	16.8%
	1,745	1,684	**Not SpEd**	95.5%	94.7%
	83	95	**SpEd**	4.5%	5.3%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Other Science	2,361	2,162	**Female**	50.2%	50.3%
	2,346	2,135	**Male**	49.8%	49.7%
	2,627	2,360	**White**	55.8%	54.9%
	2,080	1,937	**Non-White**	44.2%	45.1%
	4,589	4,174	**Not LEP**	97.5%	97.1%
	118	123	**LEP**	2.5%	2.9%
	3,367	2,990	**Not EcDis**	71.5%	69.6%
	1,340	1,307	**EcDis**	28.5%	30.4%
	4,024	3,686	**Not SpEd**	85.5%	85.8%
	683	611	**SpEd**	14.5%	14.2%

	Fall 2007	Spring 2008		Fall 2007	Spring 2008
Biology	2,527	2,382	**Female**	52.6%	52.7%
	2,275	2,134	**Male**	47.4%	47.3%
	2,752	2,634	**White**	57.3%	58.3%
	2,050	1,882	**Non-White**	42.7%	41.7%
	4,720	4,420	**Not LEP**	98.3%	97.9%
	82	96	**LEP**	1.7%	2.1%
	3,627	3,348	**Not EcDis**	75.5%	74.1%
	1,175	1,168	**EcDis**	24.5%	25.9%
	4,284	3,984	**Not SpEd**	89.2%	88.2%
	518	532	**SpEd**	10.8%	11.8%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Chemistry	1,171	1,173	**Female**	54.5%	56.8%
	978	893	**Male**	45.5%	43.2%
	1,367	1,329	**White**	63.6%	64.3%
	782	737	**Non-White**	36.4%	35.7%
	2,134	2,046	**Not LEP**	99.3%	99.0%
	15	20	**LEP**	0.7%	1.0%
	1,758	1,708	**Not EcDis**	81.8%	82.7%
	391	358	**EcDis**	18.2%	17.3%
	2,056	1,976	**Not SpEd**	95.7%	95.6%
	93	90	**SpEd**	4.3%	4.4%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Physics	463	411	**Female**	50.7%	49.3%
	451	423	**Male**	49.3%	50.7%
	665	585	**White**	72.8%	70.1%
	249	249	**Non-White**	27.2%	29.9%
	911	829	**Not LEP**	99.7%	99.4%
	3	5	**LEP**	0.3%	0.6%
	805	734	**Not EcDis**	88.1%	88.0%
	109	100	**EcDis**	11.9%	12.0%
	876	798	**Not SpEd**	95.8%	95.7%
	38	36	**SpEd**	4.2%	4.3%
	Fall 2007	**Spring 2008**		**Fall 2007**	**Spring 2008**
Language Other Than English	3,433	3,181	**Female**	56.0%	56.3%
	2,700	2,470	**Male**	44.0%	43.7%
	3,794	3,477	**White**	61.9%	61.5%
	2,339	2,174	**Non-White**	38.1%	38.5%
	6,036	5,536	**Not LEP**	98.4%	98.0%
	97	115	**LEP**	1.6%	2.0%
	5,017	4,575	**Not EcDis**	81.8%	81.0%
	1,116	1,076	**EcDis**	18.2%	19.0%
	5,768	5,308	**Not SpEd**	94.0%	93.9%
	365	343	**SpEd**	6.0%	6.1%

	Fall 2007	Spring 2008		Fall 2007	Spring 2008
Social Studies	5,744	5,581	**Female**	51.5%	51.7%
	5,420	5,220	**Male**	48.5%	48.3%
	6,359	6,103	**White**	57.0%	56.5%
	4,805	4,698	**Non-White**	43.0%	43.5%
	10,967	10,582	**Not LEP**	98.2%	98.0%
	197	219	**LEP**	1.8%	2.0%
	8,455	7,980	**Not EcDis**	75.7%	73.9%
	2,709	2,821	**EcDis**	24.3%	26.1%
	9,882	9,517	**Not SpEd**	88.5%	88.1%
	1,282	1,284	**SpEd**	11.5%	11.9%

Appendix I. Aggregated Year-to-Year Comparison Data, Fall 2008, By Student Characteristic

Includes data from four states (Louisiana, Missouri, South Dakota, and Virginia) and 18 districts (all four pilot districts in Missouri and South Dakota; two districts in Louisiana (East Baton Rouge and West Feliciana); and eight districts in Virginia (no Alexandria City, Carroll County, or Chesterfield County and only Monticello schools for Albemarle)) representing 14,610 students who enrolled in 90,995 courses in Fall 2008.

