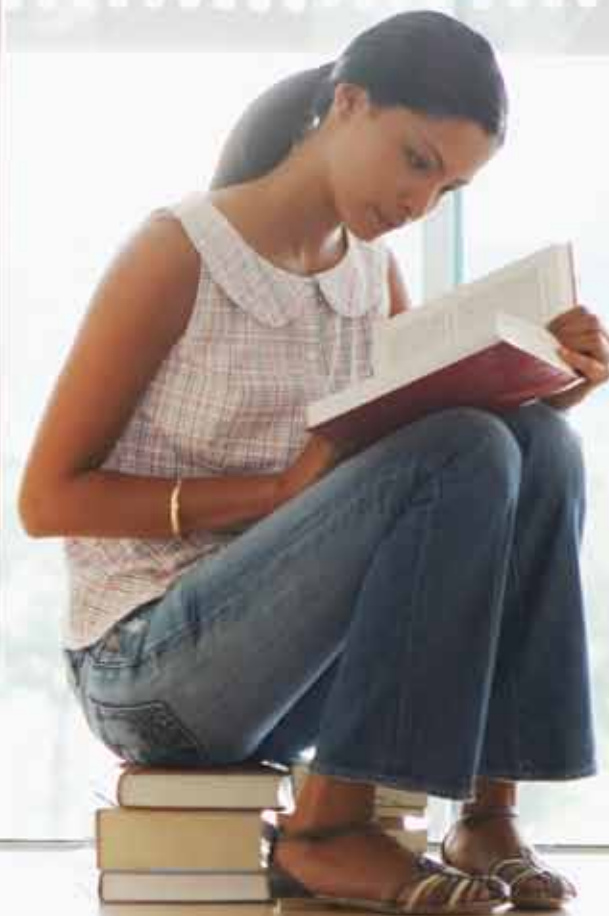


The Reality of College Readiness | 2012
Kentucky

ACT[®]



Annually, ACT provides each state with *The Condition of College & Career Readiness*, a report that details the college readiness of students who took the ACT® test. Based on extensive empirical research, ACT has defined “college and career readiness” as the acquisition of knowledge and skills a student needs to enroll and succeed in credit-bearing first-year college courses at a postsecondary institution without the need for remediation. This definition has been adopted by the Common Core State Standards Initiative.

This Report

This report is a companion to *The Condition of College & Career Readiness*. The report traces the college enrollment, retention, re-enrollment, and migration patterns of the 2010 ACT-tested high school graduates in your state. It also provides a snapshot of the impact that benchmark-meeting behavior has on those patterns and, ultimately, on success in college.

Why Is This Report Important?

Since the middle of the 20th century, attention has been focused on institutional retention and persistence-to-degree rates. Yet, in spite of significant institutional efforts, those rates remain disappointingly stagnant.

Since 1983, ACT has been collecting and reporting on institutional retention and persistence-to-degree rates. Annual reports include data from more than 2,500 colleges and universities. Over that period, first-to-second-year retention rates for four-year colleges have ranged from 72.3% (2008) to 74.9% (1991) and five-year persistence-to-degree rates have ranged from 50.9% (2001) to 55.1% (1989). Narrow and stagnant ranges also characterize statistics for two-year public colleges. Retention rates range from 51.3% (2004) to 55.7% (2010), and three-year persistence-to-degree rates range from 25.5% (2010) to 38.8% (1989). In spite of significant efforts to increase student success, rates remain virtually unchanged.

Unfortunately, retention and persistence-to-degree rates have been used as proxies for institutional effectiveness, and accountability models are built on factors over which the institution exhibits only limited control. Our opinion is that it

is shortsighted to believe that institutional effectiveness is rooted solely in the notion that students should enroll, persist, and graduate in a reasonable time frame from the institution where they first enrolled.

This report is intended to raise awareness of the fact that the path to college success is not a linear one for many students. There are significant numbers of qualified students who move through (or in and out of) multiple postsecondary experiences as they pursue their educational goals.

