

**Making the Transition from High School to College in Ohio  
2002**

Prepared by the Ohio Board of Regents

**July 10, 2002**

**Report also available at:  
<http://www.regents.state.oh.us/perfrpt/2002HSindex.html>**

## Summary

### Introduction

On November 23, 1999, Governor Bob Taft requested that Chancellor Roderick Chu review the feasibility of having the Ohio Board of Regents publish an annual performance report for Ohio's state-supported colleges and universities. The first such report was released December 13, 2000, and the second annual report followed December 12, 2001. As the second report was reviewed with Governor Taft, the possibility was raised of whether the Ohio Board of Regents could develop a companion report, one that would focus on the transition of recent high school graduates from high school to college. This report, developed under the oversight of the Performance Committee of the Ohio Board of Regents, is the result of that suggestion.

The contents of the report reflect the close working relationship of the Ohio Board of Regents and the State Board of Education. This partnership has resulted in quarterly Joint Council meetings as well as numerous efforts to create and communicate standards for K-16 education. This K-16 collaboration has resulted in the Board of Regents identifying the dimensions of college access: **A**spirations of students to attend college; **A**ffordability of college; **A**vailability of learning opportunities; and **A**cademic preparation of students entering college. This report on the transition of Ohio high school students to college focuses most on the aspirations of students to attend Ohio colleges and the academic preparation of students entering college.

### Highlights of Report

The recurring theme of this report is that "Aspiration" and "Academic Preparation" are powerful predictors of college attendance and college success. Aspiration is assessed by identifying students who enter college and have taken a college entrance exam in high school, thereby indicating a desire in high school to attend college. Academic preparation is assessed by identifying whether or not students who did take a college entrance exam have taken the academic core in high school. An academic core curriculum is defined, minimally, as 4 years of English, and 3 years each of mathematics, science, and social studies while in high school.

We are aware of no statewide data reporting the percentage of high school students taking college entrance exams, therefore we cannot comment on the historical analysis of Ohio students' aspirations. As can be seen in the following chart, the rate at which Ohio's high school students have taken an academic core curriculum has increased somewhat from 1992 to 2001. However, those gains occurred from 1992 to 1996 and have not improved since.

**Pattern of Course-taking during High School for Ohio High School Graduates who took ACT College Entrance Exam in High School**

	Core	English Coursework	Math Coursework	Social Science Coursework	Natural Science Coursework
Year of High School Graduation	Core Taken	Four Years	3 or More Years	3 or More Years	3 or More Years
1992	58%	95%	87%	84%	73%
1993	59%	95%	88%	85%	75%
1994	61%	96%	89%	85%	76%
1995	62%	96%	90%	86%	77%
1996	63%	96%	91%	86%	78%
1997	63%	96%	91%	86%	78%
1998	64%	96%	92%	86%	78%
1999	63%	96%	92%	85%	78%
2000	63%	96%	92%	85%	78%
2001	63%	96%	93%	86%	78%
<b>10 Year Average</b>	62%	96%	90%	85%	77%

The component of the core most often missing is 3 or more years of natural science coursework (general science, physical science, earth science, biology, chemistry or physics). Another factor contributing to the low 62% overall academic core rate is that only 68% of students taking the ACT college entrance exam take 3 or more years of natural science coursework **and** 3 or more years of social science coursework (social science = American history, world history, American government, economics, geography, or psychology).

**6 Questions and Answers**

**1. What is the college-going rate for Ohio’s school districts?**

- We estimate that 46% of Ohio’s high school recent graduates (within the past 2 years) are enrolled in college in-state.
- Another 10% of Ohio’s high school graduating class of 2000 are estimated to attend college out-of-state.
- We estimate the Ohio rate for going to college (in state or out of state) to be approximately 56%.
- The most comparable national data available on college-going rates is college attendance of recent high school graduates (which may include students who delayed college entrance by a year or two). This figure is 63%, higher than the Ohio figure for the class of 2000.

