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Turning the Question Around: Do Colleges Fail to Meet Students' Expectations?

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Abstract Research often focuses on how students fail to meet college expectations, but it rarely asks how colleges fail to meet students' expectations. This study examines students' expectations of college and their institutional confidence—their level of certainty that college will meet their expectations. Drawing on 65 pilot interviews and a survey of 757 students in eight community colleges and two private occupational colleges, we find that students have three expectations about college. However, students do not express confidence that college will meet these expectations. Students expect college to provide: (1) dependable progress to credentials, (2) relevant courses, and (3) job contacts. Factor analyses confirm that ten survey items load onto the three components of institutional confidence expressed in the interviews. Using structural equation modeling, we investigate how institutional confidence varies by college program and its relationship to students' overall college evaluations. Within 2-year colleges, we find that students in two occupational programs express more confidence that college provides relevant courses and employer contacts than students in BA transfer programs. Further, we find that students' institutional confidence that college provides relevant courses mediates much of the relationship between college program and students' overall college evaluation. We speculate about ways college programs may improve students' institutional confidence and their evaluation of college.

Keywords Institutional confidence · Community colleges · For-profit higher education · Structure · Student outcomes

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Introduction

Over the past 40 years, enrollment in 4-year public colleges has almost doubled, and enrollment at community colleges has expanded even more (National Center for Education Statistics 2013). With convenient locations, flexible schedules, low tuition, and open admissions, community colleges remove many of the traditional barriers to college access (Cohen and Brawer 2008; Dougherty 1994). They enroll new kinds of students who formerly would never have attended college, specifically students with lower academic achievement (Grubb 1997).

Community colleges give all students the opportunity to attend college, but their students have difficulty completing degrees. Only 37 % of high school graduates finish an Associate's degree (AA) or higher in 8 years, while disadvantaged students experience even lower completion rates (Stephan et al. 2009). Researchers and policymakers have often blamed students for these low completion rates, particularly their poor prior achievement, low family income, jobs, family responsibilities, and off-campus residence (Bailey et al. 2005; Hoachlander et al. 2003; also discussed in Pascarella and Terenzini 2005).

While many students do not meet colleges' academic expectations (Kirst and Bracco 2004), little research has considered the expectations that students have of their college and college experience. One line of research suggests that if students have unmet expectations about their college experience, it may reduce their persistence (Tinto 1993; Wyner 2014). However, "when students' expectations and experiences are appropriately aligned and match the reality they encounter, students are more likely to be satisfied with their college experience and to persist to graduation" (Braxton et al. 1995, p. 32; see also Miller et al. 2005). Thus, students' college expectations, and whether or not they are met, may have important implications for persistence and graduation, problems particularly relevant to community colleges.

Rather than asking how students fail to meet college expectations, this research turns the question around to understand what students expect and whether students are confident that college will meet their expectations. Extending earlier work on high schools (Hagan 1991; Metz 1978; Stinchcombe 1964), we coin the concept "institutional confidence." Institutional confidence is closely related to, but distinct from, student satisfaction; we define it as students' level of certainty that that their college will meet their expectations for future outcomes.

To better understand institutional confidence within community colleges, our analyses are guided by the following research questions:

(1) What expectations do students have of community college? Do students express confidence that their expectations will be met?
(2) Does institutional confidence vary by college program (specifically in BA transfer programs, occupational programs, and occupational college programs)?
(3) Is institutional confidence related to overall satisfaction with college? If so, does it mediate the relationship between program type and overall satisfaction?

In this paper, we describe a pilot study in which community college students describe three kinds of confidence that college will deliver on their expectations. Then, we use survey responses to examine variations in institutional confidence and whether these variations are related to college programs and students' college evaluations. The conclusion speculates about how colleges might respond to these findings to build students' institutional confidence. As we report below, we were surprised to discover that many students have low institutional confidence, and this study provides an initial exploration of the incidence and possible consequences of such attitudes.

Institutional Confidence: Definition and Extension to Community Colleges

We extend the concept of institutional confidence to postsecondary institutions from a long line of sociological research conducted in high schools. Prior research in the U.S. has documented that some students lose confidence that high school will provide career-relevant learning or will lead to desirable careers. Further, as students lose confidence, they become disaffected and disengaged (Hagan 1991; Metz 1978; Stinchcombe 1964). U.S. high schools typically offer only vague incentives that seem irrelevant and poorly articulated with future careers, and youth confidence may be further undermined when students realize that employers ignore school grades (Bills 1992; Bishop 1989). Mortimer and Krueger (2000, p. 477) argue that in the U.S., "the vague connections between schooling and working… can stimulate quite unrealistic thinking about future work roles." American society provides poor articulation between school and work, which makes students lose confidence that effort in high school will lead to good jobs (Stinchcombe 1964).

In contrast to the low levels of confidence in American high schools, research has shown that schools can improve retention if they provide "powerful incentives," by making it clear how schooling leads to, and impacts, future careers (Lee and Burkam 2003). Kerckhoff and Bell (1998, p. 153) report that "European systems have…important advantages over the U.S. […] by providing multiple highly visible credentials." For example, with apprenticeship systems, students can be confident of dependable employment outcomes. Similarly, Mortimer and Krueger (2000, p. 477) note that in some other countries the "highly structured transition" between school and careers improves youths' confidence that their education will provide them with dependable payoffs. Given these findings in other countries' education systems, we hypothesize that confidence may vary by program structure and its links to the workforce.

Moreover, there are reasons to believe that these findings about high school students' confidence may translate to colleges. In recent decades, college attendance has become more widespread, with 90 % of high school graduates entering college in the 8 years after high school (Rosenbaum et al. 2014). As more diverse students with a wider range of academic achievement enter college, the issues of institutional confidence in high schools may now be applicable to colleges and universities, particularly community colleges. Therefore, from this existing high school literature, we coined the term "institutional confidence" to describe students' confidence that their educational institution will meet their expectations.

Institutional confidence[1] is closely related to two other constructs studied in higher education, namely student expectations and student satisfaction. We describe both how the concepts are distinct and the relationship between them (See Fig. 1). The left box in the figure represents student expectations; it has been well documented that students come to college with expectations about their academic and social experiences and that some expectations are not met after they arrive on campus (Bank et al. 1992; Jackson et al. 2000; Larose and Boivin 1998; Smith and Wertlieb 2005). Further, expectations impact student outcomes (Braxton et al. 1995, 1997; Tinto 1993); in particular, there is research to suggest that whether or not students' expectations are fulfilled plays a role in their decisions to persist or leave a university (Helland et al. 2002).

[1] To be clear, institutional confidence is different than self-confidence. Self-confidence is related to an individual's motivation and has been found to impact academic behaviors among community college students (Bickerstaff et al. 2012). However, this is distinct from institutional confidence, which is specifically centered on individuals' confidence that the institution will meet their expectations.