Consider for a moment the following characteristics of undergraduate students:

- 11% of students simultaneously enrolled in more than one institution
- 41% of graduates attended more than one institution
- 38% enrolled part time
- More than 2 million students brought college credit with them at the time of first full-time enrollment (dual credit, AP, online, or CLEP)
- 30% delayed enrollment a year or more
- 25% of undergraduates are over age 25
- 30% of undergraduates enrolled in an online course
- 29% of community college students transfer to four-year colleges
- 14% transfer from four-year to two-year colleges

Many of these students fail to reach their goals because transitions between and among institutions are fraught with complexities and are far from transparent. In that respect, the discussion must shift to students' achievement of individual postsecondary goals regardless of where they enroll, where they re-enroll, the length of time it takes, and where they ultimately complete their goals.

While we provide information on institutional retention, we hope that reader attention will be directed to the significant numbers and the academic capabilities of other groups of students: those who never enroll, those who do not re-enroll, and those who change institutions. Focusing on state, system, and institutional policies and practices that facilitate the success of these groups is key to increasing the educational attainment level of the American people.

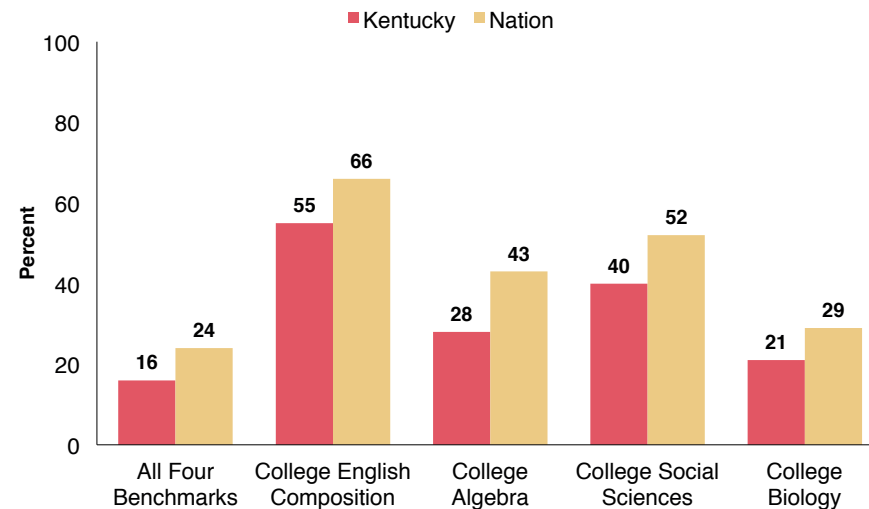
Attainment of ACT's College Readiness Benchmarks

ACT's research on the knowledge and skills necessary for success in college courses resulted in the establishment of ACT's College Readiness Benchmarks. These benchmarks are ACT subject area scores that represent the level of achievement required for students to have a 50% chance of obtaining a B or higher or about a 75% chance of earning a C or higher in corresponding credit-bearing first-year college courses. College courses, corresponding subject area tests, and benchmark scores are depicted below.

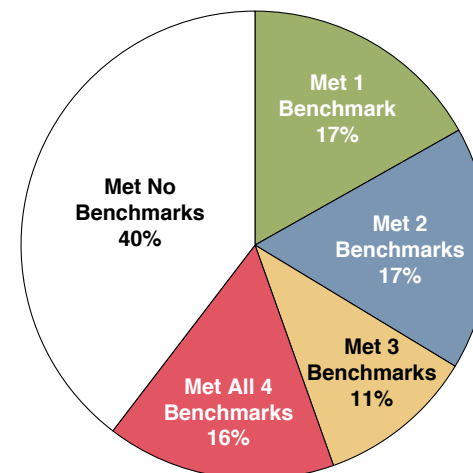
College Course	ACT Subject Test	ACT Benchmark Score
English Composition	English	18
Introductory Social Science	Reading	21
College Algebra	Mathematics	22
Biology	Science	24

The charts to the right provide information on 2010 ACT-tested high school graduates in your state. The top chart compares the national and state percentages of students meeting each of the benchmarks. The pie chart (bottom right) depicts the percentage of high school graduates by number of readiness benchmarks met. ACT research consistently shows there is a direct relationship between the number of benchmarks met and retention to the second year, progress to degree, grade point average and ultimately, degree completion.

