In the following report, Hanover Research explores strategies for accelerating developmental education courses. In particular, the analysis examines strategies and outcomes for paired courses, mainstreaming with supplemental support, contextualization/basic skills integration, compressed courses, curricular redesign, and modularization. The report also profiles three community colleges which have respected and time-tested models of accelerated developmental education.
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EXECUTIVE SUMMARY AND KEY FINDINGS

INTRODUCTION
This report explores strategies for accelerating developmental education. The first section begins with a general discussion of developmental education and accelerated developmental education. The second section explores models of accelerated developmental education, including paired courses, mainstreaming with supplemental support, contextualization/basic skills integration, compressed courses, curricular redesign, and modularization. The report contains details about each model’s unique strategies and associated advantages. Finally, the report presents case profiles of three community colleges which have respected and time-tested models of developmental education acceleration in place. These models include the Community College of Denver’s FastStart program (compressed model), the Community College of Baltimore’s Accelerated Learning Program (mainstreaming), and Washington State Board for Community and Technical College’s I-BEST program (contextualization/basic skills integration).

KEY FINDINGS

- **Evidence suggests that, at least for some students, the longer they are in developmental education, the more likely it is that they will fail to complete their certificate, degree, or transfer.** Nationally, around 60 percent of incoming community college students require at least one “developmental” or “remedial” course before taking college-level courses. However, less than a quarter of those students who enroll in remedial courses complete a degree or certificate.

- **Community colleges are increasingly turning to acceleration as a strategy for limiting developmental student attrition.** Based on evidence linking student attrition to the length of time in developmental course sequences, many community colleges are developing strategies for shortening that process. The goal of these programs is not just to accelerate students through developmental education, but to increase completion rates and raise learning standards.

- **Accelerated developmental education models demonstrate promising results based on empirical evidence.** Studies of programs that use acceleration show that the strategy is effective for many students. Various programs show that students who went through an accelerated remedial program are more likely to continue in their program and complete it than similar students who went through a traditional developmental education program.

- **There are a variety of acceleration models being used by community colleges.** Among the strategies being used are: course pairing, where a content course is paired with a skills course; mainstreaming, where developmental students are placed in college-level courses immediately; course compression, where remedial content is shortened into fewer courses overall; curricular redesign, and modularization. These models are explored in greater detail in this report.
SECTION I: LITERATURE REVIEW

This section of the report provides an overview of developmental education and accelerated developmental education. The literature review describes arguments in favor of developmental education reform as well as challenges associated with accelerated developmental education.

DEVELOPMENTAL EDUCATION

Community colleges have a long tradition as open door institutions. This means, however, that community colleges face the challenge of bringing in students who may not be fully “college-ready.” For a variety of reasons, many students entering community colleges are not adequately prepared for college-level courses. The most common strategy used by community colleges and other postsecondary institutions is to offer, or require, “developmental” or “remedial” courses for students who need to reach college-level readiness. Most incoming community college students thus begin their community college careers by taking a basic skills assessment to gauge their college readiness and place them in appropriate courses.

A majority of community college students enroll in at least one developmental course.

A majority of community college students enroll in at least one developmental course. A national study by the Community College Research Center (CCRC) at the Teachers College at Columbia University shows that as many as 60 percent of incoming community college students must take at least one “developmental” or “remedial” course (the terms are used interchangeably).1 In Texas, 55 percent of community college students in fall 2010 required remediation in at least one area.2

Developmental programs typically provide multiple levels of remedial courses, which students take in a sequence. Depending on the level at which the students test, they may be referred to different sequences of developmental courses. In some cases, this can mean a year or more of developmental education. Furthermore, developmental courses typically follow a semester-based format. Such courses cost as much as college-level courses, but students do not earn credits towards a degree, certificate, or transfer. This is an additional cost in terms of both tuition and opportunity, as students must delay their progress towards graduation and a career. There can also be a negative stigma attached to remedial classes. Thus, developmental courses often act as a gateway, or obstacle, through which incoming students must pass.

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Students who must take a remedial course are less likely to graduate than students who do not require developmental education. The eight-year graduation rate for community college students who enroll in remedial courses is less than 25 percent whereas the graduation rate for community college students who do not enroll in remedial courses is closer to 40 percent. A CCRC report provides developmental math course data gathered from colleges participating in the Achieving the Dream Initiative. For students referred to a developmental math course, 28 percent never enrolled at all, 30 percent failed or withdrew, and 10 percent dropped the course, leaving only 31 percent who completed it. However, only half of those who completed the developmental course (16 percent of those initially referred) go on to complete a college-level math course within three years.

Looking at this data, it appears that failure to enroll is a greater barrier to success than course failure or withdrawal. According to another CCRC report that also examines Achieving the Dream data:

When considered from the beginning of the sequence, only 20 percent of students referred to math remediation and 37 percent of those referred to reading remediation completed a gatekeeper course in the relevant subject area within three years.

Interestingly, the same study found that many students “ignored” the referral to a developmental course, and enrolled directly in the college-level course. Of those, about 72 percent passed the college-level course. On the other hand, only 27 percent of those who had complied with the referral, by taking developmental courses, completed the college-level course. This data show that remediation, despite its goals, may be detrimental to some students.

4 Ibid., p. 47.
6 Ibid., p. 4.
Figure 1.1 below shows an example of student attrition via the multiple “exit points” characteristic of a traditional developmental reading sequence.

**Figure 1.1: Developmental Reading Exit Points Analysis**

While interpretations of these findings differ, nearly all agree that there is room for reform within developmental education. Some, such as Complete College America, have taken a position which advocates doing away with remedial education altogether. Others have argued against this course of action, indicating that the studies show mixed results, and not that remedial education overall is a failure or unnecessary. In general, research indicates that there are students, particularly those on the borderline, who may be negatively affected by being placed in developmental courses instead of college-level courses. There is, however, also data that show that for other students developmental courses have an overall positive impact.