	Total		%
	Fall 2008		Fall 2008
English	6,101	Female	50.0%
	6,100	Male	50.0%
	7,825	White	64.1%
	4,376	Non-White	35.9%
	11,827	Not LEP	96.9%
	374	LEP	3.1%
	7,889	Not EcDis	64.7%
	4,312	EcDis	35.3%
	10,507	Not SpEd	86.1%
	1,694	SpEd	13.9%
	Fall 2008		Fall 2008
Other Mathematics	875	Female	46.2%
	1,019	Male	53.8%
	829	White	43.8%
	1,065	Non-White	56.2%
	1,795	Not LEP	94.8%
	99	LEP	5.2%
	991	Not EcDis	52.3%
	903	EcDis	47.7%
	1,423	Not SpEd	75.1%
	471	SpEd	24.9%
	Fall 2008		Fall 2008
Algebra I	1,631	Female	46.2%
	1,900	Male	53.8%
	2,221	White	62.9%
	1,310	Non-White	37.1%
	3,364	Not LEP	95.3%
	167	LEP	4.7%
	2,016	Not EcDis	57.1%
	1,515	EcDis	42.9%
	2,968	Not SpEd	84.1%
	563	SpEd	15.9%

	Fall 2008		Fall 2008
Algebra II	1,148	**Female**	53.9%
	983	**Male**	46.1%
	1,523	**White**	71.5%
	608	**Non-White**	28.5%
	2,097	**Not LEP**	98.4%
	34	**LEP**	1.6%
	1,553	**Not EcDis**	72.9%
	578	**EcDis**	27.1%
	2,012	**Not SpEd**	94.4%
	119	**SpEd**	5.6%
	Fall 2008		**Fall 2008**
Geometry	1,688	**Female**	53.9%
	1,444	**Male**	46.1%
	1,979	**White**	63.2%
	1,153	**Non-White**	36.8%
	3,055	**Not LEP**	97.5%
	77	**LEP**	2.5%
	2,047	**Not EcDis**	65.4%
	1,085	**EcDis**	34.6%
	2,807	**Not SpEd**	89.6%
	325	**SpEd**	10.4%
	Fall 2008		**Fall 2008**
Higher Mathematics	901	**Female**	52.2%
	825	**Male**	47.8%
	1,362	**White**	78.9%
	364	**Non-White**	21.1%
	1,710	**Not LEP**	99.1%
	16	**LEP**	0.9%
	1,405	**Not EcDis**	81.4%
	321	**EcDis**	18.6%
	1,613	**Not SpEd**	93.5%
	113	**SpEd**	6.5%
	Fall 2008		**Fall 2008**
Other Science	2,149	**Female**	48.7%
	2,264	**Male**	51.3%
	2,960	**White**	67.1%
	1,453	**Non-White**	32.9%
	4,256	**Not LEP**	96.4%
	157	**LEP**	3.6%
	2,734	**Not EcDis**	62.0%
	1,679	**EcDis**	38.0%
	3,732	**Not SpEd**	84.6%
	681	**SpEd**	15.4%

	Fall 2008		**Fall 2008**
Biology	2,147	**Female**	50.7%
	2,088	**Male**	49.3%
	2,657	**White**	62.7%
	1,578	**Non-White**	37.3%
	4,112	**Not LEP**	97.1%
	123	**LEP**	2.9%
	2,723	**Not EcDis**	64.3%
	1,512	**EcDis**	35.7%
	3,733	**Not SpEd**	88.1%
	502	**SpEd**	11.9%
	Fall 2008		**Fall 2008**
Chemistry	1,132	**Female**	55.3%
	916	**Male**	44.7%
	1,487	**White**	72.6%
	561	**Non-White**	27.4%
	2,027	**Not LEP**	99.0%
	21	**LEP**	1.0%
	1,567	**Not EcDis**	76.5%
	481	**EcDis**	23.5%
	1,947	**Not SpEd**	95.1%
	101	**SpEd**	4.9%
	Fall 2008		**Fall 2008**
Physics	351	**Female**	48.1%
	379	**Male**	51.9%
	538	**White**	73.7%
	192	**Non-White**	26.3%
	719	**Not LEP**	98.5%
	11	**LEP**	1.5%
	603	**Not EcDis**	82.6%
	127	**EcDis**	17.4%
	687	**Not SpEd**	94.1%
	43	**SpEd**	5.9%
	Fall 2008		**Fall 2008**
Language Other Than English	3,298	**Female**	56.1%
	2,583	**Male**	43.9%
	3,918	**White**	66.6%
	1,963	**Non-White**	33.4%
	5,748	**Not LEP**	97.7%
	133	**LEP**	2.3%
	4,173	**Not EcDis**	71.0%
	1,708	**EcDis**	29.0%
	5,490	**Not SpEd**	93.4%
	391	**SpEd**	6.6%

