POLICYMAKER'S GUIDE TO PAY IT FORWARD

Economic Opportunity Institute

Authors

Kelli Smith is a Senior Policy Associate at the Economic Opportunity Institute. She earned her J.D. at the University of California, Davis, School of Law.

John Gibson is the consulting economist on the Pay It Forward project and is the chief designer of the Pay It Forward financial modeling tools.

John Burbank is the Executive Director of the Economic Opportunity Institute, and the architect of the Pay It Forward concept. He received his Master of Public Administration at the University of Washington, Graduate School of Public Administration (now the Evans School of Public Policy and Governance).

Notes

This policy report is accompanied by *Policymaker's Guide to Pay It Forward: Technical Notes*, which explains the details of the financial forecasting mechanisms used, sources of data and program assumptions, and describes the various possible iterations of the Pay It Forward model. The technical notes are available on EOI's website, www.eoionline.org.

Contents

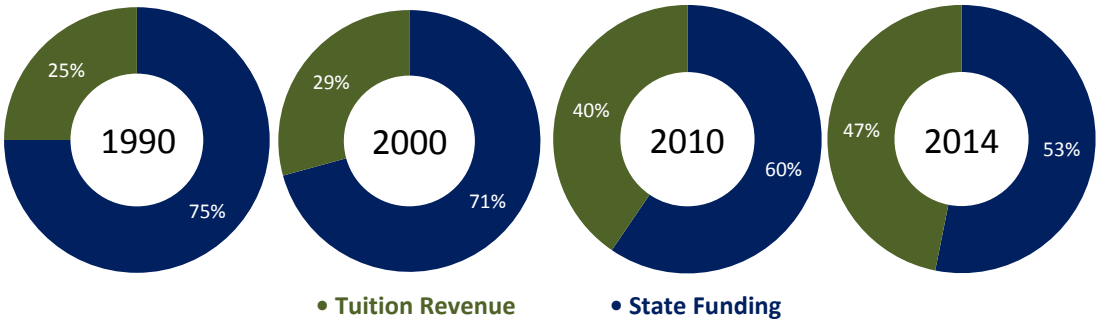
This page intentionally left blank.

Executive Summary

Higher education is an avenue for individual achievement, an engine of economic growth, and a cornerstone of American democracy. In the not-too-distant past, state investment in public higher education ensured tuition was reasonably affordable (and college therefore accessible) to broad swaths of students from middle-income families. That is no longer the case today. Tuition has increased dramatically – not because the underlying cost of college has increased, but as a direct result of state spending cuts.[1]

Per-student public spending on higher education has declined in almost every state in the nation, even as the total cost of college at public institutions has remained relatively stable in inflation-adjusted dollars over the last 25 years (increasing just 0.35% a year on average since 1989). In 1990, state funding accounted for 75 percent of total revenue for public higher education across the United States. Today, it accounts for just a little over half, and states have doubled student tuition to close the gap. The steepest cuts have come in recent years on the heels of the Great Recession: since 2008, states have cut funding per full-time enrollment (FTE) by 19 percent.[2]

SHARE OF STATE APPROPRIATIONS AND TUITION REVENUE PER FTE, UNITED STATES, ALL PUBLIC INSTITUTIONS



Source: State Higher Education Executive Officers Association[3, 4]

Even as states have pushed an increasing share of the cost onto students and their families, enrollment has steadily increased nationwide, because people of all ages know how important a college education is for upward economic mobility and long-term financial security.[5] People in America rightly perceive a college degree as one of the most significant factors in promoting upward economic mobility and preventing downward mobility.

But the current system of ever-increasing tuition relies on students' – especially those from low- and middle-income families – continued ability and willingness to take on ever-higher debt loads in order to finance their higher education. Many now choose to forego a college education altogether. Others end up with overwhelming student loan bills that prohibit them from participating meaningfully in the economy and achieving financial security: student loan debt, which stood at $360 billion a decade ago, now exceeds $1 trillion nationwide.[6]

If higher education is to remain a public good, state governments can no longer ask students and their families to shoulder an increasing share of its costs. Policymakers can accomplish this using a combination of state investments that reduce tuition, increase need-based financial aid, and promote innovative programs to ensure continued growth in access to college. Pay It Forward is one such innovative program.

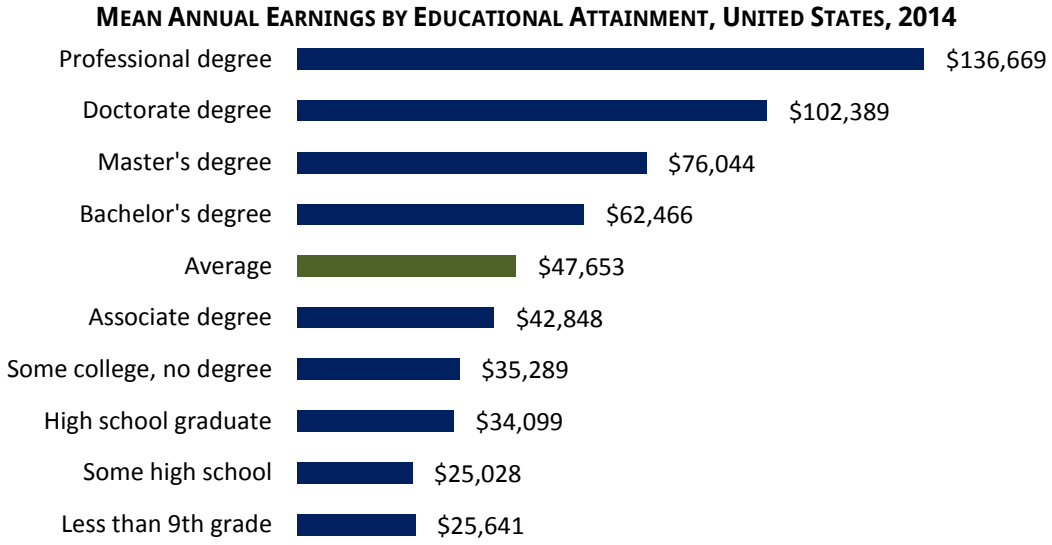
Pay It Forward is a college financing system under which, instead of paying tuition, participants would make post-graduation income-based contributions for a set period. Contributions are deposited into a state trust fund that directs payments to the participating colleges and universities, and that can be designed to become self-sustaining within one generation. It is not a loan or grant program, nor is it a replacement for tuition reduction or need-based aid. It is a social insurance program for higher education that can dramatically reduce students' uncertainty about their future debt burden and supplement existing programs to serve a broader spectrum of students.

What sets Pay It Forward apart from other higher education proposals is that it is a long-term solution that would generate an ongoing and revolving source of revenue – fueled by forward-funding by graduates – all while replenishing and sustaining itself. It would open access to higher education by reducing high debt barriers and make a college degree possible without financially crippling an entire generation.

The Diminishing (Perceived) Advantage of Higher Education

As tuition has increased, so has potential students' skepticism about the value of higher education to their future career and earning potential. A recent Gallup poll found that while half of all college graduates polled "strongly agreed" their education was worth the cost, just 38 percent of *recent* graduates (those graduating after 2006) felt similarly.[7]

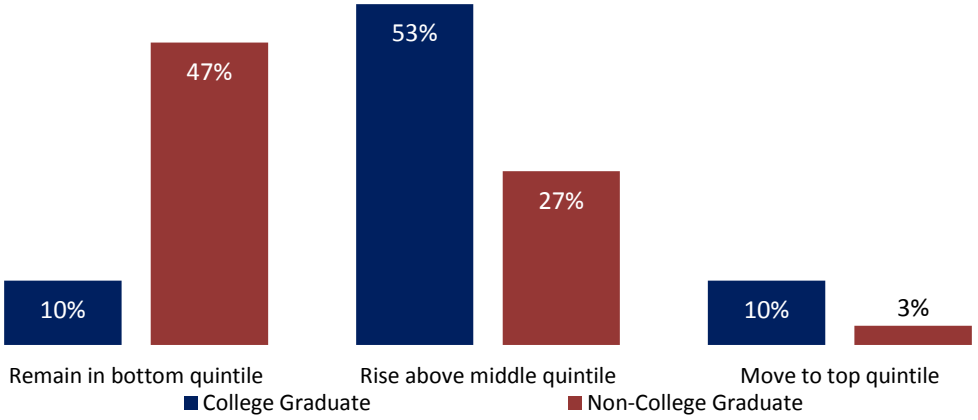
Perceptions aside, research shows the "college premium" – that is, the lifetime earnings of a college graduate, less the cost of attendance and foregone wages – is in excess of hundreds of thousands of dollars over a lifetime.[8] The comparison below illustrates that, showing the difference in annual earnings from obtaining a college degree.