Percent of 2010 ACT-Tested Kentucky High School Graduates Meeting College Readiness Benchmarks by Subject



Percent of 2010 ACT-Tested Kentucky High School Graduates by Number of ACT College Readiness Benchmarks Attained



The table below describes the fall 2010 and fall 2011 enrollment status of all 2010 ACT-tested high school graduates in your state. Re-enrollment status represents any two-year or four-year institution. The table also reports the ACT Composite average and the percentage of students meeting the ACT benchmarks for each subgroup. Data are derived from matched files of ACT graduates and National Student Clearinghouse (NSC) enrollment data.

Weighted averages of 2011 re-enrollment percentages for all 2010 ACT-tested high school graduates are reported below. These averages are based on 10 states with 80–100% ACT-tested high school graduates in 2010 (AR, CO, IL, KY, LA, MI, MS, ND, TN, and WY). The weighted average is the percentage of ACT-tested high school graduates from all states in this group who fall into each cell in the table.

Enrollment and Retention Status for Kentucky 2010 ACT-Tested Graduates

Fall 2010 Status	Fall 2011 Status	Weighted Averages	State Percentage	State Average Composite	College Readiness Benchmark Percentages in Your State				
					English	Reading	Mathematics	Science	All 4
N = 22,747	Enrolled In State	79	77	22.0	78	60	44	33	26
	Re-Enrolled Out of State	1	2	20.9	75	51	35	28	18
	Not Enrolled/Unknown*	20	22	18.8	53	37	20	14	8
	All In-State Enrollees	100	100	21.3	73	55	39	29	22
N = 4,355	Enrolled Out of State	10	9	22.0	79	58	46	30	25
	Re-Enrolled Out of State	76	69	22.8	75	62	51	41	36
	Not Enrolled/Unknown*	13	22	18.5	47	32	19	14	10
	All Out-of-State Enrollees	100	100	21.8	69	55	44	34	29
N = 19,147	Not Enrolled	14	11	18.7	50	34	19	15	9
	Enrolled In State	3	3	18.0	43	28	16	13	8
	Enrolled Out of State	83	85	16.4	29	18	9	6	4
	All Non-Enrollees	100	100	16.7	32	20	11	8	4
N = 46,249	All 2010 Graduates	46	43	21.6	75	57	42	31	24
	Re-Enrolled In State	10	9	21.8	70	55	44	35	30
	Re-Enrolled Out of State	43	48	17.0	35	23	12	8	5
	All Students	100	100	19.4	56	41	28	21	16

* NSC data include 93.4% of all students enrolled in U.S. colleges. This percentage includes a small number of students for whom no match could be found.

Note: Totals may not sum to 100% due to rounding.

- Students who first enrolled out of state and re-enrolled out of state had the highest ACT Composite average and the greatest percentage of students meeting all four benchmarks.
- Students who first enrolled in state and re-enrolled in state had the second-highest ACT Composite average and the second-greatest percentage of students meeting all four benchmarks.
- 48% of ACT-tested students either never enrolled in 2010 or were not re-enrolled in 2011. Those students had an ACT Composite average of 17.0, and 5% met all four benchmarks.

The table below describes the fall 2011 status of 2010 ACT-tested high school graduates in your state who initially enrolled in a two-year college in fall 2010. Re-enrollment status represents any two-year or four-year institution. The table also reports the ACT Composite average and the percentage of students meeting the ACT benchmarks for each subgroup. The table is based on matched files of ACT graduates and National Student Clearinghouse (NSC) enrollment data.

Weighted averages of 2011 re-enrollment percentages for all 2010 ACT-tested high school graduates who enrolled in two-year colleges are reported below. These averages are based on 10 states with 80–100% ACT-tested high school graduates in 2010 (AR, CO, IL, KY, LA, MI, MS, ND, TN, and WY). The weighted average is the percentage of ACT-tested high school graduates from all states in this group who fall into each cell in the table.

