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Entering a Program:
Helping Students Make Academic and Career Decisions

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Abstract

In this literature review, the author examines the evidence on student decision making in the community college, focusing on the activities most relevant to students' entry into programs of study—academic and career planning. Although there is a large body of theoretical discussion and empirical evidence on potentially effective approaches to guidance and counseling, a review of current advising and counseling practices reveals barriers to effective implementation of these approaches on community college campuses. As currently structured, community college advising is limited in its ability to assist students in identifying career goals and academic pathways that will help them achieve those goals. The literature reviewed in this paper points to four broad principles to guide restructuring efforts: (1) that program pathways should balance structure with exploration; (2) that career counseling should drive an integrated approach to advising; (3) that colleges should provide services to students based on their level of need; and (4) that colleges should strategically deploy resources to allow for developmental advising.

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1. Introduction

As the economic necessity of a postsecondary credential has increased, government leaders, foundations, and educators have redoubled their efforts to ensure that students not only have access to college but also can succeed once there (Bill & Melinda Gates Foundation, n.d.; California Community Colleges Student Success Task Force, 2012; Lumina Foundation for Education, 2009, 2013; McPhail, 2011; Obama, 2009). Community colleges have been a particular focus in the national completion agenda, as it has become increasingly clear that certificates and associate degrees, not only bachelor's degrees, are important postsecondary credentials. Within the community college sector, there is much work to be done to increase completion rates; only about 30 percent of first-time, full-time students at two-year colleges earn a certificate or associate degree within three years (Aud et al., 2012), and completion rates are even lower for nontraditional, minority, and economically disadvantaged students (Choy, 2002; Provasnik & Planty, 2008; Aud et al., 2012).

To improve completion rates and help more of the nation's 7.2 million community college students attain their educational goals, an array of reforms are being planned or implemented across the country. Many of these reforms build on evidence that giving students a clear path to follow improves their likelihood of degree completion (Scott-Clayton, 2011; Jenkins & Cho, 2012) and are designed to help students enter and progress through a discrete program of study. Such reforms are predicated on the assumption that students can identify appropriate programs of study and connect those programs to their longer term academic and career goals. However, a large number of students enter community college with unclear goals or little sense of how to link academic and career plans. Thus, in order to effectively expand the use of guided curricular pathways, colleges will need to renew their focus on guidance and advising activities that help students identify and enter programs of study appropriate for their goals and interests.

This paper examines the research on student decision making in the community college, with special attention paid to the activities most relevant to entry into programs of study—academic and career planning. Following a review of major theories of academic and career advising, I identify the barriers to implementation of these theories

on community college campuses. I then examine current practices and argue that community college advising is currently limited in its ability to assist students in identifying career goals and academic pathways that will help them achieve those goals. The paper concludes with suggestions for restructuring community college guidance and counseling.

2. Structuring Student Success Via Programs of Study

There is a growing body of evidence that the traditional conception of college, in which students are given myriad curriculum and course options, may inadvertently contribute to low completion rates. College completion is a complex process, with multiple junctures where students may make incorrect choices, get off track, and fail to finish a program or degree. Offering students multiple course and degree options, major choices, and course delivery methods—though intellectually appealing—may overwhelm students, create barriers to their success, and contribute to their ultimate failure (Jenkins & Cho, 2012; Scott-Clayton, 2011; Zeidenberg, 2012). Importantly, it is the most disadvantaged students who are most likely to struggle navigating various options (Jaggars, Jacobs, Little, & Frega, 2012; Karp, O'Gara, & Hughes, 2008; Rosenbaum, Deil-Amen, & Person, 2006).

A number of researchers have proposed a "structure hypothesis" (Scott-Clayton, 2011)—that students are more likely to persist if programs are organized with clear paths to completion and little room for deviation. Rosenbaum, Deil-Amen, and Person (2006) argued that simplifying the "choice architecture" or "structure" of the two-year college may improve student outcomes. Examining private two-year occupational colleges and public community colleges, they found that the private institutions tended to severely limit student choice. Private colleges moved students into discrete programs of study early, offered structured programs of study and clearly defined sets of courses that students must take each term, and provided students with structured and mandatory advising. In a follow-up study using propensity score matching, Stephan, Rosenbaum, and Person (2009) found that students attending private two-year colleges were more likely to graduate than those attending community colleges, providing suggestive

evidence in favor of the structure hypothesis.[1] Other evidence also supports the structure hypothesis: Students and faculty have reported benefits from having clear sources of information and a well-described path to graduation (Jaggars et al., 2011; Nitecki, 2011).

Multiple factors can contribute to the level of structure in a program, and even within colleges, individual programs may vary in their level of structure. Van Noy, Weiss, Jenkins, Barnett, and Wachen (2012), for example, described program structure in terms of four dimensions: alignment (how well the program is linked to employment and future education); prescription (the level of specification and flexibility in course selection); information quality (the availability and clarity of information); and active advising and student support. They found that the occupational programs included in their study were moderately to highly structured but that academic programs tended to be less structured. Zeidenberg and Scott (2011) found that students in academic programs tended to take a wide variety of courses rather than clusters of courses in an identifiable content area.

An array of newly established and emerging community college reform efforts build upon the notion of structure as a useful mechanism for promoting credential completion. "Structure reforms" are widespread, though many appear to focus on alignment and prescription rather than all four elements of Van Noy et al.'s (2012) model. California recently approved and began implementing recommendations from the California Community Colleges Student Success Task Force (2012), moving to require that students who do not demonstrate college readiness participate in support services, to require that students declare a program of study soon after enrollment, and to give priority in course registration to those making adequate progress toward degree completion. The City University of New York's (CUNY) New Community College, which opened in the fall of 2012, is designed around the structure hypothesis, with limited majors from which students may choose, required full-time attendance, mandatory guidance and academic support, and a single set of first-year courses (City University of New York, 2008).

[1] Stephan et al. compared occupational students at private colleges with all students at community colleges, however, so it is possible that the positive results stemmed from preexisting differences between the two groups rather than differences in program structure.

