

2012 I-BEST Review: Lessons Being Learned from Traditional Programs and New Innovations Next Steps and Issues for Scaling Up

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Introduction

In 2004, the State Board for Community and Technical Colleges (SBCTC) conducted a demonstration project that tested the traditional notions that basic skills students had to complete a sequence of skill development in order to successfully participate or they had limited interest in college coursework. Furthermore, students who did have an interest had to first improve their basic skills. Becoming college ready was a challenge and too large a leap for most basic skills students to make, and a long sequence of courses (lasting years in many cases) was too slow. According to a 2005 SBCTC study, only 4 to 6 percent of basic skills students made it to college-level.

Washington's Integrated Basic Education and Skills Training (I-BEST) was developed in response to this problem. It was an instructional model that paired workforce training with Adult Basic Education (ABE) or English as a Second Language (ESL) to provide students with the chance to increase their basic education and college-level professional-technical (prof-tech) education and training together, taking them further and faster towards their goals.

This paper examines both the early results of *I-BEST for Developmental Education* (I-BEST for Dev Ed) programs in nine colleges and the results of a longer-term look at the traditional *I-BEST Professional-Technical* model. The I-BEST for Dev Ed pilots were funded by the Bill and Melinda Gates Foundation to develop models that could carry basic skills and developmental students towards completion of college programs. Colleges had been concerned with the problems of moving I-BEST students to longer-term certificates and degrees and described a skills gap that was preventing I-BEST students from becoming truly college ready.

A key reason for conducting these reviews is to better understand the implications in its findings for scaling I-BEST. These implications are discussed in the final section. We re-emphasize the need for colleges to look at an entire program pathway and students together holistically. Traditional I-BEST programs need to be extended, which was the rationale for trying I-BEST for Dev Ed. The nexus for scaling I-BEST may very well be where upper level basic skills and lower level developmental education overlap. We also discuss this in the final section.

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Traditional I-Best For Prof-Tech Model Review

One focus of the quantitative analysis for this review examines traditional I-BEST professional-technical (prof-tech) programs to take a longer look at what has happened to I-BEST students after they left their initial I-BEST program. By taking this longer look, we wanted to see if I-BEST students were progressing further beyond I-BEST. Asked another way, does I-BEST lead to longer education pathways for students? The analysis followed a cohort of 753 I-BEST students, who were new to I-BEST in 2007-08, over a four year period. The students were enrolled in I-BEST programs at 33 colleges.

In the review, we looked at students' results over four years. This is a longer time period than was available for previous studies. We used this longer period to see if the initial I-BEST program area provided a pathway for further education and training.

Findings on the traditional I-BEST for Prof-Tech model: A longer term look

This review looked at a cohort of 758 students, who were new in fall of 2007, over a four year period. It found:

- I-BEST for Prof-Tech students are capable of demonstrating college-level achievement.
- Twenty-four percent of the group made it to the tipping point (a year of college-level credit and a credential). Twelve percent had no momentum.
- The results were relatively stable and represented a mature program model, when several cohorts were tracked.
- Fifty-one percent of the awards are earned when students met the tipping point completion level were at the tipping point floor (a short certificate and 45 college-level credits). Forty-nine percent were degrees and long certificates.
- The majority of students who left with short certificates went no further after I-BEST.
- Four fields (auto mechanics, medical assisting, welding and accounting/bookkeeping) comprised over half of the degrees and long certificates earned.

I-Best For Dev Ed Review

The review of I-BEST for Dev Ed pilots follows a similar approach that was used in the initial analysis of traditional I-BEST programs during its pilot phase. Both reviews had at their core, a focus on the ideas of moving students further and faster. Both descriptive studies on the traditional I-BEST model done by SBCTC and external evaluations conducted by the Community College Research Center have shown that traditional I-BEST students in programs that integrate basic skills with the professional program content earn more college credits and awards than students do when they are taught basic skills sequentially prior to the prof-tech programs.