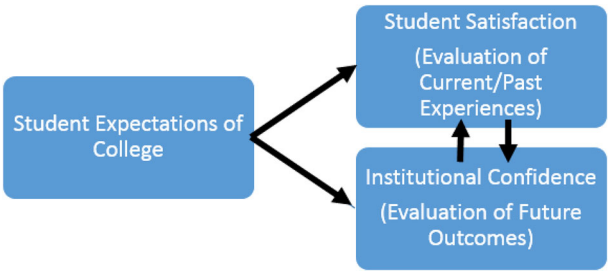

Fig. 1 Relationship between student expectations, student satisfaction, and institutional confidence

Most often, research on student expectations focuses on expectations that are related to academic and extracurricular experiences, such as academic advising and involvement in clubs and organizations (Low 2000; Miller et al. 2005). However, students also have expectations about degree timelines and job prospects (Grubb 1997; Rosenbaum et al. 2006; Wyner 2014). While students can impact these outcomes, colleges also structure the timelines and career opportunities for students (Rosenbaum et al. 2006). These areas have not been studied as thoroughly, and additional research is warranted to determine whether or not these expectations are being met and the impact of these expectations for student postsecondary outcomes.

Student satisfaction is closely linked to student expectations (Aldemir and Gulcan 2004), specifically expectations related to current college experiences (noted in the arrow between the items in Fig. 1). In prior literature, student satisfaction has been defined as "a short-term attitude that results from the evaluation of their experience with the education service they receive" (Machado et al. 2011, p. 416). Thus, student satisfaction depends upon students' evaluation of past and current experiences at their college or university. Because student satisfaction is based on the services received, a good deal of research has focused on academic experiences, campus climate, financial aid, library and computing services, and accommodations such as housing and food services (Elliot and Healy 2001; Navarro et al. 2005; Wiers-Jensen et al. 2002).

Yet, institutional confidence is distinct from satisfaction; rather than focusing on expectations of specific college experiences, such as financial aid and accommodations, institutional confidence focuses on expectations for future outcomes (See Fig. 1). While measures of student satisfaction focus on students' lived experiences in college, institutional confidence focuses on students' purpose for being in college such as completing a degree and getting a good job as a result.

As noted in Fig. 1, students' institutional confidence is likely related to their satisfaction with current experiences (Aldemir and Gulcan 2004; Braxton et al. 1995). If students are not satisfied with their current experience, we hypothesize they are less likely to believe that the institution will be able to meet their other expectations. Conversely, student satisfaction may also be influenced by institutional confidence. Students who are not confident that the institution will meet their future expectations may be less satisfied with their college experience and may doubt that college serves their goals (Rosenbaum et al. 2006).

Studies that examine student satisfaction find that satisfaction strongly predicts persistence and degree completion (Borden 1995; Suhre et al. 2007).[2] Not surprisingly, most

[2] Even though most students report being satisfied or very satisfied with their college experience, research finds a very strong relationship between level of satisfaction and remaining in college ($r = .49$), and the relationship remains strong and significant after extensive controls (Suhre et al. 2007).

people who remain in college are satisfied; if they were not satisfied, they would likely leave. Similarly, we hypothesize that students with higher level of institutional confidence will be more likely to complete their degree. While our data do not include variables for degree completion, we can measure levels of student satisfaction, which will provide some evidence to the importance of institutional confidence.

Following the research in high schools, we extend the idea of institutional confidence to community colleges. While institutional confidence, student expectations, and student satisfaction are related to one another, institutional confidence is a distinct concept that has not previously been adequately defined or explored in the college setting. Beyond defining institutional confidence, identifying its features, and measuring the construct, we explore how it is related to college program and student satisfaction. Research in high schools suggests that student satisfaction and persistence are closely related to their institutional confidence. This paper extends the existing literature on institutional confidence to community colleges and considers how the impact of student satisfaction might relate to institutional confidence.

Institutional Confidence and Program Structure

Institutional characteristics, such as institution type, college size, and expenditures per student, are correlated with student persistence (Grubb 1997; Kuh et al. 1991; Tinto 1993; Titus 2006). However, these barriers are not factors that community colleges can easily alter. In contrast, institutional practices, such as small supportive counseling programs (i.e.: TRIO), bridge programs, first-year seminars, peer support networks, and cohorts (Deil-Amen 2011; Kuh et al. 2005; Tinto 1993), can help students adapt to community colleges and may improve institutional confidence. Although they are promising reforms, these special programs remain limited in scope and impact relatively few students.

On a slightly larger scale, prior research argues that major and college program may create important differences in student experiences. Hearn (1987, p. 119) finds that in 4-year colleges, academic departments have a large impact, suggesting "that greater attention to sub-environments, such as major departments, may be warranted." Similarly, Rosenbaum et al. (2006) find that some community college programs use alternative procedures and structures, which may have implications for institutional confidence. Given that academic programs are highly predictive of student satisfaction (Borden 1995), college program may be associated with varying levels of institutional confidence.

Drawing again on high school research, previous studies find that more structured career and technical education (CTE) programs are associated with student confidence that school will be work-relevant and have job payoffs (Stone and Lewis 2012) by providing the clear articulation often missing from traditional high school. At the college-level, VanNoy et al. (2012) examine variation in structure in college programs. In contrast to the high school research, VanNoy et al. (2012, p. 37) find that "program performance is uncorrelated with the degree of program structure." However, the authors caution that: "the programs we observed, at least, were already highly structured" (p. 41), and "none of the programs we studied were loosely structured" (p. 37). Given the limited variation in their study, VanNoy et al. (2012) caution that their study cannot make inferences about "loosely structured programs," although many popular programs in community colleges are loosely structured (Grubb 1997).

Extending this work, we examine college programs with wider variation in structure (described in more depth below). In particular, some 2-year colleges have occupational programs that may shape the college-to-work transition while BA-transfer programs tend to be less structured. Following Kerckhoff and Bell (1998), we examine whether structured

college programs give students more institutional confidence that college will meet their expectations.

Variation in Structure in Three College Programs

College is sometimes oversimplified as fitting the traditional model: a program leading to a 4-year Bachelor's degree (BA). However, community colleges offer different kinds of programs, and we focus on two of the most common: BA transfer and occupational programs. In addition, private occupational colleges[3] offer yet another form of program (Deming et al. 2012; Rosenbaum et al. 2006). Below we describe how these three college programs provide different degrees of structure, which may have a better or worse fit with students' expectations.[4] Aside from Deil-Amen's (2011) qualitative observations, few studies examine students' confidence in different kinds of college programs.

BA-transfer programs, which prepare students to transfer to 4-year colleges, are the standard programs emphasized at many community colleges because most high school graduates plan to get BA degrees (76 %, cf. ELS2004). These programs focus on academic skills and encourage exploration of many academic fields, and most students take remedial and general education courses, resulting in potentially large extensions in time requirements (Rosenbaum et al. 2006). While such procedures allow students to pick from a variety of course options, these programs typically provide little concrete advice about how these academic choices relate to life after college. With varying timelines and unclear relations to careers, BA transfer programs are the least structured of the three programs studied here.