Enrollment and Retention Status for Kentucky 2010 ACT-Tested Graduates for Two-Year Enrollees

Fall 2010 Status	Fall 2011 Status	Weighted Averages	State Percentage	State Average Composite	College Readiness Benchmark Percentages in Your State				
					English	Reading	Mathematics	Science	All 4
N = 6,906	Enrolled In State	66	64	18.8	56	36	18	12	6
	Re-Enrolled Out of State	2	1	19.0	59	31	20	15	8
	Not Enrolled/Unknown*	32	34	17.4	39	25	11	7	4
	All In-State Enrollees	100	100	18.3	51	32	16	10	5
N = 382	Enrolled Out of State	14	10	18.2	54	24	14	14	8
	Re-Enrolled In State	52	54	18.2	42	29	16	12	7
	Re-Enrolled Out of State	34	36	17.4	38	24	14	12	7
	All Out-of-State Enrollees	100	100	17.9	42	27	15	12	7
N = 7,288	All 2010 Graduates	64	62	18.8	56	35	18	12	6
	Re-Enrolled In State	4	4	18.4	47	29	17	13	8
	Re-Enrolled Out of State	32	34	17.4	39	25	11	8	4
	All Students	100	100	18.3	50	32	15	11	5

* NSC data include 97.1% of all students enrolled in two-year colleges. This percentage includes a small number of students for whom no match could be found.

Note: Totals may not sum to 100% due to rounding.

- Students who first enrolled in state and re-enrolled out of state had the highest ACT Composite average and the greatest percentage of students meeting all four benchmarks.
- Students who first enrolled in state and re-enrolled in state had the second-highest ACT Composite average and the third-greatest percentage of students meeting all four benchmarks.
- 34% of ACT-tested students either never enrolled in 2010 or were not re-enrolled in 2011. Those students had an ACT Composite average of 17.4, and 4% met all four benchmarks.

The table below describes the fall 2011 status of 2010 ACT-tested high school graduates in your state who initially enrolled in a four-year public college in fall 2010. Re-enrollment status represents any two-year or four-year institution. The table also reports the ACT Composite average and the percentage of students meeting the ACT benchmarks for each subgroup. The table is based on matched files of ACT graduates and National Student Clearinghouse (NSC) enrollment data.

Weighted averages of 2011 re-enrollment percentages for all 2010 ACT-tested high school graduates who entered four-year public colleges are reported below. These averages are based on 10 states with 80–100% ACT-tested high school graduates in 2010 (AR, CO, IL, KY, LA, MI, MS, ND, TN, and WY). The weighted average is the percentage of ACT-tested high school graduates from all states in this group who fall into each cell in the table.

Enrollment and Retention Status for Kentucky 2010 ACT-Tested Graduates for Four-Year Public Enrollees

Fall 2010 Status	Fall 2011 Status	Weighted Averages	State Percentage	State Average Composite	College Readiness Benchmark Percentages in Your State				
					English	Reading	Mathematics	Science	All 4
N = 12,685	Enrolled In State	86	82	23.1	87	69	54	41	33
	Re-Enrolled Out of State	1	2	21.6	81	57	41	32	21
	Not Enrolled/Unknown*	12	16	20.4	70	50	30	22	14
	All In-State Enrollees	100	100	22.6	84	66	50	38	30
N = 1,271	Enrolled Out of State	11	11	22.4	81	64	47	30	24
	Re-Enrolled In State	79	75	23.6	83	69	58	47	41
	Re-Enrolled Out of State	10	14	20.5	64	48	29	25	17
	All Out-of-State Enrollees	100	100	23.0	80	65	53	42	36
N = 13,956	All 2010 Graduates	74	75	23.1	87	69	54	41	33
	Re-Enrolled In State	14	9	23.2	82	66	55	44	37
	Re-Enrolled Out of State	12	16	20.4	69	50	30	22	14
	All Students	100	100	22.7	84	66	50	38	31

* NSC data include 98.8% of all students enrolled in four-year public colleges. This percentage includes a small number of students for whom no match could be found.

Note: Totals may not sum to 100% due to rounding.