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ACCELERATED DEVELOPMENTAL EDUCATION

Acceleration is one strategy of addressing the apparent shortfalls of a more traditional developmental education program. As the data gathered by various studies show, developmental student attrition stems from failure to enroll in the next course in the sequence rather than course failure. In other words, most community college students never enroll in their remedial courses or drop out in between courses in the sequence. The more lengthy and complex that process, the more opportunity there is to fail to move on to the next level. In addition, it seems that remedial students who do not enroll in remedial courses, but who enroll directly in college-level courses, might have a better overall chance of completing those college-level courses. As Nikki Edgecombe of the CCRC says:

Advocates of acceleration argue that a greater portion of students may complete remediation and succeed in college-level courses if colleges either help them complete requirements more quickly or enroll them in higher-level courses while providing effective academic support... [S]tudents would benefit from alternatives that minimize the number of exit points and allow them to complete requirements more quickly or skip the sequence altogether.¹¹

The literature on developmental education and the recent trend towards acceleration generally appears to use a common conception of acceleration. WestEd provides the following description of acceleration:

Acceleration in developmental education is a strategy used by community colleges to reduce the amount of time students spend in remediation and allow them to enroll more quickly—or immediately—in courses leading to certificates or degrees. Acceleration requires rethinking the content to be taught, in addition to the time frame in which the learning occurs.¹²

Alternatively, a report by the Community College Research Center defines developmental education acceleration as:

the reorganization of instruction and curricula in ways that facilitate the completion of educational requirements in an expedited manner. Importantly, this definition does not necessarily imply that students spend less total time in class. Many accelerated course formats require the same number of instructional contact hours as traditional classes. The difference is that those hours occur within a truncated timeframe, which can result in the quicker completion of coursework or credentials.¹³

The aim of accelerated developmental education is not simply the reduction in the time it takes a student to complete developmental courses, but also improved certificate or degree completion times and rates.

**CHALLENGES**

A common concern regarding accelerated developmental programs is that students who are underprepared for college need more time and attention rather than less. It is quite counterintuitive to suggest that speeding up the pace of learning for students who have fallen behind is reasonable.\(^\text{14}\) In an article by *Stateline* of The Pew Charitable Trusts, Patti Levine-Brown, president of the National Association for Developmental Education said that, “Critics of these reforms worry that scaling back remedial education could leave some students unprepared. Many of the new remediation models work very well for students who need minimal extra help,” adding, “placing them in courses for which they are not prepared is akin to setting them up for failure.”\(^\text{15}\)

A study by the National Center for Postsecondary Research looks more closely at the effects of remediation on different levels of students and finds that developmental education should not be treated as a one-size-fits-all issue. Different levels of academic preparedness are correlated with different levels of success in developmental education.\(^\text{16}\) Thus, acceleration may work as a strategy for some students but not for others. Many of the community colleges that have accelerated programs also have traditional programs as well.

Another potential consideration is the tension between student progression and maintaining academic standards.\(^\text{17}\) Courses that have the same number of class hours, but operate on an accelerated schedule, may be less rigorous and students may retain less of what they learn. However, a number of studies show that in general, accelerated courses are equivalent, or superior, to traditionally scheduled courses on these measures.\(^\text{18}\)

\(^{14}\) Ibid., p. 3.


SECTION II: BEST PRACTICES

This section presents several models of accelerated developmental education, including paired courses, mainstreaming with supplemental support, contextualization/basic skills integration, compressed courses, curricular redesign, and modularization. The report describes the structure of each model and associated advantages.

MODELS OF ACCELERATED DEVELOPMENTAL EDUCATION

There are different models of accelerated developmental education according to various sources. In a paper for the Community College Research Center, Edgecombe describes two basic models: course restructuring and mainstreaming. These broader models contain additional subcategories, defined below.19

- **Course Restructuring** – reducing the time necessary to fulfill developmental education requirements, either by:
  - Compressed courses
  - Paired courses (e.g., a writing course paired with a literature course)
  - Curricular redesign – reducing the number of courses students have to take (often by eliminating redundant content or through a modular approach).

- **Mainstreaming** – student move directly on to college-level courses, either by:
  - Supplemental Support – students are placed directly into college-level courses, and are provided additional support through companion classes, labs, etc.
  - Contextualization – basic skills instruction is integrated into college-level courses.

Similarly, WestEd outlines three models of accelerated developmental education. WestEd identifies modularization in addition to course restructuring and mainstreaming:20

- **Mainstreaming** – simultaneous enrollment in courses leading to a credential
- **Compression and sequence redesign** – curriculum is redesigned to reduce redundancies
- **Modularization** – traditional developmental courses are divided into discrete learning modules, focused on a particular competency, and interventions are customized according to a student’s needs.

It should be noted that empirical research regarding these strategies is limited. One research review notes that, “There is a strong and growing effort among educators and

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policymakers to address the needs of these students; however, the available research on effective practices is limited in its rigor and reliability."  

However, non-experimental and quasi-experimental studies indicate acceleration strategies produce higher pass rates in developmental courses and college-level courses and contribute to improved persistence rates.

**Paired Courses**

**Overview**

In a paired course model, an institution strategically connects a developmental course to a college-level course in a similar subject area. Students explore content in the college-level course (e.g., literature) while honing basic skills in the developmental course (e.g., writing). These courses typically share an integrated syllabus and the same students are in both classes.  

Although many paired courses rely on separate instructions for each course, co-teaching can “insure that the content and rate of coverage of material are consistent between the two courses.”

**Advantages**

The paired course model of accelerated developmental education offers several advantages compared to traditional developmental education. First, the simultaneous nature of course pairing allows students to receive college credit while still benefitting from additional support in a non-credit course. Next, the cohort structure creates a learning community which facilitates student learning through peer support and connectedness. Finally, this course pairing cuts down on several obstacles to enrollment in college-level courses. The structure eases frustration associated with remediation, since students are also engaged in “real” college coursework. The curricular integration also allows for better “just-in-time” intervention for those students in need.  

A number of studies show that students in paired courses are more likely to show higher levels of performance and greater satisfaction than similar students in traditional courses.

