



CASE STUDY

Statewide Administration of the ACT: A Key Component in Improving Student Preparation for College and Work

Introduction

In recent years there has been an increasing focus among states on the importance of preparing all students for college and work. The educational aspirations of American young people have never been higher, and they continue to grow (U.S. Department of Education, 2005). However, for many, the dream of graduating from college remains a dream. Lacking adequate academic planning and preparation, many students enter college unable to meet the rigors of the college curriculum and far too many drop out before their sophomore year (Carey, 2004). Other students do not even see college as an option. And unlike college graduates, those who do not go to college or drop out before completing college face greater obstacles throughout their lives, including higher levels of unemployment (U.S. Department of Labor, 2004), dependence on social assistance (Vernez, Krop, & Rydell, 1999), and incarceration (Harlow, 2003).

These converging issues have led a number of states to raise the expectations of students when they graduate from high school and to use a college admissions and placement program as their high school student assessment program. Not only can this approach help to prepare all students for college and work, but also the assessment itself has intrinsic value to the students who take it—something that is not true of student assessments in general.

Statewide administration of the ACT® provides all students, including those who have never considered college as an option, with the opportunity to identify academic strengths and weaknesses, explore educational and career interests, set high standards for academic achievement, and prepare to meet their educational and career goals. Statewide ACT administration also increases awareness among educators and policymakers of the important role that educational planning and preparation play in ensuring college readiness. And since the ACT is widely accepted by virtually all postsecondary institutions across the U.S. for college admission and course placement, it provides students with a credential that they can use when they leave high school.

Since 2001, two states, Colorado and Illinois, have administered the ACT to all public high school juniors. Colorado uses the ACT in the Colorado Student Assessment Program (CSAP) as an eleventh-grade achievement-based assessment that gives the state an indication of how well its public schools are performing at educating students at the K–12 level. Illinois also administers the ACT to all of its public high school juniors as part of its Prairie State Achievement Exam (PSAE). Illinois uses the ACT to measure student progress at meeting state learning standards.

In both states, statewide ACT administration has contributed to increases or improvements in the following six areas: student preparation for college, student readiness for college, identification of college-ready students, college enrollment and retention levels, workforce planning and career counseling, and economic benefits to students and states.

These changes in Colorado and Illinois all have positive implications for the future well-being of all of America's students and the nation as a whole. Each of these improvements is discussed next.

Improved Preparation for College

Early academic planning and preparation are essential for college readiness. A rigorous college preparatory curriculum is the best foundation for college success. Since the introduction of statewide administration of the ACT in 2001, the percentage of students who took the college preparatory curriculum recommended by ACT (four years of English and three years each of mathematics, social studies, and science) increased in both Colorado and Illinois. As shown in Tables 1 and 2, from 2001 to 2004:

- The percentage of students who took or planned to take the college preparatory curriculum increased from 51 percent to 53 percent in Colorado and from 43 percent to 46 percent in Illinois (for students who provided their course information) in the three-year period. These increases are particularly significant because during the same time, the percentage of ACT-tested high-school graduates across the nation who took the core curriculum decreased from 60 percent to 56 percent.
- Increases in percentages of students taking the core curriculum occurred for most racial/ethnic groups, particularly Hispanic American students (from 38 percent to 41 percent in Colorado, and from 32 percent to 37 percent in Illinois). Increases also occurred for lower-income students.
- The percentages of students taking the college preparatory curriculum increased by 2 to 3 percent for both males and females.
- The percentages of students who took advanced, accelerated, or honors courses increased by 3 percent for the total group of students and all but one racial/ethnic group.