The Bill & Melinda Gates Foundation is funding the Completion by Design initiative in order to help students maximize their momentum toward a degree. Participating institutions work to identify the educational junctures at which students often lose momentum and drop out and to devise strategies for overcoming the barriers students face at these critical points in their college experience. One strategy used by Completion by Design colleges is devising more structured pathways to degrees in order to minimize the number of points where students lose momentum, thereby guiding students toward degree completion.

Reforms seeking to create structured math pathways tailored to students' career goals, such as the Statway and Quantway initiatives funded by the Carnegie Foundation for the Advancement of Teaching, are based on the notion that many students would benefit more from learning statistics or quantitative reasoning than from learning algebra or calculus. According to this view, math course taking should be customized for students' career goals, such that those who desire to enter math-intensive fields take additional math courses, and those entering programs without the need for calculus-based math learn arithmetic and algebra in the context of statistics. A number of states, including Virginia and North Carolina, are redesigning their developmental math pathways based on a similar premise and tailoring students' developmental course requirements to their program plans.

Although these reforms are too new to have been rigorously evaluated, evidence suggests that reforms based on structuring the student experience hold promise. However, such reforms are predicated not only on institutions' identification and clear communication of the pathways that exist on their campuses but also on students' ability to select career goals and relevant pathways early in their community college career. The need to select a pathway early—in order to link it to developmental education course taking as well as general education courses—gives students little time to explore broad options. Students at CUNY's New Community College must select a major after their first year of college; students in California are encouraged to do so upon admission. The Statway model of varied developmental intervention assumes that incoming students know whether they intend to pursue a math-intensive program.

Therefore, although increasing program structure is likely to reduce confusion and mistakes students make in course selection, it increases the importance of the choices students make *prior to program enrollment.* Choosing a program becomes a higher stakes decision if opportunities for changing one's mind or changing course later are fewer. And the vast majority of entering community college students do not know what type of program they want to—or should—pursue (Grubb, 2006). For example, analyses of data from colleges involved in Completion by Design found that approximately 45 percent of students had no declared major during their first semester of enrollment (M. Zeidenberg, personal communication, February 2013). In designing structure reforms for maximum impact, the question of how students identify and select a program of study is of critical importance.

3. Models of Community College Guidance, Counseling, and Advising

Since their inception, community colleges have helped students identify career goals and majors via guidance and counseling[2]—an integral, if sometimes underappreciated, enterprise (Clark, 1960; Cohen & Brawer, 2008; Grubb, 2006). There is a robust body of literature addressing the professional orientations and theoretical underpinnings of "good" academic and career counseling (see, e.g., Gordon, 2006; Hartung & Blustein, 2002; Holland, 1997; Krumboltz, 1996). Though most theorists have addressed academic- and career-related decision making separately, the two bodies of literature converge in the notion that, under ideal circumstances, counseling should help students engage in exploration and decision making that leads to pathways and program selection over a prolonged period of time. Both literatures also emphasize that the purpose of advising is not merely to impart information to students but rather to facilitate a process by which students are aided in learning about themselves, their goals, and how to attain them.

[2] Although they sometimes take on slightly different meanings in different contexts, I use the terms *guidance*, *counseling*, and *advising* interchangeably in this paper to refer to activities in which students work with professionals to identify academic and career goals and to develop plans to meet those goals.

The theoretical literature outlines an ideal framework for helping students identify, enter, and proceed through a program of study. Understanding the ideal process is important for two reasons. First, it serves as a contrast to the reality of providing advising and counseling on community college campuses (discussed in the next section of this paper). Second, it provides a starting point for designing new guidance and advising structures that better meet the needs of students.

In looking at the theoretical literature on academic and career advising, a clear theme emerges: Careful exploration of life *and* vocational goals should precede and lead to program, course, and scheduling decisions (Lent, 2005; O'Banion, 1972; Super, 1990). Theorists refer to this as a "developmental" approach to guidance and counseling because it is a process that occurs as an individual "develops" over time (National Academic Advising Association, 2005; 2006). Notably, the developmental approach requires sustained interaction and multiple meetings between counselor and student. In nearly all of the theories reviewed for this paper, the advisor is viewed as a partner in a multiphase process that includes guided exploration of the self; structured investigation into various career options; and the melding of interests, goals, and strengths into a coherent plan for academic and career progress.

In essence, developmental theories implicitly support a "pedagogy" of counseling and advising—a set of activities and orientations that lead to *teaching* students how to develop self-awareness, identify options, weigh information, set goals, and make realistic plans. For example, according to Holland (1997), personality traits develop over time and in interaction with educational and life experiences, and individuals are likely to enjoy and succeed in occupations that are aligned with their interests. Advisors help individuals identify their personality traits and occupations that might be a good "fit" for those traits. Proponents of another career development theory, Cognitive Information Processing theory (Peterson, Sampson, & Reardon, 1991; Reardon, Lenz, Sampson, & Peterson, 2011), conceive of career development as problem solving. In this view, if individuals can master specific problem-solving steps, they can identify and solve career-related issues throughout their lives; the role of the advisor is to help individuals systematically analyze their preferences and synthesize their wants, needs, and values in order to identify potential occupations.

Whether one views career development as personality driven or problem-solving driven, career development activities can be structured as a form of teaching—of guiding students along a structured, developmental process that teaches them how to identify and plan for their career goals. Advisors must, essentially, teach individuals how to examine their preferences and personality traits, align those traits with labor market options, and develop coherent plans for attaining career goals. One can conceive of these activities as a form of pedagogy; advisors are guided by a theoretical orientation that leads to certain counseling activities aimed at generating individuals' knowledge of their career goals and developing plans for those goals.

