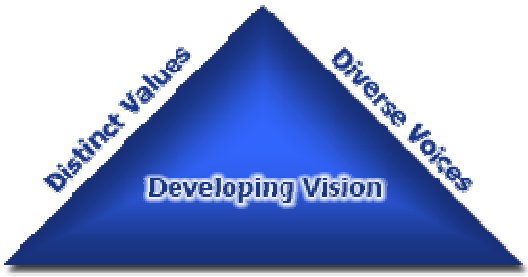

Moving From Theory to Action: Building a Model of Institutional Action for Student Success

Vincent Tinto
Syracuse University

Brian Pusser
University of Virginia

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INTRODUCTION

Though research on student attrition is plentiful and debate over theories of student persistence vigorous, less attention has been paid to the development of a model of institutional action that provides institutions guidelines for effective action to increase student persistence and in turn student success. This report describes a model of action for institutions that is intended to increase student persistence. The report does so by reviewing not only the growing body of research on effective institutional practices, but also studies of effective state and federal policy. In doing so, it seeks, for the first time, to situate institutional action within the broader context of federal and, in particular, state policy.

As the domain of action and policy is so widespread and multidimensional, we have had to make a number of assumptions to delimit the scope of our work. First, we have chosen to limit our focus to institutional action as it shapes events within the institution. For the purposes of this report, we take the stance that institutions have little influence over certain external events.[1] Consequently, we begin the discussion of a model of institutional action with a focus on events within the institution and therefore on internal institutional policies.

Second, regarding federal and state policy, we have chosen to emphasize those actions that frame the policy context within which institutions operate and in turn influence institutional action. That is to say, we have begun our discussion by taking the stance that the impact of state and federal actions upon student persistence is largely indirect. Of course, we know that this is not the case. Nevertheless, as the frame for our report is one of institutional action, our treatment of federal and state policy will stress the ways in which those policies shape institutional actions and in turn influence student persistence within the institution.[2]

The report begins with a brief review of evidence regarding changes in student persistence over time. It does so as a way of establishing the argument that research and theory on student persistence has yet to influence, on a national scale, student persistence in higher education. We then turn, in section 2, to existing research and theories on student persistence and argue that it has yet to provide institutional leaders the sorts of information they need to frame effective programs and policies for the persistence of their students. That discussion leads, in Sections 3 and 4, to the laying out of the outlines of a general model of institutional action and to an elaboration of the ways in which specific types of actions can enhance student persistence. Section 5 follows with a discussion of federal and state policy. Though it touches upon actions that directly shape student persistence, it emphasizes the ways in which those actions, in particular of the state, shape institutional actions and in turn student persistence. We conclude, in Section 6, with suggestions for further research and policy analysis.

It should be noted that we will use the terms "persistence" and "success" throughout the report. By the former, we refer to the enrollment of individuals over time that may or may not be continuous and may or may not result in degree completion. The latter refers to a broader concept that places a value on different forms of persistence. The most common of these, which will be employed here, defines success as the completion of a college degree. Though it may be the case that a person may view him or herself as successful for having completed a number of courses, we take the view that the completion of degrees,

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[1] Here, too, we are only too well aware that this is not the case. Take, for instance, the growing involvement of colleges and universities in high schools and the linking up of high school courses to those within 2- and 4-year institutions. Be that as it may, for the purposes of this report we have chosen to ignore such involvements.

[2] Understandably this leads us to largely ignore policies shaping financial aid and transfer. In both cases, but particularly the latter, such policies may have indirect as well as direct impacts upon student persistence.

not just their initiation, is critical to a person's future occupational success. In either case, persistence or success, our perspective is that of the institution rather than of the individual. While it is true that individuals may persist by transferring to another institution (i.e., system persistence), for the purposes of this report we take persistence and success to refer to those behaviors that take place entirely within an institutional context (i.e., institutional persistence). Our concern here is with the capacity of institutions to enhance the persistence and degree completion of their students.

Access and Persistence: The Disconnect Between Theory, Research, and Practice

Though significant strides have been made in constructing a theory of student departure, there is still a good deal of disagreement, if not confusion, over the details of such a theory (e.g., Bean, 1980; Braxton, 2000; Braxton, Hirschy, & McClendon, 2004; Cabrera, Castaneda, Nora, & Hengstler, 1992; Nora, 2001; Seidman, 2005; Tierney, 1992, 2000). This is not to say that we have not made substantial progress in our understanding of the process of student persistence. As it pertains to the process of institutional departure, it can be said that we now know the broad dimensions of the process of student leaving. The same, however, cannot be said for our understanding of institutional practice. Though we are increasingly able to explain why it is that students leave and in some cases why students persist, we are still unable to tell institutions what to do to help students stay and persist.

Consider the data on national rates of college completion. Despite years of effort and a good deal of research on student persistence, it is apparent that rates of college completion in the United States have not changed appreciably in the past 20 years, if not longer (Carey, 2004). Among those who first enrolled in a 4-year institution, for instance, rates of completion have held steady at slightly more than 50 percent (NCES, 2005). And as far we can tell, it is still the case that roughly 6 of every 10 students who began college do not complete either a 2- or 4-year degree within 6 years of entry (NCES, 2003). Though there are many reasons why this is the case, it is clear that gains in our understanding of the process of student persistence have not been translated into gains in student persistence.

This is particularly evident in our continuing failure to promote the persistence of low-income students. Though enrollment of low-income students in higher education has grown over the past 20 years and the gap in access to higher education between low- and high-income students shrunk, gains in rates of college completion have not followed suit.[3] The gap in postsecondary completion between high- and low-income students generally and in particular for 4-year degrees remains. Data from a recently completed 6-year national longitudinal study of students who began college in 1995–96 bears testimony to this fact (NCES, 2003). While 56 percent of all high-income students (dependent family incomes of greater than $70,000) earn a 4-year degree within 6 years of beginning their studies, only 25 percent of low-income students (dependent family income of less than $25,000) do so (NCES, 2003, table 2.0-C).

Understandably, this reflects the fact that a greater proportion of low-income youth enter 2-year rather than 4-year colleges and, in so doing, reduce the likelihood of earning a 4-year degree. Whereas nearly 6 in 10 4-year college entrants earn a bachelor's degree within 6 years, only a little over 1 in 10 public 2-year college entrants do so (NCES, 2003, table 2.1A). But even among those who began higher education in a 2-year college, income matters. While nearly 25 percent of high-income students earn a 4-year degree within 6 years, only 8 percent of low-income students do so (NCES, 2003, table 2.1C). In other words, the chances of a low-income student completing a bachelor's degree within 6 years when

[3] The proportion of high school graduates entering college immediately after high school has increased from about 49 percent in 1980 to slightly over 63 percent in 2000.

beginning college in a 2-year college is around one-third of that for a high-income student who also begins in a 2-year college.

Similar differences in likelihood of completion exist among 4-year college entrants. Of those who began higher education in a public 4-year college or university in 1995–96, only 48 percent of low-income students earned their 4-year degree within 6 years, while 67 percent of high-income students did so (NCES, 2003, table 2.2C). More telling still is the fact that even among those who began at a 4-year college with the stated goal of obtaining at least a 4-year degree, only a little over half of low-income students earned a bachelor's degree (53 percent) as compared to over three-quarters of high-income students (77 percent) (NCES, 2003, table 8.6).

Of course, some of these differences can be attributed to well-documented differences in levels of academic preparation of students entering 2- and 4-year postsecondary institutions (Cabrera, Burkum, & La Nasa, 2005) and to the fact that low-income students are considerably less likely to attend elite institutions where graduation rates are quite high.[4] But even among students attending the top tier of institutions, presumably among the most talented and motivated students in higher education, it proves to be the case that students from the lowest socioeconomic quartile are less likely to graduate (76 percent) than students from the highest quartile (90 percent) (Carnevale & Rose, 2003, p.14).

The facts are unavoidable. Though access to higher education has increased and gaps in access between groups decreased, rates of college completion generally and gaps in completion between high- and low-income students have not followed suit. Indeed, they appear to have widened somewhat over the past decade (NCES, 2005, table 5-B). Clearly there is still much to do to translate access to college into meaningful opportunity for success in college.

There is also much we need to do to effectively translate what we know from research and theory on student persistence into knowledge that would guide actions on behalf of student persistence, in particular for students of low-income backgrounds. Though there is a substantial and still growing body of research and theory on the nature of student persistence, we do not yet have a theory of action that provides institutions and states guidelines for the development of policies, programs, and practices to enhance the persistence of the students they serve. The goal of this project is to begin developing such a theory. Specifically, it seeks to identify some of the major elements of a theory of institutional and state action and show how it might be used to guide institutional and state efforts to increase student persistence. We do so in the expectation that future work will lead to the development and testing of a more fully articulated theory of institutional action for student success.[5]

Given that student persistence is still largely a reflection of institutional practice, we begin our pursuit of a model of institutional action by first considering the nature of theory and research on student persistence and the evidence as to the nature of institutional environments that promote student persistence.

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[4] Among the top tier of institutions, for instance, graduation rates are nearly 86 percent, where it is only 54 percent for the lowest tier of institutions (Carnevale & Rose, 2003, table 2.1, p. 69).

[5] It should be noted that we are not the first to travel this path. Others have already carried out work that relates to institutional action (e.g., Astin, 1975; Beal & Noel, 1980; Berger, 2001; Braxton, 2001; Braxton, Hirschy, & McClendon, 2004; Clewell & Ficklen, 1986; Kuh et al., 2005; Swail, Redd, & Perna, 2003; Tinto, 2005). None, however, have sought to develop a comprehensive model as that proposed here.

Reflection on Current Debates of Theories of Institutional Departure

To move toward a model of institutional action, we first must consider the nature of the current debate about existing theories of student persistence. We do so because understanding some of the challenges researchers and theorists face will not only help build a more effective theory of student departure, but will also aid our pursuit of a useful model of institutional action.

The research on student attrition and persistence is voluminous. It is easily one of the most widely studied topics in higher education over the past 30 years. This work has been greatly enriched by the inclusion of research on the experience of underrepresented and low-income students in 2- and 4-year institutions of higher education. Unfortunately, this body of work has not yet resulted in a comprehensive longitudinal model of student success that effectively translates our knowledge into practices and policies that institutions and states can follow to enhance student success. The fact that this work has not resulted in a comprehensive model of student success is due to several issues.

First, much of our work makes the implicit assumption that knowing why students leave is equivalent to knowing why student stay and succeed. This is not the case. The process of persistence is not the mirror image of the process of leaving. Though the two are necessarily related, knowing why students leave does not directly translated into knowing what to do to help students stay.

Second, too much of our research focuses on theoretically appealing concepts that do not translate easily into definable courses of action. Take, for instance, the concept of academic and social integration. While it may be useful for theorists to know that academic and social integration matter, that theoretical insight does not tell practitioners, at least not directly, what they would do to achieve academic and/or social integration in their particular setting. Though the early work of Pace (1980) and Astin (1984, 1993), and more recently Kuh (1999, 2003), has done much to operationalize the concept of academic and social integration in ways that can be reasonably measured and in turn used for institutional assessment, that work does not yet tell us how institutions can enhance integration or what it now commonly referred to as engagement. And while it is true that recent studies, such as those by Tinto and Russo (1994), Tinto (1997), Zhao and Kuh (2004), and Kuh et al. (2005) have looked into practices that enhance engagement, there is a great deal more to do.

Third, too much of the research on student success focuses on events, often external to the institution, that are not under the immediate ability of institutions to affect. Though informative, such research does not lead to reasonable policies and practices. For instance, though it is enlightening to know that student high school experiences and family context influence persistence in college, such knowledge is less useful to institutional officials because they often have little immediate control over students' prior experiences or private lives. This is not to say that such information cannot be useful at least in an indirect way. In this case, knowing about the role of family context may help institutions more effectively configure their support programs for differing student situations (e.g., Torres, 2003a, 2003b). But it does not tell the institution either how to effectively tap into issues of family context or whether such actions are more likely to yield increased persistence.

Fourth, there remains much confusion about what constitutes student persistence, one aspect of student success. We continue to struggle with competing, if not conflicting, definitions and measures that on one hand see persistence as the completion of a college degree and, on the other, view it as students being able to fulfill the goal for which they began college. In other cases, some define persistence as continuous enrollment, while others measure persistence as success in one course at a time regardless of periodicity.

This confusion can also be seen in research on student leaving and on degree completion. Regarding the former, too many studies fail to distinguish between that type of leaving that may be said to be voluntary from that which is nonvoluntary. For instance, leaving that results from a lack of personal contact is likely to be voluntary, whereas that arising from external events such as family obligations that pull a person away from college might be characterized as nonvoluntary. Regarding the latter, some studies of student completion still do not distinguish between institutional completion that is the result of continuous enrollment in an institution from that occurring over time from intermittent enrollment at an institution (i.e., stopout) or between continuous or discontinuous enrollment in one institution (institutional completion) from that occurring through transfer to another institution (i.e., system completion). Such confusion matters, because the findings of different studies that employ different definitions and/or measures of student persistence or success muddy the waters for institutions that seek guidance on the actions they should take to promote student persistence or success on their campuses.

