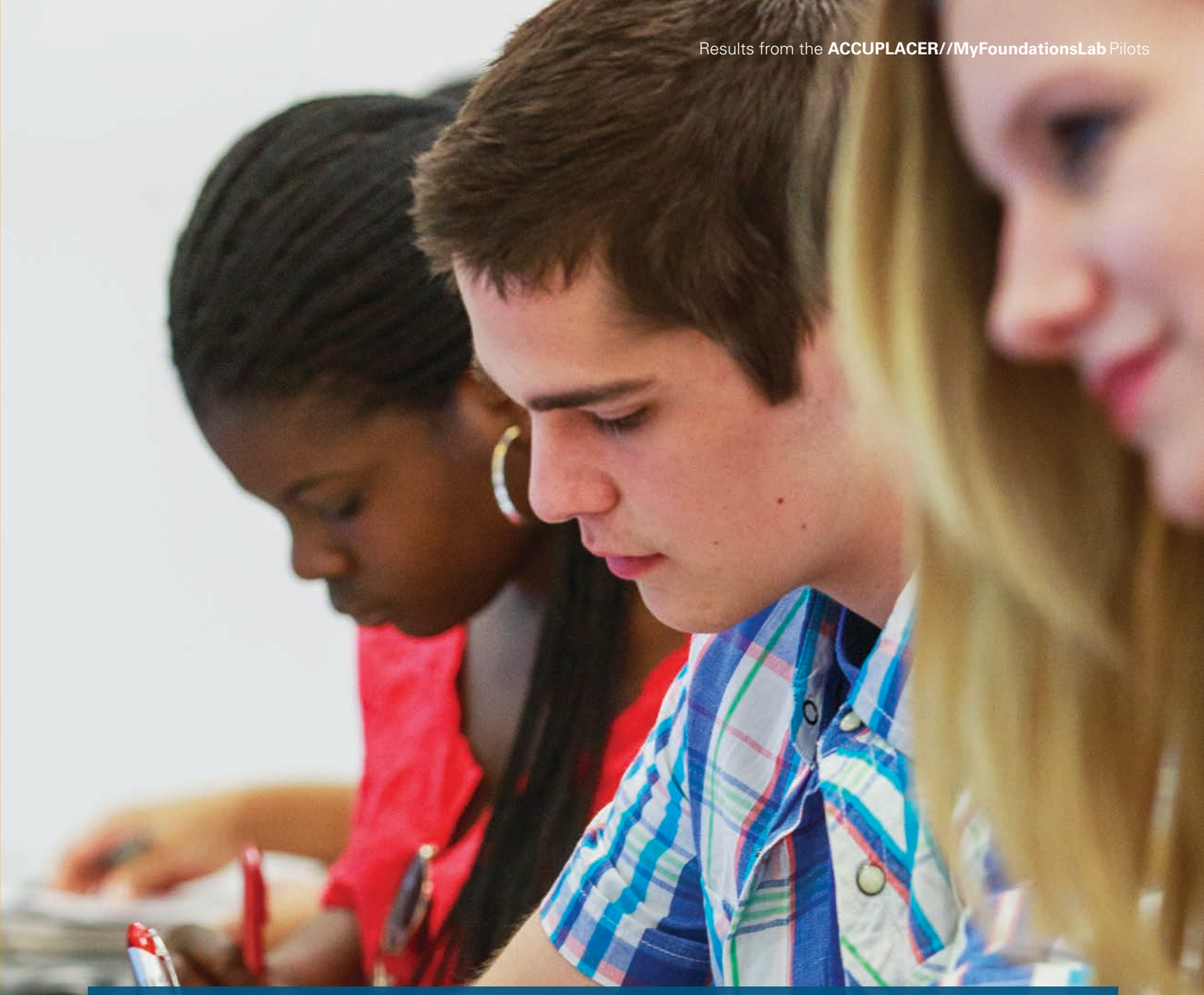
TARGETED INTERVENTION PRODUCES GAINS IN STUDENT ACHIEVEMENT

Results from the
ACCUPLACER®//MyFoundationsLab® Pilots



ACCUPLACER®//MyFoundationsLab® is a comprehensive online diagnostic and intervention system that assesses and builds students' academic skills in reading, writing, and mathematics. It offers a unique combination of computer-adaptive assessments that analyze a student's academic strengths and weaknesses, then provides customized online intervention. Based on their initial ACCUPLACER diagnostic scores, students are given a personalized learning path through MyFoundationsLab to improve their skills and master core concepts. Faculty can use ACCUPLACER and MyFoundationsLab to complement their curriculum while preparing students for college and success.