- Students who first enrolled out of state and re-enrolled out of state had the highest ACT Composite average and the greatest percentage of students meeting all four benchmarks.
- Students who first enrolled in state and re-enrolled in state had the second-highest ACT Composite average and the second-greatest percentage of students meeting all four benchmarks.
- 16% of ACT-tested students either never enrolled in 2010 or were not re-enrolled in 2011. Those students had an ACT Composite average of 20.4, and 14% met all four benchmarks.

The table below describes the fall 2011 status of 2010 ACT-tested high school graduates in your state who initially enrolled in a four-year non-public college in fall 2010. Re-enrollment status represents any two-year or four-year institution. The table also reports the ACT Composite average and the percentage of students meeting the ACT benchmarks for each subgroup. The table is based on matched files of ACT graduates and National Student Clearinghouse (NSC) enrollment data.

Weighted averages of 2011 re-enrollment percentages for all 2010 ACT-tested high school graduates who entered four-year non-public colleges are reported below. These averages are based on 10 states with 80–100% ACT-tested high school graduates in 2010 (AR, CO, IL, KY, LA, MI, MS, ND, TN, and WY*). The weighted average is the percentage of ACT-tested high school graduates from all states in this group who fall into each cell in the table.

* Not included due to low N count.

Enrollment and Retention Status for Kentucky 2010 ACT-Tested Graduates for Four-Year Non-Public Enrollees

Fall 2010 Status	Fall 2011 Status	Weighted Averages	State Percentage	State Average Composite	College Readiness Benchmark Percentages in Your State				
					English	Reading	Mathematics	Science	All 4
N = 3,156	Enrolled In State	88	82	22.7	81	66	51	39	33
	Re-Enrolled Out of State	2	2	21.1	77	57	32	31	18
	Not Enrolled/Unknown**	11	15	18.8	51	37	19	13	6
	All In-State Enrollees	100	100	22.1	76	62	46	35	28
N = 1,303	Enrolled Out of State	9	10	24.6	90	79	69	48	44
	Re-Enrolled In State	82	82	26.1	93	83	75	62	57
	Re-Enrolled Out of State	9	8	22.7	74	61	50	36	32
	All Out-of-State Enrollees	100	100	25.6	91	81	72	58	54
N = 4,459	All 2010 Graduates	52	61	22.8	82	67	52	39	33
	Re-Enrolled In State	38	26	25.7	92	81	72	60	55
	Re-Enrolled Out of State	10	13	19.5	55	42	25	17	11
	All Students	100	100	23.1	81	67	54	42	36

** NSC data include 92% of all students enrolled in four-year non-public colleges. This percentage includes a small number of students for whom no match could be found.

Note: Totals may not sum to 100% due to rounding.

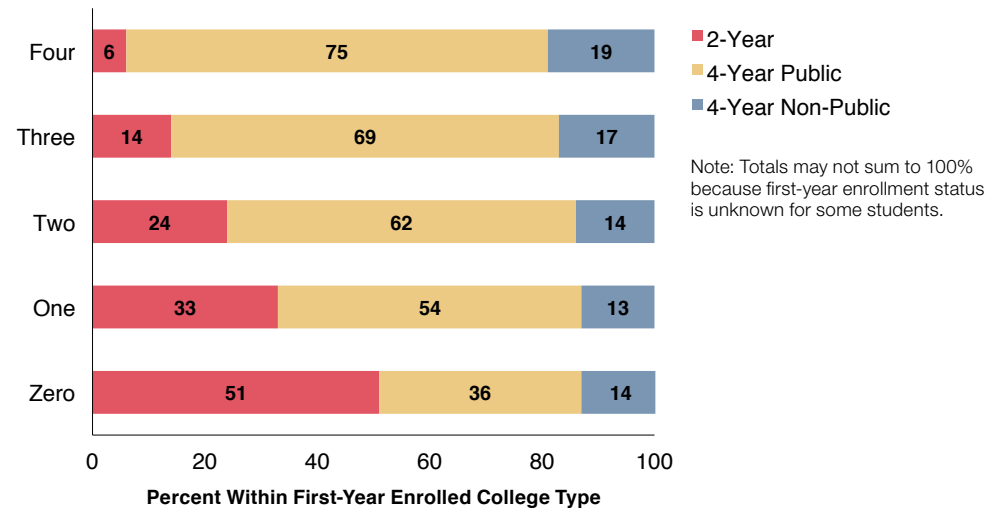
- Students who first enrolled out of state and re-enrolled out of state had the highest ACT Composite average and the greatest percentage of students meeting all four benchmarks.
- Students who first enrolled out of state and re-enrolled in state had the second-highest ACT Composite average and the second-greatest percentage of students meeting all four benchmarks.
- 13% of ACT-tested students either never enrolled in 2010 or were not re-enrolled in 2011. Those students had an ACT Composite average of 19.5, and 11% met all four benchmarks.

