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# FINANCIAL AID'S ROLE IN MEETING STATE COLLEGE COMPLETION GOALS

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# **Abstract**

This brief utilizes the most recent and rigorous financial aid research to inform state higher education leaders about innovative and effective financial aid practices. By simplifying aid eligibility requirements, improving the aid application process, and engaging in early awareness efforts, states could improve the effectiveness of existing aid programs. Additionally, by targeting aid in ways that encourage college completion, more students (particularly those who are most constrained by finances) will improve their chances of earning postsecondary degrees. In recent years, several states have adopted goals of greatly increasing educational attainment levels, so we argue that innovative financial aid policy reform is one of the necessary steps toward meeting these goals. This brief can inform ongoing policy negotiations between state commissioners of higher education, state education task forces, and education and workforce legislative committees.

#### CONTEXT

Since 2010, thirty-one states have established "College Completion Agendas" with the goal of increasing the share of citizens earning postsecondary degrees and certificates. Citing projections that two in three jobs will require postsecondary credentials by the end of the decade, state policy makers and higher education leaders are seeking ways to encourage more individuals to invest in human capital (Carnevale, Smith, and Strohl 2010). For example, the Utah Board of Regents set a statewide goal of having 66 percent of Utah adults between ages 25 and 64 earn a postsecondary degree by 2020. The Tennessee legislature passed the College Completion Act in 2010 to develop and implement a plan for adding 20,000 more degree recipients into the labor market each year. Similarly, Virginia's Governor Bob McDonnell signed Executive Order No. 9 in 2010 to facilitate the state's plan of having more than half of all working-age adults hold postsecondary credentials by 2025 (Zumeta et al. 2012).

Although completion goals vary across states, they share a common objective: to encourage more individuals to invest in human capital. When more individuals access and complete college, they are expected to enjoy higher salaries, have lower unemployment rates, and be less likely to depend on public assistance (Kane and Rouse 1995; Paulsen 2001). Due to these positive outcomes, public investment in human capital should yield positive societal benefits including healthier, more prosperous, and more engaged communities. Only 38.7 percent of adults aged 25 to 64 currently hold postsecondary credentials nationwide, however, so millions more residents of all ages must complete degree programs if states are to accomplish their educational and workforce goals (U.S. Census Bureau 2012). But how can this be done? How can state policy makers encourage more individuals to invest in postsecondary education?

Setting a statewide attainment goal is but the first step in actually improving educational opportunities and outcomes for students. State leaders must also take stock of existing policies and programs that influence individuals' decisions to invest in postsecondary education. Financial aid is one policy instrument states can use to encourage more individuals to invest in postsecondary education. Accordingly, this brief highlights some of the challenges and opportunities associated with reforming state financial aid programs to align with educational goals, and it summarizes the most recent and rigorous evidence of "what works" in terms of financial aid's impact on college access and completion. Whereas much of the literature focuses on state aid for students pursuing bachelors degrees, the issues discussed in this brief are also relevant to students pursuing associates degrees or certificates in community colleges. The brief concludes with recommendations for aligning state financial aid policy with state college completion agendas.

#### TRENDS IN STATE AID

States are encouraging more individuals to pursue postsecondary education during an era of persistently rising tuition. Unfortunately, even after accounting for students' background characteristics and past academic performance, increases in tuition without equivalent increases in financial aid discourage students from enrolling and persisting in college (Deming and Dynarski 2010). This is particularly the case for lower-income students and individuals who are unaware of how the financial aid system works, many of whom overestimate the costs of college and may be discouraged from enrolling due to these misperceptions (Horn, Chen, and Chapman 2003; Scott-Clayton 2012). Although aid is likely to have different impacts on different students, researchers have found that a \$1,000 decrease in the net price of tuition is associated with a 3–6 percentage point increase in the likelihood of enrolling in college (Deming and Dynarski 2010; Leslie and Brinkman 1987).

