



A Federal Agenda for Promoting Student Success and Degree Completion

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Introduction and summary

Nearly every child in America hopes to become a college graduate. Her ambitions are at least partly realistic—rates of high school graduation and college-going are very high. But the chances she will succeed in college are more modest: Less than 60 percent of students entering four-year institutions earn bachelor's degrees, and barely one-fourth of community college students complete either associate's or bachelor's degrees within six years of college entry.¹

Students from socioeconomically disadvantaged families are even less likely to realize their college ambitions. Only 40 percent of beginning college students from low-income families complete a two- or four-year degree within six years. Rates of degree completion are much higher among high-income students (62 percent).² Focusing on the most lucrative undergraduate degree, the baccalaureate, there is a 40 percentage point gap in completion rates between individuals from the bottom and top income quartiles.³ Since future economic and social success is largely predicated on holding a college degree, this low chance of college success among the poorest students perpetuates growth in income inequality.⁴

Since the mid-20th century the federal government has played an active role in promoting access to higher education, primarily through financial aid policies designed to reduce credit barriers to college attendance. But Washington pays far less attention to whether students finish college, operating under the false assumption that after conquering college admission a degree is guaranteed. In this paper we describe the results of that inattention: stagnating completion rates, increasing time to degree completion, and persistent and likely increasing income disparities in attainment. We follow with a discussion of the factors contributing to student success and then elaborate on the areas in which policymakers might most effectively intervene to reverse these trends.

We conclude that the federal government needs to broaden its role in higher education by taking actions to support states and public colleges and universities in their efforts to help more college students complete their education. We argue that increased investments in the most accessible but under-resourced schools are needed to ensure that all college students receive an adequate education. Efforts should be aimed at not only effectively alleviating the financial barriers to college completion, but also at improving students' chances of experiencing academic success in college, broadening access and increasing efficiency by facilitating the transfer of students and credits across schools, and ensuring the value of degrees by emphasizing and measuring individual learning and achievement. Federal involvement is required to guarantee that the necessary

funding is provided, clear messages are communicated, and data is collected so that progress toward goals can be measured. By acting as a guiding partner in

the American higher education system, national leaders—together with educators, state legislators, and families—can turn more dreams into college diplomas.

The status quo: stagnant, delayed, and unequal completion rates

High school graduates usually enroll in college expecting to earn a degree; relatively few intend to simply take classes for a year or two. Yet within three years of entering higher education, more than one-third leave empty-handed.⁵ This status quo was recently deemed “unacceptable” by the Secretary of Education’s Commission on the Future of Higher Education. While the proportion of individuals enrolling in college has grown since the 1970s, the proportion receiving diplomas has stagnated.⁶ An examination of bachelor’s degree completion rates within eight years of high school graduation reveals that barely half of the 1972 high school cohort finished a degree, compared to just under half of the 1992 high school cohort.⁷

Stagnation was accompanied—but not caused—by delays in completion of the bachelor’s degree. A relatively small proportion of today’s students complete an associate’s degree in two years or earn a bachelor’s degree in four years—the time periods long considered standard for those degrees. Among students starting at “four-year” institutions, only 34 percent finish a B.A. in four years, 64 percent within six years, and 69 percent within eight-and-a-half years.⁸ Similarly, the average student beginning at a “two-year” community college completes an A.A. in three-and-a-half years.⁹ These delays in credential completion do not correspond to increases in credits earned or double-majoring.¹⁰

Recent reports from the National Center for Education Statistics emphasize that the rates at which students persist in school from year to year have not declined or leveled off, downplaying the flattening of attainment rates.¹¹ This argument distracts readers from the hard fact that students who remain in school for extended periods of time have very low rates of degree completion.¹² Moreover, the economic returns to a college degree are greater for students who complete their degrees sooner rather than later.¹³

But perhaps most importantly, recent research indicates that neither a lengthier time to degree attainment nor declines in the average level of academic preparation of today’s students fully explains what has happened to degree completion. Instead, the data suggest that declining institutional resources at the schools that absorbed the rapid expansion of higher education during the last 50 years—nonelite public institutions—have diluted the quality of the college experience for a broad swath of American college students, dragging down completion rates. In other words, dramatic increases in public enrollment unaccompanied by corresponding increases in funding contributed to declines in college quality.¹⁴ The increasingly competitive environment of college admissions and rising tuition prices also helped limit the opportunities available to students from socioeconomically disadvantaged families. For example, as

college-going expanded, an increasing proportion of students were shuttled into the two-year sector, which typically does not grant bachelor's degrees.¹⁵ This problem can and should be addressed by federal policymakers.

Washington must also come to grips with the difficult reality that despite the massive general expansion of opportunities

for access to higher education, a child's socioeconomic background has been a *consistently* strong predictor of their odds of college attainment.¹⁶ The implications of these disparities are deeply troubling, since educational attainment has a strong connection to labor-market rewards, in addition to a range of other important outcomes, including health, family stability, and general well-being.

The goal: increase degree production, decrease inequality

Clearly, going to college does not correspond closely with finishing college, and this must change if overall educational achievement is to increase. So, where is the best place to start reversing this trend? We propose the following goal: *Increase the production of college credentials of value while decreasing inequities in who receives those credentials.*

This standard addresses three concerns. First, the number of Americans with college credentials is insufficient for meeting the needs of our economy. Second, the expansion of college attainment would be meaningless if it were accompanied by a decline in the skill and knowledge levels both employers and educators associate with college credentials. Instead of simply providing credentials as markers of the privileged status groups, credentials should represent skills and learning acquired in higher education and be rewarded in the labor market.¹⁷ Third, growth in educational attainment should take place among Americans of all backgrounds, not only those who are socioeconomically advantaged. Although there is some concern that increasing the number of bachelor's degree recipients in the labor market may dampen the value of the degree, that has not occurred in recent decades despite the growing B.A. production. Moreover, recent research suggests that students who are least likely to complete college (and disproportionately come from disadvantaged family backgrounds), earn the greatest returns on bachelor's degrees. Since those are the students whose rates of degree completion would experience the most pronounced gains given our recommendations, the average returns to bachelor's degrees are likely to increase, not decrease.¹⁸ Steadily increasing educational attainment while simultaneously making progress both in terms of student learning and declines in inequities will ensure America's future economic and intellectual success.