**Mainstreaming with Supplemental Support**

**Overview**

Many developmental students are capable of performing well in college-level courses if they have access to additional assistance. The mainstreaming model theorizes that many students who are placed in developmental courses fail to move on because of obstacles associated with developmental system and not because of the academic challenge associate with college-level work. Students who enter college in non-credit bearing developmental

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courses face additional cost and time burdens as well as negative psychological factors such as stigma, frustration, boredom, low expectations, and low motivation.\textsuperscript{25}

Mainstreaming with supplemental support allows developmental students to enroll in college-level courses immediately. Students referred to developmental education receive extra support through a variety of mechanisms, including:\textsuperscript{26}

- Mandatory companion classes
- Lab sessions
- Integrated tutorial support
- Additional class sessions

In these supplemental sessions or courses, students have a chance to work on skills needed to succeed on class assignments or go over concepts and material in more depth. These support sessions work best when they maximize instructional continuity with the college-level course. For example, the Accelerated Learning Program (ALP) at the Community College of Baltimore County uses the same instructor for the college-level course and supplemental instruction.\textsuperscript{27} In this program, developmental students are placed in a college-level English course alongside other non-developmental students. In that course, normal college-level content is taught, but for developmental students, there is an additional companion session taught by the same instructor to provide extra guidance for those students.\textsuperscript{28} Section III profiles the Accelerated Learning Program at the Community College of Baltimore in greater detail.

\textit{Advantages}

Mainstreaming with supplemental support has a number of advantages as an acceleration strategy. First, students move forward to credit-earning courses sooner with concurrent enrollment in developmental instruction and college-level courses. In addition to the noncognitive factors of boosting confidence and motivation, mainstreaming also exposes underprepared students to more content-full, challenging, and engaging material and to the classroom practices and work habits of higher-achieving students.\textsuperscript{29}

Mainstreaming appears to positively impact student persistence. In particular, evidence from ALP at the Community College of Baltimore County demonstrates promising results:

When comparing students with similar skill levels and controlling for preexisting characteristics, it was found that students who participated in ALP completed introductory college-level courses, enrolled in and completed additional college

\textsuperscript{27} Edgecombe, N., Op. cit.
\textsuperscript{29} Edgecombe, Op. cit.
English requirements, and attempted college courses at higher rates than non-ALP students.\footnote{30}

**CONTEXTUALIZATION/BASIC SKILLS INTEGRATION**

**OVERVIEW**

Contextualization, another form of mainstreaming, integrates basic skills instruction into a college-level course itself. This integration provides a more relevant context for learning necessary remedial skills than a traditional developmental course. These courses, specially designed for developmental students, allow students to skip remedial courses entirely. In the Washington State community college system, the Integrated Basic Education and Skills Training Program (I-BEST) incorporates basic skills instruction into vocational courses. I-BEST classes are co-taught by technical faculty and developmental faculty. Section III of this report presents additional details about the I-BEST program.\footnote{31}

**ADVANTAGES**

Contextualization boasts similar advantages to mainstreaming with supplemental support: cost savings, higher pass rates, and increased credit-earning potential.\footnote{32}

**COMPRESSED COURSES**

**OVERVIEW**

Compressed courses, or fast-track courses, compress the content of a single course into a seven or eight week segment, although the total instructional hours remain the same.\footnote{33} This configuration allows students to tackle “sequential courses in one semester instead of two or more” semesters.\footnote{34} Compressed courses may also incorporate pedagogical techniques tailored to developmental courses, such as mandatory attendance and computer-aided instruction.\footnote{35}

**ADVANTAGES**

Edgecombe notes that if students can or must register for both sequential courses at the start of the semester, it is less likely they will fail to enroll in the second course. Furthermore, longer class periods allow and encourage instructors to diversify classroom activity beyond traditional lecturing. Additional class time also promotes the development of student-instructor relationships.\footnote{36} Finally, the compressed format minimizes redundant class time devoted to the review of previous sessions.

\footnotesize{32} Ibid., pp. 22-23.
\footnotesize{36} Ibid.}
Few statistically rigorous research studies examine the outcomes of compressed courses. In one study, Caroline Sheldon examined the effects of compressed courses in a limited analysis of one suburban community college in California. The compressed basic skills courses in reading, math, and English showed greater course completion rates with a grade of C or higher than traditionally timed courses.³⁷ In another example, the Community College of Denver’s FastStart program offers developmental students a choice of compressed and paired options. Analyses of this program indicate that FastStart students have higher completion rates and are more likely to pass college-level courses. Section III of this report examines the FastStart program in greater detail.

CURRICULAR REDESIGN

OVERVIEW

Curricular redesign is a strategy of acceleration that requires students to take fewer developmental courses overall. This model eliminates redundant content and uses specific learning objectives based on an individual student’s remediation needs or academic goals. This might mean collapsing multiple developmental courses into a one-semester course, which has more content and more hours than one of the courses it is replacing, or it might mean developing a single remediation course for a specific academic program.³⁸ This can involve “backwards design” of remedial courses to match the specific skills and content of the college-level courses students will take in a specific program; for example, a statistics pathway would entail different remedial content than a STEM pathway.³⁹

ADVANTAGES

At Chabot College in California students may choose between an accelerated one-semester integrated developmental reading and writing course, or a two-semester traditional sequence. The accelerated course is not a compression of the two-semester option, but one which “builds backward from college English requirements to offer a more strategic alignment with the college curriculum.”⁴⁰ Analysis finds that students who take the accelerated developmental course complete college-level English at twice the rate of students who take the traditional two-semester sequence.

³⁷ Sheldon, C. “Student Performance in Compressed Basic Skills Courses.” Cerritos College
MODULARIZATION

OVERVIEW

Modular developmental courses teach specific skills in modules rather than in a single more comprehensive class. This can accelerate student progress by allowing students to focus the most time on individual areas of weakness. Modules also allow flexibility based on the needs of individual degree programs.\(^{41}\) WestEd summarizes the key features of modularization as follows:

- Diagnostic assessments identify the specific learning needs for each student.
- Progress can be based on demonstrated competency rather than seat time.
- The numbers and types of required developmental modules may depend on the field that a student is interested in pursuing; for example, math requirements are higher for a STEM-related field of study than for a non-STEM major.
- Early efforts in modularization are focusing on math. Modularization may not be appropriate for language arts.
- Technology may be useful for assistance in instruction, feedback, and supports.\(^{42}\)

Diagnostic assessments are particularly important, since they must be used to identify the specific modules a student should or should not take.\(^{43}\) One challenge is how to pace the progression of modules in a way that does not lead to student attrition.\(^{44}\) Modules can be disjointed and lack context. The lack of context and the modularity itself may limit its use in English language arts.\(^{45}\)

ADVANTAGES

Modularization can be “a cost-effective way to provide developmental education.”\(^{46}\) However, this approach “may or may not accelerate student progress.”\(^{47}\)

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\(^{41}\) Ibid., p. 11.
\(^{47}\) Ibid.
OTHER BEST PRACTICE CONSIDERATIONS

In summary, WestEd provides six “key principles of acceleration”.

