May Council Committee Agenda

Committee for Funding and Affordability (CFA)

The Committee for Funding and Affordability will address issues related to state funding policy, tuition policy, student financial aid, and college savings. This includes the three Roadmap actions below.

Action Items:	Upcoming Scheduled Meeting Times
• **Make college affordable.**	Mon, January 27 – 2:30 to 4 p.m.
• **Ensure cost is not a barrier for low income students.**	Mon, March 24 -9 to 10:30 a.m.
• Help students and families save for postsecondary education.	**Mon, May 19 - 9 to 10:30 a.m.**
STAKEHOLDER MEMBERS Tom Fitzsimmons (ICW) Tom@icwashington.org Devon Crouch Devon@ICWashington.org JoLynn Berge (OSPI) jolynn.berge@k12.wa.us T.J. Kelly (OSPI) Thomas.Kelly@k12.wa.us Eleni Papadakis (WTB) EPapadakis@wtb.wa.gov Nova Gattman (WTB) nova.gattman@wtb.wa.gov Justin Montermini (WTB) Justin.montermini@wtb.wa.gov Cody Eccles (COP) ceccles@cop.wsu.edu Paul Francis (COP) PFrancis@cop.wsu.edu Denise Graham (SBCTC) dgraham@sbctc.edu Jayme Shoun (student voice) aswsuv.dla@vancouver.wsu.edu Brian McQuay (student voice) briandmcquayjr@yahoo.com	Wed, July 9 - 9 to 10:30 a.m. Wed, September 17 - 9 to 10:30 a.m. Wed, October 29 - 9 to 10:30 a.m. LOCATION OF MEETINGS: WSAC Offices WSAC MEMBERS Paul, Marty, Karen, Maud **Staff: Marc Webster**, Rachelle, Christy

May 19th Meeting Agenda:

- Review Our Charge: The 2014 Strategic Action Plan
  - Need Grant review and request for funding
  - Funding policy
- Review Discussion from March: Shared Responsibility Model?
- Review the Financial Aid Landscape
  - Federal Aid
  - State Aid
  - Private Scholarships/Tuition Reimbursement
  - Institutional Aid
    - Public Baccalauretes
    - Community and Technical Colleges
    - ICW Institutions
- What is the combined state effort in funding higher education? What does it buy?
- How do we marry aid policy and institutional funding to create an aligned system?
- What incentives can we create to ensure equity and quality?
- Next Steps

WASHINGTON STUDENT ACHIEVEMENT COUNCIL
EDUCATION · OPPORTUNITY · RESULTS

WASHINGTON OPPORTUNITY PATHWAYS : An Overview of State Financial Aid Programs Administered by WSAC

WASHINGTON OPPORTUNITY PATHWAYS

Status	Category	Program	Purpose	Student Eligibility	2014-15 Appropriation	2014-15 Estimated Students Served	Estimated Average Award	Key Issues
Active	Need - Based	**State Need Grant**	Assists lowest-income students to offset rising tuition costs. Provides access and supports degree completion.	Resident undergraduates, MFI at or below 70% of WA median, or $57,500 for a family of 4.	$308M	75,150	$4,100	30% of eligible students unserved Expansion of eligibility to "1079" 2014 WSAC SNG Review
		College Bound Scholarship	Early commitment of state financial aid resources to middle school students from low-income families to improve high school graduation and college enrollment rates.	Resident 7th or 8th grade students eligible for free and reduced price lunch; graduate high school with a 2.0 GPA; MFI at or below 65% of MFI at college enrollment.	$24M	8,700	$2,750	2014 Legislative Workgroup Coordination with State Need Grant
		State Work Study	Provides work opportunities to students to pay for college costs and develop skills and leverages employer contributions.	Resident undergraduate and graduate students with need.	$7.8M	4,750	$2,800	Earnings anticipated to be $13 M with employer match
		Passport to College for Foster Youth	Assists former foster youth with grant assistnace and provides student support services.	Foster youth who emancipated at age 18 having spent at least one year in care.	$2.2M	400	$4,500	Conducting external evaluation
	Work Force	**Aerospace Loan Program**	Provides low-interest loans to students in short certificate aerospace training programs.	Training program students with demonstrated inability to pay full program cost.	$1.25M	250	$5,000	Aerospace enrollments and loan applications declined
		Alternative Routes to Teaching	Provides assistance to educational professionals pursuing teaching credentials in shortage subjects.(Administered by PESB)	Educational professionals pursuing teaching credentials in shortage subjects.	$.1 M	20	$8,000 max	
		Health Professional Loan Repayment/ Scholarship Program	Provides loan repayment or conditional scholarships to students willing to serve as providers in healthcare professional shortage areas.	Students/providers committed to serving in critical shortage areas.	$.53 M	34	$15,000-$70,000	State appropriation is match to federal program dollars. State only program dollars suspended.

Other Activities:

theWashBoard.org
Opportunity Scholarship - (Administered by College Success Foundation).
American Indian Endowed Scholarship

Authorized not funded:

Higher Education Loan Program
Transfer Enhanced Grant-SNG (formerly EOG)

WASHINGTON STUDENT ACHIEVEMENT COUNCIL
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WASHINGTON OPPORTUNITY PATHWAYS : An Overview of State Financial Aid Programs Administered by WSAC

WASHINGTON OPPORTUNITY PATHWAYS

Status	Category	Program	Purpose	Student Eligibility	2014-15 Appropriation	2014-15 Estimated Students Served	Estimated Average Award	Key Issues
Suspended for New Recipients	Merit	**Washington Scholars**	Provides four-year scholarships to retain Washington's top high school students in-state.	Top 1% of graduating class per legislative District.	99,000	10	$9,900	Suspension - new scholars selected but not provided scholarship.
		Washington Award for Vocational Excellence	Provides two-year scholarships for outstanding vocational students from each legislative district.	High school and community college students pursuing vocational degree programs.	150,000	25	$6,000	Suspension
	Work Force	**Future Teachers Conditional Scholarship**	Provides conditional scholarship or loan repayments for students pursuing or in high demand teaching fields	Students pursuing high demand teaching fields.	$0	3	$5,600	Suspension
		Get Ready For Math and Science	Provides conditional loans for a cohort of students who major in math or science and work a related field in-state.	High school graduates who excel in math and science.	$0	95	$9,600	Suspension
Active	Pass -Through Funding	**College Assistance Migrant Program**	Funding to institutions that provide educational services to migrant and seasonal farm worker families.	N/A	$25,000	N/A	N/A	
		Child Care Matching Grants	Funding to public 4-year institutions to support child care services for enrolled students.	N/A	$75,000	N/A	N/A	
		Leadership 1000	Matches private scholarsdhip donors with low-income students and provides support services (Administered by The College Success Foundation).	varies by scholarship	$1.5M	166	$5,000	
		State Expanded GEAR UP	Supports school districts to prepare students for postsecondary educaiton.	N/A	$1M	N/A	N/A	
		WICHE Professional Student Exchange	Membership to a 15-state compact to share resources and activities.	N/A	$.13M	N/A	N/A	Conditional scholarship in optometry and osetopathy suspended

WASHINGTON STUDENT ACHIEVEMENT COUNCIL

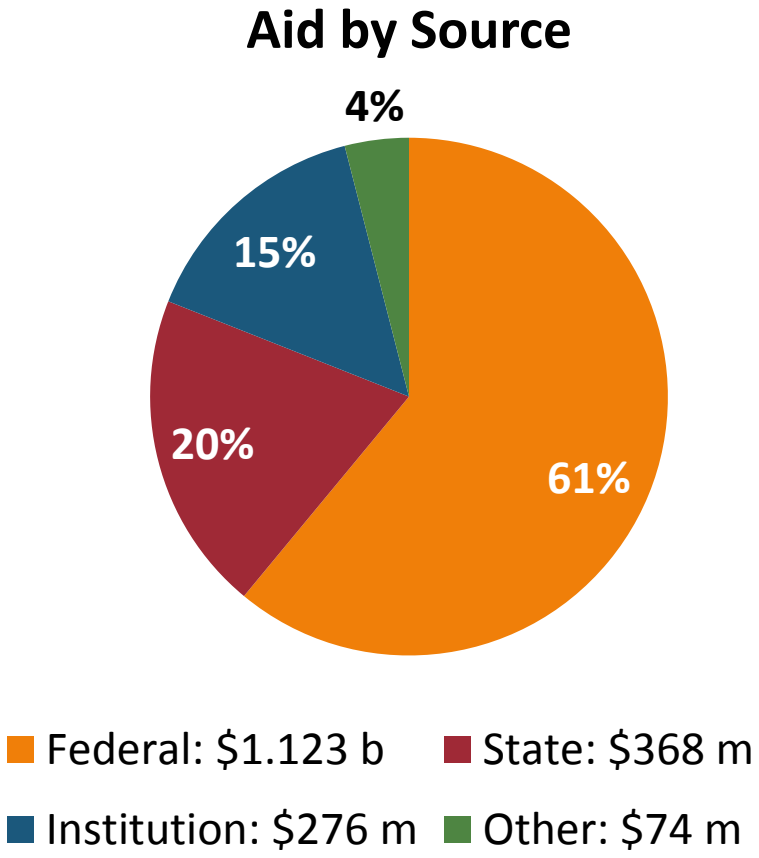
EDUCATION · OPPORTUNITY · RESULTS

Committee for Funding and Affordability

May 19, 2014

Most Undergraduate Aid is Federal

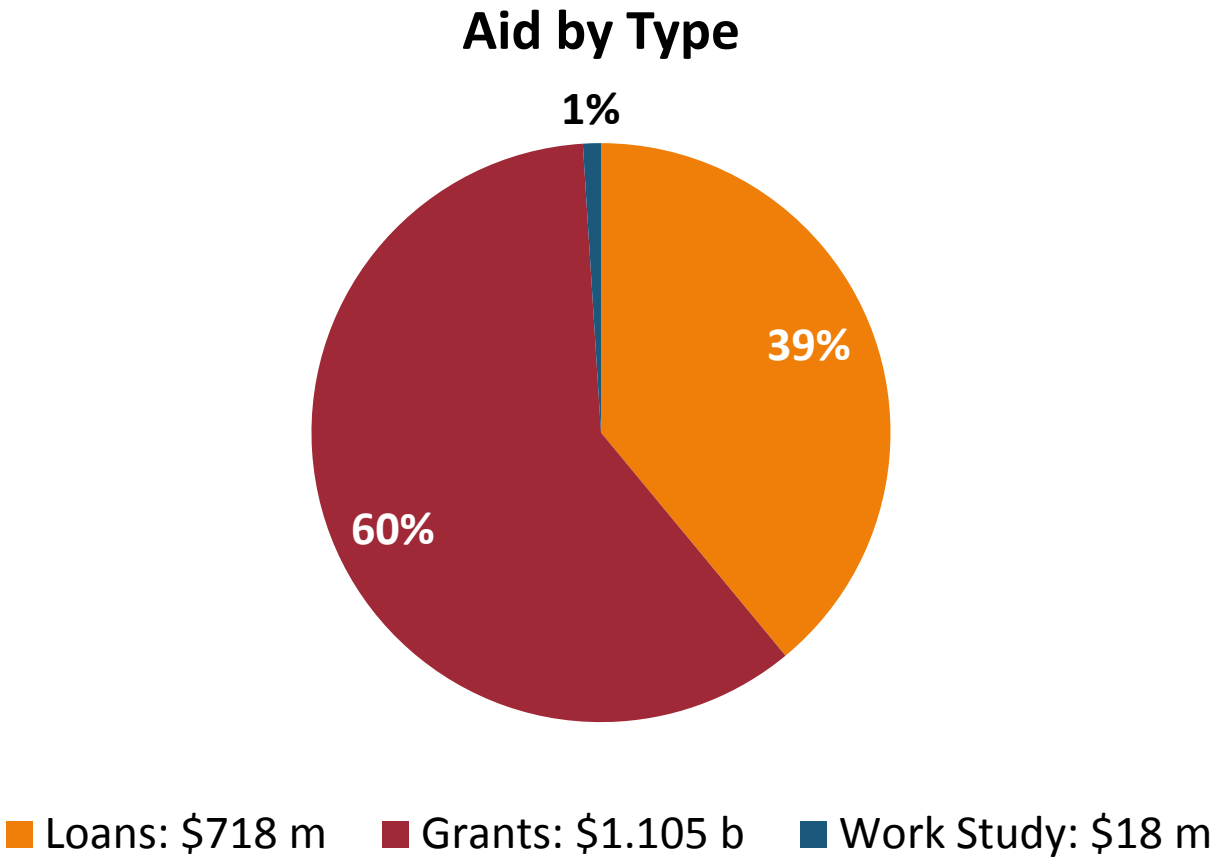
$1.841 billion in aid to 161,085 students



Washington Student Achievement Council. *2012-13 Unit Record Report.* [WA resident undergraduate need-based recipients].

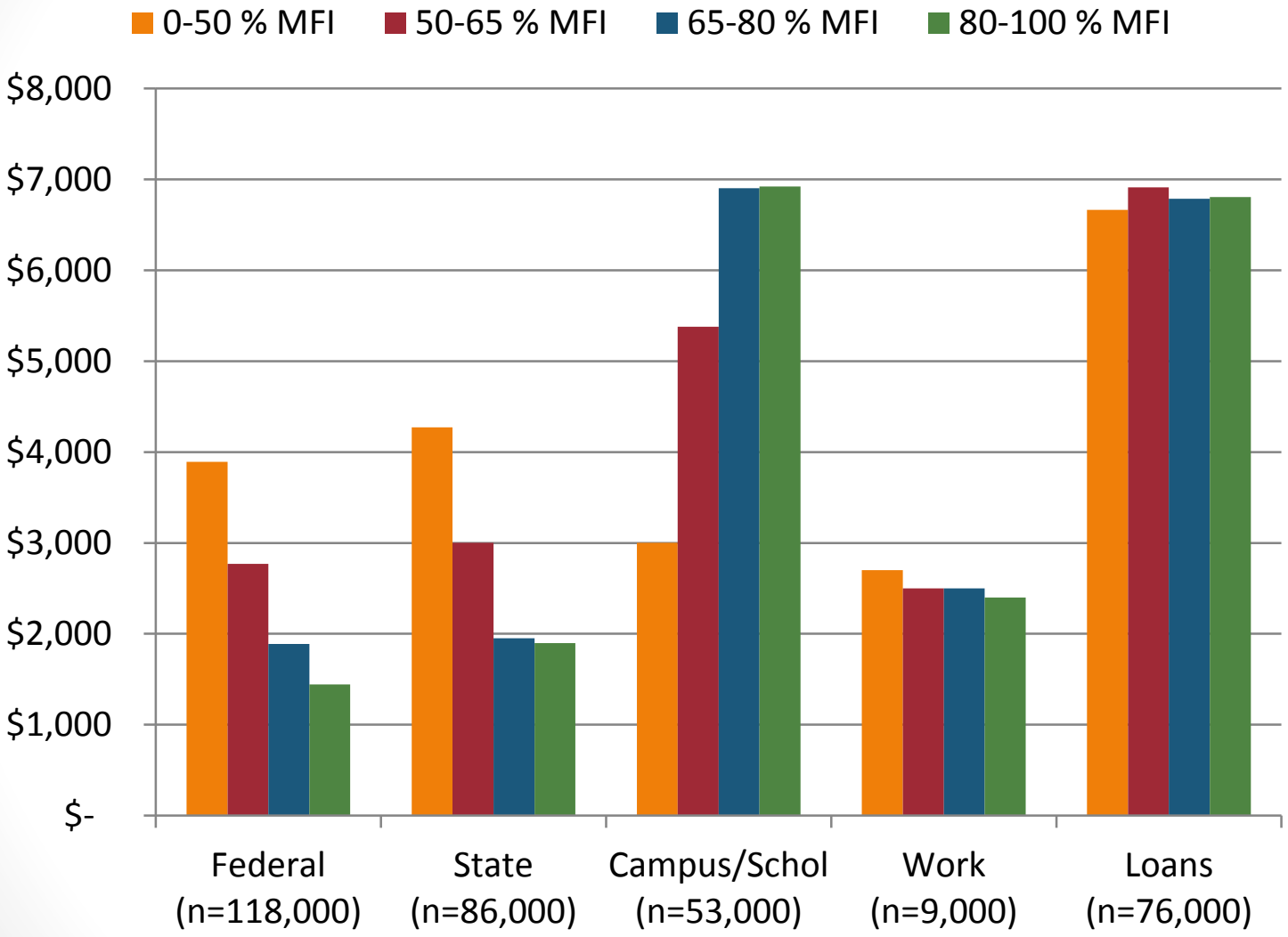
Most Undergraduate Aid is in Grants

$1.841 billion in aid to 161,085 students



Washington Student Achievement Council. *2012-13 Unit Record Report.* [WA resident undergraduate need-based recipients].

Aid by Median Family Income (MFI)



Washington Student Achievement Council. *2012-13 Unit Record Report.* [WA resident undergraduate need-based recipients, loans without PLUS].

Federal Student Aid in WA

	Students	Total	Average
Pell Grants	128,500	$456,260,353	$3,550
Supplemental Educational Opportunity Grant	30,110	$15,993,436	$531
Teach Grant	446	$1,548,765	$3,472
Federal Work Study	8,673	$18,339,099	$2,114
Stafford Loans	109,488	$796,345,608	$7,273
Parent Loans (PLUS) and Grad PLUS Loans	13,145	$197,206,101	$15,002
Perkins Loans	15,042	$23,496,877	$1,562
Total	**172,913**	**$1,509,190,239**	**$8,728**

Washington Student Achievement Council. *2012-13 Unit Record Report.* [Need-based recipients including non-residents and graduate students].

Federal Grant Eligibility

Pell Grant

- Awards up to $5,645
- Undergraduates
- Based on EFC (0 to about $5,000)
- Reduced for part-time students
- No more than six years
- Awarded to all eligible students

Supplemental Education Opportunity Grant

- Awards up to $5,000
- Priority to Pell recipients
- Institutions receive allocations based on "fair share" formula

Other Federal Program Eligibility

Teach Grant

- Awards up to $4,000
- Sign an agreement
  - Teach in high need field for four years
  - Or converts to federal loan

Federal Work Study

- Need-based
- Part-time employment
- Limited appropriation

Institutional Aid

- Includes scholarships, grants, and tuition waivers.
- Institutional work study and loans offered by some campuses.
- Can be based on need or merit.

Institutional Aid

- Public institutions required to return portion of tuition revenue to students as need-based aid (3.5% at two-year colleges and 4% at four-year institutions).
- Public institution waivers (mandatory, state-supported, discretionary, and space available) – see www.councilofpresidents.org and www.sbctc.ctc.edu.
- Private institutions provide significant institutional aid, both need-based and merit.

Primary State Aid Programs

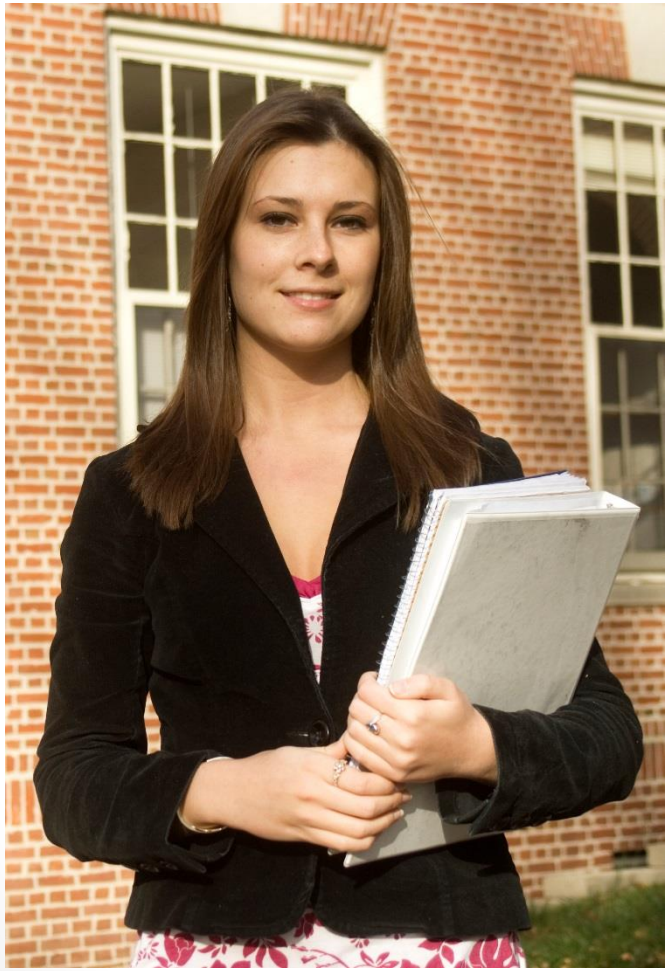
for resident, undergraduate students with financial need

	FY 2015	Est. Students
State Need Grant	$303,120,090	74,000
Up to 70% median family income		
College Bound Scholarship	$21,509,000	12,000
CBS applicants - up to 65% median family income		
SBCTC Opportunity Grant	$12,500,000	5,000
Enrolled in high demand fields		
State Work Study	$7,834,524	5,000
Job placement		
Passport to College	$2,236,000	400
Former foster youth		

theWashBoard.org

- Launched in January 2010 to help Washington students find more relevant scholarship opportunities.
- More than $35 million offered in scholarships via the site.
- Over 181,000 seekers and 275 providers using the tool.

Work Study: Federal & State



- Need-based program – both undergraduate and graduate students are eligible.
- Requires positions that relate to students' academic and career interests whenever possible.
- Employers provide matching funds that leverage state assistance to working students.
- Federal program larger and requires community service and literacy placements.

Questions?

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WICHE
Western Interstate Commission
for Higher Education

States in the Driver's Seat: *Leveraging State Aid to Align Policies and Promote Access, Success, and Affordability*

by
Brian T. Prescott and
David A. Longanecker

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www wiche.edu

Western Interstate Commission for Higher Education

The Western Interstate Commission for Higher Education (WICHE) is a public, interstate agency established to promote and facilitate resource sharing, collaboration, and cooperative planning among the Western states and territories and their colleges and universities. Members are:

Alaska	Montana	Utah
Arizona	Nevada	Washington
California	New Mexico	Wyoming
Colorado	North Dakota	U.S. Pacific territories and freely associated states*
Hawai'i	Oregon	
Idaho	South Dakota	

WICHE's broad objectives are to:

- Strengthen educational opportunities for students through expanded access to programs.
- Assist policymakers in dealing with higher education and human resource issues through research and analysis.
- Foster cooperative planning, especially that which targets the sharing of resources.

This publication was prepared by the Policy Analysis and Research Unit, which is involved in the research, analysis, and reporting of information on public policy issues of concern in the WICHE states.

*The U.S. Pacific territories and freely associated states includes three U.S. Pacific territories – American Samoa, the Commonwealth of the Northern Mariana Islands, and Guam – and three freely associated states – Marshall Islands, Federated States of Micronesia, and Palau. They join as a single member, with each territory and state electing individually to participate actively in the commission when it sees fit. The Commonwealth of the Northern Mariana Islands (CNMI) is the first of the group to participate.