The data presented on this page are also based on matched files of ACT-tested high school graduates and National Student Clearinghouse (NSC) enrollment files. But unlike the previous tables and charts, these data include all first-time enrollees in your state regardless of state of residence at the time of ACT testing.

The chart to the right documents the percentage of enrolled students meeting benchmarks by institutional type. For example, of those enrolled students meeting all four benchmarks, 6% were enrolled in two-year colleges, 75% were enrolled in four-year public colleges, and 19% were enrolled in four-year non-public colleges.

The findings depicted here are intuitive: as the number of benchmarks met increases, the likelihood of enrolling in a four-year institution also increases.

Percent of All Enrollees Meeting Benchmarks by Institutional Type



Percent of First-Year Enrollees by Re-Enrollment Status for Kentucky and National 2010 ACT-Tested Graduates*

	Total State	Total National	2-Year State	2-Year National	4-Year Public State	4-Year Public National	4-Year Non-Public State	4-Year Non-Public National
Retained Within Institution	67	72	75	72	87	88	90	92
Retained In State, Different Institution	8	9	19	21	9	8	6	4
Re-Enrolled Out of State	4	4	7	6	4	3	4	4

* NSC data include 93.4% of all students enrolled in U.S. colleges. This percentage includes a small number of students for whom no match could be found.

Note: Totals may not sum to 100% due to rounding.

The table above tracks the retention/migration patterns of students who first enrolled in 2010 and continued their enrollment in 2011.

- Institutions within the state do a reasonably good job of retaining students.
- Significant percentages of enrolled students re-enroll out of state or at another institution within the state.

- Data from a variety of sources tell us that 34% of college students attended two or more colleges, 11% simultaneously enrolled in more than one college, and 23% took one or more online courses.

- When coupled with data from the tables presented on pages 4–7, it becomes clear that student movement between and among institutions calls for policies that focus on a seamless transition process.

The chart on this page includes all enrolled students regardless of state of residence in which the student took the ACT.

Interests and College Success

Research indicates that if students' interests are similar to the interests of people in their chosen college majors, they will be more likely to:

- Persist in college (Tracey & Robbins, 2006¹; Allen & Robbins, 2008²)
- Remain in their major (Allen & Robbins, 2008²)
- Complete their degree in a timely manner (Allen & Robbins, 2010³)
- Earn high GPAs (Tracey, Allen, & Robbins, 2012⁴)

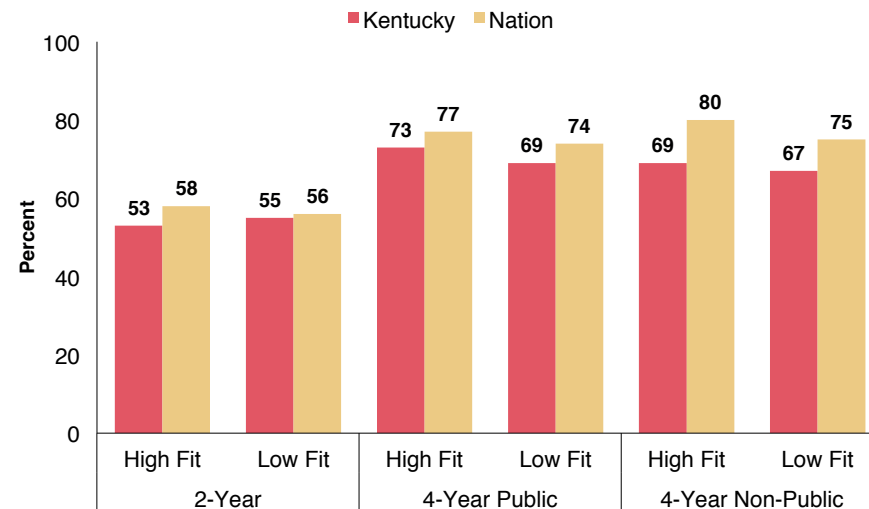
The research is based on a calculation called interest-major fit: the relationship between student choice of major and career-related interests. The ACT Interest Inventory is a 72-item survey completed by students who take the ACT. Results identify the career areas and programs of study that are closely aligned with student interest patterns. Fit, then, is based on the similarity (or lack thereof) between Inventory results and a student's first choice of college program. High fit indicates that student interests are most similar to students enrolled in a program of study. Low fit suggests that interests are dissimilar.

