



**Lumina**<sup>™</sup>  
FOUNDATION

# A Benchmark for Making College Affordable

## The Rule of 10

# A Benchmark for Making College Affordable

## Defining the affordability problem

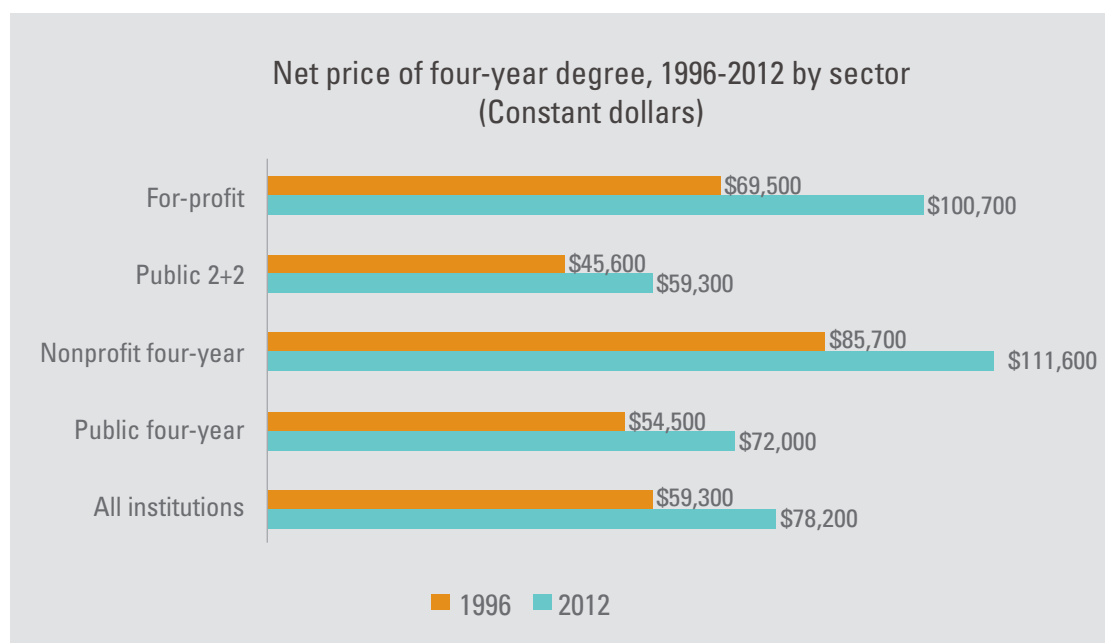
College prices have increased by 45 percent on average over the past decade, while household income has declined by 7 percent in the same period. According to a Lumina/Gallup survey in 2015, more than three-quarters of American adults do not think education beyond high school is affordable for everyone in the nation who needs it.<sup>1</sup>

College affordability is a major national issue and receives extensive coverage in the media. Indeed, the cost to students and families of attending college has been rising in real dollars for many years. At 2011-12 prices, students taking

There are certainly complex reasons behind this growth in tuition among colleges, and the impact on students can be felt in terms of increasing net prices — the amount students pay after financial aid is taken into account.

The issue of affordability is closely tied to the growing concern about student debt — another issue of great concern to students, policymakers and the public. One of the more dramatic statistics reported recently is that total student loan debt is now more than \$1 trillion. In 2011-12, the average loan debt for completers (at all undergraduate degree levels) was \$14,100, up from \$6,400 in 1995-96.<sup>3</sup>

In part, the aggregate amount of student debt has grown because of increased college-going rates across the board — a positive trend overall. Student debt is a complex issue,



four years to complete a bachelor's degree would pay a net price,<sup>2</sup> on average, between \$59,400 (if they started at a community college and transferred to a public four-year institution) to \$111,600 (if attending a private non-profit institution).

As the data suggest, private universities have the highest costs of attendance (tuition, fees, room and board), which may explain why their prices seem so often to be featured in media coverage of the issue. However, prices have increased within public higher education institutions, hindering families' ability to pay over time.

and whether or not current debt levels are sustainable, the effect of loans on student decisions about whether and how to pursue college education — particularly by first-generation students and students of color — is an issue with significant ramifications for attainment and equity. Perhaps unsurprisingly, lower-income families are more likely than families in all other household income brackets to say financial assistance is a very important selection

criterion for college attendance, so the effects of rising college unaffordability are of particular concern for these students.