March 2014
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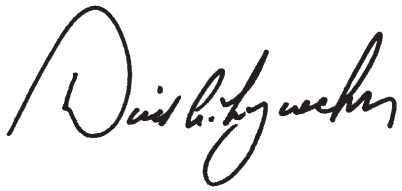
This paper is one in a series of reports funded by Lumina Foundation. The series is designed to generate innovative ideas for improving the ways in which postsecondary education is paid for in this country – by students, states, institutions and the federal government – in order to make higher education more affordable and more equitable. The views expressed in this paper – and all papers in this series – are those of its author(s) and do not necessarily reflect the views of Lumina Foundation.

Foreword

We all know the mantra: because education is not included as a federal responsibility in the U.S. Constitution, the primary responsibility for assuring educational opportunity is reserved to the states. Yet, at least with respect to one aspect of higher education – student financial assistance – most states have not historically fully realized or accepted this responsibility. Only about 12 states have invested substantially in need-based financial aid, another few have become infatuated with merit-based aid, but most of these efforts appear better designed for the twentieth century than for the twenty-first.

If states truly want to provide a just and economically vibrant society, they must begin driving financial aid policy, just as much as they drive institutional appropriations and tuition policy. This paper presents a way of doing so, but within the context of the "new normal" financial circumstances of the twenty-first century. States simply can't afford to pursue the policies that bought us half a loaf of student success in past times; we have to achieve much higher levels of student success in the new era, which will require thinking differently about the way students, their families, institutions, states, and the federal government work in sync to achieve both the public good and private benefit. This paper builds on the forward thinking of Minnesota, Oregon, and Idaho in developing a shared responsibility concept that expects all partners to contribute what they reasonably can, and by doing so create a financing system that is cost effective, affordable to all partners, and designed explicitly for enhancing student success.



David A. Longanecker
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March 18, 2014

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Executive Summary

With increasingly widespread calls to raise educational attainment levels without substantially growing public investment in higher education, policymakers and others have devoted growing attention to the role of financial aid programs in providing access to, promoting affordability for, and incentivizing success in college. Given relative levels of investment, most of that focus has been on federal financial aid programs. But for students enrolled in higher education, the vast majority of whom attend public institutions, the impact of federal aid policies is filtered through finance policies enacted at the state level. The wide differences in financing strategies among states mean that states ultimately determine to a great extent how college opportunities are distributed, costs are affordable, and students are successful.

This concept paper takes a closer look at state financial aid programs and how they are uniquely well-positioned to address many of the financial challenges in college access, success, and affordability that stand in the way of achieving educational attainment goals. It advances a framework for the distribution of aid that is efficient with scarce public funds, encourages students to make progress and succeed, promotes institutional behaviors that are aligned with public needs and expectations, and integrates state policies with federal and institutional policies and practices. Informed by a set of guiding principles, the paper makes the following policy proposals:

1. **States can adopt a Shared Responsibility Model (SRM) as the framework for determining the eligibility for a state grant, as well as the amount of the grant.**

   The SRM is an approach to determining aid eligibility and award amounts that divides up a student's cost of attendance among key partners including: the student, his or her family, the federal government, the state government, and the institution. In so doing, it helps states make their policies on institutional appropriations, tuition-setting, and financial aid work together to ensure access and affordability for state residents. It also offers a framework for rationing scarce public funds in a manner consistent with state goals around educational attainment. Finally, it gives students and their families essential information about how to make a college education affordable.

2. **States can encourage well-designed, state-supported programs to assist students in meeting their student contribution.**

   In adapting an SRM-based approach to distributing state aid, states are expecting a significant financial commitment from students. They can help students fulfill their commitment most effectively if they also consider how work-based learning programs – like co-operative education, paid internships, and work/study programs – might help students earn money while enhancing their academic experiences at the same time.

3. **States can embed demand-side incentives that promote student success.**

   Incentives that encourage students who receive state grants to proceed as rapidly as possible through college are among the tools states can employ in their grant aid design. For instance, renewal of a state grant may be conditioned upon forward-looking merit criteria, such as basing award levels on the number of credits attempted and passed during the preceding academic term or year. States with established merit programs may be able to creatively integrate those programs in ways that preserve the incentives for students while simultaneously using the SRM approach to provide grant funding where it reaches students whose decisions are most influenced by that funding.

4. **States can embed supply-side incentives that ensure that institutions share in both the risk and rewards of student success.**

   Adopting a set of supply-side incentives explicitly ties together the state's investment in needy students and its interest in the successful completion of target student populations. Such incentives should take the form of shared risks and rewards, through which institutions can expect to share in the rewards when the aid recipients in their care are successful, but stand to suffer a loss when they are unsuccessful.

5. **States can leverage grant aid programs to encourage institutional aid expenditures that are aligned with state goals for student success, affordability, transparency, and predictability.**

In 2012-13, institutions collectively provided $44.4 billion in grants to students, an amount more than four times greater than the total grant aid provided by states.[1] To help ensure that those dollars are spent in ways that best advance the public's interest in educational attainment, states can require institutions to contribute towards meeting state-grant-supported students' costs of attendance as a condition for participating in the state grant program. Such a provision would need to account for institutions' differing capacity to make their own awards.

6. **The federal government can recommit to its historic partnership with states in promoting well-designed grant programs through a contemporary LEAP program.**

   One of the casualties of the recent economic recession was a federal policy known as the Leveraging Educational Assistance Partnership (LEAP) program, which incentivized states to operate their own need-based grant programs. Given LEAP's historic role in encouraging states to create need-based aid programs, even if its effectiveness had declined in recent years, a more contemporary federal-state partnership program can prompt a new wave of state financial aid redesign efforts. Under such a policy, the federal government might provide funds to states not for simply maintaining a relatively modest need-based aid program as the old LEAP did, but would distribute support to states based on how well students are able to afford their costs of attendance. By generating a competition among states with affordability as the target, the policy could potentially serve to help keep rising tuition prices in check, an idea that merits further examination.

7. **States can ensure that their grant programs include an expectation that standards of academic quality are maintained.**

   Such a commitment is foundational to the integrity of higher education, but it becomes important to monitor and evaluate this since these policy proposals include incentives aimed at institutions that benefit directly from the success of their aided students.

8. **States can require that their financial aid programs are systematically evaluated.**

   As with any substantial subsidy program, states should think about how to evaluate the success or failure of the program as they are designing it, and states should require institutions that participate in their grant aid program to submit unit-level records on all their students, not just on those who receive state grants.

Getting the alignment of subsidies right is essential to our ability to achieve national and state educational attainment goals. Since much of the systematic variation in how higher education is financed results from state policy, states are in the driver's seat to foster better alignment. State grant aid programs are particularly well suited to achieve alignment between appropriations, tuition, and financial aid policies and to consider the relative contributions that key stakeholders must make in funding a student's college education. Those key partners are the students themselves, their families, the federal government, the state, and the institutions. A grant program that establishes the expectations for each stakeholder offers a state a clear conceptual framework for making policy choices about funding higher education. An especially well-designed model will include incentives aimed at students to be prepared for college and to accelerate their progress toward their educational goals. It also will create conditions for institutions to double-down on the state's investment in grant-aided students to better attend to and promote student success and to more effectively target their own discretionary resources to enhance affordability for those for whom it matters most. Finally, the federal government can create incentives for states to invest in grant aid programs aligned with national educational attainment goals in a way that respects the autonomy of and the wide disparities among states, and doing so in a way that leverages the federal investment to dampen the rise in college prices.

Notes

[1] National Association of State Student Grant and Aid Programs (NASSGAP), *43rd Annual Survey Report on State-Sponsored Student Financial Aid*, 2013 <http://www.nassgap.org/viewrepository.aspx?categoryID=3#collapse_351>; Sandy Baum and Kathleen Payea, *Trends in Student Aid* (New York, NY: The College Board, 2013).

States in the Driver's Seat:
Leveraging State Aid to Align Policies and Promote Access, Success, and Affordability

by Brian T. Prescott and David A. Longanecker

The higher education community sits at a critical juncture in its history. As never before, it is facing pressure emanating from increased demands to raise completion rates, keep costs in check and prices within affordable reach, and turn out graduates with skills aligned for a globalized knowledge economy, all while accommodating changing demographics and under fiscal duress in the wake of the 2008 recession. Driven by the need to spur higher levels of education attainment across the nation and the fact that college expenses are a significant barrier to that goal, there has been increased attention on the role of financial aid programs in providing access to, promoting affordability for, and incentivizing success in college. Given relative levels of investment, most of that focus has been on federal financial aid programs and how they can be made more efficient, propel more student success, achieve greater alignment with available resources and society's needs, and help contain costs. But for students enrolled in higher education, the vast majority of whom attend public institutions, the impact of federal aid policies is filtered through finance policies enacted at the state level. The wide differences in financing strategies among states mean that states ultimately determine to a great extent how college opportunities are distributed, costs are affordable, and students are successful.

Direct appropriations to institutions and published tuition levels established at state colleges and universities are perhaps the most contested state-level higher education policies. Meanwhile, state-funded aid programs seldom receive the same level of attention, except perhaps where programs disproportionately benefit members of an especially vocal – and relatively advantaged – segment of the electorate, like the HOPE Scholarship in Georgia. With so much hinging on states' abilities to ramp up educational attainment, especially among underserved populations, this is an opportune time for states to review their own aid programs. Are the programs effective and efficient? Are they appropriately motivating student populations, like low-income, first-generation, and adult learners, to enroll and to succeed in college? Are they aligned with state and national aspirations to produce well-educated citizens and productive workers? Questions such as these may lead policymakers to consider changes to existing policies, or undertake a more wholesale study of the interaction of state higher education finance strategies.

This concept paper is directed to policymakers who are considering a redesign of state aid programs so that the state's finance policies are aligned and aimed at improving educational attainment. It will argue that state financial aid programs are well-positioned to address many of the financial challenges in college access, success, and affordability that stand in the way of achieving educational attainment goals. After providing an overview of the landscape of state aid programs and a brief review of the evidence concerning the role that financial aid plays in promoting access and success, the paper will offer a set of "core principles" to guide redesign efforts. Next, it will provide a set of specific policy proposals that advance a framework for the distribution of aid that are consistent with those core principles. To a great extent, the proposals are tied to an approach known as the Shared Responsibility Model (SRM), in which a student's costs of attendance are met through the contributions of five key partners: the student, the student's family, the federal government, the state, and the institution. The SRM also provides a framework to help a state intentionally manage the interaction of direct appropriations and tuition charges with financial aid, while offering integration points with federal, state, and institutional policies. Particularly important, and an underutilized aspect of state aid, are components that explicitly define or incentivize commitments of institutional aid dollars in ways that are more evident to policymakers and students and are in keeping with state attainment goals.

An Overview of the Landscape of State Financial Aid Programs

A well-recognized truism in America's federated system of government is that states are often considered the "laboratories of democracy." Without the same kind of policy calcification that is often evident

in federal policy or the universal impact of federal policies, states enjoy greater flexibility to conduct "experiments" that seek to solve public policy problems common across the nation. This flexibility is apparent in how states have evolved diverse approaches to financing their higher education investments, and perhaps nowhere is the variation more evident than in the wide array of state-funded financial aid programs.

Yet as states and higher education institutions are called on to spearhead substantial improvements in the educational attainment of their populations, state financial aid programs have been largely unexamined in comparison to the attention showered on other higher education finance policies, especially state appropriations, tuition levels, the Pell Grant, and student loans. This is largely because the total funding that comes from states through student aid is relatively small when compared to state appropriations and federal financial aid programs. In 2011-12, for instance, states collectively supplied $13 billion in financial aid programs, mostly grants, much less than the $179 billion the federal government made available in grants, loans, and tax credits.[2]

A second reason for state financial aid programs' relative anonymity is that only a handful of states account for the vast majority of state aid. Just eight – California, Illinois, New Jersey, New York, North Carolina, Pennsylvania, Texas, and Washington – together accounted for 70 percent of total state aid distributed based on financial need.[3] Other states like Georgia, Florida, and South Carolina have made substantial commitments to merit-based aid programs. The aid policy in these states is certainly a high priority, and their signature programs command most of the attention the nation gives to state financial aid programs. Witness the coverage given to Georgia's HOPE Scholarship whenever it runs short of money and struggles to ration its limited resources, without eroding the bold commitment that it makes to students based on their performance in high school. For most of the remaining states, however, and even for many of the need-based programs that rely on less rigid eligibility criteria, the conversations about state aid programs seldom extend beyond provincial concerns that receive little attention outside – and sometimes even inside – the state. Indeed, a few states' experience with running their own grant program is relatively recent, such as in South Dakota. Such relatively small-scale programs sometimes amount to little more than budget dust hemmed in by fiscal constraints and competing priorities. At any rate, the variation in program design and funding levels stand in the way of a coherent and comprehensive national conversation about state financial aid programs.

A third reason that state financial aid fails to command much attention is due to the variety of program designs that exist, both across states and within them. Two of the largest programs exemplify opposite ends of this variability: Georgia is widely known for its HOPE Scholarship, which awards grants based entirely on merit criteria, while Massachusetts's principal program (MassGrant) provides funds to students based on financial need and – unusual among state grant programs – allows its recipients to use their grants at institutions in neighboring states. But that is just the beginning. For example, MassGrant is just one of 38 separate aid programs displayed on the Massachusetts Department of Higher Education's website.[4] Among the others are grants that award funds based on merit criteria, other grants and tuition waivers based on need, a student loan program, a work/study program, a scholarship targeting students who enroll in a specific program of study, a performance-based scholarship pilot program, and workforce-contingent aid programs aimed at encouraging students to commit to working in a high-demand area following graduation. Massachusetts may stand out with the diversity of its financial aid program "menu," but most states have multiple programs. This variety is often the result of accretion over time. A state sees a narrow need it decides to address with an aid program supported with a modest amount of money. Not infrequently, a program gets named to honor its principal champion or some other worthy individual, a development that may help give the program a life of its own regardless of how much funding is behind it. This variety makes it difficult to talk coherently about state financial aid as a whole.

This relative lack of attention is unfortunate because, at least among the public institutions that educate about 75 percent of all undergraduates across the nation,[5] states vary considerably in the approaches they take to higher education finance.[6] At one level or another, even if they have delegated the authority,

states control the amount of money they appropriate directly to institutions, tuition levels established at those institutions, and the amount and distribution of state financial aid dollars. These three tools – Appropriations, Tuition, and Financial Aid, collectively referred to as ATFA – are "rarely considered by states as an integrated whole" and, of the three, "financial aid is generally the afterthought, if it is a thought at all."[7] Instead, states routinely focus their attention first on direct appropriations and second, spurred along by media attention on the rising price of college, on tuition.[8] A better approach would be to align finance policies toward the pursuit of state goals, namely, increased educational attainment.

The time has come for a more robust and comprehensive look at the role that state financial aid currently plays. There appears to be no way in which old commitments to low-tuition, exemplified by the California Master Plan, can be regenerated. That is part of a funding paradigm whose day has passed no matter how fondly we remember it, in an era in which the appetite for substantial government programs is shrinking even as demographic change and other factors fuel competing fiscal pressures like Medicaid and pensions on limited state budgets. Combined with an explosion of demand not fully matched by corresponding increases in institutional appropriations, the result has been that the cost burden for funding higher education has shifted dramatically to tuition payers. Changes in demography and in the sources of enrollment demand also augur for significant policy modifications. Students seeking higher education in the coming years will increasingly come from underrepresented racial and ethnic populations that generally have less money of their own.[9] And, especially in the wake of the economic recession, more students are adult learners. Yet most financial aid programs are built for dependent students attending a single campus.

In these conditions, state financial aid is especially well-suited to help unravel the challenges of access and success that individual students, institutions, and the policy environment collectively face. Even though the federal Pell Grant program is well-targeted on those that most need funding to attend college, its uniform application across states (and including private institutions) means that federal student aid policies – including loans and tax credits and deductions – largely ignore variation that results from the peculiarities of state history, priorities, goals, and funding approaches. That leaves the massive federal investment in student financial support mostly incapable of addressing those differences.[10] Meanwhile, aid provided by institutions has its own problems. Institutional aid is generally opaque to prospective students. It is dependent first on an institution's admissions policies and practices and then on which students eventually enroll. Finally, some institutions have much greater capacity to provide aid from their own wealth than others, and generally those institutions with the greatest wealth enroll a lower proportion of needy students. While no panacea, a state grant program is uniquely positioned to mediate the difficulties of aligning access to financial support for those who most need it with the reality of wide variation in the costs of attendance that students face.

The Effects of Price and Aid on Student Access and Success

We better understand how tuition and financial aid affects students' participation decisions than how those factors influence their ability to persist and eventually attain a degree or certificate. There is a broad consensus and substantial evidence, for instance, that students from low-income backgrounds are much more likely to be sensitive to changes in price or aid than are their wealthier peers.[11] It is also apparent that an increase in published tuition price has more negative effect on student participation than an identical increase in grant aid spurs participation, since published price may be a more easily understood indicator of cost, even if a majority of students do not pay the full amount.[12] Most of the focus of the price sensitivity research has been on federal aid programs; the impact of specific state aid programs has been less systematically studied, though the examples that do exist generally produce similar findings.[13]

More recently as college completion has come to the fore, researchers have begun looking into whether financial aid affects the success of aided students. This research is complicated by the fact that few grant aid programs include an expectation of student progress or completion as a significant element in their design and because the effects of a financial aid program's impact on students' success is somewhat harder to distinguish from other characteristics related to persistence. In other words, most federal and

state grant aid programs are aimed at trying to reduce financial barriers for needy students to attend college, or to reward students who perform well academically in high school. But state aid programs frequently are silent about whether a student must complete a degree or certificate, beyond specifying a limit for which a student may remain eligible for the program or requiring adherence to a vague standard of "satisfactory academic progress." While such a limit may be an inducement for students to complete their studies more quickly, it is at best a weak incentive for a student to persist. More common are merit-based programs that expect students to maintain a minimum grade point average to renew their award, but these provisions seem to be aimed less at encouraging student progress toward a degree than about ensuring that recipients are held to a performance standard akin to the one for which they became eligible for the award in the first place. In any case, improvements in student success are the result of many intentional efforts and increased focus on the part of institutions and policymakers. But like the evidence on participation, grants appear to have a positive effect on persistence, and they are far more likely to make a difference in success to low-income students than their wealthier peers.[14]

Other recent research addresses the extent to which students are diverted from college enrollment by a lack of awareness or understanding of financial aid programs or by the complexity of acquiring the aid. There is ample evidence to suggest that a greatly simplified application form and more transparent eligibility process would help spur more students to attend college, and that complexity disproportionately affects those from low-income backgrounds.[15]

Guiding Principles

The following policy proposals emerge from and are broadly consistent with a set of core principles that guide the way we think about financial aid. While these principles have applicability in redesigning state financial aid programs, they are not intended to be rigid; but to offer guidance in thinking through the various tradeoffs and choices intentionally and with the broader public purpose in mind. No single policy will adequately meet the varying needs and contexts of different states, and so these principles are not intended to be confining or prescriptive.

Integrated role assignments. An effective state financial aid policy must be sensitive to how other finance policies combine to exert influence over student and institutional decisions. The first principle therefore specifically addresses the interaction of state grant aid programs with other sources of student support and with other finance mechanisms.

The federal government provides virtually all of its subsidies to higher education operations through a combination of grants, loans, and tax credits.[16] Among these, Pell Grants might be considered a foundation in terms of being the first source of funding aimed at promoting financial access to higher education. As a voucher, the Pell Grant also facilitates students' choice among institutions, clearly an important part of its original intent even though its purchasing power has been much reduced over time. Loans and tax credits are also key elements in facilitating students' ability to choose. Most important for our purposes is that the main federal financial supports available to students are uniform across all states. They do not intentionally take into account the unique contexts and finance structures among states that result in substantial variation in typical prices paid by students attending public institutions. Additionally, the Pell Grant and other federal aid policies were designed principally for dependent students and their families. But as more and more adults are enrolled in college, these policies may need adjustments to better meet the different needs of older populations.[17]

On the other end of the continuum are institutions that selectively offer admitted and enrolled students financial aid to reduce their costs. In aggregate, institutional aid is substantial and not well understood. Basic gaps in our knowledge relate to how students gain access to institutional aid funds, recipients' characteristics compared to non-recipients, and how institutions differ in their approach to awarding aid. Much institutional aid is restricted by the original donor to be distributed to students meeting specific criteria, but institutions also provide considerable student support from unrestricted funds, which flow from tuition revenue and state appropriations (for public institutions), as well as interest from institutional endowments. In addition, aid levels vary widely among institutions, as do the reasons

for which institutions provide aid. Community colleges and many other publicly supported broad-access institutions may have very modest institutional aid budgets, if any. But private institutions and, increasingly, selective public institutions are finding that institutional aid is the principal tool in strategic enrollment management.[18] That is, institutions selectively offer institutional support to improve their prospects for enrolling the students they most want to attract. The wealthiest institutions use aid both to attract students who otherwise would not be able to attend and to compete over students who are considered the most desirable, especially those with high levels of academic preparation and test scores that could help lift an institution's position in the rankings. Increasingly as the pool of traditional-age students contracts, institutions that are dependent on tuition payments as a substantial portion of total revenue use their aid budget to attract students who represent essential revenue (even when it is sharply discounted) to cover the bottom line. Further, a student's eligibility for an institutional award and the amount of the award are the result of an opaque process controlled almost entirely by the institution.[19] Finally, the award notification timing can be problematic: students typically learn what institutional grants they will receive only after receiving word that they have been admitted to an institution. That is too late for those grants to have much impact on students' decisions to apply to a college. For these reasons, institutional aid serves institutional goals first and foremost, and institutional goals – driven as they are by prestige-seeking behaviors – do not always correspond perfectly to the public's interest in spurring growth in educational attainment.[20]

The states sit between the federal government and institutions as sources of grant aid. Unlike either of the other two, states are uniquely positioned to align funding support for higher education so that it fits their own contexts and is aimed at meeting state goals. Yet it can be a challenge for states to shape the three principal fiscal mechanisms at their disposal – direct appropriations, tuition, and financial aid – into a coherent and integrated package.[21] Of these three tools, direct appropriations and tuition-setting are rather blunt in their effect on students, in that all the resident students attending an institution share equally in the subsidy provided through that institution's direct appropriations and, notwithstanding pricing that differs based on a student's program of study or academic status, confront the same published tuition price. The ways in which a state handles financial aid – whether by managing its own program or by requiring institutions to fund need-based grants out of their own tuition revenue as Arizona does – offers considerably more flexibility in pursuing state goals of affordability, access, and educational attainment by allowing the state to target dollars on students who are more likely to help it meet those goals. Thus, state financial aid policy can serve as the key to aligning the state's fiscal policies with its education goals. To do so effectively, however, the policy must be designed in such a way as to compel those responsible for setting appropriations and tuition levels to consider how the funding streams impact affordability for students from varying financial backgrounds.