Similarly, theories of academic advising support the development of specific pedagogical approaches and sometimes even explicitly conceive of advising as teaching. Many academic counseling theorists have argued for a long-term approach that allows for guided change over time (Campbell & Nutt, 2008; Creamer, 2000; Crookston, 1972; Hagen & Jordan, 2008; Lowenstein, 2005; O'Banion, 1972). Crookston (1972) and other developmental theorists, for example, have argued that advising interactions should allow for student agency and responsibility, helping students to use and develop their knowledge and skills in collaboration with advisors. Campbell and Nutt (2008) proposed that advising should be conceived of as an educational process focused on student learning rather than as a process of "inputs" or information-imparting. Lowenstein (2000, 2005) more explicitly stated that advising should be structured as teaching, with the advisor helping students make sense of curriculum planning, just as a classroom instructor helps students make sense of course content. The National Academic Advising Association has also described advising as a form of teaching (see, e.g., National Academic Advising Association, 2006), arguing that academic advisors should use curricula and have a pedagogical approach to student interactions.

Most theoretical perspectives on academic and career advising are rooted in broader counseling disciplines, in which practitioners usually conduct interventions one-on-one with clients. Therefore, theorists typically assume that advising does and should occur as one-on-one interaction (see, e.g., Crookston, 1972; Gordon, 2006; Hagen &

Jordan, 2008).[3] There is some evidence that individualized guidance and counseling is more effective than other approaches (Hughes & Karp, 2004; Oliver & Spokane, 1988; Whiston, Sexton, & Lasoff, 1998), particularly when it comes to career counseling and employment (Redline & Rosenbaum, 2010). However, as the next section of this paper illustrates, intensive, individualized guidance and counseling is rarely feasible in the community college.

4. Community College Guidance and Advising in Practice

Structure reforms are predicated on students' ability to identify their goals—not only in terms of the type of degree they desire but also in terms of the broad type of occupational area they hope to enter. When students are asked to select between health, information technology, liberal arts, or business, they need to have a sense of what those academic programs entail. They also should understand what selecting a particular pathway might mean for their future employment, in terms of the types of jobs they will be qualified for, their employment outlook, and the fit between their personal goals and needs and their potential employment options. As described in the previous section, an intensive, personalized, and developmental approach to guidance and advising could help students develop the knowledge and self-awareness necessary to select programs of study suitable for their goals. However, this ideal rarely occurs in practice. In this section, I describe guidance and counseling as it generally occurs in community colleges today and discuss how well-intentioned processes and procedures may inadvertently inhibit positive student outcomes.

In any discussion of the realities of guidance and counseling in the community college, it is important to keep in mind that these activities are almost always poorly funded and minimally staffed. Counseling and advising centers often have high student–counselor ratios, sometimes as high as 1,500 students to one counselor (Gallagher, 2010; Grubb, 2006). Moreover, advisors and counselors in the community college must provide

[3] As discussed in section 5, it is possible to deliver these services within a classroom environment as well, as part of either a College 101 course or a "regular" academic course.

services to many students in a short amount of time, at the beginning of the school year and during registration. The diversity of community college students creates an additional challenge; advisors and counselors must be able to address a wide variety of academic, occupational, and personal needs.

The description that follows illustrates how typical students at a typical college experience guidance and counseling at various points in their college experience (see Grubb, 2006; Karp, O'Gara, & Hughes, 2008; King, 2002, 2008; Pardee, 2000; Venezia, Bracco, & Nodine, 2010). Students' first contact with a community college counseling office is likely to be in the context of assessment and placement into developmental education or college-level courses, rather than academic goals and career planning (Venezia, Bracco, & Nodine, 2010). Upon application or matriculation, students meet briefly with a college advisor or counselor to select a set of courses to take during the coming semester, devise an initial program plan, and perhaps select or declare a major. Students with weak academic skills are advised to take remedial coursework. Students who are undecided on their major may be allowed to develop a general program plan in order to determine their major at a later time or may be assigned a general major such as "liberal arts" or "general studies" (Grubb, 2006). Occasionally, undecided students may be referred to a separate career office for more in-depth career counseling that could help them decide on a program of study. At this time, new students may also apply or sign up for specialized support programs, if they are aware of them and are eligible.

For the next few semesters, students typically return to a general advisor prior to registration in order to get their desired course schedule "approved." They may have to schedule an appointment in advance, or they may be able to walk into the advising office and wait to meet with an available counselor. Generally, in these meetings counselors briefly review students' academic goals, assess their progress toward fulfilling graduation requirements, and recommend a set of courses to take the for the following semester. Students seeking transfer to a four-year institution are often told to visit a separate transfer counselor, and those seeking employment or more assistance with their career goals are usually referred to the career counseling office. Students may be directed to career interest inventories or exposed to some career planning via College 101 courses,

but these activities are generally conducted outside of a student–advisor interaction. Eventually, students may be assigned a faculty or departmental advisor.

The exact structure by which guidance and advising services are delivered varies by college, with some combination of generalist advisors, career specialists, and in some cases departmental or faculty advisors (King, 2002, 2008). Advising and counseling activities tend to be characterized by four common traits: fragmented services, lack of a point of contact, a focus on information provision, and an emphasis on serving incoming students. Although these traits developed out of rational strategies or real constraints, they may have negative impacts on how students experience advising and counseling activities and may reduce the benefits of these supports.

4.1 Fragmented Services

Most advising activities focus on academic planning (ACT, 2011; Cohen & Brawer, 2008; Gillie & Isenhour, 2003; Gordon, 2006; Grubb, 2006; Lansing, 2010); other student support services (e.g., career counseling, financial aid advising, and personal support) are provided elsewhere (Karp et al., 2012; Pardee, 2000; Weissman et al., 2009). The separation of various guidance and counseling activities stems, in part, from a long tradition of structuring community colleges in ways that allow for division of labor and specialization. Adult basic education, developmental education, and college-level education are housed separately, for example, and occupational and academic programs are usually divided as well (Bailey, Matsuzuka, Jacobs, Morest, & Hughes, 2003; Cohen & Brawer, 2008; Jenkins, Zeidenberg, & Kienzl, 2009).