	Fall 2008		**Fall 2008**
Social Studies	5,006	**Female**	49.8%
	5,039	**Male**	50.2%
	6,387	**White**	63.6%
	3,658	**Non-White**	36.4%
	9,771	**Not LEP**	97.3%
	274	**LEP**	2.7%
	6,441	**Not EcDis**	64.1%
	3,604	**EcDis**	35.9%
	8,694	**Not SpEd**	86.6%
	1,351	**SpEd**	13.4%

Appendix J. STATE SCHOLARS INITIATIVE PERCEPTION SURVEY

STUDENT

START HERE

1 **How important do you think taking rigorous courses in high school is to getting a well-paying job after high school? (Please mark one answer)**

- ☐ Very important
- ☐ Somewhat important
- ☐ Neutral
- ☐ Somewhat unimportant
- ☐ Not important at all

2 **How important do you think taking rigorous courses in high school is going to a community college, technical institute, or university after high school? (Please mark one answer)**

- ☐ Very important
- ☐ Somewhat important
- ☐ Neutral
- ☐ Somewhat unimportant
- ☐ Not important at all

3 **At this point in time, are you planning on taking rigorous courses in high school? (Please mark one answer)**

- ☐ Yes
- ☐ Probably
- ☐ No

4 **Who has encouraged you to take rigorous courses in high school? (Mark all that apply)**

- ☐ Your parents
- ☐ Teachers
- ☐ Guidance counselors
- ☐ School administrator
- ☐ Other family member
- ☐ Friends
- ☐ State Scholars presenter
- ☐ Other business people
- ☐ None of the above

Please go to Question 5

5 **Who has been the SINGLE biggest influence on which courses you take in high school? (Please mark one answer)**

- ☐ Your parents
- ☐ Teachers
- ☐ Guidance counselors
- ☐ School administrator
- ☐ Other family member
- ☐ Friends
- ☐ State Scholars presenter
- ☐ Other business people
- ☐ None of the above

6 **How has this State Scholars presentation influenced your decision to take rigorous courses in high school? (Please mark one answer)**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

7 **Would you tell a friend about State Scholars? (Please mark one answer)**

- ☐ Yes
- ☐ No

THANK YOU!

Appendix K. STATE SCHOLARS INITIATIVE PERCEPTION SURVEY

PARENT

Please mark only one answer for each question.

START HERE

1 **How important do you think taking rigorous courses in high school is to your child's ability to get a well-paying job after high school?**

- ☐ Very important
- ☐ Somewhat important
- ☐ Neutral
- ☐ Somewhat unimportant
- ☐ Not important at all
- ☐ Don't know

2 **How has the State Scholars Initiative influenced this perception?**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

3 **How important do you think taking rigorous courses in high school is to your child's ability to go to a community college, technical institute, or university after high school?**

- ☐ Very important
- ☐ Somewhat important
- ☐ Neutral
- ☐ Somewhat unimportant
- ☐ Not important at all
- ☐ Don't know

4 **How has the State Scholars Initiative influenced this perception?**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

5 **In what grade should your child start taking rigorous courses?**

- ☐ 9th grade
- ☐ 10th grade
- ☐ 11th grade
- ☐ 12th grade
- ☐ Don't know

6 **To what extent has the State Scholars Initiative influenced this perception?**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

7 **Have you actively encouraged your child to take rigorous courses in high school?**

- ☐ Yes
- ☐ No

8 **To what extent has the State Scholars Initiative influenced your encouraging your child to take rigorous courses?**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

THANK YOU!

Appendix L. STATE SCHOLARS INITIATIVE PERCEPTION SURVEY

TEACHER

Please mark only one answer for each question.

START HERE

1 **How important do you think taking rigorous courses in high school is to a student's ability to get a well-paying job after high school?**

- ☐ Very important
- ☐ Somewhat important
- ☐ Neutral
- ☐ Somewhat unimportant
- ☐ Not important at all
- ☐ Don't know

2 **How has the State Scholars Initiative influenced this perception?**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

3 **How important do you think taking rigorous courses in high school is to a student's ability to go to a community college, technical institute, or university after high school?**

- ☐ Very important
- ☐ Somewhat important
- ☐ Neutral
- ☐ Somewhat unimportant
- ☐ Not important at all
- ☐ Don't know

4 **How has the State Scholars Initiative influenced this perception?**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

5 **In what grade should students start taking rigorous courses?**

- ☐ 9th grade
- ☐ 10th grade
- ☐ 11th grade
- ☐ 12th grade
- ☐ Don't know

6 **To what extent has the State Scholars Initiative influenced this perception?**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

7 **Have you actively encouraged students to take rigorous courses in high school?**

- ☐ Yes
- ☐ No

8 **How has the State Scholars Initiative influenced your encouraging students to take rigorous courses?**

- ☐ I have encouraged more students
- ☐ No effect
- ☐ I have encouraged fewer students

THANK YOU!