Since building the stock of American human capital is a national concern, the federal government should take the lead by actively partnering with states and institutions of higher education to improve the capacity of a preschool through college, or P-16, educational system that prepares, informs, encourages, educates, and finances all potential college graduates across the entire span of schooling. Later in this report we detail five specific strategies to that end. But first, we elaborate on one essential principle of this endeavor: *It is imperative that the American system of higher education focuses on the success of its students.* While this may sound obvious to some, it is not the current focus. The existing emphasis in federal discussions and debates is on the success of educational institutions (colleges and universities must keep costs down, must enhance graduation rates, and other goals). We argue, instead, that goals should measure the outcomes of individual students and groups of students, not of institutions.

The focus on colleges and universities, rather than students, has led to what we consider to be too much emphasis on, and deference to, institutional autonomy. Certainly, many of the innovations of American higher education would not have been achieved without some autonomy in decision making. But innovation and diversity among schools is tolerable or beneficial only to the extent that its effect is the democratization—not stratification—of opportunities. While some believe that marketplace competition and the breadth of choices created for students by competition only generate positive results, there is evidence to indicate that an abundance of choices may actually perpetuate inequality.¹⁹ Furthermore, some colleges and universities hide behind the excuse of “student diversity” to explain persistent inequalities in their student outcomes. It is obvious to keen observers of higher education that currently far too many students are unaware “of what their paths through higher education look like, what levels of knowledge and skills will qualify them for degree awards, and what their degrees mean.”²⁰

Our assertion is that the goals of diversity, equality, and autonomy are best achieved when educational institutions work toward a *convergence* in practices, rather than a standardization of prac-

tices. Stated differently, the intent is “harmonization,” with everyone “singing in the same key, though not necessarily with the same tune.”²¹ Operationalized, this means that efforts to achieve higher levels of attainment are *coordinated* among educational actors using standards and practices that are *compatible* and motivated by a *common* goal. For example, colleges and universities might come to a mutual agreement about the kind of learning and skills bachelor’s degree completion should signify, even as they retain their own specific requirements for how students will demonstrate those competencies in order to earn a degree. Most importantly, institutions should be active participants in (rather than the objects of) such a process, and allowed independence to achieve these ends while being held accountable for making sure goals are met. This would help to ensure that degrees are essentially analogous to one another and comparisons are more transparent. While the United States has a large, diverse, and highly decentralized higher education system, this does not obviate the possibility of convergence; indeed, just such a model is at the center of the European “Bologna Process” (involving 46 countries, 4,000 institutions, and 16 million students) underway to produce a European Higher Education Area.²²

What college students need in order to succeed

College degree attainment hinges on the ability of individuals to access, afford, and succeed in college, *and* on institutional capacity to provide the necessary resources for students to do so in a timely manner. There are tremendous variations in these supply- and demand-side constraints on American higher education. For example, students vary in the level of information and academic preparation for college they possess and in their financial ability to pay. On the other side, public institutions struggle to accommodate growing numbers of students while facing significant resource constraints. Both sets of problems must be tackled in order to increase the proportion of individuals with college degrees.

When asked to account for higher education's low degree-completion rates many policy-makers and practitioners start by discussing the limitations of some college students. In particular, they tend to emphasize the role of high school academic preparation. Inherent in that discussion is the contention that today's college students are less prepared for college than they used to be, and that this, in turn, has made it difficult to increase completion rates. (Given these challenges, some might wonder why rates have not dropped substantially). While this is certainly a reasonable hypothesis, and there is evidence that the average level of academic ability has declined, there is little proof that declines in the average skills of college students is the primary driver of stagnating completion rates.

It is clear that academic preparation and performance during the years preceding college are important predictors of college outcomes.²³ Participation in rigorous high school courses exposes students to challenging content and higher expectations, allowing them to act as future college students among academically oriented peers, and increasing confidence in their ability to do well in college.²⁴ Overwhelming evidence indicates that a significant proportion of college students, particularly those attending two-year colleges, are not academically prepared for college-level work while in high school.²⁵ Less than one-third of high school students from disadvantaged socioeconomic backgrounds complete the minimum academic requirements for college, hampering their chances for both college admission and success.²⁶ In poor urban school districts the numbers are even more dismal; one longitudinal study of Chicago public school students revealed that only 9 percent of CPS graduates "had sustained exposure to rigorous coursework that...prepare[d] students for college-level work."²⁷

However, rigorous research indicates that improving high school preparation for college will not necessarily result in increases in degree completion. An analysis of the relationships between family background, academic preparation, and educational attainment

undertaken by economists from the Universities of Michigan and Virginia found that the negative influences of declines in academic ability among entering college students are more than offset by substantial increases in the levels of parental education enjoyed by those students. However, this is more often the case among students at four-year colleges than among those attending community colleges, where the level of academic preparation has eroded more substantially.²⁸

Another factor influencing the chances that students, particularly those with limited financial resources, will finish degrees is financial aid. Over the last decade, far more attention has been paid to the role of high school academic preparation than to the importance of financial aid in increasing student success. Some have gone as far as minimizing the role that aid plays in degree completion, calling money “the easy part.”²⁹ Yet there are persistent differences in rates of college attainment among students with the same levels of tested ability but different levels of family income. In fact, the expansion of college-going among the least academically prepared students has occurred entirely among students from the upper income brackets. Even the growth of community colleges has not widened access for less-prepared students from low-income families.³⁰

Nearly every American is keenly aware that college tuition has risen at twice the rate of inflation, partly as a result of a flattening in government funding appropriated to colleges. Changes in financial aid policies have made it more difficult for students, especially those from low-income families, to pay for tuition and other costs. While financial aid grew from just under \$17 billion per year to nearly

\$95 billion per year (inflation-adjusted) between 1970 and 2005, the type of aid shifted from grants to loans. In 1970, the majority of student aid (55 percent) was distributed in the form of grants, which do not have to be repaid, but by 2005 grants represented less than 20 percent of federal aid awarded.³¹ Moreover, in the 1990s changes occurred in the targeting of aid based on financial need versus academic merit. After 1993 state spending on need-based aid grew only 7.5 percent annually, as compared with 20.7 percent annual growth for merit aid.³² In 2007, the federal government introduced a new merit-based version of the Pell Grant (the Academic Competitiveness Grant) that includes grade and major requirements. As a result of these shifts and increases in tuition, unmet financial need among the poorest families has grown substantially—by as much as 80 percent between 1990 and 2004.³³

Yet we know very little about how and why financial aid might affect degree completion, especially among students already attending college. While there has been a great deal of research on the topic, analysts have difficulty generating reliable estimates of aid’s effects because students who receive need-based aid are less likely than other students to graduate from college due to important but typically unmeasured differences. Experimental evidence demonstrating that grants or loans are effective in alleviating the financial challenges of low-income college students is quite limited. More attention to aid policy and its prospects for helping to increase degree completion is clearly needed.³⁴

While the chances of earning a college degree are partly (possibly even largely) determined by individual attri-

butes—such as academic skills or family income—there are factors related to the college experience that can increase or diminish those chances. In particular, the *capacity* of colleges and universities to educate the students who enter their doors matters a great deal. For example, a recent study indicates that diminished institutional resources, resulting from declines in state funding, are related to lower degree completion rates.³⁵ Students attending schools with fewer resources for instruction and advising (such as nonselective four-year colleges and community colleges) face significant challenges in accessing required courses, and are more likely to be taught by adjunct faculty with limited availability for advising. The students most likely to attend under-resourced institutions are ironically those who arguably require greater intensity of advising and instruction.

