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AN EQUAL SAY AND AN
EQUAL CHANCE FOR ALL

Out of Reach?

How a Shared Definition of College Affordability Exposes a Crisis for Low-Income Students

BY MARK HUELSMAN

Acknowledgment

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About Demos

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INTRODUCTION AND KEY FINDINGS

"We have to make college affordable for every American, because no hardworking student should be stuck in the red."

PRESIDENT BARACK OBAMA, 2016

"One of the central problems of our outdated higher education system is that it has become increasingly unaffordable for those who stand to benefit the most."

SENATOR MARCO RUBIO (R-FL), 2015

Across the political spectrum, there is widespread recognition that the rising price of college—particularly at public institutions that educate the majority of students—is a product of bad, or indifferent, public policy over a series of decades. That average student debt continues to skyrocket is but one warning sign that our system has gone dangerously off course. Student loan defaults continue to rise even in a healthier post-recession economy, and many worry about the impact of student debt and high college costs on millennial economic security and the ability to earn enough to achieve a middle-class life. This problem has a class and a color: black students are more burdened with student debt, despite the fact that college often confers fewer benefits on them.[1]

Today's students could be forgiven for thinking that they are now priced out of one of our few remaining ladders of opportunity. And efforts to increase the supply of college graduates will forever be compromised so long as costs and prices continue to expand well beyond the rate of inflation and wage growth. There are plenty of causes of the affordability squeeze, including disinvestment at the state level as more students enter the higher education system, and the failure of need-based aid such as the Pell Grant to keep pace with increases in tuition, fees, and living expenses. But today's students are not only dealing with the rising cost of college and student debt, but increased cost of child care, stagnant wages for all but the very wealthy, and a system that now requires workers to fund nearly the entirety of their future retirement savings.

Because of this, many are proposing bold solutions to address the affordability crisis—from debt-free public higher education to tuition-free community college and expanded student loan forgiveness. These efforts will continue to be debated in the 2016 election and beyond, but they would benefit from a shared definition of what "affordable college" actually means. To this point, the term "affordability" has rested more on values and feelings than a shared formula. In some ways this makes sense, as the benefits of college vary by luck, academic preparedness, the strength of the macroeconomy, and the type of institution students are able to attend. But without a definition that colleges, states, and the federal government can use, we run the risk of improperly targeting resources, ineffectively aligning efforts to fund the system, and leaving students feeling like college is financially out of reach.

This analysis attempts to use one definition of affordability—the Rule of 10, created by a consortium of experts convened at Lumina Foundation[2]—to figure out which states have affordable college for which students. Simply, the Rule of 10 states that college is affordable if students can meet the total net price through 10 hours of work per week and 10 percent of a family's discretionary income over 10 years. Using this benchmark, we examined the average net price for low-income students in every state at both public four-year colleges and community colleges.

We also created two additional scenarios—a worker returning to college after 10 years in the labor force making median earnings by race, and a student paying the average net price nationally and taking on student debt—to see how this benchmark holds up for the average student, by race.

Our findings include:

- The average net price for low-income students—those from families making $30,000 or less—is **unaffordable in all 50 states** at both public four-year colleges and community colleges.
- The "affordability gap" varies from slightly over $10,000 for a four-year degree in Hawaii, to nearly $40,000 for students in New Hampshire.
- At community colleges, the affordability gap ranges from just over $1,000 in Mississippi to $23,000 in New Hampshire.
- Black and Latino students making the median income by race cannot accrue enough savings to make a dent in the projected net cost of college. Black adult learners face an affordability gap of over $18,000 ($7,000 more than white adult learners), and Latino adult learners face an affordability gap nearly twice as large as white learners ($21,000 to $11,000).
- Among students who take on loans and earn the expected median income for college graduates, all workers still see an affordability gap. However, black and Latino students in our scenario face larger affordability gaps (over $12,000 and $14,000 respectively), than white and Asian students.
- Doubling the maximum Pell Grant **could make college affordable in up to 26 states**, while increasing the minimum wage to $15 an hour **could make college affordable in 7-8 states**.

DEFINING COLLEGE AFFORDABILITY

In many areas of social policy and personal finance, there are benchmarks and definitions for how much products or services should cost, or guidelines on how families should budget for short- and long-term needs. From retirement savings to housing, there are guidelines around how much families should be expected to contribute and where policy should step in. Many personal finance professionals recommend that workers save a portion of their income (often 10 percent or more) for retirement, beginning in their 20s, but we also have a Social Security system that in principle is supposed to provide enough financial cushion to keep retired and disabled workers from falling into poverty. While this system is often underfunded, under-provisioned, and far from perfect, there is a popular understanding about what is and is not required as far as retirement savings is concerned. In housing as well, there is a general definition of affordability: families who pay more than 30 percent of their income in housing are considered cost-burdened.[3] In this case, dozens of programs at the federal and state level are structured to reduce housing burden down to the defined affordability threshold.