Table 1: Percentages of ACT-Tested Colorado Juniors Taking the Core Curriculum and Juniors Enrolled in Advanced, Accelerated, or Honors Courses

Group	Core Curriculum		Advanced Courses	
	2001	2004	2001	2004
All Students	51	53	55	58
African American	44	43	56	55
Asian American	60	60	67	70
Caucasian	55	59	56	60
Hispanic American	38	41	47	51
Lower-Income	40	42	48	49
Female	53	55	58	62
Male	49	51	51	54

Table 2: Percentages of ACT-Tested Illinois Juniors Taking the Core Curriculum and Juniors Enrolled in Advanced, Accelerated, or Honors Courses

Group	Core Curriculum		Advanced Courses	
	2001	2004	2001	2004
All Students	43	46	52	54
African American	33	35	56	57
Asian American	61	63	72	75
Caucasian	47	50	50	53
Hispanic American	32	37	51	52
Lower-Income	32	34	47	48
Female	45	48	55	58
Male	41	44	49	51

Our findings suggest that statewide administration of the ACT encourages students from all backgrounds to take more rigorous coursework that better prepares them for the academic demands of college and improves their chances for college entrance and success.

Statewide administration of the ACT can also provide critical data that can help inform and shape state policy regarding core course requirements. By design, the ACT also directly reflects and measures the impact of core course requirements.

Increased College Readiness

Rigorous coursework has a positive impact on the academic preparation of all students, regardless of race/ethnicity, gender, or socioeconomic status (ACT, 2004). Students who complete the college preparatory curriculum improve their chances of meeting the ACT College Readiness Benchmarks. Each benchmark is an indicator of whether a student has the knowledge and skills needed to have a reasonable chance of success in a particular college course. The ACT benchmarks (English = 18, Mathematics = 22, Reading = 21, and Science = 24) represent at least a 50 percent chance of achieving a B or higher grade—or at least a 75 percent chance of a C or higher grade—in entry-level, credit-bearing college English Composition, Algebra, Social Science, and Biology courses, respectively. Therefore, students who meet the ACT benchmarks are considered to be college ready and are much more likely to be successful in college.

In Table 3, we compare the graduating class of 2001 (the last year before statewide administration of the ACT) to the graduating class of 2004 (the third year of statewide administration of the ACT). The number of public high school graduates meeting the ACT College Readiness Benchmarks has increased substantially in Colorado and Illinois. Part of this increase is due to the fact that some college-ready graduates who may have previously taken a different college entrance test are now also taking the ACT. Increasing populations of high school graduates also contributes to the increase, but this effect is small. Our analysis indicates that the positive changes in graduates meeting the benchmarks remain substantial, even after adjusting for test selection and increasing numbers of graduates.

Table 3: ACT-Tested High School Graduates Meeting the College Readiness Benchmarks

State	English		Mathematics		Reading		Science		All Benchmarks	
	2001 ^A	2004	2001 ^A	2004	2001 ^A	2004	2001 ^A	2004	2001 ^A	2004
Colorado	17,340	26,393	10,227	15,172	13,698	20,304	7,654	10,394	5,702	8,136
Illinois	51,091	69,430	33,502	41,073	40,775	51,298	23,860	26,347	19,046	21,347

^A Before statewide administration of the ACT.

Tables 4 and 5 illustrate other positive trends in the college readiness levels of high school juniors in Colorado and Illinois. From 2001 to 2004:

- The percentage of Colorado students who met the ACT College Readiness Benchmark in mathematics increased from 31 percent to 34 percent.
- The percentage of Illinois students who met the ACT College Readiness Benchmarks increased from 55 percent to 59 percent in English, from 33 percent to 37 percent in mathematics, and from 21 percent to 24 percent in science. The percentage of Illinois students who met the ACT College Readiness Benchmark in reading remained stable at 40 percent, and the percentage of Illinois students who met none of the four benchmarks decreased from 40 percent to 37 percent.

Improvement was also achieved in racial/ethnic groups, especially in Illinois. From 2001 to 2004:

- In Colorado, Asian American and Hispanic American students made the most consistent gains in meeting the ACT benchmarks.
- The percentages of Illinois students meeting the ACT benchmarks in English and reading increased most for African American students (from 30 percent to 36 percent in English and from 16 percent to 19 percent in reading). The percentage of students meeting the ACT benchmark in mathematics increased most for Caucasian students (from 42 percent to 46 percent), and the percentage of students meeting the ACT benchmark in science increased most for Asian American students (from 34 percent to 40 percent). African American students also showed the largest decrease in meeting none of the four benchmarks (from 67 percent to 60 percent).