On most community college campuses, the standard advising structure is supplemented by an array of other initiatives distributed throughout the college, including career counseling, programs targeted at specific student populations, and student success courses (Cohen & Brawer, 2008; Grubb, 2006; Karp et al., 2008). This structure allows generalist advisors to focus on basic course planning and to improve access to services by providing students with a single, easily identifiable location to go to with questions. Providing additional supports and specialized advising programs allows for information and services tailored to the unique needs of specific populations.

However, the separation of academic and career advising, as well as the presence of a multitude of fragmented supplemental supports, creates barriers to good advising and

counseling practice. First, the pedagogy of advising described earlier suggests that advising is a developmental process that encompasses both academic and career goals and that these two kinds of goals are best considered together. Shaffer and Zalewski (2011) noted that academic advising in the absence of career advising "builds a bridge to nowhere" (p. 75). Rosenbaum et al. (2006) and Goomas (2012), among others, offered evidence that the integration of academic and career advising may improve student outcomes. In structured colleges, where students must identify at least a broad program of study soon after entry—ideally one related to their career goals—this fragmentation is particularly problematic. Students often do not understand how to relate their academic goals to the realities of the labor market (Gillie & Isenhour, 2003; Public Agenda, 2012).

The presence of multiple advising offices and additional supplemental services with an advising component is confusing and frustrating for students (Karp et al., 2008; Nodine, Jaeger, Venezia, & Bracco, 2012). With so many options, students frequently are unsure of where to go to get help—which service or office would best be able to address a given problem, for example, or where to find out if they qualify for specialized programs. Students report wanting simple guidelines for where to go to receive answers to their questions (Karp et al., 2008; Karp et al., 2012; Public Agenda, 2012). Moreover, the students most often in need of supplemental advising and support are those least likely to be aware that specialized services are available (Karp et al., 2008).

4.2 Lack of a Point of Contact

Students typically have access to a generalist advisor for course registration and planning questions—but this advisor often changes each time a student visits the counseling center. Rarely are students assigned a single advisor with whom they meet regularly and who can serve as a point of contact for a range of guidance and counseling issues.[4] From a college's perspective, it is more efficient to have generalist advisors seeing students all day, every day, than to have counselors assigned to students and

[4] Some reform efforts offer intensive and intrusive advising, assigning advisors or case managers to incoming students. CUNY's Accelerated Study in Associate Programs and its New Community College both use this approach, as do some learning communities and mentoring programs. Early results of these reforms are promising (Scrivener, Weiss, & Sommo, 2012), but as they generally do not have a primary emphasis on structure reforms and career counseling, I do not focus on them explicitly in this review.

waiting for those students to seek out an appointment. Moreover, in most colleges, it is not possible to assign a student to his or her own counselor, given the high student–counselor ratios.

For students, however, these practices are not ideal, and they are not consistent with the developmental approach to guidance and counseling. High student–counselor ratios, for example, can lead to long wait times during peak periods (Deil-Amen & Rosenbaum, 2003; Venezia et al., 2010). Meeting with a different advisor during each visit to the counseling center can result in conflicting information across multiple visits (Karp et al., 2008; Jaggars et al., 2012; Public Agenda, 2012). Not surprisingly, students frequently report confusion and frustration after their experiences with community college advising and counseling (Booth et al., 2013; Jaggars et al., 2012; Public Agenda, 2012).

4.3 Focus on Information Provision

Advising and counseling activities are typically designed to give information to students. An underlying assumption of these activities is that, with adequate information and resources, students will be able to make good decisions and follow through on their plans. Guidance and advising activities, therefore, focus on ensuring that students are provided with basic information on courses, college procedures, and support services (Grubb, 2006; Karp et al., 2008; Venezia et al., 2010).

Focusing on providing information leads many students to experience what Grubb (2006) calls an "information dump"; students are provided with disconnected bits of information that do not lead to a coherent plan or develop students' ability to use such information in a sophisticated way (Center for Community College Student Engagement, 2008; Deil-Amen & Rosenbaum, 2003; Karp et al., 2008; Orozco, Alvarez, & Gutkin, 2010). There is significant evidence that simply providing information to students is not sufficient to improve their planning behavior, and many students report finding college-provided information confusing rather than helpful (Karp et al., 2008; Rosenbaum et al., 2006; Scott-Clayton, 2011). Just knowing that various programs are options, for example, does not help students select the most appropriate program to meet their goals or develop a plan to meet program requirements. Advising and counseling theories recognize that individuals need assistance in learning how to use information effectively as they develop

goals and plans (Campbell & Nutt, 2008; Crookston, 1972; Lowenstein, 2005), but counseling practice in the community college does not tend to build on this insight.

For information to successfully change student behavior, students need to know what to do with that information; they must have the knowledge and motivation required to turn information into action. What should students do with a program plan, for example, once they have developed it? How will they know if it needs modification, and what to do if the need for modification arises? Developmental advising approaches encourage advisors to consider these questions and to help students build the cognitive skills required to act on information (Lowenstein, 2005; Peterson, Sampson, Reardon, & Lenz, 2003). However, most community college guidance and counseling interventions, in their short-term nature and lack of follow-up, leave it to students to pursue these questions independently and return for help when they need it (Center for Community College Student Engagement, 2012; Grubb, 1996; Karp et al., 2012).

4.4 Focus on Incoming, Rather Than Continuing, Students

Guidance and counseling activities, especially those delivered via supplemental support services such as student success courses, usually focus on entering students. Colleges take this approach based on the conviction that new students need more information and guidance than continuing students. Most interventions, such as learning communities and student success courses, therefore target first-year students, and advisors spend less time with continuing students than they do with new students.

