Title: Research-Practice Partnerships to Improve Community College Student Success: A New Wave of Developmental Education Research

First and second choice of conference section:
1st: Education and Life Cycle Transitions
2nd: Research ↔ Practice in Local Educational Agencies

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Panel justification
As low-cost open-access institutions, community colleges provide a key point of access to postsecondary education for millions of underrepresented students each year. Public two-year institutions are much more likely to educate low-income, first generation, and minority students than four-year institutions (U.S. Department of Education, 2011-12 Beginning Postsecondary Students Longitudinal Study). Yet, access without progress is no more than an empty promise. Many community college students received inadequate secondary education or enter college after a long gap in their education. The most common approach that colleges use to address academic preparedness has been to provide students the opportunity to strengthen their skills through “developmental” or “remedial” education.

Developmental education is prevalent and costly (Bailey, Jeong, & Cho, 2010; Scott-Clayton, Crosta, & Belfield, 2014). Further, existing causal studies from states across the country fail to find any consistent positive impacts of developmental coursework on students’ academic outcomes (e.g., Bettinger & Long, 2005, 2009; Calcagno & Long, 2008; Martorell & McFarlin, 2011; Scott-Clayton & Rodriguez, 2015; Xu, 2016). In response to concerns about the effectiveness of developmental education, community colleges across the country have been working to reform developmental education by changing how they assess and place students, adopting reforms that accelerate students’ progress through developmental education, and enhancing student services, among other innovations (Edgecombe, Cormier, Bickerstaff, & Barragan, 2013).

This research panel will focus on a new wave of developmental education research conducted in partnership with postsecondary education practitioners and policymakers and designed to inform policy and practice to ultimately support community college students’ success. Regional Educational Laboratory (REL) Pacific is partnering with the Northern Mariana Islands Alliance for College and Career Readiness, composed of stakeholders from the K–12, college, and government sectors, to provide baseline information that can gauge the impact of its developmental education improvement efforts. Staff from REL Southeast are partnering with the Florida College System to closely examine a new policy to make developmental education optional. The Community College Research Center works in collaboration with the Virginia Community College System to evaluate a variety of statewide reforms to developmental education. All three studies highlighted in the panel are part of a long-term body of work conducted in partnership with stakeholders and intended to inform changes to policies and practices in their respective contexts.
The panelists will address what prompted the research study and how the research-practice partnerships were formed; the study design and findings; the changes in policy and practice informed by the research; and the long-term research agenda that has emerged from the study. The panel will then engage the audience in a discussion of how research-practice partnerships can help support developmental education reform implementation through providing evidence that informs adjustment to reforms and eventual institutionalization of reforms. The panel will conclude with discussing what the study findings suggest for the potential for developmental education reform to support the persistence and completion of community college students and underrepresented college students, specifically.


Panelist #1: Phillip Herman  
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**Abstract #1**  
**Background and Purpose:** Stakeholders in the Commonwealth of the Northern Mariana Islands (CNMI), a US territory in the Pacific, are concerned about how well high school graduates are doing in the transition to college and careers. In 2013, representatives from the K-12 system, the one public postsecondary institution (Northern Marianas College, which is a community college) and the Department of Labor organized in a research-practice partnership with REL Pacific, called the CNMI Alliance for College and Career Readiness and Success. Although there was anecdotal information that many students were taking developmental education courses, there was no empirical evidence about the number of students entering developmental English and math courses, and their characteristics and outcomes as they progressed through Northern Marianas College. REL Pacific led a descriptive study to calculate the number of students who begin college in developmental education courses, describe their characteristics, and track students who started in credit-bearing courses and developmental education courses for four academic years, which represents 200 percent of expected time to degree as all students were pursuing associate’s degrees.

**Setting and Participants:** Participants were all entering full-time first-time first year students seeking an associate’s degree at Northern Marianas College over the course of three academic years. Data were provided by several departments at the college including admissions, the academic departments, and the registrar’s office. Students were assigned to developmental or credit-bearing courses based on their performance on placement exams (ACCUPLACER and Compass) which they took during registration at the college or shortly thereafter in most cases.