Source: U.S. Census Bureau, Current Population Survey, 2015 Annual Social and Economic Supplement[9]

Research also consistently cites a college education as one of the most important factors in increasing upward economic mobility at all income levels.[10] Having a college degree makes individuals raised at the bottom of the income ladder *more than three times* more likely to rise to the top than those who have not completed college,[11] and more than five times more likely to leave the bottom at all.[12]

FAMILY INCOME MOBILITY BY EDUCATION, AMERICANS RAISED IN THE BOTTOM INCOME QUINTILE



Source: The Pew Charitable Trusts[13]

From a societal viewpoint, a highly educated workforce promotes a healthy economy through higher wages,[14] improved health, lower mortality rates, lower crime rates,[15] and lower unemployment.[16] The intergenerational effects are wide-ranging and profound: children raised in higher-wage households are "less likely to be poor as adults, and more likely to be better educated and paid as adults, and therefore less likely to rely on food stamps or other public assistance."[17]

And closer to home, since Washington state is projected to be among the five states leading the nation in jobs requiring postsecondary education by 2018, it is essential that aspiring students both appreciate the value of a college degree and have a real opportunity to earn one.[18]

Washington's Higher Education Funding Crisis

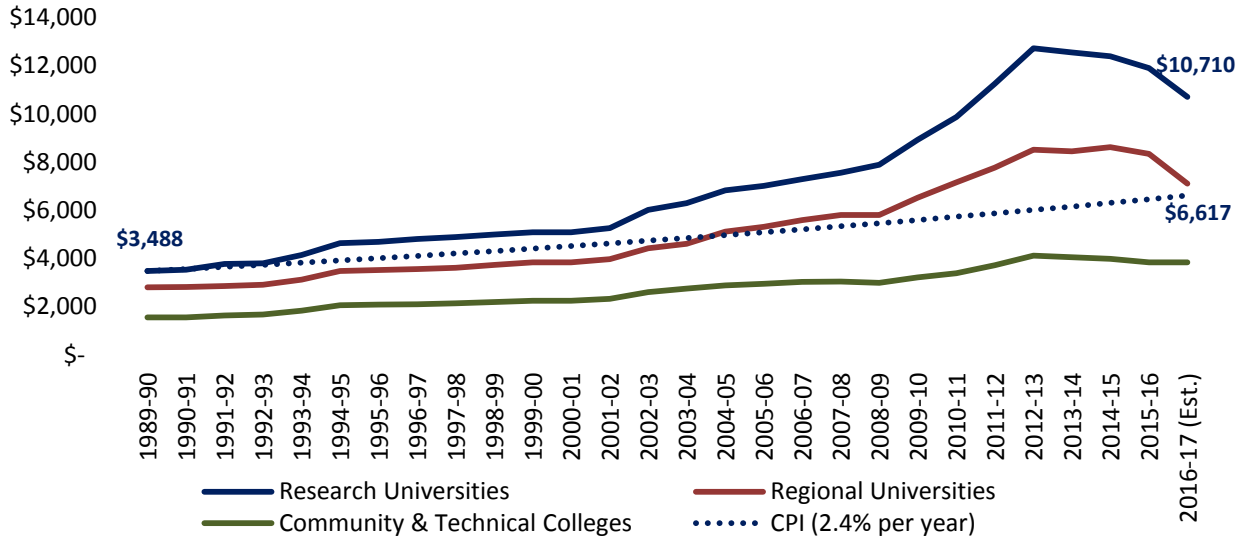
Traditionally, the state of Washington has assumed responsibility for the majority of higher education costs through budget appropriations – that is, the state appropriation per FTE has historically exceeded what a student is required to pay in tuition each year. For decades, Washington policymakers not only touted the significance of higher education to our state, but ensured public resources were sufficient to fulfill their stated commitment to it. That is no longer the case.

In 1974, Washington's Council on Higher Education declared that "access to higher education, regardless of economic means, is a basic commitment of the State of Washington" and "student charges should be kept as low as possible consistent with the need to maintain a quality program of public higher education."[19] As recently as 1990, state appropriations made up 84% of higher education costs at our research institutions, leaving students responsible for just 16% in tuition. In the 1989-1990 academic year, tuition at our research universities was just $3,488 a year (in 2014 dollars); that of regional universities was $2,811; and that of community and technical colleges was just $1,569.

But state support steadily decreased over the years, and in 2009, the legislature cut per-student funding at Washington's four-year universities to less than half the total cost of higher education, for the first time in history making students and their families responsible for the majority of costs. Tuition increased sharply after the Recession, and even after last year's unprecedented tuition decreases, students will still be picking up 60% of the bill at research universities in 2016-17.

Tuition growth has significantly outpaced both per capita personal income and inflation. Since 2000, tuition has grown an average of 8.5% annually, compared to 4.3% (per capita personal income) and 2.4% (inflation).[20]

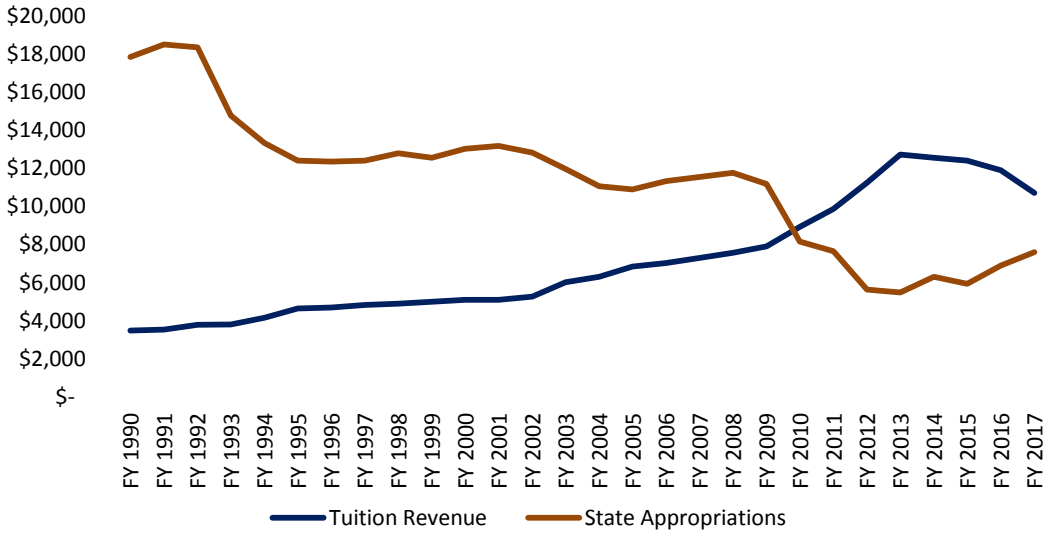
TUITION AND FEES AT WASHINGTON STATE COLLEGES AND UNIVERSITIES, 1989–2017



Source: Washington Student Achievement Council, Office of Financial Management, institutions' published tuition rates.[21]
Inflation line reflects tuition at research universities in 1989-1990 of $3,488, growing at 2.4% inflation per year.

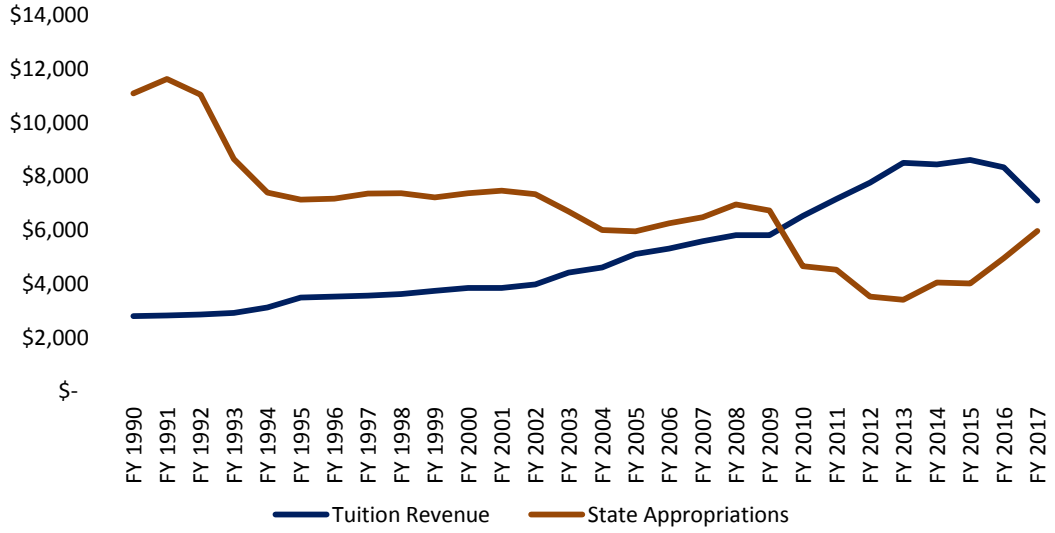
The total cost of educating a postsecondary student has remained nearly flat over the past 25 years – in fact, in Washington state, it has slightly decreased – but states have funded an ever-shrinking share of that cost. The difference is made up by tuition increases.