In 2012, published tuition and fees averaged \$8,655 for public four-year colleges and \$3,131 for public community colleges; these values have risen by 66 percent and 47 percent, respectively, over the past decade (College Board 2012a). Tuition is rising at public colleges during a time when family incomes are falling and the pipeline of K–12 students are becoming more socioeconomically diverse (Pew Research Center 2012; WICHE 2012). This is putting increased demand on existing state grant aid programs, many of which are not designed to meet these growing needs. Total state grant aid has only increased by 10.4 percent during this period, with the average award now approximately \$660 per student (NASSGAP 2012). Figure 1 displays changes in tuition relative to aid in order to rank which states have increased these two items faster (or more slowly) than national averages. This illustrates how some states increased tuition while simultaneously increasing aid (i.e., "high-tuition, high-aid"), whereas others increased tuition but not necessarily in conjunction with aid ("high-tuition, low-aid").

All fifty states provide student financial aid in the form of need-based or non-need-based (i.e., merit-based) grants and scholarships. States invest more than \$9 billion annually in these programs, with the majority (71 percent) of total aid being *need-based* (NASSGAP 2012). Interestingly, five states (California, New York, Texas, Pennsylvania, and Illinois) account for half of total spending on need-based aid, meaning there is wide variation across the states with regard to the design and scale of need-based aid programs. In states that operate smaller need-based aid programs, the federal Pell Grant often becomes the de facto source of aid for students. Reliance on the federal aid program is not enough to help students pay for college, as the award covers a small and steadily declining share of college tuition (College Board 2012b; Dynarski and Scott-Clayton 2013). In contrast, non-need-based aid programs

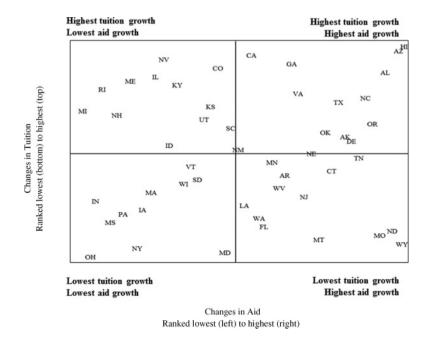


Figure 1. Changes in Public Four-Year Tuition and State Grant Aid, 2005-2010

have become popular over the past two decades and today 29 percent of all state aid is awarded on students' past academic performance (NASSGAP 2012). Instead of targeting aid according to students' need, these programs base eligibility on students' high school grades and/or standardized test scores. As a result, these merit-based programs tend to benefit students who would likely attend college even without the subsidy (Heller and Marin 2002; Dynarski 2004a; Cohodes and Goodman 2012).

#### INNOVATIVE PRACTICES—SUMMARY OF WHAT WORKS

States do not necessarily need to increase the amount of aid in order to improve college completion. Although more aid can increase participation and completion, the most recent and rigorous financial aid studies have identified several effective strategies to improve student outcomes without increasing total aid (Bettinger 2012). In recent years, aid advocates have urged policy makers to move beyond the traditional "need/merit" model and focus on how to leverage existing aid programs to increase students' odds of enrolling in and completing college (Baum et al. 2012). By reframing the aid debate away from the "need/merit" model, policy makers will focus on program designs that emphasize the importance of aligning aid with statewide goals of enrollment and completion. The following discussion highlights evidence-based strategies that have been successful in terms of increasing students' access to

and completion of postsecondary education. The most effective aid programs do not simply lower tuition via grants but they also (1) provide students with clear information about how to apply for aid; (2) have simple eligibility criteria; (3) make early commitments to students; and (4) are well targeted to the state's policy goals.

Funding levels matter, but incorporating these design elements into aid programs should improve the overall cost-effectiveness and enrollment impacts of state grant aid (see Castleman and Terry-Long 2012, Deming and Dynarski 2010, Dynarski 2003, and Kane 2003, for examples).