Table 4: Percentages of ACT-Tested Colorado Juniors Meeting the College Readiness Benchmarks

Group	English		Mathematics		Reading		Science		All Benchmarks		No Benchmarks	
	2001	2004	2001	2004	2001	2004	2001	2004	2001	2004	2001	2004
All Students	58	55	31	34	45	44	21	20	16	16	37	38
African American	35	31	12	9	23	20	6	4	4	3	61	65
Asian American	53	54	39	43	42	43	19	23	16	20	39	36
Caucasian	68	67	38	43	54	54	27	26	21	21	27	26
Hispanic American	31	30	12	14	21	23	6	7	5	5	64	64
Lower-Income	43	39	18	19	33	30	12	11	8	7	51	54
Female	63	59	29	32	48	47	19	18	15	14	34	35
Male	53	51	34	36	42	42	24	23	18	18	40	41

Table 5: Percentages of ACT-Tested Illinois Juniors Meeting the College Readiness Benchmarks

Group	English		Mathematics		Reading		Science		All Benchmarks		No Benchmarks	
	2001	2004	2001	2004	2001	2004	2001	2004	2001	2004	2001	2004
All Students	55	59	33	37	40	40	21	24	17	18	40	37
African American	30	36	9	11	16	19	3	6	2	3	67	60
Asian American	69	74	58	61	50	50	34	40	29	32	25	22
Caucasian	66	70	42	46	50	50	28	31	22	24	29	25
Hispanic American	34	38	15	18	23	23	7	10	5	6	61	57
Lower-Income	38	41	17	18	25	25	10	11	7	7	57	54
Female	59	63	32	35	42	43	19	22	15	17	37	34
Male	51	54	35	39	38	38	24	27	19	20	43	40

Using the College Readiness Benchmarks is a valuable way to help educators, parents, and students set high standards for academic achievement. Our findings show that taking the ACT encourages more students to take a college preparatory curriculum, which improves their academic preparation and increases their chances of succeeding in college.

Improved Identification of College-Ready Students

Statewide administration of the ACT for high school juniors in Colorado and Illinois began in Spring 2001. As a result, the numbers of students who completed the ACT increased substantially in both states (see Table 6).

Table 6: Number of Public School Juniors Taking the ACT

Colorado	2000^A	2001	2004
All students	15,877	41,726	45,445
African American	402	1,185	1,440
Asian American	559	1,211	1,320
Caucasian	11,829	23,107	24,320
Hispanic American	1,291	4,381	6,053
Lower-Income ^B	2,137	6,720	8,733
Illinois			
All students	65,620	114,099	120,195
African American	4,501	9,794	11,967
Asian American	4,294	3,980	4,056
Caucasian	48,637	62,437	61,538
Hispanic American	3,390	7,864	10,427
Lower-Income ^B	9,178	21,217	25,230

Note: race/ethnicity and family income are self-reported by ACT-tested students. The counts do not sum to the reported totals because of missing data.

^A Before statewide administration of the ACT.

^B Annual family income \$30,000 or less.

Dramatically increasing the number of ACT-tested students in Colorado and Illinois has improved our ability to identify students who are prepared for college. It is particularly important to identify college-ready students from underrepresented minority groups, as these groups continue to lag in college readiness and college enrollment rates (Greene & Forster, 2003). Table 6 shows that from 2000 to 2004 the numbers of ACT-tested juniors from nearly all racial/ethnic groups increased substantially in both states. This was especially

true for African American students and Hispanic American students. The number of ACT-tested lower-income students also increased substantially.