SHARE OF STATE APPROPRIATIONS VERSUS TUITION FROM STUDENTS: WA RESEARCH UNIVERSITIES



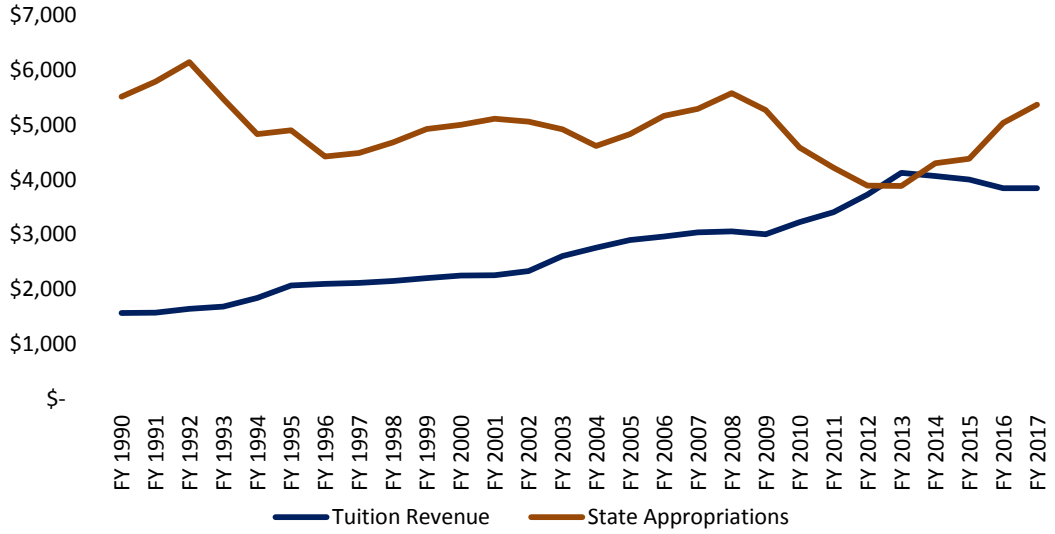
Sources: LEAP and Washington Student Achievement Council. 2016-17 tuition rates are estimated based on budgeted levels in 2015-17 biennial budget. 2015-16 and 2016-17 enrollments are estimated based on prior three years.

SHARE OF STATE APPROPRIATIONS VERSUS TUITION FROM STUDENTS: WA REGIONAL UNIVERSITIES



Sources: LEAP and Washington Student Achievement Council. 2016-17 tuition rates are estimated based on budgeted levels in 2015-17 biennial budget. 2015-16 and 2016-17 enrollments are estimated based on prior three years.

SHARE OF STATE APPROPRIATIONS VERSUS TUITION FROM STUDENTS: WA COMMUNITY/TECHNICAL COLLEGES



Sources: LEAP and Washington Student Achievement Council. 2016-17 tuition rates are estimated based on budgeted levels in 2015-17 biennial budget. 2015-16 and 2016-17 enrollments are estimated based on prior three years.

Encouraging Recent Trends

In recent years, the Washington legislature has taken note of the higher education crisis and acted, freezing tuition during the 2013 legislative session and providing for significant tuition decreases during the 2015 legislative session. The historic move will result in tuition decreases of 15% over two years at research universities; 20% over two years at regional universities; and 5% in 2015-16 at community and technical colleges. After decades of funding cuts, tuition peaked in 2013, but with recent funding increases, between 2013 and 2017, tuition will decrease an average of 4.2% per year at four-year institutions, and 1.7% per year at community colleges. It remains to be seen whether revenues will support a continuation of these recent decreases.

State Financial Aid

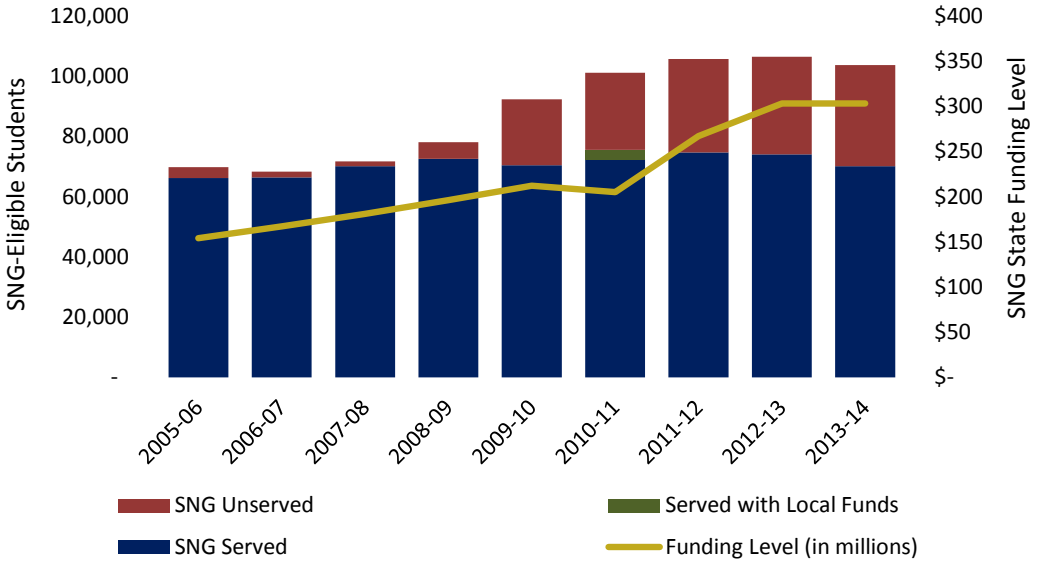
State and federal sources of financial aid significantly affect the price tag for a great number of students. But here as well, diminished state investment has hobbled students' abilities to access public higher education.

Washington's largest need-based aid program is the State Need Grant (SNG), which serves upward of 70,000 students per year. While it is a much-needed lifeline for thousands of students, not everybody who qualifies – many fewer than are in need of aid – is being served.

Of those who were income-eligible for SNG in the 2014-15 school year, over 27,000 students (more than one quarter of those eligible) did not receive any aid due to lack of funding.[22] Furthermore, the bar for SNG eligibility is quite restrictive itself: applicants' families must make no more than 70 percent of yearly median family income, or about $58,500 for a family of four, to be eligible. This leaves thousands of families with incomes at or below the median level ineligible for state tuition aid.

Even those at middle-income levels are having an increasingly difficult time affording tuition. According to the Washington Student Achievement Council (WSAC), "middle-income families can now only afford to pay approximately 27 percent of postsecondary education expenses, down from 37 percent just three years ago."[23] Unsurprisingly, low- and middle-income students and their families are now financing more than two-thirds of their children's higher education with loans.

STATE NEED GRANT FUNDING LEVELS, RECIPIENTS AND UNSERVED STUDENTS, 2005-2014



Source: Washington Student Achievement Council[24]

High Tuition, High Debt Contribute to Intergenerational Income Inequality

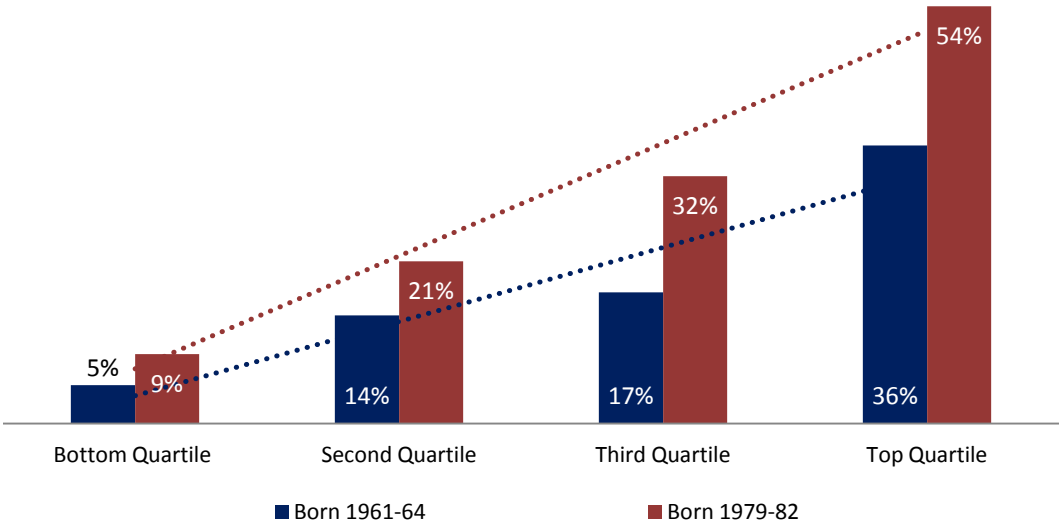
When it comes to completing a college degree, the gap between students from families in the highest-income groups and everybody else is widening.[25] In 1970, 40% of those from families in the top income quartile had obtained a Bachelor's degree by age 24, compared to 6% whose families were in the bottom quartile. In 2013, students from families in the bottom quartile earned Bachelor's degrees at a rate of just 9%, while the percentage for those from the top

quartile had soared to 77% – making young adults from the highest income quartile more than eight times more likely to have a Bachelor's degree by age 24 than those in the bottom quartile.[26]

For low- and middle-income students, high sticker prices curb college aspirations. Under the current tuition-and-debt system, the options for these students and would-be students – including the 27,000 students that are eligible but unserved by state financial aid, and the many other middle-income students that are in need but not eligible in the first place – are whittled down to two: foregoing college altogether or financing it with student loans, no matter how high the interest rate and the lifetime cost.