Therefore, a redesign of state financial aid programs should adhere to the principle that fiscal policies should be integrated and aligned with state goals, namely that the redesign compels a state to consider appropriations, tuition-setting, and financial aid distribution as a coherent whole, not as independent policies. It also means that the redesign should factor in the contributions made by the federal government to student support, as well as what is available for student aid from institutions, and do so in a way that ensures that the fiscal policies are working collectively to meet state objectives.

Demand-side principles. There is a set of emerging principles that address how state financial aid programs can be most efficient in the distribution of resources to ensure students can access and succeed in higher education. These address how students become eligible for state aid and come to understand their obligations to receive it. Best represented in the recommendations offered in a recent report from the Brookings Institution concerning effective state aid programs:

"1. Focus resources on students whose chances of enrolling and succeeding in college will be most improved by the receipt of state support.

2. Consolidate and simplify programs in order to make them easily understood by prospective college students and their families.

3. Design programs so that they not only help students gain access to college but also encourage success after they arrive."[22]

The principles that flow from these recommendations are that, first, effective grant programs are good stewards of taxpayer funds by being economically efficient. They should target students whose behavior will be influenced by some extra money, rather than spending scarce funds on those whose decisions would be unaffected by the subsidy. Further, based on the ample research showing that financial aid works most effectively for low-income student populations, economically efficient state grant programs must incorporate a needs-based component in distributing aid.

Second, because "…increasingly varied and complex financial aid programs at the federal, state, and institutional levels are further complicating both actual and estimated college-choice processes,"[23] state financial aid design should be as simple and transparent as possible to meet the state goals. Numerous financial aid programs with different eligibility rules and award determination criteria can be a serious barrier to understanding college affordability. Additionally, states can help by streamlining and simplifying application procedures to reduce the burden on and confusion for students. Thus, another principle: states should enact programs that are as simple to understand and to implement as possible and to consolidate multiple programs with overlapping goals and target audiences wherever possible.

Third, as state and national goals have evolved to focus more on college completion, it is reasonable for states to expect students who receive state financial aid to demonstrate adequate academic performance and for recent high school graduates to be as prepared as possible for further education. After all, the state's goals are not simply to enable students to attend college or to reduce their costs of doing so but also for students ultimately to be successful and earn a degree or credential. This principle rests on the notion that we have grown accustomed to speaking about a false dichotomy of merit- versus need-based aid, in spite of numerous examples of programs that blend the two criteria.[24] Just as any financial planner attempts to make smart investments rather than randomly distribute money, states can make informed choices about how to invest their financial aid dollars. They can do this in two ways: one is by relying on research to identify those needy students who have done as much as possible to be prepared for their chosen postsecondary education program before they enroll, but that is still a backward-looking definition of merit based on secondary school records. The second way is to define merit in a more future-oriented way, by providing incentives for students to take and pass more credits during each term of their postsecondary experience so that they make faster progress toward a degree or credential.

These three principles together address ways in which financial aid dollars can be leveraged to do more than simply reduce the costs of college for students who are savvy enough to navigate the application process. They are essential in ensuring that scarce resources are effectively targeted where they will have the greatest impact on student behaviors, including whether to enroll, to understand how to become eligible and apply for available funds, and ultimately to succeed in a reduced amount of time.

Accounting for the supply-side. The design of financial aid programs has traditionally been viewed as a demand-side intervention aimed at influencing student enrollment and persistence decisions. Whatever incentives that policymakers have tried to incorporate into financial aid programs to encourage better, faster, or more successful progress through college have been aimed at students through the criteria they need to meet to receive or renew grant awards. From this perspective, any impact on the supply side – the institutions themselves – through financial aid will be indirect, mediated by a marketplace in which poorly performing institutions are theoretically punished as students take their tuition and financial aid dollars elsewhere. The only real direct supply-side effect relates to the link between federal Title IV funding and accreditation, which is a relatively low, albeit an all-or-nothing, bar. Generally, institutions face no penalties when students with state financial aid funds do not succeed so long as they can recruit another student who brings along an equal amount of revenue.

Yet the dollars that flow through grant and loan programs are part of the net tuition revenue that is the lifeblood of many private institutions and, increasingly, public institutions. While students bear the ultimate responsibility for their success or failure, institutions have a significant role to play in delivering

a curriculum and in providing adequate academic and non-academic support that can make a crucial difference in optimizing students' chances for success. Ironically, in other realms of higher education finance, policymakers have tried to create appropriate supply-side incentives; the current round of outcomes-based performance funding policies provides a contemporary example of such approaches.

This narrow view of financial aid as only a demand-side intervention is understandable but may be short-sighted in two ways. First, aid recipients who are not well supported by their institution will not make progress toward their academic goals. Second, aid recipients themselves represent a significant investment by the state, one that will not pay off if they are unable to complete a credential of value. Given the crucial role that institutions play in making that happen, a principle we believe to be increasingly important is that state financial aid programs should incorporate elements that are intended to ensure that eligible institutions commit their own resources to share in the risks and rewards of the very same students in whom the state is investing in directly through grant aid.

Administrative principles. The effectiveness of many financial aid policies is diminished because policymaker attention can be fleeting. Once the difficult work of getting a new or redesigned program enacted is completed, attention quickly shifts elsewhere. Beyond identifying where responsibility for administering the program lies, much less attention is given to policy implementation. Yet the success or failure of the policy depends in large part on how well it is implemented in keeping with state goals or, put another way, the policymakers' intentions in crafting it in the first place. Thus, there are some principles related to the administration of a redesigned financial aid program that guide our policy proposals.

First, modeling a policy's fiscal impact is an essential exercise but one that is fraught with ambiguity, particularly because a policy is typically adopted in order to drive change in the status quo, even though the modeling is necessarily based on data that reflect the status quo. Partly as a result (but also due to the scarcity of public funds generally), financial aid programs need an effective way to ration available resources, especially if a redesign effort works as intended to create greater demand. States and the federal government commonly ration based on an approach that one might favorably label triage or, more cynically, expediency. That is, they set arbitrary application deadlines that tend to disadvantage the students most in need of support, they adjust eligibility criteria or award amounts to line up with the funds projected to be available but without an equal regard to how those rationing choices impact the achievement of state goals, or they strike a politically expedient deal with other entities (such as institutions) competing over the same pool of funds that supports the financial aid program. Recognizing that difficult political tradeoffs will be inevitable, states would still benefit by folding their aid programs under the umbrella of a framework that keeps state goals paramount and the impact on students of various policy alternatives clear. A framework that does this well equips states with tools to make rationing decisions that help preserve the intent of the program.

A second important consideration is designing a grant policy that is relatively easy to operate, while sufficient time and resources are allocated to do the initial implementation right. These elements will help ensure that the responsible state agency is discouraged from taking shortcuts that sacrifice the policy's goals to expediency. State agencies need to have the support necessary to develop operational approaches that allow them to quickly adapt the policy implementation in ways that do not undermine its intent.

A compelling philosophical rationale with a wide appeal. For the general public, many public policies, and especially the rules and regulations related to implementing them, are arcane. This may be especially so in the case of financial aid policies, which are both highly technical and consisting of programs with quite different cost implications for students and families. Even after learning of grants (and sometimes including loans) they will receive from the federal, state, and institutional sources, students often still face a wide gap in what they need out-of-pocket, beyond what they are told is what they can afford. That mismatch helps drive a confused debate about affordability, a term that means different things to different people with nothing remotely approaching a consensus. Yet if a financial aid policy helps to establish a level for what constitutes an affordable college education, it can reduce uncertainty over college costs. Defining that level also offers a guidepost for public policymakers to aim

at in funding higher education, even if they cannot fully fund a financial aid program. Thus a principle to guide policy proposals is that they should help to offer a clear vision for how students will be able to afford their costs of attendance.

Establishing a rationale for what constitutes affordability also has the potential for generating considerable support across the political spectrum. A policy that has wide appeal will be one that is simultaneously generous to those who most need it, yet expects individuals – even those who receive grants – to take responsibility for a substantial stake in financing their own education. The expectation that students should come up with a portion of their own expenses is both pragmatic and evidence-based. It is pragmatic because it fits in a world in which resources for financing a college education are limited and the needs are great among a wide swath of prospective students. It also reflects the reality that students attending college are routinely making ends meet by working, saving, scrimping, and borrowing, but often doing so without such efforts being fully acknowledged in financial aid packaging and without a guiding framework that addresses how much students should be expected to contribute from their own resources. It is also a philosophically acceptable approach for those who believe that financing college is at its core an individual responsibility or that public support should only flow to those who have made a substantial commitment of their own. Institutions commonly impose an expectation of self-help on students in awarding financial aid packaging. Furthermore, research indicates that students that have a stake in their own educational costs have improved chances for academic success than those who do not.[25] Finally, the policy should take full advantage of other available funding sources, including parents and the federal government, before committing scarce state dollars.

Policy Proposals

Building off of the core principles, this paper advances a collection of policy proposals for states considering a redesign of their financial aid programs. Also included is a proposal for the federal government to stimulate development of state programs that are integrated with federal investments, while promoting cost containment. These proposals are not intended to be a one-size-fits-all solution, as we know that states will need to craft solutions that work for them within the confines of their own contexts. Rather, they lend themselves readily to adaptation. Additionally, while many of the proposals are presented in the language of the Shared Responsibility Model, if states find it infeasible to adopt these proposals as an integrated whole as we advocate, individual proposals adopted separately can also lead to a more effective state grant program. Appendix A addresses broad cost estimates for adopting SRM, considers how it fits a few select states, and offers additional detail for the rest of the proposals. Finally, as with any policy, there will be unintended consequences, some of which may be foreseeable; these are outlined in Appendix B.

1. **States can adopt a Shared Responsibility Model as the framework for determining the eligibility for a state grant, as well as the amount of the grant.**

The Shared Responsibility Model (SRM) is a philosophy for awarding grant aid that accounts for how a student's total costs of attendance are to be met through the contributions of several partners, each of which has a compelling interest in that student's ability to access and to succeed in college. Two states currently use a version of the model in the way they distribute their grant aid. Minnesota pioneered the model by applying it to the distribution of awards through the Minnesota State Grant program beginning in 1983. Oregon adopted the model for its Opportunity Grant in 2007, and at the same time leveraged the change to nearly double its appropriation to that program in one year.

Beginning with the Cost of Attendance. The model first departs from conventional practice in financial aid by starting with the cost of attendance a student will face, based on the sector he or she is planning to attend, rather than with what the student and his or her family have available in financial resources to pay for college. This initial difference reflects the fact that, if the student is to attend college, he or she will somehow have to cobble together the actual money that will be necessary. The model does not ignore the limited means many students have available to meet their costs. In fact, it uses that information as a key element in the determination of eligibility and expected award amount. By contrast,

the traditional approach of beginning with an estimation of family contribution, even in combination with a Pell Grant and federal tax credits, falls well short of the total costs of attendance for most students of limited means.

The difference is subtle but important. Currently, the federal needs analysis methodology tells a student and his or her family how much money they have on hand to use to pay for college costs. With that information, they can shop around to find out if there are colleges they can afford to attend, but how they might be able to come up with their remaining "unmet need," and what that amount may be, is not likely to be clear to them. Under the SRM, students identify their likely college destinations first and are provided a basic idea of the total costs they will face. Then the SRM, at least conceptually, helps them understand how the principal partners in funding their education are supposed to come together to meet those costs. Naturally, practice differs from reality, sometimes by quite a lot, but the SRM offers states, institutions, and students clues about what they may do about it. There will be more on that later.

The difference also has the potential to shift the institutional perspective subtly but importantly. In the current system, when families' available financial resources are established first, the focus of the program is on providing choice among institutions, rather than ensuring that deliberate attention is paid to the actual costs of attendance facing students and families. In some respects, this is a characteristically American, and market-oriented, approach. It conveys the following: here is what you can reasonably afford on your own, now go and see which of the options available to you at that price level best meets your needs, and don't forget there exists a wide (and confusing) variety of sources of financial support to help broaden those options. Accordingly, to understand how far short we fall in helping students achieve their aims, we analytically rely on the concept of unmet need, which is the difference between students' total costs of attendance and the amount they have available through their own estimated resources and any gift aid and government loans that they are able to obtain. Unmet need is a peculiar concept: it only exists for students who ultimately decide to enroll. But it fails to capture any information on the extent to which a lack of finances discourages students from enrolling in college in the first place.[26]

Obviously, institutions work to avoid pricing themselves at a level that large swaths of their target market cannot meet, even with assistance. But with a postsecondary education perceived as essential to future prospects in life, enrollment levels have seen generally consistent growth, and it is difficult to pinpoint a threshold by which institutional pricing drives overall enrollment declines. As institutions' pricing has outstripped their own institutional aid resources, they increasingly have come to rely on the practice of "gapping," in which the packages they offer their admitted students fall short of meeting full cost of attendance. Some institutions do so in part as an intentional admissions strategy aimed at discouraging a less-desirable student from enrolling. But the fact that the practice has grown so much more widespread is evidence that the pricing model in higher education that is grounded first on a calculation of what students can pay may be broken in that it fails to force institutions to pin down their own prices. A shift to a model that from the outset establishes costs of attendance encourages institutions to engage in a more deliberate analysis of their pricing structure. If those costs of attendance are "recognized" as part of a publicly-supported financial aid program, such a program encourages institutions to engage in dialogue with policymakers and the public about how those amounts are established and what level of aid is appropriate for the purposes of the program.

In its implementation of SRM, each state establishes the cost of attendance that it will "recognize" in the determination of grant eligibility and amount. The SRM approach appropriately needs to take into account the differences in those costs across sectors within higher education. So states likely need to establish a recognized cost of attendance that is substantially lower for two-year institutions than for four-year institutions, to reflect the fact that tuition charges are lower in the two-year sector. The recognized cost of attendance also should probably not be institution-specific, but rather be a sector-wide average, to provide a modest brake on upward price pressure that might come from institutions' independent tuition decisions. Additionally, a sector average also creates space for the state to explicitly define an institutional role in helping students meet their financial obligations.

In establishing the recognized amounts, the state will have to decide how to treat the tuition and non-tuition components of attendance costs. The former is relatively straightforward and should include mandatory fees. How to set the amount for non-tuition expenses is less clear, however, due to variation in students' living situations (on-campus, off-campus, or at home with family), additional costs related to curriculum requirements, employment situations, and other student preferences such as for housing and food. Past experience suggests that student living situations are hard to accurately pin down, in part because they are often very fluid during the course of an academic year, especially for low-income individuals. For that reason, and because the institution itself has considerable control over the on-campus housing and room and board rates, it may be simplest and most equitable to consider the on-campus amounts in establishing the corresponding portions of the non-tuition expenses. That does not mean that the state needs to simply take an average within sectors of non-tuition expenses, especially given the extent to which residential colleges and universities have created relatively lavish housing arrangements for some of their students. It may be that those housing options exist for good reasons – we intend no criticism of institutional planning here – but the state grant program need not be expected to cover anything beyond what a reasonable person would understand to be a frugal budget.

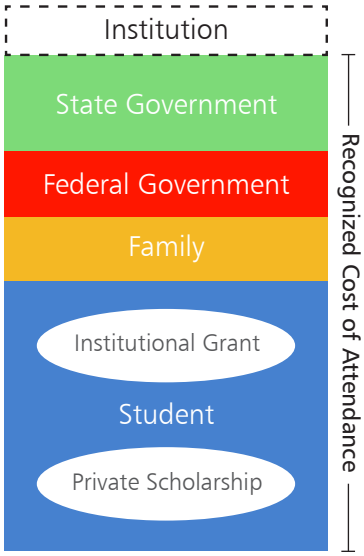
In states where students attending private institutions are eligible to receive state awards, states will face a decision about how to treat those institutions in the methodology. Two options appear most obvious: the state might simply apply the same cost of attendance it recognizes in the public four-year sector to the private sector institutions, or it may recognize a cost of attendance no higher than the amount applicable to public four-year institutions plus an amount equivalent to the average per-student subsidy the public four-year institutions receive through direct appropriations. The latter approach would result in grants substantially larger in the private sector while accounting for the contribution private institutions make to the public good by producing college graduates for the state and relieving enrollment pressure on the public sector.[27]

The Partners. Once the recognized cost of attendance is established, the SRM methodology shows how it will be met by the combined contributions of five partners.[28] These partners are, in order of priority: the student, the student's family, the federal government, the state government, and the institution (Figure 1).

As the principal beneficiary of the education, the student would be expected to contribute significantly to her or his education. In determining eligibility for the state grant and its amount, this expected amount would not be sensitive to income level; all students would be required to meet the same contribution level based on the sector where they plan to enroll. (Income sensitivity is part of the methodology and comes in later, plus institutional or other need-based grants or scholarships can help defray or eliminate out-of-pocket expenses.) The student contribution would be expected to come in two ways. First, the student has a responsibility to prepare well for college and for

Figure 1. Five Partners Share Responsibility for Meeting the Cost of Attendance (COA)

5. The **institution** is responsible for any difference between the recognized COA and its own actual COA.
4. The **state** grant award makes up the remaining difference, up to recognized COA.
3. The model accounts for the **federal government's** contribution (i.e., Pell grants, tuition tax credits).
2. The **student's parents** contribute their share, which is determined by the federal methodology.
1. **Each student**, as the principal beneficiary, is expected to contribute toward his/her own education costs. Sources include: earnings, savings, borrowing, or scholarships.

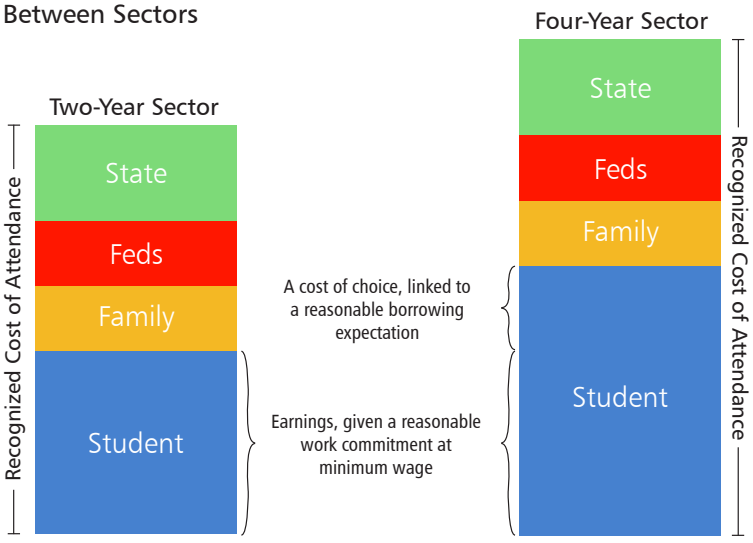


achieving at the highest level possible in college. Both academic and finance policies should reinforce this expectation. Second, the student has a responsibility to pay a significant, though manageable, amount toward her or his education.

Expecting students to provide explicitly such a substantial portion of their costs of attendance is a radical departure from most current policy. Yet it makes both philosophical and practical sense. Philosophically, it better fits a concept of "she/he who benefits should pay." Practically, it reflects what, in truth, is current practice. Today, we simply do not fund our philosophy, so students and their families are left picking up the expenses that current public resources are unable to cover, and in fact many, if not most, do so through borrowing and work, too often incurring levels of debt that will prove exceptionally onerous, or working at intensity levels that jeopardize academic success.

To adopt such a significant role for students requires two critical components: the student contribution amount must be easily understood by students and their parents or guardians and it must be perceived by students and their parents as truly achievable and reliably available. The Oregon approach to SRM achieves this in the following way. First, consistent with the differences in cost of attendance for postsecondary sectors, the student's share should differ depending upon the type of institution the student attends. Doing so reflects that there should be a cost of choice, albeit an affordable one. The required student contribution can be quite simple and understandable: a student attending a community college should be able to meet her or his financial obligation through reasonable levels of either work or borrowing, whereas a student attending a public university should be able to meet her or his financial obligation through a combination of work and borrowing (Figure 2). To determine just what would be reasonable work and borrowing expectations, Oregon establishes the work requirement based on 90 percent of what a student can earn at minimum wage, working 15 hours per week. The state selected this because research has demonstrated that students working at a reasonable intensity during their term of enrollment, in general, do not suffer academically and may actually benefit.[29] Oregon established its borrowing expectation based on what a student could reasonably manage in debt repayment if they chose to receive their degree in a high social value but moderately paid field, specifically education and social work.

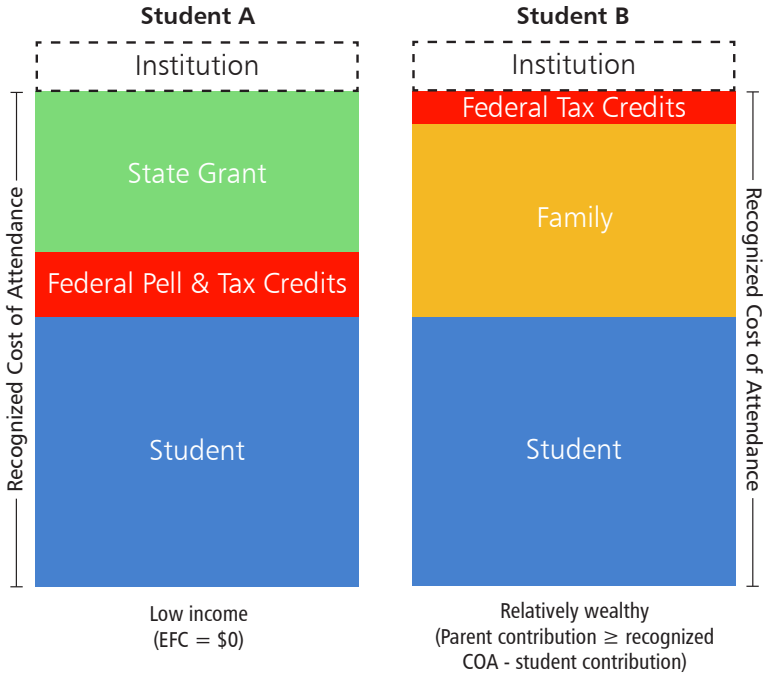
Figure 2. Recognizing the Difference in Costs Between Sectors



It should be noted that, in setting the amounts required for the student contribution, the SRM philosophy does not suggest that students should necessarily be expected to work or borrow. In fact, they may obtain their portion of their own educational costs in a variety of ways, including work, borrowing, savings (their own or 529 plans), gifts from family members, scholarships, or some combination. The specification of the student contribution through work and borrowing is only relevant for setting the total student contribution amount in a reasonable and evidence-based way. The student contribution amount helps to establish an indicator of affordability in that, at least for the student, there is an upper boundary for what the state believes to be an appropriate financial burden that is tied to a reasonable work commitment during school and reasonable debt levels for repayment afterward.

The second partner is the student's family. Before expecting the public purse to pay for a student's education, it remains legitimate to expect that the student's parents will provide what they reasonably can to the education of their children.[30] The consideration of the family's capability to fund a student's educational costs is where the SRM becomes income sensitive, as shown in Figure 3. Even though all students are expected to pay an equivalent amount under SRM, the methodology's reliance on the family's financial resources means that eligibility for the state grant will taper off for students who come from families of means.