At the same time, well-prepared students with college-educated parents tend to attend elite colleges with high rates of degree completion. Access to such schools is limited, and the inevitable overflow of qualified students is concentrated in flagship public universities. As public flagships have become more crowded over time (due to demographic shifts, increases in the college-going rate, and the high price of private college attendance), it has become even more difficult for less-qualified students to gain access. They therefore turn to less-selective public or community colleges, where degree completion rates are lower and resources are scarce. Furthermore, for students from socioeconomically disadvantaged families attending four-year institutions, both tuition revenue and institutional expenditures are predictive of college completion. This suggests that more generous subsidies to the schools enroll-

ing the majority of low socioeconomic status students may well increase degree completion by enhancing spending on services such as advising.³⁶

Apart from financial resources, other areas of institutional capacity are also linked to student success and therefore deserving of attention. For example, the practices and policies associated with remedial education need improvement. Under-qualified college students (and even some of those who are technically college-qualified) tend to require some academic remediation. Remedial education is often an essential component of the path to a degree, and yet most students who enter remediation never earn a degree. Fully 28 percent of entering freshmen attending degree-granting institutions nationwide in 2000 enrolled in at least one remedial course, including 42 percent of freshmen at community colleges and 20 percent of freshmen at public four-year institutions.³⁷

Notably, one national study found that only 49 percent of students who took remedial coursework went on to complete a bachelor's degree, compared to 70 percent of students who required no remediation.³⁸ Many students who enter college are not aware that they will face placement exams, and some who are enrolled in remedial courses are not cognizant that these courses will not count toward their degrees. Another problem is that schools with the fewest resources are often tasked with teaching students with the greatest needs. Quality instruction at any level requires substantial resources, and remedial education is no exception. Yet public expenditures on instruction at less selective institutions are lower than instructional expenditures at more selective institutions. This does not mean that

the “cost” of teaching students at non-selective schools is lower, only that less money is typically spent.

A related issue is that academic advising is optional at far too many institutions of higher education. At the same time, succeeding in college requires a great deal of “know-how.” College students need study skills in order to learn course content, must choose courses wisely to develop college majors, and make consistent progress in earning college credits toward degrees. Even the most conscientious and well-advised students who register for courses on time can find themselves unable to access required classes, either because they are full or not offered. The model at more selective schools is faculty advising undergraduates, but this is a luxury of professors for whom service is an expected part of the job. Adjunct faculty, hired to teach specific courses, are not paid to do this service and rarely have time for the uncompensated work.³⁹

Structural problems, which make it difficult for students for whom college does not initially work out, must also be remedied. While popular conception holds that the college experience takes place at one school, in fact nearly half of all contemporary undergraduates attend more than one college, and one-third of students entering four-year colleges will

leave their first school to attend another.⁴⁰ To make the transition from one institution to another, students must negotiate a barrage of paperwork to preserve their academic credits and ensure continued financial aid. The lack of agreed-upon academic standards, even among public institutions, means that a transfer student can be asked to repeat a basic writing or math course, duplicating limited resources and extending time to degree.

Clearly, numerous changes in American higher education (as well as K-12) are needed to improve student success. As policymakers cannot tackle all necessary changes, we outline a strategy for improvement that focuses on five areas of concern where we think federal policy should play a role. Historically, federal interventions aimed at improving student success in higher education have focused primarily on financial matters, such as the Higher Education Act’s Title IV programs, which include the Pell grant and Stafford loan. However, since financial constraints are but one contributor to degree completion, we argue for a more expansive federal approach to increasing educational attainment by increasing institutional resources, improving academic success, facilitating articulation and transfer, improving financial aid policy, and emphasizing the importance of student learning.

Strategies for increasing completion and decreasing inequality

Strategy #1: Increase federal investment and accountability to ensure that all colleges and universities have the resources necessary to provide an adequate education

To many in higher education, institutional autonomy is a treasured value. As a result, there is tremendous variation in goals and outcomes across schools nationwide, with elite private institutions demonstrating the highest graduation rates. College resources are positively correlated with both institutional selectivity and completion rates—that is, less-selective schools have fewer resources and lower completion rates, and vice versa. The open-door institutions with some of the highest levels of enrollment—community colleges—have roughly half the resources and subsidies enjoyed by public four-year colleges and universities.⁴¹

Despite the tendency of policymakers and many researchers to focus on elite students and schools, the great preponderance of American college students are enrolled in public non-selective institutions. As high school cohorts grow and state resources for higher education become more limited, these institutions are becoming quite crowded. As a result, while the most elite public universities have increased completion rates and decreased time-to-degree, less-selective public institutions have seen the opposite trends.⁴² The movement of significant proportions of high school graduates into under-resourced institutions with low graduation rates is disturbing. As noted earlier, the students most likely to attend under-resourced schools are those who need higher education to access or remain in the middle class. We argue that the federal government must intervene to *provide funding to the institutions serving the majority of American students*, so that all students may receive an adequate postsecondary education, regardless of their family background.

Historically, direct federal subsidies to universities have been avoided for fear they might compromise the autonomy of schools or interfere with states' rights. In debating the 1972 Higher Education Act, Congress declined to delve into federal revenue sharing with institutions in part because "it was unwilling to underwrite the entire system without reference to any national objective other than preserving and strengthening educational institutions."⁴³ However, times have changed, and the contemporary crisis in educational attainment merits a new strategy. States are struggling with limited resources, and it is time for Congress to help by creating a program that provides funds directly to universities invested in serving the broad swath of lower-income and lower-middle-class

Americans. The federal government once had a role in fostering the creation and development of new universities (as in the Morrill Land-Grant College Act of 1862) and the times call for a resumption of this role. The funds should be targeted for use in academic programming and advising, in keeping with the other strategies outlined in this paper. In return, institutions receiving this aid should demonstrate regular gains in student achievement while not diminishing the diversity of their student population.