Appendix M. STATE SCHOLARS INITIATIVE PERCEPTION SURVEY

GUIDANCE COUNSELOR

Please mark only one answer for each question.

START HERE

1 **How important do you think taking rigorous courses in high school is to a student's ability to get a well-paying job after high school?**

- ☐ Very important
- ☐ Somewhat important
- ☐ Neutral
- ☐ Somewhat unimportant
- ☐ Not important at all
- ☐ Don't know

2 **How has the State Scholars Initiative influenced this perception?**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

3 **How important do you think taking rigorous courses in high school is to a student's ability to go to a community college, technical institute, or university after high school?**

- ☐ Very important
- ☐ Somewhat important
- ☐ Neutral
- ☐ Somewhat unimportant
- ☐ Not important at all
- ☐ Don't know

4 **How has the State Scholars Initiative influenced this perception?**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

5 **In what grade should students start taking rigorous courses?**

- ☐ 9th grade
- ☐ 10th grade
- ☐ 11th grade
- ☐ 12th grade
- ☐ Don't know

6 **To what extent has the State Scholars Initiative influenced this perception?**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

7 **Have you actively encouraged students to take rigorous courses in high school?**

- ☐ Yes
- ☐ No

8 **How has the State Scholars Initiative influenced your encouraging students to take rigorous courses?**

- ☐ I have encouraged more students
- ☐ No effect
- ☐ I have encouraged fewer students

THANK YOU!

Appendix N. STATE SCHOLARS INITIATIVE PERCEPTION SURVEY

BUSINESS PERSON

Please mark only one answer for each question.

START HERE

1 **How important do you think taking rigorous courses in high school is to a student's ability to get a well-paying job after high school?**

- ☐ Very important
- ☐ Somewhat important
- ☐ Neutral
- ☐ Somewhat unimportant
- ☐ Not important at all
- ☐ Don't know

2 **How has the State Scholars Initiative influenced this perception?**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

3 **How important do you think taking rigorous courses in high school is to a student's ability to go to a community college, technical institute, or university after high school?**

- ☐ Very important
- ☐ Somewhat important
- ☐ Neutral
- ☐ Somewhat unimportant
- ☐ Not important at all
- ☐ Don't know

4 **How has the State Scholars Initiative influenced this perception?**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

5 **In what grade should students start taking rigorous courses?**

- ☐ 9th grade
- ☐ 10th grade
- ☐ 11th grade
- ☐ 12th grade
- ☐ Don't know

6 **To what extent has the State Scholars Initiative influenced this perception?**

- ☐ Positively
- ☐ Somewhat positively
- ☐ Neutral
- ☐ Somewhat negatively
- ☐ Negatively

7 **Have you actively encouraged students to take rigorous courses in high school?**

- ☐ Yes
- ☐ No

8 **How has the State Scholars Initiative influenced your encouraging students to take rigorous courses?**

- ☐ I have encouraged more students
- ☐ No effect
- ☐ I have encouraged fewer students

Please continue on next page.

Appendix O. SSI Perception Survey Results, Year Three

(September 24, 2007 – September 30, 2008)