Many choose to forego a college education altogether. Nationwide, only 51% of low-income high school completers enroll in higher education within a year of graduation, compared to 65% of middle-income students, and 81% of high-income students.[27] While higher education enrollment in Washington state is growing, four-year enrollment – particularly of in-state students – is not keeping pace with growth in the state's college-age population, a trend likely to be reinforced by high and unmanageable debt loads after college.[28]

PERCENTAGE OF STUDENTS COMPLETING COLLEGE, BY INCOME QUARTILE AND YEAR OF BIRTH, UNITED STATES

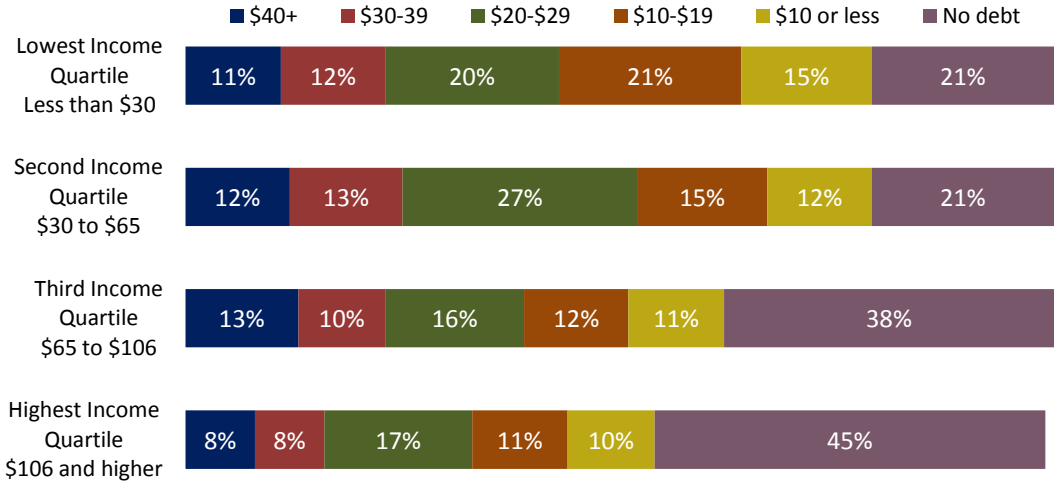


Source: Bailey and Dynarski[29]

Loans help lower the initial hurdle for low- and middle-income students to attend college, but they also bring significant risk and uncertainty to borrowers at all levels. The lower a borrower's post-graduate income, the bigger the burden, primarily because the loan repayment consumes a higher share of income, but also because those who take longer to repay loans accrue more interest and pay more for college as a result. Additionally, students from the lowest-income families carry more debt out of college than students from higher-income backgrounds, resulting in profound intergenerational effects that are increasingly difficult to reverse.

The cumulative debt graphic illustrates that students in the second income quartile have on balance the highest debt load, with 52% of them carrying over $20,000 in cumulative debt. By comparison, 43% of students from the lowest income quartile have similar debt, possibly because the latter on average receive more grant assistance, for which students in the second income quartile do not qualify.

CLASS OF 2011-12 CUMULATIVE DEBT OF BACHELOR'S DEGREE RECIPIENTS BY FAMILY INCOME, UNITED STATES, 2013 DOLLARS, IN THOUSANDS



Source: College Board[30]

Pay It Forward: Social Insurance for Access to Higher Education

The current model for funding higher education is failing too many of Washington's current and aspiring college students. Financial aid is not keeping up with ever-increasing tuition, and increased reliance on loans has proven to be a costly and burdensome solution. Policymakers must address these issues by increasing per-student state funding and exploring reforms that reduce the disincentives inherent in the current student loan market.

But along with those important policy changes, the higher education financing system needs a major overhaul. The Pay It Forward policy model proposes creating a social insurance program that removes upfront tuition barriers and mitigates individual risk post-graduation, thereby putting public higher education within reach for more students.

Under Pay It Forward, students would attend any participating in-state public higher education institution without needing to come up with upfront tuition or to assume the large fixed obligations of student loans. Removing these barriers would improve college access for low- and middle-income students, who might otherwise be deterred from attending or completing college because of the prospect of high debt levels. In return, participants would agree to contribute a fixed percentage of post-college income to a state-managed fund for a set number of years. In this manner, graduates could be much more confident in their ability to pay for college.

How Pay It Forward Differs From Other Funding Mechanisms

The Pay It Forward model differs from other funding mechanisms in several important respects.

- **Pay It Forward is not a loan (there is no principal and no interest) – nor is it a "no strings attached" grant.** Participants in Pay It Forward are obligated to contribute a predetermined percent of income for a predetermined number of years. When the contribution period ends, so does the obligation to pay; there is no principal to "pay off". All participants' contributions are pooled in the Pay It Forward fund and held in trust to fund each incoming cohort.

  Under a loan, borrowers are lent a specific sum, which they are required to repay with fixed payments of principal plus interest. Under Pay It Forward, graduates have their tuition and

fees covered – by payment directly from the state-managed trust fund to the institution of their choice. In return, they are required to make income-based contributions to that fund for a set period of time after graduation. There is no principal to repay, there is no interest, and contributions are tied strictly to income – whether that income is low, medium or high.

A loan repayment obligation ends when the balance of the loan is repaid (regardless of time). The Pay It Forward contribution obligation ends when the participant completes the contribution requirements for the agreed-to period (regardless of the total amount he has contributed).

Student loans offer some certainty about the balance of the loan that must be repaid, whether under an income-based repayment plan (if available), standard repayment, or something else.[31] Whether borrowers can afford those required payments is uncertain. Some federal loan repayment plans are based partially on income, but many other loans are not – and those payments often exceed ability to pay, especially in the years right after college. This puts the financial security of many young adults at significant risk.

Pay It Forward offers a different assurance to participants: that their contributions will be affordable, transparent, predictable, and tied strictly to income, not to an individual principal balance or interest. Pay It Forward offers certainty as to the participant's ability to afford monthly contributions, while the total amount any one participant will pay overall is uncertain (as that will depend on income over time). The aggregate contributions for a Pay It Forward program, however, remain much more certain, since they merge contributions by participants with low, medium and high post-graduate incomes.

- **Pay It Forward is not an income share agreement.** Because they are privately funded by investors or small, non-profit institutions, income share agreements (ISAs) serve only a few students at a time. ISA investors are counting on the success of just one or a few students, so their potential risk is much higher than under a Pay It Forward program where the risk is pooled among many students. To limit that risk, ISAs require: i) extensive, careful individual evaluation, ii) selection of high-return, low-risk students, and iii) setting higher contribution rates for students funded by ISAs. ISAs can open doors for the few students who receive them, however they simply are not enough to restore and increase access to public higher education on a wide scale. Thus far, ISAs have succeeded in providing higher education to a select few hand-picked students.

  In contrast, Pay It Forward provides a completely different approach to funding access and limiting risk. Indeed, one of the goals of Pay It Forward is to replace private individual loan products that put individual students at risk, with a public program that pools risk among many students and the state. This not only protects students from default, it avoids the need for extensive additional research, expands the number of participants, and by lowering administrative cost and program risk, it allows for lower contribution rates and lower lifetime cost than ISAs. Pay It Forward is meant to be available, on a voluntary basis, to all students. At scale, Pay It Forward could serve thousands of students.

- **Pay It Forward is not a replacement for need-based aid or tuition reduction.** The goal of Pay It Forward is to open access to higher education to more students (and would-be students) in a way that is not financially crippling. Increasing need-based aid to the lowest-income students and decreasing tuition are the first steps toward this goal. As need-based aid increases and tuition decreases, financial aid dollars can go further for more students and Pay It Forward can be offered at lower contribution rates.

Program Design Considerations

Accounting for adverse selection

Pay It Forward is a voluntary program, so it is important to consider and account for the effects of adverse selection.[32] This refers to self-selection bias which could result in the program having a higher participation of lower-income graduates and lower participation of higher-income graduates, based on their anticipated future incomes.

Adverse selection in Pay It Forward financial modeling is addressed by selecting a percentage reduction of the average post-college income series values used to calculate future program contributions. While there is no way to predict the exact future effects of adverse selection, the following considerations should be taken into account when selecting the level of adverse selection to include in financial modeling, and later when reviewing and refining the financial parameters of an ongoing program:

- **Limited knowledge limits potential impact.** An adverse selection input assumes that a portion of students will be able to accurately predict – at the outset of adulthood – whether their incomes will be above or below average throughout the next two or more decades. This ability is limited, given the general unreliability of such predictions, the exploratory nature of many college careers, and especially in light of the profound effect that higher education has on income and upward mobility.
- **Cohort selection can neutralize most adverse selection in program design.** To the extent that family income predicts future individual income, the risk of adverse selection in a pilot can be reduced by selecting participants randomly, with numbers stratified by family income (in addition to other variables), as is proposed in the pilot developed by the Oregon Higher Education Coordinating Commission (HECC).[33]
- **Program design can adapt to adverse selection that is higher or lower than originally projected.** The program parameters can be changed each year, for either pilots or full programs. As with all other Pay It Forward variables, if the contribution receipts reveal that adverse selection is or may be affecting program performance, this can be offset by a relatively small increase in the contribution rate for following cohorts. For example, an adverse selection impact of 5% (a rate that would require highly unlikely foreknowledge about incomes) could be offset by an increase in the contribution rate from 4% to 4.2% in a typical Pay It Forward program. Operationally, the contribution rate can be adjusted if and when the actual pattern emerges from contribution data.[34]

Accounting for dropouts and unemployment

Pay It Forward can accommodate students at any level of participation, including nontraditional students, part-time students, those who drop or stop out, and transfer students. Program design accounts for under- and unemployment and non-payment of contributions by graduates. These variations are captured through income projections that account for these and other factors.

