INTRODUCTION
College completion is a priority for federal and state governments as well as policy makers and funders. Yet a major barrier exists for many students seeking college certificates or degrees.

The barrier is that more than half of community college students and about one-quarter of students at four-year universities are not well prepared to succeed in college and are referred into developmental education\(^1\) to take remedial courses in math, reading and writing. However, many of the developmental education options these students are offered do not effectively or quickly provide students with the skills they need to succeed in college.

Evidence shows that a high percentage of students referred to developmental education\(^1\) do not finish those classes and do not go on to earn a college certificate or degree. By 2018, some 63 percent of all jobs in the U.S. will require at least some college education, according to the 2010 report *Help Wanted: Projecting Jobs and Education Requirements Through 2018*. To put it another way, employers will need 22 million new workers with postsecondary degrees, but the country will fall short by three million workers without a dramatic change in course, according to the report.

President Obama, meanwhile, has called for all Americans to restore the United States to its former position as the country with the highest percentage of adults with postsecondary credentials. In order to meet the president’s ambitious goal of an additional five million community college graduates by 2020, much more attention must be paid to the question of how to help students succeed in college—especially those students who face barriers of poverty and lack of preparation.

The current system of developmental education is expensive for students, state funding systems and college resources. It is estimated that developmental education costs states and students more than $2 billion annually, money that neither the government nor students get a good return on. In addition, the economy loses an estimated $2 billion because developmental education students are more likely to drop out of college without a degree, thereby reducing their earning potential.

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\(^{1}\) Developmental education refers to a set of courses that help prepare students to be successful in college level coursework. It also referred to as remedial education.

In addition to the economic cost and implications, there is an equity argument. Everyone who aspires to earn a college degree should be able to attend and succeed in college, regardless of income or background. The people who are least prepared and least likely to succeed in college are often those who are low income, the first in their families to attend college, and those from minority groups. At community colleges serving large numbers of low-income, first-generation and minority students, only 8.5 percent of those referred to developmental education completed any credential within four years.3

Furthermore, addressing developmental education is crucial for many grantmakers in reaching their goals. Reforming developmental education is critical for funders who seek to improve college completion rates and our country's economic productivity.

This funder’s guide captures themes and lessons from an ongoing body of work that has been supported by a number of funders working to reform developmental education. In June 2011, these funders met with prominent researchers and higher education leaders to examine promising strategies to accelerate students’ progress toward earning degrees and credentials by reforming developmental education and by ensuring that more students enter postsecondary institutions prepared to succeed. This brief summarizes key insights from the gathering, from research and from funders’ work to identify promising areas for grantmakers to support.

“For far too many students, developmental education puts them on the path to dropping out—rather than actually developing skills that can help them complete their education. We’ve got to find a way to meet the needs of today’s students so they can reach their full potential.” —SUZANNE WALSH, Bill & Melinda Gates Foundation

DEFINING THE PROBLEM
When students enroll in community colleges and some four-year colleges, they are typically required to take a test to assess their skills in mathematics, reading and writing. Based on these tests, students are either deemed “college-ready” and can enroll in college-level classes, or they are considered “developmental” students and must take remedial courses and receive other academic services to raise their skills to college standards. The students who score lowest on these tests may need to take up to five semesters of pre-college classes before enrolling in their first credit-bearing course.

About 60 percent of incoming students at community colleges are referred to at least one developmental course.4 Many university students—20 percent of first-year students at public universities—are also placed in developmental classes.

Most of these courses do not grant college credit, so students may spend months and even years taking non-credit courses before they can begin to earn a credential. This is a financial strain on students as well as being highly discouraging. Students can use up much of their financial aid, such as Pell grants, so that little remains for when they start taking credit-bearing courses.

Research shows that developmental education work has a limited effect on student success and completion. Of the 60 percent of students in community college who are referred to developmental education courses, many do not enroll. Of those who do enroll, less than half complete remedial course work in reading and less than a third do in math. Students referred to the lowest level of developmental courses have critically low success levels in these courses—only 17 percent of math students and 29 percent of reading students complete the entire sequence of three or more term-length courses, according to the Community College Research Center.5

The need for developmental education is a clear barrier to college success for many students. Less than one-quarter of community college students who enroll in developmental education complete a degree or certificate within eight years of enrollment in college. In comparison almost 40 percent of college students who do not enroll in any developmental education course complete a degree or certificate in the same time period.