	Wave One (9/24/2007 – 2/28/2008)										Wave Two (3/1/2008 – 7/31/2008)									
	Student		Teacher		Guidance Counselor		Business People		Parents		Student		Teacher		Guidance Counselor		Business People		Parents	
	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total
Total Respondents		100.0		100.0		100.0		100.0		100.0		100.0		100.0		100.0		100.0		100.0
How important do you think taking rigorous courses in high school is to getting a well-paying job after high school?																				
Very Important	3016	77.0	65	83.3	23	82.1	86	91.5	127	88.8	5730	75.9	80	89.9	21	95.5	75	81.5	92	89.3
Somewhat Important	708	18.1	12	15.4	5	17.9	6	6.4	14	9.8	1358	18.0	9	10.1	1	4.5	15	16.3	10	9.7
Neutral	147	3.8	0	0	0	0	2	2.1	2	1.4	343	4.5	0	0	0	0	1	1.1	1	1.0
Somewhat Unimportant	19	0.5	1	1.3	0	0	0	0	0	0	39	.5	0	0	0	0	0	0	0	0
Not Important At All	21	0.5	0	0	0	0	0	0	0	0	58	.8	0	0	0	0	0	0	0	0
No Response	4	0.1	0	0	0	0	0	0	0	0	18	.2	0	0	0	0	1	1.1	0	0
How has the State Scholars Initiative influenced this perception?																				
Positively	--	--	46	59.0	16	57.1	74	78.7	119	83.2	--	--	64	71.9	15	68.2	61	66.3	78	75.7
Somewhat Positively	--	--	22	28.2	6	21.4	8	8.5	15	10.5	--	--	16	18.0	4	18.2	18	19.6	13	12.6
Neutral	--	--	10	12.8	6	21.4	12	12.8	8	5.6	--	--	9	10.1	3	13.6	11	12.0	11	10.7
Somewhat Negatively	--	--	0	0	0	0	0	0	0	0	--	--	0	0	0	0	0	0	0	0
Negatively	--	--	0	0	0	0	0	0	0	0	--	--	0	0	0	0	0	0	0	0
No Response	--	--	0	0	0	0	0	0	1	.7	--	--	0	0	0	0	2	2.2	1	1.0
											--	--								
How important do you think taking rigorous courses in high school is to going to a community college, technical institute, or university after high school?																				
Very Important	2773	70.8	60	76.9	26	92.9	84	89.4	134	93.7	5198	68.9	75	84.3	19	86.4	75	81.5	92	89.3
Somewhat Important	876	22.4	17	21.8	2	7.1	8	8.5	9	6.3	1727	22.9	13	14.6	3	13.6	14	15.2	11	10.7
Neutral	206	5.3	1	1.3	0	0	1	1.1	0	0	467	6.2	1	1.1	0	0	2	2.2	0	0
Somewhat Unimportant	20	0.5	0	0	0	0	0	0	0	0	54	0.7	0	0	0	0	0	0	0	0
Not Important At All	23	0.6	0	0	0	0	0	0	0	0	60	0.8	0	0	0	0	0	0	0	0
No Response	17	0.4	0	0	0	0	1	1.1	0	0	40	0.5	0	0	0	0	1	1.1	0	0
How has the State Scholars Initiative influenced this perception?																				
Positively	--	--	49	62.8	17	60.7	70	74.5	118	82.5	--	--	64	71.9	12	54.5	61	66.3	72	69.9
Somewhat Positively	--	--	16	20.5	6	21.4	10	10.6	17	11.9	--	--	19	21.3	6	27.3	16	17.4	20	19.4
Neutral	--	--	13	16.7	5	17.9	13	13.8	8	5.6	--	--	6	6.7	4	18.2	13	14.1	10	9.7
Somewhat Negatively	--	--	0	0	0	0	0	0	0	0	--	--	0	0	0	0	0	0	0	0
Negatively	--	--	0	0	0	0	0	0	0	0	--	--	0	0	0	0	0	0	0	0
No Response	--	--	0	0	0	0	1	1.1	0	0	--	--	0	0	0	0	2	2.2	1	1.0