www.accumfl.com

ACCUPLACER® is a computer-adaptive diagnostic, online intervention and placement testing system that assesses student academic skills in reading, writing, and mathematics in an immediate and accurate way. Teachers and counselors can use the results of these assessments to determine students' strengths and weaknesses to provide early academic intervention. Administering more than eight million tests per year, the ACCUPLACER system is used by more than 1,300 secondary and postsecondary institutions to place students in the appropriate courses where they can confidently meet classroom requirements.

For further information, visit **www.collegeboard.org/accuplacer.**

Contact us at: **info@accuplacer.org** or **866-607-5223**

Background on Pilots

This past year, the College Board's ACCUPLACER program conducted pilots with high schools, charter schools, community colleges and summer bridge programs. The purpose of the pilots was to validate that ACCUPLACER diagnostic tests, paired with an integrated online intervention curriculum through MyFoundationsLab (MFL), can address students' academic gaps and directly impact their readiness for postsecondary success and college-level work.

The cohort of students who participated in these pilots included entering college freshmen, high school seniors and eighth-graders. All students took ACCUPLACER diagnostic tests as pre-assessment tools to determine the skill areas in which they were proficient and the skill areas needing improvement. Some pilot institutions used the ACCUPLACER placement tests as pre- and post-assessment tools to measure improvement in either students' scores or their placement levels. Others used the ACCUPLACER diagnostic tests as post-assessment tools to determine improvement in either the students' scores or their proficiency levels.

Instructional Models

Each pilot site had the autonomy to choose one of the following instructional models during the implementation of the ACCUPLACER//MyFoundationsLab online intervention curriculum.

Independent Study (IS): This instructional model allows students to work completely on their own in the ACCUPLACER//MyFoundationsLab online intervention curriculum. There is no provision for dedicated class time or access to hardware; students must provide their own computer and must manage their own learning without access to a teacher/instructor.

Independent Study with Guidance (IS+Guidance): This instructional model allows students to work on their own in the ACCUPLACER//MyFoundationsLab online intervention curriculum while also receiving some monitoring and guidance from a teacher/instructor. There is no provision for dedicated class time or access to hardware; students must provide their own computer and manage their own learning with minimal support.

Lab: This instructional model allows students to work on their own on the ACCUPLACER//MyFoundationsLab online intervention curriculum while receiving ongoing guidance and monitoring from a teacher/instructor. Access to technology is provided on a regular basis as part of a scheduled class or a required lab outside of class.

Blended Learning: This instructional model allows the teacher/instructor to manage the pace of the intervention program and assignment of MyFoundationsLab content so that it is integrated with ongoing instruction in a course. Access to technology can be provided in class or be required outside of class. The teacher/instructor provides ongoing guidance and monitoring of student achievement.

Measures of Success

To measure improvement in student achievement as a result of the intervention, each pilot site used metrics that were aligned to the site's goals and the needs of its students. The pilot sites compared student results from ACCUPLACER pre-assessment tests to student results from ACCUPLACER post-assessment tests that were administered after the implementation of the MyFoundationsLab online intervention curriculum.

Improvement was measured through:

Improvement in Scores: Pilot sites were able to report average score gains for their cohort of students by comparing students' scores from pre- to post-assessment. For sites that administered Diagnostics as both pre- and post-tests, they were able to compare score gains in each of the five domains on each diagnostic test.

Improvement in Placement Levels: Pilot sites were able to identify the percentage of students who improved their course placement and the number of courses bypassed by comparing students' placement levels from pre- to post-assessment. Pilots used the ACCUPLACER placement test as the pre- and post-assessment measure.

Improvement in Proficiency Levels: Pilot sites were able to report improvement in performance for their cohort of students by comparing students' proficiency gains from pre- to post-assessment. Pilots used the ACCUPLACER diagnostic test as a pre- and post-assessment tool to determine the percentage of students who advance to a new proficiency level — Needs Improvement to Limited Proficiency to Proficient.