A broad range of students participates in developmental education: recent high school graduates, adults returning to college to earn a certificate or degree to

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“There is an enormous mismatch between what students are learning in high school and what they need in college.” —CAROLINE ALTMAN SMITH, The Kresge Foundation

"The world is rapidly changing and today’s young adults need higher levels of communications skills and quantitative reasoning than ever before to participate fully in civic life, earn a living wage, get on a career track or switch to another. We owe it to them to innovate in instruction, curriculum and program design to accelerate their learning and competency.”

—MICHELE CAHILL, Carnegie Corporation of New York

enhance their job prospects, and recent immigrants. Each of these groups has different needs. For example, a 32-year-old adult returning to college may need only to brush up on algebra rather than take a semester-long course (or even two). A recent high school graduate may have taken little math and need one or two semesters of relevant math for a planned career in health. An immigrant may have difficulties with English but strong academic skills in his/her native language. Neither assessment tests nor placement into developmental courses currently differentiates between the needs of each of these groups.

**DIAGNOSING THE PROBLEM**

A key reason for students’ underpreparation is the lack of alignment between the K-12 system’s expectations of the skills required to graduate high school and colleges’ expectations of the skills needed to succeed in college. Students can graduate high school and still not have the preparation they need to do well in college. Education leaders at the high school and college level rarely meet to discuss ways to align their expectations and curricula so that students are ready to succeed in college.

But even if students knew that their high school diploma might not be enough for them to succeed in college, most would be hard pressed to know how to prepare. States and colleges use many different placement exams for students entering college. Even when they use the same test, they use different cut scores to indicate whether the student has “passed” and to determine the number of developmental education courses students will have to take. Education reformers are encouraged by the potential for the Common Core State Standards and assessments in K-12 education to establish a more consistent readiness standard and help ensure that students graduate from high school ready for college, but it will take time for the results of these efforts to become clear.

Another issue is that college placement exams do not pinpoint the areas in which a student needs improvement. Instead, students who fall below the cut score are referred to a standard sequence of developmental courses (the number of classes depends on how they scored on the assessment). Often these classes are only offered in the form of semester-length courses, rather than shorter modules that target the specific areas in which the student needs to improve.

In addition, developmental education courses are often taught by adjunct faculty with little or no specialized training in teaching this material to underserved students. Developmental education courses are frequently disconnected from the core academic departments on campus. This creates a lack of alignment within the college between what is taught in the developmental education sequence and what students are expected to know and be able to do in their first credit-bearing course.

Developmental education generally has a low status within colleges, and until recently, has rarely been targeted for reform, investment or innovation. This is in part because few incentives exist to change current outcomes dramatically. State postsecondary funding has historically been based on college enrollment figures, and it is usually not based on the success of their students in completing courses, earning certificates and graduating. Perhaps for that reason, college policies often do not reflect the latest research on college success, which shows that for developmental students to succeed, they must be required to enroll in student success courses and take developmental education during their first semester, among other supports and requirements.

There are several state-level barriers that compound the problem. While a growing number of students need
developmental education courses, states are cutting back on their developmental education spending. Many states collect insufficient data to help understand where students fail in the sequence of developmental education courses. Also, most state funding streams reward enrollment but give no incentive to colleges to help students graduate.

**WHAT CAN GRANTMAKERS DO?**
While the challenges of reforming developmental education are daunting, several funders are actively involved in this field and are beginning to identify promising practices. Improvements in data in recent years are leading to a better understanding of the problem, which is in turn leading to small and large scale tests of potential solutions. For example, the Community College Research Center is conducting a major study of seven promising programs in developmental education. What’s more, there is growing energy and commitment among colleges, particularly among community colleges, to shift their long-standing focus from access to success.

By helping more students be prepared when they enter college, and by shortening the time it takes to complete remedial courses, grantmakers can help

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"As we shift our focus from access to completion, the key problem we must address is that of under-prepared students." —DENIS UDALL, The William and Flora Hewlett Foundation
more students gain a postsecondary credential. While college completion rates for underprepared students are presently bleak, there are pockets of excellence where colleges are succeeding in moving students through developmental education and toward college completion.

Funders working in this area agree that no one solution exists to helping students graduate from college. Instead, a variety of innovative approaches, knit together, are required. Funders new to this field therefore have the opportunity to choose among different entry points, selecting those that capitalize on their interests and expertise.

Funders can also play a unique and vital role in the developmental reform movement. They can take risks on bold reform, challenging conventional wisdom and supporting large-scale, innovative experiments that could make a real difference in the lives of students struggling to complete college and in the ways that colleges and universities structure these programs.

To date, most efforts at change have been incremental and limited to a few colleges and students. With 1,200 community colleges in the U.S., funders can play an important role in bringing effective approaches to scale. The only real way to make a difference in the lives of students is to make sure that effective programs reach as many people as possible (see sidebar “Funder Initiative Brings Promising Programs to Scale”). The field is ripe for big thinking and smart investments. Our country’s future depends on an educated citizenry. The consequences of ignoring this solvable barrier to college completion are too high.