#### Innovation Number 1: Provide Clear/Personalized Application Information

Effective aid programs provide clear information about the actual costs of attending college and help students estimate how much aid they will need to cover these costs. Applying for aid is one of the first steps in the college application process; in order to receive financial aid, students must first file a Free Application for Student Financial Aid (FAFSA). The U.S. Department of Education recently simplified the FAFSA form and most students now apply online. Although these improvements should help more students apply for aid, the FAFSA application process is still overly complex (Scott-Clayton 2012).

In Ohio, researchers tested whether personalized assistance increased students' odds of applying for aid. The researchers randomly assigned tax preparation specialists at H&R Block to help parents file FAFSAs while they were completing their taxes. Some tax filers received the additional assistance, and others simply received FAFSA informational brochures and did not receive assistance. The results provided clear evidence that parents who received the personal assistance were not only more likely to file the FAFSA, but their children attended college at higher rates. The program cost less than \$100 per filer, took less than ten minutes to complete, and increased college participation rates by 8 percent (Bettinger et al. 2012).

When students (or their parents) do not receive adequate assistance or information about the college-going process and state aid programs, they may leave money on the table and they will be more likely to overestimate how much money is necessary to attend college (Horn, Chen, and Chapman 2003). As a result, this could discourage many from pursuing a degree. Although informational brochures, Web sites, and television commercials may help deliver this information, such passive techniques are not as effective as programs that actively engage students and their families through the aid application process.

# **Innovation Number 2: Simplify Eligibility Criteria**

By making simple eligibility requirements, it is plausible that students will be better able to plan for college, both academically and financially. Georgia's HOPE scholarship stands out as one of the most simple and easily understood programs in the country—high school graduates who earn a 3.0 GPA are not required to pay tuition at public four-year colleges in the state. Most high school students are not only knowledgeable about the scholarship, they also know the necessary high school GPA required to be eligible for the aid (Deming and Dynarski 2010). This is likely because 40 percent of high school graduates are eligible for the award (Governor's Office of Student Achievement 2011). This program has been successful in raising enrollment and completion, particularly among undergraduate women (Cornwell, Mustard, and Sridhar 2006; Dynarski 2008). Though the size of the aid matters, as each \$1,000 in aid increases attendance by 4–6 percent, it is noteworthy that the state's simple eligibility requirements can also help students plan for college, both financially and academically (Deming and Dynarski 2010; Scott-Clayton 2012).

One challenge of operating broad-based merit aid programs is that, although simple to understand, many eligible recipients may have enrolled in college even without the subsidy. In Massachusetts, for example, approximately 75 percent of the state's merit-based scholarship (Adams scholarship) recipients would have enrolled even without the subsidy, and similar observations have been made about Georgia's HOPE scholarship (Cohodes and Goodman 2012; Dynarski 2004a; Heller and Marin 2002). Each state will determine how best to balance simplicity with complexity, where broad-based programs may be simple to understand and implement but lack the complexity of targeting aid to students who are most constrained by finances (Baum et al. 2012).

#### **Innovation Number 3: Make Early Commitments to Increase Awareness**

Effective aid programs reach out to students before high school. Researchers have found that students' financial circumstances do not change considerably over time, so early interventions may be effective ways of promoting college access and completion. For example, most eighth graders who are eligible for the National School Lunch Program remain eligible for the program four years later (Heller 2006). Similarly, it is possible to use prior years' tax information to predict whether students will be aid-eligible in future years (Dynarski and Wiederspan 2012). Children who live in (or near) poverty will likely still be in poverty by the time they are college-bound, so early awareness may be especially effective for helping these individuals prepare for and succeed in college.