The developmental education models attempt to demonstrate that integrated instruction can have a similar benefit for a higher level of academic achievement, and that students can continue on pathways to degrees.

The review of the I-BEST for Dev Ed pilots is limited because they are still in progress. The results shown are for students who started in fall 2010. These students were followed through fall 2011. Most were still in college at the time of this report. Comparisons were made to students enrolled in the same programs who enrolled in at least one developmental education course in the same period of time. The focus of the analysis was first year college-level success as measured by college credit accumulation, fall to fall retention, and completion of college-level math and English. We also collected and analyzed data for developmental education outcomes. Data analysis was supplemented with visits to each of the colleges where staff and students were interviewed for their impressions and ideas on the essential elements of their models.¹

Findings on Early Results I-BEST for Developmental Education Pilots:

- Overall students in the pilots accumulated slightly more college credits than comparison students. On average, students accumulated 42 credits compared to 38 credits for the comparison students. The largest difference was 10 credits. The overall GPA of the pilot students (2.9) was lower than the comparison students (3.1).
- For those who were retained in 2010-11 or completed by spring 2011, retention was higher overall in the pilots – 75% compared to 64% in the comparison students. Several colleges had substantially higher retention rates – up to 28% higher than their comparison students.
- Gatekeeper English and math course completion was also reviewed. At least one third of I-BEST students in four colleges completed college-level English during the year. In one college, over half the I-BEST students completed college-level English. Over twenty percent of students in two colleges completed college-level math.
- Developmental education math achievement was higher in nearly all of the I-BEST instructional models than the comparison group. Pre-college English achievement was on a par with comparison students. Beyond integrating instruction, there was not as yet sufficient evidence to support a single model or approach.
- Three colleges had higher results with their I-BEST students than their comparison students in multiple areas of college-level points.
- From the interviews with college staff, it appears that similar strategies were attempted in most of the colleges. It is difficult to draw any causal relationship or correlation between these strategies and the colleges that were more successful. However, the three colleges appeared to share a more holistic view for how these strategies supported students along a pathway.
- These findings suggest that a key reason for any of the success described in these early results may have been the pathway itself. In colleges looking at the students and the entire program together holistically, students appeared to go further on the pathway as evidenced by college credits, retention, and the other college-level analyses. As in traditional I-BEST, students seem to complete or in this case make progress along explicitly designed pathways.

¹ Two other innovations for I-BEST were originally identified for inclusion in this review. They are *On-Ramps to I-BEST* being modeled to develop ways to prepare students at the lowest levels of instruction in basic skills for I-BEST and *I-BEST Academic Programs*, which tests the model for academic transfer programs. Both were too early in their initial implementation to include in this review