While the federal government should initiate this endeavor, states should become partners in an effort to increase completion for all students. One place to start would be to create a program that provided matching funds to states willing to strategize and innovate to increase degree production and reduce inequality among its students. Given the wide variation in institutional mixes among states, they will operate differently to meet their goals. Some will invest more in community colleges, while others will perhaps seek to improve the performance of their flagship institutions. A measurable positive outcome would be an upward trend over time in the completion of certificates, associate degrees, and bachelor's degrees for all groups of students, taking into account baseline completion rates.

Strategy #2: Broaden access and reduce time to degree by facilitating smooth transfer of students and credits among institutions

A diminishing proportion of college students follow the “traditional” path to the bachelor's degree, entering a four-year institution immediately after high school

and completing the degree within four years at that institution. Students who begin their educational journeys in four-year colleges and universities often move across institutions in pursuit of a degree.⁴⁴ Moreover, approximately 40 percent of undergraduates today (and about 50 percent of those attending public institutions) begin their education in community colleges. The majority of community college students aspire to earn bachelor's degrees, which necessitates transfer to a four-year institution. The pervasiveness of student mobility raises many questions about the possibilities and challenges of movement across institutions.

Most policy discussions to date have been dedicated to transfer between community colleges and four-year institutions (often referred to as vertical transfer), although there is growing interest in other dimensions of transfer, including lateral transfer between four-year institutions and reverse transfer from four-year institutions to community colleges. However, given the lack of a national student-unit record data system to track students across schools, gauging the extent of mobility is a challenging task, fraught with definitional issues. There is much disagreement among researchers over, for example, who is considered a likely candidate for transfer (this is especially contentious in discussions of vertical transfer). Should all students in community colleges be considered eligible, or only those earning a certain number of credits, or those who expect to earn a bachelor's degree? How long should a student be at a new institution for that to count as transfer? If a student is attending a four-year institution but takes a single course over the summer at a nearby community college to speed up graduation, is that transfer? Transfer rates vary according to decisions

analysts make about these factors, since they constitute the population against which comparisons are made.

Given these caveats, research to date suggests the following: Among students who entered higher education in 1992, over 50 percent attended more than one institution. But “multi-institutional attendance” (the act of attending more than one school) often does not involve permanent transfer since 60 percent of students who attend two schools return to their first institution. Most students stay within state borders when changing institutions: only 28 percent of students who attend two institutions make the move to another state.⁴⁵

Transfer is common among students at both two-year and four-year schools. Vertical transfer (among community college students moving to a four-year school) occurs at approximately the same rate (33 percent) as lateral and reverse transfer together occur among entering four-year college students (moving to a four-year or a two-year school). However, the outcomes associated with transfer differ according to where a student goes—moving to a four-year school tends to only minimally affect the chances for B.A. completion among students who started at a four-year school, and of course increases the chances for completion among beginning community college students. But reverse transfer students have much lower rates of degree completion. Approximately half of all students who leave their initial four-year school end up moving to a community college, and nearly half of those students will also end up taking time off from college.⁴⁶

Furthermore, inequalities abound in the transfer process. Students who move

from a two-year to a four-year college tend to come from the top tier (in terms of socioeconomic status) among community college students. Those who move from one four-year school to another have higher than average levels of family income and occupational prestige, compared to the average four-year student. But students who reverse transfer come from families from the lower rungs of the socioeconomic ladder, and in particular tend to have parents who did not earn postgraduate or professional degrees. This is troubling, since these undergraduates seemingly “made it” by entering a four-year college after high school, but then ended up moving to colleges that do not grant baccalaureate degrees. Researchers studying reverse transfer have determined that neither lower levels of high school academic preparation nor a lack of financial or social preparation for college explains this outcome; rather it seems that when faced with poor grades during freshman year, these students resolve their troubles by leaving for a community college. This suggests a need for greater institutional advising at four-year schools, targeted to students who may have less access to information about alternative options.⁴⁷

The federal government has thus far largely been a silent observer of the challenges students face in the transfer process. State governments, on the other hand, have become increasingly involved in regulating movement of students across institutions, especially the transition from community colleges to four-year institutions.⁴⁸ Since the 1980s, a growing number of states have developed articulation policies to facilitate the transfer process. Descriptions and categorizations of articulation endeavors abound, but there is relatively little evidence

regarding their effectiveness. Reviews of the previous literature yield no consistent evidence to demonstrate that articulation policies facilitate transfer.⁴⁹ While there are myriad reasons why students do not transfer from community colleges to four-year institutions, we highlight several policy strategies that could ease students' transition across institutions.

First, the federal government needs to *facilitate the development of common definitions of transfer and mandate data collection efforts*. Currently, various definitions of transfer are used, producing transfer rates as low as 25 percent and as high as 61 percent.⁵⁰ This diversity of approaches makes it impossible to compare transfer rates across institutions and states or to implement an accountability system. The federal government should organize a Commission on Transfer, consisting of academics and policy leaders across the states, to produce a blueprint of the key information to be collected and reported. This could include transfer rates of varying groups of students (overall transfer, transfer of AA recipients, for example) and bachelor's degree completion rates of transfer students, as well as time to degree. State governments should be provided with resources to lead the data collection efforts as they are in a better position than individual institutions to provide accurate estimates of transfer and degree completion. Once reasonably accurate and adequate information is available, the federal government could require that states and institutions set transfer goals and demonstrate improvement over time for all students as well as for traditionally disadvantaged groups.

Second, the federal government should *provide incentives for institutions to improve transfer rates*. Many community colleges

across the country are voluntarily building partnerships with four-year institutions. The federal government should support these endeavors with seed grants. Moreover, another potentially promising strategy that could be supported by the federal government is development of dual enrollment programs between community colleges and four-year institutions. Some state articulation policies stipulate that students who complete A.A. degrees will be admitted to public four-year institutions as juniors. However, there is no guarantee of being able to enroll in a specific institution or a specific program. This poses particular challenges for students in vocational fields. Associate of applied science degrees are rarely included in statewide articulation policies and often require close coupling between field-specific training at two-year and four-year institutions.⁵¹ In a dual enrollment program, students would be admitted into a two-year and a four-year institution at the same time and guaranteed entry into the four-year program after completing the first two years in a community college, conditional on good academic standing. Dual enrollment programs might reduce some of the structural barriers to transfer and thus facilitate a smoother transition from two-year to four-year institutions.