Not so for college. When it comes to determining whether a college is affordable, families face a barrage of information on the cost—from sticker price, to grants and scholarships, to loan interest rates and repayment obligations—as well as the perceived benefit and value of the education itself. Families often must make extremely difficult assumptions about the costs and benefits, both of which may change year by year. Students must weigh the need to work long hours against taking on tens of thousands of dollars in debt for a degree. And all of this is happening without a standard guidepost by which students can measure whether or not the options in front of them are affordable.

Lumina Foundation has sought to create a definition by which policymakers and advocates can begin to describe college affordability. Under this definition, named the Rule of 10, college is affordable for students if the total price can be met with 10 hours of minimum-wage work per week throughout the year, as well as 10 percent of a family's discretionary income saved over 10 years. For low-income households (earning less than 200 percent of the poverty level), affordability is based on a student's wages alone, since the family cannot be expected to save meaningful amounts for a child's college education.

While this benchmark is a just starting a point for policy, it is worth exploring whether there are certain states or institutions that come close to meeting this specific definition of affordability, particularly for low-income, working-class students who already lag behind their wealthier peers in terms of college attendance and degree completion. This analysis seeks to answer that question for all 50 states, by comparing the average net price of both two- and four-year degrees for low-income students in each state by the amount students can earn from work during their time in school.

In addition, this paper explores whether college is affordable for adult students returning to college after working for a decade, and also examines whether college is affordable for students who decide to take on loans and pay them off over 10 years with 10 percent of their income.

Explaining the Rule of Ten

Lumina Foundation has created a discussion benchmark for defining college affordability, known as the Rule of 10. According to the Rule of 10, the *net* cost of college—defined as tuition, fees, room and board and books, minus any grant or scholarship aid—is affordable for students if the total price can be met with 10 hours of work per week throughout the school year and summer (approximately 500 hours a year) at the minimum wage, as well as 10 percent of a family's discretionary income saved over 10 years. In simple terms, discretionary income means income above 200 percent of the poverty threshold; families whose earnings are below that are not expected to have saved.

Data Limitations

The net price figures used in this analysis come from the Department of Education's Integrated Postsecondary Education Data System (IPEDS). However, average net price data are available only for students attending college full-time, for the first time, who also receive grant or scholarship aid. Students returning to college or attending on a part-time basis are not included in IPEDS net price calculations. Net price data by income—including the low-income category used in this report—only includes students who receive Title IV financial aid (such as Pell Grants or Federal Subsidized Loans), meaning low-income students who pay full sticker price for college are not counted. Finally, the net price figures in this report are for students attending public colleges in-state, meaning that out-of-state students are omitted.

LOW-INCOME STUDENTS CANNOT WORK THEIR WAY THROUGH SCHOOL IN ANY STATE

The notion that students can and should be able to work their way through school is long-standing and bi-partisan. From President Obama to former Speaker John Boehner (R-OH) to Rep. Virginia Foxx (R-VA), head of the House Committee on Education and the Workforce's Subcommittee on Higher Education and Workforce Training, politicians often delight in tales of how they themselves worked part-time and summer jobs to pay for college. [4]

This principle, while antiquated in the days of $30,000 average student debt,[5] is one that actually undergirds the Rule of 10, which assumes that for students from low-income households (those at 200 percent of the poverty level and below), affordable college should require no more than 500 hours a year of work at the minimum wage while enrolled in higher education.

So how are we doing on this measure at public institutions—the very institutions designed to provide an affordable option for prospective students? To answer this question, this analysis uses net price data from the Integrated Postsecondary Education Data System (IPEDS) to determine the "affordability gap" for low-income students—those from families making $30,000 and below—in all 50 states. First, we use the average net price students face: the total cost of attendance—tuition, fees, room and board, personal expenses, transportation, and books—and subtract any grant and scholarship aid. Then we subtracted by the amount they could have earned for the last two years at the state's minimum wage.[6] The result—the leftover cost that is not covered by grant aid or 500 hours of work—produces an affordability gap that shows how much remaining cost students must cover by borrowing, savings, or additional work on top of a part-time job (see *Table 1*).