The Chart

The chart reports institutional retention rates by level of fit.

It supports the contention that there is a relationship between retention to the second year and interest-major fit. Those with higher fit are retained at a higher rate. At first, the percentage differences may seem small, but even a small increase in the percentage of students retained can have a significant impact on the institution.

Retention Rates by Institution Type of First College Choice and Interest-Major Fit*: Kentucky vs. National



* Fit reflects the correlation between student Interest Inventory scores and intended college major.

Observations

Addressing the differences in retention rates for high-fit and low-fit students leads to several interventions touted by the *What Works in Student Retention* survey. Use of the ACT Interest Inventory in advising, first-year seminars, and career development workshops could increase the number of students who enroll in programs more consistent with their Interest Inventory scores.

¹Tracey, T. J. G., & Robbins, S. B. (2006). The interest major congruence and college success relation: A longitudinal study. *Journal of Vocational Behavior*, 69, 64–89.

²Allen, J., & Robbins, S. (2008). Prediction of college major persistence based on vocational interests, academic preparation, and first-year academic performance. *Research in Higher Education*, 49, 62–79.

³Allen, J., & Robbins, S. (2010). Effects of interest-major congruence, motivation, and academic performance on timely degree attainment. *Journal of Counseling Psychology*, 57, 23–35.

⁴Tracey, T. G., Allen, J., & Robbins, S. B. (2012). Moderation of the relation between person–environment congruence and academic success: Environmental constraint, personal flexibility and method. *Journal Of Vocational Behavior*, 80(1), 38–49.

Retention Practices

Recommendations for Policymakers

1. Actively pursue P–20 collaborations to develop integrated education systems.
2. Expand the current retention definition to focus on individual student success—the achievement of student educational goals rather than the completion of a degree at a specific institution within a specific time frame.
3. Measure and reward individual student success across the postsecondary system. Success should not be measured solely by retention and graduation rates within an institution.
4. Review and revise policies and agreements that increase the transparent movement of students from one educational experience to another.
 - Common course numbering system
 - System or statewide degree audit
 - Expanded articulation agreements
5. Establish a clearinghouse that serves as a repository for a student-owned educational portfolio used to facilitate institution-to-institution transitions.

Retention Recommendations for Institutional Practice

1. Initiate collaboration and dialogue with K–12 teachers.
2. Explore the redesign of teacher preparation programs.
3. Validate and refine course placement practices.
4. Provide advising that supports transition to other institutions.
5. Review and revise policies that impede transparent movement of students both to and from other institutions.
6. Participate in the Voluntary System of Accountability (VSA) or the Voluntary Framework of Accountability (VFA).