**At the College Preparation Level Ensure high school graduates are college-ready.** One of the best approaches is to avoid the need for developmental or remedial education at the college level.

- Support efforts to better connect what students are learning in K-12 with the skills and subject knowledge needed for postsecondary success. For example, the Common Core State Standards present an opportunity to build alignment between high schools and colleges regarding expectations for college readiness and to develop common assessment tools/standards. Funders can help ensure that postsecondary institutions play a meaningful role in the multi-state Race to the Top assessment consortia that are working to develop assessments matched to the Common Core State Standards. They can also work at the state level to convene discussion between K-12 and community college system leaders on how to use the new assessments in consistent ways across the two systems.

- Help students avoid the need for developmental education by supporting efforts to provide them with “early warnings” of skills gaps while they are still in high school. Some states or higher education systems are administering college placement exams to high school students and giving them opportunities to improve their skills while still in high school (see sidebar “Texas Funders Join Together to Spur Student Success”).

- Support dual enrollment programs so that high school students gain the mastery they need and earn college credit before enrolling in college.

“In many colleges, the majority of developmental education faculty are adjuncts, and they are not usually trained to teach this.” —BILL MOSES, The Kresge Foundation

“Increasing the number of students who complete a technical, two-year or four-year degree is not possible if we do not dramatically reduce the need for and time spent in developmental education. As the largest community foundation in Texas, we are committed to improving educational attainment and believe that investments to improve academic preparation and remediation are critical to our mission.”

—JOHN FITZPATRICK, Communities Foundation of Texas
Faculty members have been struggling with this problem and they are looking for any kind of help. Faculty members don’t go into teaching to fail their students. It’s just as frustrating for them to spend time in the classroom and not see students succeed."

—GAY CLYBURN, Carnegie Foundation for the Advancement of Teaching

“Developmental mathematics courses are a roadblock to success for our nation’s community college students. We are wasting precious human potential. The high cost of denied dreams and unfulfilled aspirations is unacceptable. Rather than a gateway to a college education and a better life, mathematics has become an unyielding gatekeeper.”

—ANTHONY S. BRYK, Carnegie Foundation for the Advancement of Teaching
on students and their needs, on how to best teach these subjects and on how these courses fit in with the larger work of colleges.

Other programs engage faculty in creating curriculum, testing it in real time with student feedback and continually adjusting it.

Some foundations are testing ways to help faculty and students in developmental education to engage in “deeper learning,” promoting the higher-order thinking skills that students need in order to be successful in the knowledge economy, such as critical thinking, problem solving and collaboration.

**Fund programs that provide the socioemotional and academic support that is needed to succeed in college.**

Many of today’s students come to school with complicated lives. In addition to attending school, they often work, support families and may have other needs, such as learning disabilities or mental health issues that teaching alone will not address. Additionally, many students need to learn and develop the skills it takes to be effective college students, such as basic time management and study skills. Students need additional support services in college to help them navigate and move forward in their college career. Colleges can also provide supports such as improved orientation, student success courses, tutoring and mentoring.

**Support programs or schools that seek to change the structures and culture of community colleges.**

Programs that focus exclusively on improving teaching at the individual classroom level, while important, will not accomplish systemic change. Neither do top-down, one-dimensional approaches emanating from the college administration. A consensus is emerging that for underprepared students to succeed in gaining a credential, broader institutional changes must take place in colleges. A key change is for colleges to make an institutional commitment to help all students whom they admit earn a certificate or degree. Colleges also need to enact student success-related policies and procedures so that underprepared students are required to enroll in developmental education and participate in services that will give them the support they need to succeed, such as a success course.

College presidents and academic deans must provide leadership for this commitment. Emerging research also shows that one of the keys to success is school administrators, such as department heads and deans who manage the institution and work both with top leaders and faculty.

**At the Research and Innovation Level**

**Support organizations that are rethinking the purpose or content of developmental education.** The complex challenges of helping underprepared students earn college degrees require fresh thinking and innovative ideas. It can be easy to focus on the mechanics of improving developmental education and lose sight of the broader purpose, which is to help students reach their goals of obtaining a good, well-paying job and becoming an engaged citizen. The Quantway/Statway initiative is an example of how reformers are

> “Successful innovation is spearheaded by people in the middle of the hierarchy of an institution.”