Table 1. Low-Income Students Can't Work Their Way to a Bachelor's Degree

State	Total Earnings from Work at State Min. Wage (4 Years)	Avg Total Net Price for Low-Income Students (4 Years)	Affordability Gap, 2014	State Rank
Hawaii	$14,500	$24,609	$10,109	1
North Carolina	$14,500	$25,580	$11,080	2
Florida	$15,320	$27,357	$12,037	3
California	$16,500	$28,702	$12,202	4
New York	$14,875	$27,743	$12,868	5
Washington	$18,110	$31,153	$13,043	6
Louisiana	$14,500	$28,441	$13,941	7
Oklahoma	$14,500	$29,938	$15,438	8
New Mexico	$15,000	$31,567	$16,567	9
West Virginia	$14,500	$31,487	$16,987	10
Indiana	$14,500	$31,559	$17,059	11
Tennessee	$14,500	$31,929	$17,429	12
Arkansas	$14,500	$32,998	$18,498	13
Rhode Island	$15,275	$34,232	$18,957	14
Kentucky	$14,500	$33,521	$19,021	15
Alaska	$15,500	$34,828	$19,328	16
Texas	$14,500	$34,121	$19,621	17
Wisconsin	$14,500	$34,621	$20,121	18
Wyoming	$10,300	$30,785	$20,485	19
Michigan	$15,175	$36,034	$20,859	20
Arizona	$15,350	$36,928	$21,578	21
Nebraska	$14,500	$36,351	$21,851	22
Connecticut	$16,725	$38,584	$21,859	23
Nevada	$16,500	$38,552	$22,052	24
North Dakota	$14,500	$36,552	$22,052	25
Iowa	$14,500	$37,668	$23,168	26
Minnesota	$14,875	$39,248	$24,373	27
Utah	$14,500	$38,881	$24,381	28
Virginia	$14,500	$39,982	$25,482	29
Georgia	$14,500	$40,062	$25,562	30
Missouri	$14,675	$40,460	$25,785	31
Maryland	$14,500	$40,646	$26,146	32
Massachusetts	$16,000	$42,285	$26,285	33
Kansas	$14,500	$42,351	$27,851	34
Vermont	$16,970	$45,095	$28,125	35
Montana	$15,350	$44,468	$29,118	36
Oregon	$17,675	$46,815	$29,140	37
Illinois	$16,500	$46,197	$29,697	38
Mississippi	$14,500	$44,311	$29,811	39
New Jersey	$15,000	$45,086	$30,086	40
Idaho	$14,500	$45,343	$30,843	41
South Carolina	$14,500	$45,527	$31,027	42
South Dakota	$14,500	$45,890	$31,390	43
Alabama	$14,500	$46,229	$31,729	44
Maine	$15,000	$46,811	$31,811	45
Colorado	$15,390	$47,425	$32,035	46
Delaware	$14,750	$49,572	$34,822	47
Ohio	$15,450	$50,405	$34,955	48
Pennsylvania	$14,500	$52,495	$37,995	49
New Hampshire	$14,500	$53,939	$39,439	50

Note: Total net price and state minimum wage data for the years 2010-11 to 2013-14. For more information on state minimum wage and net price calculations, see Footnote 6. "Low-income students" are defined as students from families making $0-$30,000. Net price calculations are for first-time, full-time students receiving Title IV aid.

Sources: Author's calculations from Integrated Postsecondary Education Data System (IPEDS) net price data and U.S. Department of Labor Wage and Hour Division minimum wage data

Between low wages and high net prices, no state can claim that the average four-year college is affordable for low-income students, using the Rule of 10. That said, there is substantial variation between states on this front. Hawaii, for example, leaves its poorest students with slightly over $10,000 to make up over four years. That gap could close considerably when Hawaii raises its minimum wage to $10.10 an hour effective in 2018[7] (which is also the wage that federal contractors will now earn due to a 2014 executive order[8]). Despite not being affordable for students now, it would take a modest effort from Hawaiian policymakers and institutional leaders—as well as an additional two hours of work per week from students—to have their unmet financial need fulfilled. It's no coincidence that Hawaii and North Carolina, the two states that come closest to making college affordable for low-income residents, fund higher education at levels well above the national average.

States like New Hampshire and Pennsylvania, on the other hand, leave low-income students in a particularly large hole, one that they cannot make up through a few more hours here and there or by hoping to secure a slightly higher-paying job while in school. This gap—nearly $40,000 for four years—comes as no surprise given that both Pennsylvania and New Hampshire have seen higher education cuts exceeding 30 percent since the Great Recession.[9] Both of these states sit at or near the bottom of state higher education funding; New Hampshire provides the lowest per-student funding in the nation, and Pennsylvania sits 47th. Major efforts will be needed in these states to ensure that the students with the fewest means have a fighting chance at affording college without taking on considerable debt.