Finally, much of the research and theoretical work on student persistence or success has been carried out in isolation, with one area of work separated from another. This condition applies both to discussions of institutional action and to those pertaining to state and federal policy. Regarding institutional action, some studies have focused on issues of financial aid, others on campus climate, and others still on programming such as freshman seminars. The result is that we have been unable to provide institutions with a comprehensive model of action that would allow them to weigh the outcomes of different forms of action and plan accordingly. There has been little effort to join together issues of state policy with institutional practice, even though it is obvious that state policy provides an important context for institutional action. The result is that much of our conversations of institutional and state policy have failed to shed light on the practical question of how state actions can enhance the capacity of institutions to promote student persistence or success.

Moving Toward a Model of Institutional Action

In moving toward the identification of a possible model of institutional action, we will focus at this stage of our work on the conditions within institutions rather than on the attributes of students themselves. We do so because it is too easy to see the absence of student success as solely the responsibility of students. This is not to say that individual attributes do not matter. In some cases, they matter greatly. We all know of stories of students who by shear drive succeed against what are for most students seemingly insurmountable barriers. Yet there are other students who do not succeed even when placed in settings that favor success. Nevertheless, though some might argue otherwise, student attributes such as personality, drive, and motivation are, for the great majority of institutions, largely beyond immediate institutional control.[6] This is not the case, however, for the conditions or environments within universities and colleges in which students are placed. Such environments are already within institutional control, reflecting—as they do—past decisions, and can be changed if institutions are serious in their pursuit of student success. Since our focus is on institutional action, it makes sense to begin our search for a model of action with those aspects of institutional environment that shape student success and are within the capacity of institutions to change.

[6] Not surprisingly, many institutions see this issue as one of recruitment, of attracting more able and motivated students who themselves are more likely to graduate. But there are only so many able and motivated students, and it seems as if every university is seeking to attract the same students. In any event, such efforts leave untouched the learning environment and do little to ensure that the experience of students will in any way be changed by attracting more able students.

Conditions for Student Success

What are these environments? What does research on student success tell us about the conditions within universities that are needed to promote success?[7] It points to five conditions that promote student success: institutional commitment, institutional expectations, support, feedback, and involvement or engagement.

Commitment

First and perhaps most important, institutional commitment is a condition for student success. Simply put, institutions that are committed to the goal of increasing student success, especially among low-income and underrepresented students, seem to find a way to achieve that end. Institutional commitment is more than just words, more than just mission statements issued in elaborate brochures; it is the willingness of the institution to invest resources and provide the incentives and rewards needed to enhance student success. Without such commitment, programs for student success may begin, but they rarely prosper over the long term.

Expectations

Second, high expectations are a condition for student success. Simply stated, no student rises to low expectations. Regrettably, it is too often the case that institutions expect too little of students, especially during the critical first year of college. A national study by Kuh (2003) indicates that first-year students spend less time on their studies out of class than what we deem necessary for successful learning. It is our view that this is the case in part because we do not expect enough of them nor construct educational settings that require them to study more.

At the same time, universities will sometimes hold differing expectations for differing students. This may be expressed in the labels they use to describe groups of students, such as the term "remedial," or more subtly in the way faculty treat students of different genders or ethnicities. However expressed, research is clear that students quickly pick up expectations and are influenced by the degree to which those expectations validate their presence on campus. This is precisely what Rendon (1994) was referring to in her research on validation and success of nontraditional, first-generation, community college students and what Solorzano, Ceja, & Yosso (2000) were referring to in their study of "microaggressions" that students of color often encounter on a predominantly white campus.

Expectations can also be expressed in concrete ways through formal and informal advising. Knowing the rules and regulations and the informal networks that mark campus life are part and parcel of student success. Yet it remains the case that formal advising remains a "hit and miss" affair; some students are lucky and find the information they need, while others are not. The same can be said of informal advising, the sharing of accumulated knowledge that goes on within a campus among and between faculty, staff, and students. Again some students are able to locate that knowledge, often through informal networks of peers, while others are not (Attinasi, 1989).

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[7] Here, "research" must be understood more broadly as accumulated knowledge that includes research, institutional studies, and shared experience of many practitioners. Such "research" is often as informative as single case research because it involves the accumulation of evidence from differing sources and methodologies of knowledge making.

Advising is particularly important to the success of the many students who either begin college undecided about their major and/or change their major during college.[8] The inability to obtain needed advice during the first year or at the point of changing majors can undermine motivation, increase the likelihood of departure, and for those who continue, result in increased time to degree completion. Though students may make credit progress, they do not make substantial degree-credit progress.

Support

Third, support is a condition that promotes student success. Research points to three types of support that promote success: academic, social, and financial. Regarding academic support, it is unfortunately the case that more than a few students enter the university insufficiently prepared for the rigors of university study. For them, as well as for others, the availability of academic support in the form of developmental education courses, tutoring, study groups, and academic support programs such as supplemental instruction is an important condition for their continuation in the university. So also is the availability of social support in the form of counseling, mentoring, and ethnic student centers. Such centers provide much needed support for individual students and a safe haven for groups of students who might otherwise find themselves out of place in a setting where they are a distinct minority (e.g., Attinasi, 1989). For new students, these centers can serve as secure, knowable ports of entry that enable students to safely navigate the unfamiliar terrain of the university (London, 1989; Terenzini et al., 1994).

Regarding the nature of support, research has demonstrated that support is most effective when it is connected to, not isolated from, the environment in which students are asked to learn. Supplemental instruction, for instance, provides academic support that is directly attached to a specific class in order to help students succeed in that class. As a support strategy, it is most often used for key first-year "gateway" courses that are foundational to coursework that follows in subsequent years.

Feedback

Fourth, monitoring and feedback is a condition for student success. Students are more likely to succeed in settings that provide faculty, staff, and students frequent feedback about their performance. Here we refer not only to entry assessment of learning skills and early warning systems that alert institutions to students who need assistance, but also to classroom assessment techniques such as those described by Angelo and Cross (1993) and those that involve the use of learning portfolios. These techniques are not to be confused with testing; they are forms of assessment, such as the well-known "one-minute" paper, that provide both students and faculty information on what is or is not being learned in the classroom. When used frequently, such techniques enable students and faculty alike to adjust their learning and teaching in ways that promote learning. When implemented in portfolio form that requires continuous reflection, assessment can also deeply enrich learning.

Involvement

Finally, involvement, or what has been frequently been described as academic and social integration, is a condition for student success (e.g., Astin, 1993; Tinto, 1975, 1987, 1993). The more students are academically and socially involved, the more likely they are to persist and graduate. This is especially true during the first year of study, when student membership is so tenuous yet so critical to

[8] It is estimated that among 4-year college students, nearly two-thirds either begin undecided or change their majors at least once during college.

subsequent learning and persistence (Tinto, 2001). Involvement during that year serves as the foundation upon which subsequent affiliations and engagements are built.

Nowhere is involvement more important than in the classrooms and laboratories of the campus, especially during the first year of college. This is the case for two reasons. First, the classroom may be the only place students meet each other and the faculty. Most students commute to college, and a majority work while in college. For them and many others, the classroom is often the only place where they meet other students and engage with the faculty and peers in learning. If involvement does not occur in these smaller places of engagement, it is unlikely it will easily occur elsewhere. Second, learning is central to the college experience and the root source of student success. Involvement in classroom learning, especially with other students, leads to greater quality of effort, enhanced learning, and, in turn, heightened student success (Tinto, 1997). Even among students who persist, those who are more involved in learning, especially with other students, learn more and show greater levels of intellectual development (Endo & Harpel, 1982; Lundberg & Schreiner, 2004). It is for this reason that so much of the literature on institutional retention, learning, and development speaks of the importance of building educational communities that involve all students (Tinto, 1993).

To sum up, students are more likely to succeed when they find themselves in settings that are committed to their success, hold high expectations for their success, provide needed academic and social support, provide frequent feedback, and actively involve them, especially with other students and faculty, in learning. The key concept is that of educational community and the capacity of institutions to establish educational communities that involve all students as equal members.

The question before us is not whether these conditions apply—research has more than amply demonstrated that they do—but to ascertain what institutional actions promote the establishment of those conditions and in turn promote student success. It is to this task that we now turn.

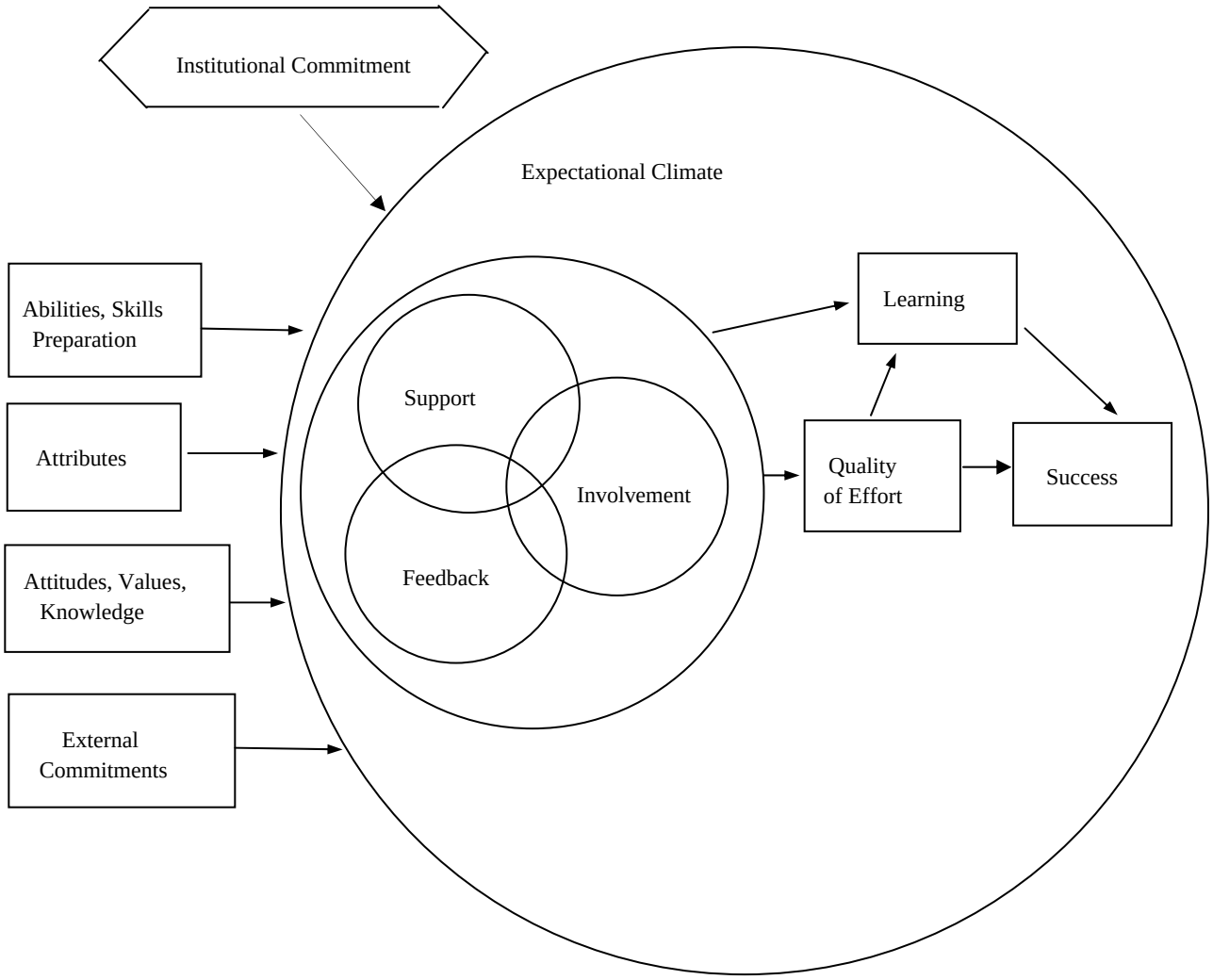
A Model of Institutional Action

Several observations should be made about the current discussion. First, it argues that student learning is central to student success and by extension that without learning, students are not successful regardless of whether or not they persist. The more that students learn and value their learning, the more likely they are to stay and graduate. This is true not only for those students who enter college academically underprepared, but also for the more able and motivated students who seek out learning and are more likely to respond to perceived shortcomings in the quality of learning they experience on campus.