Intervention Matters

Results collected from 10 pilot studies led to the following conclusions:

- Targeted intervention through ACCUPLACER//MyFoundationsLab produces improvement in student achievement regardless of the duration of the intervention, the students' grade level or the model of instruction.
- Online intervention curriculum connected to the results of ACCUPLACER Diagnostics produces stronger gains in student achievement than less targeted instruction.
- More instructor involvement in the intervention process (monitoring progress, setting expectations and providing structure) produces stronger gains in student achievement than Independent Study.
- Personalized intervention through ACCUPLACER//MyFoundationsLab leads to increased persistence and enrollment rates.

Name of Pilot Site	Student Cohort	Purpose of Participation
Panola Charter School	8th-graders	Preparation for dual enrollment program
Mississippi Institutions of Higher Learning (MS IHL)	9th-graders	Targeted intervention
Cerritos College	9th-graders	Targeted intervention
East Los Angeles College	9th-graders	Targeted intervention
Montgomery County Public Schools (MCPS)	12th-graders	Early intervention for college readiness
Jefferson Community College	12th-graders	Early intervention for occupation-track programs
Washoe County School District (WCSD)	12th-graders	Targeted intervention
Delaware Department of Education (DDOE)	11th- and 12th-graders	Targeted intervention
Thomas Jefferson High School (TJHS)	12th-graders	Early intervention for college readiness
Middlesex Community College	College students in GED and developmental courses	Targeted intervention

Following the ACCUPLACER//MyFoundationsLab online intervention, **32% to as many as 92% of the students improved** their proficiency level, course placement level or scores across all subjects in the ACCUPLACER post-assessment tests. The subjects include: Reading Comprehension (RC), Sentence Skills (SS), Arithmetic (AR), Elementary Algebra (EA) and College-Level Math (CLM).

							% of Participants with Improvement				
Conditions for "Improvement"	Pilot Name	Student Cohort	Test Used to Measure Progress	Intervention Used	Model of Instruction	Pilot Duration (Weeks)	RC	SS	AR	EA	CLM
Improvement in Proficiency Level	Panola	8th-graders	Diagnostic	ACCU//MFL	IS+Guidance	12	53%	37%	32%	*11%	N/A
	DDOE	11th- and 12th-graders	Diagnostic	ACCU//MFL	IS+Blended	10	91%	90%	88%	79%	–
Improvement in Course Placement Level	East LA	Freshmen	Placement	ACCU//MFL	IS+Guidance	2	N/A	N/A	**36%	**36%	N/A
	East LA	Freshmen	Placement	General MFL	IS+Guidance	2	N/A	N/A	0%	0%	N/A
	MCPS 1	12th-graders	Placement	ACCU//MFL	IS	40	64%	71%	N/A	67%	68%
	MCPS 2	12th-graders	Placement	Other	IS	40	36%	29%	N/A	33%	32%
	Cerritos College	Freshmen	Diagnostic	ACCU//MFL	IS+Guidance	6	28%	40%	**46%	**46%	N/A
	WCSD	12th-graders	Placement	ACCU//MFL	IS+Guidance	36	–	–	65%	72%	54%
	TJHS	12th-graders	Placement	ACCU//MFL	IS+Guidance	36	76%	66%	–	52%	–
Improvement in Scores	Jefferson CC Cohort 1	12th-graders	Diagnostic	ACCU//MFL	IS	44	55%	48%	39%	N/A	45%
	Jefferson CC Cohort 2	12th-graders	Diagnostic	ACCU//MFL	IS+Guidance	44	55%	50%	49%	N/A	58%
	Jefferson CC Cohort 3	12th-graders	Diagnostic	ACCU//MFL	Blended	44	64%	68%	68%	N/A	60%
	MS IHL	Freshmen	Placement	ACCU//MFL	Lab	9	40%	64%	N/A	92%	N/A

* EA (Elementary Algebra) increased through independent study with MFL even though this cohort had not taken a high school Algebra course.
** Improvement in course placement was based on both AR (Arithmetic) and EA (Elementary Algebra) test scores.

"Of the students who finished the pilot, 100% of them showed improvement on the ACCUPLACER diagnostic test. ACCUPLACER//MyFoundationsLab is definitely something to consider if you are dealing with college readiness issues in English, reading or math."

— Bryan Reece, Dean of Academic Success and Institutional Effectiveness, Cerritos College, Norwalk, Calif.

