Working Paper

Understanding the "Crisis" in Basic Skills: Framing the Issues in Community Colleges

W. Norton Grubb
Elizabeth Boner, Kate Frankel, Lynette Parker, David Patterson,
Robert Gabriner, Laura Hope, Eva Schiorring, Bruce Smith,
Richard Taylor, Ian Walton, Smokey Wilson

Basic Skills Instruction in California Community Colleges
Number 1

Policy Analysis for
California Education
http://www.edpolicyinca.org

UNDERSTANDING THE "CRISIS" IN BASIC SKILLS: FRAMING THE ISSUES IN COMMUNITY COLLEGES

W. Norton Grubb*
Professor and David Gardner Chair in Higher Education
University of California at Berkeley

Elizabeth Boner, Kate Frankel, Lynette Parker, David Patterson
Graduate School of Education, U. C. Berkeley

Robert Gabriner, Laura Hope, Eva Schiorring, Bruce Smith,
Richard Taylor, Ian Walton, Smokey Wilson
Research and Planning Group of the California Community Colleges

Abstract:

While increases in remedial education (or basic skills instruction or developmental education) have taken place at several levels of the education and training system, there are reasons for thinking that the issue is particularly acute in community colleges. This introductory working paper divides the problem into two. The first is the high proportion — perhaps 60 percent for the country, and 80 percent in California — of students entering colleges who assess into developmental courses. This can be explained by the pattern of dynamic inequality in American education, where inequalities among students increase as the move through the system.

The second problem arises from the evidence that students entering a remedial trajectory are unlikely to move into college-level work, so remediation has become a serious barrier to success for many students. Unfortunately, like other second-chance efforts, basic skills instructions often works under difficult conditions, and there are many hypotheses about why success rates in basic skill are not higher — most of which will be examined in this series of papers.

Since developmental education is first and foremost an instructional issue, this series of papers rests on a conceptual foundation focusing on the "triangle of instruction, considering the instructor, students, and content within a set of institutional influences. The underlying research for these papers involves classroom observation, and interviews with instructors and administrators, to understand both classroom settings and the institutional setting. This framing paper then introduces the subjects for remaining papers in the series.

---

* This is the first of 11 working papers based on research undertaken with funding from the Hewlett Foundation, with additional support from the David Gardner Chair in Higher Education; see the Appendix for details. Please send comments to W. Norton Grubb at wngrubb@berkeley.edu.

UNDERSTANDING THE "CRISIS" IN BASIC SKILLS:

FRAMING THE ISSUES IN COMMUNITY COLLEGES

W. Norton Grubb
Elizabeth Boner, Kate Frankel, Lynette Parker, David Patterson
Robert Gabriner, Laura Hope, Eva Schiorring, Bruce Smith,
Richard Taylor, Ian Walton, Smokey Wilson

Yet another "crisis" has been building in U.S. education — even though the language of crisis is often overused as a way of getting people to pay attention.[i] At many levels of our system, students enter unprepared for the appropriate level of academic work, and then need to participate in remediation of some form — called variously basic skills instruction, developmental education, academic skills, skills for success, or foundational skills, to avoid the unavoidable stigma of "remediation."* In K-12 education, this happens at several transitions: in the ninth grade; at the transition to middle school; somewhere in third or fourth grade, as teachers progress from teaching basic literacy and numeracy skills to using them to develop content knowledge. The transition from high school to community college suffers from another "crisis" of remediation, as we will document, but the problem seems almost as acute in the

* In this paper we will use these terms as synonyms since many of the nuances — for example, the notion embedded in "developmental education" of a developmental trajectory for all students, or the view that "all eduction is developmental " — have been lost. For a strong exception, see the description of Chaffey College in Working Paper 7.

four-year regional colleges of the country. [ii] Short-term job training, welfare-to-work programs, and adult education are other places in the vast system of education and training where basic skills instruction takes place.

All these manifestations of the remediation problem are serious, but the transition from high school to community college seems especially difficult. In an era when a college credential seems necessary for middle-class jobs and the American Dream, increasing numbers of students are being pushed, or counseled, into college as the only route to individual advancement. The pursuit of equity in this country — particularly for low-income students, for African Americans, Latinos and other racial or ethnic minorities, and for immigrant students — has led to promoting education as the appropriate policy, rather than (for example) trying to equalize the distribution of earnings or eliminate racial discrimination in employment. And rhetoric about the centrality of education to economic growth and competitiveness — the overheated rhetoric that one of us has critiqued as the Education Gospel (Grubb and Lazerson, 2004) — has been extended to community colleges too. As Barack Obama said at the Community College Summit,[iii]

> Given these relationships [with business, industry, and government], community colleges are uniquely positioned to raise the skill and knowledge base of our workforce. The President recognizes the critical role colleges play in developing our nation's human capital . . . The president's plan will also improve college access and completion by supporting programs and activities designed to boost college persistence and increase graduation rates.

But none of these goals for individual advancement or developing the nation's human capital can be realized if mastery of basic skills is a barrier to progress through colleges, or indeed through any other level of the education system.

The "crisis" in community colleges can be divided into two issues. A large and increasing fraction of students who enroll in community colleges, and who take initial assessments to see if they are prepared for college-level courses, are directed into basic skills courses. One figure often bandied about at the national level is about 60 percent; based on a national sample of students tracked between 1988 and 2000, Attewell, Lavin, Domina, and Levey (2006) found that 58 percent of students attending community colleges took at least one remedial course. A more recent report claimed that 75 percent of entering community college students need developmental instruction, suggesting perhaps that rates of "college readiness" have been declining (NCPPHE and SREB 2010). Another data set, based on 83 community colleges surveyed by the Achieving the Dream project, found that 59 percent of students enrolled in at least one developmental course over 3 years (Bailey 2009). Various data problems, particularly students who manage not to go through the assessment process (whose numbers are usually unknown), as well as students directed into remediation who do not take the recommended classes (21 percent of students directed to remedial math and 33 percent of students directed to remedial reading, in the Achieving the Dream sample) mean that this figure is subject to considerable uncertainty. Overall,

however, information from several sources indicates that it is well over 50 percent.

In California, where the research for this paper took place, the figures are somewhat higher. Peter Bahr has found that, in the cohort entering in Fall 2002, 49.7 percent of entering students enrolled in one or more remedial courses (Perry et al., 2010, p. 26). However, these results may be outdated. More recently many people claim that about 80 percent of entering students are assessed into developmental education, and at individual colleges this number is as high as 95 percent — meaning that virtually no entering students are ready for college-level work. We will sometimes refer to this as the magnitude or extent of the remedial problems. These high proportions are not, of course, the fault of community colleges (though there are issues in the assessment process that may artificially inflate or deflate these numbers, as we will see in Working Paper 7). Many instructors blame high schools, although — as we will argue in the next section — there are many reasons for these distressing numbers; in general California is near the bottom of the states in the quality of its educational system.[iv] Other factors specific to California include low tuition levels in colleges, meaning that fewer students select themselves out because of financial reasons, and the existence of community colleges with every possible mission and therefore highly heterogeneous students (the subject of Working Paper 4). But with a few exceptions, colleges have concentrated not on preventing such high numbers of

remedial students, for example by working closely with high schools, but on increasing and improving their own developmental education.

The consequence of such high rates of development education affect first and foremost students, of course, who come to college for education to be successful economically, and then find they have to re-take many of the courses they have passed earlier in K-12 schooling. But they have effects on colleges too, as they have been turned into places where increasing mounts of remediation must take place before college-level work can begin. As one instructor noted,

> Basic skills accounts for 90 percent, I'd say, of what we do. If you take a look at just the courses that are offered, we have very limited offerings. Over the years we have gotten narrower and narrower in terms of what we're actually offering, and these are always basic skills classes, paring down, paring down to the core gut-level basic skills classes. Pathetic — not what anyone wants.