These figures, and this variation, are not encouraging given what we know about the higher education marketplace. First, most students attend college close to home, and do not shop around like consumers in a normal marketplace. Second, out-of-state tuition is far higher than in-state tuition, and students attending across state lines do not often have the benefit of state need-based grants. In other words, students cannot necessarily "vote with their feet" to find a better deal in another state. And while all states have participated in crippling per-student funding cuts over the past 30 years[10], some states have felt the necessity to slash far deeper than others, so in-state students are often left with no option but to take on greater student debt, or not attend college at all. Higher tuition and fees are not the only consequence of disinvestment. State cuts lead to a shortage of offerings at public colleges, an overreliance on contingent, low-wage faculty, or cuts to vital student services that may be the difference between some students completing or dropping out.[11] Meanwhile, other states view higher education as a greater priority, and are willing to raise revenue or target resources accordingly, providing greater access to high-quality public institutions relative to neighboring states.

It should be noted that while the affordability numbers above show the average net price at state colleges, there is certainly some variation *within* states in reported figures. Despite the fact that no state can boast that its colleges are affordable, some *individual* colleges may be able to do so (see *Table 2*). For example, both California State University-Fullerton and California State-Fresno charge low net prices to poor students, to the point that 10 hours of work at the minimum wage could pay the college bills. The same can be said for several City University of New York (CUNY) campuses and the University of North Texas. While these institutions are certainly in the minority, students from poor backgrounds have a chance to work their way through in four years.

Table 2. Bright Spots in College Affordability for Low-Income Students

University	**Total Earnings from Work** (4 Years)	**Total Net Price for Low-Income Students**
California State University-Fullerton	$16,500	$13,421
California State University-Fresno	$16,500	$14,661
University of North Texas	$14,500	$7,584
CUNY Queens College	$14,875	$12,866
CUNY Brooklyn College	$14,875	$14,613

Source: Author's calculations from IPEDS net price data and U.S. Department of Labor Wage and Hour Division minimum wage data

THE MYTH OF COMMUNITY COLLEGE AFFORDABILITY

Community and technical colleges[i] are often held up by policymakers as alternatives to expensive four-year programs for students entering college. Community colleges in the U.S. often offer a variety of degree programs themselves, in addition to preparing students to transfer elsewhere to seek a bachelor's degree. Community colleges are often caught in a Catch-22, asked to take on the effort of educating students with greater need for remedial education as well as financial need, while receiving less public money from state coffers than public flagship institutions.[12] And despite low tuition relative to other schools, students at community colleges still must pay for living expenses, books, transportation, and child care. A heartbreaking number of students at community colleges also face food insecurity and the prospect of homelessness, regardless of whether or not they receive federal financial aid or attempt to work their way through school.[13] Still, the cost of attendance at these schools is lower than at public four-year institutions, making them an attractive option for price-sensitive students. In terms of the average net price reported by these institutions, though, low-income students still face affordability gaps in each state (See *Table 3*.)

Just as we saw at the bachelor's level, there is considerable variation across states when it comes to the amount students must make up. While Illinois and Mississippi colleges leave low-income students with a lot to make up at their four-year institutions, at community and technical colleges they perform better, though it should be noted that in Illinois, a long-term budget standoff has put state funding for colleges and universities in jeopardy, which could have ripple effects for students.[14] Effects of budget crises in Illinois, Louisiana, and other states are not captured here, nor are severe cuts over the past two years in states like Arizona, but these figures—which demonstrate that students already do not have affordable education, by our measure—should serve as a reference point for institutional leaders and state policymakers considering greater austerity measures that could leave students further behind.

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i. This analysis defines community colleges as public 2- and 4-year institutions that primarily award degrees other than baccalaureate degrees.