Second, our discussion leaves open, for the moment, the definition of success other than to imply that without learning there is no success and, at a minimum, success implies successful learning in the classroom. By extension it argues that one way of understanding student success as it may be influenced by institutional action is to see it as being constructed from success in one class at a time, one upon another, in ways that lead over time to academic progress. A model of institutional action, whatever its final dimensions, must therefore treat student learning as part and parcel of the process of student success, and that success, however it is defined and measured, must have at its core success in individual classes. One result is to place a spotlight on the role of faculty in institutional efforts to promote student success (Umbach & Wawrzynski, 2005). Though student success is indeed everyone's business, it is the business of the faculty in particular.

What then might a model of institutional action for student success look like? Following upon the prior discussion, figure 1 describes the basic structure of an institutional model of action for student success.[9]

Figure 1. Structure of a preliminary model of institutional action



Students enter an institution with a variety of attributes (e.g., gender, social class, race, ethnicity), abilities, skills, and levels of prior academic preparation (e.g., academic and social skills), and attitudes, values, and knowledge about higher education (e.g., goals, commitments, motivations, and expectations). At the same time, they participate in a range of external settings (e.g., family, work, community), each of which has its own demands on students' time and energies. They enter institutions with specific attributes

[9] The model described here is intentionally sparse. First, we seek to produce a model that can be easily tested. Consequently, we have focused on a few clearly defined outcomes that are currently measurable. Second, there are neither prior models to draw upon nor a great deal of reliable research on effective institutional action. Therefore, we have sought to produce a model that can be added to, indeed modified, by subsequent research.

(e.g., level, mode of control, size, location) and resources (e.g., financial, faculty, staff). As argued here, both student and institutional attributes, within the timeframe for institutional action, are considered fixed and therefore not immediate objects of institutional action.[10]

What are not fixed are institutional commitments, the expectational climate established by members of the institution (i.e., faculty, staff, administrators, and other students), the academic, social, and financial supports provided by the institution, the feedback that is provided to and about students by the institution, and the educational and social activities that shape student academic and social involvements and/or engagements within the classroom and with other members of the campus.

As depicted, the model argues that institutional commitments provide the overarching context for institutional action. As noted earlier, everything else being equal, institutions that are committed to student success are more likely to generate that success than institutions whose commitment to students may be of lower order than competing commitments (e.g., research, athletics). Institutional commitment to student success in turn sets the tone for the expectational climate for success that students encounter in their everyday interactions with the institution, its policies and practices, and its faculty, staff, administrators, and other students.

Within those nested climates, students encounter varying degrees of academic, social, and financial support, are provided varying types of feedback about their progress, and experience educational settings whose structure and practices result in differing degrees of academic and social involvement (Astin, 1984; Tinto, 1975, 1987, 1993). Together these encounters (support, feedback, and involvement) influence the quality of student effort (Pace, 1980) and student learning (Lundberg & Schreiner, 2004; Endo & Harpel, 1982) and both in turn shape student success, particularly in the classroom. That success in classes generates credit and degree-credit progress and eventual degree completion.

At its core, the model argues that student success is most likely to occur when all the above conditions exist. Moreover, it argues by extension that institutional policy must be coherently constructed to enable all sectors of the institution to collaboratively construct those conditions for all students on campus.

Institutional Actions for Student Success

Given the broad outline of the model, we now begin filling in the types of institutional action that shape each of these conditions and in turn promote student success (Figure 2). We do so by drawing from existing studies of institutional practice that provide sufficient empirical evidence to support the claim that specific types of institutional action promote enhanced student success.[11]

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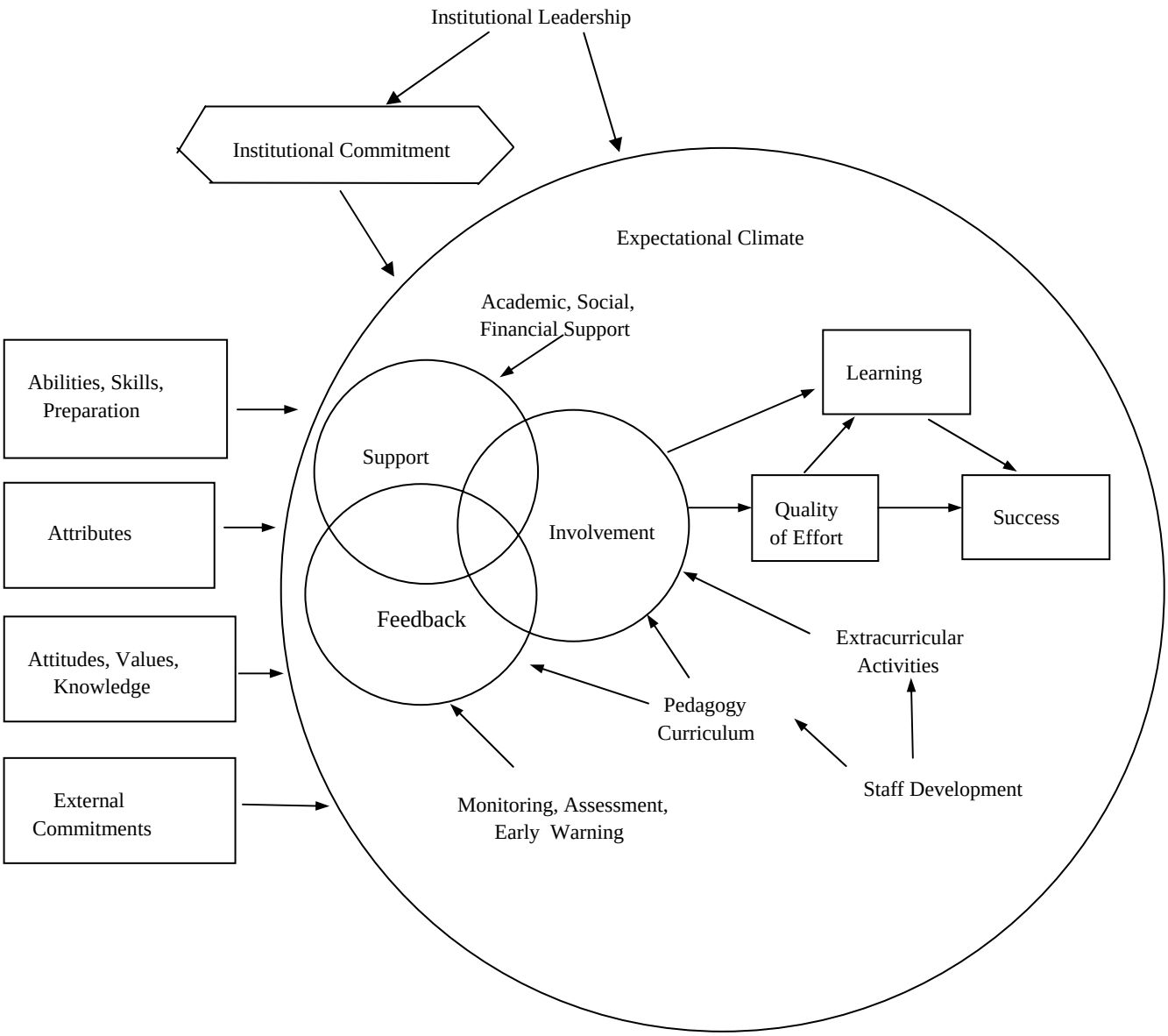
[10] For the purposes of the present discussion, the timeframe for institutional action applies to the experiences of any entering student cohort during its time on campus, namely 3 to 5 years. A timeframe that would encompass several cohorts and therefore reflect long-term institutional actions is not considered in this discussion.

[11] In this regard, it must be observed that there is a lamentable paucity of empirically sound research on effective institutional practice. Most so-called studies of institutional practice are little more than descriptions of claimed effectiveness that typically lack the sort of empirical controls to support such claims.

Figure 2. Elements of a preliminary model of institutional action



Though not indicated in figure 2, our model is multilayered in that it posits that the effect of actions upon student success at the level of the organization, such as those by its administrative leadership, is largely indirect in that such actions serve to influence the behaviors of faculty and staff whose actions directly impinge upon student lives either directly through their own contact with students or indirectly through the building of programs that affect students. This does not mean that institutional actions cannot directly affect student success, because financial aid policies do so (St. John, Cabrera, Nora, & Asker, 2000). But with the exception of that one case, which is particularly relevant to the issue of the success of low-income students, we will not cover those actions.

Here, a caveat is needed. Our discussion will focus on categories of action rather than specific types of action. For example, we will speak of advising programs without detailing the wide variety of

advising programs that are employed in postsecondary institutions. In a similar fashion will we note the importance of financial aid programs such as work-study without delving into the specifics of different types of programs.

Institutional Commitment and Leadership

Institutional commitment to the goal of student success is critical to improved rates of student success over time. Without institutional commitment, most efforts at improvement are marginal and short lived. Institutional commitment is, in turn, a reflection of institutional leadership (Clark, 1996) and the willingness of leadership to invest resources in those aspects of institutional functioning that directly and indirectly impact student success (Ryan, 2004). Though studies specific to leadership in higher education are limited, a number of observers point to a direct link between leadership (Gumport & Pusser, 1997) and leadership style (Sporn, 1996) to institutional effectiveness generally and institutional expectational climate or culture in particular (Carey, 2005a, 2005b; Sporn, 1996).

Institutional leadership is not just the reflection of the actions of the top administrative officer. Though it is hard to envision the development of successful programs that endure over time without supportive leadership from the top, it is also the case that support at the level of deans, department chairs, and vice presidents also matter (Serow, Brawner, & Demery, 1999). This is the case because such support most directly impacts upon the willingness of individual faculty and staff to invest in programs and activities that enhance the success of their students (Umbach & Porter, 2002).

Expectational Climate

The expectational climate of an institution, or what is often referred to as campus climate, speaks to the expectations the institution holds for student, faculty, and staff behavior. It provides the expectational context for individual action and, in turn, influences student success because of the ways in which expectations shape how individuals respond to each other and to the multiple and often competing demands upon their time and energies. As it pertains to student success, expectations for student performance as expressed, for instance, by faculty in the classroom are particularly important because of the impact expectations have on the quality of student effort (Schilling & Schilling, 1999).

For low-income students and for those from underrepresented groups, campus climate and the micro-aggressions that may occur within the institution also influence persistence directly by shaping students' sense of belonging (e.g., Fleming, 1985; Hurtado, 1994; Hurtado & Carter, 1996, 1997; Solorzano, Ceja, & Yosso, 2000). It does so generally, as well as in specific places like classrooms and residence halls (Kaya, 2004). The expectational climate also affects faculty and staff behavior by shaping, for instance, the ways faculty balance research and teaching (Wolverton, 1998). Presumably, an institution that expects more in the way of teaching and provides support for teaching will generate among faculty an increased willingness to place greater priority on teaching.

Though the expectational climate of an institution is shaped by many people, no person is more important to institutional action than the president or chancellor. Not only does that person play a critical role in resource allocation, but he/she sets the tone for the institution and its various members. Without his/her expressed commitment to the issue of student success, especially for low-income students, it is hard to envision substantial improvement in student success over time.

Support

The topic of support for students has received considerable attention and has covered a wide array of types of action ranging from financial, academic, and social to personal.

Financial Aid. Numerous studies have documented the importance of financial aid for student success, especially for low-income students (e.g., St. John, Kirshstein, & Noell, 1991; St. John, Andrieu, Oescher, & Starkey, 1994). Though there are many differing types of programs, work-study programs appear to be particularly effective for they not only help students pay for college, they also serve to involve students with other members of the institution (Astin, 1975; Wilkie & Jones, 1994). It is for this reason that an increasing number of institutions are employing work-study programs as part of their student success initiatives.

Advising. Institutions have used a range of advising programs from those that primarily employ faculty to those employing a mixture of faculty and professionally staffed advising centers for all students (see Frost, 1991; Gordon & Habley, 2000), first-year students (e.g., Commander, Valeri-Gold, & Darnell, 2004; Stark, 2002), first-generation college students (Hicks, 2003), and undecided students (e.g., Korschgen & Hageseth, 1997; Lewallen, 1995). (With regard to the latter, it should be noted that among 4-year colleges' students, it is estimated that a majority of students are either undecided at entry or change majors at least once while in college (Titley & Titley, 1980).) In addition, some institutions have employed web-based advising systems (e.g. Valencia Community College) or have used trained peer advisers as part of their advising program (NACADA, 2005). Regardless of the type of program, the bottom line is that students must be able to easily obtain accurate advice when it is needed.

Academic Support. Academic support programs, like advising programs, are equally varied in character. They range from the use of learning and/or tutoring centers to study skill courses (e.g., Lipsky & Ender, 1990) to supplemental instruction (e.g., Blanc, DeBuhr, & Martin, 1983; Blanc & Martin, 1994; Commander, Stratton, Callahan, & Smith, 1996; Congos, Langsam, & Schoeps, 1997; Hodges, Dochen, & Joy, 2001). Supplemental instruction programs appear to be particularly effective because academic support is provided to students in a specific course, thereby allowing students to immediately apply the support they are being provided to succeeding in a particular course. The same can be said for the growing use of developmental education learning communities (Malnarich et al., 2004; Tinto, 1999). When properly implemented, they require the contents and activities of the linked courses to be coordinated such that what is being learned in one course can be applied to what is being learned in the other courses that are part of the learning community.