Implications from the Combined Findings for Scaling I-Best

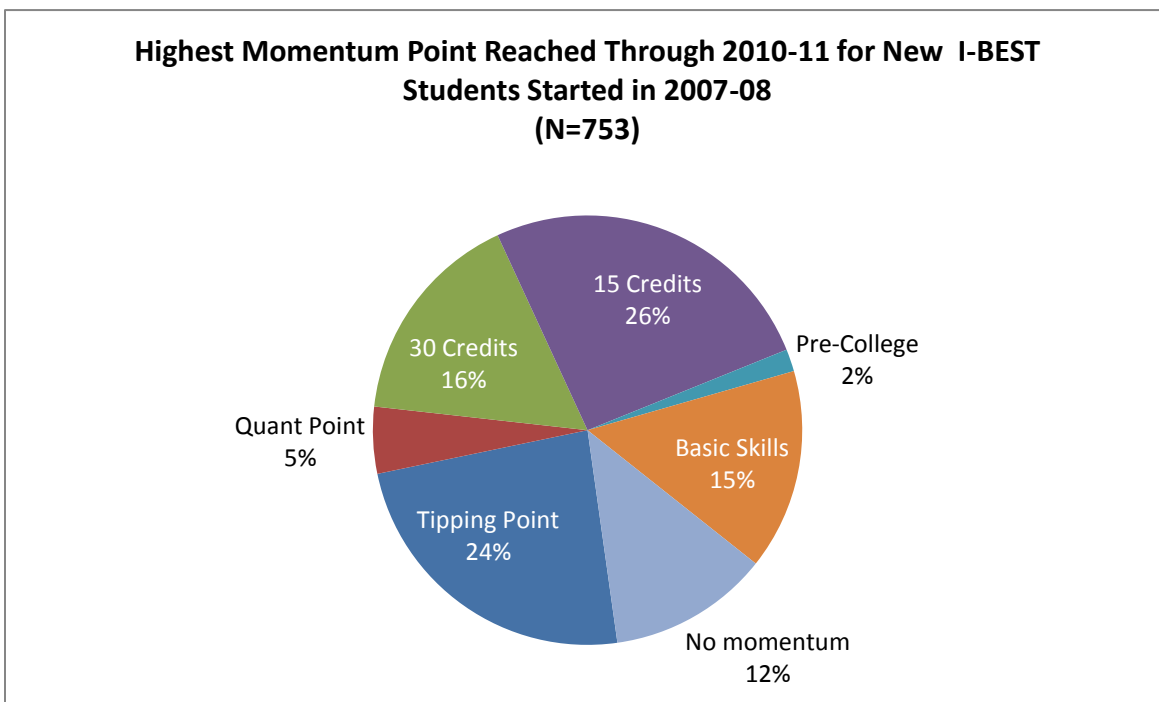
- The role of fully developed pathways is critical to scaling I-BEST, so that more students are able to attain long certificates and degrees in order to meet state and national student completion goals.
- There is an estimate of between 60,000 and 95,000 students enrolled in upper level basic skills and lower level developmental education courses in a two year period in our CTC system who form a pool to consider in scaling I-BEST.

Analysis

Results: Traditional I-BEST for Prof-Tech Model

The chart below shows students' highest momentum four years after they started. Overall, these results are consistent with I-BEST evaluations that have shown that I-BEST for Prof-Tech students are capable of college achievement, as demonstrated by 60 percent of the students. Twenty-four percent of the group made it to the tipping point, while another 36 percent had some college-level momentum. Seventeen percent had either basic skills or pre-college momentum. Twelve percent had no momentum.

In a separate analysis (not shown), we examined 3 cohorts for two years each and found no change in distribution of results, which suggests that these results were relatively stable and that they represent a mature program model. Students entering I-BEST programs in more recent years are likely to have similar outcomes to the results shown here, if no changes to the model or programs are made.



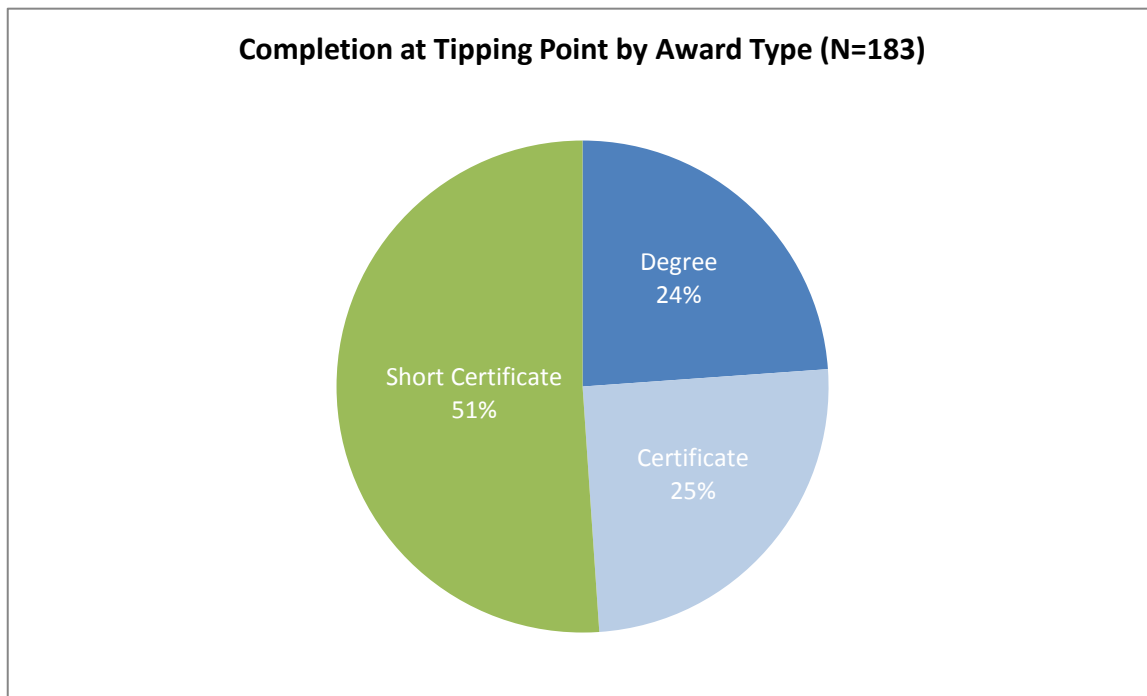
As shown in the table on the next page, most traditional I-BEST model students (66 percent) attained their outcomes solely while they were in I-BEST. The table disaggregates the attainment levels reached in the pie chart (above) by the students' I-BEST status in their last year. However, over half of tipping