Table 3. Low-Income Students Can't Work Their Way Through Community College

State	Total Earnings from Work (2 Years)	Average Total Net Price for Low-Income Students	Affordability Gap	State Rank
Mississippi	$7,250	$8,376	$1,126	1
Illinois	$8,250	$10,133	$1,883	2
Rhode Island	$7,875	$9,923	$2,048	3
Washington	$9,255	$11,344	$2,089	4
Michigan	$7,775	$9,977	$2,202	5
Hawaii	$7,250	$9,684	$2,434	6
Delaware	$7,500	$9,949	$2,449	7
Georgia	$7,250	$10,226	$2,976	8
Connecticut	$8,475	$11,469	$2,994	9
West Virginia	$7,250	$10,671	$3,421	10
Wyoming	$7,250	$10,698	$3,448	11
California	$8,500	$12,223	$3,723	12
Virginia	$7,250	$11,066	$3,816	13
New York	$7,625	$11,443	$3,818	14
Kentucky	$7,250	$11,279	$4,029	15
Alabama	$7,250	$11,293	$4,043	16
New Mexico	$7,500	$12,012	$4,512	17
New Jersey	$7,750	$12,286	$4,536	18
Texas	$7,250	$11,860	$4,610	19
Florida	$7,860	$12,778	$4,918	20
Oklahoma	$7,250	$12,178	$4,928	21
Tennessee	$7,250	$12,487	$5,237	22
North Dakota	$7,250	$12,611	$5,361	23
Maryland	$7,250	$12,859	$5,609	24
Montana	$7,850	$13,622	$5,772	25
Missouri	$7,425	$13,206	$5,781	26
Kansas	$7,250	$13,073	$5,823	27
Nebraska	$7,250	$13,085	$5,835	28
Nevada	$8,250	$14,286	$6,036	29
Arkansas	$7,250	$13,456	$6,206	30
Arizona	$7,850	$14,103	$6,253	31
Massachusetts	$8,000	$14,283	$6,283	32
Idaho	$7,250	$13,789	$6,539	33
Indiana	$7,250	$14,074	$6,824	34
Oregon	$9,025	$16,092	$7,067	35
South Carolina	$7,250	$14,594	$7,344	36
North Carolina	$7,250	$14,615	$7,365	37
Maine	$7,500	$15,206	$7,706	38
Ohio	$7,900	$16,201	$8,301	39
Wisconsin	$7,250	$15,625	$8,375	40
Louisiana	$7,250	$15,711	$8,461	41
Iowa	$7,250	$16,297	$9,047	42
Pennsylvania	$7,250	$16,414	$9,164	43
South Dakota	$7,250	$16,711	$9,461	44
Colorado	$7,890	$17,512	$9,622	45
Alaska	$7,750	$18,544	$10,794	46
Utah	$7,250	$18,574	$11,324	47
Minnesota	$7,625	$21,033	$13,408	48
Vermont	$8,665	$24,182	$15,517	49
New Hampshire	$7,250	$30,298	$23,048	50

Highlighted states have introduced free community college tuition for recent high school graduates, which will likely change the net price that students face going forward. Since these numbers are for the years 2012-13 and 2013-14 (the most recent data available), free community college policies are not captured here.

Note: Total net price and state minimum wage data for the years 2010-11 to 2013-14. For more information on state minimum wage and net price calculations, see Footnote 6. "Low-income students" are defined as students from families making $0-$30,000. Net price calculations are for first-time, full-time students receiving Title IV aid.

Source: Author's calculations from IPEDS net price data and U.S. Department of Labor Wage and Hour Division minimum wage data

New Hampshire has the dubious distinction of being the least affordable state in the nation for community colleges as well as four-year colleges. Low-income students face an affordability gap of over $23,000 for a two-year degree, far more than any other state's institutions. For reference, a student would have to work 10 hours a week for six *additional* years to make up the gap. Students in Washington state, on the other hand, could have picked up another four hours a week and nearly eliminated the affordability gap at community colleges in their state.[15]

These massive differences in the average net price faced by poor students are perhaps more troublesome when it comes to two-year and community colleges. Students at these colleges are far less likely to shop around in other states for similar programs, particularly because community colleges act as commuter colleges for students young and old, who may have other family and financial responsibilities. In this way, higher education does not act like a normal marketplace, with students able to seek the best deal. Students who are sensitive to price or want to avoid debt—particularly for an associate degree—should have the opportunity to attend at least one institution (or type of institution) that is affordable by some definition. Unfortunately, in many states there are too few institutions that fit this bill.

TYPICAL ADULT LEARNERS FACE AN UPHILL CLIMB IN COLLEGE AFFORDABILITY

Adult students make up a substantial portion of the college-going population: nearly half of students in public two- and four-year colleges, and over half of students at private non-profit and for-profit institutions, are 25 and older.[16] Adult learners often come to campus with some work experience.

Defining affordability for these students may require a different set of assumptions than for those who matriculate directly from high school. Adult learners include those with children of their own; in fact, student parents make up a quarter of all college students.[17] These students face the rising cost of child care, not to mention the prospect of saving for their own children's education, and while they may come to campus with a modest amount of savings, they also come to campus with less time in the labor market after college to enjoy the earnings and wealth boost that usually accompanies a degree. It may even be ambitious to assume that non-college educated workers in an unstable economy could be expected to save.

That aside, we can use the Rule of 10 to model whether or not college is particularly affordable for the average adult learner. Using median earnings data from the U.S. Census Bureau's Current Population Survey, the following looks at an adult who has been in the labor force for 10 years, making average wages by race.

Unlike low-income students, we assume that this worker has the ability to save 10 percent of her discretionary income for 10 years for future educational expenses. For low-income adult workers (those at or below 200 percent of the poverty level), the previous section describing low-income students would apply: they are not expected to have any savings. In this scenario, we examine what is happening to those making median income by race, among people aged 25-34. To be sure, this is an optimistic assumption—that this student has been saving for 10 years *and* is making median earnings—but it is instructive to see where we are relative to somewhat rosy scenarios. So how affordable is college right now for this hypothetical student? (See *Table 4*.)