Regardless of the form, academic support is especially important to the success of students who enter academically underprepared, a disproportionate number of whom are from low-income backgrounds (Muraskin, 1997). In many instances, when student learning needs are substantial, institutions will employ summer bridge programs that bring students to campus before the start of the first semester for an intensive academic support and enrichment program (Garcia, 1991; Terenzini et al., 1994).

Another form of academic support that also provides social support is the now-popular freshman seminar. The seminars, which take a great variety of forms, provide new students support to make a successful transition to college (Upcraft, Gardner, & Barefoot, 2004). The same can be said of orientation programs that precede the start of the freshman year (Mullendore & Banahan, 2004; Ward-Roof & Hatch, 2003). Evidence of their effectiveness, when properly implemented, is widespread (e.g., Barefoot, 1993; Davis, 1992; Koutsoubakis, 1999; Schnell & Doetkott, 2003; Wilkie & Kuckuck, 1989; Williford, Chapman, & Kahrig, 2000).

Social Support. Social support programs are also part of the landscape of effective strategies for student success. Beyond the use of freshman seminars, institutions have also employed learning communities, such as freshman interest groups, as a way of building social connections and in turn social support for new students (Smith, MacGregor, Matthews, & Gabelnick, 2004, Tinto, Goodsell, & Russo, 1993; Tinto & Goodsell, 1994).

Social support is particularly important to underrepresented students on predominantly white campus (e.g. Attinasi, 1989; Gloria, Kurpius, Hamilton, & Wilson, 1999). Ethnic studies programs, students clubs, centers and the like all can serve to provide underrepresented students a smaller supportive community of peers that would not be available on campus otherwise. In many cases, they serve as important ports of entry where knowledgeable peers can help new students navigate the often-choppy waters of an unfamiliar institution.

More formal support is sometimes provided through mentoring programs that attach student peers, faculty, or administrators to specific groups of new students. Though not easy to implement well, such programs can help shepherd new students through the first year of college and beyond as well as provide important role models for student success (e.g., Campbell & Campbell, 1997; Levin & Levin, 1991; Gloria, Kurpius, Hamilton, & Wilson, 1999; Jacobi, 1991; Merriam, Thomas, & Zeph, 1987; Pagan & Edwards-Wilson, 2003; Thayer, 2000; Santos & Reigadas, 2004).

Feedback

Feedback, or what is often referred to as assessment of students, takes many forms. The most common assessments that directly impact upon student success are those that take place at entry, typically as part of an institutional screening program to ensure appropriate placement in coursework, those that are employed in the first semester as part of an early warning system, and those utilized within classrooms to provide feedback to both faculty and students about their performance.

Though research on the impact of feedback on student success is limited—most studies are in the form of descriptive institutional reports—it is commonly accepted that a carefully constructed assessment program that entails feedback on student, as well as program, performance is critical to institutional success (Banta, 1991, 2001; Ewell, 1997; Wholey, J. Hatry, H., & Newcomer, K., 1994). Research on the use of classroom-based assessments such as student portfolios (see White, 2005) and classroom assessment techniques (CATs) (see Angelo & Cross, 1993) is, however, quite extensive. It documents, for instance, the fact that the use of CATs as a consistent part of classroom practice improves student learning and in turn student persistence (Cottell & Harwood, 1998; Cross & Steadman, 1996; Light, 1990). It does so in part because of the way it promotes students' awareness of their own learning (Corno & Mandinach, 1983) and the feedback it provides to faculty about what is and is not being learned in the classroom.

It should be noted that classroom assessment techniques are also being integrated into institutional early-warning systems. The more traditional forms of early warning that utilize midterm grades often occur too late to help many students succeed in the courses in which they enroll. Rather than relying on midterm grades, increasing numbers of institutions are employing early classroom assessments to trigger early identification of problems and appropriate intervention efforts.

Involvement

Involvement, or what is now commonly referred to as engagement, has long proven to be one of the most important factors, given student skills and abilities, influencing student success (e.g., Astin, 1975, 1984, 1993; Borglum & Kubala, 2000; Pascarella, 1980; Pascarella & Chapman, 1983; Terenzini, Lorang, & Pascarella, 1981; Tinto, 1975, 1987, 1993). Simply put, the more that students are engaged with other people on campus, especially student peers and faculty, the more likely (other things being equal) it is that they will persist. Equally important, even among those who persist, students who are more engaged show greater learning gains (Endo & Harpel, 1982).

As noted earlier, the issue is not whether this is the case. Past research has more than amply demonstrated that it is. Rather, the issue for institutions, in particular those that serve large numbers of commuting students, is how to more fully engage their students, especially those who have substantial obligations beyond the campus (e.g., work, family).

For these students, indeed for most student generally, the more traditional practices that institutions have used to engage their students, such as extracurricular activities, residential programming, and clubs (Kuh et al., 1995; Kuh, Shuh, Whitt, & Associates, 1991), yield relatively little benefit on most nonresidential campuses if only because many students do not have the luxury of being able to spend time on campus beyond the classroom. Given their obligations, the classroom may be the only place on campus where they meet other students and the faculty. If engagement does not occur there, it is unlikely to occur at all. For this reason, an increasing number of institutions are turning to practices that focus on the classroom and the spaces immediately adjoining the classroom (Braxton & McClendon, 2001). Two practices warrant mention, namely the use of pedagogies of engagement and the construction of learning communities.

Pedagogies of Engagement. Unlike the traditional lecture where students are typically passive, especially in the many large first-year classrooms that dot the landscape of postsecondary education, pedagogies of engagement require students to be actively engaged in learning with other students in the classroom. Among various possibilities, the most commonly employed are cooperative and/or collaborative learning and problem-based learning.

Cooperative learning and collaborative learning, though somewhat different (see Bruffee, 1995), require students to become actively involved in learning groups with other students so that the work of the group cannot be accomplished without each member doing his or her part (Bonwell & Eison, 1991; Garth, 1999; Johnson, Johnson, & Smith, 1991, 1998a, 1998b). Problem-based learning is like cooperative learning in that it utilizes cooperative small groups, but it does so to solve problems that frame the curriculum (Allen, Duch, & Groh, 1996; Duch, 1995; and Wilkerson & Gijselaers, 1996). Though often used in smaller classrooms, a number of large universities have successfully employed both methods in large classes (e.g., MacGregor, et al., 2000; Ebert-May, Brewer, & Allred, 1997; Smith, 2000).

Research on the effectiveness of cooperative and collaborative learning and problem-based learning in improving student learning is widespread (Blumberg, 2000; Cooper & Robinson, 1995; Springer, Stanne, & Donovan, 1999; Wilkerson & Gijselaers, 1996). Of particular note is that pedagogies of engagement substantially enhance student processing skills, relative to lecture classes, while not diminishing content acquisition (Ebert-May, Brewer, & Allred, 1997). Not surprisingly, they also enhance student involvement and persistence, in part because of the way cooperative activities promote social involvement (Braxton, Milem, & Sullivan, 2000).

Learning Communities. In their most basic form, learning communities are a kind of co-registration or block scheduling that enables students to take courses together. The same students register

for two or more courses, forming a study team. In a few cases, this may mean sharing the entire first-semester curriculum so that all new students in that learning community are studying the same material over the course of the semester (Smith, MacGregor, Matthews, & Gablenick, 2004). Sometimes it will link freshmen by tying two courses together, for example, a course in writing with a course in selected literature, or biographies, or current social problems. In larger universities, such as the University of Oregon and the University of Washington, students in a learning community may attend lectures with 200–300 other students but stay together for a smaller discussion section (Freshman Interest Group) led by a graduate student or upperclassman. At Seattle Central Community College, however, students in the Coordinated Studies Program take all their courses together in one block of time so that the community meets two or three times a week for 4 to 6 hours each time.

To be effective, learning communities require more than simple co-registration. Though co-registration helps, as it facilitates the development of socially supportive peer groups (Tinto & Goodsell, 1994), it is not sufficient to ensure student success. Learning communities require a central theme or problem that links the courses in which the students co-register. The point of doing so is to construct an interdisciplinary learning environment in which students are able to connect what they are learning in one course to what they are learning in another. In addition, an increasing number of learning communities are also utilizing pedagogies of engagement. In this way students not only share a common body of knowledge, they also share the experience of learning that knowledge together. The result is not only increased engagement (Zhao & Kuh, 2004), but also increased learning and persistence (Johnson, 2000; Taylor et al., 2004; Tinto, 1997, 1998; Tinto, Russo, & Kadel, 1994).

When developed for the needs of new students, learning communities frequently include a freshman seminar as one of the linked courses (Baker and Pomerantz, 2001). When applied to the needs of academically under-prepared students, they often connect a study skills course to other courses in which the students are also registered and/or a developmental level course, such as writing, to a content course such as history so that the writing skills being acquired in the developmental course can be directly applied to a credit-bearing course in history (Malnarich, Sloan, van Slyck, Dusenberry, & Swinton, 2004). By connecting courses that offer support for other courses, whether for new or new and academically underprepared students, learning communities provide support that is connected to the daily learning needs of students and thereby facilitate the utilization of support for success in the course to which the support is connected (Tinto, 1999).

Administrative Actions: Setting the Context for Effective Programs

Increased institutional rates of student success do not arise by chance. They are the result of a series of intentional institutional actions, policies, and practices that are consistently applied over the long term (see Carey, 2005b). Though we have spoken in general about the role of institutional leadership in promoting student success and in detail about the types of programs institutions can employ to achieve that goal, we have not yet discussed the types of administrative actions that institutions can take to support those programs and in turn promote the goal of enhanced student success.[12] Clearly, there are a number of administrative actions that can and should be taken, not the least of which are the use of institutional assessment and accountability procedures that result in the differential allocation of expenditures to support programs that promote student success (Ryan, 2004). Here, however, we will focus on two types of administrative actions that set the context for the development of effective programs for student success. These are the use of incentives and rewards, and faculty and staff development programs.

[12] In this report, we take the stance that the impact of administrative actions on student success is largely, but not entirely, indirect, as they establish the resource and normative context within which individuals operate and programs develop.

Incentive and Rewards. Research on the impact of targeted incentives and rewards on student success is all but nonexistent. Yet there is considerable anecdotal evidence to suggest that targeted incentives and rewards are a critical to the institution's ability to enhance institutional rates of student success. They not only have a direct impact on the behaviors of faculty and staff, but they also play an important role in the establishment of new programs and the continuation of existing ones.

Take for instance the development of learning communities. More than most other types of educational reforms, the success of learning communities depends on the willingness and capacity of faculty and, in some cases, student affairs professionals to work collaboratively, often across departmental lines, and spend time together developing the materials and activities that make up the linked courses (Smith, MacGregor, Matthews, & Gablenick, 2004). Such involvement typically calls for faculty and staff to add additional time and effort to their already full workloads and/or reallocate their effort among often competing domains of work (e.g., teaching versus research). Unfortunately, incentives to do so are not common. Indeed, the promotion and tenure systems of most institutions are not geared to such efforts, and the professional norms of many fields are not particularly conducive to collaborative activities or the development of interdisciplinary curricular that take faculty outside their fields and departments (see Umbach & Porter, 2002). It is for these reasons that many learning communities end up being little more than co-registration programs in which faculty are only tangentially involved. Without institutional incentives and rewards, many otherwise effective learning community programs often do not endure or do so at the margins of institutional academic life (Shapiro & Levine, 1999). After a few years, like other programs before them, they typically fade away with the departure of the originators of the program or a supportive administrator. Programs begin but often fail to garner the broader institutional support needed to endure. Even among programs that endure, too many do so at the margins of institutional life. They fail to gain access to the mainstream of institutional academic life and, as a result, are limited in their impact.

Faculty and Staff Development. One of the ironies of higher education is that the faculty, as a matter of practice, are the only faculty in education from elementary school to college that are literally not trained to teach their own students. This does not mean that there are not many talented and well-trained faculty who bring to the task of educating students a broad repertoire of teaching and assessment skills. As a matter of prior training and practice, though, most faculty enter the teaching profession untrained for the task of educating students. It is for this reason that faculty development, indeed staff development generally, is a critical part of any long-term institutional strategy to increase its capacity to promote students success. Though there are a wide variety of development programs, most of which are housed in institutional centers for teaching and learning such as that at Ohio State University, some institutions, such as Syracuse University, have looked toward the future by developing faculty training programs for graduate students who aspire to teaching careers. Though there are only a few studies, it is evident that faculty development programs have both a direct and indirect impact on student success (Braxton, Bray, & Berger, 2000; McShannon, 2002).