Targeted Intervention Leads to Improvement

Panola Charter School in Carthage, Texas, offered ACCUPLACER//MyFoundationsLab to a group of eighth-graders to help them qualify for dual enrollment college courses. The instructional model adopted was **Independent Study with Guidance**. After a 12-week treatment with the ACCUPLACER//MyFoundationsLab, students **increased their proficiency level** in the post-assessment tests.

- 53% of the students moved into the proficient level in Reading Comprehension.
- 11% of the students moved into the proficient level in Elementary Algebra.
- 37% of the students moved into the proficient level in Sentence Skills.
- 32% of the students moved into the proficient level in Arithmetic.

Mississippi Institutions of Higher Learning in Jackson, Miss., implemented ACCUPLACER//MyFoundationsLab as part of its Summer Developmental Program. Entering college students received individualized instruction through lab time. After nine weeks of intervention, students **showed score gains** in their post-assessment tests in reading, writing and mathematics.

- 40% of the students showed improvement in scores in Reading Comprehension.
- 64% of the students showed improvement in scores in Sentence Skills.
- 92% of the students showed improvement in scores in Elementary Algebra, with a statistical significance of $p < 0.05$.

Cerritos College, a two-year institution in Norwalk, Calif., created a special "prep" course using ACCUPLACER//MyFoundationsLab. The instructional model adopted was **Independent Study with Guidance**. Entering college students took the ACCUPLACER diagnostic tests and received six weeks of targeted intervention (the standard semester course is 15 weeks). After the intervention, the students' performance in the post-assessment test **indicated a jump in course placement levels**.

- 54% of the students increased their placement scores in Reading Comprehension; 28% improved their Reading Comprehension placement level by one or more courses.
- 62% of the students increased their placement scores in Sentence Skills; 40% improved their English course placement level by one or more courses.
- 46% of the students improved their math course placement level by one or more courses.

Washoe County School District in Reno, Nev., offered ACCUPLACER//MyFoundationsLab to a group of 12th-graders to help increase their placement into college courses. The district tested all 12th-graders with placement tests, then offered access to ACCUPLACER//MyFoundationsLab for students wishing to improve their course placement with an **Independent Study with Guidance** model for 36 weeks.

- Upon post-testing, **53% of students increased their course placement** by one or two levels, saving themselves both time and money.
- Of students increasing their course placement, **78% increased their placement by two course levels.**

The Delaware Department of Education used ACCUPLACER//MyFoundationsLab in five high schools around the state to provide a college readiness instruction for 11th- and 12th-grade students in both Math and English. Students were pre-tested with Diagnostics, then worked on their individual learning paths for 10 weeks under both **Independent Study** and **Blended Learning** models, then post-tested with ACCUPLACER Diagnostics. Students demonstrated **impressive gains in scores.**

- 88% of students gained in one or more areas in Arithmetic.
- 79% of students gained in one or more areas in Elementary Algebra.
- 91% of students gained in one or more areas in Reading Comprehension.
- 90% of students gained in one or more areas in Sentence Skills.

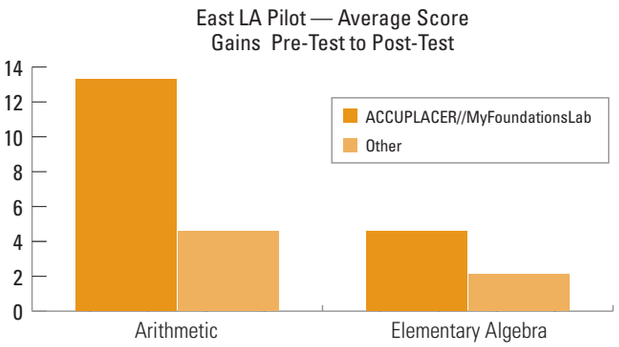
Thomas Jefferson High School in Denver, Colo., implemented ACCUPLACER//MyFoundationsLab as part of their college readiness program with a group of 12th-graders. Students were pre-tested with placement tests to determine initial course placements, then worked on their assigned learning paths for 36 weeks. At the conclusion of the year, students who were post-tested with ACCUPLACER placement tests demonstrated **impressive gains in course placement.**

- 59% of students gained course levels based on Reading Comprehension test results.
- 24% of students gained course levels based on Sentence Skills test results.
- 34% of students gained course levels based on Elementary Algebra test results.