- Help students avoid developmental education whenever possible (for example, by weighting high school grade point average more heavily in the placement process).
- Revise the developmental education curriculum to shorten the sequence, align it with transfer-level and career technical coursework, and make it more rigorous.
- Provide additional student supports that are integrated with coursework.
- Provide remediation simultaneously with courses that lead to credentials.
- Customize and contextualize remediation along multiple academic and career pathways so that students learn math or language arts concepts based on their specific needs and on their desired instructional programs.
- Monitor progress at regular intervals based on demonstrated competency rather than on seat time.

ASSESSMENT AND PLACEMENT

The majority of developmental student assessment and placement processes use standardized tests such as ACCUPLACER and COMPASS to determine the appropriate level of remediation needed by a student. However, there is evidence that these assessment instruments have limitations such that mandatory placement policies can lead to misplacement of students, thus increasing the obstacles a community college student faces.

According to a report by the CCRC, students are both underplaced and overplaced in developmental programs.

**Figure 2.1: Placement Error**

<table>
<thead>
<tr>
<th>UNDERPLACEMENT</th>
<th>OVERPLACEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placing a student in developmental education who is predicted to get a B or better in a college-level course.</td>
<td>Placing a student in a college-level course who is predicted to fail there.</td>
</tr>
</tbody>
</table>

Source: Community College Research Center

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Evidence suggests that underplacement is a larger problem, meaning that too many students are placed in remedial classes when they should not be. A CCRC study of a large urban community college found that twenty-nine percent of students were underplaced in English and 18 percent in math. In contrast, five and six percent of students were overplaced, respectively.\(^{51}\)

One issue is that “noncognitive factors” such as commitment, intentionality, social connection, time management, and study skills play a greater role in student retention than academic ability or socioeconomic status.\(^{52}\) Standardized placement exams generally do not assess these factors. In addition, many students do not prepare for these placement tests as they might the SAT or ACT, though they end up being high-stakes assessments.\(^{53}\) Some researchers suggest that using high school grades for placement may help to improve placement accuracy.\(^{54}\)

**PEDAGOGY**

Edgecombe laments that there is not a significant body of research involving the pedagogy of developmental education acceleration. Most existing research focuses on structural aspects of developmental education reform. The good news is that the evidence seems to show that structural change with no change in teaching practices improves student outcomes. Informal data suggests that student engagement in traditional developmental courses is lower than it ought to be. This may not be surprising since students are likely to have covered such material before and thus are likely to feel “a lack of enthusiasm, if not outright resentment.”\(^{55}\) Accelerated developmental education, in contrast, typically involves diversified instructional approaches. Longer instructional blocks or paired courses allow and encourage pedagogical diversity, peer interaction, extended review time, and a closer learning community between students, and a closer connection between students and faculty. Mainstreaming and class pairing provide context and relevance for the course material beyond the mechanics of learning the skills themselves.\(^{56}\)

\(^{51}\) Ibid.
\(^{56}\) Ibid., pp. 26-7.
SECTION III: PROFILES

This final section of the report presents profiles of accelerated developmental education programs at three community colleges. Each profile includes information about the program’s structure, pedagogy, and effectiveness.

COMMUNITY COLLEGE OF DENVER — FASTSTART

The Community College of Denver (CCD) has hosted FastStart, an accelerated learning community, since fall 2005. Several grants aided the program’s initial implementation, including one from the Lumina Foundation Initiative for Performance. FastStart supports developmental students with accelerated courses in reading, math, and English. The program structure is designed to:

- Accelerate movement through the developmental course sequence
- Reduce the social isolation often characteristic of commuter campuses
- Orient first-year students to the college environment on a schedule that is compatible with their job and family obligations

The CCD Catalog describes the program as follows:

FastStart provides students with supportive, interactive instruction throughout the semester and an opportunity to share their knowledge and experiences with other students in the learning community setting. A Program Advisor, with help from student ambassadors, monitors FastStart students’ progress and refers them to the services they might need to succeed.

STRUCTURE

FastStart promotes student retention and success rates through a compressed model of accelerated developmental education. CCD’s model also incorporates other accelerated developmental education strategies such as paired courses and contextualization. Figure 3.1 on the following page details key features of the program, which include compressed and accelerated developmental education, college and career success courses, learning communities, formal and informal assessment, case management, and various wrap-around services.

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Figure 3.1: FastStart Program Features

**COMPRESSED AND ACCELERATED DEVELOPMENTAL EDUCATION**

- An accelerated and compressed developmental curriculum using contextualized instruction, active learning, and computer-based instruction epitomizes the instructional approach. Students advance through two levels of developmental math in one semester by combining the first and second levels (MAT 30-60), second and third levels (MAT 60-90), or the third level and first level of college study (MAT 90-106). The English option combines two, three, or four sequenced courses of developmental English and reading.

**COLLEGE AND CAREER SUCCESS**

- A for-credit college and career success course complements the developmental curriculum. This course assists FastStart students with college and career preparation by engaging them in contextualized, project-based instruction that encourages the development of college knowledge and the reinforcement of college behaviors, such as the development of study skills and the use of various college resources. Students are also engaged in career exploration activities.

**LEARNING COMMUNITY**

- Cohorts acting as learning communities support formal and informal learning experiences, including integrated academic, career, and social learning activities. Students are encouraged to learn collaboratively and to support one another, with faculty playing a deliberate role in nurturing a supportive community of learners who strive for success. For example, an optional hour with a study group that includes instructor support is built into the students’ weekly schedule to help them learn how to study together outside class time.

**FORMAL AND INFORMAL ASSESSMENT**

- Formal assessments supplemented by locally developed diagnostics identify students who can benefit from the program. Students identified for FastStart take the Accuplacer placement tests, as required by CCD and consistent with the state’s community college system requirement. Students from low-income and diverse racial, ethnic, and cultural backgrounds are encouraged to participate.