It is surprising, therefore, that while most institutions speak of the importance of faculty development and invest in some form of faculty development, so few have either required it of new faculty or of faculty who teach first-year students. But some, such as Chandler Gilbert Community College, have. New faculty members are required to participate in a yearlong staff development program consisting of a variety of activities including a 21-hour course on active learning strategies. Following that year, they are encouraged to participate in a second-year learning community for faculty entitled Network for Excellence (Hesse, 2006). Such learning communities, like those for students, have been shown to promote greater engagement of faculty with each other and in teaching (Cox, 2001; Richlin & Cox, 2004).

A Model of Institutional Action: Some Observations

Several observations should be made about the model we have described above. First, it sees student effort and learning as central to student success. It is, at its core, a model that stresses the educational character of student success and the importance of student effort to that outcome. But it does so with the explicit understanding that institutions can do much to generate effort and in turn student learning and success.

Second, it argues that student success is built up one class at a time. This is especially evident during the first year of postsecondary education, when student classroom experiences do much to set the educational trajectory that largely determines eventual success in postsecondary education. In this important respect, our model of institutional action places the classroom at the center of institutional efforts to promote student success. Classrooms are the building blocks upon which institutional efforts must be built. This is the case, as noted earlier, because for the majority of students, especially those from low-income backgrounds attending nonresidential institutions, the classroom is the one place— perhaps only place—on campus where they meet one another and engage together and with the faculty in learning. If success does not arise in the classroom, it is unlikely to arise elsewhere. Whether it pertains to the provision of support, to the assessment of students, or to efforts to promote greater student involvement, it is evident that the classroom must serve as the nexus where those efforts are centered. In the first year in particular, classrooms serve as ports of entry to patterns of student social and academic involvement that expand beyond the classroom to broader patterns of involvement that continue even after the end of the class (Tinto, 1997).

Third, our model places great importance on the role of faculty development, especially as it relates to the development of pedagogies, curricula, and assessment practices, and the capacity of institutions to empower faculty to construct classrooms in which students become actively involved in learning, learn, and in time succeed. As it is for any organization, the organization is no more effective than the effectiveness of the individuals who make up the organization.

Finally, it bears repeating that the model developed here is not intended to be a full model of institutional action. Clearly there is more that should, and over time will, have to be added to make it a more complete depiction of how institutional actions shape student success. In this case, the model highlights those aspects of institutional environments that are amenable to direct institutional action that influences student success. In other words, the model posits a causal chain linking institutional action to environments in which students participate to student success, and in turn to student effort, learning, and success. Though it is evident that external events matter, such events are treated as being outside immediate institutional control for the purposes of this discussion.

Policy and Student Success: Moving Toward a Model of State Action

Postsecondary educational institutions, in particular public ones, do not operate in a vacuum. Their actions are, in varying degrees, influenced by the policies and practices of the states in which they are located and, to a lesser degree, by federal policy. As a result, a model of institutional action would be incomplete if it did not include the impact of federal and state policies and their capacities to promote student success. We now turn to a consideration of federal and state actions and to the laying out of the broad outlines of a model of the impact of state policies and practices on student success.

The Dimensions of the Problem

Just as there is disagreement over constructing a theory of student success, so too is there significant debate over how to model the impact of policy on postsecondary student success (Hearn & Holdsworth, 2002; Mumper, 2003; Pusser, 2003). There are a number of salient reasons for this lack of direction, with three deserving particular attention here.

First, postsecondary student success is a complex process that draws legitimacy, resources, and strategies from a variety of political-economic domains. Second, the study of postsecondary policy development for student success—as distinct from the broader arena of state and federal education policymaking—is relatively new and has only recently begun to draw on a diverse set of disciplinary lenses and theoretical perspectives (Nicholson-Crotty & Meier, 2003). Third, policymaking is a fluid and dynamic process that depends in large measure upon contextual factors (Wirt & Kirst, 1997; Hearn & Holdsworth, 2002).

In fact, new policies often serve as defining markers of changing political economic contexts. The GI Bill, for instance, reflected both the nation's commitment to the success of returning veterans and the need for increased levels of individual skills, knowledge, and competencies to meet the demands of a postwar society. Similarly, the passage of the No Child Left Behind Act (NCLB) demonstrated a growing consensus around the need for increased assessment of educational outcomes.

An understanding of the role of policy in shaping postsecondary student success requires defining the nature and variety of contemporary sources of policymaking, prioritizing the arenas of policymaking that are most influential in shaping student success, and illuminating the contextual forces in the contemporary political economy that constrain or facilitate student success as we have defined it here. We begin with the relevant domains of policy formation.

Layers of Policy Formation

The postsecondary arena in the United States has long been characterized by its structural decentralization, the great variety of public and private postsecondary institutional forms, and the relative autonomy of those institutions in the policymaking and governance processes (Berdahl, 1971; Breneman & Finn; 1978; Clark, 1998; Geiger, 2004). From a global perspective, the diversity and autonomy of the U.S. postsecondary institutions are seen as a great strength. Less often noted, though certainly noticed, is that institutional autonomy has long been coupled with institutional dependence on federal and state policymakers for financial subsidies, legitimacy, charter status, and various forms of regulatory relief.

We also accept that postsecondary institutions—particularly public postsecondary institutions—are political institutions. That is, colleges and universities allocate scarce resources and values as elements of a broader political process (Wirt & Kirst, 1997; Pusser, 2003). Postsecondary institutions receive a variety of demands, often in the form of state and national policies, from the broader political economy. The postsecondary outputs that result are evaluated and debated in the political arena and turned into further demands that, in turn, generate new policies and resources. The result is that the postsecondary policy environment is remarkably complex, multilayered, and mediated to a great degree by local, state, and institutional culture and political contexts (Pusser, 2003). To unravel this Gordian knot of policy, we begin with the federal role in postsecondary education.

The Federal Policy Role in Postsecondary Education

The federal role has traditionally been confined to providing subsidies for postsecondary education and to orchestrating very large-scale postsecondary initiatives in the public interest. While the history of significant federal subsidies for postsecondary education can be traced at least as far back as the Morrill Acts (Williams, 1991), federal support of higher education prior to World War II was "sporadic and eclectic," (Hartman, 1978). In the wake of Sputnik and the subsequent rise of cold war research, large-scale federal research and development projects significantly altered the relationship between research universities and the federal government (Lowen, 1997; Savage, 1999; Slaughter & Leslie, 1997; Geiger, 2004). The successful creation of portable student aid through the Higher Education Acts (HEA) of 1965 and 1972, and the adoption of federal tax policies to support postsecondary attendance and philanthropy, extended the federal largesse to students in nearly every type of postsecondary institution (Sunley, 1978; Breneman, 1991; Thelin, 2004).

Initially, Pell grants and other federal postsecondary subsidies came with relatively few federal constraints or assessments. Over the past three decades, the shifting national political climate has led to a paradox at the state and federal levels; that is, demands for smaller government and lower taxation have been entwined with demands for greater public institutional accountability. This paradox is best demonstrated by NCLB, which combines strong federal mandates with limited federal financial support for the implementation of those demands. Although NCLB is directed at elementary and secondary schools, it is notable for the degree to which it increases federal involvement in a historically state and local system of educational governance (Meier & Wood, 2004). The most recent reauthorizations of HEA have evidenced an increased federal role in postsecondary policy and politics. Current policies debated under the re-authorization address such issues as accreditation, institutional accountability, the definition of a postsecondary institution, distance education, and transfer of credit (Pusser & Wolcott, in press; Field & Burd, 2005).

It is also worth noting that since the Dartmouth College decision delineated key distinctions between public and private universities in 1819, rarely has there been as much turmoil at the federal level over the distinction between public and private postsecondary institutions as there is today. Both public and private not-for-profit postsecondary institutions benefit from federal aid, as do private for-profit institutions. Both public and private not-for-profit and private for-profits are increasingly affected by emerging federal policies. In response to declining state support, many nonprofits have adopted a significantly more entrepreneurial approach to revenue generation, a strategy more commonly identified with private for-profit institutions. Not-for-profit public and private and private for-profit institutions now find themselves competing more directly for political and economic advantage through the federal and state policymaking processes (Breneman, Pusser, & Turner, in press).

State Policymaking and Higher Education

The states have long exercised considerable influence in shaping postsecondary activity through the establishment, subsidy, and regulation of state institutions and through various forms of support for private institutions. The relationship between the states and postsecondary education institutions has long constituted an extremely contested terrain. While over the past century great gains have been made in student access and success as a result of state support, those gains have not come without significant contest (Berdahl, 1971; Zumeta, 2001; Chavez, 1998). While the structure of state systems of postsecondary education influences institutional activity (Bowen et al., 1997; Nicholson-Crotty & Meier, 2003; McClendon, 2004), it is the interaction of individuals, community-based organizations, interest groups, legislatures, governors, and institutional forces that has traditionally driven state postsecondary policymaking (Pusser, 2003).

As is the case at the federal level, state political-economic contexts, and local political cultures significantly shape the policymaking climate. Over the past two decades, the states have begun to adopt an approach to postsecondary policy demands similar to those driving NCLB at the federal level. As Fuhrman notes, "Every state considered policies intended to increase academic rigor, improve the quality of the teaching force, and enhance knowledge about student performance" (Fusarelli, 2002, p. 153). These demands came in a deeper context shaped by three key shifts in the state environments: 1) economic recession driving stagnant support for higher education at the state level (Breneman, 2005; Callan, 2001); 2) increasing demands for access in states with rapidly growing postsecondary populations (Geiger, 2004); and 3) disparate levels of academic preparation within state elementary-secondary systems reflecting increased stratification in those states (Kozol, 2005).

The retreat from tax-funded state support for postsecondary institutions has been widely researched (Hovey, 1999; Callan, 2001; Geiger, 2004; Breneman, 2005). Mumper (2003, table 2) has documented a shift in per capita expenditures on postsecondary education in the United States from a high of $10.56 per $1,000 dollars of personal income in 1977 to $7.67 per $1,000 dollars of personal income in 2002. The clearest policy response to the decline in per-student support has been a significant increase in tuition in a number of states, including a retreat from longstanding commitments to low tuition in California, Florida, and North Carolina. Over the past three decades, tuition in constant dollars has increased over 130 percent at public 4-year colleges and 110 percent at public 2-year colleges (Mumper, 2003, table 1). The rapidly increasing price of public higher education comes against a backdrop of declining state support for elementary-secondary education and has significant implications for access and preparation (Breneman, 2005).

Institutional Policy

Policy activity shaping student success is not confined to state and national levels. Over the past two decades, policies have frequently been generated by institutions, particularly in the areas of access and finance. In some cases, this has been done for reasons of efficiency or unique local demands, but in most instances the policies are generated because of an absence of action at the state or federal level. Occasionally, as when California institutions generated new policies on outreach in the aftermath of legislation constraining the use of affirmative action, the institutional policies have been developed in response to external political action (Pusser, 2001).

In conceptualizing institutional policymaking, it is important to note that institutions are distinct, with unique missions, cultures, histories, and constituencies (Meyer & Rowan, 1977). Institutions mediate state and federal policies and generate their own activity in light of these factors and the prevalent political-economic context (Baldridge, 1971; Birnbaum, 1988). Private nonprofit and for-profit postsecondary institutions' activities are less directly influenced by state policies than are those of public nonprofits, but to the extent that they compete for resources, students, and legitimacy with nonprofit public institutions, the private institutions are increasingly shaped by state and national policymaking.

The convergence of public and private not-for-profit and private for-profit institutional activity is driven by external demands and, in turn, shapes those demands. Legislatures increasingly expect that public institutions will generate a greater diversity of revenue sources and that they will operate in a more entrepreneurial manner (Pusser and Doane, 2001). In response, public institutions have sought greater autonomy in exchange for reducing their dependence on state support (Kirp, 2003).

The relationship between state and federal support and institutional performance is complex and plays out differently in various sectors of the postsecondary system. That relationship has also had significant impact on student success through the influence of regulatory efforts and resource allocation

policies at the elementary-secondary and postsecondary levels. State direct support for postsecondary institutions, state financial aid to postsecondary students, state support of K–12 preparation and state oversight, and collaboration with institutions have all contributed significantly to the success of state postsecondary systems. The recent schism between states and their public institutions over such issues as finance, access policy, and institutional autonomy has significant and troubling implications for many elements of student success. This is most problematic in those arenas, K–12 preparation for example, where postsecondary institutions have little direct control.

In an increasingly entrepreneurial postsecondary environment, there also are significant returns to excellence in the form of prestige rankings, research funding, and donative income (Winston, 1998; Ehrenberg, 2000; Geiger, 2004). In selective postsecondary institutions, a major component of the drive for excellence is the competition for highly prepared secondary students. The resources and attention devoted to prestigious admits may come at the expense of broad access and student diversity (Kirp, 2003; Geiger, 2004). The competition is perhaps best reflected in the shift of student financial assistance from need-based to merit-based aid and the growing stratification in family income across postsecondary sectors (Bowen, Kurzweil, & Tobin, 2005; Hearn & Holdsworth, 2004).