Because most states (and the federal government) do not offer early aid interventions, students often do not know how much money they will receive until after they apply and are admitted to college. Indiana's 21st Century

Scholars program reaches out to middle school students to provide them with personal information about the costs and benefits of college. The program also promises free tuition to middle schoolers who are eligible for Free and Reduced Price Lunch, are Indiana residents, and will graduate from an Indiana high school with a 2.0 GPA. Students must stay drug- and crime-free to receive the award and meet academic requirements to keep the awards once enrolled in college. Correlational analysis of this program finds that students who receive the award participate in college at higher rates than nonawarded students (St. John et al. 2004). By integrating early notification efforts into these programs, students and their families can anticipate and plan for paying for college. These early intervention efforts are a critical component of effective aid designs (Scott-Clayton 2012).

#### **Innovation Number 4: Align Aid with State Completion Goals**

Effective aid programs are clearly aligned with state goals. If a state is committed to increasing college access and completion, then aid should be distributed according to these ends. One possible way to increase completion is by requiring aid recipients to enroll in at least thirty credit hours per semester while maintaining at least a 3.0 GPA. West Virginia's PROMISE scholarship program operates according to this model and evidence suggests this strategy is increasing participation and completion rates in the state (Scott-Clayton 2011a). The scholarship increased graduation rates by nearly 4 percentage points, and it increased students' time to degree completion by 7 percentage points.

Similarly, MDRC evaluations of "performance-based" scholarships suggest that supplemental aid results in students attempting and completing more credit hours (Scrivener and Coghlan 2011). This outcome has not been replicated in all of MDRC's studies, yet researchers note it as a promising innovation (Dynarski and Scott-Clayton 2013; Patel and Rudd 2012; Scott-Clayton 2012). One of the challenges of connecting aid to academic progress is that various factors (beyond aid) explain why some students take longer to complete college than others. In particular, when students work longer hours to cover educational expenses, their likelihood of dropping out rises and (for those who stay enrolled) so does time-to-degree (Bound, Lovenheim, and Turner 2012). Additionally, when colleges have resource constraints or are already operating at their maximum capacity, these institutional barriers can slow down students' progress even when aid is available (Bound, Lovenheim, and Turner 2012).

In order for the state to reach its completion goals, policy makers may be inclined to integrate these enrollment incentives into the program design. In the MDRC example, performance-based scholarships were coupled with mentoring and counseling programs for community college students in several different states, and aid recipients were 8 percentage points less likely to withdraw from college (Scrivener et al. 2008). Considering the work of Bound, Lovenheim, and Turner (2012), it is clear that there is no silver bullet to increasing college completion and that mediating factors such as work and the institutional resources of a college also matter. For policy makers, aid reforms could be more attentive to these work-related factors and to the role institutions play in contributing to students' educational outcomes.

#### Summary

State aid programs play an important role in encouraging more students to invest in human capital. But grant programs are not the only financial aid policy instrument available for helping states meet their educational goals. States also provide tax-free college savings accounts to help students pay for college and these accounts benefit individuals who have tax liability and enough discretionary income to set aside savings. Because most individuals from lowincome families either have no tax liability or are financially stretched too thin, these accounts tend to benefit upper-income households (Dynarski 2004b). Students can also receive aid from federal and state work study, but these programs are very small relative to grant programs, and researchers have found work study can negatively impact enrollment outcomes (Scott-Clayton 2011b). Additionally, the federal Pell Grant supports students but this program has been unable to maintain its purchasing power over the past several years and is designed to be the baseline (rather than sole) source of aid for lowincome students (College Board 2012b; Curs, Singell, and Waddell 2007). Nevertheless, state grant aid programs play an important and significant role in encouraging college participation and these programs are a clear policy lever state officials can use as part of their broader strategy of encouraging more individuals to invest in education.

#### **IMPLEMENTING INNOVATIVE PRACTICES**

The following recommendations should be useful in state planning efforts to better align financial aid policies with college completion goals.