- **Dropouts and graduation rates:** Projected model income data accounts for a large degree of variation in education levels, with a large proportion expected to drop out without earning a degree at all. Assumptions and data can be customized for each state, depending on typical income levels and graduation and transfer rates.
- **Under- and unemployment:** The income series used to model income accounts for under- and unemployment by using census earnings data for "total work experience," rather than incomes of people who worked full-time all year.
- **Career paths:** Because national average earnings data are used, all majors and careers – and their resulting disparate incomes – are represented.[35]

Financing room and board

At the discretion of state policymakers and/or program administrators, Pay It Forward can be utilized for room and board, in addition to tuition and fees. In most states, the cost of room and board is comparable to tuition and fees, and, as such, constitutes about half of the cost of attendance. Contribution rates, periods of contributions, or both would need to be increased in order to ensure program sustainability.

Collecting contributions via existing agencies

Most states have a financial aid agency that administers grants, conditional scholarships, and even state-based loans, and those agencies have the tools to collect money. For instance, in Washington, the WSAC administers financial aid, tracks all conditional scholarship recipients in-house, and contracts with collection agencies to collect on delinquent or defaulting participants. Forty-three states have a state income tax, which would allow collections to be made as part of the income tax return process, if necessary. As with federal income-based repayment loans, income can be self-reported and then verified and adjusted by state or federal tax returns at regular intervals.

Reducing delinquency rates

Lower delinquency rates can be expected in a Pay It Forward program than with student loans, for at least two reasons. First, state agencies have several tools to ensure that contributions owed to the state are paid, for instance, by withholding income tax refunds. Student loan companies do not have this capability. Second, because Pay It Forward contributions are tied directly to income, there is less risk of participants being unable to make their contributions, as is the case with loan payments.

Benefits of Pay It Forward

Self-sustaining after one generation

After an initial investment of transition costs from public sources – which can be scaled to any funding level – the contributions of participants alone creates a revolving revenue stream that fully funds all new and future participants.

Works in concert with other financial aid

Students with federal or state financial aid may use that aid first, then use Pay It Forward for remaining tuition costs. This enables a greater number of students to access Pay It Forward funds to meet their higher education goals. (Note: funding Pay It Forward with budget appropriations that would otherwise go to need-based aid is not a viable policy approach.)

Reliability and flexibility during college

Unlike many conditional loan and scholarship programs available in Washington, Pay It Forward has no eligibility requirements while students are in school. Pay It Forward applies to all students, regardless of area of study, family income level, age and academic progress. That means that all participating students, regardless of their circumstances, can depend on Pay It Forward as they make their way through college, without fear that a change in their area of study, or the need to take a semester off because of a family emergency, will derail their higher education aspirations.

This flexibility is important, given that most of today's students are not what we think of as "traditional" students – that is, they do not enroll in a four-year institution directly after high school, attend full-time, and complete their degree in four years. Many are students with children of their own or returning students in the middle of their careers. In Washington, there are over

450,000 adults between the ages of 17 and 54 who fit in the "some college, no certificate or degree" category of educational attainment, and many of them do not earn a living wage.[36] These potential students need a way to return to school and complete their degrees without breaking the bank. Pay It Forward offers the flexibility for them to do that.

Unrestricted career choice after graduation

Students that graduate with traditional loan debt are often driven by that debt into the highest-paying job opportunities for which they qualify, regardless of their personal passion or how much social value the job has. This keeps many would-be public servants, like aspiring teachers, social workers, and nurses in rural areas, from pursuing those careers because of the modest income prospects. Pay It Forward expands career choice by tying graduates' contributions directly to income. This keeps every participant's contributions manageable and predictable, and promotes the important public policy goal of allowing highly-educated graduates into careers with high social value – without punishing them with regressive loan payment structures.

Asset-building and meaningful participation in the economy

In 2014, 69% of public and nonprofit college graduates nationwide had student loan debt, with an average balance of $28,950.[37] As the debt crisis has evolved, researchers have looked beyond total balances and into the intricacies of the loan repayment process. One troubling finding is that the borrowers with the highest default rates are those with the lowest balances. According to the Federal Reserve Bank of New York, borrowers with just $1,000 to $5,000 in debt experience the highest level of default (34%), almost double the rate of those with more than $100,000 in debt (who have the lowest default rate at 18%).[38] Why? Experts hypothesize that people with low debt burdens tend to be those who dropped out of college, who have a more difficult time getting good jobs, and so cannot afford their loan payments; and people with high debt are those with advanced degrees and a wealth of highly-paid employment opportunities.

Pay It Forward removes this anomaly. Instead of having unmanageable minimum payments that they cannot pay, graduates under Pay It Forward will have contributions that align with their income, whether they finished college or not. Additionally, because Pay It Forward can eliminate the need to take out loans each term to pay tuition – and the financial anxiety that comes with it – students are more likely to persist and complete. This results in more educated graduates with less debt.

Traditional student loan debt, by contrast, keeps young people from participating meaningfully in the economy, for instance, buying a home or starting a family or business. The Federal Reserve Bank of New York estimates that student debt was responsible for $83 billion in lost activity in the housing market in 2014.[39] Student debt has also been linked to limiting entrepreneurship, self-employment, and small-business growth.[40] Most of these negative impacts are linked not to the *amount* of debt but to the manageability of monthly payments, a feature upon which Pay It Forward significantly improves.

Sustainable investment in higher education that keeps money in Washington

One of the features that sets Pay It Forward apart from other financial aid programs is that it has the ability to become self-sustaining at program maturity. That means that a state, especially a revenue-starved state like Washington, can make a short-term investment in a program that produces a revolving source of revenue to maintain the program output levels every year, in perpetuity.

Pay It Forward Implementation

Pay It Forward is a flexible model, with variations on design that can be implemented at any level of higher education, and for all levels of participation, down to the credit level. The specifics of a Pay It Forward plan can and should be determined based on the circumstances of the particular state, institution or group of students to be served. The variations explained and illustrated below are presented with reference to Washington state circumstances and potential institution-specific programs, but the variations can be easily adapted to conditions and institutions in other states.

Funding Models and Levels

One of the hallmarks of Pay It Forward is that every program is flexible and scalable, both at the outset of program implementation, and from year to year. All of the illustrations given in this report are scalable, based on available funding levels. In addition, the extent of the state's financial commitment varies based on the chosen funding model, ranging from a long-term annual investment in perpetuity (the cohort-growth model) to nearly eliminating the state's liability by funding the transition costs through bond issuances.

Though Pay It Forward will significantly change the way students contribute to the cost of public higher education, it cannot replace existing public support from the state legislature. In order for any state to deliver affordable and accessible higher education for its students, the state must maintain a base level of funding for its colleges and universities.

Fully funding higher education is a costly endeavor, especially in Washington state, which relies on sales and property tax for more than half of its general fund revenue.[41] Over the last decade, Washington's funding record has been increasingly bleak; however, in recent years, the legislature has substantially increased funding and even cut tuition. Maintaining this positive trend would contribute greatly to the success of our higher education system and workforce.

As Washington grapples with how to come up with more across-the-board funding for higher education, it can also explore innovative programs that can increase accessibility for the greatest number of students in a way that is responsive to budget restraints. Pay It Forward is one such innovative program.

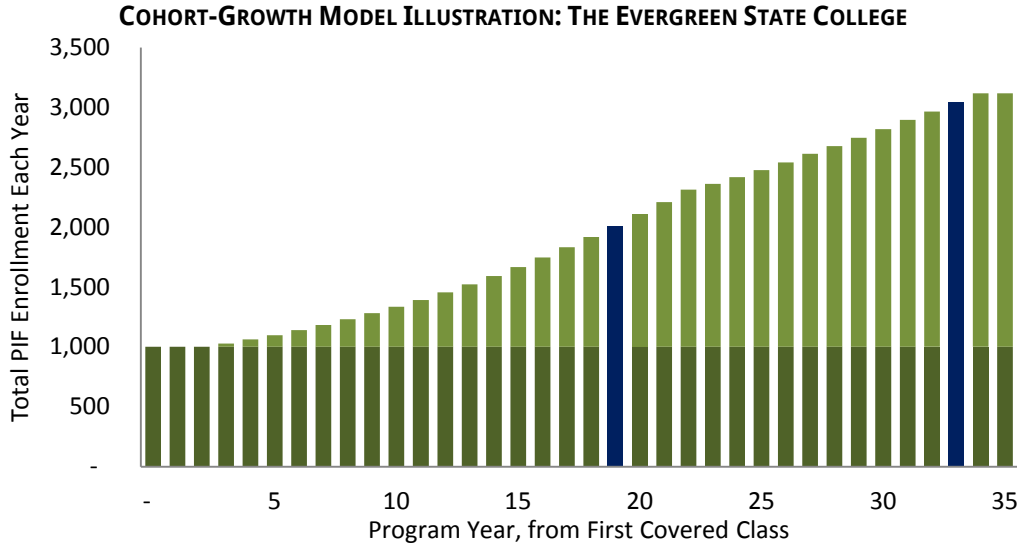
Limited, Recurring Funding Model: Cohort-Growth

The cohort-growth funding model supports expanding Pay It Forward participation while the state maintains a constant and steady level of funding each year. Growth is achieved by adding Pay It Forward contributions from graduates to the state investment in the Pay It Forward trust fund. In this way, the state's investment funds the initial baseline cohort size year after year, and graduate participants' contributions fund an increasing number of additional new student participants each year.