"The ACCUPLACER//MyFoundationsLab product actually helped our students jump up one or two levels in the post-assessment. Of the 58 students that completed the course, 52% increased their placement level by one or more courses."

— Graciela Vasquez, Director of Adult Education, Cerritos College, Norwalk, Calif.

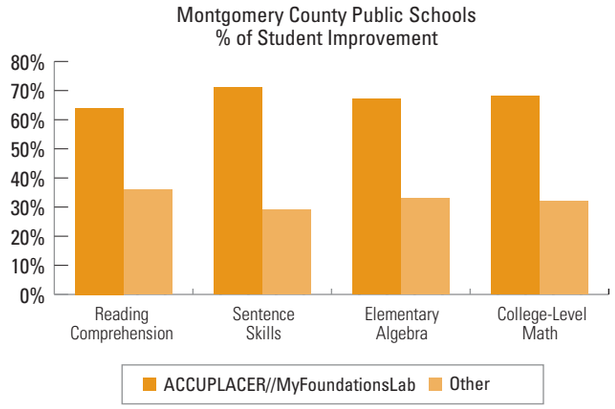
Diagnostics Plus Online Intervention Produces Stronger Results



East Los Angeles College in Los Angeles, Calif., tested a group of entering college freshmen as part of their five-week STEM Summer Bridge Program. The instructional model adopted was **Independent Study with Guidance**. During the two-week intervention period devoted to mathematics, one group of students was treated using an integrated ACCUPLACER//MyFoundationsLab online curriculum, while another group of students was treated using another online learning tool. Students who used ACCUPLACER//MyFoundationsLab **moved up in course placement levels**, given their improvement on both arithmetic and Elementary Algebra test scores.

- 38% of the students who were treated with ACCUPLACER//MyFoundationsLab moved up one course level.
- 15% of the students who were treated with ACCUPLACER//MyFoundationsLab moved up two or more course levels.

Students who were treated with another intervention tool showed some improvement in scores, but no increase in course level placement.



Montgomery County Public Schools in Rockville, Md., began a partnership with Montgomery College to increase the number of graduates who were considered college ready. They treated one group of high school seniors with targeted instruction through ACCUPLACER//MyFoundationsLab, and another group of high school seniors using a different intervention program. The instructional model adopted was **Independent Study with Guidance**. After the 44-week intervention period, students who were treated with ACCUPLACER//MyFoundationsLab indicated **considerable improvement in course placement levels** in all subjects.

- 64% of the students improved in Reading Comprehension.
- 71% of the students improved in Sentence Skills.
- 67% of the students improved in Algebra.
- 68% of the students improved in College-Level Math.

Although indicating some improvement, the students who used the online intervention tool that was not linked to diagnostic results performed half as well as the group using ACCUPLACER//MyFoundationsLab.

"College readiness is a huge issue right now — one that we as community college administrators, faculty and staff have to grapple with. ACCUPLACER//MyFoundationsLab helps with student completion."

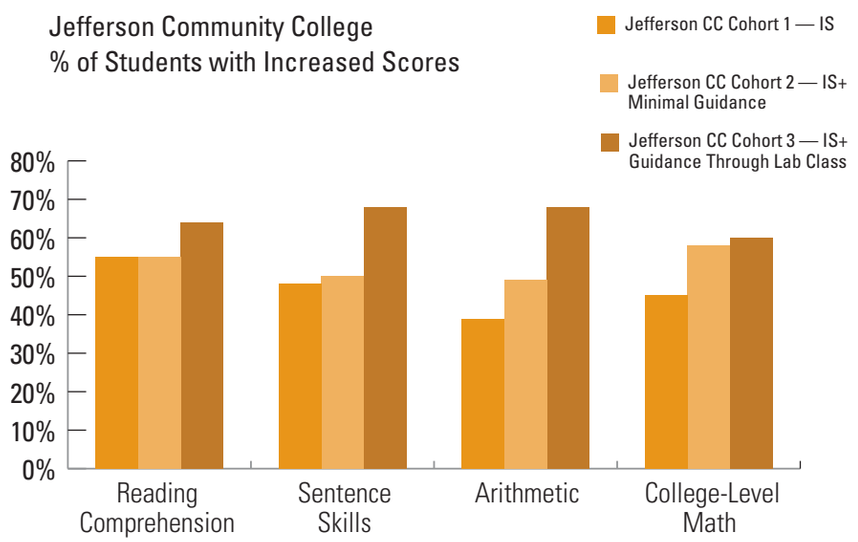
— Beverly Walker-Griffea, Senior Vice President for Student Services, Montgomery College, Rockville, Md.