point completions were earned after students had finished the I-BEST portion of the pathway. For these students, I-BEST built enough foundation and provided a clear enough roadmap that students could then follow to the next step.

Highest Achievement Reached Through 2010-11 by Student’s I-BEST Status in Year Attained

Cohort = 753	Total	I-BEST in Last Year	Not I-BEST in Last Year
Tipping Point	183	43%	57%
Quant Point	35	38%	62%
30 Credits	122	64%	36%
15 Credits	193	73%	28%
Pre-College	13	77%	23%
Basic Skills	116	84%	16%
No momentum	91	89%	11%
Total	753	66%	34%

Fifty-one percent of the awards earned at the tipping point completion level were at the tipping point floor (a short certificate and 45 college-level credits). These outcomes typically resulted directly within the I-BEST program (students did not move beyond I-BEST). Degrees and long certificates were earned, after moving beyond I-BEST in most cases, in 25 fields. However, four predominate fields (auto mechanics, medical assisting, welding, and accounting/bookkeeping) comprised over half of the degrees and long certificates earned.



Results: I-BEST for Developmental Education Pilots

I-BEST for Dev Ed was piloted in 2010-11 specifically to provide the next step for more I-BEST students and low-level developmental education students seeking prof-tech training that could result in long certificates and degrees.

Nine colleges are piloting programs testing different innovations. Students in the pilots include both students who originally placed in basic skills (65% of the students in the pilots), as well as those who placed in pre-college courses (35% of the students in the pilots). The goal of these pilots is to build upon the integrated teaching design that has proven effective for getting basic skills students off to a solid start, but also to build the pathway backwards starting from degrees and long certificates in order to ensure that students would be prepared to reach the highest level of the program. Most traditional I-BEST programs were built to concentrate on the front end of programs (hence the higher percentage of short certificates awarded in the tipping points). At the time of the analysis, the pilots had completed fall quarter of their second year. We included 201 I-BEST for Dev Ed pilot students who started in summer and fall quarters of 2010-11. For this part of the review, the I-BEST developmental education students were compared to 327 workforce preparatory intent (Intent code F) students. The comparisons were selected from the same program areas, and they all took at least one developmental education course during the year in traditional developmental education classes.

We were interested in analyzing both the I-BEST developmental education and comparison students for early results including:

- the percent of students who attempted and increased their pre-college readiness in math and English;
- the fall to fall retention at the same college and in the same program;
- the number of college-level credits earned between the student's start in the first year and through to the following fall; and
- success in college-level math and English.

We analyzed these results overall and by college to see if some colleges are demonstrating better early results than others as judged against their overall performance with the other pilot colleges and performance differences with the comparison students at that same college. In the following analyses, we exclude individual pilot colleges that started with fewer than 10 students in fall 2010. We include all pilot students in the pilot college total.