Several colleges in our sample have suffered crises of identity in the process. One used to be a transfer-oriented institution for African-American students; with a shift in its population to increasing numbers of Latinos and immigrants, it found itself providing more developmental courses (including ESL for immigrants). As one faculty member described the shift, "you've got in excess of 90 percent of students who are, quote, 'basic skills', below college level. Without a basic skills component, the college does not exist." This left the college in quandary: while many wanted to address basic skills issues, others (particularly older faculty wedded to its transfer mission) didn't want to be just a "remedial campus". At another institution, the vice president of academic affairs pointed out the tension

between providing basic skills instruction and college-level courses, and said that "while we don't wish to become a basic skills institution," they had to recognize the needs among incoming students and strike a balance among the offerings of community-serving colleges. Yet another college has in effect been debating for over a decade: ten years ago they convened a basic skills task force, but "we didn't really understand that those students were such big part of our campus, and there was more a sense of 'Well, we're more of a transfer institute'." But the upsurge in basic skills in the past decade has forced this college, like so many others, to re-evaluate its priorities.

The issue of increasing basic skills coursework is in turn part of the discussion of goals or "missions" that has preoccupied community colleges over a long period of time. If community colleges become "remedial campuses", then they may not be able to fulfill their academic or transfer roles in the same way, or their role in preparing students for employment, or their economic development role in providing upgrade training and contract training for employers. And then colleges may be put in the devilish position of either resolving basic skills issues before students can attend transfer or occupational missions, or in effect turning away students because they don't address the need for remediation. As one president said of basic skills, it becomes a prerequisite for its occupational responsibilities:

> As far as the economic well-being of this area, it's all tied to having an educated, trained workforce. If we wish to be a player, our part would be to support the economic expansion of opportunities here. So that's where

> basic skills sits for me. It isn't to prepare them all to go off to transfer; that's not real, especially in this community. What they want to do is prepare themselves to have a better life.

So the magnitude of remedial education has in some cases changed the missions of colleges, though this change may have been too fast for the colleges and instructors to keep up with it.

Now, some of the "crisis of identity", or comments about basic skills accounting for "90 percent of what we do", is exaggerated — as claims in educational "crises" often are. Even while a high majority of *entering* students may assess into one or another basic skills course, this does not mean that *overall enrollments* in basic skills courses are overwhelming the other offerings of colleges. In the fall of 2009, for example, only 7.9 percent of enrollments in California colleges were in basic skills courses, including 7.1 percent of those in English courses; the only real exception came in math, where 29 percent of all math students were enrolled in developmental math.[v] So even if there is a serious problem with entering cohorts needing more developmental education, the other academic and occupational missions of community colleges still account for the vast majority of enrollments. The comprehensive community college is alive and well — it's just that developmental education has become a somewhat larger part of its mission.

The second issue in the remediation "crisis" involves the proportion of basic skills students who complete a remedial sequence, move into college-level

coursework, complete a credential of some sort, or transfer to a four-year college — the "success" of remediation measured in several different ways. The Achieving the Dream data indicates that, of those referred to a developmental reading course, only 44 percent completed the full sequence; the figures are even worse for math, where only 31 percentof those assessed into developmental math entered college-level math. Many more students have missed being assessed at all, and their success rates are unknown. For the least- prepared students, those who enter three or more levels below college-level math, only 22 percent completed sequences in reading and 16 percent in math.

For California, again the figures are worse: one source found that only a quarter of students enrolling in a basic reading class ever enroll in a transfer-level English, and only 10 percent of students enrolling in basic math end up in transferable math (Center for Student Success 2005). Bahr (2010) has calculated that of all students who initially enroll in a basic math course, only 24.6 percent are successfully remediated in the sense that they enroll in a college-level math course within 6 years; but the rates for racial groups vary widely — from 29 percent for whites and 33.7 percent for Asians, to 20.3 percent for Latino and 11.8 percent for African American students. Rates of success are related to other obvious factors — to the extent of deficiency in math, academic goals, success in the first math class, the persistence in enrolling (instead of stopping out), and delaying the first math course — indicating that both the extent of preparation in high school and students' own behavior affects success rates. In addition, most

students assessed into remediation advance only one level, and rarely two levels; so if students are assessed three or four levels below college level, there is very little chance they will complete a developmental sequence. Of course, this kind of analysis looks only at easily-measured student characteristics and cannot determine the responsibility of the institution for these completion figures, but in this series of working papers we will consider a broader range of factors — mediocre teaching, inadequate support services, a poorly articulated sequence of courses, other issues with students and their preparation and their "chaotic" lives, all ascertained by observing classes and support services— as potential causes of low completion.

When success rates are calculated for individual colleges, they vary substantially: the rates of progressing from developmental education into college courses in English, in data calculated by the California Chancellor's Office, varied for the 2005-06 cohort from 57 percent for one middle-class suburban college to 17 percent in several urban colleges and 16 percent in an urban college with a high proportion of career-technical students. Rates of progress in math varied from 32 percent to 43 percent, as usual lower than in English. While there is again — as with the proportion of students needing remediation — some uncertainty about the precise magnitude of these numbers, because of differences in data quality and how students are categorized, there is little question that these success rates are low, and little question that many administrators and

instructors worry about how low they are. As one chair of counseling said, using the common "revolving door" metaphor:

> What we see is a revolving door with that level of student coming in. And so it makes recruitment extremely difficult and frustrating because obviously you have a lower retention rate [in basic skills courses], you recruit a bunch of people, they come in, they fail, they leave. You recruit another bunch of people, they come in, they fail, they leave — so it's just a constant revolving door.

Until success rates can be improved, the promise of the community college as the route to success for non-traditional students or as a pathway to the American Dream, cannot be realized.

This working paper, and ten subsequent papers, represent our efforts to figure out what might be responsible for such low levels of success in basic skills sequences. There are many potential causes, as we clarify at the end of this working paper, and everyone has his or her favorite explanation (as do we). But with the current state of knowledge and data, no one — absolutely no one — has any idea which reasons are more important than others, and no one has the quantitative data (or has adequately confronted the barriers to accumulating such data) that might enable a statistical analysis of which causes are more important.[vi] Until such data and results emerge, we are left with looking at a broad range of issues, to illustrate the enormous variety of ways in which basic skills instruction could be improved.

First, however, it is necessary to frame the dilemmas of basic skills, both to provide some immediate understanding of the dismal numbers presented above,

and to clarify fruitful areas for investigation. In this working paper, therefore, we first examine the problem of "dynamic inequality", which helps explain why the remediation "crisis" affects so many parts of K-16 education, and why it may be worse in the transition to postsecondary education than it is in elementary and secondary schools, or in regional four-year colleges (which usually have admissions standards). Then we look at the admirable tendency in U.S. education to develop second-chance efforts for students who are lagging behind — but second chances necessarily operate under difficult conditions. The analysis of second-chance efforts makes it easier to understand, if not accept, the low success rates of developmental education.

Basic skills instruction, like much of education and training, is by definition an instructional encounter and a simple model of the classroom illustrated in Figure 2, describing the trilogy of the student, the instructor, and the content, all within a complex set of institutional influences. These then lead to the research design that we have employed in this work, especially its emphasis on classroom observations as the principal way to know what happens inside instructional settings, and therefore what developmental education is all about.

In addition, the so-called "triangle of instruction" helps identify some of the potential causes of low success rates in remedial education. The final section of this working paper therefore clarifies the instructional issues and the institutional effects on classrooms that have shaped the underling research, and will guide the remaining working papers.

I. Dynamic Inequality and the Magnitude of Remediation

The magnitude of the remedial problem as community colleges experience it is due to an entire series of educational events that take place before students enter community colleges. Often instructors blame high schools — "the bar is just set too low" — and especially the senior year when students seem to coast, when "they may not have worked hard". But when we consider the overall effects of K-12 schooling, we need to recognize the dynamic process by which people become educated over time. Children start formal schooling, say at kindergarten, with unequal capacities, both cognitive abilities (like knowledge of letters and numbers, vocabulary, and sophistication of language) and non-cognitive capacities (like the ability to get along with others, conceptions of what school is all about, and patterns of interactions with adults) — the result of the differences in family background, as well as earlier forms of schooling like early childhood programs. Equalizing these initial differences might be the responsibility of early childhood and family intervention programs like Head Start and programs funded by the Child Development Block Grant. Recognizing these differences, many advocates have been promoting expanded (or even universal) early childhood programs to minimize these initial inequalities.