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2. **What percent of freshmen in Ohio's colleges took a college entrance exam while in high school?**

**Answer: 84%**

**Of these students who took the entrance exam, and enrolled in college, what percent report taking an academic core curriculum while in high school?**

**Answer: 69%**

An academic core curriculum is defined, minimally, as 4 years of English, and 3 years each of mathematics, science, and social studies while in high school.

**Freshmen College Enrollment of Recent High School Graduates Autumn, 2000**

<b>% of Freshmen Students Enrolled that took College Entrance Exam</b>	<b>% of Freshmen Students Enrolled taking College Entrance Exam who took H.S. Core</b>
84%	69%

A measure of aspiration

A measure of academic preparation

**Facts about the high school graduating class of 2000 (@ 108,000 students with known public high schools)**

*Data on Academic Aspiration:* 71% took a college entrance exam (either ACT or College Board).

**Facts about the College Freshmen Class of Autumn 2000 who enrolled in public or private college in Ohio**

*Data on Academic Preparation:* 69% reported taking the academic core while in high school.

- 31% reported they took something less than 4 years of English, and 3 years each of mathematics, science, and social studies.

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3. **How many students in Ohio begin college while still in high school?**

More than 7,000 high school students enrolled in college – this is 4% of all high school graduates. However, the count may include other high school students. Students who enroll in college while still in high school are demonstrating academic aspiration.

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4. **How well do Ohio's high school graduates perform in their first term in college? What explains the differences observed in these results?**

- First year, first term students earned an average grade point of 2.64 (B-).
- Students who entered college without the benefit of a high school academic core earned a G.P.A. of 2.48 (C+) while those who completed the academic core earned a G.P.A. of 2.80 (B+).
- The students who performed least well – a G.P.A. of 2.21 (C) – were the students who did not take a college entrance exam while in high school.

**First Term College Grade Point Average – Autumn 2000 of High School Graduates Enrolled in Public College in Ohio**

<b>All Enrollees</b>	<b>Students with known Core H.S. Curriculum</b>	<b>Students with known Less-than-Core H.S. Curriculum</b>	<b>Students not taking College Entrance Exam</b>
2.64	2.80	2.48	2.21

The impact of academic preparation

The impact of aspiration

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5. **How much remediation/developmental coursework is required, for Ohio's high school graduates, the first year they begin their college study? What explains the differences observed in these results?**

- 38% of the recent high school graduates who enrolled in college in Autumn 2000 had to enroll in pre-college level coursework in English or math before they could take college level classes.
- Math is the subject requiring the greatest remedial/developmental coursework (30% math vs. 21% English).
- Students who did not take an academic core curriculum in high school were more than twice as likely (51% vs. 25%) to require pre-college level coursework once they enrolled in college before they could take college level classes.
- Students who did not take a college entrance exam were even more likely to require remediation/developmental coursework their first year in college (56%).

Recent High Graduates Entering College Autumn 2000 Requiring Remediation/Developmental Coursework as First Year Public College Students

Math			
All Enrollees	Students with known Core H.S. Curriculum	Students with known Less-than-Core H.S. Curriculum	Students not taking College Entrance Exam
30%	19%	42%	46%
Math OR English			
38%	25%	51%	56%

The impact of academic preparation

The impact of aspiration

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6. **How well do Ohio's high school graduates persist at college from first to second year? What explains the differences observed in these results?**

- 80% of recent high school graduates who enrolled as first year students in Summer or Autumn 1999, were still enrolled at some college or university (public or private) in Autumn 2000.
- Students who did not take an academic core curriculum in high school were much more likely to drop out or stop out (they did not persist first to second year) than students who took the academic core.
- Recent high school graduates who entered college in 1999 without taking an entrance examination in high school had the lowest persistence rates (58%).

Persistence Rates from First to Second Year for All First-Time, Full-Time Degree-Seeking College Students Who Entered College in 1999 (Public or Private College)

All Students	Students with known Core H.S. Curriculum	Students with known Less-than-Core H.S. Curriculum	Students not taking College Entrance Exam
80%	87%	76%	60%

The impact of academic preparation

The impact of aspiration

## Overview of Report Chapters

Ohio's school districts vary greatly in size and in the student populations they serve. They also vary greatly in the rate at which their recent high school graduates enroll in college. Chapter 2 of this report [\*Recent Ohio High School Graduates Attending Colleges and Universities in Ohio – Enrollment Rates and Academic Preparation\*](#) reviews these basic statistics for the high school graduates of 2000 and also includes information on the percentage of recent high school graduates who report having taken an academic core curriculum while in high school.