Front-loading career and academic counseling in this way is particularly useful in structured colleges or in career-focused developmental reforms, which require students to have a concrete plan from the outset. But it is important to keep in mind that, later on, students may encounter new persistence-related issues and require further support. For example, students may want to change programs or may encounter new barriers to degree completion (Center for Community College Student Engagement, 2012; Rucks-Ahidiana & Ehrhardt, 2012). Although first-year support programs may show initial positive effects, a growing body of evidence on an array of programs (most of which include a guidance and counseling element) suggests that these effects "fade out" and disappear over time (Boudreau & Kromrey, 1994; Rutschow, Cullinan, & Welbeck, 2012; Visher, Butcher, & Cerna, 2010; Weiss, Brock, Sommo, Rudd, & Turner, 2011). Therefore, it is

important to consider how to provide additional support for students later in their college experiences. Helping students identify and enter programs of study is only the first part of the completion puzzle. Other approaches addressing the needs of second-year students must also be embedded into community college reforms.

5. Making Advising and Counseling More Efficient

The theories discussed earlier offer compelling arguments for providing career and academic guidance that is developmental via one-on-one interaction. However, as the previous section illustrates, such an approach rarely occurs on community college campuses—often for good reason. The large numbers of students entering community colleges each year, coupled with constrained financial and staff resources, make a developmental model unrealistic. Implementing a developmental model of advising and counseling would require colleges to add significant numbers of counseling staff members, and although small programs (e.g., CUNY's Accelerated Study in Associate Programs [ASAP]) have done so successfully, these programs are very expensive. ASAP, for example costs approximately $16,600 per student annually, compared with $9,800 for a "regular" student attending the City University of New York (Levin & Garcia, 2012).[5] Most colleges do not have the resources to provide all students with an individual counselor who has ample time to meet with them on a regular basis.

Various tools have been developed to help students identify career and academic goals outside of the developmental advising model. These tools require fewer resources than intensive one-on-one counseling and can be deployed to more students more rapidly. In this section, I describe some of these interventions and tools, as well as the existing research on their effectiveness, particularly as it relates to how well they help students enter programs of study and make progress toward a degree.

[5] There is evidence that this additional cost pays off, in terms of increased graduation rates and overall cost effectiveness *per graduate* (Levin & Garcia, 2012). But whatever the efficiency and effectiveness of substantial investments in guidance and counseling, they require colleges to find the funds to support program expansion—not a simple task in resource-constrained environments.

5.1 Career and Self-Assessment Inventories

Most of the developmental theories presented earlier assume that the first phase of determining academic and career goals is for students to engage in a process of self-examination and identify their goals, interests, strengths, and weaknesses (Gore & Metz, 2008). These factors then drive additional career development activities (such as job exploration), as well as academic and career planning. In a structured college, tools designed to help students clarify their goals can be useful in helping students decide which program of study to enter. Ideally, these tools would be one component of a prolonged interaction between counselor and student—essentially, a foundation for discussion. However, in the absence of sustained, developmental career guidance, these tools are often used in isolation by advisors and individuals (Grubb, 2006).

Typical tools include *interest inventories*, in which students are asked assess their interests, and these interests are related to potential careers; *strengths inventories*, in which students assess their strengths and identify careers that build upon their strengths; and *values inventories*, in which students are asked what they value in a job and are provided with information about careers that are typified by those value traits. There are a wide variety of such inventories available commercially and through government websites, most of which have undergone some sort of internal validity testing.

There is evidence that such interventions can set students on a path toward identifying appropriate majors and careers for their interests and strengths. Hughes and Karp (2004), Gore and Metz (2008), and Reardon, Lenz, Sampson, and Peterson (2011) cited an array of inventories—such as the Career Thoughts Inventory (CTI), O*Net Online, DISCOVER, and Choices—that are perceived as effective or have demonstrated evidence of effectiveness. Hughes and Karp (2004) reviewed over 50 studies on career counseling and guidance and found that self-assessment inventories are related to improved career-selection measures, such as increased career decidedness and career maturity. Evaluations of individual tools (sometimes conducted by the developers of the tools) have also found positive results. For example, two studies of the Kuder career assessment found participation to be linked to postsecondary persistence, identification of a college major, and persistence in majors well aligned with career goals (D'Achiardi-Ressler, 2008; Stephen, 2010). A number of other interventions using a tool in

combination with additional supports, such as a workshop or guided exploration, were also found to have positive impacts on students' vocational decision-making processes (Carr, 2004; Zagora & Cramer, 1994).

It is important to note that most of these tools and related interventions are brief, often consisting of only one or two treatment sessions (Hughes & Karp, 2004). Particularly when conducted outside of a more structured guidance session, these interventions may increase short-term outcomes, such as increased knowledge of careers, without increasing longer term positive outcomes, such as progress toward a credential (Hughes & Karp, 2004). Their impacts may be limited because students do not know how to use the self-knowledge developed by taking the inventories without further assistance (Karp et al., 2012). In relating these findings to the developmental theories presented earlier, such short-term impacts are not surprising; inventories can help students gather information and build self-knowledge (the first phase of career decision making), but, in and of themselves, they do not aid students in integrating this newfound knowledge into their academic and career plans (the later phases of most models).

5.2 Career Courses

In an attempt to reconcile the resource-intensive, one-on-one advising approaches encouraged by theory with the resource-constrained environments in which guidance and counseling function, many educational institutions have implemented career courses or other longer lasting group interventions. These interventions take varying formats but typically involve groups of students meeting with an advisor or counselor over multiple sessions. Career courses may be integrated into other orientation and advising activities, such as student success courses, or held as stand-alone noncredit workshops or credit-bearing classes. They are defined by their structured curriculum and their duration of a semester or longer (Hughes & Karp, 2004).

Studies have generally found evidence of positive outcomes for career courses. Hughes and Karp (2004) found that students enrolled in career guidance courses tended to participate in career planning and decision making at increased rates and increased their knowledge of work and occupations as well as their career decidedness. None of the studies reviewed in this paper examined the relationship between these courses and entry into a program of study or major, however. Goomas (2012) found that an integrated

career counseling course increased students' ability to register for courses easily and quickly, though the study did not examine whether the appropriateness of students' course selections increased.