Independent Study with Guidance: Highly Effective Instructional Model

Jefferson Community College in Watertown, N.Y., partnered with its local Board of Cooperative Educational Services to provide an intervention for students in vocational programs in order to reduce the need for developmental education when they matriculated in college. Three different cohorts of students were chosen to participate in a 44-week ACCUPLACER//MyFoundationsLab online intervention curriculum. Each cohort followed a different instructional model during the intervention: independent study, independent study with minimal instruction, and independent study with consistent guided instruction through a lab class.

Although a significant percentage of students in all programs had increased their ACCUPLACER diagnostic scores from pre-testing to post-testing, the highest percentage of score gains was achieved by the student cohort that used MyFoundationsLab as part of a structured class in addition to their independent study. From the student cohort that adopted a blended model of instruction (independent study plus guided instruction):

- 64% of the students achieved higher scores in Reading Comprehension.
- 68% of the students achieved higher scores in Sentence Skills.
- 68% of the students achieved higher scores in Arithmetic.
- 60% of the students achieved higher scores in College-Level Math.

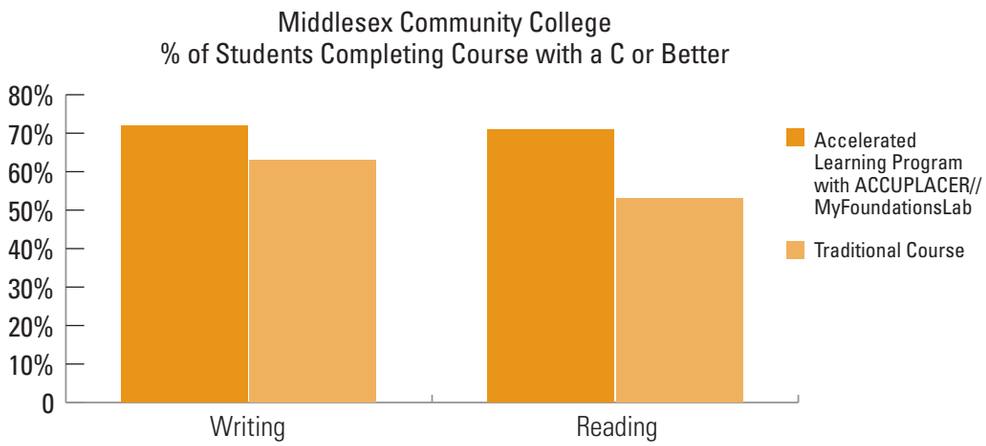


ACCUPLACER®//MyFoundationsLab® Leads to Academic Persistence

Middlesex Community College in Lowell, Mass., recently redesigned its developmental math curriculum to strengthen students' academic skills. The redesigned curriculum model — called Accelerated Learning Program (ALP) — incorporated intervention through ACCUPLACER//MyFoundationsLab. Middlesex decided to adopt the ALP model for reading and writing courses that incorporated the use of MyFoundationsLab. Students who were enrolled in GED preparation courses and three levels of developmental courses for college reading, English fundamentals and basic writing took an ACCUPLACER diagnostic test in Reading Comprehension and Sentence Skills. Based on their performance, they were assigned an individualized learning path through MyFoundationsLab.