Table 4. Black and Latino Adult Learners Face Large Affordability Gaps

	Total Savings, 2004-2014	Affordable College (Total Savings + Work)	Projected Total Cost of College, 2013-14 to 2016-17	Affordability Gap
All Workers	$17,357	$31,857	$44,037	$12,180
White	$18,307	$32,807	$44,037	$11,229
Black	$10,852	$25,352	$44,037	$18,685
Hispanic/Latino	$8,588	$23,088	$44,037	$20,949
Asian	$28,456	$42,956	$44,037	$1,081

Source: Author's calculations using data from the Integrated Postsecondary Education Data System and the U.S. Census Bureau Current Population Survey. The Projected Total Cost of College calculated as the average net price from 2013-14 school year and a 3% increase in net price for the following three school years. Total savings calculated as 10% of median income for 25-34 year olds by race among all education levels from 2004-14.

Here we see inequity in the labor market rearing its head, as black and Latino students making the median income by race cannot accrue enough savings to make a dent in the projected net cost of college. The black adult learner in our scenario faces an affordability gap of $18,685, over $7,000 more than the white adult learner. The Latino adult learner faces an affordability gap nearly twice as large as the white learner.

Given persistent wage disparities by race, this is perhaps unsurprising, but it is a reminder of how structural racism manifests itself in the job market and affects the ability to build wealth, and how that may impact the ability of students to save for higher education. It should also be troubling that disparities in wages and employment prospects continue to show up well after students receive a degree. Black college graduates are about as likely as white high school graduates to be unemployed, and have the average household wealth of white high school dropouts.[18] So even after potentially earning a degree, those who came to college with fewer savings are less likely to see an earnings and wealth boost associated with a bachelor's degree.

The financial aid system does not seem to fix these inequities either. We know that black students are more likely than white students to borrow for the same types of degrees, and young black households are much more likely to have student debt.[19] But as we see above, black and Latino students come to campus with a lower ability to save. And we also know that the net price facing students—even at the same types of institutions—can take up a greater portion of income for black and low-income students than it does for white and wealthier students.[20] This in itself goes against the intention of the affordability benchmark, which is designed to ensure that students from the same financial background generally have the same chance at affording a degree.

EVEN WITH AN EARNINGS BOOST, WORK AND LOANS STILL LEAVE AN AFFORDABILITY GAP

Student loans, of course, are now the dominant method of financing higher education, a change from two decades ago when fewer than half of college graduates borrowed for a degree.[21] The willingness to take on student loans, and the impact they have on family finances, varies by race and class, and policymakers should continue to question whether loans should be the preferred method of paying for college, in lieu of higher public investment and need-based grant aid.

That said, given that a debt-based system is currently in effect, we can examine how that may interact with our definition of college affordability. After all, college is often considered an investment—not unlike a home or a business—that can be financed with debt, given the returns degree recipients often receive in terms of earnings and wealth.

This scenario considers first-time students who face the average total net cost of going to college (from 2010-11 to 2013-14), worked 10 hours a week while in college at the federal minimum wage of $7.25 an hour, and have 10 years to pay off the rest of the balance of their student loans. Again, the Rule of 10 assumes that college is affordable if students can finance their education with 10 years of payments at 10 percent of their discretionary income. So what happens for students who make the median income (by race) for bachelor's recipients? (See *Table 5*.)

Unfortunately, across race and despite making the median income for B.A. recipients, all workers still see an affordability gap. And again, the black and Latino students in our scenario face larger affordability gaps (over $12,000 and $14,000 respectively) than white and Asian students. This thought experiment assumes no great shift in our labor market, where black and Latino workers face lower earnings at the same level of education. For our purposes, this means that college is by definition less affordable for them, as they cannot come close to paying off the net price, plus interest, over 10 years—despite meeting the work requirement while in school.

In many ways, this scenario is particularly optimistic. First, it assumes that these students work continuously and their earnings

Table 5. Even With 10 Years of Loan Repayment, Black and Latino Students Face Large Affordability Gaps

	Total Net Price of College	**Earnings from Work** (4 Years, Fed. Min. Wage)	**Total Loan Amount**	**Total Loans Plus Interest** (4.3%)	**Total Cost of College** (Net Price + Loan Interest)	**Affordable Loan Payments** (10% of Income, 10 Years Following College)	**Affordability Gap**
All Workers						$30,689	$8,527
White						$30,531	$8,685
Black	$46,328	$14,500	$31,828	$39,216	$53,716	$26,507	$12,709
Hispanic/Latino						$24,525	$14,691
Asian						$37,561	$1,655

Total Net Cost of College is calculated as the net price from the 2010-11 school year to 2013-14. Affordable loan payments calculated as 10% of discretionary income, using median income by race for bachelor's recipients, assuming 2% annual wage growth and a 1.5% annual increase in the poverty level. Assumes the student does not have dependent children during the repayment process. Total loans plus interest calculated on a 10 year amortization schedule.