**Design:** The study compared the academic progress and outcomes of students who placed in developmental English or math courses compared to their peers who started in credit-bearing courses in each subject. The outcomes of interest included credits accumulated, grade point average (GPA), passing rates in first credit-bearing courses (for the students who advanced from developmental to credit courses), persistence rates, graduation rates, and time to degree.

**Findings:** About 91 percent of students were placed in developmental math courses and about 80 percent were placed in developmental English courses. Compared to their peers, the students who began college in developmental courses had much worse outcomes. After four years, about 9 percent of developmental English and 14 percent of developmental math students graduated (compared to 32 and 45 percent of those who started in credit-bearing courses in each subject). Only 30 percent of students in developmental math ever attempted a credit-bearing math course, while 39 percent of those who started in developmental English attempted a credit-bearing English course.

**Conclusions:** The high number of incoming students placed into developmental courses and the low graduation rates of these students, helped influence the Alliance to make some changes to policy and practice. Every high school junior now takes the college placement exam so the system can determine who on track to graduate college ready and who is likely to be placed in developmental education courses. The alliance is currently working with REL Pacific to co-develop, co-design, and co-deliver a 12th grade transitional math course. If students pass that course, the college has agreed that students can enter directly into credit-bearing math courses at NMC. In Palau, another REL Pacific partner, Palau
Community College has used the results of this study to eliminate developmental education and allow all students to attempt credit-bearing courses. REL Pacific is working to study the impact of that policy change. Overall, even though this study did not determine the efficacy of developmental education, it provided strong enough evidence that the outcomes are so poor that there is little risk in developing new approaches that might better help more students succeed at community colleges in the Pacific.

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Abstract #2

Background and Purpose: Developmental education courses in college have come under increased scrutiny in recent years. Concerns focus on the large number of students enrolled in developmental education courses, the high costs of providing them, and the low success rates among students who enroll in them. These issues are not unique to Florida; state legislatures across the country struggle in promoting student attainment of education credentials through developmental education.

Before 2014, Florida students entering a Florida College System institution were required to take placement exams and, if they did not score high enough, to take developmental education courses. In 2013, the Florida Legislature changed the law and beginning fall of 2014 eliminated the placement test requirement for the majority of incoming students.

Staff from the Florida College System, which is part of the Florida Department of Education, partnered with staff from Regional Educational Laboratory Southeast to conduct a study of the first semester of policy implementation. The implications of these findings will be discussed in the context of differential impacts on by race and age and changes in college policy and practice as a response to the policy shift. The study authors have conducted extensive site visits and interviews with Florida Colleges as they implemented the new legislation, documenting changes in advising systems, course structure, and staffing.

Setting and Participants: Data are from the Florida Department of Education’s Education Data Warehouse and the Florida College System, comprised of 28 community and state colleges. The Florida College System collects student level data from each college that includes demographics, course enrollments, and grades. The data are housed in the Education Data Warehouse which provided an anonymized student-level data set of all students reported by the state’s community colleges. Because these are official administrative data used for both state and federal reporting, the data are considered to be the universe of students entering college for the first time in the fall semesters in each of the years in the study. The population was fall term enrollees at Florida Colleges from fall 2011 to fall 2014. The number of enrollees ranges from 64,000 to 73,000, depending on the year.

Design: This study used longitudinal data analyses calculated changes in student enrollment and passing rates in developmental education and gateway courses (introductory math and English courses that are required as prerequisites for other college-level courses) between 2011 and 2014, when developmental education became optional. It summarizes patterns in enrollment and course passing rates by subject and student demographic characteristic in the 2011–14 fall semesters, with a focus on changes between fall 2013 and fall 2014, the two semesters immediately before and after the legislation was
implemented. Course passing rates were calculated as the number of students who received a C or better in the course divided by the total number of students enrolled in the course. While a grade of D is passing, the Florida College System defines a C or better as a successful completion.

**Findings:** The key findings from this descriptive study include:

- In fall 2014 a smaller percentage of students enrolled in developmental education courses, particularly in math, than in previous years.
- From fall 2013 to fall 2014 passing rates in developmental education courses increased an average of 2 percentage points in math, reading, and writing.
- Enrollment in gateway courses increased in fall 2014. Passing rates in gateway courses were relatively stable between fall 2011 and fall 2013 but declined in fall 2014, with the largest decline occurring in intermediate algebra.
- The proportion of all first-time in college students passing English and mathematics gateway courses increased in fall 2014 compared with previous years.
- Black students tended to evidence larger responses to the policy shift than white and Hispanic students, likely owing to their disproportionately higher placement rates for developmental education.