These reports on the high school coursework of students are provided when students take a college entrance exam, typically the *ACT Assessment* but also the College Board's *SAT* test. While many colleges and universities do not require one of these tests for college entrance, as Chapter 2 reports, a large majority of students in Ohio do enter college having taken such a test, and indeed taking a college entrance exam while in high school is an excellent indication of student aspiration for higher education. A frequent theme is clear throughout the data presented in this report: Students' academic preparation while in high school explains much of the success or difficulty that student's encounter once they enroll in college. Students hoping to attend college should be aware that taking an academic core curriculum while in high school would greatly improve their chances of completing a college degree.

Ohio high school students have the opportunity to begin college study, and earn college credit, while still in high school through the Post Secondary Options Program (PSOP). Chapter 3 of this report [\*High School Students Attending Colleges and Universities in Ohio while Still in High School\*](#) provides a report on the frequency of this occurring in Autumn of 2000.

The diversity of Ohio's school districts is matched by diversity in the contribution each school district makes to the characteristics of a college's first year class. Chapter 4 of this report [\*Diversity of Recent Ohio High School Graduates Attending Public Colleges and Universities in Ohio\*](#) describes that diversity by presenting basic demographics on student gender and enrollment (full-time or part-time) in relation to students' sending school districts – also in relation to the type of college students who matriculate to (2-year or 4-year) college.

The first term of college study can be challenging for many recent high school graduates. Chapter 5 of this report presents the mean grade point average of first-term college students with reference to the high school from which they graduated. Chapter 5 [\*Academic Success of High School Graduates Enrolling Their First Term in College\*](#) also introduces an important recurrent theme: While student performance may vary greatly by school district or type of school district, high achieving students are evident from all school districts where students take the academic core while in high school.

The first year of college is the time when students who enter college unprepared for college level study are typically provided remedial or developmental coursework. The goal of this coursework, provided by the colleges, is to bring their skill level up to a point where the unprepared students can succeed with college level coursework. Students must pay tuition for such coursework, the state provides more than \$20 million per year in subsidy for such coursework, and the coursework does not apply to a college degree – thus it typically lengthens students' time to graduation. Chapter 6 of this report [\*The Preparedness of Recent High School Graduates Entering Ohio's State-Supported Colleges and Universities – Required Remediation/Developmental Coursework in College\*](#) provides an accounting of the frequency of the high school graduates requiring such coursework. Once again, while student needs for remedial/developmental coursework vary greatly by school district or type of school district, students prepared for college level study are evident from all school districts where students

take the academic core while in high school. In light of these data, there appears to be far more need for “developmental coursework” teaching skills that were not taught previously, than for “remedial coursework” re-teaching skills that were not initially mastered.

The final content chapter of the report focuses on the culmination of the first year of college study by examining whether full-time, degree-seeking students “persist” and return to any campus in Ohio their second year. Chapter 7 [\*Year-to-Year Persistence, First to Second Year in College for Recent Ohio High School Graduates\*](#) examines this persistence for the high school graduates who began their study in Summer or Autumn of 1999 and then either returned in Autumn 2000 or failed to persist. Once again the recurrent influence of high school preparation – taking the academic core in high school – is quite clear.

Chapter 8 of the report [\*The Particulars of the High School Transition Report\*](#) is a complete technical glossary describing the specific data elements used in the preceding chapters and it reflects the commitment the staff of the Ohio Board of Regents have to documenting source data and decision rules used in presenting data. Finally, Chapter 9 of the report [\*Technical Note: Accessing Data, Viewing Data & Data Verification\*](#) provides access to more detailed Excel charts that support the chapters in the report (and in some cases present multi-year data that were not specifically presented in the report).