Third, the federal government should *work with states and institutions to simplify the transfer process*. Many articulation policies provide a great degree of flexibility, giving overall guidelines but allowing individual institutions to agree on what courses count for transfer. While independence is a cherished value in American higher education, it often produces an incoherent approach to transfer which can "result in a bureaucratic maze that functions well for those able

to work through it but loses many others.⁵² With limited resources available for transfer programs and counseling at many community colleges, students often unwittingly take courses which do not count toward their degrees. One estimate suggests that community college students earn on average 140 credits in pursuit of a bachelor's degree, substantially more than the typically required 120 credits.⁵³ Encouraging states to develop a common core of courses that are transferable across all public institutions would greatly reduce the apparent confusion as to what counts as transfer credit.⁵⁴ This would not only eliminate inefficiencies in time and effort on the part of students and institutions but also trim educational costs.

Fourth, efforts to improve the outcomes associated with transfer need to be accompanied by widespread, meaningful, and sustained academic advising. Research indicates that the quality of academic advising varies widely across colleges and universities. While institutions should certainly have the autonomy to determine their academic programs and what is required of students, all schools should have sufficient resources to devote time and attention to providing all students with information on course and program selection and linkages to future employment. States should be encouraged to consider ways to *ensure that all public institutions devote adequate resources to advising.*

Strategy #3: Further reduce financial barriers to college completion

Concerns about how to finance college are common among students and families from all economic backgrounds. But federal financial aid policy has historically

emphasized the importance of credit to college access rather than college success. Moreover, in important ways, current financial aid policy may unintentionally discourage success.

The primary difficulty with current federal financial aid policy is that it is poorly understood by nearly all of its constituents. With the exception of the relatively small population of financial aid directors at colleges and universities, the vast majority of the general public does not know what opportunities for aid exist, how to access the various programs, and what one can expect to receive. As a result, students from poor families who would likely qualify for all or nearly all of the aid required to finance college fail to even apply, since they have limited access to information about how to apply for aid, little assistance in filling out the extraordinarily complex application, and substantial (and warranted) fears that college is unaffordable. Students from middle-class families who are insufficiently educated as to the variation in quality among college financing strategies and frustrated by the time-consuming nature of the application process unwittingly take on high-interest private loans, credit cards, or off-campus employment without complete knowledge of the consequences. As a result, children from socioeconomically disadvantaged families decide college is simply not possible for them, and subsequently count themselves out of opportunities (such as advanced placement courses) which could increase their chances of college admission and success. Children from wealthier families enter college assuming that financial barriers conquered in order to facilitate initial entrance will not reappear during later college years. Both cases demand federal intervention.

The first step is to greatly *simplify the process of applying for financial aid.* The Free Application for Student Financial Aid often requires more work to complete than a federal tax return. Parents must possess a great deal of knowledge about not only their own finances, but about how the formula for aid eligibility is calculated if they are to make smart choices in planning for college and filling out the paperwork. Such knowledge is unevenly distributed, residing primarily in those families where at least one parent attended higher education. As a result, despite their higher aid eligibility, low-income and first-generation students are less likely to file the federal application for student aid, which is required for them to receive grants or loans.⁵⁵ The costs of FAFSA complexity are substantial; according to a new analysis they amount to more than \$4 billion a year when time and administrative costs are taken into account.⁵⁶

Second, the U.S. Department of Education should *provide families with widely accessible and detailed information* about the opportunities for financial aid, what programs are available, and how aid is calculated and distributed over time. Too many students and families do not know what grants and loans are available, which aspects of income and wealth are included in aid determinations, and that filling out a FAFSA is a yearly process, which has to occur prior to each year of college enrollment. Students must be made aware that as their financial and academic circumstances change, the amount of aid they receive may also change. Unanticipated changes in aid make the connection to college all the more tenuous.

For example, if students marry while in school, or if their spouse becomes

employed, they may find themselves ineligible for financial aid. Similarly, regulations of the Higher Education Act quite reasonably state that if a student fails to make “satisfactory academic progress” toward a degree, their aid can be reduced or eliminated. But the definition of what constitutes SAP varies by school since it is partly determined by the institution’s graduation requirements.⁵⁷ This is problematic, as not only do graduation requirements often vary by school, but also by academic program. For example, a recent audit at the University of Maryland System discovered that some academic programs required the completion of more than 120 credits.⁵⁸ SAP calculations are especially complicated for the growing number of students who change majors or transfer schools. Thus without greater transparency it is nearly impossible for students to know precisely what they must do to keep their aid from year to year—currently, all that is required is that schools publish their standards.⁵⁹ Creating a common definition of SAP would not trample the autonomy of faculty to decide grades, or schools to determine program length. Schools could simply recalculate a student’s GPA or rate of progress toward a degree according to a common standard, much in the same way admissions officers adjust GPAs to compensate for different grading schemes across high schools.

Third, the *federal formula for distributing financial aid should exclude student work* from its calculation. The current formula absorbs student earnings from work very quickly (especially for independent students), taxing them (above a low-income protection allowance of \$2,500) at a very high rate of 50 percent. This effectively discourages students on financial aid from seeking employment while in school, or at least penalizes them retrospectively

for doing so.⁶⁰ The current formula makes it possible for a student receiving a Pell grant while a college freshman to be rendered Pell-ineligible in her sophomore year by her earned wages, even though those wages in no way reduced her need for the Pell. (This is one reason why Pell grant eligibility is not a perfect proxy for being low-income). But while intuition tells us that students with the greatest chances of degree completion are those focused entirely on school, recent research indicates that moderate participation in the labor market while in college may actually increase persistence and degree attainment.⁶¹

Moreover, penalizing financial aid recipients for employment ignores the complex array of reasons why students work. More than three-fourths of undergraduates work an average of 30 hours per week, with nearly one-third working full-time.⁶² Work used to obviate the need for aid, since in the 1970s working a 24-hour week at minimum wage could cover the costs of attendance at a four-year institution. Times have changed, and now even aid recipients need to work, and those who work require aid (today's students need to work 55 hours per week at minimum wage to afford attendance at a public four-year school).⁶³ Employment is especially common among high-achieving, low-income college students, suggesting that working while in college is a necessity, enabling college attendance rather than no college at all.⁶⁴ If working students on financial aid lose that aid during college because of their employment, it may well increase the time they need to complete degrees. Recent congressional action that increased the student employment offset was insufficient since student earnings are still counted against eligibility for aid.

Fourth, institutions should make efforts to reduce students' uncertainty about their ability to pay for college by *fixing students' contributions to college costs across their college career*. It is difficult for some students to make enrollment decisions without timely and accurate information about what college will cost during their later years of schooling, and how much they will be expected to pay. The Department of Education might consider at minimum requiring institutions to publish information indicating whether they practice this type of financial planning, so that families can be aware and choose to attend institutions that do.