The proportion of graduates with significant levels of debt has also risen, with 29 percent of graduates owing more than \$20,000, up from 9 percent in 1995-96.<sup>4</sup> Debt levels are especially high for black students, for students attending private colleges (both for-profit and nonprofit) and for low-income independent students. Unsurprisingly, they are lower for two-year college graduates and for dependent students in families with incomes above \$100,000.

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Lumina Foundation's concern with college affordability is inextricably tied to our goal; that by 2025 60 percent of Americans will hold high-quality degrees, certificates and other credentials. The simple fact is that only 9 percent of students from the lowest income quartile complete bachelor's degrees, compared to 54 percent of students from the highest income quartile.<sup>5</sup> Even when they have higher test scores, low-income students enroll in college at lower rates than their higher-income peers, have lower persistence rates, and are less likely to graduate. In fact, only about 56 percent of low-income students with test scores in the highest quartile complete bachelor's degrees, compared to 80 percent of their higher-income peers.

As a nation on its way to having no "majority" population, we will not reach the goal without greatly expanding attainment for populations that have historically lagged in college completion. For example, we estimate that we will need 700,000 more black students and 3 million more Latino students to complete postsecondary education in order to reach Goal 2025. Affordability is a huge issue for these students. Consider that while 63 percent of white public college graduates borrow for college, more than 80 percent of black public college grads do — a gap that has widened over the past decade.<sup>6</sup> Black and Latino students and families also have, on average, less than a tenth of the accumulated wealth that white students can draw upon for support,<sup>7</sup> and Latino students in particular are more likely than others to cite financial reasons for dropping out of college. These are the stark financial facts that make affordability such a critical issue for college attainment.

## The exploration of a benchmark

Lumina's approach to affordability is to use research and analysis to develop new student finance models to inform policymakers and higher education leaders as they struggle with these complex issues. The first steps in developing these models included identifying the problems with the current system of student financial support and creating a set of design principles to guide our growing work in this area. The design principles for new student finance models are that they:

1. Make college more affordable.
2. Focus on transparency of prices and subsidies.
3. Embed incentives for students and institutions.
4. Align across federal, state and institutional systems.

Lumina then supported a series of papers that explored what some of these new models might look like based on the design principles. These papers tracked an emerging national conversation around student finance and were released at the 2014 Lumina Ideas Summit in Washington, D.C.

One major result of the papers and the summit was the finding that it should be possible not just to define affordability more clearly, but also to use this definition as a means to benchmark performance of higher education systems in terms of making college opportunities affordable to students. In other words, it is possible to move beyond philosophical debates about affordability to a more rigorous and transparent definition that can be used to inform the ongoing policy conversation.

As we know, higher education isn't the only industry struggling with the challenge of increasing costs and prices. Many other social sectors have faced similar challenges of addressing concerns about affordability, and we can learn from them. As part of this work, Lumina assembled experts in fields outside education to see what insights they could offer on the issue of affordability in higher education. Considerations from these other social areas, such as housing and health care, were reflected in conversations about the benchmark.

As a follow-up to our learning from experts in various social sectors, Lumina hosted a diverse group of higher education experts to explore how these insights might inform our collective thinking about higher education affordability and aid Lumina's thinking about an affordability benchmark. While this group was designed so members could lend their best thinking, they were not asked to come to consensus on one benchmark. The culmination of Lumina's initial framing work, conversations with experts in other social sectors, and this advisory group of higher education experts informed our thinking about the benchmark described below.

## Affordability benchmark for higher education

So what is "affordable?" Most concepts of affordability are based on what college should cost, not what students can afford to pay. For example, colleges and universities often set tuition based not on what students can afford but rather on what the institutions need in terms of revenue. The conversations about affordability typically begin with what college

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prices are, what grant aid is available, and then ultimately wind up with what students are left to pay.

Instead, the student-centered model proposed here begins with what students can reasonably contribute, and then suggests that the system be built around their needs.