### **Why a Transition to College Report?**

In December 2001, the Ohio Board of Regents published a performance report for Ohio's colleges and universities and noted in that report that 36% of recent high school graduates required remediation in their first year of college. The report also noted that an identical percentage of recent high school graduates who took the ACT *Assessment* college entrance exam reported that they had not taken the academic core curriculum (Academic Preparation) while in high school. An academic core curriculum is defined, minimally, as 4 years of English, and 3 years each of mathematics, science, and social studies while in high school. While preparing the report, staff noted that college students who did not take a college entrance exam (Academic Aspiration) most often required remedial coursework.

The same 2001 performance report reveals that 77% of full-time, degree-seeking first-year students in 1999 persisted in college from first to second year. The 2001 performance report did not link high school students' academic core-taking behavior to failure to persist in college. Later analyses revealed a strong relationship between failure to persist and whether students took college entrance exams (Academic Aspiration) as well as students' course taking pattern in high school (Academic Preparation). Similar relationships were found between students' grade point average in college and their Academic Aspiration and the Academic Preparation while in high school.

In light of last year's demonstrated relationship between high school students' academic preparation and their success in college, the Board of Regents made a commitment to explore this relationship further with a more detailed report to begin in 2002. This report presents college attendance and college success measures by recent high school graduates' by high school district. The focus of this report is on the role of Academic Aspiration and Academic Preparation with regard to college attendance and college success. This report "Making the Transition From High School to College in Ohio 2002" is the result of that commitment.

## **How Was the Transition to College Report Created?**

The Transition to College Report was created by staff of the Ohio Board of Regents with guidance provided by a statewide consultation of state-supported campus representatives and representatives of 3 higher education associations. The associations are: The Inter-University Council of Ohio (IUC); the Ohio Association of Community Colleges (OACC); and the Association of Independent Colleges and Universities of Ohio (AICUO). The web sites for these organizations are:

<http://www.iuc-ohio.org/>; <http://www.ohioacc.org/>; <http://www.aicuo.edu/>.

The entire statewide consultation (@ 50 persons) met for an all-day session February 25, 2002. A large subgroup of this consultation met again in March and May 2002. Additionally, a group of school superintendents was nominated by the Ohio Department of Education to provide guidance to this process, and they met March 25, 2002, and additionally were provided an opportunity to review the document in draft. While the authorship of the report is still the responsibility of the Ohio Board of Regents, the input of all individuals who made suggestions is gratefully noted.

## **Report Format and Access**

The report is composed of a summary and several sub-reports. All of these documents are included with the full version and are also available via the World Wide Web at:

<http://www.regents.state.oh.us/perfrpt/2002HSindex.html>

Readers of the web-based report will need either Microsoft Word or Adobe Acrobat reader to access the text. Readers may download the Adobe Acrobat Reader free from:

[www.adobe.com/products/acrobat/readstep2.html](http://www.adobe.com/products/acrobat/readstep2.html)

## **Report Qualifications and Final Notes**

The contents of this first Transition to College Report are heavily based on data contained in the Higher Education Information (HEI) System and maintained by the Ohio Board of Regents. This report comes from a blend of data that largely supports subsidy distribution and use of those data for policy planning analyses. The quality of conclusions that can be drawn from data is heavily dependent upon the quality of the original data. The quality, depth, and accuracy of these policy-planning analyses and these annual reports will improve with time. This improvement will occur as the documentation of the data elements in the HEI system become more rigorous, less subject to interpretation, and more consistently interpreted at the campus level.

The questions posed in this report are complex and rely heavily on unambiguous data elements. Each question posed in this report could be answered in a variety of ways. A technical document titled [\*The Particulars of the High School Transition Report\*](#) has been developed that describes the specific analytic rules used in answering each of these questions. The Ohio Board of Regents and campus representatives to the several consultation groups that have guided the development of this report are committed to exploring these data elements and presenting them in subsequent reports.

We are grateful to our campus colleagues for the many hours and helpful insights they have provided us on the development of this report. While we gratefully note their contributions, we assume responsibility for the accuracy and contents of this report.

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