Occupational programs in community colleges, sometimes called Career and Technical Education programs, provide training in many occupational fields. Health, computers, and business programs are among those with the largest enrollments nationally. Although occupational programs are often "demeaned and unpublicized" (Kerckhoff and Bell 1998, p. 153), Brint (2003) reports that they offer better labor-market options than some academic majors because they often lead to mid-skilled jobs in high demand. Occupational programs create focus and structure. Some require declaring a major and specify course sequences, and some even postpone remedial courses until after students have completed a certificate. In addition, some permit degree ladders; over 30 % of certificate graduates also get AA or BA degrees (Carnevale et al. 2012).[5] These procedures provide more structure than BA transfer programs.

Occupational colleges are private accredited colleges that focus on many of the same fields as occupational programs in community colleges. Like community colleges, they offer some of the same occupational majors, prepare graduates for the same jobs, confer the same credentials, and often employ similar instructors. Despite higher tuitions, they

[3] We follow Rosenbaum et al. (2006) in using the term "occupational colleges" for colleges entirely devoted to occupational preparation. The industry sometimes calls them "career colleges," but that implies career advancement is possible, which may not be true in some fields.

[4] Colleges have other programs besides these three, and we discovered in interviews that many students are confused about their program. Students who we could not categorize into a program based on their survey responses are analyzed as a residual category; this group shows few significant effects.

[5] However, for students to progress beyond certificates, occupational programs may require noncredit remedial courses and general education, similar to BA-transfer programs.

enroll very similar students; the distribution of student grades, test scores, and SES are virtually identical (Stephan et al. 2009).[6]

Some occupational colleges use innovative procedures, designed to address difficulties that disadvantaged students encounter in college (Deming et al. 2012), and therefore, they have substantially higher degree completion rates (56 vs. 37 %, Stephan et al. 2009). More specifically, some occupational colleges monitor and support student progress and provide job placement assistance. While students in BA transfer programs often are not informed of interim credentials, occupational colleges place students on structured "degree ladders" where they automatically earn certificates and AA degrees on the way to their BA goals.[7] Similarly, while BA-transfer programs require most students to take noncredit remedial courses, private occupational colleges avoid remedial courses by inserting short academic lessons in regular courses. Occupational colleges represent the most structured programs in this study. If differences in student confidence are discovered, the procedures in occupational colleges may explain them.

This study contributes to the existing literature in three major ways. Conceptually, we raise new issues by defining and focusing on students' institutional confidence. In contrast to prior research at the college level that focuses solely on student expectations and satisfaction, we argue that institutional confidence is an important concept to investigate. As such, we identify components of institutional confidence and provide evidence of how it can be measured.

The second contribution of this research is to investigate the relationship between institutional confidence and student evaluation of their college experience. Although we do not have a measure of student persistence, we examine whether institutional confidence is related to student satisfaction, which has been found to be associated with persistence and degree completion (Braxton et al. 1995; Miller et al. 2005; Tinto 1993).

Unlike research that assumes that college takes a single form, we examine three kinds of programs with varying degrees of structure: BA-transfer programs, community college occupational programs, and private occupational colleges. Our goal in comparing programs and structure is not to put programs on a good-bad dichotomy. Rather, we want to investigate how college program may be associated with institutional confidence. If we find differences in institutional confidence by college program, it may be related to differences in program structure, and community colleges might be able to devise or modify programs to improve students' institutional confidence.

Data, Sample, and Analytic Methods

To better understand students' institutional confidence, we use data collected in pilot interviews and surveys that were designed to gather information on students' college experiences.[8]

[6] Stephan et al. (2009) performed logistic regressions predicting entry into occupational colleges versus community colleges with 37 variables and find very few significant predictors (not test scores, grades, parent SES, or race).

[7] Although some occupational colleges offer BAs, that is rarely an exclusive emphasis. Over 88 % of students in these colleges report certificate or AA goals, sometimes in addition to BA goals (Deming et al. 2012).

[8] All data collection procedures were in accordance with the ethical standards of our institutional review board following the Belmont Report.

College Sample

Interview subjects and survey respondents were drawn from eight community colleges and two occupational colleges in Illinois and California. Colleges in each state were matched by size and community socioeconomic composition (a disadvantaged urban community and three suburban communities at different SES levels: upper-middle, middle-middle, and lower-middle class, as judged from census tracts). The community colleges chosen serve different communities and a wide range of students. As a group, the community colleges in our sample are comparable to national averages in a number of institutional characteristics, particularly tuition (Table 1). The sample institutions enroll lower percentages of White and Pell Grant students than the national average, and they enroll a larger share of Hispanic students on average. Although we cannot be certain, our findings about community colleges may have some generalizability given the wide range of institutions sampled. All community colleges in our sample have accredited certificate and Associate's degree programs in BA-transfer, health, business, and computer networking programs.

We purposely chose occupational colleges with accredited programs that use alternative, structured procedures. However, unlike many private colleges, which have emerged in the past 10 years as opportunities for a quick profit, the two colleges in our sample have a long history (over 25 years) that predates the hedge-fund involvement in this sector. They seem genuinely concerned about students and don't exhibit predatory practices. IPEDS data (Table 1) shows that one of our occupational colleges enrolls more students receiving Pell Grants than the national average, and both have higher tuition than the national average, which may reflect costs of counseling and job placement services (described above). The racial demographics of the two occupational colleges vary dramatically, but when averaged, are relatively similar to national averages.

Table 1 Descriptive statistics of college sample with comparison to National sample

	Tuition	% Pell	% White	% Black	% Hispanic
Community Colleges					
IL High SES	$ 2829	19	53	6	15
IL Mid SES	$ 4480	25	56	8	20
IL Low SES	$ 2976	43	25	57	11
IL Urban	$ 3070	24	20	41	23
CA High SES	$ 1178	15	47	3	23
CA Mid SES	$ 1104	29	47	11	20
CA Low SES	$ 1346	39	13	5	59
CA Urban	$ 1221	38	2	53	36
Average within CC sample	$ 2276	29	33	23	26
National Public 2 years	$ 2297	40*	59**	14	12*
Occupational Colleges					
IL Occupational College	$ 22,800	62	38	29	25
CA Occupational College	$ 13,620	79	29	2	7
Average in Occupational Sample	$ 18,210	71	34	16	16
National private 2 years	$ 12,611	64	52	21	15

Source IPEDS 2011

* $p < 0.05$; ** $p < 0.01$

Although these occupational college findings may not apply to other private institutions, they do represent a highly structured program with alternative procedures that are worthy of comparisons to community colleges.[9] By using these particular colleges as a point of comparison, we are able to explore whether programs with more structured procedures are related to students' institutional confidence in their degree progress, course relevance, and job contacts.

Pilot Interviews

In 2009, we conducted pilot interviews with 65 students from the ten colleges and three programs described above. Students were primarily in BA transfer, business, computer networking, and various health fields. Interview respondents were 45 % female, 35 % white, and two-thirds of respondents were traditional-aged college students (average age of 24). Students were recruited through on-campus advertising, and interviews took place in-person or over the phone. Using a structured interview protocol with open-ended questions, students were asked to reflect on their college experiences, what they wish they had done differently, and how they see college affecting their future. In NVivo, we used systematic inductive coding of interview transcriptions to identify specific themes (such as not knowing what class to take) and broader categories (such as frustrations about time to degree; Corbin and Strauss 2007).