This benchmark is based on several key assumptions:

1. There are three basic sources of student funds for paying for college: student work, family resources and student debt. Family resources, such as savings, are ultimately an offset to student work and/or debt.
2. The intent of the benchmark is to describe how affordable college **should** be from a student perspective, not to discuss the cost to educate a particular student or cohort of students.
3. All of the higher education community, including higher education leadership, policymakers and others, need to work to build a higher education system that meets this benchmark.
4. This benchmark itself is not a pricing model and is not self-fulfilling. This draft merely provides an outline. The benchmark itself does not reflect any declaration of how current policy constructs should be changed; for example, it does not seek to set loan limits, tuition structures or state subsidy amounts.
5. Some people can't afford to save anything for college, and it is our imperative, as a society concerned with equity, to make sure that these individuals have access to high-quality postsecondary education options despite these economic barriers.

Many reports and expert analyses of college affordability are based on the federal Expected Family Contribution (EFC) calculation, which is used to calculate students' eligibility for federal and many state need-based aid programs. However, our discussions indicate that the EFC calculation is problematic because:

- It lacks face validity as a measure among the general public.
- It's convoluted and difficult for the average person (and perhaps the average policymaker) to understand.

- Its meaning has changed over the years, which complicates efforts to compare families' EFCs over time.

In contrast, a benchmark should be a viable way for higher education leadership and policymakers to assess progress toward affordability goals with a common unit of measurement. However, this is not a policy proposal. This is a measure of what students and families can afford to pay. We suggest that future policy proposals be rooted in this sort of concrete measure of affordability.

Policymakers and higher education leaders will necessarily need to think about how to use the benchmark to inform policy. For instance, given that low-income students, even with the support of their families, will likely not have the ability to save for college, should they be required to take on any debt at all? And, even if the highest-income families could afford to save more, should public college tuition be capped at a lower amount? Additionally, since a modest amount of reasonable work to help cover living expenses is part of the benchmark, should states and colleges work together to improve work-study opportunities for students? We believe the affordability benchmark will contribute to more substantive and constructive discussion of these and other policy questions.

Unlike the EFC calculation, the affordability benchmark can also serve as a marker of how much, on average, students and families can reasonably afford to save for college and how much students should work while enrolled to pay for college.

Of course, there will be differences in individual contexts and situations, which means that the benchmark will not be appropriate for every person in every situation. However, it should provide a general guideline to frame broad discussions. In the same way that not everyone spends a third of their monthly income on housing payments, not everyone will pay for college in exactly this way.

It is our hope that the affordability benchmark will contribute to the ongoing policy dialogue about college affordability in the coming months and years. However, instead of these conversations being shrouded in ambiguity, they can be grounded in a more specific idea of what affordability actually is.

# The Rule of 10

## The Rule of 10: 10 percent for 10 years + 10 hours of work

Students should pay no more for college than the savings generated through 10 percent of discretionary income for 10 years and the earnings from working 10 hours a week while in school. This benchmark essentially creates a sliding scale of ability to pay. A student from a family whose income is less than 200 percent of the poverty rate is expected to contribute no more than he or she can earn in 10 hours of work per week.

(Currently, the poverty rate is \$23,540 for a single person or \$31,860 for a family of two.)

This affordability benchmark includes these critical design elements:

1. A **time horizon** for paying for college that makes the process seem more manageable.
2. An **income exclusion**, acknowledging that some families make too little to be reasonably asked to save anything at all for college.
3. The idea that **students can contribute** to the costs associated with attending college through resources from work, but that contribution should be limited to prevent work interfering from with school.
4. An **easily understandable metric**. If individual students and families don't understand what "affordable" means, then the benchmark will not work in the long term.

**Component #1: Time.** Along with an expectation of modest student work, students should have to pay no more for college than what they or their families can reasonably save in 10 years.