(1) Pre-College Math and English Results

Early results suggest that in pre-college math, four pilot colleges were able to increase pre-college math readiness for I-BEST developmental education students at higher rates than comparison students in similar programs at those colleges. Overall, the combined increase for all pilots was also higher than the combined comparison rate. The biggest difference between the pilot and comparison groups was at Highline Community College.

Pre-College Math Results through Fall 2011 for Students Started in Fall 2010				
Pilot College	I-BEST Students Enrolled in a Pre-College Course	% Students Completed at least One Level	Comparison Students Enrolled in a Pre-College Course	% Students Completed at least One Level
BELLINGHAM	12	83%	126	75%
HIGHLINE	14	93%	13	54%
LAKE WASHINGTON	15	87%	70	71%
LOWER COLUMBIA	29	76%	32	63%
WHATCOM	18	67%	21	76%
ALL PILOT COLLEGES <i>(including those not listed above)</i>	101	80%	285	72%

One pilot college, Whatcom increased pre-college English readiness at a higher rate than its comparison group. Two other colleges, Highline and Lower Columbia, were almost on par with their comparison students. This is still noteworthy given the high proportion of pilot students who were current or former basic skill students (65 percent).

Pre-College English Results through Fall 2011 for Students Started in Fall 2010				
Pilot College	I-BEST Students Enrolled in a Pre-College Course	% Students Completed at least One Level	Comparison Students Enrolled in a Pre-College Course	% Comparison Students Attempted and Earned
HIGHLINE	24	83%	9	89%
LOWER COLUMBIA	28	82%	14	86%
WHATCOM	21	100%	13	85%
ALL PILOT COLLEGES <i>(including those not listed above)</i>	89	84%	106	81%

(2) Fall to Fall Retention

Pilot students demonstrated stronger retention overall in their programs than comparison students. This appears to be happening almost uniformly in all programs. Several pilot colleges have substantial differences in retention in their pilots, well above their comparison students.

Pilot Colleges	I-BEST Students Started by Fall 2010	Pilot Students Retained in Fall 2011	Comparison Students Started by Fall 2010	Comparison Students Retained in Fall 2011
BELLINGHAM	12	92%	85	64%
HIGHLINE	17	71%	9	50%
LAKE WASHINGTON	14	82%	55	67%
LOWER COLUMBIA	31	76%	23	66%
TACOMA	13	65%	18	69%
WALLA WALLA	19	73%	22	65%
WHATCOM	19	90%	16	62%
ALL PILOT COLLEGES <i>(including those not listed above)</i>	137	75%	210	64%

(3) College-level credits earned

Pilot students earned slightly more college-level credits, but had a slightly lower GPA than comparison group students.

Pilot College	Pilot Students		Comparison Students	
	Average Credits Earned	GPA	Average Credits Earned	GPA
BELLINGHAM	41	2.9	32	3.2
HIGHLINE	31	2.9	28	2.9
LAKE WASHINGTON	66	2.8	56	2.9
LOWER COLUMBIA	36	2.9	41	3.2
TACOMA	26	2.9	31	3.2
WALLA WALLA	58	2.7	50	3.1
WHATCOM	36	3.1	30	3.4
ALL PILOT COLLEGES <i>(including those not listed above)</i>	42	2.9	38	3.1

(4) Completion of College-level Math and English

College-level math and English both are critical related instruction that have been identified by national studies as major hurdles in students advancing beyond 45 credits in a program to a degree or long certificate goal. Also shown was a new measure under consideration for Student Achievement, the first time a student earned 45 professional technical credits (can include up to 15 credits of related instruction necessary for the degree).