These findings suggest that statewide administration of the ACT provides an effective way to identify more students who are prepared for college. Students who would not ordinarily plan to continue their education beyond high school may become aware of their potential for success in college. Taking the ACT also encourages many students to explore their educational and career interests, define goals for further education, and begin to think about how to reach these goals. Statewide ACT administration removes barriers for some students (cost of test, Saturday test centers, low or no college aspirations or awareness, low self-confidence, etc.). Statewide ACT administration also fosters collegiate outreach to targeted populations. Statewide ACT administration is a key step towards making college enrollment a reality for high school students from all backgrounds, including many who might otherwise have not considered college as an option.

Increased College Enrollment and Retention

Statewide administration of the ACT appears to help increase college enrollment levels among all students. Since statewide implementation of the ACT, both Colorado and Illinois have experienced steady increases in the numbers of students from all backgrounds who have enrolled in college (Tables 7 and 8). Our findings include:

- From 2002 to 2004, the number of Colorado and Illinois high school graduates who enrolled in college in the fall increased by 8 percent.
- The improvements in college enrollments were more pronounced for underrepresented graduates (23 percent increase in Colorado and 16 percent increase in Illinois).
- For Colorado, college enrollments increased by 14 percent for graduates from lower-income households.

Table 7: Colorado’s ACT-Tested High School Graduates Who Enrolled in College

Group	2002	2003	2004	Percentage Increase 2002-2004
ACT-Tested Fall Freshmen	23,373	24,860	25,325	8
Male	10,424	11,206	11,506	10
Female	12,750	13,454	13,587	7
Underrepresented ^A	2,698	3,012	3,319	23
Lower-Income	2,657	2,772	3,033	14

^A Includes African American students, American Indian students, and Hispanic American students.

Table 8: Illinois's ACT-Tested High School Graduates Who Enrolled in College

Group	2002	2003	2004	Percentage Increase 2002-2004
ACT-Tested Fall Freshmen	77,386	82,697	83,346	8
Male	35,313	37,892	37,650	7
Female	41,716	44,353	45,038	8
Underrepresented ^A	11,604	12,849	13,460	16
Lower-Income	10,748	11,122	11,299	5

^A Includes African American students, American Indian students, and Hispanic American students.

Statewide ACT administration has led to increased college enrollment among a broad range of students. The ACT prepares students for the academic challenges of college by increasing their awareness of the need to pursue a rigorous college preparatory core curriculum as well as enhancing their awareness of necessary educational planning steps. Not only are more students in Colorado and Illinois enrolling in college after high school graduation, but most are returning for their second year of college. We considered a student to have returned if they were enrolled in the fall of their high school graduation year and also enrolled in the subsequent fall, even if their subsequent enrollment was at another college. Summarizing Table 9:

- 82 percent of Colorado's high school graduates of 2002 and 2003 who enrolled in college returned for their second year.
- 86 percent of Illinois's high school graduates of 2002 and 2003 who enrolled in college returned for their second year.

These results are notable given that the percentage of 2003 high school graduates nationwide who enrolled in college and returned for their second year was 68 percent (ACT, 2005).

Table 9: ACT-Tested High School Graduates Who Enrolled in College and Returned for Second Year

State	Enrolled 2002	Returned 2003	Enrolled 2003	Returned 2004
Colorado	23,373	19,349	24,860	20,389
Illinois	77,386	66,615	82,697	70,581

Improved Workforce Planning and Career Counseling

As part of the ACT, students respond to questions about their occupational preferences. They also complete ACT's Interest Inventory, which provides results that allow them to explore programs of study and occupations that are in keeping with their interests. Career counselors can use this information to help guide students towards occupations and postsecondary education and training programs that are aligned with their interests. Further, they can identify students whose interests are congruent with expected opportunities in the state's job market. For example, the Bureau of Labor Statistics (2004) estimates that in Illinois over the next ten years there will be an average of 1,864 job openings in accounting each year. Of the 2004 ACT-tested juniors in Illinois, 573 chose accounting as their first choice of occupation. Given this information, career counselors can inform these students that there will indeed be a strong demand for this profession in their state and help them prepare for this career. Counselors can also target students whose interests are aligned with accounting, helping them learn more about the profession and the future demand for accountants in the state.