Most analyses of the relationship between career courses and outcomes are based on studies of College 101 courses. College 101 courses do not exclusively focus on career planning, but they integrate career planning activities into broader course content focused on college readiness and life skills. There is a growing body of well-designed evaluation studies that generally indicates an association between participation in student success courses and a range of positive outcomes, such as higher rates of persistence, retention, and credit earning (Boudreau & Kromrey, 1994; Cho & Karp, 2013; Goomas, 2012; Schnell & Doetkott, 2003; Scrivener, Sommo, & Collado, 2009; Strumpf & Hunt, 1993; Weiss et al., 2011; Yamasaki, 2010; Zeidenberg, Jenkins, & Calcagno, 2007). Some of these studies also found a relationship between course participation and longer term outcomes, such as credential attainment (Yamasaki, 2010; Zeidenberg et al., 2007) and transfer to a four-year institution (Zeidenberg et al., 2007). More rigorous random assignment studies found little evidence of longer term impacts (Rutschow et al., 2012; Weiss et al., 2011; Weissman et al., 2009). Importantly, none of these studies explicitly examined the impact of College 101 courses on career-focused outcomes, such as career decidedness or entry into a program of study.

Despite the evidence that student success courses may have positive effects on some outcomes, it is not clear that the career advising component of these courses is effectively delivered. In a study of College 101 courses in three colleges, my colleagues and I found that career exploration and occupational decision making was often covered in a perfunctory rather than developmental manner (Karp et al., 2012). We found little evidence that students were able to connect their interests, academic plans, and career goals more effectively as a result of the courses. Typically, students received brief exposure to career inventories and other planning tools but were not aided in thoughtfully using those tools.

5.3 E-advising

As colleges seek to address costs and streamline their advising services, there is growing interest in using *e-advising*—advising and counseling activities mediated by

technology—to supplement traditional advising (California Community Colleges Student Success Task Force, 2012; Kvavik & Handberg, 2000; WestEd & The RP Group, 2012a, 2012b). E-advising can serve many purposes. E-advising may simply provide information to students cheaply and efficiently, as when email or course management systems are used to remind students about available services. It may also expand counselor capacity, as when students create online plans that can be revisited and revised over their collegiate careers, or when orientation sessions are offered to students online. Finally, e-advising technology may enhance existing services, as when student records are used to identify students in need of intrusive assistance and, sometimes, to send automatic alerts to advisors or students.

Given the wide range of interventions that rely on technology, as well as the relative newness and small scale of most technology-based guidance and counseling, research in this area is emerging and inconclusive. Although many evaluations of technology-based interventions have found positive effects, the validity of their findings is diminished by poor controls or lack of a comparison group (e.g., D'Achiardi-Ressler, 2008; Shugart & Romano, 2006). Other studies have included qualitative examinations of technology implementation rather than outcomes evaluations (see, e.g., Jaggars et al., 2012). For some forms of technology, including commercial platforms that colleges use to help students select courses and plan their academic programs, there is no evaluation research publicly available. It is therefore difficult to draw conclusions about the effectiveness of using technology for advising and counseling.

There is some promising, though not rigorous, evidence that technology can be used to improve student outcomes. For instance, LifeMap at Valencia Community College uses web-based resources to help students identify and develop academic and career plans in conjunction with campus-based, in-person services. Descriptive analyses of institutional data conducted by staff at the college indicated that the college has improved its persistence rates, student credit earning, and degree attainment rates since implementing the program (Shugart & Romano, 2006). The Education Wizard, a program in Virginia that links students to career and academic information, had similarly positive descriptive results; users had higher grade point averages and a higher likelihood of

receiving financial aid than nonusers (Herndon, 2011). Although these results are promising, neither of the studies controlled for any student characteristics.

Technology tools appear to be most promising when used as part of a broader advising strategy. For example, Bettinger and Baker (2011) found strong positive results from an intensive and intrusive coaching program that relied on technology in the form of email, social networking, and electronic records to identify student needs and initiate contact. Though the effectiveness of the intervention likely stemmed from the frequency and intensity of the personal advising contacts rather than their medium, technology made many of those contacts possible.

The evidence that technology can (or should) completely replace traditional advising approaches is less convincing. In their meta-analysis of career development interventions, Whiston, Sexton, and Lassoff (1998) found that computer-based interventions were not as effective as individual and group counseling. It should be noted that many of the studies included in their analysis are now more than 20 years old, which, given the rapid evaluation of technology, may minimize the relevance of these findings. Students have reported that e-advising is useful for some forms of one-on-one interaction, such as tutorials, but can be frustrating when used for other purposes, such as virtual campus tours (Center for Community College Student Engagement, 2009). Moreover, certain subsets of the student population, such as returning adults, are unfamiliar with the latest technology and social media, potentially minimizing the effectiveness of e-advising.

Newer studies have found that, like student success courses, e-advising interventions may be effective only when well designed—and that many such interventions are not user-friendly. Online resources designed for students are often poorly organized, out-of-date, and poorly integrated with other services (Jaggars et al., 2012; Margolin, Miller, & Rosenbaum, 2013). These technical drawbacks undermine the ability of e-advising technologies to fully meet student needs. The theoretical literature suggests that, except for a small group of decided and self-directed students, technology can supplement *but not supplant* the interpersonal interactions inherent in more traditional approaches (Campbell & Nutt, 2008; Creamer, 2000; Hagen & Jordan, 2008; Lowenstein, 2005).

Researchers and theorists have not reached a consensus on the best way to combine human interaction and technology in e-advising interventions. Are some services better suited than others to technological adaptation? Is there an ideal combination of technology-based and advisor-led activities? How much does the design of a technology influence its effectiveness? Organizational theory indicates that a certain degree of alignment between technology goals, end-user cultures, and product design is necessary for successful technological adoption and use (see, e.g., Hu, Clark, & Ma, 2003; Lehman, Greener, & Simpson, 2002; Nanayakkara, 2007; Parasuraman, 2000; Rogers, 2003). However, the current research base gives little insight into the precise nature of these relationships.