Then schools might narrow these initial differences, maintain them, or cause them to increase. In the United States, these differences appear to be

magnified over time.[vii] Therefore the growth patterns of high-, middle-, and low-performing students look something like the solid straight lines over grades K – 8 in Figure 1, which diverge steadily between kindergarten and eighth grade. The result is that the differences among low-, medium-, and high-performing students become larger and larger. By the end of twelfth grade the variation is enormous: some have dropped out of school and are still reading at an elementary level, while others are ready to go to the best colleges in the world. Note that the outcomes depicted in Figure 1 might be test scores, but they also might be other dimensions like commitment to schooling, steady progression, aspirations for postsecondary education, or even the many dimensions of "college readiness".

Given evidence of diverging outcomes, an obvious question is what causes growth trajectories to diverge rather than converge. One explanation focuses on the psychology of learning, specifically on the contention that "knowledge begets knowledge" (Resnick 1989) — implying that individuals with higher initial levels of academic competence are able to learn at a faster *rate* than others. A different explanation emphasizes the continuing effects of family background. If aspects of family background — like parental education, aspirations for their children, or income — continue to reinforce or undermine schooling, then initial differences will continue to diverge over time as long as family background affects both initial differences and subsequent rates of learning and progress.

School resources are often allocated by family background or race, in complex ways. High-status students are more likely to live in school districts with high spending and well-credentialed teachers, while poor and minority students are more likely in urban districts with uncredentialed teachers, overwhelmed administrators, and chaotic conditions. Stability — of students and teachers, principals and superintendents — is yet another abstract resource that may contribute to divergence, given the contrast between relatively stable suburban schools and many urban schools with instability. In addition, school resources are often allocated according to student performance. For example, the "best" teachers (or at least those with the most experience) usually choose to teach the "best" student, or honors and AP classes, or move to suburban schools with higher-performing students. Conversely, low-performing students are often assigned the most inexperienced teachers with the least seniority, or are assigned to low-ability, general, or vocational tracks with weaker teachers, lower teacher expectations of students, watered-down curricula, and unmotivated peers. Such allocations will reinforce high and low performance over time. In addition, if teachers vary in their ability to follow state standards or grade-level norms, then the material taught in some classes or schools falls further and further behind standards (e.g., Hollingsworth and Ybarra, n.d., finding a school where 98 percent of both math and language arts material in fifth grade were below grade level), while other teachers maintain grade-level norms, this exacerbates the divergence in learning.

Students' commitment to schooling may also contribute to divergence. Students with low levels of initial outcomes may become discouraged or shamed by their low performance, while high-performing students are motivated by their success and further encouraged by parents and teachers. A special case of this explanation is the mistreatment of racial minority students: if black, Latino, and American Indian students are subjected to slights or indifference or "micro-aggressions" (Solorzano 2001), they may become increasingly discouraged or disconnected from schooling. Of course, schools contribute to these patterns when they provide unmotivating instruction, disparagement of low performance, or tracking into programs that are essentially dumping grounds.

One more possibility is that trajectories might not be smooth and continuous, as they are on the left side of Figure 1. A good example is the transition from 8th to 9th grade. The lowest-performing students drop out or drift away by paying little attention to coursework; these students may fail to make any further progress. (They are represented by the lowest solid line after grade 9, in place of the more continuous dotted line). Yet other students, presumably those who have fallen behind but who still stay in school, are assigned to remedial courses or even special education, which tend to use the weakest forms of instruction — drill and repetition — on low-level content that bores and insults them, so remedial students fail to progress in high school content. Other low-performing students are relegated to general or traditional vocational tracks, where the curriculum is watered down, teachers have lower expectations of

students, and peers have relatively low ambitions. At the upper end, high-performing students gain access to AP or honors tracks, and their rates of learning accelerate, in the top lines after grade 9. These patterns lead to a "burst" or "explosion" of inequality from eighth to ninth grades, and then to progressively greater inequality over the high school years (confirmed by statistical analysis of test scores in Grubb, 2009, Ch. 7). When such a burst takes place, the likelihood of students catching up—on the trajectory labeled Intervention_{hs} in Figure 1—seems virtually impossible, because the rate of learning required for catching up is so high. In addition, older students are more likely to become unmotivated by then, and adolescents often have things to do — some of them self-destructive — other than remain diligent students; so some students' lack of commitment to schooling may undermine even careful intervention efforts.

Such bursts of inequality from 8^{th} to 10^{th} to 12^{th} grades have been confirmed by Grubb (2009), using data on test scores and aspirations over the high school years. Another such explosion may occur somewhere during the third or fourth grades, when schools shift from teaching basic competencies like reading and math to using these competencies to learn content. This creates widening differences between those who have mastered and those who have failed to master basic academic skills and school-appropriate behavior, sometimes referred to as the "fourth grade slump". The transition to middle school, with a different pattern of teachers and subjects and often with formal

tracking, may cause another such burst of inequality. Knowing that such transitions can cause greater inequality makes it possible to modify patterns of instruction and develop bridge programs to smooth these difficult transitions.

Figure 1 is also useful in understanding the magnitude of remediation. If we think of the middle trajectory as representing grade level norms, then over time some students — the lower-performing students — fall further and further behind grade-level norms. These differences may not make that much difference in the early grades — though if teachers are slowing down the pace of instruction in the ways identified by Hollingsworth and Ybarra, then even fifth graders may be as much as a year behind. So the need for remediation shows up in many of the lower grades — not just at entrance to college — but many earlier problems are not corrected. As one dean of student development noted, in one of the few colleges to work with its feeder high schools,

> A group of math faculty welcomed math faculty from elementary, middle, and high schools locally, with no intent of pointing fingers. And it was very revealing to hear what some of the teachers in elementary, middle, and high school were facing, and how it's very similar to what we're facing. The fact that essentially, if by fourth grade you don't know your math facts, it's going to be difficult; nobody's going to take the time to remediate you. And likewise, once you are in seventh grade, if you don't really get a bit of a grasp for algebra, again, nobody is going to have time to step back and say, "Here's we're going to help you with this." And that provides, I think, an explanation as to why we see so many — at least a large proportion — of our students coming to us who are just not prepared, at least of the traditional high school students who could come here.

By the time students reach high school, a substantial fraction of students (especially in urban districts) are sufficiently behind that many high schools have

been forced to offer "interventions" or basic skills instruction, or to create ninth grade "academies" that try to remediate both cognitive deficits and non-cognitive barriers (like motivation and engagement). By the end of high school, the differences between low-performing and high-performing students have grown even worse, particularly in certain tracks — the general track, the traditional vocational track, the remedial track dominated by drill and practice on sub-skills. So levels of preparation for college, and therefore the magnitude of remediation problems in community colleges, are due to many factors extending back the early grades, as well as to the transitional issues that cause "bursts" in inequality — not just to senioritis, and not just to the high school, but to a complex of school and non-school influences stretching back before kindergarten.

Now we can see why the remedial "crisis" may be larger in the community college than in any educational institution. These colleges inherit the results of widening differences all throughout K-12 education, including the burst in inequality associated with the transition to high school. Unlike four-year colleges, which have admissions standards that can supposedly (but not really) keep students with basic skills needs out, community colleges are open-door institutions, dedicated to accepting students who have some "ability to benefit". They are also the colleges where older students trying to return to education enter, and these students have particular basic skills needs, as we will see in Working Paper 4 on students. So the ways that dynamic inequality creates ever-

greater needs for developmental education, the equity stance of two-year colleges accepting all who want to enter, and the greater selectivity of most other postsecondary institutions leads to the greater magnitude of remedial issues.

II. Second-Chance Programs, Their Promises and Challenges

Fortunately, given the increasing inequality among students generated by the American "system" of public education, the U.S. has been particularly generous in providing an array of second-chance programs — more generous than other developed countries. These include remedial coursework at all levels of the system; dropout recovery programs for high school students; an enormous range of public and private efforts to improve the transition from high school to college, and to offer forms of "college readiness" that neither parents nor schools have provided. While community colleges are often the institutions of first choice for some students — particularly those uncertain about college, unwilling or unable to leave their own communities, and those with limited financial resources — they are often viewed as second-chance institutions for other students, providing an entry point into postsecondary education for those whose high school work was mediocre, or who cannot leave home to attend college, or who decided in their 20s (or 30s or 40s) that earlier decisions not to attend college were mistaken. Other postsecondary second-chance programs include short-term

job training, welfare-to-work programs, and government-support adult education.