This funding model is well-suited to situations where a state has limited annual budget availability, but would like to establish and intentionally expand a Pay It Forward program within that budget. Its successful expansion would require continuing the initial annual budget contributions to the program.

Consider the following illustration. In 2014-15, Evergreen State College's enrollment was 4,007 FTE. Under a cohort-growth model, Evergreen could offer Pay It Forward to 1,000 full-time students in the 2016-17 academic year for $7 million. The graph below illustrates Pay It Forward participation growth with an ongoing annual investment of that amount.

The number of students funded by Pay It Forward would double by year 19, and triple by year 33. With the same ongoing annual investment from the state, the equivalent of today's entire student body could be funded by Pay It Forward by the 2061-62 academic year.



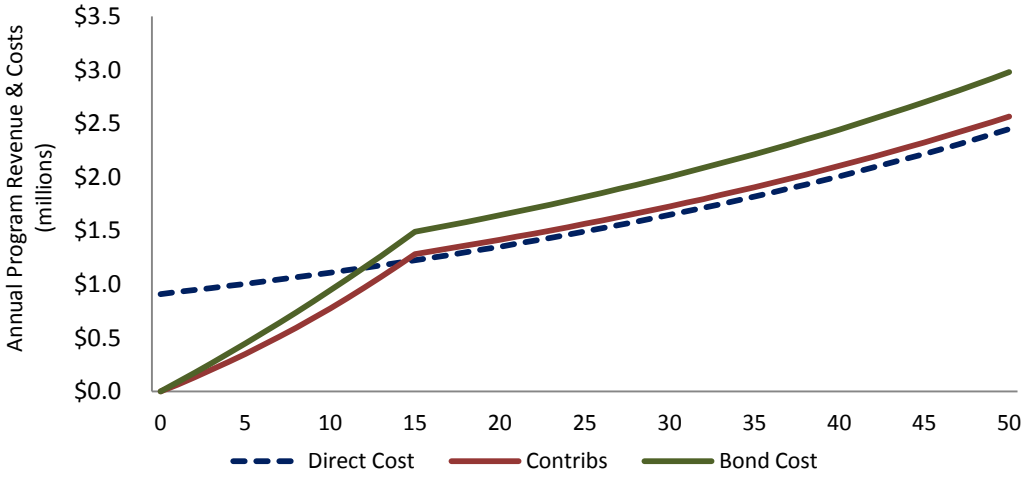
Bond Financing Model

Since 2007, the Washington Higher Education Facilities Authority (WHEFA) has been authorized to issue taxable and tax-exempt bonds to acquire or originate student loans.[42] WHEFA could similarly be authorized to issue bonds to originate Pay It Forward financing to participating students. Bond financing is most valuable for the transition funding model (discussed in next section), since it largely eliminates the initial burst of state transition funding that would be required upfront in that funding model and replaces it with a smaller, ongoing commitment for bond repayment, making the program both more financially and politically feasible.

The graph below provides an illustration of revenue and costs for a Pay It Forward program offered at a community college to 1,000 students, financed with bonds. If the state were to sell 15-year bonds in annual amounts sufficient to cover each year's tuition costs for the entire program, it could much more closely align the pattern of tuition costs with the pattern of student contributions. It would switch the pattern of annual costs from the dashed blue line of direct tuition cost obligations to the gradually growing set of annual debt service obligations shown by the green line.

Here, a transitional funding requirement shown by the area between the dotted blue annual cost line and the red contribution revenue line would be replaced by a much more modest long-run annual requirement for additional state funding (the space between the red and green lines), just $150,000 in this example. This translates to about $150 per student per year (in 2015 dollars). In terms of present value, retaining the contribution levels that were scaled for break-even cash flow under transitional funding would cover about 85% of the tuition costs for the illustrated program, and the remaining 15% would be provided through the $150,000 annual state contribution.

ILLUSTRATION: 50-YEAR PATTERN OF BOND REPAYMENT COSTS AND GRADUATE CONTRIBUTIONS
COMMUNITY COLLEGE, 1,000 ANNUAL FTE, NOMINAL DOLLARS



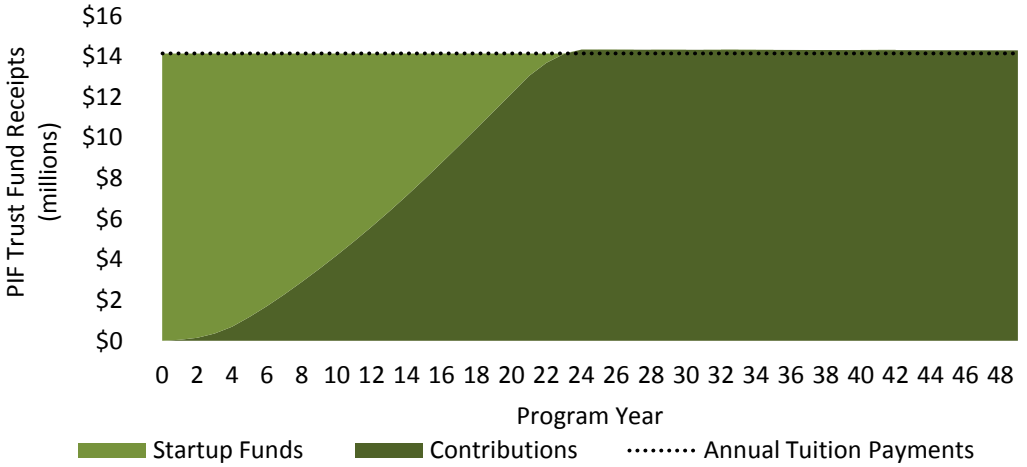
Transition Funding Model: Selected Program Size

Under the transition funding model, the transition costs for Pay It Forward are funded initially by public sources until the Pay It Forward trust fund becomes self-sustaining. After that, no state funding is needed: the annual trust fund tuition payment requirements are by design completely met with former graduates' contributions.

This funding model is well-suited to situations where a state wishes to establish a larger program from the outset, and is able and willing to secure sufficient interim funding to provide net annual tuition cost requirements until the program reaches maturity and graduates' contributions can support subsequent years' tuition costs.

The illustration below features 2,000 annual FTE at Evergreen, with a state investment of $14.1 million in the first year. In contrast with the cohort-growth model, where the level of state funding remains the same each year, under the transition funding model, the state's appropriation could be reduced each year by the amount of participant contributions deposited into the fund. In this illustration, the state's investment would end in year 23 of the program, when it becomes sustained by participant contributions in perpetuity.

TRANSITION FUNDING MODEL ILLUSTRATION: THE EVERGREEN STATE COLLEGE



Contribution Options

Percentage of Total Income

Under this model, Pay It Forward contributions are made based on adjusted gross income, plus tax-exempt interest and qualified dividends. This is the default method, which effectively results in a proportional tax on graduates. It has the benefit of keeping the contribution percentage low by including all adjusted gross income in the base for calculating payments. It also limits incentives for adverse selection.

Percentage of Qualifying Income

A more progressive contribution structure exempts a designated amount from the income base for calculating Pay It Forward contributions. For example, with a $10,000 exemption, a graduate with an annual income of $40,000 would pay contributions on $30,000, while a graduate with an income of $100,000 would pay contributions on $90,000. This is similar to federal income-based repayment (IBR) programs such as Pay As You Earn (PAYE), which bases payments on 10% of discretionary income (income above 150 percent of the poverty level). The rationale for progressive structures like these is that they align better with ability to pay, since non-discretionary expenses are proportionally higher for low-income households.