5.4 Summary

Overall, it appears that, under some circumstances, strategies and tools for making advising more efficient—such as career and self-assessment inventories, career courses, and e-advising—may help students identify their interests. But in many instances, these interventions are not implemented in ways that are likely to encourage positive outcomes. Often, their shortcomings are due to a lack of time for follow-up and guided discussion, just as in traditional, face-to-face advising and counseling. Improved efficiency does not seem to necessarily lead to improved effectiveness.

Colleges may need to rethink the delivery of advising and counseling, particularly if they plan to transition toward more structured programs. During the rethinking process, colleges will need to attend to the theoretical underpinnings of the counseling enterprise, as well as research on learning and cognition suggesting that individuals are unlikely to use information in the future unless they are given opportunities to contextualize it and practice using it (see, e.g., Bransford, Brown, & Cocking, 2000; Ericsson, Krampe, & Tesche-Römer, 1993). At the same time, any new model that emerges from this process must respond to the realities of the community college—limited budgets, limited staff time, and the need for expediency and efficiency. The next and final section of this paper presents a framework for thinking about restructured guidance and counseling activities. This framework, which takes into account the empirical and theoretical literature as well as the practical constraints experienced by community colleges, may allow for more efficient *and* more effective program entry for new community college students.

6. Restructuring Guidance and Advising for the Structured Community College

In this paper, I have argued that many structure reforms are predicated on the assumption that students are able to identify a program of study that is interesting to them and connected to their academic and career goals. Most students do not possess such knowledge, so for structure reforms to maximize their impact, colleges will need to renew their focus on guidance and counseling, particularly career-focused guidance and counseling targeted toward incoming and first-year students. Although there is a large body of theoretical discussion and empirical evidence on potentially effective approaches to guidance and counseling in the community college, current practices do not reflect the conclusions that emerge from the literature. In large part, community colleges have not been able to implement an ideal model of guidance and counseling due to structural constraints, such as limited budgets, limited staffing, and organizational divisions or silos. The tools currently used to address these issues have so far had a limited impact on students' ability to identify and enter programs of study.

Helping students identify, enter, and plan for progression through programs of study in a structured college will require new ways of delivering advising and counseling services. Just as recent academic reforms have fundamentally altered the structure of course delivery, guidance and counseling must also be restructured. Importantly, efforts to reform course structure should be integrated with efforts to reform guidance and counseling so that redesigned academic pathways work in concert with redesigned advising systems. The literature reviewed in this paper points to four broad principles to guide restructuring efforts. I define the principles first and then provide ideas for putting them into practice.

6.1 Principles for Restructured Guidance and Counseling

Pathways should balance structure with exploration. Although providing students with more structured pathways to a credential may help them make progress toward a degree, students need time to explore their options. Given the number of students who enter the community college without a clear sense of what they would like to study or the career they would like to enter (Grubb, 2006; M. Zeidenberg, personal communication, February 2013), it is not realistic to expect most students to identify a

major immediately upon matriculation. When developing academic pathways, colleges must build some sort of guided exploration into students' early college experiences. Guided exploration might take the form of a required career development course, an integrated academic/labor market exploration project or activity in a first-year seminar, or even a major or pathway specifically designed for career exploration. The key is to ensure that pathways do not "structure out" all of students' opportunities for exploring and investigating potentially interesting courses of study.

Career counseling should drive an integrated approach to advising. Academic and career counseling work together and complement one another. There is strong theoretical (Creamer, 2000; Shaffer & Zalewski, 2011) and practical (Booth et al., 2013; Public Agenda, 2012; Venezia et al., 2010) support for connecting academic and career guidance. However, current advising practices separate the two—and frequently focus on academic advising, leaving career planning as an afterthought. Particularly within a more structured college, students' career goals should drive academic planning.

It is important to note that focusing on students' ultimate goals when engaging in academic and career planning does not preclude a focus on transfer or the liberal arts. Students who want to transfer still need to identify why they want to do so, and which broad areas of the liberal arts they are most interested in. Moreover, when students think about why they want to enter a transfer-oriented program of study, the liberal arts becomes a deliberate and carefully thought-out choice rather than the "default option" for undecided or unfocused students. Starting academic planning with a transfer goal in mind also helps ensure that students participate in developmental coursework that is appropriate and connected to their goals, and that their subsequent course taking is focused on earning credits that will transfer easily and count toward a bachelor's degree.

Colleges should provide services to students based on their level of need. Typically, in the current model of advising in the community college, all entering students take placement exams and then meet with a counselor to select courses prior to the start of the semester. Advising offices must therefore meet with many students in a short period of time, leading to brief, often perfunctory counseling interactions (Grubb, 2006). This uniform treatment of new students does not effectively accommodate the needs of the individual. Students enter the community college with a diversity of needs

(Jaggars et al., 2012). Some students have clearly identified goals and can move quickly to a program of study, some need just a little guidance, and others need significant time and assistance to determine their goals and related program plans.

Colleges therefore should move toward a multifaceted approach to working with new students. Identifying those who are clearly "decided" and providing them with basic tools to help them enter programs of study on their own, with little staff assistance, would enable advisors to spend more time with students who need more help. Undecided students would then be more likely to receive the structured and guided form of interaction that theory indicates is most useful in identifying and planning for long-term goals. Some of the tools discussed earlier, particularly e-advising and, to a lesser extent, group career advising, attempt to allow for such triage but so far have not done so effectively.

Colleges should strategically deploy resources to allow for developmental advising. Although many students need intensive, one-on-one advising, their degree of need varies, both among individuals and over time. Deploying advising resources strategically enables counselors to work with students most in need of personalized and prolonged intervention, and to work with them over multiple semesters or years. Using advising resources in a targeted manner—rather than the same resource or tool for all students—can contribute to both efficiency and effectiveness.