The creation of so many second-chance efforts is testimony to an underlying strain of equity in American education, often linked to the belief in the public schools as "a great equalizer of the conditions of men, the balance wheel of the social machinery", as Horace Mann put it, or to the American Dream of individual advancement through hard work — now hard work in schooling (Hochschild and Scovronek 2003). However, second-chance efforts always operate under difficult conditions. Students by definition are those who have failed in some other part of the system — perhaps because of the poor quality of their earlier education, perhaps through their own lack of work or persistence, perhaps because of other problems (needing to take care of siblings or children, learning disabilities, mental health problems) that schools are not equipped to resolve. (In Working Paper 4 we will review student issues, including instructors' perceptions of why they show up in developmental courses). The peer effects in second-chance options may not be particularly beneficial, since other students are those who have failed in some way, and may have limited ambitions as well as limited ability to help their classmates with schoolwork.[viii] The nature of the instructional problem is self-evidently difficult, like trying to move a student reading at the 5th grade level to "college-level" work, or to motivate a student whose previous school attendance has been spotty at best; one English instructor noted, "If you're literally taking students from

sentence-level errors and working with sentences all the way up to college-level writing, in a span of a few semesters, that's a tall order, obviously".

Almost inevitably, second-chance efforts are funded at lower levels than first-chance efforts (though a few very intensive and expensive programs exist as tests of more comprehensive approaches[ix]), and resource constraints will show up throughout this study of community colleges (especially in Working Paper 8, on funding and resources). Teaching in second-chance programs is usually left to the instructors who are the weakest or most marginal to the institution — adjunct instructors in community colleges (examined in Working Paper 6), emergency-credential and inexperienced teachers in high schools, instructors hired "off the streets" without any instructional preparation in adult education and job training programs. And, because of the ways that the diverging trajectories in Figure 1 work, most of the students in second-chance efforts come from low-income, African American or Latino or other racial minority or immigrant families, and they cannot count on the financial or the academic support of their families. The common phenomenon in community colleges of students who are the "first in their families to attend college" is, like all second-chance efforts, testimony to the equitable intentions of these colleges, but it simultaneously creates various problems with "college readiness", and with financial and academic supports (explored in Working Paper 4).

Second-chance programs therefore concentrate a number of conditions that are detrimental to their success. It's therefore unclear what success rates in

any of them should be. Surely, given these problems, 100 percent success is unattainable, "unrealistic", and many college instructors we interviewed have gotten accustomed to dropout rates throughout the semester of 50 percent or more, as the "revolving door" metaphor illustrates. Perhaps the 31 percent to 41 percent success figures compiled by Achieving the Dream, or the 16 percent success rate in math for California students who enter at the lowest level, are as high as can be expected. There aren't absolute benchmarks for success in any second-chance programs, and therefore the best that can usually be done is to compare the success rates in supposedly high-performing colleges with those in low-performing colleges, or in pilot programs with those in regular programs. The question of what success rates could be or should be is especially difficult in community colleges, with the enormous heterogeneity of their students (examined in Working Paper 4); the great variety of K-12 education from which they come; and the enormous differences in their goals and aspirations. So it is both conceptually difficult and statistically impossible, given the limited data in most colleges (reviewed in Working Paper 6), to decide when success rates are high enough — even though there is a general consensus that existing rates are too low.[x]

In the absence of conceptual consensus and better data, all that is possible is to examine the practices in basic skills, to see whether they are consistent with practices that have been generally found most effective, and then to examine whether institutional support of basic skills is consistent with high-quality

instruction.[xi] This then forces us to examine basic skills efforts from two perspectives — from the perspective of the classroom, and from the vantage of institutional policies that might support or undermine) what happens in classrooms.

III. The Triangle of Instruction

Developmental education, like much of what happens in formal schooling and postsecondary education, is first and foremost an instructional enterprise, with (at least) one instructor, (at least) one student, and some kind of content. This can be simply described, as in Figure 2, as the *triangle of instruction*, where the learning that takes place is a function of all three components. This simple model of the classroom — or indeed of other instructional settings, including math and writing labs, tutorials, computer-based instruction, experiential learning, the varied workshops of occupational education, the work settings of work-based learning — can be interpreted as a kind of equilibrium model. As long as teacher and students have the same ideas about what learning is, or about how best to learn, or similar conceptions of the purposes of any course, then consistency between the two will prevail; but if instructor and student, or instructor and the content (often embedded in a textbook) disagree, then some kind of problem is likely to arise, mild or serious in different cases. We need

therefore to be aware of potential inconsistencies within the classroom, among the three elements of the instructional triangle.

Alternatively, the schema in Figure 2 directs us to the interactions among each pair of elements. One of the interactions is between the instructor and content; content knowledge, or mastery of the subject matter, is universally recognized as important for strong teaching, and community colleges usually assure that by requiring all instructors to have M.A. degrees (or, for occupational instructors, experience in their field). But the instructor's conception of the content is also crucial: a math teacher may understand math as a set of procedures to learn by rote — how to convert decimals to fraction, how to solve a one-variable equation —while another may understand it as a way of thinking about relationships (including spatial relationships). Similarly an historian may think of history as names and dates, or conversely as a set of deeper issues (economic institutions, governmental forms like democracy, struggles for power) that transcend any specific event. This is similar to what Shulman (1967) has referred to as pedagogical content knowledge — the understanding not only of alternative approaches to teaching and learning, but also how they may appear in different content areas.

Similarly, we can examine the interaction between instructor and students, what instructors know about their students and their backgrounds, and what they think about their capacities (both examined in Working Paper 4), since that will surely affect the nature of their teaching. The warmth and support of

instructors is widely recognized as an element of strong teaching, so the personal relationships between instructors and students are also part of the triangle of instruction, and the potential success of the classroom. Indeed, the sympathy of community colleges instructors for their students, and their efforts to provide them as much encouragement as possible, is a distinctive feature of the classrooms we observed, and we begin Working Paper 2, on the dominant approaches to remedial instruction, with observations about such relationships. And of course content in the end is much of what matters to the outcomes of formal schooling, the material that students learn — basic math, basic reading and writing, English for immigrant students. But the content of the classroom can also be understood as a set of attitudes toward learning, especially whether the content is engaging and motivating, or perceived by students as relevant (or irrelevant) to their purposes. And so, as we will see in Working Papers 2 and 3 about conventional instruction versus innovative instruction, one consequence of some teaching is that students become unmotivated and drop out of basic skills sequences — lowering the success rate of remedial coursework.

The elements in the triangle of instruction therefore influence both what students learn and whether they make adequate progress in their coursework, two different dimensions of remedial success rates. But the important point is that *it is impossible to understand the triangle of instruction, and therefore the nature of basic skills teaching in community colleges, without entering the classroom in some way.* Some people have relied on instructors to report what they do (e.g., Seidman,

1985), though this is unreliable because instructors may exaggerate how student-centered or "active" or constructivist their teaching is. (These and many other aspects of teaching will be more closely examined in Working Paper 2.) Others have relied on administrators' conceptions of who is a good teachers (Roueche and Baker, 1987), but this is unreliable because most administrators don't spend any time observing classes, and are therefore ignorant about what the instructional triangle looks like even in their colleges.[xii] The only reliable way to learn about what happens inside classrooms is therefore to observe them, and such systematic observations — in 13 different colleges, plus several other colleges with examples of potentially exemplary or promising practices — are the mainstays of this research. We will report findings from classrooms in Working Paper 2, on the domination of what we call remedial pedagogy; in Working Paper 3, on innovations in basic skills; in Working Paper 4 on students in the classes we observed, and instructors' perceptions of students; and in Working Paper 5, on student support services.

In addition, the instructional triangle embeds the classroom in a set of institutional and policy contexts — practices ranging from specific college policies, to practices that virtually all community colleges (often all colleges and universities) have adopted (like the course as the basic unit of instruction), to state and federal policies determining the amounts of public funding and the uses for which it can be spent, to the policies developed by other players like Academic Senates, faculty unions, accrediting associations, and occupational

licensing boards. All these influences external to the classroom may affect instructors, students, and content in different ways, working either to improve or lower the quality of instruction. In the most extreme cases, lack of funding from the state level, lack of support from college administrators who don't want their institutions to be seen as "an empire of remediation", a faculty stressing standards and rigor and unwilling to teach basic skills courses (or basic skills within their own classes[xiii], and students trying to evade basic skills courses that they (sometimes rightly) see as irrelevant and boring can collapse the whole basic skills enterprise, or reduce it to a peripheral and impoverished mission of a college — almost surely contributing to low success rates.