Figure 3. The State Grant Award Differs Based on Students' Financial Need



The third partner is the federal government. The federal contribution will include the amount provided via the Pell Grant program and the estimated tuition tax credit amount for which the student and his or her family will be eligible. Including at least these two sources of federal funds as a separate component, plus the way in which borrowing is factored into the student contribution level, ensures that the state grant program and the most significant federal subsidies are integrated. The SRM methodology then calculates eligibility for and the amount of the state grant based on the difference between the recognized cost of attendance for the sector in which the student is enrolled and the sum of these other three partners' contributions. This calculation is represented in Figure 4.[31]

Figure 4. SRM Award Calculation (in concept)

Sector Average Cost of Attendance
- Student Contribution
- Family Contribution
- Federal Pell & Tax Credits
State Grant Award Amount

Even though the state grant amount has been established at this point, states should ensure that the institution a student attends serves as a fifth partner. Together institutional aid represented approximately $44.4 billion in 2012-13, an amount that was nearly five times greater than the total grant aid provided by states.[32] With those kinds of resources, and even after recognizing that much of that money is concentrated among the wealthiest institutions in the nation, institutions have a role to play in ensuring affordability through the appropriate distribution of their aid to those individuals who would not be able to afford to attend without assistance. There are a few ways to think about how institutions can be included as a partner within the SRM methodology. The approach we outline stems from the principle that the state has very limited capacity to direct institutions how to spend funds in their care, much of which is restricted by donor intent and virtually all of which may be subject to institutional discretion within the confines of state directives. There is one obvious way that institutional aid can be incorporated into the SRM approach. In recognizing a sector-based average cost of attendance, there will be some institutions that charge an above-average cost of attendance, which the SRM approach will not fully meet even under conditions of full funding for the grant program. In such cases, the state can, as a condition for institutional eligibility for the state grant program, require

higher-cost institutions to commit to eliminating the difference between the state's recognized cost of attendance and the actual amount they charge for recipients of a state grant award.

Additionally, institutional aid funds also overlap with the concept that students should be capable of meeting all or a portion of their own required contribution through scholarships they earned. In this respect, institutional aid dollars are little different from scholarships a student obtains from private philanthropy. Both should be encouraged to assist students in financing college, and in the process should have some assurance that their support helps the student rather than substituting for state grant aid. (This is illustrated by the respective ellipses within the Student Contribution component of Figure 1.) Such a design can stimulate philanthropic scholarship support not only by making private dollars complement – not substitute for – state dollars, but also by conveying how philanthropic dollars will be leveraged to facilitate student access and success. Likewise, students who have earned institutional scholarships for demonstrated merit may use those funds to offset their own required student contribution. Still, institutions may be incentivized to participate in the state grant program at higher levels through a policy that requires an institutional aid match for students who are eligible for the grant program, as described later.

Independent Students. The description of the SRM framework outlined above addresses how it treats dependent students. However, the framework also can be adapted for independent students – particularly important given the substantial portion of postsecondary enrollments and Pell expenditures they represent. For independent students, the same principles apply; that is, the approach requires students to come up with a contribution that is equivalent, whatever their income background, and the same number of partners are expected to contribute toward meeting that student's costs of attendance. The one significant difference relates to the family contribution. Whereas for dependent students, the family contribution consists of the parent contribution as determined by the federal methodology, establishing the amount required for independent students is not so straightforward.

States will have a number of options for how to treat independent students under SRM. Many will not have Estimated Family Contributions greater than the student contribution amount established by the state based on a reasonable work commitment. For them, their family contribution may be $0. But states may elect to include EFCs in excess of that amount as available for the family contribution, even for students attending the four-year sector. States may also factor in considerations about independent students' marital status and whether or not they have dependents of their own. Also, because the Pell Grant amount is reduced substantially as income rises, which could have a disproportionate impact on unmarried independent students since their EFC is calculated off of their earnings alone, states might consider whether to adjust the state grant amount in proportion to reductions in Pell.

This is not a straightforward issue, however, because states will not want to create incentives for savvy students who would otherwise be dependent to declare their independence early in order to gain access to a larger state grant award. Spouses who also are enrolled in postsecondary studies would be treated separately for the purposes of state grant awards. But income from spouses who are not enrolled would be considered as part of the family contribution in the SRM framework. In either case, those with dependents of their own would see a reduction in their federally-determined Expected Family Contribution to account for their needs.

The SRM could be more fully integrated with federal policies by accounting for payments from other federal programs in the funds provided by the federal government. Such payments would come through the Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP, better known as Food Stamps), and other social safety net programs. Doing so would reduce state grants for needy independent students, but because each of those programs is aimed at defraying the same expenses that are accounted for in the non-tuition portion of the cost of attendance, there is an argument to be made that not accounting for these payments effectively amounts to paying a select group of students, albeit very needy ones, twice for the same purpose.

Rationing. The reality is that the funds available to fully support any financial aid program are unlikely to be readily available, so rationing is likely to become as inevitable under SRM as it is for any other approach. Once rationing occurs, it reduces some of the power of the SRM approach to communicate a clear roadmap about how potential recipients will be able to meet their full costs of attendance. But as a framework for guiding difficult policy choices, the SRM lends itself to a discussion about how to ration in ways that preserve the intent of student financial aid programs more effectively than traditional policy designs. Not only does the approach encourage a more intentional weighing of the tradeoffs of one or another approach to rationing but it also supports a debate about whether and to what extent the level of rationing is weakening the state's ability to use the program to achieve goals. That is, keeping overall focus on cost of attendance provides a framework for evaluating the impact of rationing choices on students more than the triage approach that states typically take. Such approaches either tend to shift funds away from those who are likely to be most in need (such as application deadlines and elevated merit eligibility criteria), or adopt eligibility or award limits that are basically arbitrary, and unpredictable from year to year, except for matching available funds with projected liabilities.

Many of the rationing tools widely used in traditional state financial aid policy are options under SRM, although they would be subordinate to the SRM calculation. That is, the rationing tools would only be applied after the full liabilities of the program are calculated if all students received the full award for which they would be eligible. For instance, a state could choose to impose a hard cap on eligibility based on income, as many currently do. But eligibility for an award based on the SRM is a function of the state's decisions about student contribution and recognized cost of attendance, as well as federal policy concerning the Pell Grant and tax credits. Thus, an income cap would only come into play after the SRM calculation was made. Likewise, the state could establish a minimum award amount, but it too would be imposed only after the award is established. Other more standard rationing tools that could be employed by a state under SRM include setting a maximum award amount or reducing all awards by a specific dollar amount. States could also ration SRM based on demand-side incentives such as expecting students to complete degrees in a more timely way (more on that later).[33]

Additionally, the SRM calculation gives states a couple of other useful rationing tools. First, the state could opt to make adjustments in the calculation itself. Any such adjustments that raise the amounts expected to come from partners other than the state would obviously lower the resulting state grant amount. Among those options are to adjust the recognized cost of attendance. Doing so might erode the extent to which the program reflects the true costs that students face in paying for college, but it may also create pressure to keep tuition prices or the treatment of non-tuition expenses in check at institutions.[34] A second possibility is to make adjustments in the amount students would be expected to contribute themselves. Because in concept this is the key component in defining what the state believes is affordable, states making the choice to adjust it should keep that in mind.[35] A third way to ration through the calculation is to add a percentage increase to the family contribution component. For instance, a 10 percent imbursement on the family contribution would reduce the resulting state grant by an equivalent amount. This approach would not impact the neediest students (because their family contribution is $0) but have a progressively greater impact on students from relatively better off financial backgrounds. Fourth, the state could ration limited resources by expecting relatively more funding to come from institutional sources, either through a matching program (described later), or by adjusting the recognized cost of attendance. Finally, if states opt to account for payments from TANF, SNAP, and other federal social safety net programs in determining award amounts for the neediest independent students, states may be wise to hold those students harmless from any subsequent rationing efforts.

2. **States can encourage well-designed, state-supported programs to assist students in meeting their student contribution.**

States that adopt the SRM framework have a compelling reason to ensure that recipients of a state grant have a legitimate chance to obtain work in order to meet their required student contributions. Additionally, the right kind of work experiences correlates with improved student outcomes, and evidence

suggests that students benefit from such experiences so long as they do not overly interfere with academic pursuits.

But states can aim higher than simply helping a student obtain employment so that they can meet their required student contribution under SRM. They can look for ways to encourage more intentionally integrated workforce experiences for students in their grant programs through co-operative education and internships. Such options can be particularly helpful to students finding or refining a career path and obtaining experiences that will be invaluable in their job search following completion of their studies. They also help students integrate the learning they obtain in class with the world of work, enriching their academic experiences in the process.[36]

Employers likewise benefit from sponsoring students through co-operative and internship programs. They can reduce the costs of their recruitment efforts in the process if a student is successful in their experience (or avoid potentially making a bad hire if not), and it appears that employees recruited through such programs have a lower turnover rate.[37] States benefit by creating pathways for industry and academia to partner collaboratively and learn from one another, particularly if their representatives jointly serve on program advisory boards. Students recruited out of co-ops and internships also may be more likely to remain in-state following graduation.

States can facilitate such programs in a few ways. First, states can work with industries to create advisory boards for such programs. They can also create a tax credit (or some other incentive) to encourage employers to engage in developing and utilizing co-op and internship experiences, such as Ohio has done. In the states that have their own work/study programs, there is an existing funding source that appears to be custom-designed to promote such activities. States without a work/study program can consider how to develop one in a way that assures participants of a work experience meaningfully tied to their academic goals.

3. **States can embed demand-side incentives that promote student success.**

States have a legitimate expectation that the students will have prepared themselves sufficiently for college-level work and, once enrolled, will make progress toward their academic goals at an appropriate pace. Therefore, borrowing from examples like the Twenty-First Century Scholarship program in Indiana, recent high school graduates who have taken and passed a college-preparatory curriculum should have priority in gaining access to the state grant program. Unfortunately, the same eligibility criterion cannot be placed on adult learners who would otherwise be eligible, since many years might have elapsed since they were high school students.

Once in receipt of a state grant, students may be required to show timely progress toward a degree or certificate. Renewal of the state grant award may be conditioned on forward-looking merit criteria, such as by creating levels for renewal of their award based on the number of credits attempted and passed during the preceding academic term or year. For example, the state may establish that a student seeking a fully funded renewal of their grant should complete 30 semester hours during the academic year (fall, spring, trailing summer), and each credit below 30 results in a dollar amount reduction of their grant. Students beginning part-time could have their grant awards reduced in the same manner. States can also establish a minimum level of enrollment intensity required to be eligible for any award from the state grant program.

The state also could establish a requirement that a portion of a student's grant be disbursed later on during the semester, a practice that is being pilot-tested at some institutions.[38] While the program does not envision a performance-based scholarship in which students receive bonuses for passing more courses, such programs may be useful as an additional incentive. But the effect even absent bonus payments may be similar in that the student only receives funds above the amount required to pay tuition once they are reaching meaningful milestones within the academic term, such as remaining in good standing through the add/drop period and the deadline for course withdrawals.

These demand-side incentives, especially the requirement for students to take rigorous, college-preparatory courses in high school, require an effective program of early outreach. States using the SRM methodology will find that explaining how the model is designed to make sure students are able to afford college costs has considerable potential for reducing financial barriers. Both Oregon and Minnesota have developed websites to help students and their families to estimate their state grant award and to see how it, together with contributions of their own and from the federal government, adequately meets the cost of attendance facing them. Such a website calculator should be as straightforward and simple as possible.

States with established merit aid programs may find it difficult to repurpose the funds in those programs for a new program built off of SRM, but they may be able to creatively manage the integration of their programs under the SRM umbrella. An obvious way would be to continue to provide those programs as a way for students to fulfill their required student contribution amount. Another approach might be to elevate the required student contribution amount in the expectation that students should meet the criteria embedded in the merit program. The principal drawback or dilemma facing such states is the opportunity cost of the merit aid funding, which generally reaches students from income backgrounds well beyond the neediest. Thus, adapting a merit-aid program in this way may in fact disadvantage some low-income students who are capable of doing college work but cannot claim the grades or test scores necessary for a merit award under most applicable states' eligibility rules, leaving them faced with a student contribution level that exceeds the affordability thresholds related to work and borrowing. Yet if significant changes to a pre-existing merit aid program are unlikely, using SRM as a framework within which that program can be fitted still situates merit aid more effectively as one tool within an overall state strategy that seeks to provide grant funding where it best influences student access and success.

4. **States can embed supply-side incentives that ensure that institutions share in both the risk and rewards of student success.**

To enhance the chances that state grant aid recipients are given every opportunity to succeed – and for the state's investment to pay off – states can create a supply-side incentive as a component to their grant program. This strategy explicitly ties together the state's investment in needy students and its interest in the successful completion of target student populations.[39] A set of supply-side incentives should take the form of shared risks and rewards, through which institutions can expect to share in the rewards when the aid recipients in their care are successful, but stand to suffer a loss when they are unsuccessful.

The dilemma is how to avoid a system that potentially punishes institutions when the students who are the most challenging to serve turn out to be unsuccessful without inadvertently giving institutions a reason to avoid serving those students. Fortunately, the SRM methodology offers a way to provide the balanced set of incentives in the way it treats the tax credits available to students in determining eligibility for the state grant award. Failing to include tax credits in the SRM methodology would leave a substantial amount of federal dollars on the table, but students are unable to access those funds until long after they need to pay their tuition bills. The state could leverage this feature to introduce an appropriate level of risk faced by an institution. Institutions that are willing to defer the tax credit portion of the SRM methodology for a year – in effect, offering aided students a no-interest loan – would become eligible for a supplemental allocation from the state if the student reaches established milestones. For aided students who persist into a subsequent academic year, their institution would receive a prorated allocation from the state based on how close a recipient came to reaching a target milestone (subject to a minimum threshold of success). For instance, an institution would receive 100 percent of their allocation payment if a first-year student remained on track for on-time graduation (by successfully completing 30 semester hours). Students who achieved 27 hours would earn their institutions 90 percent of the full supplemental allocation. Students in subsequent years would be expected to pay their full costs, including the amount they would expect to receive from tax credits. Conversely, if a student failed to persist into a subsequent year, the institution would not be eligible for the supplemental allocation. It would also be unable to collect on the tax credit amount it spotted the student at the beginning of the term. Whether or not institutions are required to participate in such a system of shared risks and rewards, it would be crucial

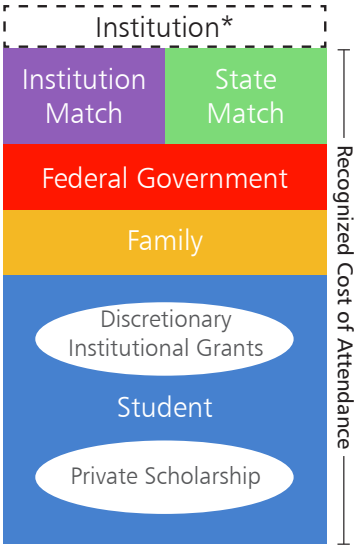
that the supplemental allocation be sufficient to entice institutions to see it as being in their own best interests to do so.

A second supply-side intervention, however, should not be voluntary. As a condition of their eligibility, institutions participating in the state grant program would be required to make a public commitment that aided students would have access to the necessary courses and that the institutions would develop interventions and supports to ensure that these students take and are able to pass gatekeeper courses in a timely manner.[40] This component would send an important message, but without funding behind it, it would not be as strong an incentive as the shared risks and rewards option above.

5. **States can leverage grant aid programs to encourage institutional aid expenditures that are aligned with state goals for student success, affordability, transparency, and predictability.**

In addition to the expectation that institutions cover any gap that results when their actual costs of attendance are higher than the sector-based average cost of attendance recognized under SRM, a state may decide that institutions should play a more direct role in helping students pay for college. One way to do that would be to expect institutions to provide matching funds for each aided student. Such a requirement is illustrated by Figure 5, which depicts the required match. Institutions would be required to cover any additional costs of attendance that exceed the amount that is recognized under policy by the state for the purposes of distributing the state grant dollars. Presuming institutions would still have institutional aid budgets left over after meeting their match requirement, that remainder would be available for use on aided students at the institution's discretion.

Figure 5. Financing SRM Including a Required Institutional Match



* This component reflects the requirement that an institution cover any difference between the state's recognized COA and its own actual COA, for state grant recipients.

States would need to consider the extent to which institutional aid budgets vary substantially across sectors. It may be possible to establish a reasonable schedule for appropriate matches, with public research universities expected to maintain a higher match rate than public comprehensive institutions, which generally have lower institutional aid budgets and a less elite-oriented mission. Meanwhile, it may not be reasonable to expect public two-year institutions to provide any match at all given that they generally have negligible aid budgets and a thoroughly open-access mission. A separate schedule may be necessary for private institutions, which could be similarly tiered based on measures of institutional wealth and market reach. In Figure 5, these differences in the relative required match rates would be illustrated by shifting the line between the "Institutional Match" and the "State Grant" one way or the other.

There is ample evidence that institutions – even public institutions, increasingly – do not target their aid budgets on students with the most financial need.[41] It is not the intent of this recommendation to dictate to institutions how all of their aid budgets should be spent. But requiring institutions to cover a portion of a needy student's costs of attendance in the SRM framework in order to gain access to the state grant program could redirect some of the $44.4 million that institutions spent on aid in 2012-13 away from students without demonstrated need towards those whose attendance and success are most influenced by the availability of financial aid.

6. **The federal government can recommit to its historic partnership with states in promoting well-designed grant programs through a contemporary LEAP program.**

Not long ago, the federal government ran a program that incentivized states to operate their own need-based grant programs. Known as the Leveraging Educational Assistance Partnership (LEAP), the

federal government let it lapse in the midst of the economic meltdown. It may be that the program had grown stale and ineffective, and a federal assessment recommended its termination.[42] But when it was created in 1972 (and known as SSIG, the State Student Incentive Grant), it helped spur the creation of state need-based grant programs in the majority of states where none existed. Even so, the Obama Administration's decision to discontinue the LEAP program was perhaps surprising when viewed against its eagerness to put federal funding on the table – with conditions – as a way to encourage states to reorient policies and practices in alignment with the administration's goals, seen in Race to the Top and the Affordable Care Act.

If history provides any lessons, states will embrace an opportunity to redesign their financial aid programs with varying degrees of enthusiasm. Given LEAP's historic role in encouraging states to create need-based aid programs, we believe a more contemporary program has the potential to offer states incentives to redesign existing programs to conform to the principles outlined in this paper, as well as to create a better integration with federal programs.

A more contemporary LEAP program would be designed so that the federal government provides funds to states based on how well students are able to afford their costs of attendance. The rate at which the federal government could match state aid expenditures would be based on a schedule of ratios of the funds available to aided students (perhaps subject to an income threshold such as students also eligible for Pell Grants), as assessed under the SRM, to the enrollment-weighted average costs of attendance in a state. The result would show which states are doing better at protecting student affordability, and distribute greater rewards to those that are making a stronger effort in that regard. The federal government would need to calculate its own student contribution levels, using the minimum wage rate effective in each state. This would be necessary to prevent states gaming the match program by closing gaps in the two numbers simply by manipulating the student contribution amount they use for their own residents. With this measure of affordability as the target, the match program sets states in competition with one another for federal funding based on how well states are able to constrain growth in attendance costs, without federally mandated price controls. This competition among states would serve as a cost containment mechanism because states that are able to reduce the gap between funds available to students and the costs of institutions would be able to claim larger amounts of the federal funding through this program.

More work needs to be done to determine the amount of funding that would be sufficient to ensure that such a remodeled LEAP program would have the desired effects. Certainly, the federal government does not have much room to start expensive new programs; especially any that resemble ones that it recently discontinued. As a start, however, we believe that such a program may be a more effective use of the campus-based aid funds, like the $695.6 million that was spent on Federal Supplemental Education Opportunity Grants in 2013-14. Additionally, the nature of the program, especially its virtues in aligning state finance policy and federal policy toward access, affordability, and success and in setting in place some incentives for cost containment, may justify redirecting a modest portion of Pell Grant expenditures in this manner, if no other funding source is feasible. We estimate that an annual pool of $4 billion to $5 billion would be sufficient to spur the kind of state attention necessary.

7. **States can ensure that their grant programs include an expectation that standards of academic quality are maintained.**

Such a commitment is foundational to the integrity of higher education, but it becomes important to monitor and evaluate this since these policy proposals include incentives aimed at institutions that benefit directly from the success of their aided students. It is essential that those students receive a high-quality education.

8. **States can require that their financial aid programs are systematically evaluated.**

As with any substantial subsidy program, states should think about how to evaluate the success or failure of the program as they are designing it, in particular to ensure that they will have the data necessary for the evaluation. It is clear that unit-record data captured by the state will be optimal for administering the

program, but access to such records will be necessary for an effective evaluation. States should require institutions that participate in the state grant program to submit such records on all their students, not just on those who receive state grants. They also will need to track student mobility through the National Student Clearinghouse or other data exchange resource that can resolve identities.

Conclusion

Meeting educational attainment goals has become an essential priority if our national and state prosperity is to be assured. Getting there will require the strategic and efficient investment of scarce public resources in ways that promote access, success, and affordability for students while also incentivizing institutions to improve productivity, spur completion rates, and keep prices in check. Getting the alignment of subsidies right is essential for this objective and, since much of the systematic variation in how higher education is financed results from state policy, states are in the driver's seat to foster better alignment. State grant aid programs are particularly well suited to achieve alignment between appropriations, tuition, and financial aid policies and to consider the relative contributions that key stakeholders must make in funding a student's college education. Those key partners are the students themselves, their families, the federal government, the state, and the institutions. A grant program that establishes the expectations for each stakeholder offers a state a clear conceptual framework for making policy choices about funding higher education. An especially well-designed model will include incentives aimed at students to be prepared for college and to accelerate their progress toward their educational goals. It also will create conditions for institutions to double-down on the state's investment in grant-aided students to better attend to and promote student success and to more effectively target their own discretionary resources to enhance affordability for those for whom it matters most. Finally, the federal government can create incentives for states to invest in grant aid programs aligned with national educational attainment goals in a way that respects the autonomy of and the wide disparities among states, and doing so in a way that leverages the federal investment to dampen the rise in college prices.

Notes

[2] National Association of State Student Grant and Aid Programs (NASSGAP), *43rd Annual Survey Report on State-Sponsored Student Financial Aid*, 2013 <http://www.nassgap.org/viewrepository.aspx?categoryID=3#collapse_351>; Sandy Baum and Kathleen Payea, *Trends in Student Aid* (New York, NY: The College Board, 2013).

[3] NASSGAP, *43rd Annual Survey Report*.

[4] Massachusetts Department of Higher Education, Office of Student Financial Assistance <http://www.osfa.mass.edu/default.asp?page=aidPrograms>. Not all of the listed programs continue to be funded and not all are administered by the Commonwealth of Massachusetts. The performance-based scholarship program is not listed on the web page because it is in a pilot phase beginning in the 2012-13 academic year.