Finally, financial aid policy should *support academic course-taking wherever and whenever* students are able to engage in higher education. This means making changes to allow for Pell grant recipients to receive that grant during the summer months, and making aid available to less-than-half-time students.

Strategy #4: Facilitate academic success by strengthening high school academic preparation, improving college remedial education, and requiring academic advising

The tremendous growth in college participation rates over the last 50 years was not accompanied by sufficient improvements in the academic preparation of entering college students; in fact, some students are admitted to college today with levels of preparation which in the past would not have merited college entry. While higher education institutions could effectively ensure that their students were academically prepared to succeed in college by increasing their standards for

admission, doing so would result in even greater socioeconomic and racial disparities in rates of college attendance. Therefore, we argue that instead, the federal government should act to ensure that all students receive a high school education that sufficiently prepares them for college. Secondary schools, under the mandate of federal policies such as the 2001 No Child Left Behind Act, have undertaken numerous reforms to improve preparation for college. Examples such as accountability regimes, high-stakes testing, and high school exit exams are too numerous to describe in detail here. We instead focus our attention on actions taken by higher education administrators and educators to influence academic preparation of their potential students.

Thanks to the efforts of many advocacy and policy organizations throughout the country, a substantive discussion is now taking place regarding the reform of high school curricula, highlighting the need to ramp up the requirements for all students, making college preparation essentially the default model. One of the most important elements of those efforts must be to engage university and community college professors in intensive and detailed discussions with high school teachers about what students need to know in order to succeed in college. Over the last several years researchers have added a great deal to this discussion by identifying, concretely, what constitutes “college knowledge” and what practices can be used to make sure that students attain it. Efforts to integrate curriculum design across all segments of schooling, preschool through college, should be expanded and rigorously tested. The federal government might consider providing incentives for states to create, implement, and evaluate these so-called “P-16” reforms, to generate scaled-up action.⁶⁵

Other efforts to improve academic preparation include providing earlier exposure to college coursework and environments. For example, dual enrollment programs are designed to move students more seamlessly from high school to college by allowing students to earn college credit while still in high school, thereby potentially reducing the length of time (and associated costs) spent in college. Many students, particularly those without college-educated parents, have little information about what college requires. Especially in states with relatively low high school graduation requirements and those with fewer opportunities for advanced course-taking, dual enrollment may help introduce students to college courses and their academic demands.

Today nearly every state has some form of dual enrollment policy, either formalized at the state level or locally negotiated between colleges and high schools. Approximately 4.5 percent of high school students participate in dual enrollment, and levels of participation are rising.⁶⁶ However, while part of the purpose of dual enrollment is to ease the transition to college for students who particularly suffer during that transition, dual enrollment is currently much more commonly utilized by relatively advantaged students. This is partly due to restrictive admissions requirements to such programs, their distribution across states and localities, a lack of awareness of opportunities among some groups of students, and perceived or real costs of dual enrollment.

Research is far from conclusive on the question of whether dual enrollment is effective at improving academic preparation for college and helping more students complete degrees. Some studies find that students in dual enrollment programs perform similarly or better in

college-level courses compared with those who do not participate, but these findings are questionable since the authors rarely utilize comprehensive student-level data or employ rigorous methods to control for pre-existing differences between students.⁶⁷ The most rigorous evaluation to date yielded some promising results, finding that dual enrollment participants persisted in college longer and enjoyed higher grade point averages than comparable students who had not participated in dual enrollment programs.⁶⁸ This area of research deserves further investigation, which requires some expansion of existing programs accompanied by rigorous evaluation. The new programs should be free to students and employ few eligibility requirements—criteria which should help ensure that the programs provide a meaningful boost toward a college degree.

But many students will continue to enroll in college despite being academically unprepared, and when they are tested as college freshmen they will be placed in remedial education. As noted earlier, students who enroll in remedial college courses have low rates of college completion. Some analysts interpret those numbers to mean that remedial instruction itself has deleterious effects on student progress, while others contend that they simply indicate that students placed in remediation differ from other students in ways that make them unlikely to finish college. For example, remedial students tend to come from urban high schools where they receive poorer high school preparation.⁶⁹ Similarly, it is possible that students not placed in remedial coursework are more highly motivated or more knowledgeable about what is required to pass a placement test. Thus, it is very difficult to make a causal claim about the effectiveness of remedial education precisely because students who participate in

such programs differ from students who do not. Further complicating the issue are the vagaries of remediation criteria; the placement criteria vary widely across states and institutions, such that a student placed in remediation in one setting may not require remediation at another.⁷⁰ But on average, the most rigorous studies tend to yield findings indicating little or no effect of remediation at increasing chances of college completion.⁷¹

One problem the federal government should tackle is the poor quality of most remedial instruction. Too often untrained teachers employ a “skills and drills” approach which is disconnected from students’ real-world experiences and does not reach students who are already disaffected and discouraged by poor high school experiences.⁷² Colleges ghettoize remedial courses, setting them apart from regular academic programs and hiring adjuncts and other untenured faculty to teach them. This severely limits the resources and time available to remedial instructors. Finally, success of remedial programs is rarely assessed. In order to strengthen remedial education the federal government should *fund the development and study of innovative practices in remedial education and require states to report on the enrollment and progression of their students in remedial education*. Across California, community colleges are piloting innovations in basic math and English skills education, with funding from several private foundations.⁷³ The U.S. Department of Education should initiate efforts to stimulate and coordinate the implementation of innovative programs in a broader swath of states and provide funding for successful programs.

But rather than improve remedial instruction, many states have instead moved to end college remedial coursework at public institutions, and/or pro-

posed that remediation only take place at community colleges. We contend that this move is unwise and misdirected and that the federal government should intervene to both preserve and improve opportunities for remedial instruction at both four- and two-year institutions. Remediation will continue to be necessary until all high schools adequately prepare all college-bound students. Furthermore, even if such a tremendous feat were achieved, some learning loss during delays in enrollment between high school and college should be anticipated, making remedial courses necessary for older college students. Relegating remedial coursework to the purview of community colleges unnecessarily restricts the college opportunities of a group of students who are disproportionately disadvantaged to begin with. Rates of transfer from two- to four-year institutions are low for many reasons. Thus, requiring more students to begin at a two-year college is likely to reduce their chances for bachelor's degree completion. States that do so are acting without any evidence to indicate that such a model is successful.⁷⁴ In fact, at least one study suggests that students denied access to four-year institutions because of a need for remediation (known as being “de-admitted”) often do not end up enrolling at community colleges and thus are not in college at all.⁷⁵ Eliminating remedial education at four-year institutions may therefore in effect diminish opportunities for earning a bachelor's degree.