Survey Data

Interview responses guided the survey construction, which asked students about demographic information, their degree goals, institutional confidence, and overall college evaluation. In 2010, surveys were conducted in randomly selected courses, which were stratified to include health, business, computer networking, and BA transfer. For each class, faculty were asked if they were willing to let us survey students, and those who declined were replaced using the random selection method described above (less than 5 % refused). We succeeded in maintaining a relatively comparable number of responses across colleges. Virtually all (over 98 %) students present in class answered the survey. Students who were absent that day are not in the sample, so the sample may under-represent less motivated students.

Our sample represents an important group of students for colleges to understand; students who persist through the first 4 months, like those included in this study, are still at risk of dropping out. Indeed, Adelman (2003) argues that many students who leave in the first few months were experimenting with college, and colleges should be more fully accountable for improving persistence for students who have completed a full term of courses.[10] Thus, even though our sample is comprised of students who have successfully

[9] In analyzing distinct, atypical institutions, we follow the lead of prior researchers who studied Catholic schools to see alternative high-school procedures (cf. Bryk et al. 1993).

[10] This is a cross-sectional survey, which does not include students who have dropped out or transferred to other institutions. Students in our sample have mostly been in college 4 to18 months. While many students dropout that early (Horn 1999), few students transfer that early (Dougherty 1994). IPEDS data on first-time, full-time students suggest that these dropout and transfer trends are true for our 10 colleges. If we were able to include such students, we might see a stronger associations between institutional confidence and program because it is likely that those who left these colleges prior to our survey were dropouts who likely have less confidence than transfers. If we had been able to include them, we would likely have more dropouts (with low confidence) in the program with the least confident students (BA-transfer) and fewer transfers (with more confidence). As a result, we may underestimate the associations between institutional confidence, college program, and college evaluation.

navigated the first few months of college, they may still drop out and their expectations and institutional confidence is important to consider.

As noted, 2-year colleges serve a wide range of students. Like prior studies that target a particular type of student (e.g. BPS) to increase comparability, this study focused on students with no prior credential and with the same ambitions (plan eventually to get BA degrees).[11] Out of our initial sample of 1048 respondents, 291 students did not answer key items, resulting in a final analytic sample of 757 students for the main analyses of student confidence (See Table 2 for descriptive statistics).

The survey includes students in the three programs described above: BA transfer, occupational programs in community colleges, and occupational colleges. We tested that the students are comparable, and that background and individual factors are not the main reason we may see variations in institutional confidence by program. Because we do not assume that variables are normally distributed, we analyze differences with Mann–Whitney tests (see Table 3). We find that BA-transfer programs have younger and higher achieving students than occupational colleges, which have younger students than occupational programs (but similar achievement levels). In our sample, BA transfer students have more educated mothers and fathers (our indicators of family socioeconomic status) than occupational programs and occupational colleges, and occupational programs have more educated fathers than occupational colleges (differences in mothers' education are not significant). The highest percentage of black students is in occupational colleges. Enrolling full-time is most common in occupational colleges, less in BA-transfer, and much less in occupational programs. These analyses indicate that although the samples in the three programs are not drastically different, BA transfer students do tend to come from more advantaged backgrounds, since their parents are more educated, on average. These differences are generally similar to those in national data (Stephan et al. 2009).

Analytic Quantitative Methods

The survey data were analyzed in two stages using the lavaan package (Rosseel 2012) in RStudio version 0.98.1091. Student interviews suggested three important expectations (described in more depth in the results section): dependable progress, course relevance, and job contacts. We then examined how these expectations might be associated with enrollment in specific programs and overall evaluation of the school. Specifically, we hypothesized that these expectations would influence students' evaluation of their college and mediate the effect of program on their college evaluation.

To measure institutional confidence, we draw on ten survey items that we believed were associated with the expectations students express in interviews. The first component of our analytic strategy was an exploratory factor analysis to determine how these ten indicators relate to one another. We then used confirmatory factor analysis on two other half samples, which showed adequate fit for the model. In stage 2, we examine the relationship between the identified components of institutional confidence, college programs, and students' evaluation of college. We examine the fit of our proposed mediation model using the full sample of survey respondents.

[11] We originally expected that students in occupational programs and occupational colleges did not plan to earn BA degrees. This is mostly mistaken; we find that most students under age 25 in occupational colleges (89.4 %) and occupational programs (68.5 %) plan to get BA degrees, although many also have interim degree goals. Including students who plan to attain less than a BA does not substantively change the findings.

Table 2 Descriptive statistics (N = 757)

Variables	Range	Mean	SD
Institutional confidence			
Dependable progress			
(1a) I'm certain which courses I need for my degree plans	1–5	4.123	0.925
(1b) I know which of my courses give credit toward my degree	1–5	4.142	0.898
(1c) I have enough information about requirements and prerequisites	1–5	3.942	0.980
Course relevance			
(2a) Most of what I learn in my cours es is relevant to my career goals	1–5	3.866	1.014
(2b) I am learning useful skills in college	1–5	4.186	0.788
(2c) I am sure I am in the right program for me	1–5	4.105	0.898
Job contacts			
(3a) I'm confident that college will help me get a good job	1–5	4.143	0.875
(3b) My teachers encourage me to accomplish my career goals	1–5	3.817	0.957
(3c) My teachers' contacts could help me get a good job	1–5	3.414	1.011
(3d) My college's contacts could help me get a good job	1–5	3.526	0.995
College evaluation			
Excellent evaluation of college experience	0–1	0.322	0.468
College programs			
BA transfer	0–1	0.186	0.389
Occupational College	0–1	0.268	0.443
Occupational program	0–1	0.183	0.387
Other program	0–1	0.361	0.481
Covariates			
White	0–1	0.297	0.457
African American	0–1	0.247	0.431
His panic	0–1	0.235	0.424
Other race	0–1	0.180	0.384
Female	0–1	0.482	0.500
Age	14–62	25.247	8.800
High School GPA	1–7	4.647	1.486
Mother's education	1–6	2.885	1.473
Father's education	1–6	2.983	1.604
Full-time enrollment	0–1	0.750	0.433
Months enrolled in current College	0–423	22.841	33.588

Factor Analysis

We executed exploratory factor analysis using the principal factor method with oblique rotation on a random half of the sample. Results indicated a three-factor solution that closely mirrors the three expectations described in student interviews: dependable progress, course relevance, and employer contacts. Further analyses using confirmatory factor analysis on three random split half samples suggest all three latent constructs adequately fit the data (Table 4) (Bollen et al. 2014). Table 5 presents Cronbach's alphas and factor