[5] Scott A. Grinder and Janice Kelly-Reid, *Enrollment in Postsecondary Institutions, Fall 2012; Financial Statistics, Fiscal Year 2012; Graduation Rates, Selected Cohorts, 2004-09*; *and Employees in Postsecondary Institutions, Fall 2012, NCES #2013-183* (Washington, D.C.: National Center for Education Statistics, 2013).

[6] As an example of this variation, the share of public institutions' two principal sources of discretionary funding – state appropriations and net tuition revenue – ranged from a high of 84.5 percent in New Hampshire to a low of 13.8 percent in Wyoming (State Higher Education Executive Officers, 2013).

[7] David Longanecker, "Introduction," *Policies in Sync: Appropriations, Tuition, and Financial Aid for Higher Education* (Boulder, CO: Western Interstate Commission for Higher Education, 2003), 2.

[8] Longanecker, 2.

[9] Western Interstate Commission for Higher Education, *Knocking at the College Door: Projections of High School Graduates* (Boulder, CO: Western Interstate Commission for Higher Education, 2012); Brian T. Prescott, *Demography as Destiny: Policy Considerations in Enrollment Management* (Boulder, CO: Western Interstate Commission for Higher Education, 2013).

[10] Even if the federal government's influence to address access and affordability concerns at public institutions may be somewhat overstated, that possibility certainly does not leave the federal government entirely out of the picture as an important part of a solution that incentivizes states to promote access and affordability, as this paper will describe.

[11] Thomas J. Kane, "Rising Public Tuition and College Entry: How Well Do Public Subsidies Promote Access to College?" NBER Working Paper #5164 (Cambridge, MA: National Bureau of Economic Research, 1995); Thomas J. Kane, *The Price of Admission: Rethinking How Americans Pay for College* (Washington, D.C.: The Brookings Institution Press, 1999); Thomas J. Kane, "A Quasi-Experimental Estimate of the Impact of Financial Aid on College-Going," NBER Working Paper #9703 (Cambridge, MA: National Bureau of Economic Research, 2003); Donald E. Heller, "Student Price Response in Higher Education: An Update to Leslie and Brinkman," *Journal of Higher Education*, 68, no. 6 (1997), 624-659; Michael S. McPherson and Morton O. Schapiro, *The Student Aid Game: Meeting Need and Rewarding Talent in American Higher Education* (Princeton, NJ: Princeton University Press, 1998); Michael S. McPherson and Morton O. Schapiro, *Keeping College Affordable: Government and Educational Opportunity* (Washington, D.C.: The Brookings Institution, 1991); Edward P. St. John, "Price Response in Enrollment Decisions: An Analysis of the High School and Beyond Sophomore Cohort," *Research in Higher Education* 31, no. 2 (1990), 161-176; L.L. Leslie and P.T. Brinkman, *The economic value of higher education* (New York: ACE/Macmillan, 1987); C.F. Manski and D. Wise, College Choice in America (Cambridge, MA: Harvard University Press, 1983).

[12] Kane, *The Price of Admission*; McPherson & Schapiro, The Student Aid Game; Heller, "Student Price Response."

[13] Kane, "A Quasi-Experimental Estimate;" Leslie & Brinkman, 1987; J.K. Mullen, "Implications of Tuition Grants in Higher Education: The Case of a Prior Need-Based Aid Program," *Economics of Education Review* 2, no. 1 (1982), 49-65; R.H. Fenske, "State Financial Aid to Students: A Trend Analysis of Access and Choice of Public or Private Colleges," *College and University* 54, no.2 (1979), 139-155.

[14] M. Paulsen and E. St. John, "Social class and college costs: Examining the financial nexus between college choice and persistence," *The Journal of Higher Education* 73, no. 2 (2002), 189-236; Eric P. Bettinger, "Need-Based Aid and Student Outcomes: The Effects of the Ohio College Opportunity Grant," 2010 <http://www.sesp.northwestern.edu/docs/need-based-aid-why.pdf>; Sara Goldrick-Rab, Douglas N. Harris, Robert Kelchen, and James Benson, *Need-Based Financial Aid and College Persistence: Experimental Evidence from Wisconsin*, 2012 <http://www.finaidstudy.org/documents/Goldrick-Rab%20Harris%20Benson%20Kelchen.pdf>.

[15] Sandy Baum, Michael McPherson, and Patricia Steele, eds., *The Effectiveness of Student Aid: What the Research Tells Us*, (New York: The College Board, 2008); Eric Bettinger, Bridget Long, and Philip Oreopoulos, "Increasing College Enrollment Among Low- and Moderate-Income Families: An Intervention to Improve Information and Access to Financial Aid," The H&R Block FAFSA Project, Interim Report, July 2008; Susan M. Dynarski and Judith E. Scott-Clayton, *The Cost of Complexity in Federal Student Aid: Lessons from Optimal Tax Theory and Behavioral Economics*, NBER Working Paper #12227 (Cambridge, MA: National Bureau of Economic Research, 2006).

[16] All levels of government also offer higher education a major subsidy in the form of a broad-based tax exemption for non-profit institutions, although that subsidy will not be a focus of this discussion.

[17] Baum et al, Rethinking Pell Grants (The College Board: New York, 2013).

[18] Matthew Quirk, "The Best Class Money Can Buy," *The Atlantic*, 2005 <http://www.theatlantic.com/magazine/archive/2005/11/the-best-class-money-can-buy/304307/> (12 Oct. 2013); McPherson and Schapiro, *The Student Aid Game*.

[19] One slight exception may exist for programs like the Carolina Covenant, which makes a commitment to low-income students able to gain admittance to the University of North Carolina at Chapel Hill. Such programs, in part because only the wealthiest of public and private institutions can afford to make such a promise, do not reach large numbers of low-income students. And events like the University of Virginia's recent decision to roll back its own commitment program, known as AccessUVA, suggest that even these well-off institutions may find sustainability to be a serious challenge (Jenna Johnson, "U-Va. to Scale Back Financial Aid Program for Low- and Middle-Income Students," *The Washington Post*, 2013 <http://articles.washingtonpost.com/2013-08-06/local/41129339_1_middle-income-students-low-income-students-the-u-va>).

[20] McPherson and Schapiro, *The Student Aid Game*.

[21] D. Jones, "Financing in Sync: Aligning Fiscal Policy with State Objectives," *Policies in Sync: Appropriations, Tuition, and Financial Aid for Higher Education* (Boulder, CO: Western Interstate Commission for Higher Education, 2003).

[22] Brookings Institution State Grant Aid Study Group, *Beyond Need and Merit: Strengthening State Grant Programs* (Washington, DC: Brookings Institution, 2012), 2.

[23] Jillian Kinzie, et al, *Fifty Years of College Choice: Social, Political, and Institutional Influences on the Decision-Making Process* (Indianapolis, IN: Lumina Foundation, 2004), 47.

[24] Some of the most well known include Indiana's 21st Century Scholars Grant and Oklahoma's Promise Scholarship. But the dichotomy between merit and need is so well-established that some programs that are first and foremost based on financial need, and commonly categorized that way, also utilize merit criteria in determining award levels. California's CalGrant is one such example, and programs exist that are mainly merit-based but which have a minor component relying on needs assessment, like Wyoming's Hathaway Scholarship.

[25] Susan P. Choy, *Access and Persistence: Findings from 10 Years of Longitudinal Research on Students* (Washington, D.C.: American Council on Education, 2002), 22.

[26] The aggregated measure of unmet need is also peculiar because it reflects the distribution of student enrollments. So if financial concerns compel a student to enroll at a much lower-priced institution than he or she was aiming at, unmet need may be lower than it would have been otherwise. In the aggregate, what do we make of such an outcome? Should we be pleased that aggregated unmet need is consequently lower, or should we be more concerned that the student may now have undermatched?

[27] Oregon's initial approach on setting the cost of attendance may be instructive here: it chose to extend eligibility for its Opportunity Grant to students attending private, non-profit institutions, where the recognized cost of attendance for award determination was equivalent to the public four-year sector average. For the non-tuition expenses component of cost of attendance, Oregon opted to recognize the amount reported by the public institution for on-campus living that was the third lowest in the state.

[28] In Oregon and Minnesota, the methodology only explicitly identifies four partners, leaving out the institutions. This proposal refines and updates those approaches to ensure that institutional aid budgets are considered in ensuring access and affordability for all students. This is of particular concern given how institutional aid money is a key part of the postsecondary finance strategy, often explicitly as in Arizona. There, an agreement in the mid-2000s allowed public institutions to bump up tuition prices in exchange for a commitment that they would redeploy 40 percent of any new tuition revenue obtained in the process on need-based aid. More recently, some state legislatures such as Iowa and Virginia have publicly wrestled with the practice of repurposing tuition revenue for institutional need-based aid programs.

[29] Albert B. Hood, Andrew Craig, Andrew, and Bruce Ferguson, "The Impact of Athletics, Part-Time Employment, and Other Academic Activities on Academic Achievement," *Journal of College Student Development*, 33 (September 1992), 447–53; Ronald Ehrenberg and Daniel Sherman, "Employment While in College, Academic Achievement, and Postcollege Outcomes," *Journal of Human Resources*, 22, no. 1 (Winter 1987), 1–24.

[30] While many federal policy analysts, including the authors of this paper, believe that the current federal methodology for determining the right amount for a family to contribute could be improved, it probably remains the best proxy available. The upcoming reauthorization of the Higher Education Act may be an opportunity to improve it. Notwithstanding its weaknesses, however, some explicit connection to the federal approach to assessing need is necessary for state and federal aid programs to be integrated.

[31] This means that, for example, if an SRM-driven state grant award is fully funded, the federal Pell Grant maximum rises, and all other amounts stay constant, the state grant award determined by this formula would go down. Chances that states using SRM would see a sharp reduction in the state grant amount in practice are remote,

however, because costs of attendance also generally go up and fully funding the program would require substantially higher commitments than many states currently provide to their state grant programs.

[32] Baum & Payea, *Trends in Student Aid*.

[33] The actual rationing decisions made by states that rely on SRM are instructive here. Over the three decades that Minnesota has used the approach, it generally has rationed the program by adjusting the formula for calculating grant amounts and through the cost of attendance levels that it recognizes. Unfortunately for Oregon's adoption of SRM in time for the 2007-08 academic year, the national recession struck before it could become as well established. Its rationing choices for a new program not well ingrained in state culture were therefore especially hard, and it has adopted a suite of tools in response. Two are particularly problematic. One is an especially early application deadline, February 1, for the following academic year. The other is that the state has returned to awarding flat grants, although it continues to use the SRM approach to determine eligibility, with recipients required to show need equivalent to the amount that would be provided in the flat grant. Each of these choices make administration of the program more straightforward but come at a significant cost both to a subset of the neediest students and to the overall rationale behind the program (and potentially to the political support the program had enjoyed when it was enacted).

[34] Minnesota's non-tuition expenses component of its program is considerably lower at $7,326 (http://www.ohe.state.mn.us/pdf/faresearch/parameters.pdf) than Oregon's at $12,300 in 2012-13 (http://www.oregonstudentaid.gov/oog-history.aspx).

[35] Whereas Oregon uses a specific amount tied to minimum wage, Minnesota's student contribution is based on a percent share of the recognized cost of attendance. That amount has fluctuated over time between 50 percent and 46 percent.

[36] Caroline R. Noyes, Jonathan Gordon, and Joe Ludlum, *The Academic Effects of Cooperative Education Experiences: Does Co-Op Make a Difference in Engineering Coursework*, (Vancouver, BC: American Society for Engineering Education, 2011); Deborah Worley, "The Benefits of Preparation: Examining the Relationship Between Integrated Work Experiences and Post-Graduation Pursuits for Baccalaureate Completers," *Journal of Cooperative Education* 44, no. 1 (2010), 23-33; Philip Siegel and John Rigsby, "The Relationship of Accounting Internships and Subsequent Professional Performance," *Issues in Accounting Education* (Fall 1988), 423-32; Robert Perloff and Edward Sussna, "Toward an Evaluation of Cooperative Education: A Managerial Perspective," *Journal of Cooperative Education* 14 (1978), 54-73.

[37] National Association of Colleges and Employers, *Internship and Co-op Survey Executive Summary*, 2013 <http://naceweb.org/Research/Intern_Co-op/Internship_and_Cooperative_Education_Survey.aspx> (15 Aug. 2013); Richard Foster, Melvin Franz and Fran Waller, "Cooperative Education Students and Job Satisfaction," *Journal of Cooperative Education* 23, no. 1(1986).

[38] Michelle Ware, Evan Weissman, and Drew McDermott, *Aid Like a Paycheck: Incremental Aid to Promote Student Success* (New York, NY: MDRC, 2013). It may not be necessary or desirable to require as many disbursements as outlined in this report, however. It may be simpler and equally effective to make only two or three disbursements throughout each term. An initial one would be necessary to provide the recipient with sufficient funds to buy books and supplies, plus living expenses for the period leading up to subsequent disbursements. The timing of additional disbursements would need to be determined, but obvious points to consider are: after the add/drop period, after the deadline for course withdrawals, and at the successful completion of a course.

[39] This component builds off of ideas for a form of "Title I funding for higher education," as described in Reed and Alexander (2011) and in Rethinking Student Aid Study Group (2008), *Fulfilling the Commitment: Recommendations for Reforming Federal Student Aid*.

[40] Such a commitment would not extend to specific courses (in effect compelling institutions to prioritize the registration for those courses for aid recipients over other students) but would consist of a menu of courses that meet curriculum requirements.

[41] Quirk, "The Best Class Money Can Buy;" Baum & Payea, *Trends in Student Aid*.

[42] ExpectMore.gov, <http://www.whitehouse.gov/sites/default/files/omb/assets/OMB/expectmore/summary/10002106.2004.html>.

References

Arizona Board of Regents. *Financial Aid Regulations*. 2013. <http://azregents.asu.edu/rrc/Policy%20Manual/4-321%20Financial%20Aid%20Regulations.pdf> (28 Jan. 2014).

Arizona Board of Regents. *University System Quick Facts*. <http://www.azregents.edu/universitysystemquickfacts/default.aspx> (28 Jan. 2014).

Baum, Sandy, Michael McPherson, and Patricia Steele, eds. *The Effectiveness of Student Aid: What the Research Tells Us*. New York, NY: College Board, 2008.

Baum, Sandy, and Kathleen Payea. *Trends in Student Aid*. New York, NY: The College Board, 2013.

Baum, Sandy, Thomas Bailey, Eric Bettinger, Susan Dynarski, Arthur Hauptman, Harry Holzer, James Jacobs, Kathleen Little, Bridget Terry Long, Michael McPherson, James Rosenbaum, Donald Saleh, Judith Scott-Clayton, and Sarah Turner. *Rethinking Pell Grants*. New York, NY: College Board, 2013.

Bettinger, Eric P. "Need-Based Aid and Student Outcomes: The Effects of the Ohio College Opportunity Grant." 2010. <http://www.sesp.northwestern.edu/docs/need-based-aid-why.pdf>.

Bettinger, Eric P., Bridget Terry Long, and Phillip Oreopoulos. "Increasing College Enrollment Among Low- and Moderate-Income Families: An Intervention to Improve Information and Access to Financial Aid." *The H&R Block FAFSA Project Interim Report*, 2008.

Brookings Institution State Grant Aid Study Group. *Beyond Need and Merit: Strengthening State Grant Programs*. Washington, DC: The Brookings Institution, 2012.

Choy, Susan P. *Access and Persistence: Findings from 10 Years of Longitudinal Research on Students*. Washington, D.C.: American Council on Education, 2012.

Complete College America. *How Full-Time are "Full-Time" Students?*. October 2013. <http://www.completecollege.org/pdfs/2013-10-14-how-full-time.pdf>.

Dynarski, Susan M., and Judith Scott-Clayton. "The Cost of Complexity in Federal Student Aid: Lessons from Optimal Tax Theory and Behavioral Economics." NBER Working Paper #12227. Cambridge, MA: National Bureau of Economic Research, 2006.

Ehrenberg, Ronald, and Daniel Sherman. "Employment While in College, Academic Achievement, and Postcollege Outcomes." *Journal of Human Resources* 22, no. 1 (1987): 1–24.

Fenske, R.H. "State Financial Aid to Students: A Trend Analysis of Access and Choice of Public or Private Colleges." *College and University* 54 no.2 (1979): 139-155.

Foster, Richard, Melvin Franz, and Fran Waller. "Cooperative Education Students and Job Satisfaction." *Journal of Cooperative Education* 23 no. 1 (1986).

Goldrick-Rab, Sara, Douglas N. Harris, Robert Kelchen, and James Benson. *Need-Based Financial Aid and College Persistence: Experimental Evidence from Wisconsin*. 2012. <http://www.finaidstudy.org/documents/Goldrick-Rab%20Harrris%20Benson%20Kelchen.pdf>.

Grinder, Scott A., and Janice E. Kelly-Reid. *Enrollment in Postsecondary Institutions, Fall 2012; Financial Statistics, Fiscal Year 2012; Graduation Rates, Selected Cohorts, 2004-09; and Employees in Postsecondary Institutions, Fall 2012. NCES #2013-183*. Washington, D.C.: National Center for Education Statistics, 2013.

Heller, Donald E. "Student Price Response in Higher Education: An Update to Leslie and Brinkman." *Journal of Higher Education*, 68 no. 6 (1997): 624-659.

Hood, Albert B., Andrew Craig, and Bruce Ferguson. "The Impact of Athletics, Part-Time Employment, and Other Academic Activities on Academic Achievement." *Journal of College Student Development* 33 (September 1992): 447–53.

Jones, Dennis. "Financing in Sync: Aligning Fiscal Policy with State Objectives." *Policies in Sync: Appropriations, Tuition, and Financial Aid for Higher Education*. Boulder, CO: Western Interstate Commission for Higher Education, 2003.

Kane, Thomas J. "Rising Public Tuition and College Entry: How Well Do Public Subsidies Promote Access to College?" NBER Working Paper #5164. Cambridge, MA: National Bureau of Economic Research, 1995.

Kane, Thomas J. *The Price of Admission: Rethinking How Americans Pay for College*. Washington, D.C.: The Brookings Institution Press, 1999.

Kane, Thomas J. "A Quasi-Experimental Estimate of the Impact of Financial Aid on College-Going." NBER Working Paper #9703. Cambridge, MA: National Bureau of Economic Research, 2003.

Kinzie, Jillian, Megan Palmer, John Hayek, Don Hossler, Stacey A. Jacob, and Heather Cummings. *Fifty Years of College Choice: Social, Political, and Institutional Influences on the Decision-Making Process*. Indianapolis, IN: Lumina Foundation, 2004.

Leslie, L.L., and P.T. Brinkman. *The Economic Value of Higher Education*. New York: ACE/Macmillan, 1987.

Manski, C.F., and D. Wise. *College Choice in America*. Cambridge, MA: Harvard University Press, 1983.

McPherson, Michael S., and Morton Owen Schapiro. *Keeping College Affordable: Government and Educational Opportunity*. Washington, DC: The Brookings Institution, 1991.

McPherson, Michael S., and Morton Owen Schapiro. *The Student Aid Game: Meeting Need and Rewarding Talent in American Higher Education*. Princeton, NJ: Princeton University Press, 1998.

Mullen, J.K. "Implications of Tuition Grants in Higher Education: The Case of a Prior Need-Based Aid Program." *Economics of Education Review* 2 no. 1 (1982): 49-65.

National Association of Colleges and Employers. *Internship and Co-op Survey Executive Summary* < https://www.naceweb.org/uploadedFiles/Content/static-assets/downloads/executive-summary/2013-internship-co-op-survey-executive-summary.pdf> (15 Aug. 2013).

National Association of State Student Grant and Aid Programs. *43rd Annual Survey Report on State-Sponsored Student Financial Aid*. 2013. <http://www.nassgap.org/viewrepository.aspx?categoryID=3#collapse_351>.

Noyes, Caroline R., Jonathan Gordon, and Joe Ludlum. *The Academic Effects of Cooperative Education Experiences: Does Co-Op Make a Difference in Engineering Coursework*. Vancouver, BC: American Society for Engineering Education, 2011.

Paulsen, M., and E. St. John. "Social class and college costs: Examining the financial nexus between college choice and persistence." *The Journal of Higher Education*, 73 no. 2 (2002): 189-236.

Perloff, Robert, and Edward Sussna. "Toward an Evaluation of Cooperative Education: A Managerial Perspective." *Journal of Cooperative Education*, 14 (1978): 54-73.

Prescott, Brian T. *Demography as Destiny: Policy Considerations in Enrollment Management*. Boulder, CO: Western Interstate Commission for Higher Education, 2013.

Quirk, Matthew. "The Best Class Money Can Buy," *The Atlantic*. November 1, 2005. <http://www.theatlantic.com/magazine/archive/2005/11/the-best-class-money-can-buy/304307/> (29 Aug. 2012).

Reed, Charles B., and F. King Alexander. "We Need a New Kind of Institutional Aid." Inside Higher Ed. March 30, 2009. <http://www.insidehighered.com/views/2009/03/30/reed> (12 Oct. 2013).

Rethinking Student Aid Study Group. *Fulfilling the Commitment: Recommendations for Reforming Federal Student Aid*. New York, NY: College Board, 2008.

Siegel, Philip, and John Rigsby. "The Relationship of Accounting Internships and Subsequent Professional Performance." *Issues in Accounting Education* (1988): 423-32.

St. John, Edward P. "Price Response in Enrollment Decisions: An Analysis of the High School and Beyond Sophomore Cohort." *Research in Higher Education* 31 no. 2 (1990): 161-176.

State Higher Education Executive Officers. *State Higher Education Finance, FY 2012*. Boulder, CO: State Higher Education Executive Officers, 2013.

Ware, Michelle, Evan Weissman, and Drew McDermott. *Aid Like a Paycheck: Incremental Aid to Promote Student Success*. New York, NY: MDRC, 2013.

Western Interstate Commission for Higher Education. *Knocking at the College Door: Projections of High School Graduates* (8th ed.). Boulder, CO: Western Interstate Commission for Higher Education, 2012.

Worley, Deborah. "The Benefits of Preparation: Examining the Relationship Between Integrated Work Experiences and Post-Graduation Pursuits for Baccalaureate Completers." *Journal of Cooperative Education* 44 no. 1 (2010): 23-33.

Appendix A

Cost Estimation Strategies for the Shared Responsibility Model (SRM)

This appendix provides information concerning the estimated impact of the policy proposals offered in the accompanying paper. It includes rough estimates for states considering a Shared Responsibility Model-type approach to state financial aid redesign using the best commonly and publicly available data for all states, namely the National Postsecondary Student Aid Study (NPSAS) and the Integrated Postsecondary Education Data System (IPEDS). NPSAS provides nationally representative data on how students finance their postsecondary education, most recently for the 2011-12 academic year, and IPEDS provides data to account for some variation in important variables among states. The appendix also addresses the likely cost implications of other proposals and, where appropriate, a discussion of key implementation features.