Startup Funding Sources

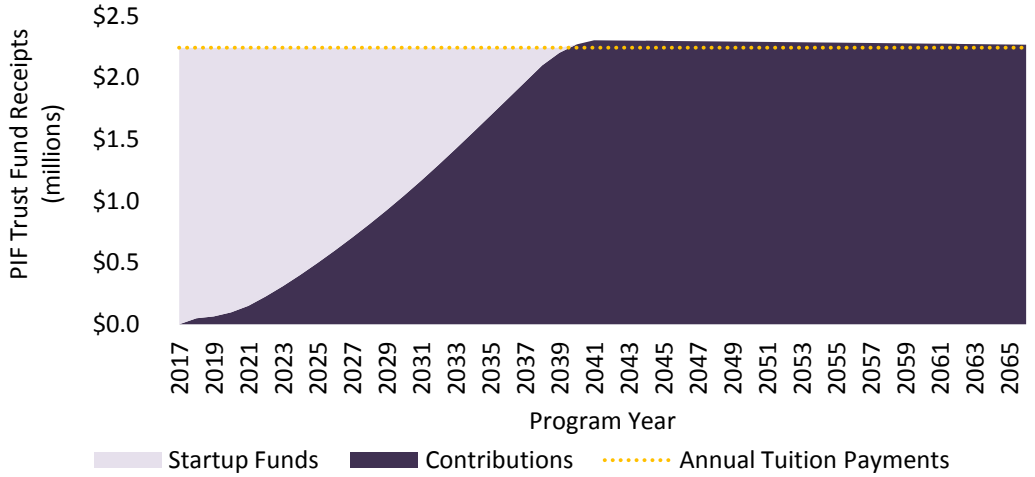
Personal Income Tax

Washington has the most regressive tax system in the nation, due to the absence of a personal income tax.[43] In April 2015, State Treasurer Jim McIntire proposed a revenue package that includes a personal income tax of 5 percent on income above $50,000 for a family of four, which would return $4 billion in new net revenue for the state by 2019.[44] A personal income tax would raise much-needed revenue for the state of Washington that could be spent to support higher education as well as other public investments.

Institutional Endowment

In 2014, the value of the University of Washington's endowment was $2.833 billion. Between 2006 and 2014, the fund's market value grew an average of 7.72% annually.[45] Assuming average growth in 2015 ($219 million), the University of Washington could dedicate 1% of that growth alone in 2016-17 – or $2.2 million – to a Pay It Forward program that could enroll 200 University of Washington students each year. If endowment contributions were continued at that level, the program could gradually grow – the cohort growth model. Alternatively, using the transition funding model with a starting annual investment of $2.2. million, the 200-student program would reach maturity and be sustained completely by participants' contributions by 2040 (based on contributions of 4.6% of income for 20 years).

ILLUSTRATION: TRANSITION FUNDING MODEL WITH ENDOWMENT FUNDING: UNIVERSITY OF WASHINGTON



Cohort Selection Models

Pay It Forward is a policy solution that can respond to a variety of issues. Depending on the circumstances of the state, it can be implemented at any level of higher education – from community college through graduate school. It can be designed to address college access generally, or college access among the under- and unserved, or among varying cross-sections of the population. It can also be designed to target improvement in high school and middle school persistence and success, slumping college enrollments in a given area, or to address workforce demands. Models for Pay It Forward cohort selection include:

- **Institution-Based:** Hosted at one or more higher education institutions, and offered to the entire student body or to a subset of students at the selected institution(s).
- **High School-Based "Promise":** Offered to graduating students at one or more high schools. Promise programs, like the College Bound Scholarship in our state, are linked with higher high school graduation rates for participants.[46] The benefits of this model reach beyond higher education, in that it gives not only students in their senior year of high school, but students of all ages, a visible pathway to guaranteed higher education without high tuition barriers. Opening the doors of higher education to students in middle and high school enables them to take advantage of opportunities they may not have considered before.
- **Workforce-Driven:** Offered to students in a particular certificate or degree program or career path, and used to promote the fulfillment of a particular workforce need by increasing educational opportunity among students in that field. For instance, in Washington and many other states, health care workers are predicted to be in increasingly high demand in the next several years.[47] Lawmakers could implement a Pay It Forward program tailored to nursing students, for example, from the community college level up to graduate schools, to increase the number of highly-educated health care workers. It could be offered statewide, or at a number of select institutions with particularly robust health care programs.
- **Stratified Random:** Offered to a random selection of students, stratified by certain demographics like family income level and location, at community colleges and four-year institutions. It can be offered statewide or as a cohort-selection design for any specific institutional program. This model mimics a Pay It Forward pilot program developed in Oregon designed to obtain an accurate basis for projecting performance of a more comprehensive program.

Participation Caps

Pay It Forward programs are designed so that participants may choose Pay It Forward financing (as measured by academic credits), up to any limits set by the program. Each individual's contribution rate will be based on individual level of participation.

For example, at a four-year institution offering Pay It Forward to participants at a rate of 1% of income per year of full-time study for 20 years, a student choosing to participate in Pay It Forward for all credits for all four years would contribute 4% of income for 20 years. A student that has Pay It Forward cover just half of the credits for one year would contribute 0.5% of income for 20 years. And a student who participates in Pay It Forward full-time for two years and then drops out would contribute 2% for 20 years.

Individual Pay It Forward participation can be capped at a defined level of credits, or a defined number of years of participation. The goals of setting limits are to ensure that Pay It Forward participants have manageable contributions after graduation, and to stretch available funds to support as many students as possible.

Conclusion

Pay It Forward is a versatile higher education financing tool that has the potential to open access to higher education by removing one of the greatest barriers: the need for students to pay upfront tuition. The assurance of income-based payments for higher education could have profound effects not only on college students, but on younger students, their families, their communities, and the economy as a whole.

Pay It Forward would alleviate the unmanageable debt burdens that are endangering the financial security of some of our most promising young talents and the health of our economy. It gives participants the assurance that no matter what their income is after college, they can afford their contribution. It does this all while creating its own reliable source of revenue for perpetuating or even expanding its program of higher education access for years to come.

The high-tuition, high-debt system is failing students and their families. Lawmakers in Washington and across the country have taken note and begun to make access to higher education a real priority again in recent years. Pay It Forward legislation has been introduced in 27 states – and study bills have passed in 7 of those states – since the Economic Opportunity Institute first outlined the proposal in 2012. In 2015, Washington state cut tuition at public universities and colleges for the first time in decades. Several states have taken up efforts to implement free community college.

But college is still far out of reach for a great number of aspiring students. Tuition at Washington's research universities still represents one-fifth of the typical Washington household income. And low-income students nationwide are still enrolling and completing college at much lower rates than the wealthy. With income inequality on the rise, it is imperative that lawmakers carry this positive momentum forward and champion bold, progressive policies to open the doors of educational opportunity to all.

Sources and Notes

1 Hiltonsmith, Robert. Demos. May 2015. “Pulling up the Higher-Ed Ladder: Myth and Reality in the Crisis of College Affordability.” Available at http://www.demos.org/publication/pulling-higher-ed-ladder-myth-and-reality-crisis-college-affordability.

2 State Higher Education Executive Officers Association (SHEEO). 2014. SHEF – State Higher Education Finance FY14. “State-by-State Wave Charts (XLS).” Available at http://www.sheeo.org/resources/publications/shef-%E2%80%94-state-higher-education-finance-fy14.

3 Ibid.

4 All amounts are shown in inflation-adjusted 2014 dollars unless otherwise specified.

5 State Higher Education Executive Officers Association (SHEEO). 2014. SHEF – State Higher Education Finance FY14. “State-by-State Wave Charts (XLS).” Available at http://www.sheeo.org/resources/publications/shef-%E2%80%94-state-higher-education-finance-fy14.

6 Federal Reserve Bank of New York, “Student Loan Debt by Age Group,” March 29, 2013, available at https://www.newyorkfed.org/studentloandebt/index.html.

7 Gallup, Purdue University. 2015. “Great Jobs, Great Lives. The Relationship Between Student Debt, Experiences and Perceptions of College Worth. Gallup-Purdue Index 2015 Report.” Available at http://www.gallup.com/services/185888/gallup-purdue-index-report-2015.aspx.

8 Federal Reserve Bank of San Francisco. April 2014. “Does College Matter?: 2014 Annual Report.” Available at http://www.frbsf.org/our-district/about/sf-fed-blog/does-college-matter/.

9 U.S. Census Bureau, Current Population Survey, 2015 Annual Social and Economic Supplement. “PINC-04. Educational Attainment—People 18 Years Old and Over, by Total Money Earnings in 2014, Work Experience in 2014, Age, Race, Hispanic Origin, and Sex.” Available at http://www.census.gov/hhes/www/cpstables/032015/perinc/pinc04_000.htm.

10 Uhran, Susan K. The Pew Charitable Trusts. July 2012. “Pursuing the American Dream: Economic Mobility Across Generations.” Available at http://www.pewtrusts.org/en/research-and-analysis/reports/0001/01/01/pursuing-the-american-dream.

11 Ibid.

12 The Pew Charitable Trusts. November 2013. “Moving On Up: Why Do Some Americans Leave the Bottom of the Economic Ladder, but Not Others?” Available at http://www.pewtrusts.org/en/research-and-analysis/reports/0001/01/01/moving-onup.

13 Uhran, Susan K. The Pew Charitable Trusts. July 2012. “Pursuing the American Dream: Economic Mobility Across Generations.” Available at http://www.pewtrusts.org/en/research-and-analysis/reports/0001/01/01/pursuing-the-american-dream.

14 Income: U.S. Census Bureau, Annual Social and Economic Supplement. "Income of Households by State Using 3-Year-Average Medians." Available at https://www.census.gov/hhes/www/income/data/statemedian/. Educational attainment: U.S. Census Bureau. The 2012 Statistical Abstract. "Educational Attainment by State (2009)." Available at http://www.census.gov/compendia/statab/cats/education/educational_attainment.html.