# 1. Consolidate State Grant Aid Programs To Have Simple and Easily Understood Eligibility Requirements

During the 2010–11 academic year, states operated 227 separate grant programs (Baum et al. 2012). By operating an average of four or five programs, states introduce unnecessary complexity into the already complicated financial aid system. Operating multiple programs can increase administrative costs and

Table 1. Hypothetical Criteria for Simple State Grant Aid Eligibility

Family Income	Grant	% of Family Income
\$0	\$4,000	-
\$20,000	\$4,000	20
\$25,000	\$3,500	14
\$30,000	\$3,000	10
\$35,000	\$2,500	7
\$40,000	\$2,000	5
\$45,000	\$1,500	3
\$50,000	\$1,000	2
\$55,000	\$500	1
\$60,000	\$0	0

Source: Adapted from Baum et al. 2012.

make it more difficult for students, families, and counselors to understand requirements for these programs. As a result, students may be unaware of the eligibility requirements, may not know how much aid is available from these programs, and may be uninformed about the procedures to apply for aid programs. By consolidating state grant programs into simple and easily understood programs, states can reduce this unnecessary information barrier.

Under a consolidated program, states could be more effective in terms of connecting students to financial resources. New York's need-based Tuition Assistance Program (TAP) and Georgia's merit-based HOPE scholarship programs stand out as examples of simple, consolidated strategies that reduce complexity by having easily understood eligibility requirements. These programs can then help students whose enrollment decisions are most constrained by finances by providing larger awards to lower-income students. Table 1 offers an example of how this aid could be allocated, although states should design their own eligibility thresholds according to their unique needs and resources. For instance, states may prefer to follow Minnesota and Missouri's example by setting higher eligibility thresholds that benefit students just beyond the federal Pell Grant eligibility limit (Baum et al. 2012). Regardless of the eligibility threshold, the guiding principle remains: Make aid simple to understand so prospective students can financially and academically plan for college.

## 2. Place Early Awareness at the Center of the Consolidated Aid Program

Simplifying eligibility and consolidating programs are not sufficient to resolve a state's completion challenges, so these innovations should be coupled with early awareness efforts to maximize the impact of aid reform. If state aid programs are simple and easily understood, and students are familiar with the FAFSA requirements early in their educational careers, then students and their families could prepare for college well before the student is ready to enroll. Applying the example from Ohio, states could integrate FAFSA completion into the early intervention efforts. For example, providing resources for families to complete their FAFSAs during tax season or even as part of high school exit exams could be one strategy to help financially prepare for college.

Because most students who are eligible for Free and Reduced Lunch are later eligible for the federal Pell Grant, the national school lunch program could provide an excellent opportunity for early awareness (Heller 2006; Kelchen and Goldrick-Rab 2012). By having simple and broad-based programs, states could provide early notification to help students financially prepare for college as early as middle or high school. Perhaps states could go even further by investing "seed" money into an educational savings account to help students/families financially prepare for college. This would not only target aid to those who are the most constrained by finances, but it could also help develop a college-going culture where the state's youth may see that college is an option far before entering high school (Tierney and Hagedorn 2002; Luna De La Rosa 2006). This early intervention component is a hallmark of Indiana's and Oklahoma's programs, so other states could follow their lead by investing in early commitments to students.

#### 3. Target Aid in Ways that Align with State Completion Goals

By simplifying the eligibility criteria and offering early awareness and early financial aid commitments, states will be able to operate more impactful aid programs. States may find it useful, however, to target aid with their broader completion goals because most states do not include incentives for grant recipients to persist through college. By providing incentives for students to enroll full-time immediately after high school, for instance, the likelihood of completing college also increases (Bozick and DeLuca 2005). For adults who often cannot enroll full-time due to work, aid could be matched with short-term performance targets, such as earning a certain number of credits, as a strategy for encouraging degree completion (Baum et al. 2012).