Table 3 Independent variable Mann–Whitney tests and means by College program

	Mean			Mann–Whitney Z-statistic		
	BA transfer	Occ College	Occ program	BAT vs. OC	BAT vs. OP	OP vs. OC
White	0.320	0.260	0.338	1.309	−0.176	2.451*
Black	0.113	0.330	0.209	−4.611***	−2.164*	−2.451*
His panic	0.213	0.251	0.273	−0.826	−1.181	0.458
Other race	0.284	0.118	0.137	3.873***	3.010**	0.505
Mother's education	3.219	2.692	2.869	3.125**	1.845	1.178
Father's education	3.391	2.772	2.836	2.781**	2.530*	0.086
Female	0.376	0.547	0.525	−3.117**	−2.506*	−0.393
Age	23.972	25.640	27.482	−1.652	−3.388***	1.972
High School GPA	4.906	4.283	4.576	3.605***	1.904	1.770
Full-time	0.730	0.956	0.612	−5.972***	2.116*	−8.052***
Months enrolled in current College	25.660	8.936	27.244	11.546***	1.865	9.322***
N=	141	203	139	344	280	342

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 4 Fit indices for confirmatory factor analysis

Model	x^2	df	x^2/df	RMSR	RMSEA
Random sample 1	2000.42	45	44.45	0.02	0.05
Random sample 2	2011.82	45	44.71	0.02	0.04
Random sample 3	1940.48	45	43.12	0.02	0.03
Average	1984.24	45	44.09	0.02	0.04

Table 5 Factor loadings (rotated) and standardized alphas for confidence variables

Survey items	Std. Alpha	Factor loadings
Dependable progress	0.87	
(1a) I am certain which courses I need for my degree plans		0.84
(1b) I know which of my courses give credit toward my degree		0.93
(1c) I have enough information about requirements and prerequisites		0.74
Course relevance	0.72	
(2a) Most of what I learn in my courses is relevant to my career goals		0.44
(2b) I am learning useful skills in college		0.89
(2c) I am sure I am in the right program for me		0.52
Job contacts	0.79	
(3a) I'm confident that college will help me get a good job		0.75
(3b) My teachers encourage me to accomplish my career goals		0.49
(3c) My teachers' contacts could help me get a good job		0.91
(3d) My college's contacts could help me get a good job		0.75

loadings for each of the three latent constructs using the full sample. The fit indices, Cronbach's alphas, and factor loadings suggest that the latent constructs underlying institutional confidence adequately fit the data.

Mediation Analysis

Structural equation modeling (SEM) served as the primary approach for exploring the relationship between the latent institutional confidence constructs, observed overall college evaluation and program enrollment. To capture student satisfaction, survey respondents indicated their evaluation of their "entire educational experience at this college," with four possible response options: poor, fair, good, and excellent. Suhre et al. (2007) find high average satisfaction among college students, and we similarly find the most variation between "excellent" and all other responses. As a result, we used evaluation as a dichotomous outcome: excellent versus all other responses.

Results

Pilot Study: Three Disappointed Expectations

For this paper, the pilot study provides an understanding of institutional frustrations felt by students. Their statements helped us to understand students' expectations of college and to create the survey that targets issues salient to current students but not previously studied by researchers. Further, the pilot interviews help us interpret the survey responses by seeing how some students might understand these issues, rather than relying solely on our own interpretations. Analysis of the interviews found three overarching themes of student expectations for colleges.

Students Expect Timely Progress

Students frequently commented on the issue of timely progress, or completing degrees in a reasonable amount of time. They report that their progress is disrupted by three college procedures: remedial courses, delayed goal-setting, and confusion.

Noncredit Remedial Courses When they pay tuition and pass courses, students expect to earn college credits. Instead, most degree-seeking students must take remedial courses, which are high-school level courses that give no college credit. Research documents the poor outcomes of remedial courses (Bailey et al. 2010), but rarely describes students' reactions.

In our interviews, some students report that they felt misled when they were not warned about the remedial placement exam or its importance. One student says, "I don't know what kind of test it was, but it was all wrong. […] I didn't know I was supposed to take [a] test." She believes that college should have informed her. Another student says that students cannot trust the college to inform them about these tests and their implications. Some students report feeling deceived because they are not warned to review subject material for placement tests, even though most take the tests after a long summer vacation. One student explains, "If you FAIL [the placement test], you have to take a certain math class, which is horrible because once… my brain started… back up … [this course] was

way too easy." Another reported, "They put me in a class that I didn't need, and …that was just a *waste of time and money* [emphasis added]."

While colleges do not want to discourage students (for example they use the euphemism "developmental education" for remedial courses), students eventually discover the reality, and some become mistrustful about college and anxious about further mistakes. Some students worry what other unanticipated obstacles will arise to waste their time and money. One student says, "I just wanted to make sure that I don't waste another year of paying the tuition fees and especially from my pocket because it's [my] hard-earned money."

Delayed Goal Setting While some students want to choose a major quickly, BA-transfer programs often encourage students to delay goal-setting and "explore" diverse fields. This is standard advice in 4-year colleges, but it may work less well in 2-year colleges, where students have less time and want a goal they can work toward. One student says, "I just want to get to my major classes." One student even admits, "I don't put as much time, energy, effort into it…I'm never going to use [general education]."

Some students see delaying choice as wasting time. One student advises, "My sister is… just taking a bunch of general classes, and I told her if she doesn't know what major she's going to take, she's going to be here forever." A frustrated student says, "They say that you have time and that you could keep changing your mind, but, if you don't want to spend the money, you don't [have time]." Some students report that their colleges provided no explanation for BA transfer general-education requirements. As a result, many students saw little purpose in them, and this lack of clarity led them to cynical conclusions. A disgruntled student says, "you have to take like nine credit hours of general studies, so every time I'm taking something, I figure [the college is] just making money."

Confusion About Requirements While community colleges proudly offer many courses, students complain about their confusion in choosing among them. One student became so confused that she quit, saying "I didn't know what to do, so the first semester… I quit. [I felt that] maybe I'm not smart enough to be here."

The complexity can even confuse college advisors. Many students report receiving conflicting advice. One student says:

> My teacher told me that not everything is listed, then I was like, 'oh well I don't know [what to do]'… And then, somebody else told me that you don't have to take …all of those basics. You can just jump right in. And I was like, 'oh, I don't know. Because the sheet says you can't.' So I was like, I don't know.

Another student says, "[The counselor told me], 'it's not going to count,'… so I changed my whole schedule, and I found out later that … it would have counted." Program chairs also report that counselors often give mistaken information about program requirements, suggesting that even college staff are overwhelmed by the complex options available.

As a result of the three challenges described above, many students choose courses that do not lead to credentials. A student reports that "I didn't get any certificates or anything like that. […] Just a BUNCH of classes. That's it." While an Associate's degree ordinarily requires 60 credits, another student finds herself with no degree, but many more credit hours than she needs: "I have about 104 credit hours for college. Where they stand [for a degree] I don't know."

This student is not alone; this is a large problem nationwide. In the NELS:88 survey, 8 years after high school graduation, 8 % of community college students had attained Associate degrees, but another 10 % had *enough credits but no degree* (Adelman 2003). National data shows that many students are putting in time and effort, passing courses, getting credit, but not getting credentials. As one student reports, "They tell you two years…but it's not…because credits don't…count."