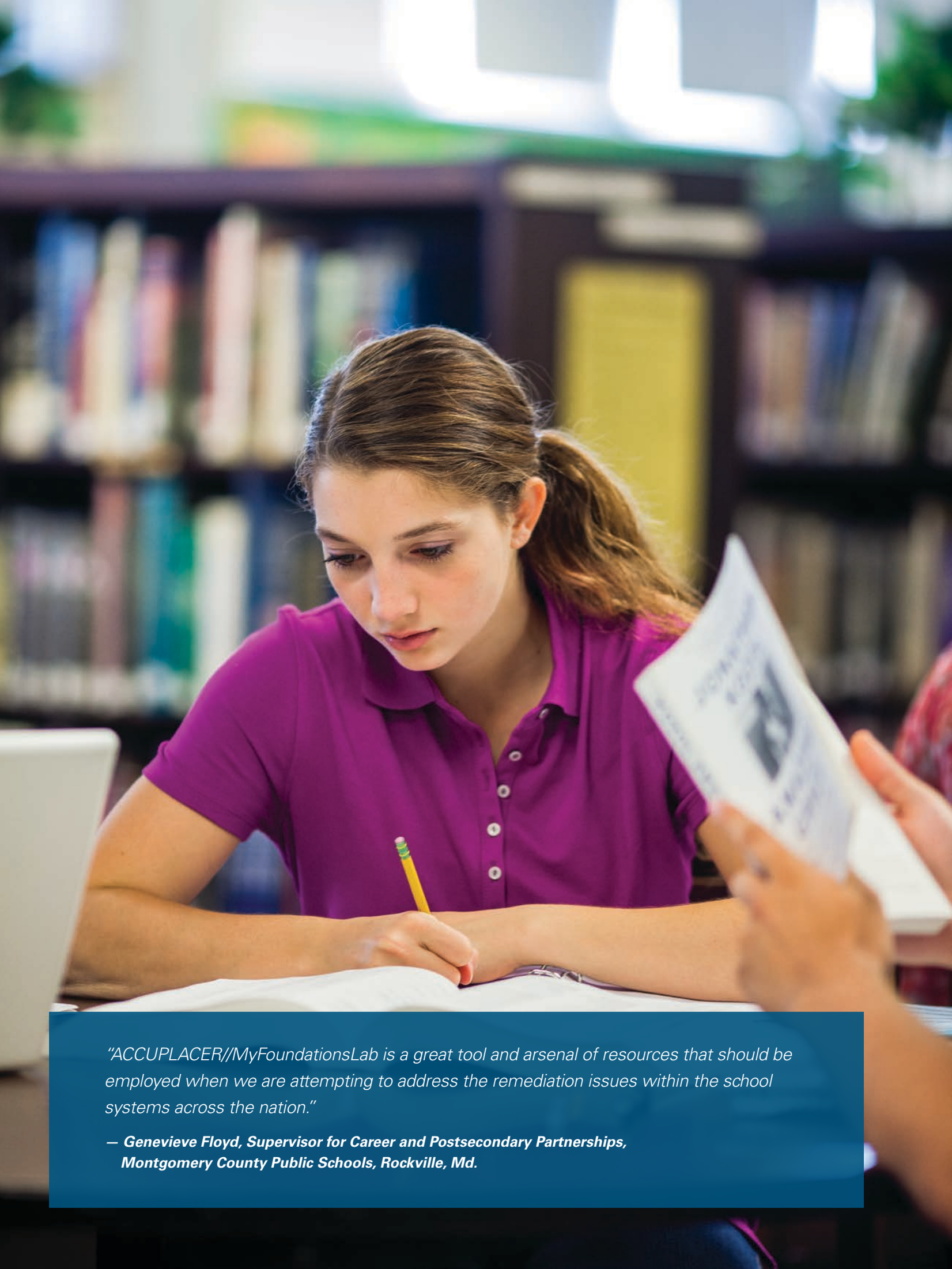
During the 15 weeks of intervention, students engaged in independent study and had **consistent guided instruction and access to MyFoundationsLab through lab time**. Faculty and professional tutors monitored the students' progress throughout the semester. At the completion of the intervention period, students who participated in the redesigned ALP courses had **higher course completion rates** than students who were enrolled in a traditional course.

- 72% of the students completed the ALP course in writing with a C- or better; only 63% of the students did so in a traditional writing course.
- 71% of the students completed the ALP course in reading with a C- or better; only 53% of the students did so in a traditional reading course.
- Students who participated in the Accelerated Learning Program (81%) were more likely to persist and enroll for the following semester than students who participated in the traditional course (72%).



"There seems to be a shift in [the] students' view about the dreaded application problems (word problems). In the last few entries of their journals, students write that [because of ACCUPLACER//MyFoundationsLab] they have more confidence in their ability to formulate, generalize and solve problems mathematically."

— Anne Siswanto, Professor of Mathematics, East Los Angeles College, Los Angeles, Calif.



"ACCUPLACER//MyFoundationsLab is a great tool and arsenal of resources that should be employed when we are attempting to address the remediation issues within the school systems across the nation."

— Genevieve Floyd, Supervisor for Career and Postsecondary Partnerships, Montgomery County Public Schools, Rockville, Md.

CollegeBoard

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