	Wave One (9/24/2007 – 2/28/2008)										Wave Two (3/1/2008 – 7/31/2008)									
	Student		Teacher		Guidance Counselor		Business People		Parents		Student		Teacher		Guidance Counselor		Business People		Parents	
	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total
Who has encouraged you to take rigorous courses in high school?																				
Parents	3094	79.0	--	--	--	--	--	--	--	--	5724	75.9	--	--	--	--	--	--	--	--
Teachers	1965	50.2	--	--	--	--	--	--	--	--	3747	49.7	--	--	--	--	--	--	--	--
Guidance Counselor	987	25.2	--	--	--	--	--	--	--	--	1927	25.5	--	--	--	--	--	--	--	--
School Administrator	551	14.1	--	--	--	--	--	--	--	--	1031	13.7	--	--	--	--	--	--	--	--
Other Family Member	1537	39.3	--	--	--	--	--	--	--	--	2984	39.7	--	--	--	--	--	--	--	--
My Friends	1297	33.1	--	--	--	--	--	--	--	--	2418	32.0	--	--	--	--	--	--	--	--
Other Business People	388	9.9	--	--	--	--	--	--	--	--	719	9.5	--	--	--	--	--	--	--	--
None of the Above	3223	8.3	--	--	--	--	--	--	--	--	703	9.3	--	--	--	--	--	--	--	--
SSI Presenter	1074	27.4	--	--	--	--	--	--	--	--	1893	25.1	--	--	--	--	--	--	--	--
Who has been the SINGLE biggest influence on which courses you take in high school?																				
Parents	2580	65.9	--	--	--	--	--	--	--	--	4811	63.8	--	--	--	--	--	--	--	--
Teachers	239	6.1	--	--	--	--	--	--	--	--	537	7.1	--	--	--	--	--	--	--	--
Guidance Counselor	87	2.2	--	--	--	--	--	--	--	--	181	2.4	--	--	--	--	--	--	--	--
School Administrator	20	0.5	--	--	--	--	--	--	--	--	43	0.6	--	--	--	--	--	--	--	--
Other Family Member	269	6.9	--	--	--	--	--	--	--	--	576	7.6	--	--	--	--	--	--	--	--
My Friends	211	5.4	--	--	--	--	--	--	--	--	418	5.5	--	--	--	--	--	--	--	--
Other Business People	28	0.7	--	--	--	--	--	--	--	--	47	0.6	--	--	--	--	--	--	--	--
None of the Above	379	9.7	--	--	--	--	--	--	--	--	683	9.1	--	--	--	--	--	--	--	--
SSI Presenter	90	2.3	--	--	--	--	--	--	--	--	174	2.3	--	--	--	--	--	--	--	--
No Response	12	0.3	--	--	--	--	--	--	--	--	76	1.0	--	--	--	--	--	--	--	--
Have you actively encouraged students/your child to take rigorous courses?																				
Yes	--	--	71	91.0	28	100.0	77	81.9	116	81.1	--	--	82	92.1	22	100.0	81	88.0	84	91.3
No	--	--	7	9.0	0	0	14	14.9	24	16.8	--	--	6	6.7	0	0	10	10.9	7	6.8
No Response	--	--	0	0	0	0	3	3.2	3	2.1	--	--	1	1.1	0	0	1	1.1	2	1.9
How has the State Scholars Initiative influenced your encouraging students to take rigorous courses?																				
I have encouraged more students/Positively	--	--	44	56.4	18	64.3	61	64.9	47	81.8	--	--	55	61.8	15	68.2	62	67.4	71	61.8
--/Somewhat Positively	--	--	--	--	--	--	--	--	13	9.1	--	--	--	--	--	--	--	--	17	33.7
No effect/Neutral/Not a factor	--	--	30	38.5	10	35.7	18	19.1	12	8.4	--	--	30	33.7	7	31.8	24	26.1	13	1.1
--/Somewhat Negatively	--	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--	--	--	0	0
I have encouraged fewer students/Negatively	--	--	1	1.3	0	0	1	1.1	0	0	--	--	1	1.1	0	0	0	0	0	0
No Response	--	--	3	3.8	0	0	14	14.9	1	0.7	--	--	3	3.4	0	0	6	6.5	2	3.4
At this point in time, are you planning on taking rigorous courses in high school?																				
Yes	2356	60.2	--	--	--	--	--	--	--	--	4299	57.0	--	--	--	--	--	--	--	--

	Wave One (9/24/2007 – 2/28/2008)										Wave Two (3/1/2008 – 7/31/2008)									
	Student		Teacher		Guidance Counselor		Business People		Parents		Student		Teacher		Guidance Counselor		Business People		Parents	
	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total
No	124	3.2	--	--	--	--	--	--	--	--	337	4.5	--	--	--	--	--	--	--	--
No Response	10	0.3	--	--	--	--	--	--	--	--	48	0.6	--	--	--	--	--	--	--	--
From what you know, in what grade should students/your child start taking rigorous courses?																				
9th grade	--	--	69	88.5	25	89.3	85	90.4	130	90.9	--	--	80	89.9	19	86.4	77	83.7	91	88.3
10th grade	--	--	5	6.4	0	0	2	2.1	8	5.6	--	--	7	7.9	2	9.1	8	8.7	6	5.8
11th grade	--	--	1	1.3	0	0	3	3.2	1	0.7	--	--	0	0	0	0	1	1.1	1	1.0
12th grade	--	--	2	2.6	2	7.1	2	2.1	1	0.7	--	--	1	1.1	0	0	3	3.3	2	1.9
No Response	--	--	1	1.3	1	3.6	2	2.1	3	2.1	--	--	1	1.1	1	4.5	3	3.3	3	2.9
How has the State Scholars Initiative influenced this perception?																				
Positively	--	--	48	61.5	17	60.7	70	74.5	115	80.4	--	--	59	66.3	15	68.2	63	68.5	76	73.8
Somewhat Positively	--	--	16	20.5	6	21.4	7	7.4	20	14.0	--	--	18	20.2	4	18.2	15	16.3	16	15.5
Neutral	--	--	14	17.9	5	17.9	15	16.0	8	5.6	--	--	10	11.2	3	13.6	11	12.0	10	9.7
Somewhat Negatively	--	--	0	0	0	0	0	0	0	0	--	--	0	0	0	0	0	0	0	0
Negatively	--	--	0	0	0	0	0	0	0	0	--	--	0	0	0	0	0	0	0	0
No Response	--	--	0	0	0	0	2	2.1	0	0	--	--	2	2.2	0	0	3	3.3	1	1.0
How important has this State Scholars presentation been to your decision to take rigorous courses in high school?																				
Very Important	2174	55.5	--	--	--	--	--	--	--	--	4236	56.1	--	--	--	--	--	--	--	--
Somewhat Important	1110	28.4	--	--	--	--	--	--	--	--	1921	25.5	--	--	--	--	--	--	--	--
Neutral	522	13.3	--	--	--	--	--	--	--	--	1137	15.1	--	--	--	--	--	--	--	--
Somewhat Unimportant	44	1.1	--	--	--	--	--	--	--	--	51	0.7	--	--	--	--	--	--	--	--
Not Important At All	39	1.0	--	--	--	--	--	--	--	--	107	1.4	--	--	--	--	--	--	--	--
No Response	26	0.7	--	--	--	--	--	--	--	--	94	1.2	--	--	--	--	--	--	--	--
Would you tell a friend about State Scholars?																				
Yes	3025	77.3	--	--	--	--	--	--	--	--	5917	78.4	--	--	--	--	--	--	--	--
No	837	21.4	--	--	--	--	--	--	--	--	1483	19.7	--	--	--	--	--	--	--	--
No Response	53	1.4	--	--	--	--	--	--	--	--	146	1.9	--	--	--	--	--	--	--	--