**CASE MANAGEMENT**

- A case manager and educational advisors help students develop individualized education and career plans. Case managers advise students on all aspects of their education, career, and life planning. This includes helping them to understand and use existing student support services at CCD, particularly services such as financial aid, academic advising, personal counseling, and tutoring.

**WRAP-AROUND SERVICES**

- Wrap-around services, including financial aid, career counseling, academic advising, and other services, are instrumental to students’ getting the support they need to be successful. Of these various services, advising on financial aid is especially important because many students lack knowledge of how to access financial resources to attend college.

Source: University of Illinois Office of Community College Research and Leadership
This structure theoretically establishes a holistic approach to acceleration, which is diagramed in Figure 3.2.

Figure 3.2: FastStart’s Holistic Approach to Acceleration

Since FastStart’s inception in 2005, CCD has added more accelerated and compressed course options to the program. Initially, FastStart offered two math and two reading compressed course combinations. For example, a traditional sequence in math might consist of two semesters of classes, MATH 030: Fundamentals of Math and MATH 060: Pre-Algebra, each meeting for 75 minutes twice per week. In the compressed FastStart semester, students take a combined course MATH 030/060 which meets for two hours and 45 minutes twice per week. In spring 2012, the program had expanded to include four math and four reading accelerated developmental courses. Figure 3.3 on the following page demonstrates trends in the program’s growth between fall 2005 and spring 2012 and offers insight into potential remedial course combinations.

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Figure 3.3: FastStart Accelerated and Compressed Courses, 2005-2012

<table>
<thead>
<tr>
<th>COURSE TITLE</th>
<th>CREDITS</th>
<th>NUMBER OF SECTIONS OFFERED</th>
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<td></td>
<td></td>
</tr>
<tr>
<td>Math</td>
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<td></td>
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<tr>
<td>Fundamentals of Math/Pre-algebra</td>
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<tr>
<td>Pre-algebra/Introductory Algebra</td>
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</tr>
<tr>
<td>Introductory Algebra/Intermediate Algebra</td>
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<td>- - - - - 2 2 2 1 1 1 2 2 2</td>
</tr>
<tr>
<td>Fundamentals of Math/Math Study Skills</td>
<td>5</td>
<td>- - - - - - - 1 1 1 1 1 1 1</td>
</tr>
<tr>
<td>Pre-algebra/Introductory Algebra &amp; Basic Composition</td>
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<td>- - - - - - - - - - - - - 1 1</td>
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<tr>
<td>English/Reading</td>
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<td>Writing Fundamentals/Foundations of Reading &amp; Basic Composition/College Preparatory Reading</td>
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<td>1 1 1 1 1 1 1 1 1 1 2 2 2 1</td>
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<td>Writing Fundamentals/Basic Composition &amp; College Preparatory Reading</td>
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<td>Writing Fundamentals/Basic Composition &amp; College Preparatory Reading</td>
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<tr>
<td>Advanced Composition in ESL/Basic Composition</td>
<td>6</td>
<td>- - - - - - - - - - - - - 1 1 2 1 1</td>
</tr>
</tbody>
</table>

Source: Community College Research Center

CCD began offering FastStart learning communities in fall 2009. Learning communities pair developmental English or reading courses with college-level classes such as Intro to Political Science or Public Speaking. Figure 3.4 below offers insight into potential learning community pairings.

Figure 3.4: FastStart Learning Communities, 2009-2012

<table>
<thead>
<tr>
<th>LEARNING COMMUNITY</th>
<th>CREDITS</th>
<th>NUMBER OF SECTIONS OFFERED</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic Composition/English Composition I</td>
<td>6</td>
<td>- - - - - 2 2 2</td>
</tr>
<tr>
<td>Basic Composition/English Composition I &amp; College Preparatory Reading</td>
<td>9</td>
<td>- - - - - 1 1</td>
</tr>
<tr>
<td>Basic Composition &amp; Public Speaking</td>
<td>6</td>
<td>1 1 1 2 2 1</td>
</tr>
<tr>
<td>Basic Composition &amp; Intro to Literature</td>
<td>6</td>
<td>- 1 1 2 2 1</td>
</tr>
<tr>
<td>Basic Composition &amp; Intro to Political Science</td>
<td>6</td>
<td>- - - 1 1 -</td>
</tr>
<tr>
<td>College Preparatory Reading &amp; US History to Reconstruction</td>
<td>6</td>
<td>- - - - 1 1 -</td>
</tr>
<tr>
<td>College Preparatory Reading &amp; General Psychology I</td>
<td>6</td>
<td>- - - - 1 1 -</td>
</tr>
<tr>
<td>Basic Composition &amp; American Government</td>
<td>6</td>
<td>- - - - - - - - 1</td>
</tr>
<tr>
<td>Basic Composition &amp; Art Appreciation</td>
<td>6</td>
<td>- - - - - - - - 1</td>
</tr>
</tbody>
</table>

Source: Community College Research Center

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62 Ibid., p. 8.
**PEDAGOGY**

The Community College Research Center’s 2013 report on FastStart highlights three of FastStart’s pedagogical strengths:63

- Extended Instructional Blocks
- Pedagogical Experimentation and Risk Taking
- Relationships and Instructional Delivery

**Extended Instructional Blocks:** Having courses that meet for two hours and 45 minutes twice a week encourages instructors to diversify their instructional activities, going beyond lecturing and incorporating peer activities, games, assignments, and other student-oriented teaching practices. One CCD math instructor, for example, says,

> You have to change it up a lot. If you’ve got three hours, you can’t just lecture for three hours. We’d all be wiped out at the end. So I think that I’ve found that the students really enjoy and benefit tremendously from being able to have instruction time and then work in groups.64

**Pedagogical Experimentation and Risk Taking:** The FastStart program encourages pedagogical experimentation in the classroom. This can be more demanding for teachers, and FastStart may attract those teachers who are willing to take on a challenge. Often experimentation occurs collaboratively among faculty.65

**Relationships and Instructional Delivery:** The combination of extended instructional blocks and learning communities helps to build relationships among students and between students and faculty. In addition, faculty report explicitly taking time to build community relationships. Pedagogically, cooperative learning encourages “students to talk intimately and publicly, be constructive, show tact, and brainstorm original ideas.”66