In sum, students expect timely progress, but these expectations are not met because of noncredit remedial courses, advice to delay goal-setting, and confusion. So-called "two-year Associate's degrees" often take three or more years in national data (Rosenbaum et al. 2014). Some students report that they have reduced confidence that college will offer them timely progress to a credential.

Students Expect College Courses to be Relevant

In 2004, virtually all (97 %) high school graduates plan to attend college, including many with poor grades and poor attendance (ELS2004, authors' calculations). These students attend community college because they believe that college helps people in life and careers.[12] However, upon arriving in community colleges, some students fail to see how their courses might help them in life or future work. For example, one student explains that the general education requirements are "kind of a waste of time because they don't apply to what you're going to do." College seems to ignore students' expectations for relevance, and not explain why they are taking general education courses.

Often students expect that "going to school confers knowledge about… the labor market and the demands of specific jobs" (Pallas 2000, p. 501). If it does not, some students lose confidence in college. In our pilot interviews, many students report that they expect college courses to be career-relevant and useful in their lives. Many students are disappointed to be in the same academic subjects they disliked in high school. One student is disappointed to discover that "[college] was pretty much just like high school. I took an English class, a science class, and a math class." This student reports that he could not see how these high school courses were relevant to his life, and college didn't make them any more relevant.

Another student expected courses "that applied to the career that [I am] trying to get into" but he was frustrated by being assigned to academic courses unrelated to his career goal. Another student tells his advisor he wants courses to prepare him to become a computer programmer. As he gradually discovers that the five academic courses his advisor suggested are unrelated to computer programming, he drops them one by one. A student in a paramedic program says, "I don't see why I need to know World History to get a job to drive an ambulance."

Collectively, these students' comments reflect an expectation that their college courses will be useful to them once they graduate. When students take courses like general education courses, it is not always clear how these classes relate to life after college. Consequently, students begin to doubt whether their time in college is worthwhile after all.

[12] One might worry that BA-transfer students are substantially less concerned about whether their college experience is career relevant and will provide job contacts. Although these students are hoping for BA degrees, our survey finds that BA-transfer students are similar to students in the other two programs with regards to their interest in jobs. When asked on our survey, 68.8 % of BA-transfer students report "getting a better job" as their primary or secondary reason for being in college, which is similar to results for occupational program and occupational college students (73 and 71.7 %, respectively; differences not significant).

Students Expect College to Connect them to Employers

Students enter community college expecting that it will lead to good jobs, but they lose confidence in college when they see no job-search or career support. Some students have clear expectations of how colleges should assist them in finding a career. As one states, "[I want] someone who can give me a list of organizations who are hiring in my field." Another explains his ideal for career services: "They [should] help you get a job. They have like a placement thing…they do the research for you… there's a job here, here, and here, and I think you'd be best suited for here and here… And then they set up the interview for you."

Students report that their community colleges' career services offices do not do job placement. Some colleges offer job boards, which are rarely tailored to students' programs or qualifications, and many of the jobs listed are temporary, part-time, or unskilled. Another student expected college to provide job placement, but he gradually realized it will not. He expresses disappointment when they told him, "That's something you need to take care of."

Many students feel they are not being adequately prepared for entry into the labor market. As one student says, "you need to make… connections and know people, and right now, I really don't have any." Others would settle for some support for their career goals. One student complains that she has to "pretty much do [job] research on my own."

In sum, we identified a pattern in the pilot study of students expecting timely progress, career-relevant courses, and job payoffs, and they express disappointments for each of these. They are given courses that do not seem related to their expectations, and they do not understand why. Some mistrust college because, in their views, they have been misled, received no warnings, wasted time and money, and see no indication that college will support future careers. Some seem upset, betrayed, or angry. This is not a random sample, and we cannot tell how many feel this way, but these interviews undoubtedly show that some students have strong reactions.

Survey Results

While the prior quotes indicate that some community college students report their experiences falling short of their expectations, the interview sample does not allow for systematic analysis of the institutional confidence or its relationship to college program and college evaluation. To examine these relationships more systematically, we developed a survey with ten items related to the three areas discussed in student interviews. Table 2 shows the ten items along with their descriptive statistics.

Based on prior descriptions of these three programs (Grubb 1997; Rosenbaum et al. 2006), we expected variation by program on these ten items, with the most institutional confidence in private occupational college programs and the least in BA transfer, due to the differences in program structure described previously.

To compare the relative frequencies of institutional confidence in the three programs, we analyzed the ten relevant survey items. Descriptive statistics demonstrate associations between college program and the institutional confidence items. In Fig. 2, we present the percentage of students expressing confidence on each of the ten items, compared across BA-transfer, occupational programs, and occupational colleges. As expected, on almost all items, students report the most institutional confidence in occupational colleges and the least in BA-transfer, and the gap is often large. For example, occupational college students

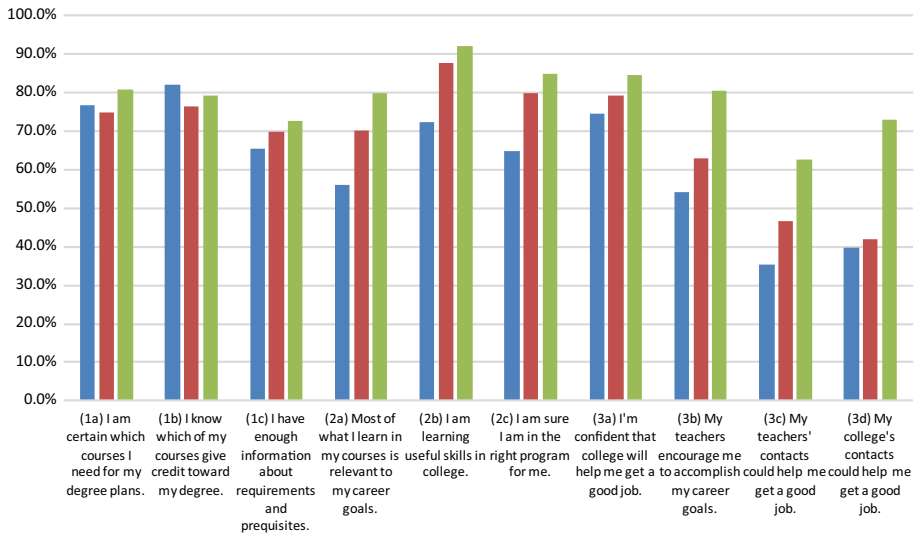

Fig. 2 Percent of students expressing confidence ("Agree" or "Strongly Agree") on each item by college program

are much more confident that their courses are relevant to their career goals (80 %) compared to BA transfer students (56 %), a 24 percentage point gap. Similarly, there are gaps of twenty percentage points between occupational colleges and BA transfer for items on learning useful skills in college and in the right program. Similarly, there are large gaps on the items related to job payoffs. Occupational college students are more confident that college will lead to a good job (10 percentage point advantage), that teachers encourage their career goals (26 percentage point advantage), and that their teachers' contacts and college contacts' could help them get a good job (27 and 34 percentage point advantages, respectively). Occupational programs generally fall in between occupational colleges and BA transfer in confidence on the ten items. Sometimes their responses are more similar to those of students in occupational colleges, as they are on the three items that describe career relevance. In contrast, on the items related to job contacts, students in occupational programs express levels of confidence more similar to students in BA transfer.