Source: Authors calculations from IPEDS data

always match the median by race. Second, it assumes no other family obligations—the poverty threshold used to determine "discretionary income" assumes each student is single with no children while repaying his or her student debt. For borrowers who see income shocks or periods of unemployment after college, or for those who choose to start a family, their affordable loan payments would be much lower—increasing the affordability gap (the difference between the cost, work in school, and what can be repaid in 10 years).

From a personal finance perspective, a student in this scenario could of course choose to extend loan repayment beyond 10 years, and take advantage of the several income-driven repayment options currently offered under the federal student loan program (some of which allow loans to be forgiven after 20 years of repayment).[22] But from a policy perspective, it is telling that at the median earnings and the current average net price, students cannot repay in 10 years.

Further, it should be of the utmost concern that black and Latino students—the very students who already enroll and complete college in lower numbers, often due to concerns about cost and debt—face greater challenges doing so. Whether we want to extend our expectations that students take 15 to 20 years to repay student loans is a matter of debate, but we should consider that even for the average worker (not those struggling with lower-than-average wages, or periods of unemployment), this is already the case.

LIMITATIONS OF THE BENCHMARK: RACE, INCOME, AND WEALTH

It is important to start a public conversation on what college affordability actually means, and to do so in a way that is centered on students' ability to pay for college, rather than what resources our lawmakers and colleges are willing to provide. In an age when many other pathways to the middle class have been choked off, college remains a necessary if imperfect way for students to achieve greater financial security.

This project, and the scenarios above, are based on a specific definition of college affordability— the Rule of 10. But this is only one definition. For some, college is a public good on the level of K-12 schooling—one that does not need to be deemed affordable, but rather should be available to all at no cost. This principle has animated much of the 2016 presidential race. For others, given our current starting point of very high college prices and dwindling grant aid, a definition of affordability can take into account family resources and a student's ability to work, with the gap being filled by a massive infusion of public resources. These are value judgments, though it should be noted that as it currently stands, we are not close to affordability by either definition.

As we continue to debate the meaning of affordability, we should consider going beyond just looking at student and family income in terms of the ability to save for higher education. Income is only one measure of household financial stability, and an imperfect one at that. For example, we know that while income disparities are high across race, wealth disparities between white and black households, and white and Latino households, are much larger.[23] Black households with college degrees have the same average wealth as white households without high school degrees. Black families see lower returns to homeownership than white families, as well as lower asset appreciation, despite no evidence that they are less financially savvy or aware of the avenues to build wealth.[24] Black workers are expected to take on greater financial responsibility for elderly family members, draining them of some of the wealth that other workers can count on during their prime earning years.[25]

This means that simply looking at income to define whether college is affordable may miss some key dynamics that contribute to a widening racial wealth gap. Perhaps a more robust definition of affordability is one that takes family wealth into account, and understands that even families from similar income backgrounds may have vastly different abilities to put resources toward education.

POLICY INTERVENTIONS

Regardless of whether we have a shared definition of affordability, it is clear that the U.S. is trending in the wrong direction as far as publicly financing its higher education system. Given that a college degree is more important than ever in helping workers have a stable career and weather economic shocks, it's important that students feel that college not only is a necessary step, but that it's financially within reach. Students deserve a guarantee of affordability—a principle that undergirds the recent push at the federal and state level for debt-free public higher education.[26]

A shared benchmark for college affordability is a good starting point for state and federal officials who seek to reverse the trend of skyrocketing tuition and undergraduate debt. The decades-long playbook of austerity and insufficient revenue, and a refusal to even re-fund higher education at pre-recession levels, has gotten us to a point where no state can credibly claim that college is affordable for its low-income students. This is a matter of class and racial equity, and is counterproductive if our goal is to increase college attainment among anyone but a select wealthy group. Fortunately, some policy interventions—including those outside the purview of higher education—could get us on the right path, and ensure that an affordability benchmark is more reality than aspiration.

Double the Maximum Pell Grant

Low-income students in every state face affordability concerns, but increasing the maximum Pell Grant could eliminate much of the unmet need that makes college unaffordable now. Policymakers have allowed the value of Pell to decline relative to college prices, to the point where it only covers a third of college costs at public institutions.[27] Using our analysis and benchmark, if the maximum Pell Grant were doubled and then indexed to a measure of tuition inflation, 26 states could potentially claim that four-year colleges are affordable for low-income students.[ii]

Making college affordable in over half the states would represent a sea change, but doubling the Pell Grant would also significantly benefit students in all states, as well as those who may want to attend

ii. The maximum Pell Grant is currently $5,815. Assuming a student receives the maximum award for four years, she would have over $23,000 in additional funds to pay for college.

private institutions. Any increase of this magnitude would of course require federal policymakers to think about which institutions have access to new federal dollars. Dollars could be limited to institutions that both enroll and graduate high numbers of low-income students and students of color or have relatively low debt-to-income ratios among graduates, rather than colleges that either enroll very few working-class students or burden students with high costs and debt with little labor market value.