So to understand developmental education — or indeed any other form of instruction, in virtually any educational institution — it is necessary, in addition to entering the classroom, to learn about institutional influences on instruction. Therefore, in each of the college we visited, we tried to interview a variety of administrators to understand these institutional decision: the dean of instruction; the dean of basic skills, if there was one; the heads of the math, English or writing department, the reading department (if separate from English), the head of the ESL department; those in change of student support services including reading and math labs and workshops; the head of Extended Opportunity Programs and Services (EOPS), a support program in California for "students handicapped by language, social, economic and educational disadvantages"; and in some colleges the head of the Disabled Students Program and Services (DPSS),

the program for students with various disabilities.[xiv] In addition, we questioned instructors not only about their own practices, but also about institutional support for basic skills. In this way we hoped to get many different perspectives of the institutional influences on developmental education. These results are largely presented in a second series of working papers including Working Paper 6 on institutional effects on instruction and innovation; Working Paper 7 on the trajectory of basic skills courses, and the dilemmas of initial assessment, the alignment of sequences of courses, and articulation with college-level coursework; Working Paper 8, on funding and resource issues; Working Paper 9, on the effects of state and federal policy; and Working Paper 10, which identifies the organizational structure and interactions of most colleges we observed — what we call *laissez-faire* colleges — as partly responsible for low success rates and the inability to replicate many innovations.

The Appendix provides further details about our research methods, the kinds of people we interviewed, the content of interviews, the process of observation, the selection of colleges, and other methodological issues. We should note at the outset one of the limitations of this analysis: we confined our examination to colleges in California, partly for logistical simplicity, partly to eliminate the additional complexity of a variety of states with different policies, and partly because our source of research funds— the Hewlett Foundation — was particularly interested in California, as part of a suite of projects focusing on California. In several ways California may be atypical: its spending for students

in community colleges is almost surely lower than that of most other states, even though there is no good source of information about state spending levels; its K-12 system is of lower quality than most others, as measured by text scores on the National Assessment of Educational Progress (NAEP), and therefore the fraction of young entering students needing remediation is probably higher; and the governance and policy structure for education in California is quite fragmented and incoherent, for community colleges as well as K-12 education. However, California enrolls about one quarter of community college students in the country and is therefore important in its own right. And in most respects California colleges experience the same issues that colleges in other states do, judging from the nature of the national discussion.

In creating a methodology for examining developmental education, we started with several hypotheses about what might explain low success in remediation. Others have offered their own hypotheses, either by arguing for one particular innovation (e.g., Hern and Snell, 2010, on accelerated courses, or Hughes and Scott-Clayton 2010 and Safran and Visher 2010 on problems of assessing readiness for college-level courses), or by reviewing the literature in categories that assume what might be going wrong (e.g., Zachry and Schneider, 2010, examining so-called "rigorous" research underlying acceleration, contextualized instruction, and student support services, but ignoring other dimensions of instruction, the articulation of developmental courses, and the nature of students). Still other approaches have explicit theories of action

embedded in them; for example, the Lumina Foundation's Achieving the Dream initiative has assumed that creating a "culture of evidence" would lead to improved measures of student success.[xv] These lists of hypotheses are usually different from one another, and many of them omit one that we consider crucial — the quality of instruction, which is obviously a central element in the "triangle of instruction". The practices that we investigated constitute our own hypotheses about what might impede progress through basic skill sequences, and they will be examined systematically in subsequent working papers:

• The quality of instruction, and how motivating and relevant it is to students, may influence both how much they learn and whether they complete a remedial sequence. We will also examine (in Working Paper 3) the enormous extent of teaching innovation in colleges, but ask whether it is sufficient to break the hold of the dominant "remedial pedagogy" — drill and practice on decontextualized sub-skills (the subject of Working Paper 2).

• The variety of students in developmental classes, their differing needs, and their levels of preparation may affect success rates. This hypothesis often leads to suggestions that community colleges should develop admissions requirements or tests, as selective colleges do, in order to eliminate some or all basic skills students — but contrary to the mission of the college as an "open-access" institution. It also leads to an enormous variety of support services.

• Student services have been increased to provide more support to students in both academic tasks — in forms like tutoring, supplemental

instruction, writing and math labs or workshops — and in the non-cognitive aspects of college success, in such forms as Student Success courses, guidance and counseling, tutoring and supplemental instruction. However, if these services are inadequate, or poorly integrated with developmental classrooms, then they may not be effective, and students will not have the supplementary support they need.

• Basic skills courses are typically aligned in a sequence, initialized by an assessment test, that hopefully leads to successful college-level coursework. This trajectory of events, like every other sequence of courses in formal schooling, may be smooth and integrated, or conversely may suffer from a lack of articulation among courses (vertical alignment) and of consistency among courses taught at the same level (horizontal alignment). If mis-alignment occurs in several ways, then this by itself will reduce success rates since some students will be unprepared for subsequent courses; conversely well-aligned assessment and courses ought to simplify the process of getting through the sequence. Some advocates have called for shortening the time required by basic skills courses, by compressing two courses into one and accelerating the sequence (e.g., Hern and Snell, 2010). This may indeed help some students —particularly those who have to complete only one developmental course before moving into college-level work[xvi] — and acceleration efforts have popped up in many colleges across the country. But we will argue that the articulation issues for other students, involving the consistency of similar courses ("horizontal articulation") and of

courses in a sequence ("vertical articulation") are considerably more complex than acceleration alone could remedy, and therefore more systemic policies may be necessary to smooth the trajectory of remediation.

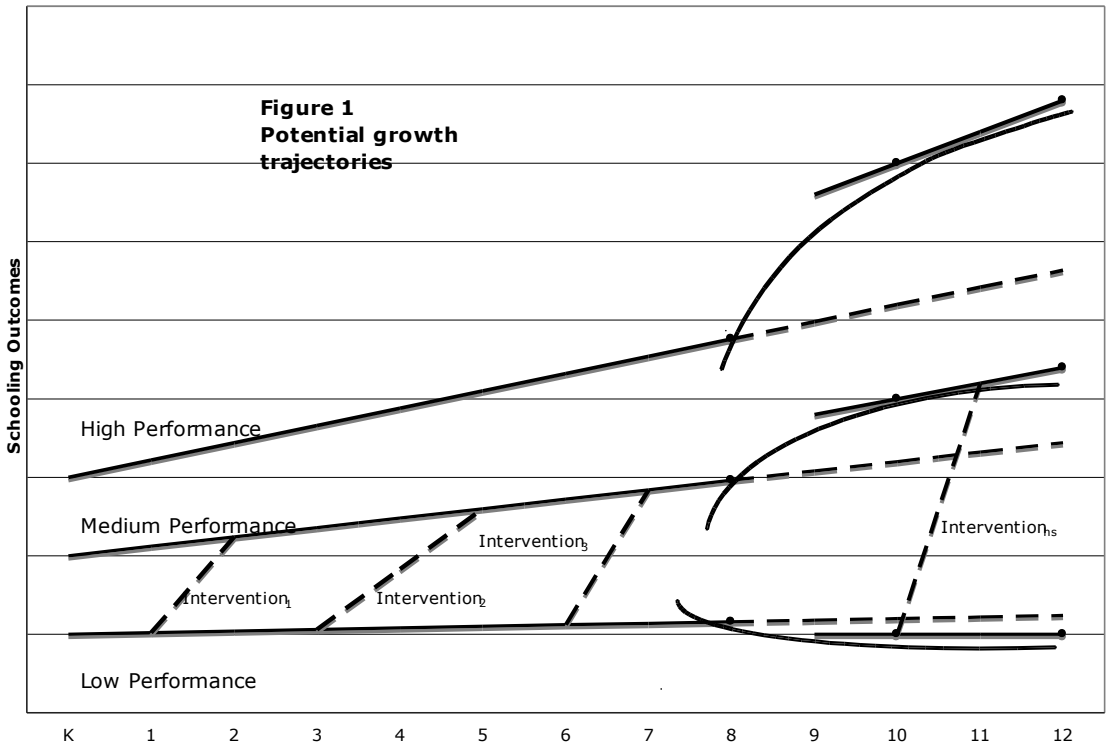
Of course, there are other influences on developmental education, though they usually operate through one of these four hypotheses. A lack of money, for example, may operate by forcing colleges to use more adjunct faculty with less access to professional development, or by restricting the amount of support services, or simply by reducing the number of basic skills classes. The reluctance of colleges to impose requirements on either students or faculty (the "laissez-faire" nature of many community colleges, examined in Working Paper 10) contributes to poor instruction and unprepared students in several ways. So there are many more issues to "fix", especially many more institutional policies examined in Working Papers 6 – 10, that contribute to the four mechanisms explaining slow progress through developmental education.