Appendix P. SSI Perception Survey Results, Year Four

(October 1, 2008 – February 28, 2009)

	Student		Teacher		Guidance Counselor		Business People		Parents	
	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total
Total Respondents	6270	100.0%	97	100.0%	30	100.0%	49	100.0%	135	100.0%
How important do you think taking rigorous courses in high school is to getting a well-paying job after high school?										
Very Important	4893	78.0%	77	79.4%	23	76.7%	44	89.8%	125	92.6%
Somewhat Important	1042	16.6%	16	16.5%	7	23.3%	5	10.2%	8	5.9%
Neutral	207	3.3%	1	1.0%	0	0%	0	0%	1	.7%
Somewhat Unimportant	31	.5%	2	2.1%	0	0%	0	0%	1	.7%
Not Important At All	33	.5%	0	0%	0	0%	0	0%	0	0%
No Response	64	1.0%	1	1.0%	0	0%	0	0%	0	0%
How has the State Scholars Initiative influenced this perception?										
Positively	--	--	47	48.5%	18	60.0%	31	63.3%	110	81.5%
Somewhat Positively	--	--	22	22.7%	7	23.3%	8	16.3%	17	12.6%
Neutral	--	--	25	25.8%	3	10.0%	6	12.2%	8	5.9%
Somewhat Negatively	--	--	2	2.1%	0	0%	0	0%	0	0%
Negatively	--	--	1	1.0%	2	6.7%	4	8.2%	0	0%
No Response	--	--	47	48.5%	18	60.0%	31	63.3%	110	81.5%
How important do you think taking rigorous courses in high school is to going to a community college, technical institute, or university after high school?										
Very Important	4427	70.6%	75	77.3%	21	70.0%	43	87.8%	117	86.7%
Somewhat Important	1346	21.5%	20	20.6%	9	30.0%	6	12.2%	13	9.6%
Neutral	352	5.6%	0	0%	0	0%	0	0%	3	2.2%
Somewhat Unimportant	40	.6%	2	2.1%	0	0%	0	0%	0	0%
Not Important At All	36	.6%	0	0%	0	0%	0	0%	0	0%
No Response	69	1.1%	0	0%	0	0%	0	0%	2	1.4%
How has the State Scholars Initiative influenced this perception?										
Positively	--	--	48	49.5%	18	60.0%	28	57.1%	110	81.5%
Somewhat Positively	--	--	25	25.8%	6	20.0%	8	16.3%	13	9.6%
Neutral	--	--	23	23.7%	3	10.0%	8	16.3%	10	7.4%
Somewhat Negatively	--	--	0	0%	0	0%	0	0%	1	.7%
Negatively	--	--	1	1.0%	3	10.0%	5	10.2%	1	.7%
No Response	--	--	48	49.5%	18	60.0%	28	57.1%	110	81.5%