Aid reforms could follow West Virginia's example by offering performance incentives to encourage students to take more credit hours and to persist until degree completion. Granting students larger financial awards later in their academic careers may be a sufficient incentive to help them make progress toward degree completion. To keep this performance model simple, states could award \$1,000 larger awards for every thirty credit hours completed, up to

120 total credit hours. In this case, raising awareness is not the only important factor in the program's success; rather, having "concrete motivation" is also a critical design element (Scott-Clayton 2012).

An additional way to align aid with college completion is by encouraging more individuals to attend colleges that have a track record of retaining and graduating students. Too often, finances and the ability to pay for college lead students to "under match" with their colleges; as a result, students may make educational decisions based on financial rather than academic criteria (Bowen, Chingos, and McPherson 2009). Massachusetts' merit-based Adams scholarship illustrates this phenomenon, where the financial aid actually induced students to attend lower-cost institutions that have relatively low graduation rates. The probability of graduating on time (i.e., within four years) reduced by more than 40 percent among scholarship recipients attending these colleges (Cohodes and Goodman 2012). Institutions matter in terms of helping students complete their degrees, so it is important for states to not only raise awareness about aid programs but also about the academic requirements, course offerings, institutional resources, and completion rates of colleges. When targeting their aid, states should encourage students to make educational decisions based on academic rather than financial reasons.

## **CONCLUSION**

States have the opportunity to redesign and consolidate existing aid programs that are: (1) simple to understand, (2) provide early awareness, and (3) encourage completion. This brief outlines cost-effective strategies that have been proven to improve educational opportunities and outcomes for students. By moving away from the old "need/merit" aid model and adopting a new model based on effective practices, states may be able to address the challenges of meeting their educational attainment goals.

Although financial aid is a "blunt instrument" for increasing college success, the recommendations outlined in this brief are based on the most recent and rigorous evidence that aid can indeed help students succeed in college (Bettinger 2012). It is noteworthy that some observers question whether state completion goals are even achievable. Considering that college attainment rates have increased modestly (less than 0.5 percent annually) over the past two decades, it may be difficult to meet the ambitious targets that many states have set (Hauptman 2012). Nevertheless, we hope this brief encourages state policy makers to ask "what works?" in terms of leveraging financial aid to meet state educational goals. Thirty-one states have adopted college completion goals and many of the nation's most influential educational philanthropies (e.g., the Bill & Melinda Gates Foundation and Lumina Foundation) and the National

Governor's Association are also supporting state efforts to increase college attainment (Hall and Thomas 2012). By using this momentum as an opportunity for reform, states can leverage aid in ways that build a college-going culture where more individuals will invest in human capital.

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#### REFERENCES

Baum, Sandy, David W. Breneman, Matthew M. Chingos, Ronald G. Ehrenberg, Pamela Fowler, John Hayek, Donald E. Heller, et al. 2012. *Beyond need and merit: Strengthening state grant programs*. Washington, DC: Brown Center on Education Policy at the Brookings Institution.

Bettinger, Eric. 2012. Financial aid: A blunt instrument for increasing degree attainment. In *Getting to graduation: The completion agenda in higher education*, edited by Andrew Kelly and Mark Schneider, pp. 157–74. Baltimore, MD: Johns Hopkins University Press.

Bettinger, Eric, Bridget Terry-Long, Philip Oreopoulos, and Lisa Sanbonmatsu. 2012. The role of application assistance and information in college decisions: Results from the H&R Block FAFSA experiment. *Quarterly Journal of Economics* 127(3): 1205–42. doi:10.1093/qje/qjs017

Bound, John, Michael Lovenheim, and Sarah Turner. 2012. Increasing time to baccalaureate degree in the United States. *Education Finance and Policy* 7(4): 375–424. doi:10.1162/EDFP\_a\_00074

Bowen, William, Matthew Chingos, and Michael McPherson. 2009. *Crossing the finish line: Completing college at America's public universities*. Princeton, NJ: Princeton University Press.