Pilots	Earned College Math	Earned College English	Earned 45 professional technical credits in the program
BELLINGHAM	23% (31 Students)	39% (51 students)	
LAKE WASHINGTON	21% (17 Students)	35% (29 students)	24% (20 students)
LOWER COLUMBIA		49% (17 students)	
WHATCOM		54% (14 students)	
WALLA WALLA			41% (14 students)

Insights From I-Best For Dev Ed Pilot Colleges Showing Promising Early Results

Each of the nine pilots was visited for this review. Staff, instructors, and students involved in I-BEST programs were interviewed. All of the pilots were using similar strategies to one extent or another.

This section is based on the interviews with three colleges (Bellingham Technical College, Lake Washington Institute of Technology, and Walla Walla Community College) that performed well in multiple areas of the college-level analysis in the sections above. The observations described here *should not be inferred to be causative*, but merely informative of what those colleges were trying to do.

What appeared to be common to these colleges was that they took an entire pathway approach to their models.

The development of programs that were intended to get students to higher levels of education all the way to the completion of long term certificates and degrees was a fundamental difference in practice from the traditional I-BEST Prof-Tech model. So, while the observations below may sound similar to previous reports on I-BEST, the higher performing colleges were implementing them at greater breadth and depth across programs all the way to long certificates and degrees.

Two of the colleges looked at their entire programs and their students holistically to create more fully developed education pathways. Faculty from multiple disciplines met together to look at the program including general requirements to see how they could better connect them. Faculty developed custom lessons for courses that had been taught as courses entirely separate from the program in the past or they integrated the related instruction into prof-tech courses. In the third college, math was looked at across

several programs and all the way through their pathways, developing applied lessons that were from the material covered in the prof-tech course rather than lessons from math textbooks. Students were able to progress through models at their own pace and some were able to complete more than one level of math in a quarter. This entire pathway approach appeared to provide better continuity for the students.

The concept of understanding what students need to know and to be able to do as employees appeared to be intrinsically important to what these colleges described. They reviewed their curriculum (either entire program curricula or curricula for specific sequences of courses) with this thought in mind. They were very intentional about retaining the rigor in their courses. This was beneficial in two ways. First, it allowed faculty to focus on the key learning outcomes of courses, while still providing space for the integration of developmental and college-level math or English. Second, it provided improved relevance for students, who were able to see how the concepts they were learning would be directly applied in a work environment. The students expressed being more engaged as a result of being able to see how what they were learning would be of direct use to them when they went to work.

Implications For Scaling I-Best

Traditional I-BEST programs that integrate basic skills instruction with prof-tech coursework have increased college-level credits and awards for basic skills students beyond what students have typically achieved in sequential formats. However, the majority of traditional I-BEST programs (51 percent) result in short certificates and the majority of I-BEST students do little or no further postsecondary education once they leave I-BEST.

Scaling up programs that aim for short results is challenging. I-BEST, while situated in every college, is serving a limited number of students. Despite evidence from the actual success of I-BEST students being able to achieve college-level success in much higher numbers than were earned before the introduction of I-BEST, there are still strong perceptions from faculty and staff that basic skills students have lesser goals for themselves; others speak of students' life circumstances as insurmountable barriers, and simply put they are not really college students.

One assumption for the basis of I-BEST is that if more students are successful, more students like them will become aware and be able to see themselves on those pathways. This suggests that focusing intentionally on the pathway and evaluating models for their effectiveness in promoting pathways that lead to degrees may be a means to scale programs that colleges themselves can affect.

While results in the pilots are still too limited to build much from at this time, the pilots do expose a population that we formerly thought of as either basic skills or developmental education. Anywhere between a high estimate of 95,000 and a low estimate of 60,000 students are enrolled in upper level basic skills and lower level developmental education courses in a two year period in our CTC system. Yet, the overlap and articulation between the two areas was 1,000 to 2,400 mutual students. These students would be the largest potential pool to consider in scaling I-BEST.

The role of pathways, and in particular longer pathways, is critical to scaling I-BEST, so that more students are able to attain long certificates and degrees in order to meet state and national student completion goals. For the I-BEST for Dev Ed pilot colleges, the pathway focus continues to be critical, with developmental education being instrumental in moving students further faster.