Two-Year College Retention Interventions Cited in *What Works in Student Retention**

Highest-Rated Retention Practices	Practices Which Differentiate Campuses with High Retention Rates from Those with Low Retention Rates
Reading center/lab	Reading center/lab
Comprehensive learning assistance center	Comprehensive learning assistance center
Tutoring	Increased number of academic advisors
Mandated course placement of students based on test scores	Required remedial/developmental coursework
Required remedial/development coursework	Pre-enrollment financial aid advising
Increased number of academic advisors	Diagnostic academic skills assessment
Writing center/lab	Integration of advising with career/life planning
Math center/lab	Staff mentoring
Program for first-generation students	

* Complete reports can be found at: www.act.org/research/policymakers/reports/retain.html

Retention Practices *continued*

Four-Year Public College Retention Interventions Cited in *What Works in Student Retention**

Highest-Rated Retention Practices	Practices Which Differentiate Campuses with High Retention Rates from Those with Low Retention Rates
Academic advising center	Increased number of academic advisors
Increased number of academic advisors	Advising interventions with selected student populations
Advising interventions with selected student populations	Supplemental instruction
Comprehensive learning assistance center/lab	Summer bridge program
Supplemental instruction	Program for honors students
Program for first-generation students	Integration of advising with first-year transition programs
Required on-campus housing for first-year students	Training for non-faculty academic advisors
Reading center/lab	Faculty mentoring
Tutoring	Residential living/learning communities
Summer bridge program	Program for international students
Integration of advising with first-year transition programs	Staff mentoring

* Complete reports can be found at: www.act.org/research/policymakers/reports/retain.html

Four-Year Private College Retention Interventions Cited in *What Works in Student Retention**

Highest-Rated Retention Practices	Practices Which Differentiate Campuses with High Retention Rates from Those with Low Retention Rates
Academic advising center	Academic advising center
Advising interventions with selected student populations	Advising interventions with selected student populations
Increased number of academic advisors	Integration of advising with first-year transition programs
Reading center/lab	Tutoring
Comprehensive learning assistance center/lab	Faculty mentoring
Integration of advising with first-year transition programs	Required on-campus housing for first-year students
Program for first-generation students	Peer mentoring
Early warning system	Program for honors students
Pre-enrollment financial aid advising	Staff mentoring

* Complete reports can be found at: www.act.org/research/policymakers/reports/retain.html

ACT Research

As a not-for-profit educational research organization, ACT is committed to producing research that focuses on key issues in education and workforce development. Our goal is to serve as a data resource. We strive to provide policymakers with the information they need to inform education and workforce development policy and to give educators the tools they need to lead more students toward college and career success. What follows are some of ACT's recent and most groundbreaking research studies. To review these studies, go to www.act.org/research/summary.

The Condition of College & Career Readiness



Using ACT test scores and the ACT College Readiness Benchmarks, *The Condition of College & Career Readiness 2012* provides a series of graphics highlighting the college and career readiness of the ACT-tested high school class of 2012. This report is updated annually.

A First Look at the Common Core and College and Career Readiness



Forty-five states have adopted the Common Core State Standards. Now, efforts to implement the standards take on primary importance. ACT provides this first look at student performance relative to the Common Core State Standards and college and career readiness.

Enrollment Planners Conference



The ACT Enrollment Planners Conference is ACT's national enrollment management conference that draws more than 600 presenters and attendees from across the country every July.

Mind the Gaps



In the research report *Mind the Gaps: How College Readiness Narrows Achievement Gaps in College Success*, ACT looks at steps that can be taken to improve college and career readiness and success among underserved populations. As a nation, we must close the achievement gap across racial/ethnic and family income groups. The report shows the types of policies that work to improve college and career readiness and success.

Enrollment Management Trends Report



This report provides enrollment managers and other college administrators with information about students' patterns during the college choice process of the 2011 high school graduates who took the ACT® test. This report covers such topics as students' migration patterns, the time in which they first took the ACT, their participation in ACT's Educational Opportunity Service (EOS), and their score-sending behavior.

Enrollment Management Briefs



ACT's **Information Brief Series** presents quick snapshots of recent ACT research findings on a variety of topics in education and work, drawing on our extensive college readiness and career skills data. As part of that series, **Enrollment Management Briefs** focus on topics that are of particular interest to enrollment managers.

ACT is an independent, not-for-profit organization that provides assessment, research, information, and program management services in the broad areas of education and workforce development. Each year, we serve millions of people in high schools, colleges, professional associations, businesses, and government agencies, nationally and internationally. Though designed to meet a wide array of needs, all ACT programs and services have one guiding purpose—helping people achieve education and workplace success.

A copy of this report can be found at www.act.org/readinessreality