There are a few exceptions to this general pattern; BA transfer students report more confidence that they are certain which courses they need for their degree plans than students in occupational programs. And BA transfer students express the most confidence that they know the courses that give credit towards their degree (82 %), with occupational college and occupational program students reporting slightly lower rates (79 and 76 %, respectively).

Factor Analysis Results

After identifying variations across programs with the ten items, we wanted to know if they jointly measure the underlying constructs related to institutional confidence that we observed in the student interviews. Through exploratory and confirmatory factor analyses described in the methods section, we identified three latent constructs that make up

Table 6 Correlations between evaluation and confidence factors within each program

	Dependable progress	Course relevance	Job contacts
BA transfer	0.243*	0.489*	0.329*
Occupational college	0.388*	0.496*	0.367*
Occupational program	0.174*	0.478*	0.338*
Other programs	0.163	0.331*	0.187

* $p < .05$

institutional confidence. Consistent with the qualitative findings, the latent constructs are related to dependable progress, course relevance, and job contacts. Table 5 shows the factor loadings for each of the factors; all items have factor loadings higher than .4. Similarly, the standardized alphas for each factor range from between .72 for course relevance to .87 for dependable progress. Each of these measures demonstrates that the items measure the underlying constructs well.

We examined whether these confidence constructs were related to students' college evaluations within each program. We worried that these confidence factors may be less related to students' college evaluations for students in BA transfer programs than for other programs that explicitly focussed on careers. Table 6 reports the correlation coefficients for each relationship within each college program. For students in each college program, we find significant correlations ($p < 0.05$) between college evaluation and all three institutional confidence constructs. In particular, the correlations within BA transfer programs are as strong or stronger than in occupational programs in the same community colleges. Indeed, for BA transfer students, the strongest correlated factor "course relevance," is as strongly correlated with college evaluation as for the other programs ($r = .49$), and the least correlated factor, "degree progress," still has a significant correlation ($r = .24$). Only students in the "Other Program" category show some insignificant correlations. These correlations demonstrate that the confidence factors are strongly related to overall college evaluation in the three main programs, and they are as strong or stronger in BA transfer as in occupational programs. We next examine whether these factors mediate the relationship between programs and evaluations in structural equation models.

Structural Equation Model

The full measurement model described above was included in the structural equation model. Figure 3 shows the conceptual model with the proposed relationships between the measures of institutional confidence, college program, and college evaluation. We also included in the model individual attributes of students that we identified earlier as associated with college program. These covariates include gender, race, age, high school GPA, mother and father's level of education achieved, full-time or part-time enrollment status, and the number of months enrolled in the current college (Tables 7, 8).

Various fit indices were used to assess the fit of the model. With our first model, modification indices indicated that our model fit could be improved by the addition of several covariance relationships. We made the suggested changes, resulting in the specification of the final model reported here. The fit indices for the final structural model suggest that the measurement and structural models for the full sample adequately fit the data. The Chi square (χ^2) statistic evaluates the degree to which the estimated model fits the sample, with non-significant

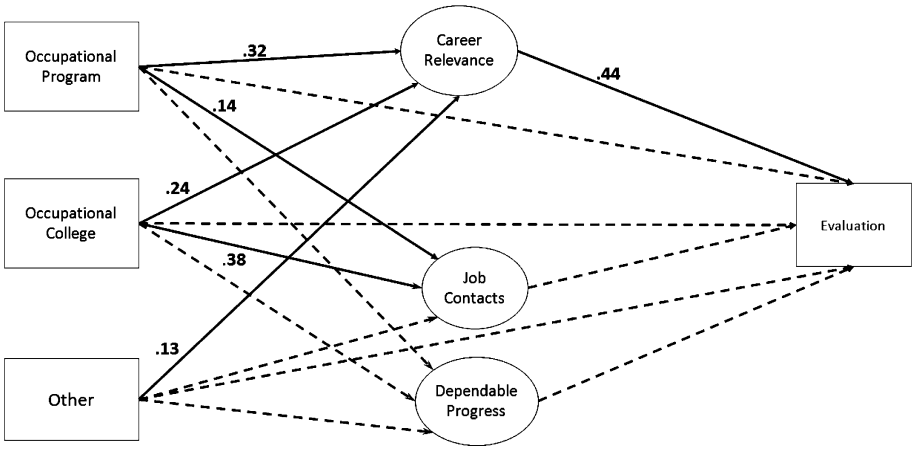

Fig. 3 Structural equation model and significant relationships (N = 747). Final full−sample path model for the relationship between program, confidence factors, and overall college evaluation. Covariates are omitted for the ease of interpretation. $x^2/df = 1.314$ *and RMSEA* = 0.039. Non-significant path coefficients at the .05 level are presented with a *dotted path*

Table 7 Structural equation model covariate path coefficients (N = 757)

Structural path	Dependable progress	Course relevance	Job contacts
BA transfer omitted			
Occupational College	0.05	0.32*	0.38*
Occupational program	−0.05	0.24*	0.14*
Other program	−0.01	0.13*	0.06
White students omitted			
African American	0.10*	0.16*	0.01
Hispanic	−0.04	0.08	0.09
Other race	0.05	0.02	0.03
Female	0.03	−0.02	−0.14*
Age	0.12*	0.18*	0.10*
High School GPA	0.02	0.05	0.02
Mother's education	0.00	−0.02	0.09
Father's education	0.00	−0.07	−0.08
Full-time enrollment	0.14*	0.10*	0.08*
Months enrolled in current College	0.00	0.02	0.01

* $p < .05$

values indicating optimal fit. Our Chi square statistic equals 260.23 and is non-significant. Similarly, we find that the Chi square ratio (which is the χ^2 statistic divided by the 122 degrees of freedom) equals 2.13, which is within the conventionally accepted range of 1–3.

Table 8 Mediation model path coefficients for main analysis (N=757)

Structural path	Direct effects	Indirect effects		
Evaluation		Dependable progress	Course relevance	Job contacts
Occupational College	0.02	0.00	0.14*	0.04
Occupational program	−0.07	0.00	0.10*	0.01
Other program	−0.03	0.00	0.06	0.01
African American	−0.10*			
Hispanic	−0.04			
Other race	−0.02			
Female	−0.01			
Age	0.05			
High School GPA	−0.09*			
Mother's education	0.02			
Father's education	0.07			
Full−time enrollment	0.08*			
Months enrolled in current College	−0.01			
Job contacts	0.10			
Dependable progress	−0.02			
Career relevance	0.44*			

Standardized coefficients presented

* $p < .05$

Other measures of fit that we tested were the Root Mean Square Error of Approximation (RMSEA), which represents closeness of fit and should be .06 or less (Hu and Bentler 1999), and the Standardized Root Mean Square Residual (SRMR) represents the square root of the discrepancy between the data and the model and is equal to 0 if the model fit is perfect. Our model has a RMSEA of 0.039 and a SRMR of 0.043. Both measures are within the appropriate range for an adequately fitting model.