Bozick, Robert, and Stefanie DeLuca. 2005. Better late than never? Delayed enrollment in the high school to college transition. *Social Forces* 84(1): 531–54. doi:10.1353/sof .2005.0089

Carnevale, Anthony, Nicole Smith, and Jeff Strohl. 2010. *Help wanted: Projections of jobs and education requirements through 2018*. Washington, DC: Georgetown University Center on Education and the Workforce.

Castleman, Benjamin, and Bridget Terry-Long. 2012. Looking beyond enrollment: The causal effect of need-based grants on college access, persistence, and graduation. Paper presented at the annual meeting of the Association for Public Policy Analysis and Management, Baltimore, MD, November.

Cohodes, Sarah, and Joshua Goodman. 2012. First degree earns: The impact of college quality on college completion rates. Harvard Kennedy School Faculty Research Working Paper Series number 12–033.

College Board. 2012a. Trends in college pricing 2012. Washington, DC: The College Board.

College Board, 2012b. Trends in student aid 2012. Washington, DC: The College Board.

Cornwell, Christopher, David B. Mustard, and Deepa J. Sridhar. 2006. The enrollment effects of merit-based financial aid: Evidence from Georgia's HOPE program. *Journal of Labor Economics* 24(4): 761–86. doi:10.1086/506485

Curs, Bradley, Larry Singell, and Glen Waddell. 2007. The Pell program at thirty years. In *Higher education: Handbook of theory and research* vol. 22, edited by John C. Smart, pp. 281–334. Dordrecht, Netherlands: Springer. doi:10.1007/978-1-4020-5666-6\_6

Deming, David, and Susan Dynarski. 2010. College aid. In *Targeting investments in children: Fighting poverty when resources are limited*, edited by Phillip Levine and David Zimmerman, pp. 283–302. Chicago, IL: University of Chicago Press. doi:10.7208/chicago/9780226475837.003.0011

Dynarski, Susan. 2003. Does aid matter? Measuring the effect of student aid on college attendance and completion. *American Economic Review* 93(1): 279–88. doi:10.1257/000282803321455287

Dynarski, Susan. 2004a. The new merit aid. In *College choices: The economics of where to go, when to go, and how to pay for it*, edited by Caroline Hoxby, pp. 63–100. Chicago, IL: University of Chicago Press. doi:10.7208/chicago/9780226355375.003.0003

Dynarski, Susan. 2004b. Who benefits from the education saving incentives? Income, educational expectations, and the value of the 529 and Coverdell. NBER Working Paper No. 10470.

Dynarski, Susan. 2008. Building the stock of college-educated labor. *Journal of Human Resources* 43(3): 576–610. doi:10.1353/jhr.2008.0020

Dynarski, Susan, and Judith Scott-Clayton. 2013. Financial aid policy: Lessons from research. NBER Working Paper No. 18710.

Dynarski, Susan, and Mark Wiederspan. 2012. Student aid simplification: Looking back and looking ahead. NBER Working Paper No. 17834.

Governor's Office of Student Achievement. 2011. *Georgia's education report card*, 2010–11: *HOPE scholarship eligibility*. Available http://reportcard2011.gaosa.org/ (Accountability/Report Card/K-12 Public Schools/Indicators). Accessed 2 February 2013.

Hall, Cassie, and Scott Thomas. 2012. Advocacy philanthropy and the public policy agenda: The role of modern foundations in American higher education. Paper presented at the annual meeting of the American Educational Research Association, Vancouver, British Columbia, Canada, April.

Hauptman, Arthur. 2012. Increasing higher education attainment in the United States: Challenges and opportunities. In *Getting to graduation: The completion agenda in higher education*, edited by Andrew Kelly and Mark Schneider, pp. 17–47. Baltimore, MD: Johns Hopkins University Press.

Heller, Donald. 2006. Early commitment of financial aid eligibility. *American Behavioral Scientist* 49(12): 1719–38. doi:10.1177/0002764206289136

Heller, Donald, and Patricia Marin. 2002. Who should we help? The negative social consequences of merit scholarships. Boston, MA: Civil Rights Project at Harvard University.