—NORTON GRUBB, U.C. Berkeley Graduate School of Education

> “At one time, knowledge of Latin was considered essential for college degrees. What did it take to rethink that requirement? We are at a similar cross-road in math, where many occupations and college degrees may be better served by a statistics-based math pathway, not one based on knowledge of algebra and calculus. This rethinking process offers the potential to reduce the developmental logjam for many students.”

—HOLLY ZANVILLE, Lumina Foundation
Making Math Relevant: Statway and Quantway

Getting through developmental math is one of the toughest challenges for students who must take additional college preparatory work. Students are more likely to fail developmental mathematics than any other courses in higher education. Passing these courses can be particularly difficult for students who do not plan a career in a math- or science-related field.

A consortium of six foundations is funding a $13 million program that seeks to revamp the developmental math curriculum in community colleges so that it provides students with the skills they need not only for their college career but also for the 21st century.

Spearheaded by the Carnegie Foundation for the Advancement of Teaching, in partnership with mathematics professor Uri Treisman and the Dana Center at the University of Texas at Austin, the initiative is building a networked community of 27 community colleges and three universities to develop two newly designed mathematical pathways across eight states. These pathways are called Statway™ and Quantway™.

The funders are the Kresge Foundation, the Carnegie Corporation of New York, the William and Flora Hewlett Foundation, the Bill & Melinda Gates Foundation, and Lumina.

Both Statway™ and Quantway™ target students who are at serious risk of failing mathematics courses at the community college level. These students may have weak math skills, face language and special education challenges, and/or have little confidence that they can do well in a math course. In addition, these students typically see developmental math courses as irrelevant to their goals or the world around them.

As part of the initiative, math faculty and researchers are working together to design and continually test curriculum that gives students the grounding they need to succeed in college classes as well as skills to help them navigate an increasingly complex world.

For example, Quantway™ is aimed at the non-math and science major and will focus on helping students apply mathematical concepts in decision making about real-world questions and problems.

“We want to boost the habit of mind to think critically about the numbers that students are barraged with every day,” said Rebecca Hartzler, senior associate for external partners at the Carnegie Foundation for the Advancement of Teaching. “Quantway is much more of a citizenry pathway. The emphasis is on students bringing in issues that they are facing in their lives and have a discussion about those numbers. Can you trust those numbers or not? What calculations do you need to make to think critically about them?”

Statway™, meanwhile, combines college-level statistics with necessary developmental mathematics topics. Students who successfully complete the Statway™ sequence receive credit for a college-level, transferable statistics course.

A common thread between Statway™ and Quantway™ is that they will employ materials and teaching approaches that engage students. The goal of the initiative is to double the proportion of students who in a one-year course sequence are mathematically prepared to succeed in further academic study.

“We need to establish a culture of change, rather than trying to change the culture,” Treisman said. “We need to form a ‘joyful conspiracy’ of leaders who want to make a difference.”

Fund research on which interventions or combinations of interventions and practices are most successful.

While the research base is growing, much more needs to be done to understand what works and what doesn’t. Among the key areas for research are:

• Evaluations of small, promising models that hold the potential for widespread replication.

• Research on strategies for bringing a combination of the best practices to scale.

• Research on the practices that do not work and need to be eliminated.

• Research to determine at what point in the pipeline colleges are losing developmental education students.

• Research on effective approaches for students who need multiple semesters of developmental education to succeed in college. Most of the available research focuses on what works for students who need relatively little remedial instruction.
Convene organizations working on this issue to share what they are learning and reach consensus on what actions will support scale. Funders can play a unique convening role by bringing together policymakers, researchers, practitioners and educational leaders at the secondary and postsecondary level to share what they are learning about what has and has not worked in the field of developmental education. Few opportunities exist for people working in this area to meet and talk about how to leverage shared impact with their work. There is also a need for organizations and leaders to reach a consensus on how best to scale promising interventions.

Seek joint funding opportunities. The process of reforming developmental education has so many facets that it can be helpful for different foundations to come together to fund a collaborative project. Each foundation can bring its own perspective and expertise, which can add to the depth and potential effectiveness of an intervention.

At the Policy Level
Fund public will-building efforts to call for improving students’ academic preparation and increasing the effectiveness of developmental education programs. The public is largely unaware of the barriers that developmental education presents to college completion. Students who require developmental education are extremely diverse in background, age and academic experience and do not typically have a voice at the institutional or state level. These students are generally not mobilized to advocate for policy change. In turn, community colleges (where most developmental students enroll) are under-resourced institutions in the region to better articulate expectations for college preparation.

“The name of the game is to transfer our best thinking, informed by research, into developmental education practices—and to do this on a large scale.”

—JAMIE MERISOTIS, Lumina

Texas Funders Join Together to Spur Student Success

A group of Texas foundations is coming together to tackle the issue of college completion by working together on a regional basis.

