



Relative Impact of Interventions to Improve Achievement and Retention in Postsecondary Occupational Programs

Purpose and Objectives

Two-year colleges are paying increased attention to retention as the negative consequences of non-completion become increasingly apparent. Colleges have been implementing a number of common well-defined interventions (such as first-year study skills courses, learning communities, tutoring, intrusive advising, and culturally based programs), but they lack solid information as to which are most associated with student retention and completion and which students are best served by which interventions. We are studying which interventions and combinations of interventions are most strongly associated with retention and completion for students at two-year colleges, and how student background variables and other characteristics mediate and moderate those associations. We are tracking the entire entering classes of first-time postsecondary students enrolling in Fall 2009 and Fall 2010 at four participating sites through Spring of 2012.

In addition, the study is employing survey data with a randomly selected sample of Fall 2009 cohort students (255 per site were invited to participate) and students in certain classes (Fall 2010 cohort, number varies by site) to assess the relationship of mediating or moderating variables not measured by institutions to student retention and program completion.

Analyses of data obtained twice yearly for three years will employ logistic regression and hierarchical linear models to (a) determine which interventions are associated with retention and completion of occupational degrees and programs, and the extent of student retention (continued enrollment), and (b) examine the interaction of these interventions with each other and with key student variables. Our ultimate goal is to provide practical information to community colleges that will improve the retention of CTE students and to design a suite of retention interventions that can be tailored to

student needs and tested for efficacy in a subsequent study.

The research team is most interested in interventions that can be replicated at many community colleges, and recruited colleges with successful occupational programs that were interested in the study's research questions and goals. As many students do not declare a major or program of study upon admission, data analyses will include all students, both occupational and non-occupational. Although our primary focus will be on non-developmental interventions and programs, outcomes for students requiring developmental classes will also be analyzed. By studying all students entering in Fall 2009 and 2010 at each site, and by choosing sites in different sizes of communities and with diverse student populations, the study will generate results that are relevant to a wide range of students.

This study also seeks to understand how student characteristics and background experiences influence not only the retention interventions in which they chose to participate, but also students' pattern (i.e., frequency and duration) of use of each intervention considered in the study. Students' differential selection and participation in various interventions may affect the relationship between those interventions and their postsecondary outcomes. For example, a student's high use of tutoring might reflect a high level of academic need, so the use of tutoring support services could be negatively associated with measures of academic performance.

A Center literature review (Valentine et al., 2009) examined formal intervention programs that aim to facilitate the transition into and through postsecondary education. The Relative Impact project builds on this literature review, which identified several interventions that merited additional study as they apply to postsecondary CTE students.

It is generally understood that academic and social integration within the institution play a role in student persistence. In addition, this study is looking at a new concept, "career integration," which we believe will offer additional insights into student motivations and outcomes.

Site Selection

The research team contacted over 50 community colleges and over 100 individuals occupying a wide variety of professional roles in an effort to learn about the types of interventions currently in place to help students succeed in two-year occupational programs. Four sites were recruited for the study. During initial site visits, information about the types of interventions and services that are

offered, as well as demographic and other information about the kinds of students that enroll in occupational students at each site was obtained where available.

Status and Future Plans

In Center Year 3 (2009-2010), the research team conducted surveys of Fall 2009 students concerning their experiences in the Fall and Spring terms of 2009 and 2010, conducted site visits to each site to interview staff involved with programs related to student retention, received institutional data from all sites for all terms of the 2009-2010 academic year and began preliminary analysis of Fall 2009 data. Distribution of surveys to both the Fall 2009 and Fall 2010 cohorts will be completed in November and December 2010. Site visits in Spring 2010 focused on learning more about the programs and administrative philosophies at each site. Additional site visits will take place in 2011.

In Center Year 4 (2010-2011), the research team will collect institutional data from all four sites, report data trends for each year as well as specific findings of interest, visit each of the sites to interview administrators associated with retention efforts and faculty associated with key occupational programs, and survey students as described above. Students in the Fall 2009 cohort survey sample will be followed to the extent possible with follow-up surveys even if they have left school.

Sub-studies. As the research team has gotten to know our sites and their unique attributes and special circumstances, we have noted opportunities to consider questions of interest to the larger field. These questions include:

- What is the impact of a financial aid grant on retention and completion?
- What is the impact of a seamless system of transferring to a four-year college on students' choices to continue their education?

- Do students who seek out and receive early advising have different background characteristics, or different outcomes, than those receiving later advising?

Further, the institutional data sets to which we have access as part of this project will allow us to address where key "loss points" may be in colleges, as well as how colleges' early alert systems vary, and in what ways these systems seem to make a difference for students.

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