But we stress again that *no one has any idea which of these potential influences on success rates is more important than any other.* The data do not now exist to measure with any precision the quality of instruction, and then to see what effect this has on learning and progress. Similarly, while some colleges have improved student services in particular ways, it isn't possible to say whether such efforts are more or less effective than improving alignment or articulation, or enhancing instruction. Until data about colleges and their students improves significantly — and we examine the uneven quality of existing data in Working Paper 6 — the

best that can be done is to examine common practices and see if they live up to what we know (or suspect) about effective practices. This may not give us the answer to which reforms are the most important, but they at least provide an agenda for improvement in developmental education.

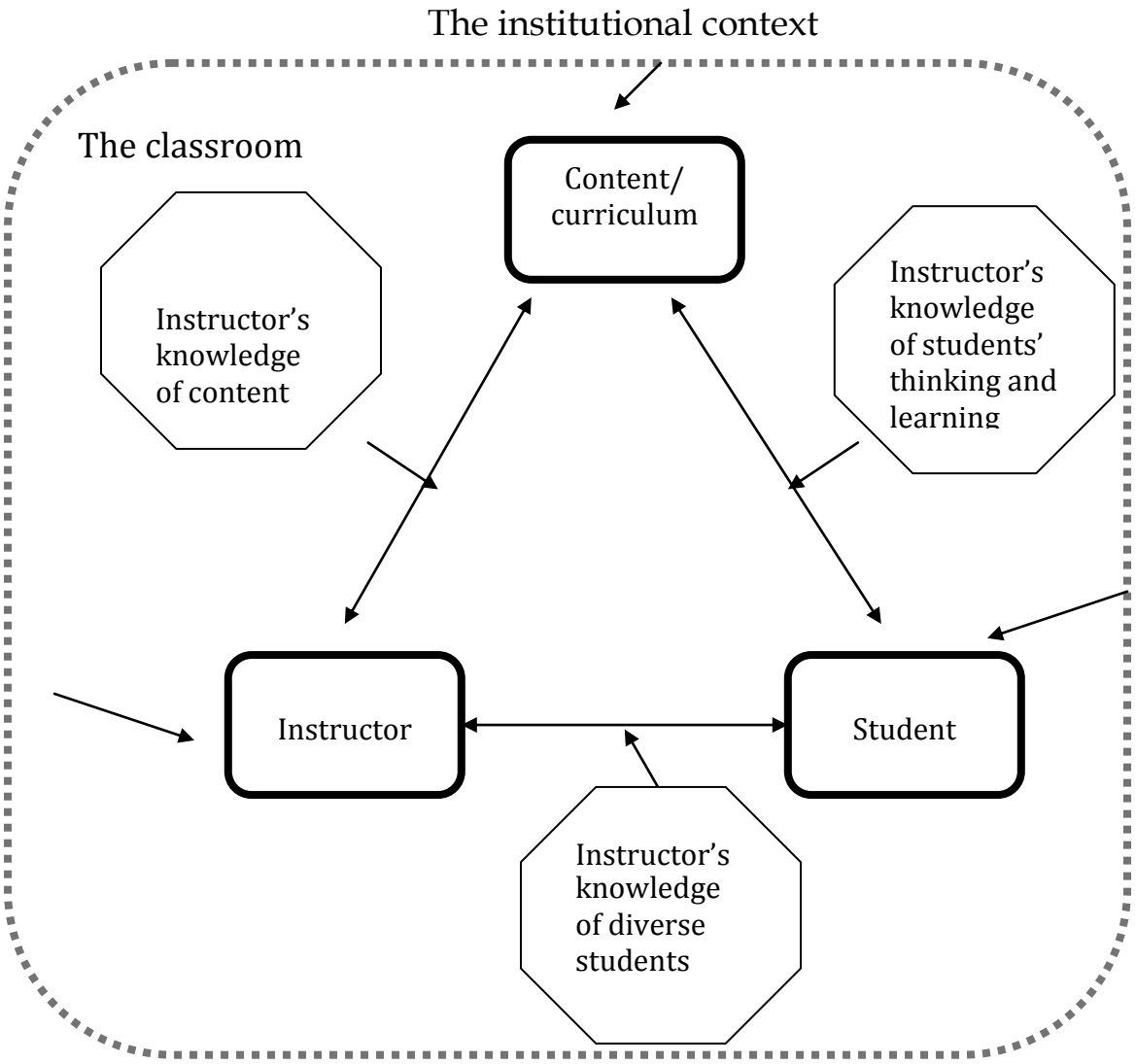
In the end, the current remedial "crisis" cannot be resolved by community colleges alone. The magnitude of the problem is largely out of their control; even if success rates could be vastly improved, the sheer numbers of students needing some form of developmental education constitutes a serious problem — one that has turned some colleges into places where other missions may be squeezed out. Resolving the remediation "crisis", both in community colleges and in all of the other education and training institutions with under-prepared students, will require a Deweyan "both-and" solution,[xvii] *both* improving the quality of developmental education *and* trying to improve the quality of each level of formal schooling so that the need for remediation is not so great. We will put off such a both-and strategy until the final Working Paper 11, accumulating information and perspectives along the way about what might contribute to such an approach.

Figure 1: Potential Growth Trajectories.



Outcomes in this graph might conventionally refer to test scores and other measures of learning,, but they might also include measures of progress through schooling, attitudes related to schooling including connectedness to schooling, a educational and occupational aspirations, and the many dimensions of "College readiness" examined in Working Paper 3.

Figure 2: The Instructional Triangle.



Sources: Little (2006), based on Lampert (2001).

FOOTNOTES

[i] See the analysis in Harvey and Houseman (2004), *Crisis or Possibility,* of a discourse of crisis in many reports about education, contrasted with a discourse of possibility that leads to more student-centered and community-centered approaches.

[ii] In California the rates at which student assess into basic skills courses in the state universities hovers around 50 percent, lower than in most community colleges but still high by any standard.

[iii] "Building American Skills by Strengthening Community Colleges", www.whitehouse.gov/communitycollege.

[iv] On NAEP (National Assessment of Educational Progress data), California 8th graders ranked 44th among the states with 7 other states, and ahead of only one state, in English; in math California was 43rd with 5 other states, and higher than only 2 others. See nces.ed.gov/nationsreportcard/states. California did not participate in the 12th grade NAEP. The sorry state of California's K-12 system, the result of three decades of education disinvestment since Prop 13 in 1978, is partly responsible for patterns in both K-12 and community colleges.

[v] Figures are calculated from Chancellor's Office Datamart, misweb.cccco.edu/mis/onlinestat/ret_sucs.cfm.

[vi] What might such data look like? For K-12 education, which has richer data and more research than post-secondary education, two examples of relatively complete data include the NELS88 data analyzed in Grubb (2009), and the data on Chicago elementary schools examined by the Consortium on Chicago School Research (Bryk et al. 2010). The NELS88 data, for example, has information not only on the usual outcomes (test scores) and inputs (teacher experience and credentials), but also extensive results from questionnaires to parents, students, teachers, and administrators, and outcome measures including different types of progress through high school and into postsecondary education, and educational and occupational aspirations. From these data it is possible to say which school resources are more important in increasing learning, or completion of high school, and which have small or essentially zero effects. Until a postsecondary data set exists with all these kinds of variables, it will be impossible to say with any certainty which causes of success are the most powerful.