In addition to assisting individual students with career counseling, results from the statewide ACT allow states to forecast the supply and demand of occupations. By comparing each cohort's career interests to expected career opportunities, state planners and policy makers can get a better idea of where shortages will occur. With such information, states can initiate programs that minimize job vacancies.

Increased Economic Benefits to Students and States

College readiness translates into economic and quality of life benefits for students. College-ready students are more likely to enroll in college and be successful. Upon graduation from college, students have more career opportunities and are better able to pursue their interests. Over their working lives, high school graduates earn, on average, about \$1.1 million; college graduates typically earn almost twice that amount (U.S. Department of Education, 2004). Aside from the obvious monetary awards, quality of life is enhanced for college graduates who achieve career satisfaction while providing security for themselves and their families.

Increases in college readiness also benefit individual states and the nation as a whole. Because they qualify for and typically occupy higher-paying jobs, college graduates have more disposable income and pay more local, state, and federal taxes (Institute on Taxation and Economic Policy, 2003). Tables 7 and 8 showed that from 2002 to 2004, the number of ACT-tested high school graduates who enrolled in college increased by approximately 2,000 in Colorado and 6,000 in Illinois. If only half of these students go on to graduate from college and if these graduates earn, on average, \$1 million more over their lifetimes than if they had not graduated, this would bring increases in taxable income of \$1 billion in Colorado and \$3 billion in Illinois. Assuming a typical tax rate of 9.9 percent (Institute on Taxation and Economic Policy, 2003) this would give an increase in state tax revenues of almost \$100 million in Colorado and almost \$300 million in Illinois. The investment in statewide ACT administration represents less than 1 percent of these projected tax revenues, so the long-term return on investment shows clearly. In addition, with better jobs and improved career satisfaction, governments can expect lower expenditures on welfare and other assistance

programs. Further, the United States will be more competitive in the global marketplace with a more educated workforce.

By improving the college readiness of college-going students, states can reduce the need for remedial coursework and see immediate economic benefits. In Table 5, we saw that the percentage of Illinois students meeting the ACT College Readiness Benchmarks in English increased from 55 percent to 59 percent. This represents about 4,800 students. Using data from Illinois, we estimate that about 4,400 students would no longer need remedial coursework prior to taking English Composition (a common writing course taken during the first year of college) or to repeat the course once taken. Assuming an average cost of \$1,800 per course, this works out to a savings of \$7.9 million per year. This savings alone is three times greater than the annual cost of statewide administration of the ACT in Illinois.

Conclusion

For the past four years, the states of Colorado and Illinois have paved the way in adopting the ACT as part of their statewide assessment programs. Our findings clearly demonstrate that statewide administration of the ACT in these two states has had a positive impact on students' college readiness. Without statewide assessment, many students may not have been aware of the opportunities to explore a broad range of future educational and career avenues that would challenge their abilities and help guide them in preparing to meet their postsecondary goals. As we have shown, after the ACT was introduced in Colorado and Illinois, the pool of potentially college-ready students in each state increased and more students took the college preparatory core curriculum as well as advanced courses. These increases occurred in all racial/ethnic, gender, and family income groups. More students met the ACT College Readiness Benchmarks and enrolled in college ready to meet its academic demands. Our findings also suggest that ACT-tested students were better prepared for college and persisted in college to a higher degree. Clearly, the statewide ACT has had a positive impact on academic preparation, achievement, college enrollment, and retention rates among all students. Further, a state's workforce planning and career counseling efforts are enhanced with statewide testing.

A number of other states are currently considering adopting the ACT as part of their statewide assessments at the eleventh- or twelfth-grade level. The reason is simple: the ACT is a key component in statewide policy designed to improve college preparation, with benefits for all.

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