Strategy #5: Improve and assess learning to ensure that students earn credentials of value

Recent years have witnessed a proliferation of interest in what students learn in college. Plenty of evidence indicates that

even though 66 percent of Americans believe that “colleges are teaching students the important things they need to know” graduates may in fact not be well prepared for the knowledge economy.⁷⁶ For example, only approximately one-third of college graduates are deemed proficient in prose, document, and quantitative literacy.⁷⁷ Recent reports, perhaps most notably “A Test of Leadership,” written by the Secretary of Education's Commission on the Future of Higher Education, lament the current state of learning in higher education and are “disturbed by evidence that quality of student learning at U.S. colleges and universities is inadequate, and in some cases, declining.”⁷⁸

Despite these sobering indicators of the deficiencies of U.S. higher education, previous research suggests that some learning is taking place. Extensive reviews have concluded that students develop a range of skills in higher education, improving overall cognitive ability as well as gaining in specific areas such as critical thinking. Crucially, previous studies propose that a significant part of this gain is “attributable to exposure to postsecondary education.”⁷⁹ Moreover, when surveyed, students tend to report improvements in critical thinking and analytical skills over their college careers.

But not all students are learning the same material or progressing at the same rate. African-American and Latino college students appear to make significantly smaller gains in cognitive growth than their white counterparts.⁸⁰ A recent longitudinal study of students at 24 four-year institutions shows that African-American students enter higher education with the lowest score on the critical thinking and analytical reasoning assessment and gain the least over time. Taking into account family background, academic prepara-

tion, and a host of other factors reduces but does not eliminate the black-white gap in learning.⁸¹ Moreover, seemingly positive educational experiences intended to enhance critical thinking affect the learning of majority students more than minority students. The number of college courses taken in natural sciences and engineering, for example, has a stronger influence on the critical thinking of white students than African-American students.⁸² Thus, the challenge for higher education is not only to help students learn and develop specific skills but also to decrease the gap between more and less advantaged groups of students. Enhancing students' learning experiences may encourage their integration into the academic community, which in turn may increase their odds of success.⁸³

There is substantial consensus on the fundamental skills students should acquire in higher education, such as the universally accepted claim that students should learn how to think critically.⁸⁴ It is much more challenging to define what "thinking critically" means or how it can be measured. In recent years, several researchers and organizations have begun tackling the challenge of assessing student learning, particularly in the general areas of critical thinking, writing, and problem solving.⁸⁵ While some surveys, such as the National Survey of Student Engagement, have relied on students' self reports regarding their cognitive gains in college, others have attempted to measure learning directly.⁸⁶ The National Study of Student Learning, for example, uses the Collegiate Assessment of Academic Proficiency, developed by the American College Testing Program. Moreover, the Council for Aid to Education has conducted a number of studies using the Collegiate Learning Assessment to measure critical thinking, analytical reason-

ing, and writing communication. CLA is also used in the Determinants of College Learning, a recently initiated longitudinal project examining factors that influence cognitive growth during college, particularly for disadvantaged groups of students.⁸⁷ While most assessments are aimed at describing learning gains of students within institutions, some endeavors, such as the National Forum on College-Level Learning, have also attempted to develop comparable measures of "educational capital" across states.⁸⁸

As higher education struggles to define learning and finds appropriate measures, as well as overcome the inertia of past practices, what is the appropriate role for the federal government? In terms of assessment, the federal government should *require that higher education institutions implement learning assessment mechanisms and report student progress*. Demands for assessment are not new, and institutions are already required to report learning outcomes to accrediting agencies. However, the depth and breadth of assessments vary, and assessment outcomes are neither available to students nor collected in a way allowing comparison across institutions.

Existing pressures have already produced much concern and commitment from higher education leadership to assess and improve student learning. A newly released report by the Association of American Colleges and Universities and the Council for Higher Education Accreditation exemplifies this commitment and calls for all institutions to develop "ambitious, specific, and clearly stated goals for student learning" as well as to "gather evidence about how well students in various programs are achieving learning goals."⁸⁹ The federal government could help to solidify and sustain these endeavors by requiring that institu-

tions report the types and outcomes of their endeavors, for all students as well as traditionally disadvantaged groups. Moreover, the federal government could sharpen the focus on evaluating performance through a value-added framework; it is crucial that the progress is measured using a framework that assesses *enhancements* in student knowledge. Assessment mechanisms lacking a value-added approach could have a range of negative consequences, such as leading institutions to deny access to students who are not likely to perform as well as their peers.

While much of the recent discussion has centered on assessment, which focuses on *outcomes* of higher education, we would propose that the federal government also needs to *address issues that influence the process of learning, including the prestige and reward structure, which emphasizes research over teaching, and the poor preparation of college instructors.*⁹⁰ The federal government currently provides extensive resources to universities to conduct research, but very little support is available to improve teaching. Professors wanting to dedicate their time to undergraduates, focusing on enhancing learning experiences and developing students' cognitive skills, cannot obtain hundreds of thousands of dollars and a reprieve from research (as they can when they apply for research grants, which provide monetary and status rewards and are often used to "buy-out" of teaching). Any substantial and sustainable change in undergraduate teaching must therefore involve the flow of resources in that direction. Grants for teaching—including developing new methods, trying new teaching strategies, and implementing

creative and innovative approaches to fostering and assessing student learning—need to become a prominent part of the federal agenda for higher education. These endeavors could build on revitalizing currently available programs, such as the Fund for the Improvement of Post-secondary Education, as well as developing new programs and sources of funding.

Finally, the most important role of colleges and universities in creating student success is the provision of quality teaching. Students who do not enjoy being in the classroom will not persist to earn a degree, or at the minimum will not learn much. Yet professors are given few incentives to teach well, or to learn how to teach—purportedly in the name of faculty autonomy and the need for great researchers. *Improving the training of future faculty* is an important step in fostering student learning. Graduate students in doctoral programs are provided little instruction in teaching and are not asked to demonstrate their knowledge before entering the classroom. Thus, while most professors spend a substantial amount of time in the classroom, the training provided in graduate programs inadequately prepares them for that endeavor. A requirement that graduate programs include substantial preparation for teaching (and not a one-to-two day workshop, which seems to be a common practice at research universities) should be included in accreditation requirements for those programs. Moreover, developing evaluation mechanisms through which future professors could demonstrate their competence to teach, as well as improve their performance, should be encouraged.