A stronger relationship between students and faculty allows faculty to be more in tune with the specialized needs of students and gives them the ability to address them personally. Students are also more comfortable interacting with faculty if they feel they know them. One FastStart student said, “I feel like this is like our homeroom class. I know all of the students that are there. I know the teacher better. It’s really going really good.”67

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63 Ibid., pp. 13-18.
64 Ibid., p. 13.
65 Ibid., p. 16.
66 Ibid., p. 18.
67 Ibid., p. 22.
**Faculty and Instructional Supports**

FastStart faculty began in the pilot phase as adjunct professors only, but grew to include full-time faculty as well.68 While faculty development was seen as a key aspect of the FastStart program from the start, it has progressed from a mostly informal system to a more structured system. According to a 2006 report on the project, FastStart faculty participated in a variety of professional development opportunities and met once a month (the entire FastStart team met three times during the semester, and twice in content specific groups) to promote innovation and creativity within the program and classroom.69

More recently, “faculty development has expanded to include a range of professional learning activities and has been structured in ways that encourage sustained and collaborative participation.” 70 Faculty participation is incentivized by providing compensation for professional development activities for both full-time and adjunct instructors.71 Examples of structured professional development activities in support of the FastStart program at CCD include the following:

- The FastStart coordinator meets one-on-one with each instructor to provide targeted feedback and resources.
- Instructors, the coordinator, case managers, and the project director meet as a group at least two times each semester to discuss program plans and to review outcome data, among other activities.
- Discipline-specific “idea meetings” and workshops also are scheduled as warranted throughout the semester.
- Instructors are encouraged to partner with another faculty member teaching the same subject for structured observations and feedback.72

FastStart program dedicated faculty include a full-time education specialist, student mentors, and student ambassadors (i.e., former FastStart participants). The educational case manager uses “a pro-active model of advising […] in coordinated teamwork with instructors and peer mentors” to reach out “to students to address problems before they result in the student dropping out of School.”73

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68 Ibid., p. 6.
71 Ibid., p. 12.
72 Bulleted points quoted with slight variation from: Ibid., pp. 11-12.
**EFFECTIVENESS**

FastStart has demonstrated a consistent record of positive outcomes. A recent CCRC evaluation of FastStart’s effectiveness found that “students who participated in FastStart were more likely than otherwise similar students to pass the highest developmental math course [Math 090] as well as to enroll in and pass gatekeeper math courses.” 74 Specifically, the study compared learning outcomes for FastStart participants enrolled in compressed remedial math courses (e.g., MAT 030/060 or MAT 060/090) to students in non-FastStart sections of the same courses. The analysis did not review success rates in remedial English/reading courses. Figure 3.5 summarizes the combined results for students enrolled in MAT 030/060 and MAT 060/090.

**Figure 3.5: Learning Outcomes for FastStart Participants Compared to Traditional Developmental Participants**

<table>
<thead>
<tr>
<th>OUTCOME</th>
<th>FASTSTART (N=133)</th>
<th>REGULAR (N=1,222)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term persistence (next term)</td>
<td>69%</td>
<td>62%</td>
</tr>
<tr>
<td>Long-term positive outcome (3 years)</td>
<td>38%</td>
<td>37%</td>
</tr>
<tr>
<td>Still enrolled at a CC</td>
<td>28%</td>
<td>26%</td>
</tr>
<tr>
<td>Transferred bachelor’s institution</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Earned certificate or degree</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>Credits earned with C or higher</td>
<td>26%</td>
<td>21%</td>
</tr>
<tr>
<td>College credits earned with C or higher</td>
<td>17%</td>
<td>14%</td>
</tr>
<tr>
<td>Passed Math 090 with C or higher</td>
<td>49%</td>
<td>29%</td>
</tr>
<tr>
<td>Enrolled in gatekeeper math</td>
<td>41%</td>
<td>23%</td>
</tr>
<tr>
<td>Passed gatekeeper math with C or higher</td>
<td>33%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Source: Community College Research Center75

An earlier evaluation (2006) of the FastStart program also yielded promising results. The study followed eight students enrolled in FastStart (the “intervention group”) and compared these students’ learning outcomes with two comparison groups. Figure 3.6 on the following page highlights the following positive outcomes from the evaluation as identified by the Community College of Denver.

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75 Ibid., p. 31.
Figure 3.6: Analysis of FastStart Program Student Outcomes

**Retention**
- After one semester the accelerated group had a significantly higher retention rate than the Fall 2004 comparison group. This comparison group enrolled in three of the developmental courses instead of all six. After three semesters, enough time to complete all six developmental courses in the intervention, the intervention group had a significantly higher retention rate.

**Successful Course Completion**
- The accelerated intervention group displayed significantly higher successful course completion rates than either comparison group for MAT 030 and a higher rate than comparison group 2 in ENG 090 (there were no ENG 090 students in comparison group 1). Other differences for MAT 060, ENG 060, REA 060, and REA 090 were not statistically significant. It is noteworthy, however, that the intervention group did successfully complete each of those courses more often than the other groups.

**Overall Successful Course Completion for the Six Developmental Courses in the Intervention**
- The intervention group had a higher overall success rate for the six developmental courses than either comparison group. These differences were statistically significant.

**Overall Successful Course Completion**
- The overall completion rate includes all courses attempted. The results mirrored those for the completion of the six developmental courses. The intervention group had a statistically significantly higher overall success rate than either comparison group.

**Grade-Point Average**
- Although not statistically significant, the intervention group had a higher GPA than either comparison group.

Source: Community College of Denver

Despite these successes, the program has faced several challenges. In particular, a lack of student demand has impeded program expansion efforts. The CCRC notes that “The program enrolls less than half of students referred to multiple levels of developmental education.”

FastStart’s hallmark instructional blocks (e.g., two hours and 45 minutes for MAT 030/060 twice per week) pose a barrier to many students, especially part-time students, who cannot find adequate time in their schedules to accommodate these courses.