Cost Estimates for the SRM

To develop the most accurate estimates of cost for SRM would require carefully assembled state-level data in order to prepare separate models for each state to fully capture variation in the characteristics of higher education structures and population. Lacking these data, we built our model primarily from available federal data sources. Our estimation strategy attempted to account for important sources of variation among states, yet as with any such exercise, numerous assumptions are inevitable, which undoubtedly mean that our estimates vary somewhat from what would actually occur on a state-by-state basis.

Our best estimates suggest that, implausible though it is, if all states adopted the SRM to distribute state grants, then the total national cost would be approximately $13.1 billion and provide grants to about 7.1 million students. These expenses are higher than the national total of state-funded financial aid of $11.1 billion in 2011-12,[43] although that amount includes both grants and other forms of state-funded financial assistance. This estimate also reflects full implementation in which all students receive grants that meet their full costs of attendance, but it is unlikely that all eligible recipients would take up the grant. Finally, it is an estimate based on student enrollment and financial conditions in 2011-12. In other words, this estimate does not account for students who might be attracted to higher education by this policy, or who might not have otherwise completed the paperwork to become eligible for financial aid but were enrolled anyway. Additional eligible students would serve to drive up total costs. Our estimates suggest that awards to dependent students with family income up to $30,000 attending public four-year institutions would average $3,400.

Given the large variation in students' awards under the SRM in concept, our estimation strategy sought to calculate awards for a group of students with similar characteristics, count the number of individuals who would be eligible to receive that level of award, and, finally, to sum the results. Our options for differentiating students appropriately are limited largely to data available through NPSAS data, which allowed us to group students according to their dependency status, income level, and sector of attendance.

We calculated awards for students in each of the categories created by the combination of these variables. For simplicity, we estimated the costs of the SRM assuming that only students attending in-state public and private non-profit institutions would be eligible

Table A1. Student Grouping Variables

Income Level	Dependency Status	Sector of Attendance
$30,000 or less	Dependent	Public Four-Year
$30,001 to $48,000	Independent	Public Two-Year
$48,001 to $75,000		Private Non-profit
$75,001 to $110,000		
More than $110,000		

to receive state grants. Although this rule is commonly the case across the country, it is not universal. Many states, such as California, allow students attending proprietary institutions to be eligible for state grant funding. Other states like Rhode Island permit state residents to receive grants even if they are attending an out-of-state institution. Funds flowing in these two directions account for less than 6 percent of state financial aid expenditures.[44] Recall that SRM establishes the award amount based on the formula depicted in Figure A1. The source data for each of these components is detailed below.

Figure A1. SRM Award Calculation (in concept)

	Sector Average Cost of Attendance
–	Student Contribution
–	Family Contribution
–	Federal Pell & Tax Credits
	State Grant Award Amount

Sector average cost of attendance. We calculated enrollment-weighted averages based on data available through the Integrated Postsecondary Education Data System (IPEDS) Institutional Characteristics and Enrollment Surveys. For the tuition portion of the cost of attendance measure, we used in-district and in-state tuition and mandatory fees. For the non-tuition expenses amount, we used data for on-campus living. Even though we recognize that students are not always living on campus, we reasoned that students will face these costs of living even if they are not enrolled in college, but it is also difficult to build a model that accurately accounts for students' living situation given how fluid they often are. We also placed a "band" around the non-tuition expenses component of attendance costs to ensure that especially low amounts were not inadvertently penalizing students (a real possibility among institutions that are commuter campuses and do not report on-campus costs to IPEDS) and to restrict non-tuition expenses to a frugal, but not unrealistic, budget. This allowed sector average non-tuition expenses to range between $8,500 and $11,000.

Student contribution. This component of the SRM is addressed at length in the body of the paper and does not require much expansion here. We relied on the minimum wage amount multiplied by a reasonable work commitment (15 hours per week over 48 weeks during the year) and reduced by a small amount (10 percent) to arrive at a rounded-off figure representing the amount expected out of students' work efforts. This resulted in contributions from work component equaling $4,700. For students attending four-year institutions, we added a reasonable borrowing expectation of $3,500 annually.

Family contribution. This component differed based on students' dependency status. For both dependent and independent students, we began by obtaining the Estimated Family Contribution (EFC) from NPSAS for students in each of the income bands shown in Figure A1. To account for variation within each band, we gathered those data at the 10th, 25th, 50th, 75th, and 90th percentiles. For dependent students, we estimated the parent contribution portion of the EFC by applying the ratio between those two figures from data supplied by special request by Minnesota's Office of Higher Education. We used Minnesota's calculations for this purpose because the necessary data are not available from NPSAS and, since Minnesota relies on a similar SRM-based methodology for distributing awards, it keeps excellent data on the relationship of the parent contribution of the EFC (for dependent students) to the total EFC.

Independent students were treated somewhat differently. They were assigned a family contribution that was calculated as their EFC minus the working component of the student contribution amount. Thus, independent students only face a family contribution if their EFC exceeded the expectation for contributions from work, or about $4,700 in our model. This rule is applied consistently across all sectors, even for independent students attending four-year campuses whose student contribution requirements are higher by virtue of including a borrowing component.

Federal Pell and tax credits. We estimated Pell grant award levels based on the EFCs we had gathered in each of the percentile groups described above. To account for tax credits, we applied the formula for the American Opportunity Tax Credit based on the average published tuition prices students would face in each sector. We assumed that all students, by virtue of being expected to contribute such a substantial

amount toward their own education from their own resources, would be eligible to claim a tax credit limited only by their institution's published tuition price. This assumption overestimates the funds available through tax credits to students who do not have tax liability, but available data to estimate this effect within our broader strategy are extremely limited.

State Grant award amount. We used the foregoing information to calculate the state grant that students attending full-time would receive at each of the above-mentioned percentiles.

Estimated recipients. We estimated the number of recipients in each combination of dependency, sector, and income band and for each percentile group based on NPSAS estimates of the number of students falling into each category. We adjusted these estimates for each state using IPEDS data on enrollment and making the assumption that the nationwide distribution of students into each of these categories is consistent across states.

Estimated expenses. We estimated a cost to the SRM program for each percentile group with eligible recipients within the combinations of dependency, sector, and income. Reductions in the total were made to account for students being enrolled less than full-time or for being non-residents, as follows.

Recognizing that not all students attend college full-time, we needed a way to estimate full- time and part-time participation. More than that, because SRM calculates awards based on the number of credits attempted (and, at states' discretion, credits earned), we used NPSAS data together with research from Complete College America to disaggregate our estimates for so-called "full-time" students who take 15 credit hours or more versus 12 credit hours in a term.[45] We also assumed that, among part-time students, those labeled "Exclusively Part-Time" and "Mixed Full- and Part-Time" in NPSAS would be taking 6-10 credits per term, respectively. SRM grants were proportionately reduced for students taking fewer than 15 credits.

Notwithstanding notable exceptions like Rhode Island and the District of Columbia, states typically do not provide state grant awards to nonresident students or to resident students who attend colleges outside their borders. We attempted to estimate the effect of that by combining data from IPEDS and NPSAS. To account for differences in residency beyond a student's initial fall term, and in the propensity of students to attend in-state based on dependency status, we relied on NPSAS data adjusted by an index score created out of the IPEDS data. The Residence and Migration component in the IPEDS Fall Enrollment survey has data on the state of origin for all first-time students, which we used to establish, by means of an index, how much variation exists among states in their share of resident students. Finally, because state populations are not equally wealthy, we adjusted the total expenses figure using statewide median household income figures for 2012, indexed to the national figure.

State Examples

To help understand how the SRM model may be applicable, we estimated total costs for select states, including those with varying levels of commitments to state aid and programs that award grants principally based on merit criteria. The states we selected to address are Arizona, California, and Kentucky.

Arizona. Arizona offers a useful example because, although it provides extremely modest state funding for financial aid – about $15.9 million in 2011-12 – it requires its public four-year institutions to devote one-half of all undergraduate institutional aid for meeting need and 30 percent to reward merit. It also instructs institutions to set aside a portion of any new tuition revenue to need-based financial aid.[46] Those institutions collectively awarded $429.5 million in institutional aid in 2011-12.[47] Community colleges in Arizona are locally controlled; there is no formal statewide coordination.

Our estimation model suggests that adopting SRM in Arizona could require state expenditures of approximately $253 million. This amount is considerably more than the state currently provides. Shifting Arizona's aid policy to SRM would not be easy given the large gap between current and estimated expenditures, but the state could build on the commitment to aiding needy students reflected in the set-

aside policy. Ideally, that represents a source of financial support that may be more effectively distributed centrally, or at least through a more thoroughly documented set of regulations. As it stands, the policy is also buried in board regulation, where any marketing power it may have to encourage low-income students to attend is greatly diminished. Furthermore, the set-aside policy only applies to students attending the institutions governed by the Board of Regents, and students attending Arizona's two-year institutions need financial support as well. Any discussion about adopting SRM could create conflict between institutional sectors within the state.

California. California is a good example of a state that makes a significant commitment to support for financially needy students through grants. In 2011-12, California provided $1.49 billion in state financial assistance, mostly through its CalGrant program.[48] There are three basic CalGrant programs that are all principally need-based grants but also require recipients to also meet various merit qualifications. CalGrants are largely distributed to students below certain income thresholds and provide awards that vary based on where students attend college. For all practical purposes, however, the vast bulk of those dollars go to students attending the four-year institutions, while low-income community college students are more likely to receive tuition waivers. Those waivers, though helpful, do not cover non-tuition living expenses.

The SRM framework would reinforce the historic commitment California has made to financial aid by more explicitly linking the grant aid programs to state policies related to institutional appropriations and tuition-setting, and provide a more effective distribution of grant aid funds to low-income students no matter what segment they are attending. Given California's attempts to ensure that its grant programs are serving students who are deserving of the awards based on merit criteria, the SRM approach lends itself to incorporating demand-side incentives to ensure students are both prepared for college as well as successful in reaching their goals by better aligning the merit components with forward-looking measures of progress. Both the promise that SRM has for helping states align finance policies and the supply-side incentives laid out in this paper are particularly relevant for a state that has had to turn students away from courses that they need to fulfill degree requirements, especially during the most recent recession.

Thus, at its core, this concept paper contains proposals that are very much in keeping with California's aspirations for its student financial aid investments. Major political barriers to adoption exist, however, due to the way SRM would account for the non-tuition component of students' attendance costs and because California remains largely in thrall to its Master Plan. Apart from establishing role and mission differentiation for the three public higher education segments, the Master Plan still leaves a largely uncoordinated system of higher education. In such a system, changes in the way SRM would likely direct aid dollars to the community college segment, the wealthiest institutions that would have the least to gain are also the most politically powerful.

Kentucky. Kentucky's policymakers have attempted to have it both ways by splitting the bulk of its investments in student financial aid into three substantial grant programs, two that distribute aid based on a student's financial need and one based on merit criteria. In 2011-12, Kentucky provided nearly $195 million in grant aid principally through these three programs, with about $105 million being distributed through its Kentucky Educational Excellence Scholarship (KEES) – the merit program. The two grants that distribute funds based on financial need accounted for the rest: $59 million was provided through its primary need-based program and $31 million through a second program for needy students attending independent institutions.[49]

In recent years, Kentucky has considered adopting the SRM approach for awarding financial need. One important reason why it has not is that the state needs to find a way to incorporate the funding that KEES enjoys in order to make it work financially. Politically, however, eliminating a popular merit program has been a serious barrier. This paper presents ideas about how the SRM approach still offers a state like Kentucky a practical solution that folds its merit-aid investments into how the state wants to finance its higher education enterprise most efficiently. States like Kentucky have a legitimate interest in their

students being successful in college, as well as encouraging them to strive for success while still in high school. Such incentives can be provided by considering how KEES can fit within the SRM. One idea would be to allow a KEES award – or a portion of it – to be used toward the student contribution required under SRM. Under such a scenario, Kentucky's two other need-based grant programs would form the foundation for the SRM approach. Ensuring that the non-profit institutions that are the beneficiaries of their targeted program are a part of the SRM would be essential for success. Such a policy could also encourage a dialogue about whether the state has its relative investments in the various grant programs sized appropriately to meet its goals.

Supply-Side Incentives

The paper envisions a number of ways in which the state grant program could incorporate supply-side incentives to ensure that institutions serve aid recipients effectively. One way was for the state to provide institutions with a payment whenever aid recipients successfully reach milestones along the path to a credential, as well as achieving the credential itself. These payments would be in addition to the estimates already provided for the SRM, but more analysis is needed to determine what amount is sufficient to compel changes in institutional behavior. In keeping with the theme of linking finance policies, however, it makes sense that such payments should be determined as a percentage of the statewide per-student appropriation to public institutions. Such a payment could be risk-adjusted for key student characteristics, such as first-generation status, placement in remedial education, or similar markers of underserved status, in order to provide greater rewards for institutional successes with the hardest-to-serve populations.

Federal-State Partnership

In order to generate the kind of competition among states that we envisioned in proposing a new federal-state partnership program (a reinvigorated LEAP program), we estimate that the pool of money available to states should be about $4 billion to $5 billion annually. This amount is dramatically larger than the $63.9 million the old LEAP program received in FY2010, the last year it received appropriations, and enough to get states' attention.

More research and analysis is needed to determine the optimal way in which the match rates would be calculated. But it makes sense to specify that states would be placed into tiers that would determine their share of the federal dollars in the pool. Tiers could be based on levels of "affordability," which would encourage all states to achieve those levels. As an example, a state that is able to ensure that students with financial need (or Pell-eligible students) could provide grant funds – in combination with student and family contributions, Pell Grants, and tax credits – that came within 15 percent of the statewide average cost of attendance would be able to claim the equivalent of two states' shares of the federal pool of matching funds. A state reaching between 15-30 percent of statewide average costs of attendance would only claim their own share. And states falling below 30 percent would not be able to claim any money from the federal matching program. The number of tiers and the thresholds for affordability would need further research and discussion.

Summary

As these few examples make evident, the attractiveness of the policy proposals contained within the paper will vary substantially from state to state. It will be more attractive and easier to adapt when the proposals are more in alignment with the state's policy posture toward aid programs, especially if they have had a historic commitment to need-based financial aid. It will likely be a heavier lift politically in states that award funds on merit-based aid, or if they have sought to fund access mainly through institutional appropriations (to keep tuition low) or by allowing the institutions themselves to distribute need-based aid. Nevertheless, as we argue in the paper, the demands on all states for boosting educational attainment requires a framework that offers states an effective and economically efficient

way to do so. The proposals can be flexible enough to be molded to meet states' more specific needs and contexts.

Notes

[43] National Association of State Student Grant & Aid Programs (NASSGAP), *43rd Annual Survey Report on State-Sponsored Student Financial Aid*, 2013 <http://www.nassgap.org/viewrespoitory.aspx?categoryID=3#collapse_351>.

[44] NASSGAP, Table 9.

[45] Complete College America, *How Full-Time are "Full-Time" Students?*, October 2013 <http://www.completecollege.org/pdfs/2013-10-14-how-full-time.pdf>.

[46] Arizona Board of Regents, *Financial Aid Regulations*, 2013 <http://azregents.asu.edu/rrc/Policy%20Manual/4-321%20Financial%20Aid%20Regulations.pdf>

[47] Arizona Board of Regents, *University System Quick Facts*, <http://www.azregents.edu/universitysystemquickfacts/default.aspx>

[48] NASSGAP, *43rd Annual Survey Report*.

[49] NASSGAP, *43rd Annual Survey Report*.

Appendix B

Anticipating Unintended Consequences

Any new policy will result in unintended consequences; some are more easily foreseen than others. Dealing as they will with the extraordinarily complicated world of higher education finance, policymakers and others need to be vigilant to ensure that any policies emerging from the proposals outlined in this paper preserve the ambitious goals for access, success, and affordability. Lessons from the two states – Minnesota and Oregon – that have adopted the Shared Responsibility Model (SRM) as a framework for distributing grants may be especially useful.

Lessons from Minnesota and Oregon

Perhaps the biggest lesson that arises out of Minnesota's and Oregon's experiences with SRM is that an important part of the program's appeal – that it offers eligible prospective students clear guidance on how all their costs of attendance will be met – is susceptible to fluctuations in economic conditions and student demand. States looking at adapting SRM as a framework for aid distribution need to carefully consider the rationing strategies that likely will be required, either at the outset of implementation or at a later time.

Doing so will help states avoid the possibility of treating good news as though it is a problem. After Oregon's state grant program moved to distributing awards based on SRM for the 2007-08 academic year, the number of students completing the Free Application for Federal Student Aid (FAFSA) jumped significantly. Not all of the new FAFSAs came from students who would otherwise have chosen not to attend an Oregon institution – after all, the program made students further up the income spectrum eligible than was the case previously (which was partly intentional, so as to help reduce the cliff effect experienced by students who lost access to both Pell Grants and the prior state grant at close to the same income level). But to the extent that growth in the caseload was greater than Oregon anticipated, the state was immediately faced with difficult funding decisions. Even though the original plan was for Oregon to spread the substantial investments necessary to fund the program over two biennia, the initial appropriation to the state grant was more than double the previous year's, and the state added a supplemental $4 million dollar appropriation to help address larger-than-expected gaps.

Then the recession struck, sapping the new program of much of the political tailwind it had benefitted from and forcing Oregon to make additional and extraordinarily difficult rationing choices. Oregon applied a number of rationing tools, including application deadlines and income cut-offs, but in the end the agency managing the program elected to award equal grants to students deemed eligible based on the SRM calculation. This decision robbed the framework of much of its power to communicate affordability and to link up with other state and federal finance policies. But it was easier for the agency to distribute grants in equal sizes.

Minnesota has an extraordinarily long history with SRM, having distributed state grants based on its version of the approach since the mid-1980s. The sheer longevity of the program is a testament to its popularity, but economic conditions and student demand have forced the state to ration the available funds by tweaking components of its SRM calculation. To begin with, Minnesota has utilized a non-tuition expenses amount that is substantially lower than what would ordinarily be sufficient. For 2013-14, that amount is $7,900. Holding the rate so low is a powerful way to keep overall program costs in check, even if students generally face much higher costs of attendance. But the state also has adjusted the student contribution and what it calls the "assigned family contribution" to most closely approximate available funds over time. Even if those rationing choices are not immediately evident to students and may sometimes appear arbitrary, Minnesota is an example of how the SRM approach has forced the state to engage in careful analysis based on the accumulation and application of substantial evidence collected throughout the program's history, together with other state finance policies in mind.

Shared Risks and Supply-Side Considerations

Our proposal that institutions should share in the risks, on the promise of greater potential rewards, needs careful treatment in implementation. The principal perverse incentive to be on guard for is that institutions might see it in their best interests to reduce their commitment to serving low-income, minority, and other populations whose success in college is statistically less certain. This is much like the worry that the outcomes-based performance funding policies currently being adopted in states might lead institutions to avoid serving the hardest-to-serve students, if those policies are not well designed. Thus the shared risks must be carefully balanced with the shared rewards. We have argued that the tax credit portion of the SRM framework offers an elegant solution to this problem because those dollars are not available to students when tuition payments are due, so institutions operating under SRM will need to address the gap in some fashion in any case. But care must be taken to ensure that institutions continue to reach out to hard-to-serve students, which they ultimately will find in their interest to do if there are sufficient rewards available to them when aided students succeed. State policymakers may consider how to adopt a means of determining the institutional reward amounts based on risk-adjusted factors, so that an institution's compensation is greater when its success occurs with students from the hardest-to-serve populations among those eligible for state grants.

State policymakers should also expect that institutional aid decisions will adapt under an SRM framework. In Oregon, for instance, the substantial increase in state grant programs allowed some institutions to reallocate their own aid budgets. States should be attentive to those changes so that institutions are not tempted to shift their own aid dollars away from students with financial need to pursue additional relatively well-off students whose characteristics match other institutional wish list items. Requiring institutions to match funds to needy students, as we propose, is one way to help ensure more overall aid dollars remain targeted on students of modest means.

Finally, state policymakers should pay careful attention to the price-setting decisions that institutions make, not just for tuition but also in how they set fees and even non-tuition expenses. This is essential as the cost-of-attendance figures are the most important element of the SRM approach. States may opt not to recognize the full costs of attendance at some institutions; using a sector-based average helps somewhat to constrain growth that might otherwise occur among institutions seeking to capture additional subsidies through the grant aid program. States should be wary, however, of letting their recognized costs drift too far from what individual institutions are setting. The result would likely be less public and policymaker support in part due to a less coherent and transparent picture of higher education costs.

A Reinvigorated Federal-State (LEAP) Partnership

Our proposal to renew and reinvigorate the federal-state matching program previously known as the Leveraging Educational Assistance Partnership (LEAP) is an important way that the federal government can encourage states to invest in the students for whom financial aid is most effective in changing behavior, and to do so in ways that actually aid in keeping college affordable. Our proposal suggests that a new LEAP could set the conditions for the federal match in a way that states will be continually encouraged to make wise investments in grant aid, rather than simply setting aside the minimum amount needed to ensure the flow of federal funds. Yet any eventual program must account for a number of possible perverse results.

First, there needs to be both sufficient funding in the program to ensure that states will see it in their best interests to pay attention to the incentives embedded in the program. We believe that an annual pool of $4 billion to $5 billion will generate the necessary interest among states. There is, however, no guarantee that states with established policies will cooperate. For example, the federal government will need to decide if a state can be rewarded for high rates of affordability because of its substantial investments in institutional appropriations even if that form of investment does not particularly help

low-income students, as contrasted with a state that has made an especially strong effort to serve low-income students.

Second, we have argued that a program that can set states in competition with one another could potentially constrain tuition growth. That potential depends on states seeing a value in competing. Given limitations on new programs at the federal level, we have suggested that the Pell Grant program may be a source for some of the funding needed to support a robust federal-state match policy on the grounds that constraining tuition prices will benefit the Pell Grant program itself. The higher education community considers the Pell program to be sacrosanct, even if some would argue that the time for important changes is overdue. We are convinced that an effectively designed, contemporary LEAP program can have the same profound effect on state financial aid decisions that the original incarnation did in 1972, and therefore is deserving of substantial investment. More research on our hypothesis concerning the cost control incentives is needed, especially if Pell Grant funds are to be repurposed.

Third, any such partnership will need to factor in a number of idiosyncrasies in state financial aid policies. Two that stand out are: the extent to which states do or do not provide state funds to students attending private institutions, and the extent to which states provide grant aid to students attending institutions in other states.

Summary

States' attention to anticipating unintended consequences of proposed policies is always important, and especially so when the policies under consideration are as complicated and interrelated as those relating to higher education finance. This appendix addressed just a few of those that are most easily foreseeable, but each state will need to examine these and other possible threats to the policies' intended goals with their own context and structure in mind.

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ERDC Brief 2014-06 *April 2014*

Report on Higher Education Financials

Utilizing Metrics Developed by the Delta Cost Project

This study focuses on financing trends in postsecondary education for both the public and private sectors. It is funded by Washington's ARRA Statewide Longitudinal Data Systems Grant.