While selective institutions have a variety of policy options in responding to reductions in state aid, comprehensive institutions, community colleges, and second-tier research universities find themselves increasingly hard pressed to support demands for increased access, to preserve affordability, and to generate excellent student outcomes in the current policy environment. In recognition of the contemporary challenges, individual states and the federal government have undertaken a number of policy initiatives designed to ensure student success. We now turn attention to those initiatives and what contemporary research suggests are the prospects for sustaining these efforts.

The Key Domains of Postsecondary Policy Shaping Student Success

Given that there are myriad ways to define the universe of policies that shape postsecondary education, some delimitation is necessary. With that in mind, and after a comprehensive review of existing research accompanied by an analysis of recently proposed or enacted state, national, and institutional policies, we define four domains as key arenas where policy interventions can have the greatest impact on student success: preparation, access, finance, and accountability (table 1). These domains are interrelated on a number of dimensions, and yet in each, there is significant independent policy activity. The domain of preparation is overarching, as it encompasses elements of access, finance, and accountability. Consequently, the majority of our discussion is devoted to preparation.

Table 1. Key domains of postsecondary policy

Preparation	Finance	Access	Accountability
P–16	State support	Outreach	Assessment
Early assessment	Institutional aid	Capacity	Accreditation
Teacher preparation	Federal student aid	Articulation/transfer	State mandates
High standards	Tax policy	Remediation	Market competition
Alignment of standards and assessments	Tuition policy		

It is also essential to bear in mind that just as policies have varying degrees of impact on institutions in different segments of the postsecondary arena, so too is there significant variation in the characteristics of students enrolled in those institutions. *In loco parentis* policies shaping student rights and responsibilities in residential life settings may have little relevance to the success of the adult commuters who now make up the majority of postsecondary students.

Policies Shaping Student Preparation

Contemporary policies and political initiatives shaping postsecondary student preparation are designed to ensure that students in the elementary and secondary system are ready to succeed with further education after high school or GED completion. Our analysis of the emerging policy environment for student preparation focuses on four areas: P–16 policies designed to align standards and goals for an effective transition from secondary to postsecondary enrollment; alignment of specific standards for learning outcomes and competency in elementary-secondary education that are prerequisite or preparatory to postsecondary enrollment and success; policies supporting teacher preparation and skill development at the elementary-secondary level; and policies on educational remediation for students at the threshold of postsecondary enrollment.

The P–16 Approach to Postsecondary Success. Perhaps no other set of student success initiatives has gained as much currency in the policy community over the past decade as the P–16 models for student preparation. It has been estimated that nearly half of all states have initiated or developed comprehensive P–16 initiatives (Venezia, Kirst, & Antonio, 2004; Lingenfelter, 2003). P–16 models grew out of the realization in the mid-1990s that from a policy standpoint, the college preparatory system was in disarray (Kirst, 1999), and many states needed to "infuse three largely disconnected levels of public education—preschool, K–12 and postsecondary—with greater coherence and a stronger sense of connectedness" (Van de Water, & Rainwater, 2001, p. 2).

Research on P–16 transition programs generally agrees on the need for early learning initiatives for children as young as three years, assessment of curriculum across grade levels, articulation, standards for student achievement, counseling, and continuous assessment to ensure steady progress for all students (Gandara, 2002; Kirst & Venezia, 2004). There is also agreement on developing high standards for teacher training coupled with continuous professional development and early outreach to raise student awareness and preparation for postsecondary attainment (Rainwater & Venezia, 2003). Lingenfelter (2003) argues that giving students early confidence that funding will be available to enable them to attend college is a key form of early outreach, a conclusion supported by a number of scholars of postsecondary finance and access (McDonough, 2005).

Another goal of the various P–16 models is improving communication. This is often expressed as the need to develop clear expectations for student achievement at all levels of the elementary-secondary system and to make those expectations transparent and available through dissemination and mentoring for students, families, practitioners, external stakeholders, and policymakers (Gandara & Mejorado, 2005; Hagedorn & Fogel, 2002). Further, states are called upon to collect data on student achievement at various educational levels and to develop common definitions and reporting systems (L'Orange & Voorhees, 2003).

A number of specific policies and programs have been implemented to facilitate more effective K–16 transitions. The California Children and Families First initiative of 1998 and its successor legislation, the California Children and Families Act, allocated revenues from a special tax on cigarettes to a comprehensive program of school readiness for pre-natal to 5-year-old children. The act includes funding for child care and research on school readiness, as well as comprehensive assessment and communication plans.

Several states have implemented comprehensive P–16 initiatives, most notably Maryland's K–16 initiative (Mintrop, Milton, Schmidtlein, & MacLellan, 2004) and Georgia's P–16 initiative (Turner, Jones, & Hearn, 2004). The Georgia plan serves as a useful example of the types of partnerships and policy interventions required for a successful P–16 implementation. In 1995, then-Governor Zell Miller created Georgia's P–16 Council and empowered it with planning grants to develop comprehensive

statewide partnerships to "improve the achievement of Georgia's students at all levels of education, pre-school through post-secondary programs." The Georgia initiative has focused on high standards for all children, alignment of curricula throughout the P–16 transition (including efforts to align high school graduation standards with college admissions requirements), enhanced teacher training, increased early outreach, and comprehensive dissemination of data-based assessments (Pathways to College Network, 2005). Both the Georgia P–16 initiative and the Maryland K–16 effort rely heavily on partnerships between the university systems and local school districts, as well as support from state and federal funding.

Aligning Standards and Assessments. A key challenge for P–16 transition programs is to align standards and the assessment of progress in achieving those standards across the secondary and postsecondary sectors (Conley, 2003; Haycock et al., 1999). This process is essential if student outcomes are to match student expectations. Venezia, Kirst, and Antonio (2003) note that of the 72 percent of students who entered college within 2 years of high school completion in 1992, only 47 percent had enrolled in a college preparatory curriculum.

Somerville and Yi (2003, p. 30) found a lack of curricular alignment and consensus on standards between the K–12 and postsecondary systems in many cases and suggest that, "In most states, even students who follow all the rules in high school have no guarantee of meeting postsecondary education's course requirements." They further advocate for the alignment of state high school graduation exams with college admissions requirements, standardized admissions tests, and college placement examinations. Kirst, Venezia, and Antonio (2004) suggest that high school curricula should be designed to develop the skills, knowledge, and abilities required for success in postsecondary institutions. They also note that very few states have legislated curricular alignment across systems and point to a structural political divide in many states in which K–12 and higher education legislation are addressed by separate legislative committees, thereby discouraging K–16 policymaking.

A few state policymakers, in conjunction with school districts and state education agencies, have begun to address curricular alignment. The Texas Board of Education, in conjunction with the Texas Business and Education Coalition, has aligned its Recommended High School Program (RHSP) with the set of preparation standards that forms the foundation of the Texas Scholars Program (TSP). The TSP, which encourages Texas high school students to complete a rigorous college preparatory program, has now been implemented in 350 Texas school districts serving over 60 percent of the state's students (Texas Scholars, 2005). The RHSP, a 24-credit college preparatory sequence for high school students, as significantly shaped the curricula available to Texas high school students since 2004.

The promotion of exceptional academic preparation in high school along with dual and concurrent enrollment policies has also been used as an effective means to enhance student success and build connections between K–12 and postsecondary systems within states (Perna, 2005). About half of the states currently offer dual enrollment courses that are affordable and provide both secondary and postsecondary credit. In addition to the benefits afforded individual learners, dual and concurrent enrollment programs also build linkages between faculty and administrators in the secondary and postsecondary sectors and between colleges and communities.

While comprehensive state policies are seen as most effective for coordination and assessment, fewer than half of the states coordinate their dual/concurrent enrollment by statute (Van de Water & Rainwater, 2001). Case study research in several states has also pointed to the need for a significant state policy role in coordinating recruitment, curricular alignment and credit allocation practices (Hughes, Karp, Fermin, & Bailey, 2005).

Policies Shaping Teacher Preparation and Student Success. Improving the quality of teachers in the K–12 system and revising standards for teacher training has been an active area of state policy shaping student success over the past decade. While this activity has been given greater urgency by NCLB, there is also considerable activity addressing the role of teacher preparation in the P–16 student success models. Several national reports have stressed the key linkage between improved teacher preparation and student success (Azordegan, Byrnett, Campbell, Greenman, & Coulter, 2005; Hunt & Carroll, 2003; Crowe, 2003).

A number of states have implemented incentive programs, such as salary increases for those teaching in hard-to-staff schools or in high demand topic areas, with particular focus on recruitment for low-income districts. South Carolina's Teacher Cadet program is an exemplar of outreach programs designed to encourage high school students to enter the teaching profession. Over the past two decades, the program has grown to encompass 75 percent of the state's high schools and to partner with nearly 75 percent of the state's 4-year colleges. The program is further linked to a postsecondary teaching fellows program that offers significant scholarships for students completing an undergraduate program leading to a teaching credential, with the understanding that the graduates will teach 1 year in South Carolina for each year of scholarship support (National Association of State Boards of Education, 2002).

States have also turned increased attention to collecting detailed data on the teaching force and teacher training requirements with particular focus on subject matter competence. The California legislature, working in conjunction with the California Commission on Teacher Credentialing, has mandated significant data collection and reporting requirements on teacher credentialing in order to increase transparency and efficiency in the teacher preparation process.

A number of teacher preparation initiatives are incorporated in broader P–16 efforts. The Maryland K–16 partnership relies on an alliance between the Maryland State Department of Education, the Maryland Higher Education Commission, and the University System of Maryland to create and align curricular standards and improve teacher preparation. Maryland's plan incorporates elementary and secondary student performance assessment data into the development of P–16 initiatives (Mintrop et al., 2004).

State Remediation Policies and Student Success. Students who arrive in the postsecondary arena underprepared or in need of specific remediation are at significant risk of failing to complete certificates and degrees. Horn and Kojaku's (2001) work on student preparation and student attainment is illustrative of the problem. Those students in their studies who had completed a core curriculum or less in high school were significantly more likely 3 years after graduation to be off the bachelor's degree track or to have left postsecondary study altogether when compared to those who had completed a rigorous curriculum. Venezia, Kirst, and Antonio (2004) found that nearly half of the students entering postsecondary education take remedial courses, and that in some postsecondary institutions serving low-income students, over 90 percent of the students require some form of remediation.

States have a central role to play in addressing the need for postsecondary remediation and targeting assistance where needed. In particular, states will benefit from closer attention to incentives and funding formulas for remedial and developmental education. As one example, the California legislature provides funding for student enrollments in all remedial courses at California community colleges. The legislature also funds remedial (precollegiate) courses for the California State University, though no credit is awarded for those courses. However, the legislature does not provide funding for remedial courses at the University of California. Remedial and developmental education courses are also not generally accorded the same resources and curricular status as other portions of the curriculum. Research suggests that precollegiate courses are more likely to be taught by adjunct and part-time faculty (California LAO, 2001). Given its key role in student preparation, and the lack of consensus on responsibility for its

funding and oversight, remedial education will be a central area of contest in policy efforts to expand postsecondary student success going forward.

Access Policy and Student Success

Despite the increased attention to P–16 models, the transition from high school to college remains one of the most challenging arenas for generating student success in college. Fewer than 40 percent of 19-year-olds in the United States had graduated from high school in 1999–2000 and enrolled in college by fall 2000 (Weiss, 2003). The situation is even worse for low-income students, as fewer than 10 percent of them graduate from college by age 24 (Mortenson, 2000). Two issues emerge from the literature essential to extending the access efforts inherent in P–16 models, articulation and outreach.

Articulation policies address a number of issues, ranging from common course numbering to reporting requirements for student mobility patterns. Most states currently have legislation governing some aspects of articulation. Cooperative agreements between various sectors, common core requirements, transfer of credit guidelines, and statewide information dissemination programs are the most commonly legislated interventions. Articulation of courses between secondary and postsecondary institutions is particularly important for those students enrolled in community colleges, since the majority of states have legislation or cooperative agreements governing transfer from 2-year to 4-year institutions.

Despite the emphasis on articulation, significant challenges persist for students intending to transfer from 2-year to 4-year institutions in order to obtain the baccalaureate degree. This is especially true for low-income students (Dougherty & Kienzl, in press). To some extent, this challenge is shaped by the information and preparation that students bring from the secondary arena to the 2-year institution. A key challenge for policymakers will be to improve student awareness through information and counseling. The problems of articulation, credit transfer, and counseling are compounded for adult students in many cases by the difficulty in compiling and evaluating dated transcripts and in re-establishing the connection to formal education that may have been lost in the interval between high school completion and postsecondary enrollment.