Increase and Index the Minimum Wage

Obviously college affordability is a function of price and grant aid, but given that this benchmark includes an expectation of student work (and potentially family savings), increasing wages for students and families may get us some of the way there. The push for a $15 an hour minimum wage has broken through in states like New York and California, which will see increases to that level by 2018 and 2022 respectively, as well as cities like Seattle and San Francisco.[28] While students in these areas will undoubtedly enjoy the extra income they can put toward tuition bills, an increase in the federal minimum wage to $15 an hour would benefit students in all states.

In fact, such an increase in the minimum wage could make four-year college affordable for low-income students in 7-8 states.[iii] This is due to the increased earnings students could expect from their 10-hour per week job while enrolled. In most states, the affordability gap would be slashed by half or more. Further, raising the wage would directly benefit working-class adults who currently cannot save for their children's college education. While we should not expect the increase in earnings to be funneled entirely into college savings—especially considering current the minimum wage does not provide enough financial security to live beyond the poverty line—increasing financial security for working class households could make college seem slightly more affordable and attainable.

iii. These are relative to earnings and minimum wages through 2014. The expanded earnings from a $15 minimum wage for students in HI, NC, LA, and OK would be $15,500 over four years relative to 2014, which would cover the affordability gap. For students in CA, relative to 2014 graduates, an increase in the minimum wage would provide an additional $13,500 in earnings. In FL, students would receive an additional $14,680 and in NY, $15,125. Students in WA would see an $11,890 bump, due to a minimum wage that is higher than other states. This would not entirely fill the affordability gap for low-income students, but would shrink it to around $1,100.

Create a Federal-State Partnership to Boost State Higher Education Funding

It's not a surprise that the states leaving low-income students with the highest affordability gaps are those states that have the lowest levels of state higher education funding, while those closest to achieving affordability tend to prioritize higher education more. It is a matter of consensus that rising college costs at public institutions are a product of state funding cuts, and increasing grant aid at the federal level is only one solution.

Demos has proposed a federal-state partnership to expand state funding through a federal matching grant program, known as the *Affordable College Compact.*[29] Other organizations, such as Education Trust, American Association of State Colleges and Universities, and New America, have proposed similar reforms. And others, such as Professor Sara Goldrick-Rab of Temple University (and formerly of the University of Wisconsin-Madison), have proposed reforming the federal financial aid system to make the first two years of college free at all public institutions, which has sparked much of the national conversation on free tuition at community colleges and four-year schools.[30] Depending on the level of state participation and the structure of the program, such a program could compel states to refill their higher education coffers, and do so in a way that targets resources squarely at low-income and working-class students, who face massive affordability gaps in nearly every state.

Expand Federal Work Study

Currently, the Federal Work Study (FWS) program is a small but popular way to help students work their way through school by subsidizing students' wages at eligible jobs. Despite the fact that most students work while in college, FWS serves a relatively small student population—around 700,000 students.[31] Only 5 percent of students at public four-year institutions receive FWS aid, likely due to a formula that awards private non-profit colleges that have been enrolled in the system longer.[32] Very few low-income undergraduates receive aid under the formula, and it is nearly nonexistent for community college students who receive financial aid.

FWS is appropriated at less than $1 billion, making it a tiny fraction of the total federal financial aid budget. But it is a program with potential to both raise student wages—to a point that they could make a reasonable dent in their tuition bill and living expenses—and connect students with relevant work in their field of study, both on- and off-campus. While we cannot estimate how many, if any, states would be affordable under our benchmark if FWS were expanded, for students who are already working it could provide meaningful relief.

CONCLUSION

The push for affordable, tuition-free, and debt-free higher education has dominated the politics of higher education over the past two years. This discussion is a recognition that anxiety about student debt, stagnant wages, and upward mobility must be addressed. For most students, higher education is an investment worth trying, but increased debt has put more risk on students, and decreased state funding has shifted the cost of college from states to students and the federal government.

This system is unsustainable, and any major reform requires a re-think of our first principles: Should all students have an affordable option for college? Should students be able to work their way through an undergraduate degree with debt as an option, rather than a certainty, even if they work long hours? Other social programs aim to ensure a baseline level of financial stability or affordability, from housing policy to Social Security. Doing so for college students as well would send a signal that we once again view higher education as a public good, rather than a private benefit alone. Establishing a definition of affordability, and sticking with it, is the first step toward that goal.

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