15 Berger, Noah & Fisher, Peter. Economic Analysis and Research Network. August 2013. “A Well-Educated Workforce is Key to State Prosperity.” Available at http://www.epi.org/publication/states-education-productivity-growth-foundations/. See also Grossman, Michael & Kaestner, Robert. 1997. “Effects of Education on Health” in The Social Benefits of Education; Lleras-Muney, Adriana. 2005. “The Relationship Between Education and Adult Mortality in the United States” in Review of Economic Studies; and Lochner, Lance & Moretti, Enrico. 2004. “The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self-Reports” in The American Economic Review.

16 U.S. Department of Labor, Bureau of Labor Statistics. “7. Employment status of the civilian noninstitutional population 25 years and over by education attainment, sex, race, and Hispanic or Latino ethnicity”. Available at http://www.bls.gov/cps/cpsaat07.htm.

17 Berger, Noah & Fisher, Peter. Economic Analysis and Research Network. August 2013. “A Well-Educated Workforce is Key to State Prosperity.” Available at http://www.epi.org/publication/states-education-productivity-growth-foundations/.

18 Carnevale, Smith & Strohl. June 2010. Georgetown Public Policy Institute Center on Education and the Workforce. “Help Wanted: Projections of Jobs and Education Requirements through 2018.” Available at https://cew.georgetown.edu/report/help-wanted/.

19 Washington State Council on Higher Education. 1974. "Tuition and Fee Recommendations. Washington State Public Higher Education 1975-1977." Available at http://eric.ed.gov/?id=ED100261.

20 Washington Student Achievement Council. 2013. "The Roadmap: A Plan to Increase Educational Attainment in Washington." Available at http://www.wsac.wa.gov/the-roadmap.

21 2016-17 tuition rates are estimated based on Washington's 2015-17 biennial budget, which stipulated the following tuition decreases: Research universities: 15% decrease from 2014-15 levels (5% in 2015-16, 10% in 2016-17); Regional universities: 20% decrease from 2014-15 levels (5% in 2015-16, 15% in 2016-17)' Community and technical colleges: 5% decrease from 2014-15 levels (5% in 2015-16).

22 Thompson, Maddy. Washington Student Achievement Council. 2015. "Make College Affordable. State Need Grant funding reduces student debt and raises postsecondary graduation rates." Available at http://www.wsac.wa.gov/sites/default/files/2016.Decision.Package.SNG.pdf.

23 Washington Student Achievement Council. 2013. The Roadmap: A Plan to Increase Educational Attainment in Washington. Available at http://www.wsac.wa.gov/the-roadmap.

24 Washington Student Achievement Council. 2012. "Access, Affordability, Achievement: Annual Report on State Financial Aid Programs." Available at http://www.wsac.wa.gov/sites/default/files/SFAAnnualReport 2012_0.pdf. Washington Student Achievement Council. 2014. "2014 Strategic Action Plan." Available at http://www.wsac.wa.gov/strategic-action-plan.

25 PolicyLink, National Equity Atlas, "Income inequality: 95/20 ratio," available at http://nationalequityatlas.org. In 2012, the 95th percentile income was 9.14 times the 20th percentile income, compared to 6.91 times in 1980; 7.79 times in 1990; and 8.34 times in 2000.

26 The Pell Institute. 2015. "Indicators of Higher Education Equity in the United States: 45 Year Trend Report (2015 Revised Edition)." Available at http://www.pellinstitute.org/publications-Indicators_of_Higher_Education_Equity_in_the_United_States_45_Year_Report.shtml.

27 Desilver, Drew. January 15, 2014. "College enrollment among low-income students still trails richer groups." Pew Research Center. FactTank: News in the Numbers. Available at http://www.pewresearch.org/fact-tank/2014/01/15/college-enrollment-among-low-income-students-still-trails-richer-groups/. See also National Center for Education Statistics. "Table 302.30. Percentage of recent high school completers enrolled in 2-year and 4-year colleges, by income level: 1975 through 2012." Available at http://nces.ed.gov/programs/digest/d13/tables/dt13_302.30.asp.

28 Office of Financial Management, State-funded enrollment reports, available at http://www.ofm.wa.gov/hied/bd/ and Intercensal estimates of April 1 population by age and sex for the state and counties, 1990-1999 & 2000-2010, available at http://www.ofm.wa.gov/pop/asr/ic/default.asp.

29 Bailey, Martha & Dynarski, Susan. 2011. "Gains and Caps: Changing Inequality in U.S. College Entry and Completion (Working Paper)." Available at http://www.nber.org/papers/w17633.

30 College Board. Trends in Higher Education. "Cumulative Debt of 2011-12 Bachelor's Degree Recipients by Dependency Status and Family Income". Available at http://trends.collegeboard.org/student-aid/figures-tables/cumulative-debt-2011-12-bachelors-recipients-dependency-status-family-income.

31 Under some income-driven repayment plans for federal loans, balances are forgiven after ten or twenty years. These are discussed in a later section.

32 In fact, failure to do so was one of the downfalls of the Yale Tuition Postponement Program of the 1970s, to which Pay It Forward is often compared.

33 Oregon Higher Education Coordinating Commission. 2014. "Pay It Forward Final Report." Available at http://education.oregon.gov/Pages/HECC-Reports.aspx.

34 During pilot development in Oregon, ECONorthwest, an Oregon economic consulting firm was commissioned by the Higher Education Coordinating Commission to review the Interactive Calculator. Their review included a sensitivity analysis of adverse selection. For that calculation, they made the worst-case assumption about adverse selection, that all students destined to have the highest incomes, and only those students, would opt out of the Pay It Forward program. They calculated how much adjustment in contributions would be necessary if that case materialized. Even that extreme case was demonstrated to be a manageable risk. Indeed, as the Oregon pilot was designed, the program could withstand even a -10 percent adverse selection effect, and the fund would still become self-sustaining by year 25.

35 In addition, in the examples shown here, only 5% of participants are expected to obtain a post-Bachelor's degree. In reality, over 12% of the general population holds a master's, professional, or doctorate degree. This is equivalent to assuming adverse selection by about half of the most highly educated would-be participants, which provides a conservative estimate of contribution receipts.

36 Washington Student Achievement Council. 2013. The Roadmap: A Plan to Increase Educational Attainment in Washington. Available at http://www.wsac.wa.gov/the-roadmap.

37 The Institute for College Access & Success (TICAS). Project on Student Debt. "State by State Data." Available at http://ticas.org/posd/map-state-data#.

38 Dynarski, Susan. August 31, 2015. The New York Times. "Why Students With Smallest Debts Have the Larger Problem." Available at http://www.nytimes.com/2015/09/01/upshot/why-students-with-smallest-debts-need-the-greatest-help.html?ref=education.

39 Palacios, Jr., Rick. John Burns Real Estate Consulting. September 19, 2014. "Student Loans Will Cost the Industry $83 Billion This Year." Available at http://realestateconsulting.com/student-loans-will-cost-the-industry-83-billion-this-year/.

40 Headd, Brian. United State Small Business Administration. November 2014. "Student Debt Among Young Entrepreneurs." Available at https://www.sba.gov/sites/default/files/Student%20Debt%20Among%20Young%20Entrepreneurs%20Nov%202014.pdf.

41 Watkins, Marilyn. Economic Opportunity Institute. January 2015. "Washington 2015 Budget Guide: Solutions for Building an Opportunity Economy in the Evergreen State." Available at http://www.eoionline.org/wp/wp-content/uploads/Washington-2015-Budget-Overview-Jan-2015.pdf.

42 Washington Higher Education Loan Program Work Group. December 2012. "Higher Education Loan Program Legislative Report: Finance and program design options." Available at http://www.wsac.wa.gov/sites/default/files/HELP_Report-2012.pdf. See also Revised Code of Washington, section 28B.07, available at http://apps.leg.wa.gov/rcw/default.aspx?cite=28B.07.

43 Institute on Taxation and Economic Policy. 2015. "Who Pays? A 50-state report by the Institute on Taxation and Economic Policy." Available at http://www.itep.org/whopays/states/washington.php.

44 Washington State Treasurer James L. McIntire. 2015. "Education Finance Reform." Available at http://www.tre.wa.gov/news/eduFinReform.shtml.

45 University of Washington Treasury Office. 2014. "Consolidated Endowment Fund Report (2014 – 2009)." Available at https://f2.washington.edu/treasury/CEF-Annual-Report/.

46 Washington Student Achievement Council, "High School Graduation Rates Soar for Students Enrolled in Washington College Bound Scholarship Program," March 19, 2013, available at: http://www.wsac.wa.gov/sites/default/files/3-19-13_College_Bound_grad_rates%20-%20final.pdf.

47 Washington State Workforce Board, "Skill Gap Analysis Identifies High Employer Demand Fields." Available at http://www.wtb.wa.gov/highdemandfields.asp.

Economic Opportunity Institute

Building an economy that works - for everyone.

The Economic Opportunity Institute is an independent and nonpartisan public policy center using research, education and advocacy to shape public debate and advance public policies that help build an economy that works – for everyone.

As a non-profit 501(c)(3) organization, we are fully funded by the charitable contributions of those who believe in our work and want to see it succeed. Learn more at www.eoionline.org.