Outreach and Student Success. A wide range of activities fall under the rubric of outreach, ranging from targeted, comprehensive access programs coordinated by partnerships of elementary-secondary and postsecondary institutions to informational bulletins designed to promote postsecondary access. At their best, outreach programs bring together various segments of the postsecondary arena to educate students and families about the possibility and the challenge of accessing postsecondary education. A considerable body of postsecondary research has pointed to the need to enhance student aspirations and to the importance of outreach in that process (McDonough, 2005; Bonous-Hammath, & Allen, 2005; Gandara, 2002). Many of the attributes of effective outreach, such as early identification and cultivation of college-going aspirations, establishing peer groups of college-aspiring youth, comprehensive counseling, and enrollment in college preparatory curricula are most effectively generated through strong partnerships at the elementary-secondary school level (McDonough, 2005; Tierney, Colyar, & Corwin, 2005; Wang, 2005). As a result, intersegmental coordinating partnerships are particularly productive in the outreach process. In California, successful outreach programs such as the University of California's Early Academic Outreach Program (EAOP) and the Puente Project have been institutionally driven and state supported through such consortia as the Education Round Table (Gandara, 2002). The California legislature has also enacted legislation to offer funding to local districts to enhance student eligibility for postsecondary enrollment through providing funding for increasing the number of students taking college preparatory and advanced placement courses and enrolling in standardized admissions test preparation courses.

Given the continuing state retrenchment from financial support for postsecondary education, many institutions are endeavoring to fund their own innovative access and outreach programs. One example is the Access UVa program of the University of Virginia. Access UVa meets 100 percent of the financial need of all eligible, low-income students without loans or work-study components. The program, which enrolled nearly 200 low-income students for 1994–95, receives virtually no state support and comes at a cost of approximately $20 million annually. It is a rare public or private institution that can afford that level of financial commitment. The growth of these institutionally funded programs points to the current inability of many states to support low-income student access and raises significant concerns about the viability of access for low-income students to selective institutions in the longer term.

Finance Policies and Student Success

State and federal subsidies have long been hallmarks of the postsecondary system in the United States (Breneman, 1991; McPherson & Shapiro, 1998; Heller, 2001). Public 2-year and 4-year institutions have long endeavored to generate access through direct state subsidies that have enabled low tuition and great capacity. Since the reauthorization of HEA in 1972, students in public and private institutions have had access to portable financial aid in the form of Pell grants, and states have made significant grant aid available to students. California alone allocated over $1 billion in student aid for 2004–05.

Perhaps more so than in any other domain shaping student success, it is in the arena of postsecondary finance that the broader political economy of postsecondary education shapes state and national policy. This is attributable in large measure to the degree of financial resources provided by state block grants and financial aid programs and the competition for social welfare funding in state legislatures and the Congress.

Postsecondary education is often described as the largest discretionary item in state budgets (Hovey, 1999), a predicament that fuels significant interest group competition over annual budget allocations for postsecondary education. Further, the competition for funding is resolved quite differently in the myriad state contexts, with models of state support for student access and success ranging widely in their allocation of direct institutional support, student financial aid, and tuition prices. The result is that college affordability, as measured by the percentage of family income required to pay for college in a given state, also varies widely. Of greater concern from a student success perspective is that over the past 25 years, postsecondary institutions of all types have become increasingly less affordable for the majority of students and their families (Callan & Finney, 2004).

Given the plethora of research pointing to the impact of affordability on student success, efforts to enhance student success through financial assistance turn attention to the state, federal, and institutional political dynamic in a given postsecondary context (McPherson & Shapiro, 1998; Geiger, 2004; Pusser, 2004). Three trends are of particular concern in the contemporary politics of public finance: the national movement to lower individual and corporate taxation, a shift to competitive models of institutional funding, and efforts by institutions to garner greater autonomy from state oversight.

The origin of the anti-tax movement in the United States can be traced to the Jarvis-Gann Initiative, Proposition 13, passed in 1978. It is a measure of the size and complexity of the U.S. system that it has taken nearly three decades for the impact of the movement on college pricing and access to become clear (Breneman, 2001). In light of the recent rapid increases in tuition and the disparity in college access and success for students in the top and bottom quartiles of the family income distribution (Ruppert, 2003), a number of states—Colorado and California most prominently—have begun to take legislative action to increase overall levels of tax revenue and higher education's share of those revenues.

The shift to greater competition in the awarding of institutional funding also has significant implications for student success. The traditional method of funding state public institutions has been for state legislatures to allocate funds directly to institutions on the basis of student enrollments and institutional lobbying efforts. In addition, states and institutions have negotiated directly or indirectly over the level of student fees for a particular institution or system of institutions and over financial aid. Borrowing in large measure from arguments developed in K–12 battles over school voucher legislation in the past decade, legislators in several states have begun to initiate efforts to increase competition between institutions through the imposition of new approaches to institutional funding. Perhaps the clearest example comes from Colorado. In 2004, the Colorado legislature created the Education Trust Fund, a pool of funds available to students in the form of tuition vouchers that can be used at a wide variety of eligible Colorado institutions (including nonpublic institutions) (Burdman, 2003). The emergence of these funding mechanisms has significant implications for collaborative efforts by legislatures and institutions to ensure student success.

The current pattern of state retrenchment from direct support for postsecondary education has led a number of selective institutions to argue that in light of declining state support, they should receive greater autonomy from state oversight of such key functions as tuition setting. A leading example is the effort by public institutions in Virginia to achieve greater control over revenue generation, labor management, and strategic planning in exchange for a decreased reliance on direct state financial support (Kirp, 2003). These efforts are understandable from the perspective of highly selective institutions endeavoring to maximize quality and prestige in an uncertain political economy. However, given how much of the P–16 model of student success relies on collaboration between states and their postsecondary institutions, the move away from state support is likely be problematic for student success for all but the most resource-rich public institutions (Kirp, 2003).

Accountability Policy and Student Success

A number of factors drive the increasing demands for accountability in the postsecondary policy environment. Much of the energy stems from emerging models of institutional behavior (Wilson, 1989; Moe, 1991) and the public organizational reform literature of the early 1990s calling for less direct government provision of services, greater competition, and accountability (Osborne & Gaebler, 1992). These ideas emerged in postsecondary state policy initially as part of performance-based funding initiatives (Burke, 2005). More recently, demands for accountability have reached nearly every aspect of postsecondary performance, from instruction through institutional accounting (Zumeta, 2005; Ewell, 2005).

The drive for greater postsecondary accountability has gained additional currency in the wake of the passage of NCLB, an act that offers a number of lessons for the role of accountability in higher education policy and student success. First, as in the case of NCLB, it is not clear that an accounting of outcomes, however thorough, leads to a change in the fundamental contexts and political dynamics that affect inequality, stratification, and differential educational outcomes. Second, there is insufficient funding accompanying the mandate for assessment, so assessments could possibly detract from the provision of the services and processes they seek to measure. Third, as with all comprehensive legislation, a number of interests are served in the accountability movement. It is not clear that those who seek to rein in prestige competition, bureaucratic indolence, faculty autonomy, or any of the other purported drivers of postsecondary inefficiency see a clear path to enhanced student success (Burke, 2005). Finally, the current reauthorization of HEA entails a number of challenges to institutional accountability, particularly the efforts of members of Congress to increase the transparency of the accreditation process and to universalize credit transfer (Pusser & Wolcott, in press).

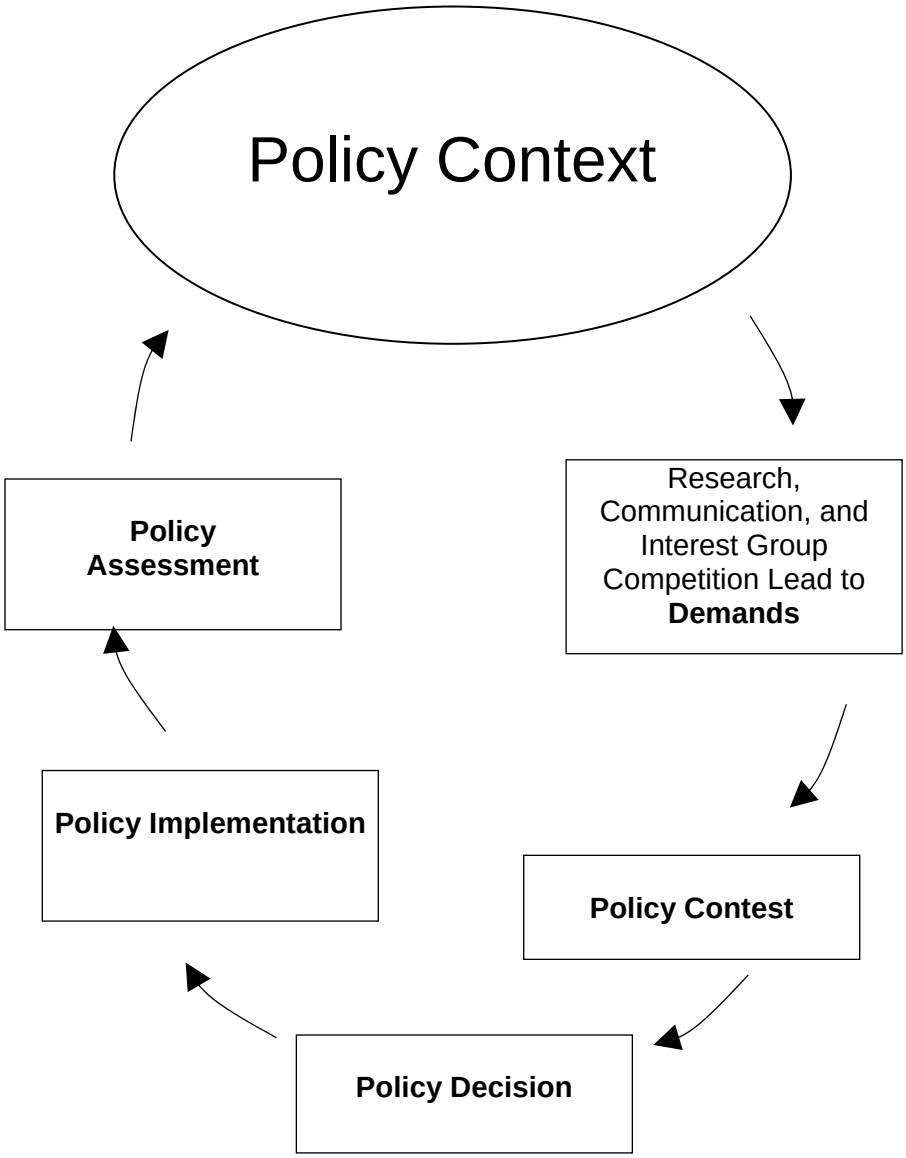
There are a number of initiatives at the state level focused on accountability and student success that are more promising. In California, the state education code has been revised to require that all community colleges provide audits of student matriculation in the interests of maximizing persistence, improving skills, and assisting students in attaining their goals. Florida has been in the forefront of efforts to build common data sets to track student progress and facilitate transfer and student success. Yet for all of the efforts expended on accountability and assessment over the past 10 years, "the improved preparation of high school graduates for college has not brought about commensurate gains in college participation or in completion rates of associate or baccalaureate degrees" (Hunt & Carruthers, 2004. So, while it is appropriate to expend resources on assessing the state of efforts to transform postsecondary education, the initial results of those assessments seem to call not for more assessment; rather, they point to the need for a better understanding of the continuing state and national challenge of improving student outcomes.

Building a Model of State Policy and Student Success

Given the challenges outlined in this report, how should we conceptualize the policy dynamic shaping student success? A model of the policy/student success interaction requires a substantive component that delineates which of the potential areas of policy intervention discussed here will yield the most effective contribution to student success (see table 1). The model also requires attention to interest group competition (see figure 3), a more complex and less often discussed aspect of the postsecondary policy formulation process that speaks to the role of colleges and universities as political institutions (Pusser, 2003). Finally, the model must account for the efforts of institutional leaders as they choose how to interpret state and national postsecondary policies and how to allocate resources for implementation at the institutional level. This aspect of the model emerges from organizational theory, specifically from political theories of organizational behavior. Each of these dynamics takes place in light of local, state, national, and global policy contexts, the social, economic, and political forces that give rise to demands for policy formulation and adaptation (Stone, 2002). Figure 3 presents a simple schematic of the political dynamic of the policy process, from initial policy context to demands for policy change, political contest, adoption, implementation assessment, and the emergence of a new policy context.

Developing the political component of a model of policy and student success relies upon the recognition of postsecondary institutions as political institutions. We define postsecondary institutions as political institutions because they are entities generally chartered or empowered to operate with the sanction of a state agency, often in a state constitution or framing document. Further, they generate significant public costs and allocate public benefits in a process generally conducted through public political proceedings (Wilson, 1974; Moe, 1991; Pusser, 2003). Postsecondary institutions also have unique salience and symbolic power in the political arena, as they have long been sites of political contest and instruments in broader political struggles (Ordorika, 2003).