Horn, Laura, Xianglei Chen, and Chris Chapman. 2003. Getting ready to pay for college: What students and their parents know about the cost of college tuition and what they are doing to find out. Statistical report, 2003–2030. Washington, DC: U.S. Department of Education, NCES.

Kane, Thomas. 2003. A quasi-experimental estimate of the impact of financial aid on college-going. NBER Working Paper No. 9703.

Kane, Thomas, and Cecilia Rouse. 1995. Labor-market returns to two- and four-year college. *American Economic Review* 85(3): 600–14.

Kelchen, Robert, and Sara Goldrick-Rab. 2012. Accelerating college knowledge: Examining the feasibility of a targeted early commitment Pell Grant program. LaFollette School Working Paper Series No. 2012–014, University of Wisconsin-Madison.

Leslie, Larry, and Paul Brinkman. 1987. Student price response in higher education: The student demand studies. *Journal of Higher Education* 2(58): 181–204. doi:10.2307/1981241

Luna De La Rosa, Mari. 2006. Is opportunity knocking? Low-income students' perceptions of college and financial aid. *American Behavioral Scientist* 49(12): 1670–86. doi:10.1177/0002764206289139

National Association of State Student Grant and Aid Programs (NASSGAP). 2012.  $42^{nd}$  annual survey report on state-sponsored student financial aid, 2010–2011 academic year. Washington, DC: NASSGAP.

Patel, Reshma, and Timothy Rudd. 2012. Can scholarships alone help students succeed? Lessons from two New York City community colleges. New York: MDRC.

Paulsen, Michael. 2001. The economics of human capital and investment in higher education. In *The finance of higher education: Theory, research, policy and practice*, edited by Michael Paulsen and John C. Smart, pp. 55–94. New York: Algora Publishing.

Pew Research Center. 2012. *The lost decade of the middle class: Fewer, poorer, gloomier.* Washington, DC: Pew Social & Demographic Trends.

Scott-Clayton, Judith. 2011a. On money and motivation: A quasi-experimental analysis of financial incentives for college achievement. *Journal of Human Resources* 46(3): 614–46. doi:10.1353/jhr.2011.0013

Scott-Clayton, Judith. 2011b. The causal effect of federal work-study participation: Quasi-experimental evidence from West Virginia. *Educational Evaluation and Policy Analysis* 33(4): 506–27. doi:10.3102/0162373711421211

Scott-Clayton, Judith. 2012. Information constraints and financial aid policy. NBER Working Paper No. 17811.

Scrivener, Susan, and Erin Coghlan. 2011. Opening doors to student success: A synthesis of findings from an evaluation at six community colleges. New York: MDRC.

Scrivener, Susan, Dan Bloom, Allen LeBlanc, Christina Paxson, Cecilia Rouse, and Colleen Sommo. 2008. A good start: Two-year effects of a freshman learning community program at Kingsborough Community College. New York: MDRC.

St. John, Edward, Glenda Musoba, Ada Simmons, Choong-Geun Chung, Jack Schmit, and Chao-Ying Peng. 2004. Meeting the access challenge: An examination of Indiana's Twenty-First Century Scholars program. *Research in Higher Education* 45(8): 829–71. doi:10.1007/S11162-004-5951-1

Tierney, William, and Linda Hagedorn. 2002. Increasing access to college: Extending possibilities for all students. New York: SUNY Press.

Western Interstate Commission for Higher Education (WICHE). 2012. *Knocking at the college door: Projections of high school graduates*. Boulder, CO: WICHE.

U.S. Census Bureau. 2012. Educational attainment in the United States. Washington, DC: U.S. Department of Commerce.

Zumeta, William, David Breneman, Patrick Callan, and Joni Finney. 2012. *Financing American higher education in the era of globalization*. Cambridge, MA: Harvard University Press.