The road ahead

“In an era when intellectual capital is increasingly prized, both for individuals and for the nation, postsecondary education has never been more important.”⁹¹ As the U.S. Secretary of Education’s Commission on the Future of Higher Education has recognized, improving postsecondary outcomes is a national goal that will benefit all Americans, individually and collectively. The low degree completion rates and gaps between more and less privileged groups of students exhibited by the current system does not simply reflect failure of specific institutions and states, but a failure of the postsecondary system as a whole. It is thus time for the federal government to increase its involvement in higher education. Leadership from the federal government is needed to provide adequate resources, communicate clear messages, and collect data to assess and monitor progress.

States already spend a substantial portion of their budgets on higher education and are unlikely to be sufficiently solvent to increase spending on higher education in the near future. Thus, federal government subsidies are essential in order to achieve both improved and more equitable outcomes in higher education. Currently, only 1 percent of the federal budget is spent on higher education, and less than 15 percent of college and university revenues come from Washington.⁹² This limited financial support stands in contrast to national sentiments about the importance of postsecondary education in both helping individuals attain a middle-class lifestyle and improving the nation’s economic growth and ability to compete in the global market. The key to our children’s future and American growth and global competitiveness increasingly rests on improving overall attainment and decreasing inequality in higher education.

Direct investments in the nation’s public two-year community college sector and state colleges are long overdue. The country has benefited tremendously from the movement of large numbers of Americans into colleges, but many institutions have been significantly challenged to provide a quality postsecondary education at a very low price point. Increasing rates of degree completion, especially among individuals from low-income families, is a national priority and requires federal support.

The movement of students across schools, which occurs throughout the higher education system, necessitates greater efforts to “systematize” the so-called system. A necessary start is the creation of national student-unit-record data collection. To understand what works, what needs to be improved, and how resources can best be invested, assembling data on students as they progress through the postsecondary pipeline is crucial. Most institutions and states lack resources and capacity to track students longitudinally for an extended period of time, especially as students change institutions and move across state

lines. High and increasing mobility of students suggest that today's undergraduates do not view education as a property of a given institution or even state; they seek opportunities across institutions and states in their pursuit of educational credentials. To adequately capture the patterns of attendance and completion and to illuminate strengths and challenges in postsecondary education, a national view is needed. Collecting data on all students in higher education, and tracking them over time, is a key to developing a comprehensive understanding of student success, revealing promising practices, and developing effective policies.

Furthermore, student mobility compels more attention to how colleges think about learning, and how they approach the generation of knowledge that ensures that college degrees have value—beyond the pure monetary value. As noted earlier, similar discussions are taking place throughout Europe as part of the Bologna process, and there is much the United States could learn by stimulating such conversation here.

Clearly, the transfer of credits and financial aid across schools must be made easier to ensure that students do not lose time or money when changing colleges. Policies established with traditional students following traditional paths to the B.A. must be abandoned, and new policies to generate success among contemporary students embraced. The goal should not necessarily be to encourage transfer among all students, but rather to make sure that when it does happen, it is productive.

The importance of increased federal involvement does not rest only in providing resources and collecting data. Federal leadership is needed to communicate a

clear message about the importance of success in higher education and accountability standards. Strong endorsement and implementation of evaluation mechanisms based on the “value-added” approach is essential in this regard. The graduation rate is an empty statistic unless it is placed in the context of institutional inputs in terms of students, staff, and resources. However, a less privileged location in the hierarchy of higher education should not be used as an excuse for poor performance. The value-added framework can isolate the extent to which all types of institutions operating in a range of difference circumstances can succeed. Successful institutions should be rewarded, their policies and practices widely disseminated, and similar approaches encouraged.

The other clear message to be communicated is that federal support and accountability are not intended to quell autonomy or innovation. Indeed, both need to be encouraged and supported within the parameters of improving student outcomes and decreasing gaps between different groups of students. Not all institutions will work in the same contexts, enroll the same students, or face the same challenges from their communities and states, and thus not all institutions should look alike or implement the same programs. However, all institutions should work toward improving outcomes for *all* of their students.

The goal of federal involvement, as outlined in this report, is to support, encourage, and reward states and schools that facilitate the success *of their students*. The outcome of federal involvement should not be a standardized set of practices, but a convergence of practices, led by the common goal of helping students

succeed in higher education. Autonomy should not be endorsed at the price of ineffectiveness and inequality. Many paths have the potential for success, but our current system has produced untenable results. College costs are remarkably high, and only slightly over half of students succeed in completing a degree,

with stark inequalities masked by average rates of completion. Unless they are eradicated, those differences in educational attainment will be carried into the labor market and transmitted from generation to generation. Therefore, the challenge confronting our federal leaders is both substantial and urgent.

Endnotes

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- 54 This recommendation focuses on states since the vast majority (over 70 percent) of community college students transfer to in-state public four-year institutions (Ibid). Simplifying the process within states would thus have notable consequences for increasing overall transfer rates. In the long run, coordinating the transfer process across states would be a desirable goal. In this case, accrediting agencies may need to work on synchronizing their evaluation practices and recognizing each other's accreditation claims. At least one study indicates that schools deny credits when students attend institutions accredited by different accrediting bodies (U.S. Government Accountability Office, *Transfer Students: Postsecondary Institutions Could Promote More Consistent Consideration of Coursework by Not Basing Determinations on Accreditation* (GAO-06-22). Washington, D.C.: U.S. Government Accountability Office, 2005).
- 55 S. Dynarski and J. Scott-Clayton, "Complexity and Targeting in Federal Student Aid: A Quantitative Analysis," Working Paper 13801 (National Bureau of Economic Research, 2008).
- 56 Ibid.
- 57 See Higher Education Act section 484(c)
- 58 In an effort to reduce time-to-degree in 2005 the Board of Regents of the University of Maryland System passed a new policy that stipulates "the standard number of credits required for receipt of a baccalaureate degree from a USM institution shall be 120 and provides a limited number of exceptions for those programs that are designed as five year programs or must meet externally mandated accreditation or certification requirements that would demand additional coursework by students." Available at: http://www.usmd.edu/usm/workgroups/EEWorkGroup/eeproject/jcr_dot
- 59 See HEA section 484(e) and <http://fsaconferences.ed.gov/conferences/library/SAPNASFAA062306.ppt>
- 60 For more on this see, S. Dynarski and J. Scott-Clayton, "The Cost of Complexity in Federal Student Aid: Lessons from the Optimal Tax Theory and Behavioral Economics," available at: <http://www.ed.gov/about/bdscomm/list/hiedfuture/reports/dynarski-scott-clayton.pdf>. Dynarski also recommends this adjustment to the aid formula.
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