Purpose

This report contributes to our understanding of the finances of postsecondary education in Washington state: the sources of revenue, spending on instruction and other items, and the outcomes as measured by student completions. As part of the grant extension for the development of the P-20 data warehouse the ERDC proposed to develop a report on higher education financials. In addition to public institutions of higher education this report includes private nonprofit and for-profit institutions using comparable data.

Method and Data Sources

The Delta Project on Postsecondary Education Costs, Productivity, and Accountability (Delta Cost Project) was originally an independent nonprofit organization supported by the Lumina Foundation for Education.[1] The Delta Cost Project had as its purpose the development of data and policy tools to improve productivity and public accountability for performance in postsecondary education. The thinking behind the Delta Cost Project was that college costs could be contained through better use of data to inform strategic decision making.

The Delta Cost Project had three basic questions regarding the financing of higher education:

1. Where does the money come from?
2. Where does the money go?
3. What does the money buy?

To answer these questions the Delta Cost Project developed several aggregate measures using data obtained from National Center for Education Statistics through the Integrated Postsecondary Education Data System (IPEDS). IPEDS consists of nine annual interrelated surveys of higher education institutions. Survey topics

[1] See Appendix C for a list of references to Delta Cost Project reports, issue briefs, and the online "Trends in College Spending," all of which can be accessed at www.deltacostproject.org/ .

include finances, 12-month enrollments, and completions. All postsecondary institutions that participate in federal financial aid programs are required to complete these surveys. Nationwide this is over 7,000 institutions, including public and private universities and colleges, community colleges, for-profit institutions, and non-degree granting schools such as business and beauty colleges. In Washington state about 125 institutions report annually.

The Delta Cost Project developed measures looking at:

- Revenue: Total operating revenue per FTE student and the sources of this revenue such as tuition, state appropriations, private gifts and investment returns, as well as other dedicated revenue sources like federal grants and contracts and auxiliary enterprises.
- Expenditures: Operating budget spending per FTE student organized into broad categories such as education-related expenditures consisting of spending on instruction, student services and a prorated share of spending on academic support, institutional support, and operations and maintenance, as well as spending on research and public services, scholarships and fellowships, and auxiliary enterprises.
- Subsidies: Comparing tuition revenue and education-related expenditures to parse the "student share of cost" and the "average subsidy."
- Outcomes and Spending: Measuring performance by (1) comparing degrees earned and total completions to the number of students enrolled, and (2) comparing education-related expenditures to degrees earned and total completions.

This report applies the measures developed by the Delta Cost Project to Washington institutions of higher education. Included in this analysis are:

- private for-profit and nonprofit career schools that do not offer bachelor's degrees;
- private nonprofit and for-profit baccalaureate colleges/universities that offer bachelor's degrees or higher;
- public community and technical colleges;
- public comprehensive universities/college; and
- public research universities including the branch campuses.

All Washington institutions that reported either 12-month instructional activity or completions are included in the enrollment and completions portions of this report. Only institutions that returned the finance, the 12-month enrollment, and the completions surveys are included in the per full-time equivalent (FTE) student analysis of revenue and expenditures. A complete list of these institutions by sector is included in Appendix B.

All dollar values have been adjusted for inflation using the implicit price deflator for personal consumption expenditures (IPD-PCE).

The IPEDS finance surveys are based on each institution's annual financial statement. These financial statements, along with the IPEDS finance survey, can follow different accounting procedures. Private institutions follow FASB (Financial Accounting Standards Board) standards and most public institutions

follow GASB (Governmental Accounting Standards Board) standards. These respective standards have also changed over time. These variations required the Delta Cost Project to define and adjust the reported financial statements to allow for comparability between private and public institutions and over time.

In Washington, the public institution's financial statements differ from what is reported to the state's accounting reporting system (Agency Reporting Financial System or AFRS). Both reports follow GASB standards, however, some program definitions differ between the AFRS reports and the financial statement/IPEDS reports. Both reports are "right" but serve different purposes. The financial statements/IPEDS reports are designed for public disclosure and understanding. The AFRS reports are designed for budgeting and budget monitoring purposes.

In addition this report collapses several program areas to allow for the combining of nonprofit and for-profit institutions into the same sectors. For-profit institutions are required to report less financial information to IPEDS than either nonprofit or public institutions.

In Washington, enrollments will also differ between what is reported to IPEDS and what is reported to the state. The state reports are for "state funded" enrollments whereas in IPEDS institutions report all student credit hours in courses that will lead to a degree or award. Another difference is that graduate level FTE students are computed at 36 (quarter) or 24 (semester) student credit hours. For the state reports, graduate FTE students are computed at 30 (quarter) or 20 (semester) student credit hours.

Results and Findings

Where are students taught?

Before answering the questions posed by the Delta Cost Project the following section describes the structure of postsecondary education in Washington state.

Most of the instructional activity as measured by full-time equivalent students takes place in public institutions. In 2012, 81 percent of the instructional activity took place in public institutions with 47 percent at community and technical colleges, 22 percent at research universities, and 12 percent at the comprehensive universities. The private baccalaureates accounted for 14 percent of the enrollments and the private career schools for 5 percent.

This enrollment pattern is basically the same as in 2002 when the split between public and private was 80:20.

Overall higher education enrollments grew at 1.8 percent per year with undergraduate enrollments growing at 1.9 percent per year and graduate level enrollments growing at 1.0 percent per year.

The research universities and community and technical colleges grew the fastest at 2.0 percent per year followed by the comprehensives at 1.8 percent per year. The private career schools grew at 1.7 percent per year with the private baccalaureates growing at 1.2 percent per year.

Table 1: Full-Time Equivalent (FTE) Students based on Institutional Instruction Activity

	Private		Public			Grand Total
	Career Schools	Baccalaureate Institutions	Community & Technical Colleges	Comprehensive Institutions	Research Universities	
2002 Amount						
Undergraduate	14,093	31,167	131,732	32,192	46,251	255,435
Graduate		10,967		2,245	16,556	29,768
Total FTE Students	14,093	42,134	131,732	34,437	62,807	285,203
2002 Shares						
Undergraduate	5.5%	12.2%	51.6%	12.6%	18.1%	100.0%
Graduate		36.8%		7.5%	55.6%	100.0%
Total FTE Students	4.9%	14.8%	46.2%	12.1%	22.0%	100.0%
2012 Amount						
Undergraduate	16,711	36,915	160,038	36,694	56,783	309,141
Graduate		10,462		2,600	19,958	33,020
Total FTE Students	16,711	47,377	160,038	41,294	76,741	342,161
2012 Shares						
Undergraduate	5.4%	11.9%	51.8%	12.5%	18.4%	100.0%
Graduate		31.7%		7.9%	60.4%	100.0%
Total FTE Students	4.9%	13.8%	46.8%	12.1%	22.4%	100.0%
Average Annual Change 2002-2012						
Undergraduate	1.7%	1.7%	2.0%	1.9%	2.1%	1.9%
Graduate		-0.5%		1.5%	1.9%	1.0%
Total FTE Students	1.7%	1.2%	2.0%	1.8%	2.0%	1.8%

Source: IPEDS 12-Month Enrollment Survey

1. Where does the money come from?

The sources of revenue vary widely among the sectors and there has been a dramatic change over the 2002 to 2012 period. At the public institutions especially, the major change has been the increased reliance on tuition revenue and the declining amount of state support. Revenue sources for an institution may be composed of net tuition, state appropriations, federal appropriations and governmental grants and contracts, gifts and investment returns, and revenue from auxiliary enterprises. Definitions for these sources are in the glossary (Appendix A).

Overall revenue per FTE student grew one percent per year at the public research universities (after adjusting for inflation). This growth includes revenue for federal and private research and public service which are not available for instructional purposes. Federal revenue and other governmental grants and contracts grew at 2.1 percent per year and the share went from 29 to 32 percent. Revenue from auxiliary enterprises such as housing, food services and the UW Hospital grew 1.5 percent per year. Meanwhile, revenue which can be used for instructional purposes stayed relatively flat. State appropriations went from 19 percent of revenue to 8 percent, declining 7.6 percent per year. This was offset by increases in student tuition, going from 12 percent of total revenue in 2002 to 20 percent in 2012, growing at nearly 7 percent per year.

Table 2: Revenue by Source per FTE Student (adjusted for inflation, 2012 dollars)

	2002		2012		Average Annual Change 2002-2012
	Amount	Share of Total	Amount	Share of Total	
PRIVATE					
Career Schools					
Net Tuition	$5,906	85.4%	$8,009	88.9%	3.1%
State Appropriations					
Federal Appropriations/Governmental Grants & Contracts	$125	1.8%	$183	2.0%	3.9%
Gifts & Investment Returns	$74	1.1%	$52	0.6%	-3.4%
Auxiliary Enterprises (Revenue)	$807	11.7%	$763	8.5%	-0.6%
Total Revenue	$6,913	100.0%	$9,008	100.0%	2.7%
Baccalaureate Institutions					
Net Tuition	$14,115	73.1%	$19,309	73.6%	3.2%
State Appropriations					
Federal Appropriations/Governmental Grants & Contracts	$559	2.9%	$671	2.6%	1.9%
Gifts & Investment Returns	$968	5.0%	$2,057	7.8%	7.8%
Auxiliary Enterprises (Revenue)	$3,680	19.0%	$4,191	16.0%	1.3%
Total Revenue	$19,322	100.0%	$26,228	100.0%	3.1%
PUBLIC					
Community & Technical Colleges					
Net Tuition	$2,346	22.1%	$3,531	31.0%	4.2%
State Appropriations	$4,719	44.5%	$3,608	31.7%	-2.6%
Federal Appropriations/Governmental Grants & Contracts	$1,955	18.4%	$2,764	24.3%	3.5%
Gifts & Investment Returns	$406	3.8%	$101	0.9%	-13.0%
Auxiliary Enterprises (Revenue)	$1,187	11.2%	$1,370	12.0%	1.4%
Total Revenue	$10,612	100.0%	$11,375	100.0%	0.7%
Comprehensive Institutions					
Net Tuition	$4,868	28.8%	$7,802	45.7%	4.8%
State Appropriations	$6,283	37.2%	$3,126	18.3%	-6.7%
Federal Appropriations/Governmental Grants & Contracts	$2,043	12.1%	$2,372	13.9%	1.5%
Gifts & Investment Returns	$434	2.6%	$225	1.3%	-6.4%
Auxiliary Enterprises (Revenue)	$3,254	19.3%	$3,544	20.8%	0.9%
Total Revenue	$16,883	100.0%	$17,069	100.0%	0.1%
Research Institutions					
Net Tuition	$6,477	11.6%	$12,586	20.3%	6.9%
State Appropriations	$10,717	19.1%	$4,844	7.8%	-7.6%
Federal Appropriations/Governmental Grants & Contracts	$16,452	29.4%	$20,159	32.4%	2.1%
Gifts & Investment Returns	$3,320	5.9%	$2,447	3.9%	-3.0%
Auxiliary Enterprises (Revenue)	$19,056	34.0%	$22,110	35.6%	1.5%
Total Revenue	$56,022	100.0%	$62,145	100.0%	1.0%

Source: IPEDS Finance Surveys

The public comprehensive universities had a similar story with state appropriations declining 6.7 percent per year with reliance on state support going from 37 percent to 18 percent of total revenue. Tuition per FTE student grew 4.8 percent per year and the share of total revenue derived from tuition increased from 29 percent to 46 percent. Overall revenue per FTE student was fairly flat growing at 0.1 percent per year. This total includes revenue growth in federal and state grants and contracts and auxiliary enterprises.

The fastest growing source of revenue at the community and technical colleges was tuition at 4.2 percent per year going from 22 to 31 percent of total revenue. State support declined 2.6 percent per year going from 44 to 32 percent of total revenue. Governmental grants and contracts increased 3.5 percent per year and went from 18 to 24 percent of total revenue.

The private baccalaureate colleges had overall revenue growth of 3.1 percent per year, primarily coming from increased tuition revenue which grew at 3.2 percent per year. Reliance on tuition revenue remained about the same going from 73 to 74 percent of total revenue.

Reliance on tuition revenue increased at the private career schools going from 85 percent to 89 percent of total revenue. Tuition revenue grew at 3.1 percent per year and overall revenue grew at 2.7 percent per year.

2. Where does the money go?

Over two-thirds of all spending was related to student education in all the higher education sectors except for the public research universities. At the research universities, spending on education-related activities accounted for 35 percent of total expenditures. Education-related activities consist of instruction, student services, and a share of "overhead" items including administrative support, institutional support, and maintenance and operations. Other spending categories are research and public service, scholarships and fellowships, and auxiliary enterprises. Definitions for these items can be found in the glossary (Appendix A).

At the private career schools, the amount spent on education-related activities grew at 1.3 percent year going from 86 to 90 percent of total expenditures. Instruction expenditures increased 5.2 percent per year while the amount spent on student services declined 0.5 percent per year and the amount spent on administration and maintenance declined even more at 1.2 percent year.

Education-related spending increased 2.3 percent per year at the private baccalaureates with student services growing the fastest at 2.9 percent per year. The share of expenditures on education increased slightly from 81 percent of 84 percent of total expenditures. Spending on auxiliary enterprises remained flat and declined as a share of total expenditures.

The amount of money spent on education-related activities slightly declined at the community and technical colleges and the share of total expenditures spent on education fell from 77 percent to 76 percent. While money spent on administration and maintenance declined – as did expenditures on instruction, spending on student services increased. Spending on auxiliary enterprises also increased.

Spending on education-related activities also declined at the comprehensive institutions, all of which occurred in administration and maintenance. Spending on instruction and student services increased from 2002 to 2012. Overall the share of spending on education fell from 70 percent to 66 percent.

Table 3: Expenditures by Function per FTE Student (adjusted for inflation, 2012 dollars)

	2002		2012		Average Annual Change 2002-2012
	Amount	Share of Total	Amount	Share of Total	
PRIVATE					
Career Schools					
Instruction	$1,838	26.3%	$3,047	40.3%	5.2%
Student Services	$1,212	17.4%	$1,154	15.3%	-0.5%
Education Share Administration/Maintenance	$2,959	42.4%	$2,609	34.6%	-1.2%
Education-Related Expenditures	*$6,009*	*86.1%*	*$6,810*	*90.2%*	*1.3%*
Research/Public Service Related	$0	0.0%	$13	0.2%	70.5%
Scholarships/Fellowships	$86	1.2%	$2	0.0%	-30.1%
Auxiliary Enterprises	$888	12.7%	$726	9.6%	-2.0%
Total Operating Expenditures	*$6,982*	*100.0%*	*$7,552*	*100.0%*	*0.8%*
Baccalaureate Institutions					
Instruction	$7,613	37.6%	$9,122	37.2%	1.8%
Student Services	$2,762	13.6%	$3,668	14.9%	2.9%
Education Share Administration/Maintenance	$6,067	29.9%	$7,920	32.3%	2.7%
Education-Related Expenditures	*$16,442*	*81.1%*	*$20,709*	*84.3%*	*2.3%*
Research/Public Service Related	$602	3.0%	$681	2.8%	1.2%
Scholarships/Fellowships	$262	1.3%	$213	0.9%	-2.0%
Auxiliary Enterprises	$2,959	14.6%	$2,951	12.0%	0.0%
Total Operating Expenditures	*$20,264*	*100.0%*	*$24,554*	*100.0%*	*1.9%*
PUBLIC					
Community & Technical Colleges					
Instruction	$5,156	45.3%	$5,093	44.5%	-0.1%
Student Services	$1,095	9.6%	$1,175	10.3%	0.7%
Education Share Administration/Maintenance	$2,503	22.0%	$2,413	21.1%	-0.4%
Education-Related Expenditures	*$8,754*	*77.0%*	*$8,681*	*75.8%*	*-0.1%*
Research/Public Service Related	$1	0.0%	$0	0.0%	-100.0%
Scholarships/Fellowships	$1,609	14.2%	$1,412	12.3%	-1.3%
Auxiliary Enterprises	$1,007	8.9%	$1,359	11.9%	3.0%
Total Operating Expenditures	*$11,371*	*100.0%*	*$11,452*	*100.00%*	*0.1%*
Comprehensive Institutions					
Instruction	$6,487	38.9%	$6,739	39.4%	0.4%
Student Services	$1,107	6.6%	$1,233	7.2%	1.1%
Education Share Administration/Maintenance	$4,149	24.9%	$3,340	19.5%	-2.1%
Education-Related Expenditures	*$11,743*	*70.5%*	*$11,311*	*66.1%*	*-0.4%*
Research/Public Service Related	$758	4.6%	$660	3.9%	-1.4%
Scholarships/Fellowships	$961	5.8%	$1,654	9.7%	5.6%
Auxiliary Enterprises	$3,199	19.2%	$3,495	20.4%	0.9%
Total Operating Expenditures	*$16,661*	*100.0%*	*$17,210*	*100.0%*	*0.3%*
Research Institutions					
Instruction	$12,374	23.4%	$15,787	25.2%	2.5%
Student Services	$760	1.4%	$887	1.4%	1.6%
Education Share Administration/Maintenance	$5,774	10.9%	$5,407	8.6%	-0.7%
Education-Related Expenditures	*$18,909*	*35.8%*	*$22,081*	*35.3%*	*1.6%*
Research/Public Service Related	$17,358	32.8%	$19,290	30.8%	1.1%
Scholarships/Fellowships	$1,276	2.4%	$2,123	3.4%	5.2%
Auxiliary Enterprises	$15,331	29.0%	$19,044	30.5%	2.2%
Total Operating Expenditures	*$52,874*	*100.00%*	*$62,538*	*100.0%*	*1.7%*

Source: IPEDS Finance Surveys

Spending at the research universities increased 1.7 percent per year with spending on education going up 1.6 percent per year. Education spending fell slightly as a percent of total spending going from 36 to 35 percent of the total. Spending on instruction and student services increased, while spending on administration and maintenance declined 2.1 percent per year. Auxiliary enterprises are a significant portion of spending at the research universities at 30 percent. This category includes the University of Washington Hospital.

COMPARISON OF TUITION REVENUE AND EDUCATION SPENDING

Comparing education-related expenditures to tuition revenue results in the average subsidy per FTE student. Generally tuition does not cover the full cost of instruction at public and private nonprofit institutions. The difference, or subsidy, is usually covered by state appropriations in the case of public institutions and at private nonprofit institutions by gifts and investment returns. The tuition amount is considered to be the "student share."

The private career schools are mostly for-profit establishments and derived most of their revenue from student tuition. In 2012 tuition revenue accounted for 89 percent of the career schools' revenue while auxiliary enterprises accounted for another 8 percent. In 2012 tuition revenue equaled 118 percent of the amount spent by career schools on education. Students on average paid $1,200 more in tuition than the schools spent on their education.

The private baccalaureates, mostly nonprofits, subsidized their students. The difference between tuition revenue and education expenditures is accounted for by gifts and investment returns. The average subsidy in 2012 was $1,400, down from $2,300 in 2002. Tuition revenue increased 3.2 percent per year while education expenditures increased 2.3 percent per year. The student share of costs increased from 86 to 93 percent.

The student share of education expenditures went from 27 percent in 2002 to 41 percent in 2012 at the community and technical colleges. The amount of average subsidy declined 2.2 percent per year. Education expenditures remained relatively flat while tuition revenue increased 4.2 per year.

The public comprehensive institutions also saw a dramatic decline in the average subsidy, going down 6.5 percent per year from $6,900 to $3,500. The student share of education costs went from 41 percent to 69 percent.

The average subsidy at the research universities also declined. The subsidy fell 2.7 percent per year with student share going from 34 percent to 57 percent of education expenditures. The research universities were able to boost education spending by 1.6 percent per year – not by as much as at the private baccalaureates (2.3 percent) – while education spending declined at the community and technical colleges and comprehensive universities.

Table 4: Average Subsidy per FTE Student (adjusted for inflation, 2012 dollars)

	2002	2012	Average Annual Change 2002-2012
PRIVATE			
Career Schools			
Education-related expenditures	$6,009	$6,810	1.3%
Net tuition revenue	$5,906	$8,009	3.1%
Average subsidy	$102	-$1,199	NA
Student share of costs	98%	118%	
Subsidy share of costs	2%	-18%	
Baccalaureate Institutions			
Education-related expenditures	$16,442	$20,709	2.3%
Net tuition revenue	$14,115	$19,309	3.2%
Average subsidy	$2,327	$1,400	-5.0%
Student share of costs	86%	93%	
Subsidy share of costs	14%	7%	
PUBLIC			
Community & Technical Colleges			
Education-related expenditures	$8,754	$8,681	-0.1%
Net tuition revenue	$2,346	$3,531	4.2%
Average subsidy	$6,409	$5,150	-2.2%
Student share of costs	27%	41%	
Subsidy share of costs	73%	59%	
Comprehensive Institutions			
Education-related expenditures	$11,743	$11,311	-0.4%
Net tuition revenue	$4,868	$7,802	4.8%
Average subsidy	$6,875	$3,509	-6.5%
Student share of costs	41%	69%	
Subsidy share of costs	59%	31%	
Research Universities			
Education-related expenditures	$18,909	$22,081	1.6%
Net tuition revenue	$6,477	$12,586	6.9%
Average subsidy	$12,432	$9,495	-2.7%
Student share of costs	34%	57%	
Subsidy share of costs	66%	43%	

Source: IPEDS Finance Surveys

3. What does the money buy?

In 2012 students attending Washington institutions of higher education earned 73,500 degrees and nearly 30,000 awards and certificates. Total completions came to 103,500. Of the degrees, 39 percent were associate's degrees, 44 percent bachelor's degrees, 13 percent master's degrees, and 3 percent were doctorate or professional practice degrees. Of the non-degree awards, 59 percent required less than one academic year of study; 38 percent required at least one but less than four years of study; and three percent were post-degree certificates.

Nearly all (96 percent) of the associate's degrees were earned at community and technical colleges. The bachelor's degrees were primarily earned at the research universities (47 percent), comprehensive institutions (28 percent), and at the private baccalaureate institutions (25 percent). Master's degrees were earned at the research universities (46 percent), the private baccalaureates (42 percent), and at the comprehensive institutions (12 percent). Doctorate and professional degrees were earned at the research universities (65 percent) and the private baccalaureates (34 percent).

Overall the number of completions increased at a rate of 3.9 percent per year from 2002 to 2012. Instructional activity during this period increased at a rate of 1.8 percent per year. On the surface it required less instructional activity per degree and completion in 2012 than it did in 2002. The amount of total degrees earned grew at a rate 3.1 percent per year from 2002 to 2012. The number of non-degree awards and certificates earned grew at a rate of 6.0 per year. The growth in non-degree awards was driven by the number of less-than-one-year certificates earned at the community and technical colleges, which grew at 9.0 percent per year.