Because students' needs do not disappear after the first semester (Center for Community College Student Engagement, 2012; Rucks-Ahidiana & Ehrhardt, 2012) and short-term impacts generally have diminishing impacts (Boudreau & Kromrey, 1994; Rutschow et al.; Visher et al., 2010; Weiss et al., 2011), it is important to provide continuing students with guidance and support. Moreover, learning theory contends that individuals need sustained practice in order to master a skill (Bransford et al., 2000; Ericsson et al., 1993)—including the ability to reflect upon one's goals, develop plans for meeting those goals, and evaluate the success of one's plans. Further, counseling theory suggests that support is inherently a long-term enterprise, particularly if it is intended to help students develop their decision-making and metacognitive skills (Campbell & Nutt, 2008; Creamer, 2000; Crookston, 1972; Hagen & Jordan, 2008; Lowenstein, 2005; National Academic Advising Association, 2005, 2006; O'Banion, 1972). Therefore, when restructuring guidance and counseling, colleges should be attentive to the sustained

needs of students and ensure that all students, not just new students, have the opportunity to engage in structured and guided academic and career planning activities.

6.2 Potential Practices for Implementing These Principles

There are probably many ways to implement the principles discussed in the previous section. One promising option is restructuring advising and moving some advising personnel directly into academic departments, leaving other advising staff to specialize in helping students identify goals and enter programs of study. At the same time, colleges could implement intake procedures that begin by asking students about their career and personal goals, rather than their academic needs and deficiencies.

Such a system might be structured as follows. Entering students would be asked about their interests and goals. This could happen as part of a short survey attached to applications, placement tests, or other intake forms; alternatively, incoming students could be required to complete a short career inventory or stand-alone survey, possibly via e-advising technology. The questionnaire would identify a few possible career goals, as well as students' level of certainty about those goals.

Students would then meet with an advisor to identify academic areas that are aligned with their identified goals. The advisor would use the interest inventory results to discuss the pros and cons of different programs or program streams[6] (for example, program A includes more courses in a topic area that the student is interested in, but program B is more hands-on; program A leads to jobs with certain desired characteristics, but program B has more cachet in the labor market or greater ease of transfer). The student would then be able to make an informed decision about which area of study to pursue. Once the student has identified a program, the advisor would explain the developmental education requirements and direct the student to the assessment center. Using results from the career inventories, desired program plans, and assessment tests,

[6] In some structured colleges, specific majors are organized into program "streams"—such as health sciences; science, technology, engineering, and mathematics (STEM); liberal arts; and business—that have similar content and first-year courses and similar implications for transfer and the labor market. In such colleges, generalist counselors would not need to identify specific majors for students but instead could use interest inventories and other tools to identify an appropriate stream and develop a program plan to meet the first-year requirements of the stream. Intake advisors would not need to know the specifics of 100 or more majors; instead, they would need to know the pros, cons, and requirements of 10 or so streams.

the advisor and student would then identify a program stream to enter or a series of courses to take for the next few semesters that would help the student make progress toward his or her goals.[7]

Importantly, this process might look different for different students. Effective use of career inventories or e-advising technology could sort students into different advising "treatments." Students with clearly defined goals and the ability to connect them to academic plans might engage in e-advising activities prior to meeting directly with departmental advisors. Other students might use technology or career inventories as part of a single, relatively short meeting with an intake advisor, coupled with a student success course focused on career and academic planning. Still other students might need to meet with their intake advisor over the course of a semester in order to fully explore their options and settle on a program of study. This type of developmental advising would be possible for students most in need of it because other students will have been assigned other interventions more appropriate to their needs. Notably, this model rests on the assumption that generalist or intake advisors conduct both academic and career counseling and advising, requiring them to be able to help students engage in career exploration as well as academic planning.

In this model of restructured community college guidance and counseling, much of the advising "action" takes place outside of the general advising office. In addition to intake counseling, colleges might implement an "embedded" advising system, with advisors who specialize in a specific discipline or area of study. For example, if a college has identified several broad areas of study (health sciences, STEM, liberal arts/transfer, etc.), it might embed a counselor within each program area. This individual would become an expert in the developmental prerequisites and course requirements for the programs of study within a stream, as well as the potential labor market and transfer opportunities available to graduating students. New students already certain of their course of study could immediately begin working with these content area advisors, bypassing general advising altogether. As other students become more certain of their path as a result of their work

[7] Such an approach might also demystify the assessment and placement process for students and encourage them to take it more seriously. If so, it could help to improve assessment and placement into developmental education, another area in need of reform (Hodara, Jaggars, & Karp, 2012).

with intake advisors, they, too, could participate in advising activities related to their programs of study and begin to meet with an embedded program advisor.

In addition to allowing for in-depth and developmental advising during students' entry into college, this approach encourages sustained support throughout students' college careers. Students are more likely to persist when they are supported over time (Scrivener et al., 2012). Moreover, students benefit when they are known by college personnel (Bensimon, 2007; Rendon, 1994) and when they have trustworthy, clearly identifiable sources of information and support (Booth et al., 2013; Karp et al., 2008). Embedded program advisors could serve as identifiable points of contact for students—connecting student supports and academics, serving as a resource for students with questions, and getting to know students in a personal, meaningful way outside of the classroom. Program advisors could also work with faculty to embed goal-setting practice into academic coursework; for example, a sociology course could include an exploration of work, careers, and culture, or a math course could include activities focused on analyzing labor market outcomes and earnings for various occupations related to the program stream. Thus, the restructured advising system proposed here moves beyond the inoculation model toward one that helps students during their initial entry into college *and* later on in their college experience, in a developmental yet efficient way.

Restructuring community college advising and counseling in this way would not be simple. However, it could lead to a system that meets the demands of current structure reforms, and it could be accomplished in a resource-constrained environment. Moreover, the restructured model of advising and counseling builds on both empirical and theoretical literature on the practices that are most likely to benefit students. There is room for improvement in the current advising and counseling systems, which are particularly ill-suited to academic structures that require students to have a well-defined sense of their goals and plans soon after their initial enrollment. If structure reforms are to succeed, colleges must find ways to help students identify their career goals and the academic paths that will help them reach those goals. Doing so will require a renewed focus on advising and counseling—coupled with new technologies, new professional structures, and a commitment to working with the students who require the most support in a sustained and developmental way.

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