**Conclusions:** Reduced enrollments in developmental education and lower pass rates for gatekeeper courses are logical consequences of making developmental education optional. However, the increases in the proportion of all students who passed a gatekeeper course raise questions regarding the utility of developmental education and placement mechanisms. Even though there was a higher percentage of students failing in the gatekeeper courses, the increase in gatekeeper enrollments offset that and resulted in more completions, at least in the first semester of the reform. While more semesters of data are required to reach any firm conclusions, the logical extension is that developmental education, at least as it was practiced prior to the reform, was more of a barrier than a support in the aggregate. This has significant implications for minority and older students who are generally more likely to be placed into developmental education programs. Future research studies are examining implementation of the policy change in the Florida College System and continuing to track student outcomes under the new policy.

**Panelist #3: Nikki Edgecombe**
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**Abstract #3**

**Background and Purpose:** This study is part of a larger body of work examining statewide developmental education reforms in the community college systems in North Carolina and Virginia, and looks specifically at developmental English redesign in Virginia. Implemented in 2012, the reform included a new placement exam in English (Kalamkarian, Raufman, and Edgecombe 2015). This placement exam, the Virginia Placement Test for English (VPT-English), replaced the COMPASS. The new VPT-English is customized to Virginia’s English curriculum and integrates reading and writing while adding an essay component. The reform also included the integration of reading and writing instruction at the developmental level, and provided three different pathways to college-level English so that any student can become ready for college-level English within two semesters. Students who score at the highest developmental level (i.e., near the college-level cutoff) enroll in college-level English while taking
a companion support course. This model is commonly referred to as the co-requisite model and is based on the Accelerated Learning Program (ALP) pioneered at the Community College of Baltimore County. Early studies find that these courses have a positive impact on student outcomes (Adams, Gearhart, Miller and Roberts 2009 and Edgecombe, Jaggars, Xu and Barragan 2014). Jaggars, Hodara, Cho and Xu (2015) find that the ALP model has a positive impact on student completion of developmental coursework.

**Setting and Participants:** This paper reports on a descriptive analysis of students’ placement, enrollment and performance in the corequisite English course. The analysis uses statewide data for all first-time-in-college students who took a placement test and enrolled in a VCCS college prior to the implementation of the VPT and reformed developmental English course structures (fall 2010 cohort, N=20,783) and those who did so three years later, after the VPT and new course structures had been implemented (fall 2013 cohort, N=20,815). This paper also examines 6-semester completion and transfer outcomes. There were no substantial differences between the two cohorts in terms of race/ethnicity, gender, and part-time/full-time enrollment status. All students in the fall 2010 cohort took the COMPASS. Ninety-eight percent of students in the fall 2013 cohort took the VPT (with the remaining students in that cohort taking COMPASS).

**Design:** We examine pre-reform to post-reform changes in outcomes (college English enrollment, college English completion, persistence, and transfer) across race/ethnicity, gender, and SES. We also look at absolute performance and pre-to-post changes in outcomes for students referred to the co-requisite English course.

**Findings:** The percent of student eligible to enroll in college English upon entry to college increased 53 percent post-reform (from 53 to 81 percent). This increase was driven by the introduction of the co-requisite course, which accounts for 23 percentage points (of the 81 percent) of college English eligible placements. One-year gateway English completion rates increased from 45 percent pre-reform to 56 percent post-reform.

**Conclusions:** It is too early to judge the overall effectiveness of the redesigns, but preliminary data from this study and others reveal some early-stage successes although results are not consistently positive across subgroups and outcomes. The persistence rates for Pell recipients and black students fell by 4 percent and 6 percent post-reform, respectively. Our data affirms the national trends where degree completion is highest among white, female, non-Pell, and highly placed students. Our findings related to transfer differ somewhat from historic trends. As one would expect, females and non-Pell recipients are more likely to transfer within 5 terms. Somewhat surprisingly, we find higher transfer rates for black students post-reform. Future studies will continue to track student outcomes and qualitative analyses will examine implementation obstacles in greater depth, as well as measures colleges have taken to mitigate them.