Table 5: Degrees and Completions – All Sectors

	2002		2012		Average Annual Change 2002-2012
	Amount	Share	Amount	Share	
Associate's degree	20,158	37%	28,977	39%	3.7%
Bachelor's degree	24,462	45%	32,376	44%	2.8%
Master's degree	7,551	14%	9,595	13%	2.4%
Doctor's degree/Professional practice	1,857	3%	2,561	3%	3.3%
Total Degrees	54,028	100%	73,509	100%	3.1%
Non-degree award of less than 1 academic year	7,537	45%	17,762	59%	9.0%
Non-degree award of at least 1 but less than 4 academic years	8,460	51%	11,255	38%	2.9%
Post-degree certificates	610	4%	844	3%	3.3%
Total non-degree awards and certificates	16,607	100%	29,861	100%	6.0%
Total Completions	***70,635***		***103,370***		***3.9%***

Source: IPEDS Completion Survey

The Delta Cost Project measures of productivity are (1) the number of degrees and completions awarded per 100 FTE students; and (2) the education-related expenditures per degree and completion. These measures are problematic on several levels. First, not all degrees or awards are equal in the amount of time required to earn one or in the expenditures required to provide the courses necessary to earn one. A bachelor's degree generally requires four years of coursework while an associate's or master's degree may require two years. A doctorate or professional degree (law, medicine) has different requirements. Even within a particular degree, such as a bachelor's, the expenditure requirements differ. It costs more to provide the courses for a degree in engineering than it does for a degree in business or sociology. Across the institutional sectors the goals and priorities differ. While it may be reasonable to expect a completion at baccalaureate institutions to be in the form of a degree, the community and technical colleges have a wide range of activities, and measuring

"success" can take different forms. For example, a successful transfer from a community college to a four-year institution does not require a degree. In addition many community colleges provide GED® preparation and apprenticeship programs. These awards are not included in the IPEDS count of completions; students in these programs are not counted in the FTE enrollments (unless they take courses that could lead to a postsecondary certificate or degree), but expenditures for these programs are included in the financial reports.

Given these caveats, Table 6 presents several productivity measures by sector. At the private career schools completions per 100 FTE students declined from 50.7 to 47.2 completions per 100 FTE students from 2002 to 2012. Education expenditures per completion increased 1.3 percent per year.

The private baccalaureate institutions saw productivity increase as measured by the amount of instruction being provided per degree earned, going from 26.4 degrees to 28.8 degrees per 100 FTE students. Expenditures per degree increased from $63,000 to $72,000, a growth rate of 1.4 percent per year.

The community and technical colleges saw dramatic productivity increases in both degrees and completions. The number of degrees earned per 100 FTE students went from 14.2 to 17.5 and the number of completions went from 20.9 to 30.7. Expenditures per degree and completion fell during this time. The amount of expenditures per degree fell an average of 2.2 percent per year from $62,000 to $50,000. The amount of expenditures per completion and award fell an average of 3.9 percent per year from $42,000 to $28,000. During this time the community and technical colleges greatly expanded the issuance of awards requiring less than one year of study. These awards are the result of (1) curriculum changes that provide for short-term certificates (building blocks) on the path to longer term awards and (2) specific hiring demands in local areas.[2]

The public comprehensive institutions saw a slight improvement in degrees awarded per 100 FTE students going from 24.5 to 25.0. They experienced a more dramatic reduction in expenditures per degree going from $62,000 to $50,000, a reduction 0f 2.2 percent per year.

At the research universities degrees per 100 FTE students increased from 25.0 to 27.5, an improvement of one percent per year. At the same time education-related expenditures also increased from $75,500 to $80,000 per degree.

[2] "Growth in Short-Term Certificates at Washington's Community and Technical Colleges," Research Report No. 10-3, State Board for Community and Technical Colleges, September 2010.

Table 6: Productivity Measures (dollar values adjusted for inflation, 2012 dollars)

	2002	2012	Average Annual Change 2002-2012
PRIVATE			
Career Schools			
Degrees per 100 FTE students	0.4	2.5	21.2%
Completions per 100 FTE students	50.7	47.2	-0.7%
Education-related expenditures per degree	$1,645,432	$275,561	-16.4%
Education-related expenditures per completion	$12,749	$14,442	1.3%
Baccalaureate Institutions			
Degrees per 100 FTE students	26.4	28.8	0.9%
Completions per 100 FTE students	27.1	29.4	0.8%
Education-related expenditures per degree	$62,768	$72,261	1.4%
Education-related expenditures per completion	$61,603	$70,767	1.4%
PUBLIC			
Community & Technical Colleges			
Degrees per 100 FTE students	14.2	17.5	2.1%
Completions per 100 FTE students	20.9	30.7	3.9%
Education-related expenditures per degree	$61,791	$49,625	-2.2%
Education-related expenditures per completion	$41,952	$28,254	-3.9%
Comprehensive Institutions			
Degrees per 100 FTE students	24.5	25.0	0.2%
Completions per 100 FTE students	24.6	25.6	0.4%
Education-related expenditures per degree	$61,791	$49,625	-2.2%
Education-related expenditures per completion	$47,789	$44,237	-0.8%
Research Universities			
Degrees per 100 FTE students	25.0	27.5	1.0%
Completions per 100 FTE students	25.7	28.4	1.0%
Education-related expenditures per degree	$75,513	$80,189	0.6%
Education-related expenditures per completion	$73,603	$77,672	0.5%

Source: IPEDS Completion, 12-Month Enrollment, and Finance Surveys

Summary

- Four-fifths (80 percent) of the postsecondary education instructional activity occurs at public higher education institutions. Twenty percent occurs at private institutions. From 2002 to 2012 the amount of instruction increased an average of 1.9 percent per year.
- Student tuition is the primary source of revenue at private institutions. At public institutions tuition is a growing source of revenue with state appropriations a declining factor. Governmental grants and contracts are also a significant portion of revenue at public institutions.
- Spending on student education, consisting of instruction, student services and the education share of administration and maintenance, was the primary activity in all the sectors. It ranged from 35 percent of total operating expenditures at the research universities (with research and public services at 31 percent and auxiliary enterprises at 30 percent) to 90 percent at the career schools. The public baccalaureates spent 84 percent of total operating expenditures on education, the community and technical colleges 76 percent, and the comprehensive institutions 66 percent. Spending on education increased in all the sectors except at the comprehensives which declined 0.4 percent per year. The entire decline at the comprehensives occurred in "overhead" – administrative support, institutional support, and operations and maintenance. Declines in overhead expenditures also occurred at the public research universities, the community and technical colleges, and the private career schools. Spending on student services increased as a share of all education-related expenditures for all institutional categories except private career schools.
- Private career schools collect more in student tuition than they spend on student education. All other sectors subsidize students by spending more on education than they collect in tuition revenue. The amount of this subsidy has been declining at the public institutions as state support has decreased and tuition rates increased. At private baccalaureate institutions the amount of subsidy declined as education expenditures did not keep pace with tuition increases.
- Between 2002 and 2012, the number of degrees awarded increased by 3.1 percent per year, while the number of non-degree awards increased by 6.0 percent per year, fueled by large increases in the number of certificates requiring less than one year of study.
- Three patterns emerged in the area of completion-related productivity:
  - Public research institutions and private baccalaureate institutions experienced increases in degrees and completions per 100 FTE students as well as increases in education-related expenditures per degree.
  - At the public comprehensive institutions and the community and technical colleges, there were increases in degrees per 100 FTE students along with significant declines in education-related expenditures per degree.
  - The private career schools experienced decreases in completions per 100 FTE students and increases in education-related expenditures per completion.

Appendix A: Glossary

Label	Definition
Total FTE Students	Full-time equivalent students are derived from the 12-month enrollment survey. Students reported are those enrolled for credit in courses that can be applied toward a postsecondary degree, diploma, certificate, or other formal award.
Undergraduate students	The total number of undergraduate students enrolled based on the 12-month enrollment survey. FTE student estimates are derived (a) for institutions reporting contact or clock hours by dividing the number of contact hours by 900; (b) for institutions operating on a quarter system by dividing the number of undergraduate credit hours by 45; and (c) for institutions operating on a semester system by dividing the number of undergraduate credit hours by 30.
Graduate and first professional students	The total number of graduate and first professional students enrolled based on the 12-month enrollment survey. FTE student estimates are derived (a) for institutions operating on a quarter system by dividing the number of graduate credit hours by 36; and (b) for institutions operating on a semester system by dividing the number of graduate credit hours by 24.
Net tuition	Net tuition revenue is the amount of money the institution takes in from students (including fees) net of all institutional grant aid provided.
State appropriations	The total amount of revenue from state appropriations. State appropriations are revenue received by the institution through acts of a state legislative body (except grants and contracts and capital appropriations). Funds reported in this category are for meeting current operating expenses, not for specific projects or programs.
Federal appropriations and federal, state, and local grants and contracts	The total amount of revenue coming from federal appropriations, grants, and contracts. Federal appropriations are revenue received by the institution through acts of a federal legislative body. Federal, state, and local grants and contracts are revenue from governmental agencies that are for training programs, research, or public service activities for which expenditures are reimbursable under the terms of a government grant or contract. Excludes Pell grants.

Private gifts, investment returns, and endowment income	**Private gifts:** Revenue from private donors for which no legal consideration is involved, and from private contracts for specific goods and services provided to the funder as stipulation for receipt of the funds (also includes the estimated dollar amount of contributed services). Includes only those gifts, grants, and contracts that are directly related to instruction, research, public service, or other institutional purposes. **Investment returns:** Revenue from the institution's investments, including investments of endowment funds. Such income may take the form of interest income, dividend income, rental income or royalty income and includes both realized and unrealized gains and losses. **Endowment income:** As a result of changes in reporting standards, endowment income is now largely reported within investment income.
Auxiliary enterprises, hospitals, independent operations, and other sources (revenue)	The total amount of revenue from auxiliary enterprises, hospitals, independent operations, and other sources. **Auxiliary enterprises:** Revenue generated by or collected from operations that furnish a service to students, faculty, or staff, and charge a fee that is directly related to the cost of the service. Auxiliary enterprises are managed as essentially self-supporting activities and examples include: residence halls, food services, student health services, intercollegiate athletics, college stores, etc. **Hospitals:** Revenue generated by a hospital operated by a postsecondary institution (including gifts, grants, appropriations, research revenue, endowment income, and revenue of health clinics that are part of the hospital, unless such clinics are part of the student health services program). Revenue associated with the medical school is included elsewhere. **Independent operations:** Revenue generated by operations independent of, or unrelated to, the primary missions of the institution (instruction, research and public service) although they may contribute indirectly to the enhancement of these programs. Generally includes only those revenue associated with major federally funded research and development centers. Other sources: Revenue not reported elsewhere, including revenue from the sales and services of internal service departments to persons or agencies external to the institution (e.g., the sale of computer time, and educational sales and services).
Total revenue	Total revenue is the sum of net tuition; federal, state, and local appropriations, grants, and contracts; private gifts, grants, and contracts; investment return; endowment income; auxiliaries; hospitals; and other independent operations.
Instruction	Includes expenses of the colleges, schools, departments, and other instructional divisions of the institution and expenses for departmental research and public service that are not separately budgeted. Includes general academic instruction, occupational and vocational instruction, community education, preparatory and adult basic education, and regular, special, and extension sessions. Also includes expenses for both credit and non-credit activities. Excludes expenses for academic administration where the primary

	function is administration (e.g., academic deans). Information technology expenses related to instructional activities are included if the institution separately budgets and expenses information technology resources (otherwise these expenses are included in academic support).
Student services	Includes expenses for admissions, registrar activities, and activities whose primary purpose is to contribute to student's emotional and physical well-being and to their intellectual, cultural, and social development outside the context of the formal instructional program. Examples include student activities, cultural events, student newspapers, intramural athletics, student organizations, supplemental instruction outside the normal administration, and student records. Intercollegiate athletics and student health services may also be included except when operated as self - supporting auxiliary enterprises. Also may include information technology expenses related to student service activities if the institution separately budgets and expenses information technology resources (otherwise these expenses are included in institutional support.)
Education share Administration/ Maintenance	The portion of academic support, institutional support, and operations and maintenance (i.e. "overhead") associated with providing instruction and student services. **Academic support** includes expenses of activities and services that support the institution's primary missions of instruction, research, and public service. It includes libraries, museums, and galleries; organized activities that provide support services to the academic functions of the institution (such as a demonstration school associated with a college of education; veterinary and dental clinics, etc.); media such as audiovisual services; academic administration (including academic deans but not department chairpersons); and formally organized and separately budgeted academic personnel development and course and curriculum development expenses. Also included are information technology expenses related to academic support activities; if an institution does not separately budget and expense information technology resources, the costs associated with the three primary programs will be applied to this function and the remainder to institutional support. **Institutional support** includes expenses for the day-to-day operational support of the institution such as expenses for general administrative services, central executive-level activities concerned with management and long range planning, legal and fiscal operations, space management, employee personnel and records, logistical services such as purchasing and printing, and public relations and development. Also includes information technology expenses related to institutional support activities. If an institution does not separately budget and expense information technology resources, the costs associated with student services and operation and maintenance of plant will also be applied to this function. **Operations and maintenance** includes expenses for operations established to provide service

	and maintenance related to campus grounds and facilities used for educational and general purposes. Specific expenses include utilities, fire protection, property insurance, and similar items. This function does not include amounts charged to auxiliary enterprises, hospitals, other, and independent operations. Also includes information technology expenses related to operation and maintenance of plant activities if the institution separately budgets and expenses information technology resources (otherwise these expenses are included in institutional support). Institutions may, as an option, distribute depreciation expense to this function.
Education related expenditures	Total spending on direct educational costs. Education related expenses include spending on instruction, student services, and the education share of spending on academic support, institutional support, and operations and maintenance (i.e. "overhead").
Research/Public service related	Includes direct spending on research and public service plus a prorated share of spending on academic support, institutional support, and operations and maintenance (i.e. "overhead"). **Research** includes expenses for activities commissioned by an outside agency specifically organized to produce research outcomes. These research activities - either external to the institution or separately budgeted by an organizational unit within the institution - include institutes and research centers, and individual and project research. This function does not include nonresearch sponsored programs (e.g., training programs). Also included are information technology expenses related to research activities if the institution separately budgets and expenses information technology resources (otherwise these expenses are included in academic support.) **Public service** includes expenses for activities established primarily to provide noninstructional services beneficial to individuals and groups external to the institution. Examples are conferences, institutes, general advisory service, reference bureaus, and similar services provided to particular sectors of the community. This function includes expenses for community services, cooperative extension services, and public broadcasting services. Also includes information technology expenses related to the public service activities if the institution separately budgets and expenses information technology resources (otherwise these expenses are included in academic support).
Net scholarships and fellowships	The portion of scholarships and fellowships granted by an institution that exceeds the amount applied to institutional charges such as tuition and fees or room and board and excludes allowances. Note: the amount reported as net scholarships and fellowships reflects only a small portion of the actual amount of grant aid spent on students, which primarily takes the form of discounts on tuition and fees and room and board.

Auxiliary enterprises	Auxiliary enterprises include auxiliary enterprises, hospital services, independent operations, and other expenses. **Auxiliary enterprises** are essentially self-supporting operations of the institution that exist to furnish a service to students, faculty, or staff, and that charge a fee that is directly related to, although not necessarily equal to, the cost of the service. Examples are residence halls, food services, student health services, intercollegiate athletics (only if essentially self-supporting), college unions, college stores, faculty and staff parking, and faculty housing. **Hospital services** expenses is the sum of all operating expenses associated with a hospital operated by the postsecondary institution (but not as a component unit) and reported as a part of the institution. This classification includes nursing expenses, other professional services, general services, administrative services, and fiscal services. **Independent operations** expenses are associated with operations that are independent of or unrelated to the primary missions of the institution (i.e., instruction, research, public service) although they may contribute indirectly to the enhancement of these programs. This category is generally limited to expenses of a major federally funded research and development center. **Other expenses and deductions** is the sum of all operating expenses that are not associated with functions previously listed (i.e., instruction, research, public service, academic support, student services, institutional support, operations and maintenance of plant, depreciation, scholarships and fellowships, auxiliary enterprises, hospitals, and independent operations).
Total operating expenditures	Total education related expenditures plus expenditures for research and public service related activities, net scholarships and fellowships, and auxiliary enterprises (auxiliaries, hospitals, independent and other operations).
Average subsidy	The dollar amount of education related expenditures that are covered by institutional resources (primarily state funding at public institutions); it is the difference between education related expenditures and net tuition revenue.
Student share of costs	The share of education related expenditures that are covered by net tuition revenue.
Total degrees	The total number of degrees conferred by a college, university, or other postsecondary education institution as official recognition for the successful completion of a program of study.
Total completions	Total degrees, awards and certificates granted. Degrees are reported by level (associate's, bachelor's, master's, doctor's, and first-professional) and awards by length of program.
Total degrees per 100 FTE students	The total number of degrees granted per 100 full time equivalent students enrolled.

Total completions per 100 FTE students	The total number of completions (degrees, certificates, formal awards) granted per 100 full time equivalent students enrolled.
Education related expenditures per degree	A measure of spending on educational costs per degree (in contrast to cost per student enrolled); calculated as the total education related expenditures (for all students) divided by all degrees (undergraduate, graduate, and professional) awarded in that year.
Education related expenditures per completion	A measure of spending on total educational costs per completion (in contrast to costs per student enrolled); calculated as the total education related expenditures (for all students) divided by all degrees and certificates awarded in that year. "Completions" includes all degrees, certificates, diplomas or other formal awards granted by an institution in a year, regardless of when the student initially enrolled in that institution (i.e. as a freshman or a junior) and without regard to the number of years the student was enrolled before attaining the completion.

Appendix B: Institutions Included in Analysis

PRIVATE

Private Career Schools

Academy of Cosmetology
Alpine College
Beauty Academy
Bellingham Beauty School
BJ's Beauty & Barber College (Tacoma, Puyallup)
Bryman College-Lynnwood
Business Career Training Institute (all campuses)
Cambridge College-Seattle
Carrington College-Spokane
Cascade Beauty College
Chetta's Academy Of Hair And Nails
Cortiva Institute-Brian Utting School of Massage
Cortiva Institute-Seattle (Federal Way)
Cortiva Institute-Seattle (Seattle)
Court Reporting Institute and Agency
Divers Institute of Technology
Emil Fries Piano Hospital and Training Center
Everest College-(Bremerton, Everett, Federal Way, Tacoma)
Everest College-Renton
Everest College-(Seattle, Everett, Tacoma, Vancouver massage therapy)
Everest College-Vancouver
Evergreen Beauty & Barber College-Bellevue
Evergreen Beauty & Barber College-Everett
Gary Manuel Aveda Institute
Gene Juarez Academy of Beauty (all campuses)
Glen Dow Academy of Hair Design
GP Institute of Cosmetology
Inland Massage Institute
Interface College-Spokane (all locations)
International Air and Hospitality Academy
Kaplan College-Renton
Le Cordon Bleu College of Culinary Arts-Seattle

Lucas Marc Academy
Northwest Hair Academy
Northwest HVAC/R Training Center
Northwest School of Wooden Boat Building (Port Hadlock)
Nursing Assistant Training Institute^2
Paroba College of Cosmetology
Paul Mitchell The School Spokane
Perry Technical Institute
Phagans Orchards Beauty School^1
Pima Medical Institute-Renton
Pima Medical Institute-Seattle
Professional Beauty School (Yakima and Sunnyside)
Seattle Midwifery School
Stylemaster College of Hair Design
Sunnyside Beauty Academy
The Salon Professional Academy-Tacoma
Toni & Guy Hairdressing Academy-Bellingham
Toni & Guy Hairdressing Academy-Shoreline
Total Cosmetology Training Center
Victoria's Academy of Cosmetology
Yakima Beauty School Beautyworks

Private Baccalaureate Institutions

Antioch University-Seattle^1
Argosy University-Seattle
Bainbridge Graduate Institute
Bakke Graduate University
Bastyr University
City University of Seattle
Corban University School of Ministry
Cornish College of the Arts
Crown College
DeVry University's Keller Graduate School of Management-Washington (Federal Way)
DeVry University-Washington
DigiPen Institute of Technology
Faith Evangelical College & Seminary (Tacoma)
Gonzaga University
Henry Cogswell College^1

Heritage University
International Academy of Design and Technology-Seattle
ITT Technical Institute-Everett
ITT Technical Institute-Seattle
ITT Technical Institute-Spokane Valley
Northwest College of Art & Design
Northwest Institute of Literary Arts
Northwest University
Pacific Lutheran University
Pacific Northwest University of Health Sciences^1
Puget Sound Christian College
Saint Martin's University
Seattle Institute of Oriental Medicine
Seattle Pacific University
Seattle University
The Art Institute of Seattle
The Seattle School of Theology & Psychology
Trinity Lutheran College
University of Phoenix-Eastern Washington Campus^1
University of Phoenix-Western Washington Campus
University of Puget Sound
Walla Walla University
Whitman College
Whitworth University
Whitworth University-Adult Degree Programs

PUBLIC

Community & Technical Colleges

Bates Technical College
Bellevue College
Bellingham Technical College
Big Bend Community College
Cascadia Community College
Centralia College
Clark College
Clover Park Technical College
Columbia Basin College
Edmonds Community College

Everett Community College
Grays Harbor College
Green River Community College
Highline Community College
Lake Washington Institute of Technology
Lower Columbia College
Northwest Indian College
Olympic College
Peninsula College
Pierce College (Fort Steilacoom & Puyallup)
Renton Technical College
Seattle Community College-Central Campus
Seattle Community College-North Campus
Seattle Community College-South Campus
Seattle Vocational Institute
Shoreline Community College
Skagit Valley College
South Puget Sound Community College
Spokane Community College
Spokane Falls Community College
Tacoma Community College
Walla Walla Community College
Wenatchee Valley College
Whatcom Community College
Yakima Valley Community College

Comprehensive Institutions

Central Washington University
Eastern Washington University
The Evergreen State College
Western Washington University

Research Universities

University of Washington – (all campuses)
Washington State University – (all campuses)

Notes:

1 – Students and completions only

2 – Completions only

Appendix C: References

All of the following can be accessed through the Delta Cost Project website www.deltacostproject.org/

"Revenue: Where Does the Money Come From? A Delta Data Update, 2000-2010," Rita J. Kirshstein and Steven Hulburt, American Institutes for Research.

"Spending: Where Does the Money Go? A Delta Data Update, 2000-2010," Steven Hurlburt and Rita J. Kirshstein, American Institutes for Research.

"Spending and Results: What Does the Money Buy? A Delta Data Update 2000-2010," Donna M. Desrochers and Steven Hurlburt, American Institutes for Research.

"The Growing Imbalance, Recent Trends in U.S. Postsecondary Education Finance," Jane V. Wellman, Donna M. Desrochers, and Colleen M. Lenihan, Delta Project on Postsecondary Education Costs, Productivity and Accountability, 2008.

"Issue Brief #2: Metrics for Improving Cost Accountability," Delta Project on Postsecondary Education Costs, Productivity and Accountability, revised February 2009.

"Trends in College Spending (TCS) Online," accessed at www.tcs-online.org/Home.aspx