Direct and Indirect Effects

Through the structural equation model, we first wanted to understand the direct effect of college program on the three institutional confidence constructs. Table 7 displays the standardized path coefficients, and Fig. 3 shows the significant paths, with covariates not shown for the ease of interpretation. BA transfer students serve as the reference group. We find that students in occupational colleges, occupational programs, and other programs report being more confident in course relevance than students in BA transfer programs. Students in occupational colleges and occupational programs also reported more confidence in job contacts. However, no college programs were associated with differences in confidence in dependable progress. Overall, we find a statistically significant effect of program on two of the three institutional confidence constructs.

In the second part of the model, we examine the direct and indirect effects of college program and institutional confidence on college evaluation. Table 8 provides the standardized coefficients for the direct effects on evaluation as well as the indirect effects. For direct effects, we find that course relevance has a direct impact on students' reporting

excellent college evaluation. The other two institutional confidence constructs do not show significant relationships to college evaluation, and similarly, the college programs do not have a direct effect on college evaluation. In terms of indirect effects, occupational colleges and occupational programs both have indirect effects on college evaluation. In both cases, the indirect effects work through the course relevance factor.

To summarize, the structural paths in the full-sample model are significant and in the expected direction for two of our proposed mediation paths between program and evaluation of college experience. Higher confidence around course relevance is associated with excellent college evaluations. Although the college programs are not directly linked to excellent college evaluations, occupational colleges and occupational programs are indirectly related to excellent college evaluations through their increased levels of student confidence around course relevance. These two programs increase student evaluations through increased confidence in course relevance.

Conclusion

Ironically, community colleges' prior successes may create problems of unmet student expectations. As noted by Trow (1973) and Metz (1978), colleges' impressive successes in enrolling new types of students may result in a student population with different expectations of college. We could follow some prior research and blame community college failures on students' deficiencies. After all, if students entered college with stronger academic skills, they would not need remedial courses. And if they entered college with clear goals and plans, they would not expect college to give them direction and dependable progress, as indicated in our interview responses. But community colleges seek to offer opportunity to all students, even if they lack strong academic skills and clear plans. It makes no sense to criticize students with these deficiencies; they are a large segment of the community college population.

Instead, this research examines whether colleges may not meet student expectations, and our qualitative findings demonstrate that some students lack institutional confidence. Given students' extensive description of each kind of institutional confidence in the interviews, we expected the three factors to emerge from the survey items—that students expect to make dependable progress, their courses will be relevant, and college will have job payoffs. Indeed, the confirmatory factor analysis and Cronbach's alphas show that the underlying constructs are measured well and that we are measuring three distinct factors. One contribution of this research is to define the concept of institutional confidence from student interviews and develop a way to measure it through survey items.

Regarding college outcomes, we expected each of the institutional confidence factors to be strongly related to students' evaluations. Each did relate to students' evaluations, in correlations within programs. When the relationships between program, evaluation and our confidence factors are modeled simultaneously, course relevance is associated with higher evaluations and mediates program relationships with evaluations. Prior literature suggests that satisfaction is strongly associated with persistence (Borden 1995; Suhre et al. 2007), and future research should investigate if there is a relationship between institutional confidence and persistence.

Finally, these analyses contribute to our understanding of the impact of college programs. In particular, we find that the occupational programs and occupational colleges we studied are associated with increased institutional confidence in course relevance and job payoffs. While confidence in degree progress is correlated with students' evaluations of

college, our SEM findings raise doubts about the independent influence of dependable progress especially compared to the other confidence factors.

Our finding that some programs may be related to higher student confidence makes an important conceptual point. Variations in student experiences across programs have rarely been studied. While educational research sometimes assumes that social programs take only one form, programs typically include discrete procedures, which in the institutions we studied seemed to shape students' confidence.

Drawing on qualitative observations, we speculate on a few ways that less-structured programs, particularly BA transfer, might improve institutional confidence by changing procedures. For example, BA transfer programs could avoid front-loading non-credit remedial classes, which may reduce students' confidence in degree progress. Instead of beginning with remediation, BA transfer programs could emulate the occupational colleges we studied and include some career-relevant classes, which require minimal academic skills, provide career-relevant tasks, and can even provide job payoffs (Carnevale et al. 2012). Such a first-year experience may give students confidence in course relevance and in their progress towards degree completion and their career goals.

In our sample, we find that students' institutional confidence in course relevance and job payoffs are strongly related to program-type, and course relevance is a strong mediator of program relationship with overall college evaluation. In BA transfer programs where students express less confidence in course relevance and job payoffs, academic classes could include research projects about careers. For example, in a credit-earning public speaking class, students were asked to investigate future career possibilities, consider desirable job attributes, and describe how their learning would be relevant to such a position. Students presented on a variety of careers, including careers that require BA degrees as well as others that require certificates or Associate's degrees. Similarly, Shugart and Romano (2008) find that Valencia Community College's BA-transfer programs devise procedures that permit counselors to meet all entering students, help students set goals, and use software to show the career relevance of students' courses and their job prospects at every stage of their program. Continual feedback about how students' work will have relevance and job payoffs may possibly bolster students' confidence that college will meet their expectations. These types of redesigned procedures may improve institutional confidence in BA transfer programs in particular.

Our study has limitations; the pilot interviews come from a small sample of uncertain generalizability. They show the kinds of disappointments some students experience—expressed in their own words, sometimes with strong reactions. The quantitative analyses are based on a larger survey. Because the community colleges in our sample are varied on a number of dimensions, our findings about community colleges may have some generalizability, but we cannot be certain. In contrast, our findings on these occupational colleges do not apply to most such institutions. We make no claims about the entire private 2-year college sector, which includes some problematic colleges and even some using fraudulent practices. Instead, we offer insight into variation in institutional confidence, which may prove useful as policymakers work to improve community college persistence.

Despite these limitations, this study helps us define, measure, and understand institutional confidence and how it is related to three types of college programs and college evaluations. As a result, educators may want to consider processes to make degree progress, course relevance, and job contacts clearer to students in various kinds of 2-year programs. We observed some procedures that may give students more confidence that college will meet their expectations, which suggests the possibility that they might reduce problems and increase success for students.

Colleges should want to improve students' institutional confidence and outcomes, and President Obama's college scorecard might provide additional incentives. It proposes to evaluate colleges on a number of student outcomes including degree completion, job placement, and earnings. With the possibility that funding might be tied to these measures, the new scorecard may provide additional motivation to improve students' institutional confidence and consider new procedures that may ultimately improve their rates of degree completion. These changes may lead to improved outcomes for students and subsequently, better ratings for colleges. Our research seeks to raise new issues, offer descriptions, and speculate about possible mechanisms. We hope future research will continue to investigate institutional confidence and its relationships to persistence, degree completion, and other important student outcomes.

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