Figure 3. Policy formation process



Defining colleges and universities as political institutions is not a judgment on the institutions or the political arena. Rather, it turns attention to the political dynamics that underpin policy formulation and adoption. Put simply, college and university policies must be politically legitimate and consonant with the beliefs and desires of the dominant interests in the relevant political arena. For example, Title IV of the Higher Education Act offers financial assistance to students at qualifying institutions. Some institutions, including those that practice certain forms of discrimination are free to operate, but are not eligible to receive Title IV funding. A federal funding policy that offered resources to institutions that discriminated against particular students or practices would not be politically viable. In a similar fashion, state universities in California have considerable autonomy to develop admissions policy. However, since the passage of the state ballot initiative Proposition 209 in 1996, those institutions have been prevented from

using a number of specific criteria in their admissions process (Chavez, 1998). Because policymaking is a contextual exercise, universities in many other states may use the criteria that California prohibits.

Consequently, a model of policy formation for student success begins by defining the goals for student success in a particular political context and assessing the political dynamic in which those goals are embedded. Defining the goals is a complex challenge, and agreeing upon a course of action emerging from those goals is even more difficult. David Labaree (1997) notes that the United States has long wrestled with conflicting goals for its elementary-secondary education systems, and the same is true for postsecondary education. It is also the case that where policy goals are not in conflict, sufficient resources are often not available to fund implementation of the various policies; hence, choices must be made. Those choices are political, carried out in an interest group competition set within a specific social and political context (Pusser, 2004).

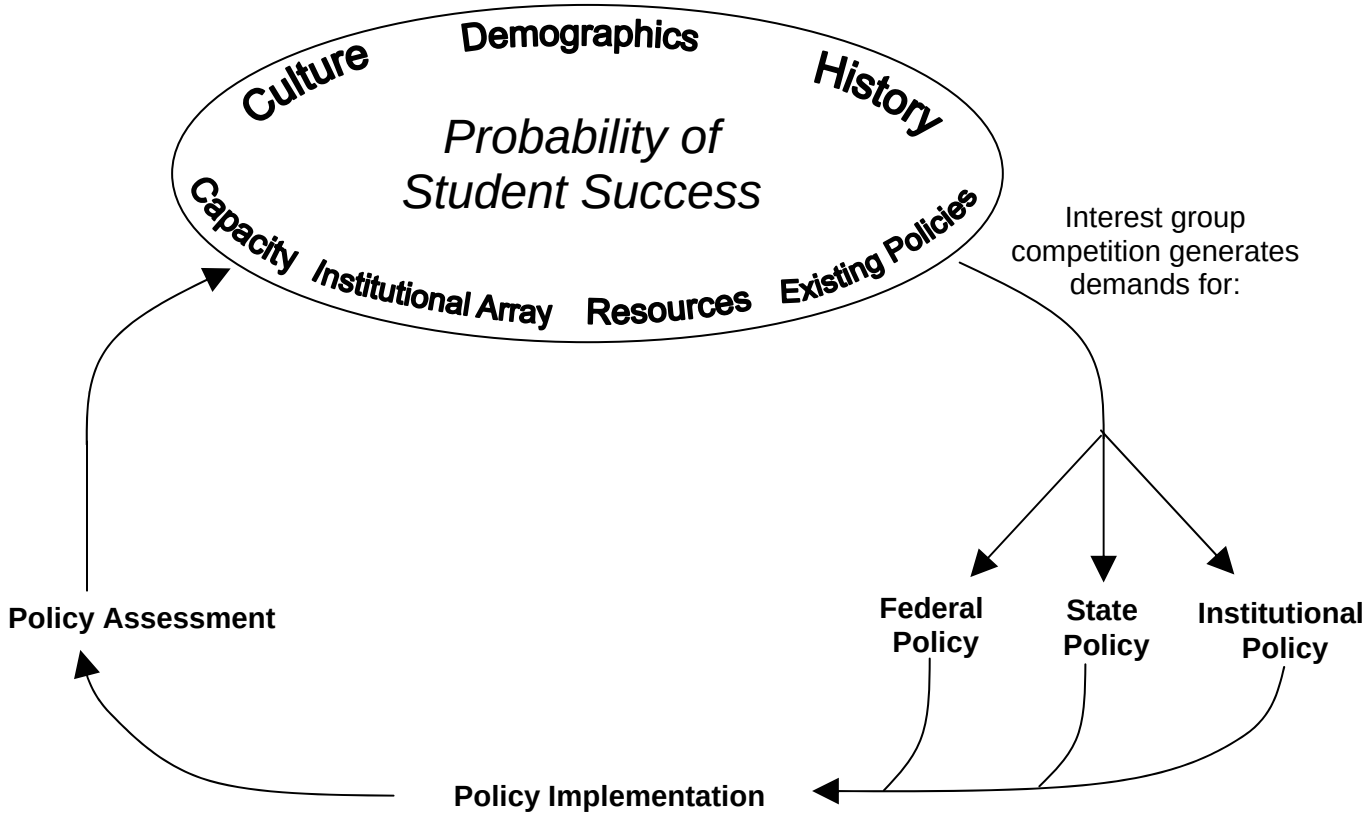
Those policies that survive political competition and are adopted through a state or national legislative process must be implemented at the institutional level. For a variety of reasons, many policies are often implemented in such a way that they have little effect (Wirt & Kirst, 1997). This can be due to lack of resources for implementation or, as is often the case, because the policies are not seen as serving the interests of those charged with implementation (Horn, 1995; Birnbaum, 2000; Hammond, 2004). In many cases, developing an institutional strategy for adoption presents a nearly insurmountable collective action problem (Ehrenberg, 2000).

When policies are implemented as intended, they may or may not have the intended effect. In either case, it is important that the policy has what Munger (2000, p. 18) calls "political accountability," that is, it needs to be designed in such a way that it can be evaluated and supported or opposed by citizens. This in turn leads to a new policy climate, one shaped by the success or failure of the newly implemented policy. From that new climate, new policies will emerge. Political accountability allows policies to shape institutions and institutions to shape policies (Eisner, 2000).

Modeling the Policy Process for Student Success

Figure 4 brings together the elements of our basic model of policy formation with attention to the contextual factors we discussed earlier. We suggest that each student exists in a particular context that shapes his or her probability of succeeding in postsecondary education. A specific context for student success is shaped by a variety of contextual factors including demographics, history, culture, the postsecondary capacity of the student's state or locality, the institutional array, available resources, and existing policies. Within and around a given context, interest group competition generates demands for institutional, state, and federal policies that may shift the probability of student success. Through political contest, some of those policies will be implemented and later assessed. The changes brought about by the implementation of the policies and the perceptions generated by the process lead in turn to a new context with a different probability of student success.

Figure 4. Postsecondary policy and student success



Enhancing Student Success Through Policy Formation: Concluding Thoughts

Based on our review of the policy domains and understanding of the postsecondary policymaking process, we offer several key provisos in order to understand the future dynamics of policymaking for student success.

First, those who formulate state, national, or institutional policies for student success should place a high priority on achieving consensus on goals and strategies for student success policies. Those goals should delineate which students the policies intend to serve, how the students will be better served by the proposed policies, and how the policies affect institutions, other students, and stakeholders. Consensus should also be obtained on how the policies should be implemented, who will implement the policies, and what other actors will be affected by the implementation of the proposed policies.

Second, policies designed to enhance student success must address the myriad contextual factors that affect a student's probability of success. National policies need to account for the vast differences in demographics, history, culture, and resources in the states, while state policies should reflect the variation in local contexts shaped by those policies.

Third, policies designed to enhance student success should be legitimate, that is, they should be consonant with the prevalent political context and normative understandings of relevant policymakers. They also should be viable policies that can be implemented with the infrastructure and resources at hand. Unfunded mandates lead to poor implementation and unsatisfactory outcomes, which in turn are likely to generate new, less favorable policies.

Fourth, independent of the genesis of a proposed policy-shaping student success, that policy will need the support of broad coalitions of institutional stakeholders across multiple sectors of the educational system as well as the support of students, families, and communities.

Finally, in order to persist and increase in efficacy, a policy needs to be visible and accountable to a range of political constituencies. Effective dissemination and assessment can inform and influence continued support for a policy or engender effective adaptation. Political accountability is key to long-term policy viability and to the generation of new policies that build upon and extend the efficacy of existing policies.

Moving From Theory to Action: What Next?

In the preceding pages, we have sought to frame a model of institutional and state action on behalf of student success and, in the process, to delineate some of the actions states and institutions can take to enhance student success, especially among low-income students. But it is only a beginning. Clearly, there is much more to do and know. Empirically reliable research on a number of domains of action has been spotty and, in some cases virtually nonexistent. The following areas offer, in our view, significant potential to advance research and develop institutional actions and state and federal policies designed to increase student success.

Research on Institutional Action

1. Research is needed on the impact of faculty development programs on student success. Despite the importance of faculty to student success, faculty are, as a matter of prior training, the only faculty from kindergarten through universities who are literally not trained to teach their students. Yet we know little about the ways in which investments in differing types of faculty development programs impact rates of student success. Though we have begun to link faculty pedagogy to student retention and therefore by inference to the importance of faculty development, that linkage has yet to be fully explored and tested. Nor have we carried out the sorts of research institutions need to link different patterns of staff and faculty development to student outcomes.

2. We also need to know a great deal more about the impact on student success of the use of adjunct and/or part-time faculty. Institutions are increasingly turning to part-time faculty, especially for the first year of college. We know that they do so for a variety of reasons, not the least of which are economic in nature. But what we do not know is the impact such staffing has upon student success and, at least indirectly, on the revenue increased student success generates for the institution.

3. Research is also needed that connects the research on developmental education—inappropriately called remedial education by some—to that on the retention of students generally and of low-income students in particular. We must shed more light on the critical

linkage between institutional actions to enhance the education of academically underprepared low-income students and their persistence and subsequent program completion. And we must do so in ways that allow institutions to determine the effectiveness of different forms of developmental education on different domains of academic need.

In this regard, research being conducted at Syracuse University[13] on the adaptation of learning communities to the needs of academically underprepared low-income students serves to reinforce a growing recognition that our ability to address the needs of these students requires that we do more than simply tinker at the margins of our educational practice. Among other things, it requires a collaborative effort of faculty and student affairs professionals to change their pedagogical and curricular practices in ways that enable students to experience learning together within a context of contextualized academic and social support (Tinto, 1999).[14]

4. Further research is needed on the types of program implementation strategies that lead to successful implementation of programs and do so in ways that ensure that they endure over time. Equally important, we need to know more about how it is that some programs are able to endure at the center of institutional life and become institutionalized, while others remain isolated at the margins of that life. We need to know what might be called the tipping points of program institutionalization. Currently such research is not available. Though there is a good deal of experience in these matters and more than a few consultant firms that will offer the "secret" to successful program implementation, that experience and that "knowledge" has yet to be put into a form that can be verified and replicated. Much is still conjecture.

Research on State and Federal Policy

1. Innovative financial aid programs designed to increase postsecondary attainment by qualified low-income applicants, such as the University of Virginia's Access UVa and the Carolina Covenant initiative at the University of North Carolina at Chapel Hill, offer great promise. Because they are relatively new, little research has been done to date on their effectiveness, costs, and benefits. Specific research and policy analysis may also be directed at the long-term financial viability of these programs and possible avenues to sustainability.

2. Despite a significant body of research on the transition from 2-year to 4-year postsecondary institutions for baccalaureate attainment, much remains to be done. Future research should build on emerging work on student course-taking patterns with attention to credit and noncredit course activity in both vocational and transfer curricula.

3. Continued research on effective models of P–16 success is essential to increasing postsecondary access, persistence, and success. Such strategies as the alignment of standards within state systems, targeting postsecondary outreach efforts, improving technologies for tracking student course-taking patterns, and regular, rigorous evaluations of student progress need to be evaluated both for their effectiveness and for their potential for expansion and dissemination.

4. Further research is also needed on the myriad ways in which curricula and pedagogy shape student persistence and success. As states increasingly adopt rigorous curricula linked to high-

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[13] Funded by grants from the Lumina Foundation for Education and the William and Flora Hewlett Foundation.

[14] The interested reader should visit http://pathways.syr.edu for more information.

stakes testing, studies will be needed to determine the effectiveness of the curricular shifts and testing instruments and the degree to which state policies generate intended outcomes. Similarly, as states invest in improved teacher preparation and create additional incentives to attract talented teachers, studies of the effectiveness and sustainability of these programs will be essential.

5. Finally, emerging models for financing postsecondary attendance that incorporate greater degrees of student choice and encourage entrepreneurial fundraising by postsecondary institutions have received little attention from the policy research community to date. Studies of the impact of these programs in various sectors of the postsecondary system are essential for preserving student access and success in a rapidly changing fiscal context for higher education.

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