In 2010, the Greater Texas Foundation, Communities Foundation of Texas, Houston Endowment and The Meadows Foundation engaged FSG Social Impact Advisors, first to identify and research regions in Texas where foundations could make the most impact on postsecondary completion efforts, and then to conduct in-depth research into the regions’ specific context, history, strengths and challenges.

As a result, Texas state and regional funders, along with state officials and national funders, are creating a regionally structured, public-private partnership focused on improving postsecondary outcomes for students in five regions in Texas: Central Texas (around Austin), El Paso, Houston/Gulf Coast, Dallas-Fort Worth metroplex and South Texas. Different foundations will take the lead on implementing a plan in each region while working with other foundations and state and national efforts that are already taking place in that area.

One aspect of the work is to eliminate the need for developmental education by better aligning the preparation of high school students with the expectations of colleges. For example, math faculty at the University of Texas, Brownsville are working with math faculty at high schools around them.

As part of the initiative, math faculty can do it in the postsecondary arena and can do it in the postsecondary level to share what they are learning about what has and has not worked in the field of developmental education. Few opportunities exist for people working in this area to meet and talk about how to leverage shared impact with their work. There is also a need for organizations and leaders to reach a consensus on how best to scale promising interventions.

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“I’m not convinced that states or the system will reform themselves until there is demand from the public or students to improve developmental education. We are looking at how to make a stronger voice for a constituency that is disenfranchised.”

—VINCE STEWART, The James Irvine Foundation

**Changing the Funding Incentives for Colleges: Washington State Student Completion Initiative**

State policy is a critical lever in making fundamental changes to encourage more college completion. The Washington State Student Completion Initiative is using policy change as one of its approaches to improve access to and completion of higher education for low-income young adults in Washington State.

The initiative, which is funded by the Bill & Melinda Gates and Ford foundations, aims to begin changing one of the perverse incentives in college funding, which is that colleges are funded for enrolling students but not for graduating students.

“Performance funding” is not a new idea but the Washington State Board for Community and Technical Colleges, which oversees the project, is approaching it in a new way, said Jan Yoshiwara, deputy executive director of education.

Under the terms of performance incentives in other states, colleges received payments for student completion. But students can take a long time to get a degree, Yoshiwara said. Instead, the state board identified key intermediate steps that students take to complete a credential, such as completing a basic skills course, finishing a developmental education course or completing one year of college. Under the initiative, colleges get one point for each student meeting each milestone designated. Each point is worth $85. Each student can earn multiple points for a college as they make progress towards completion.

“Even though it’s a small amount of money, it has changed the conversation about what colleges pay attention to from a financial standpoint,” Yoshiwara said. “The money provides the incentive to raise [college completion] as part of the consciousness for senior leadership at an institution.”

Yoshiwara also said that the money provided by the funders was critical in this initiative.

“It’s made a big difference to us that Gates and Ford funded this,” she said. “It was a risk in the beginning because it was new and we didn’t have additional funds to put toward this. Nobody else had done this and we weren’t really sure how it would work. The amount of money we could have put into a performance incentive on our own would have been too small to be meaningful to colleges.”

Support state policy reform. State policy reform provides a powerful leverage point for impacting developmental education practices at scale. Organizations can help state policymakers and officials by providing research and assistance with key policy levers that can help more college students graduate (see sidebar “Changing the Funding Incentives for Colleges”). Among those policy levers are:

- Adopting common assessment tools and cut scores across an entire state.
- Establishing an infrastructure to collect and analyze data about the points at which colleges lose developmental education students, in order to help pinpoint new interventions.
- Changing funding formulas so that colleges are rewarded for students’ success, including rapid completion of developmental work and passing gatekeeper courses such as introductory English and college algebra, rather than for enrollment—particularly with regard to low-income, first-generation and traditionally underrepresented minority students.
- Creating transfer agreements so that new designs for developmental education courses (such as those linked with college credit courses) are accepted at four-year colleges.
• Helping to build a common definition of “college-ready” that is used at both the high school and college levels.

• Allowing for flexibility in developmental education instruction at both two-year and four-year institutions.

CONCLUSION
Funders of all sizes and interests can make a difference in helping more students earn a certificate or college degree. The field is ripe for innovation and scaling with opportunities for funders of every size and focus. A number of powerful reform efforts are already underway because of funders joining together. Developmental education and the students who rely on it deserve increased attention, and funders are well-positioned to make a meaningful contribution to students’ success through strategic investments. The stakes are too high and the price we pay as a nation too great to ignore the countless students trapped in a system that is failing them.

grantmakers for education

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