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COMMUNITY COLLEGE OF BALTIMORE COUNTY – ACCELERATED LEARNING PROGRAM

The Community College of Baltimore County (CCBC) began its Accelerated Learning Program (ALP) in the 2007-08 academic year. Accelerated Learning Programs follow a mainstreaming model of accelerated developmental education. Students who test into upper-level developmental courses directly enroll in a college-level course. These students then receive supplemental assistance though a companion ALP course. The same instructor teaches the college-level course and the ALP companion section.78 Students have the opportunity to begin earning college credits immediately, while having the support they need as they learn basic skills. The strategy behind this was to cut down on exit points in the developmental English sequence and the stigma associated with remedial courses.79

As of the spring of 2013, 97 schools across the United States were offering ALP courses.80

STRUCTURE

In ALP, students who are placed in the upper level of developmental courses are able to enroll in designated college-level courses alongside students who have not been placed in developmental courses. In addition, ALP students take a supplementary course taught by the same instructor. Students pay for all six credits of both courses, but will earn credits only for three credits of the non-developmental course. For example, an ALP student enrolls in a designated section of ENG 101. Half of that class is ALP students, and the other half is not. For those students who are in ALP, they will also take ENG 052, which is taught by the same instructor, has the same ALP students as in the ENG 101 class, and meets immediately after ENG 101.81 This format is illustrated in Figure 3.7 below.

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81 “What is ALP?” Community College of Baltimore County. http://alp-deved.org/what-is-alp-exactly/
ENG 101 is conducted as any traditional ENG 101 would be taught. ENG 052 then functions as a workshop to provide the writing support needed for the ALP students. This typically involves:

- Answering questions left over from the 101 class
- Discussing ideas for the next essay in 101
- Reviewing drafts of essays the students are working on for 101
- Writing short papers that reinforce what has been discussed in the 101 class or prepare for what will be discussed in the 101 class
- Working on grammar and punctuation
- Discussing how to succeed as a college student
- Discussing problems interfering with the students’ progress in 101

There are a number of features of ALP, which the ALP website cites as its strengths, and many are based on the structural features of the program. First, it allows students who need remedial skills to begin earning college credit right away, and it shortens the sequencing from two semesters to one. These students are part of a cohort, who, along with the instructor, spend six hours a week together. Rather than learning basic skills in a vacuum,

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82 Ibid.
83 List reproduced from: Ibid.
the dual enrollment give context to the skills they are learning. ALP classes also expose ALP students to stronger students who can serve as role models.\(^8^4\)

**PEDAGOGY**

ALP courses should have no more than 10 students and a total of 20 in the college-level course, according to the ALP Faculty Handbook. The two courses are graded separately, and the college-level course is to be taught and graded as a non-ALP course would be, for all students. For example,

A completely different approach to assigning grades in the ALP 052 section is to base that grade on the writing the students do in the 101 section. You would look at the student's writing in 101 and determine whether the student achieved a C or higher in 101. If he or she has not, you would look again at that same writing and determine whether it meets the minimum requirements for passing 052. If it does, the student gets an S; if not, the student gets a U.\(^8^5\)

ALP allows instructors to use a wide range of teaching philosophies and pedagogies, recognizing that there are various effective pedagogical techniques. To maintain rigorous standards, the Community College of Baltimore County “purposefully limits the number of developmental students in the ALP sections of the college English course to discourage faculty from altering the content or pace of instruction.”\(^8^6\) Additionally, the Faculty Handbook emphasizes the importance of technological integration into the ALP curriculum.\(^8^7\) Despite informal pedagogical requirements, the ALP handbook says that ALP is a success and research is ongoing into what pedagogies work best, and why there need not be a uniform teaching method.\(^8^8\)

Instead, the handbook focuses on the structural factors that make ALP a success. These include those aspects listed above, such as immediate entry into credit bearing classes, thus boosting confidence levels, reducing negative attitudes, and supplying a context for the skills students are learning. It also notes that the small class size, being in a community of students, and having a single instructor with six hours of contact per week all provide a supportive environment and access to the individual attention and active interest of the instructor which is needed for success.\(^8^9\)

**EFFECTIVENESS**

Students are significantly more likely to take and pass the ALP corresponding college-level course and the course immediately after it than those enrolled in the highest level of

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\(^8^8\) Ibid., p. 6.

\(^8^9\) Ibid.
traditional developmental courses. According to the ALP website, of students who took a traditional ENG 052 course in 2006, only 27 percent passed ENG 101 within three years. In fact, 22 percent who passed ENG 052 did not enroll in ENG 101. Of the ALP students who took the mainstreamed courses from 2007 to 2009, 63 percent passed ENG 101 within two years. These results show double the passing rate of ENG 101 for students who enroll in ENG 052.90

These trends have continued. A 2010 study found that “compared to non-ALP students, ALP students complete the introductory college-level course at a higher rate, enroll and complete the subsequent college English requirement at a higher rate, and attempt more college courses”.91 A 2012 follow-up report says that “participation in ALP is associated with substantially better outcomes in terms of ENGL101 and ENGL102 completion,” and “ALP students were more likely to persist to the next year than non-ALP students.”92 Compared to non-ALP students, ALP students were almost twice as likely to complete English 101 (75 percent) compared to traditional developmental students (39 percent). ALP students also went on to pass English 102 at a rate of 38 percent versus 17 percent for non-ALP students. They also showed higher rates of persistence to the next year. Figure 3.8 below compares outcomes for ALP and non-ALP students.

Figure 3.8: Outcomes of ALP and Non-ALP students through Fall 2011

Source: Data from Community College Research Center93

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90 “What results has ALP produced?” Community College of Baltimore County. http://alp-deved.org/what-results-has-alp-produced/
93 Data taken from: ibid., p. 7.
Analysis also shows that ALP is more cost effective per successful student than the corresponding traditional developmental sequence by 14 percent. ALP costs the college $2,680 per student versus $3,122 for the student in a traditional sequence.94

WASHINGTON STATE BOARD FOR COMMUNITY AND TECHNICAL COLLEGES – I-BEST

The Washington State Board for Community and Technical Colleges (SBCTC) has instated an educational program called Integrated Basic Education and Skills Training (I-BEST). I-BEST was developed to meet the needs of employers and students who require basic workforce skills in addition to technical training. To achieve this, I-BEST blends academics and career training with the goal of preparing students for employment. The program touts itself as a “nationally recognized model that quickly boosts students’ literacy and work skills.”95

I-BEST started at ten community colleges and was designed “to reach students with limited English proficiency seeking the skills that lead to higher wage and higher skills jobs.”96 The purpose of the ten demonstration projects was to disprove “traditional notions that students must first complete all levels of basic education before they can begin workforce training.”97 While all of the demonstrations included an ESL component, generally I-BEST students were “chosen from students scoring a three or higher (of a possible six) in English language proficiency on the Washington State Competency System.”98 On this English language proficiency test, the average I-BEST student received a score of four. Since the original pilot program, I-BEST has expanded to all 34 colleges in the SBCTC system.99

STRUCTURE

All I-BEST programs are informed by the following guidelines:100

- **Curriculum**: Design new curricular materials and approaches that integrate developmental education and professional-technical curriculum. Equal attention is to be paid to both disciplines resulting in a redesigned curriculum that includes active learning pedagogies.