	Student		Teacher		Guidance Counselor		Business People		Parents	
	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total
Who has encouraged you to take rigorous courses in high school?										
Parents	4956	79.0%	--	--	--	--	--	--	--	--
Teachers	3111	49.6%	--	--	--	--	--	--	--	--
Guidance Counselors	1698	27.1%	--	--	--	--	--	--	--	--
School Administrators	879	14.0%	--	--	--	--	--	--	--	--
Other Family Member	2664	42.5%	--	--	--	--	--	--	--	--
Friends	2006	32.0%	--	--	--	--	--	--	--	--
State Scholars Presenter	1883	30.0%	--	--	--	--	--	--	--	--
Other Business People	675	10.8%	--	--	--	--	--	--	--	--
None of the Above	539	8.6%	--	--	--	--	--	--	--	--
Who has been the SINGLE biggest influence on which courses you take in high school?										
Parents	4182	66.7%	--	--	--	--	--	--	--	--
Teachers	312	5.0%	--	--	--	--	--	--	--	--
Guidance Counselors	135	2.2%	--	--	--	--	--	--	--	--
School Administrators	28	.4%	--	--	--	--	--	--	--	--
Other Family Member	460	7.3%	--	--	--	--	--	--	--	--
Friends	273	4.4%	--	--	--	--	--	--	--	--
State Scholars Presenter	169	2.7%	--	--	--	--	--	--	--	--
Other Business People	36	.6%	--	--	--	--	--	--	--	--
None of the Above	598	9.5%	--	--	--	--	--	--	--	--
No response	77	1.2%	--	--	--	--	--	--	--	--
Have you actively encouraged students/your child to take rigorous courses?										
Yes	--	--	83	85.6%	30	100.0%	39	79.6%	129	95.6%
No	--	--	9	9.3%	0	0%	7	14.3%	6	4.4%
No Response	--	--	5	5.2%	0	0%	3	6.1%	0	0%
How has the State Scholars Initiative influenced your encouraging students to take rigorous courses?										
I have encouraged more students/Positively	--	--	49	50.5%	15	50.0%	30	61.2%	100	74.1%
--/Somewhat Positively	--	--	--	--	--	--	--	--	22	16.3%
No effect/Neutral/Not a factor	--	--	42	43.3%	8	26.7%	15	30.6%	13	9.6%
--/Somewhat Negatively	--	--	--	--	--	--	--	--	0	0%
I have encouraged fewer students/Negatively	--	--	0	0%	0	0%	0	0%	0	0%
No Response	--	--	6	6.2%	7	23.3%	4	8.2%	0	0%
At this point in time, are you planning on taking rigorous courses in high school?										
Yes	3833	61.1%	--	--	--	--	--	--	--	--
Probably	2203	35.1%	--	--	--	--	--	--	--	--
No	160	2.6%	--	--	--	--	--	--	--	--
No Response	74	1.2%	--	--	--	--	--	--	--	--
In what grade should students/your child start taking rigorous courses?										
9th grade	--	--	84	86.6%	28	93.3%	42	85.7%	128	94.8%
10th grade	--	--	4	4.1%	1	3.3%	2	4.1%	2	1.5%
11th grade	--	--	2	2.1%	0	0%	0	0%	0	0%
12th grade	--	--	0	0%	0	0%	0	0%	2	1.5%
No Response/Don't Know	--	--	7	7.3	1	3.3%	5	10.2%	3	2.2%

	Student		Teacher		Guidance Counselor		Business People		Parents	
	N	% of Total	N	% of Total	N	% of Total	N	% of Total	N	% of Total
How has the State Scholars Initiative influenced this perception?										
Positively	--	--	49	50.5%	17	56.7%	31	63.3%	109	80.7%
Somewhat Positively	--	--	18	18.6%	4	13.3%	9	18.4%	16	11.9%
Neutral	--	--	29	29.9%	5	16.7%	8	16.3%	10	7.4%
Somewhat Negatively	--	--	0	0%	0	0%	0	0%	0	0%
Negatively	--	--	0	0%	0	0%	0	0%	0	0%
No Response	--	--	1	1.0%	4	13.3%	1	2.0%	0	0%
How has this State Scholars presentation influenced your decision to take rigorous courses in high school?										
Positively	3773	60.2%	--	--	--	--	--	--	--	--
Somewhat Positively	1535	24.5%	--	--	--	--	--	--	--	--
Neutral	763	12.2%	--	--	--	--	--	--	--	--
Somewhat Negatively	44	.7%	--	--	--	--	--	--	--	--
Negatively	67	1.1%	--	--	--	--	--	--	--	--
No Response	88	1.4%	--	--	--	--	--	--	--	--
Would you tell a friend about State Scholars?										
Yes	4910	78.3%	--	--	--	--	--	--	--	--
No	1236	19.7%	--	--	--	--	--	--	--	--
No Response	124	2.0%	--	--	--	--	--	--	--	--