[vii] Phillips, Crouse, and Ralph (1998) estimate that initial black-white differences are roughly doubled by the end of 12th grade, though the metric by which differences are measured and the data used make a great deal of difference to this kind of conclusion. Similarly, Hargis (2006, figure 1) has displayed scores on the Peabody Individual Achievement Test, and the range of scores for the middle 50 percent of students widens steadily over time. Rumberger and Gándara (2004)

found that English learners are 1.5 grade levels behind native English speakers by grade 5, 2 years behind by grade 8, and 4.5 years behind by grade 11, a clear divergence in relative performance. Grubb's (2009, Ch. 6, 7) analysis of students in grades 8, 10, and 12 confirms divergence over the high school years.

[viii] The literature on peer effects largely comes from K-12 research, and it shows that peers influence students in various ways; for example, students whose peers intend to go to college are themselves more likely to matriculate, and conversely students whose peers are unlikely to go to college reduce the rate of college-going and others measures of progression through high school; see Grubb (2009), Ch. 2.

[ix] See, for example, the transition to college program called Making Waves, apparently costing an *additional* $12,000 to $13,000 per student per year (Grubb, 2008); the job training program called New Chance, with few positive outcomes despite an extensive array of supports (Quint, 1994); the residential Job Corps program; and the much-touted Perry Pre-school program, a very high-quality pre-school program.

[x] See also the discussion in the Appendix of our failed efforts to identify colleges with especially high and low rates of success, as a way of deciding which colleges to visit.

[xi] Lurking under this statement is a contention about research methods. Several recent reviews have examined supposedly "rigorous" research, by which the authors mean random assignment experiments and results using sophisticated statistical methods. But post-secondary data are usually quite limited, particularly about the family background and K-12 experiences of students, so quasi-experimental statistical analysis is usually poorly specified; random assignments methods — quite apart from being expensive, sometimes unethical, and usually unable to explain why a program works — are best suited to evaluating the small-scale, self-contain programs we critique (in Working Papers 3 and 10) as "programmitis". Qualitative research can be rigorous too, and it is often better than other methods at indicating why an initiative succeeds or fails.

[xii] On how administrators misunderstand teaching, see Grubb and Associates (1999), pp. 301-310.

[xiii] One problem is what instructors in non-basic courses do when confronted with large numbers of students lack in basic skills. As documented in Grubb and Associates (1999), Ch. 6, one approach is to turn the courses into "hidden remediation", or dumbing down the course; another is to ignore the extent of basic skills needed, leaving some students behind; and a third is to change pedagogical strategies. We did not examine non-basic skills courses in this research, so when we turn to this situation in Working Paper 7 on the trajectory of basic skills, we will again rely on this earlier research.

[xiv] Here we made an error: When we began this research, we did not appreciate how many students in basic education might have learning disabilities. This

became apparent only after we had completed an initial round of observations and interviews without interviewing heads of DSPS. We ended up interviewing 3 heads of DSPS in our 13 initial colleges.

[xv] This did not happen, however, for an interesting reason: colleges generally developed small programs that, even if effective, did not reach many students (Rutschow et al. 2011) — the problem of "programmitis" that we examine in subsequent working papers, especially Working Paper 3 on innovations and Working Paper 10 on the organizational structure of the community college.

[xvi] According to data in Perry et al. (2010), 52 percent of students in remedial writing were only one level below the college level, though only 23 percent of those in the remedial math sequence were 1 one level below.

[xvii] John Dewey consistently reminded us that debates framed in polar opposites —behaviorist *versus* constructivist pedagogies, reducing the magnitude of remedial needs *versus* making remediation more effective — often reflect false dichotomies. In his introduction to *Experience and Education* (1938) he wrote: "Mankind likes to think in terms of extreme opposites. It is given to formulating its beliefs in terms of Either-Ors, between which it recognizes no intermediate possibilities" (p. 17). In discussing traditional and progressive pedagogies, for example, he lamented that "the problems are not even recognized, to say nothing of being solved, when it is assumed that it suffices to reject the ideas and practices of the old education and then go to the opposite extreme" (p. 22). A Deweyan alternative to such false dichotomies is always a "both-and" solution.

REFERENCES

Attewell, Paul, Lavin, David, Domina, T., and Levey, T. (2006). New Evidence on Remediation. Journal of Higher Education 77(5): 886 – 924.

Bahr, Peter Riley. 2010. "Preparing the Under-prepared: An Analysis of Racial Disparities in Postsecondary Mathematics Remediation". *Journal of Higher Education* 81(2): 209 – 237.

Bailey, Thomas. 2009. "Challenge and Opportunity: Rethinking the Role and Function of Developmental Education in Community Colleges." *New Directions for Community Colleges* 145: 11 – 30.

Berliner, David. 2009, March. *Poverty and Potential: Out-of-School Factors and School Success. Boulder* and Tempe: Education and the Public Interest Center & Educational Policy Research Unit. http://epicpolicy.org/publication/poverty-and-potential.

Bryk, Anthony, Penny Sebring, Elaine Allensworth, Stuart Leppuscu, and John Easton. 2010. *Organizing Schools for Improvement: Lessons from Chicago*. Chicago: University of Chicago Press.

Bryk, Anthony. 2010. "Organizing Schools for Improvement." *Phi Delta Kappan* 91(7): 23 – 30.

Center for Student Success, 2005). *Environmental Scan: A Summary of Key Issues Facing California Community Colleges Pertinent to the Strategic planning Process.* Sacramento CA: Research and Planning Group for California Community Colleges.

Grubb, W.N. (2009*). The Money Myth: School Resources, Outcomes, and Equity.* New York: Russell Sage Foundation.

Grubb, W.N., and Associates. 1999. *Honored but Invisible: An Inside Look at Teaching in Community Colleges.* New York and London: Routledge.

Hargis, Charles. 2006. "Setting Standards: An Exercise in Futility?" *Phi Delta Kappan* 87(5): 393-395.

Harvey, J., and Housman, N. (2004). *Crisis or Possibility: Conversations about the American High School.* Washington D.C.: National High School Alliance.

Hern, Katie, and Snell, Myra. 2010 "Exponential Attrition and the Promise of Acceleration In Developmental English and Math", Research and Planning Group of the California Community Colleges, www.rpgroup.org/rpsearch/results/taxonomy%3A17.

Higher, Katharine, and Scott-Clayton, Judith. 20101. "Assessing Developmental Assessment in Community Colleges: A Review of the Literature". Working Paper, Community College Research Center, Teachers College, Columbia University.

Hochschild, J., and Scovronek, N. (2003*). The American dream and the public schools.* New York: Oxford University Press.

Lampert, Magdalene. 1991. *Teaching Problems and the Problems of Teaching.* New Haven: Yale University Press.

Little, Judith Warren. 2006. *Professional Development and Professional Community in the Learner-Centered School.* Washington D.C.: National Education Association.

National Center for Public Policy in Higher Education and Southern Regional Education Board (2010). *Beyond the Rhetoric: Improving College Readiness Through Coherent State Policy.* Washington D.C: NCPPHE.

Perry, Mary, Peter Riley Bahr, Matthew Rosin, and Kathryn Woodward. 2010. *Course-taking Patterns, Policies, and Practices in Developmental Education in the California Community Colleges.* Mountain View CA: EdSource.

Phillips, Meredith, James Crouse, and John Ralph. 1998. "Does the Black-White Test Score Gap Widen after Children Enter School?" In *The Black-White Test Score Gap*: 229-272. Edited by Christopher Jencks and Meredith Phillips. Washington D.C.: Brookings Institution.

Quint, J. C., Polit, D. F., Bos, H., & Cave, G. (1994). *New Chance: Interim findings on a comprehensive program for disadvantaged young mothers and their children*. San Francisco: MDRC.

Resnick, Lauren, editor. 1989. *Knowing, Learning, and Instruction: Essays in Honor of Robert Glaser*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Roueche, J. E., & Baker III, G. A. (1987). *Access & excellence: The open door college*. Washington, DC: The Community College Press.

Rumberger, Russell, and Patricia Gándara. 2004. "Seeking Equity in the Education of California's English Learners." *Teachers College Record* 106(10): 2032-2056.

Rutschow, Elizabeth, et al. (2001). *Turning the Tide: Five Years of Achieving the Dream in Community Colleges.* New York: MDRC.