- **Instructional Approaches / Teacher Support**: Use data and a culture of evidence to modify, refine, and improve practices that advance student success. Provide shared/coordinate faculty planning time.

- **Student Support**: Provide learning opportunities that are contextual and integrated, including integrated program outcomes, use cohort and learning community-type

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97 Ibid.
98 Ibid.
models, include multiple modes, methods, and pedagogical strategies that appeal to diverse student populations and provide clear career that focuses on what students need to know and be able to do in order to work in their chosen profession.

- **Institutional Support**: Provide professional development tools and other resources necessary to help all students succeed with consideration on how to make necessary changes in structures, attitudes, paradigms, and strategies for student success by building on strengths of students, faculty, staff, and the institution – adopting a strength-based rather than a deficit approach to students, faculty, etc. Also, create strong collaborative internal and external partnerships to support the program.

I-BEST classes are offered in career-oriented programs of study and teach both technical job-training skills as well as basic skills in the same class, thus accelerating the path to a career for the student. I-BEST assigns two instructors to the same classroom. One instructor teaches remedial skills while the other instructor focuses on technical content. The co-instructors must work jointly to develop the curriculum, syllabi, teach, and assess student learning.\(^\text{101}\)

SBCTC funds only those colleges in the Washington community and technical college system that have received approval. Such approval is typically contingent on whether a proposed I-BEST program is part of a “career pathway;” meaning, “a course of study that leads to postsecondary credentials and career-path employment in a given field for which colleges must document demand.” therefore, I-BEST provides a “structured pathway to college credentials and employment so that students do not have to find their way on their own.”\(^\text{102}\) The following list highlights the most popular I-BEST programs in the state according to student enrollment in 2006-2007 and 2007-2008.\(^\text{103}\)

1. Medical Assistant
2. Nurse’s Aide
3. Office Manager
4. Microcomputer Applications Specialist
5. Early Childhood Teacher
6. Auto Mechanic
7. Welder
8. Criminal Justice / Law Enforcement
9. Office/Clerical
10. Home Health Aide

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\(^{102}\) Ibid.

\(^{103}\) Ibid., p. 5.
**Effectiveness**

In a study conducted by the Community College Research Center of students who enrolled in I-BEST in 2006–07 and 2007–08, “I-BEST students earned substantially more college credits (both total and CTE) than their peers, were much more likely to earn an award, and were moderately more likely to achieve a basic skills gain.” The report cautioned, however, that increased availability to financial aid may also be playing a part in these positive outcomes. As 58 percent of I-BEST students received some form of financial aid, the report notes that “it is possible that the positive effects of I-BEST are due not to the program content or structure but to the improved access to financial aid that allows students to progress.”

An I-BEST fact sheet claims that I-BEST students are:

- Three times more likely to earn college credits.
- Nine times more likely to earn a workforce credential.
- Employed at double the hours per week (35 hours versus 15 hours).
- Earning an average of $2,310 more per year than similar adults who did not receive the training.

Individual institutions in Washington develop their own I-BEST programs with guidance from the SBCTC and in line with the abovementioned recommendations and guidelines. One example of the I-BEST program at work is provided below.

**Programs and Pedagogy at Highline Community College**

Highline Community College, located in Des Moines, Washington, offers a variety of I-BEST programs for students. For each of these programs, students can receive a short-term certificate in one quarter and have the certificate credits apply directly toward a specific Associate of Applied Science (AAS) degree. The classes for these I-BEST programs “integrate college credit courses with English language and adult basic skills.” Therefore, all I-BEST classes include “five hours a week of non-credit Adult Basic Education (ABE) and English as a Second Language (ESL) instruction.” The current I-BEST programs at Highline are listed below:

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104 Ibid., p. 28.
105 Ibid.
108 Ibid.
109 List reproduced from: Ibid.
- **Business Pathways**
  - Accounting Assistant I and II
  - Customer Service
  - Intro to Office Assistant
  - Intro to Web Support

- **Health and Wellness Pathways**
  - Caregiving Pathways (Home Care Aide)
  - Nursing Assistant

- **Education & Library Services Pathways**
  - Early Childhood Education Initial Certificate
  - Family Child Care
  - Infant Toddler
  - School-Age

According to the Highline Community College I-BEST information page, I-BEST works by pairing content and basic skills instructors. Both instructors must be present in the classroom for at least half of the total instruction time. The other half of the time, the instructors may teach on their own. The site adds, “Successful co-teaching or team teaching is dynamic, interactive, and engaging for students and instructors.”

The Highline Community College website provides detailed information on teaching I-BEST courses. For example, it provides the following guidelines to instructors regarding team teaching:

- Plan everything, before, during and after, with your co-teachers
- Be an active participant during all classes, or as many as possible, even when you are not the primary instructor
- Refer to and incorporate your co-teacher’s ideas, modeling the integration of skills and content
- All instructors need to participate in the classroom, even when they are not in charge
- Apply common grading standards
- Have weekly staff meetings with all instructors
- Encourage student participation and speaking
- Be prepared to be surprised; flexibility is key

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112 List adapted from: Ibid.
• Respect your team, and the subjects each of you are teaching

In addition, the website recommends that co-instructors identify course outcomes together, and integrate them, to jointly plan activities and assessments, choose textbooks and required materials, and write the course syllabi. Once a week, co-instructors should meet to assess the course and the progress of the students.113

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