Safran, Stephanie, and Visher, Mary. 2010. *Case Studies of Three Community Colleges : The Policy and Practice of Assessing and Placing Students in Developmental Education Courses*. New York: MDRC; www.mdrc.org/publications/548/abstract.html.

Seidman, E. (1985). *In the words of the faculty: Perspectives on improving teaching and educational quality in community colleges*. San Francisco: Jossey-Bass.

Shulman, Lee. 1987. "Knowledge and Teaching: Foundations of the New Reform." *Harvard Educational Review* 57: 1-22.

Solorzano, Daniel, Miguel Ceja, and Tara Yosso. 2000. "Critical Race Theory, Racial Micro-aggressions, and Campus Racial Climate: The Experiences of African American College Students." *Journal of Negro Education* 69(1/2): 60–73.

Solorzano, Daniel. 2001. "Critical Race Theory, Racial Micro-aggressions, and the Experience of Chicana and Chicano Scholars." *Qualitative Inquiry* 8(1): 23-44.

Zachry, Elizabeth, and Schneider, Emily. 2010. “Building Foundation fro Student Readiness: A Review of ‘Rigorous’ Research and Promising Trends in Developmental Education”. Oakland: MDRC. Prepared for the National Center for Postsecondary Research, ”What Policies and Practices Work for Students?”, Teachers College, Sept. 23-24, 2010.

APPENDIX: The Methodology of the Study

To understand what happens in basic skills instruction, or indeed to understand any educational setting, it is necessary to examine all elements in the triangle of instruction. This requires both analyzing the classroom, including the actions of instructors and students, and documenting the content of the classroom, whether that is represented in textbooks, in the instructor's materials, in class discussions, or in the computer-based instruction that is part of some classes. It also requires understanding the institutional setting of the classroom. Therefore we carried out case studies of 13 colleges in California, later supplemented by a 14th, where we could interview administrators and instructors to understand the institutional setting, observe classrooms to understand the variation in instruction, and interview instructors to understand their perspectives on their own teaching, on the institutions they taught in, and on their students. In these case studies we were not initially able to interview students systematically, though we talked with them whenever we could; however, in spring 2011 we plan to interview students at a number of colleges about their experiences in basic skills.

The thirteen colleges were chosen in different ways. We first selected two colleges well-known to the researchers, with quite different reputations, as a pilot test of the methodology we developed, including the interview protocols for both instructors and administrators; we modified these protocols after these first two visits. We then attempted to identify 3 high-quality developmental programs and 3 low-quality programs, based on the data that Peter Bahr has developed for California (e.g., Bahr 2010); with his measure of success (movement from a remedial course into a college-level course within six years), he provided us with residuals from regression analyses explaining success rates with various independent variables including race, gender, receipt of financial aid (to indicate family socio-economic status), the level at which students were assessed, and other variables. The logic is that colleges with high residuals may be high-quality in various ways, since they have very high success rates even considering the kinds of students they enroll; colleges with low residuals presumably have low-quality developmental courses. We choose three colleges with especially high residuals in both English and math, and 3 with low residuals in both subjects, and we did indeed visit these 6. No one except the lead author knew how thee six colleges were chosen.

However, this method for choosing college proved to work poorly. Many of the colleges with high residuals were middle-class suburban colleges, because Bahr's data (and indeed virtually all data in higher education) has mediocre data about family background and high school performance. In addition, several colleges had idiosyncratic conditions that accounted for their success, including one located near a large state university with a number of foreign students and

another with a high proportion of retired individuals enrolled for avocational reasons. The six colleges chosen in this way provided a good mix of urban and suburban colleges, but we do not consider them high- or low-quality. One implication of the failure of this method is that systems of rewarding colleges based on raw data on success rates in remediation probably fail to identify especially high-quality programs because there are too many other variables associated with student background and preparation levels that cannot be considered with such crude methods.

For a third group, we tried to identify colleges attempting to innovate in their basic skills programs. California has funded a program called the Basic Skills Initiative since 2005-06, providing about $30 million in the first year and slightly higher amounts in the next 3 years, dwindling to $19.1 million in 2009-10 and 2010-11, and now caught up in the general fiscal chaos of California. Each college has a Basic Skills Coordinator, and we surveyed these coordinators to ask about colleges with particular innovations such as integrating basic skills with other courses (especially CTE courses), forming learning communities, integrating student success with basic skills, or providing special forms of professional development for basic skills instructors. Based on these responses and on our desire for a geographically balanced set of colleges, we chose another six colleges. One of these did not want to participate in the study so we were left with a sample of 13 colleges. Later, in 2011, we conducted a visit to a 14th college that kept coming up as particularly innovative. If anything, then, our final sample of 14 colleges is biased in favor of more innovative colleges. Working Paper 3 in particular will describe some of the prominent patterns of innovations we uncovered.

At each college we interviewed the deans of instruction, of student services, the department chairs in math, reading, writing, and ESL, the institutional researcher, the basic skills coordinator and/or the chair of the basic skills committee, the head of EOPS, and any other administrators identified as important in basic skills. At the outset we did not interview the heads of Disabled Students Program and Services (DSPS) because we did not appreciate the potential magnitude of learning disabilities until we observed a number of classrooms, where both learning disabilities and mental health problems became obvious (as we examine in Working Paper 4). However, we did end up interviewing 3 heads of DSPS. We asked administrators about the magnitude of development education at their colleges, college approaches and innovations, priorities of their colleges, what the college did in response to the Basic Skills Initiative, and their perceptions about how well different dimensions of basic skills — assessment, articulation among courses, student services, professional development — were working.

We requested each college to provide us lists of basic skills instructors in math, reading, writing, and ESL; we then contacted these individuals to observe between 3 and 6 hours of class, plus a one-hour interview. Our hope was to

observe and interview about 16 instructors in each college, 4 in each of the 4 subject areas. Unfortunately, the success of this element of the project varied considerably: some colleges provide adequate numbers of names and helped in setting up interviews; others seemed not to understand that we truly wanted to observe classes, and scheduled many interviews with administrators but few classroom observations despite repeated efforts.

We completed 13 case studies in 2009-10, and devoted 2010-11 to examining innovations and promising practices both in our original 13 colleges, in one additional college we visited, and in other colleges where we heard about interesting developments. We revisited 3 or our original 13 colleges to examine more deeply some of their practices, especially departments which had developed their own coherent approaches (analyzed in Working Paper 3). We observed and interviewed a group of teachers in 4 colleges using Reading Apprenticeship, interviewed and observed 4 instructors using the techniques of the National Writing Project, and sought out promising math departments in particular. It is, however, impossible to identify all promising practices, even if only in one state, because of the large number of colleges, the lack of any repositories of information, and the incredibly fluid nature of innovation in community colleges (described in Working Paper 3). But it is possible to describe some of the dominant approaches to innovation, and also to clarify how few students are reached by many of these reforms.

In many ways this research has followed the pattern of *Honored But Invisible* (Grubb and Associates, 1999), an earlier book that examined teaching in a variety of subjects including basic skills but also in academic or transfer courses, in occupational or CTE courses, in literacy practices in a variety of subjects, and in various innovations — again by observing in classroom and interviewing administrators.

List of Working Papers

WP 1: Understanding The "Crisis" In Basic Skills:
Framing The Issues In Community Colleges

SECTION ONE: THE NATURE OF BASIC SKILLS INSTRUCTION

WP2: Basic Skills Instruction in Community Colleges:
The Dominance of Remedial Pedagogy

WP3: Promising Practices in Basic Skills Instruction
The Locus of Innovation

WP4: The Students in Community Colleges:
Faculty and Student Perceptions

WP5: Student Services:
Their Possibilities and Their Limits

SECTION TWO: INSTITUTIONAL INFLUENCES ON INSTRUCTION

WP 6: Institutional Effects on Instruction and Innovation

WP7: The Trajectory of Basic Skills:
Assessment, Alignment, and Articulation

WP8: the Money Myth:
Funding and Resource Issues

WP9: The Effects of State and Federal Policies

WP10: The Organization of the Community College;
Laissez-faire Institutions versus Learning Communities

CONCLUSIONS

WP11: Resolving the "Crisis" in Remediation