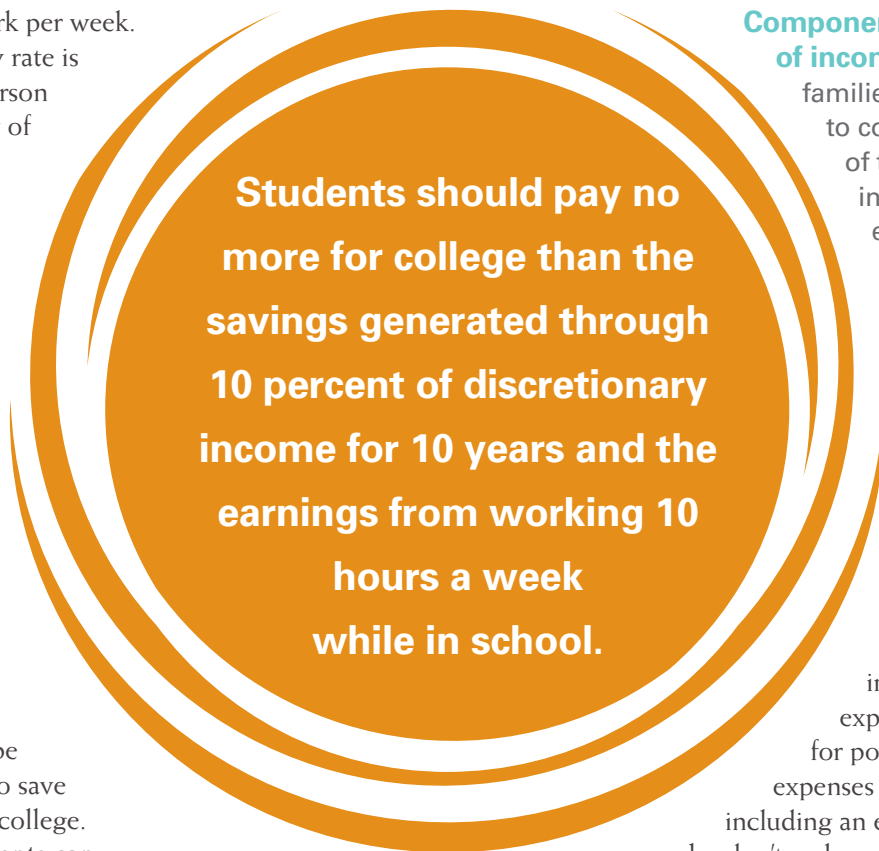
Considering that a college education is something that can be saved for over time, particularly given the relatively high college-going rates of high school graduates, families and individuals with the ability to save should be encouraged to do so. Many higher-income families already save for college; unfortunately there is little in the way of thinking about what an appropriate amount to save might be. For students who are the primary earners in their own families, this benchmark can also suggest a path forward.

### Component #2: Percentage of income.

Individuals and families can reasonably afford to contribute 10 percent of their discretionary income to postsecondary education, for a limited amount of time.

Ten percent of one's discretionary income has emerged as the standard for determining the amount of "affordable" loan repayment, and it follows that 10 percent of discretionary income is reasonable to expect to be committed for postsecondary education expenses more generally, when including an exclusion for those who don't make enough to have any "discretionary" income.

The affordability benchmark is calculated based on the assumption that individuals and families making more than 200 percent of the poverty rate can afford to save 10 percent of their income above that rate. This line also serves as an income exclusion, so that no one is expected to save until they reach at least 200 percent of the poverty level. The poverty rate differs by family size, so that larger families receive a larger income exclusion than smaller ones. For instance, a single mother with two children would be asked to save a smaller amount than a single mother with one child.



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Then, a small portion (10 percent) of any income earned above 200 percent of poverty would be expected to be saved for college.

**Component #3: Work.** Students can reasonably work an average of 10 hours per week while in school, or 500 hours per year, and contribute those earnings toward the cost of education.

Ten hours of work at minimum wage for approximately 50 weeks would be \$3,625 annually or \$14,500<sup>8</sup> over the course of four years. This amount would be available to help cover the full costs of college while enrolled, including living expenses.

Back in 1971, you could pay for public college tuition by working about 10 hours a week at a part-time job. That's no longer the case. Postsecondary education has become more important since then, but it's also become much more expensive. Today's student would have to work 24 hours a week at minimum wage — every week of the year — to pay for public college tuition, without even factoring in their basic costs of living.

## A note about student debt

This benchmark is constructed with a reasonable saving rate so that students, in an ideal world, do not have to borrow for their postsecondary education. However, we recognize that this will not be the case in all scenarios, and that some students and families will not have either the resources or the time suggested in this benchmark.

Therefore, in those cases, the amount in Components 1 and 2 can also serve as the maximum amount of debt that students could reasonably repay, should they or their families not be able to save at the time of their entry to college. However, the decision to borrow is complex, and policy decisions about student loan debt should consider the unequal outcomes associated with requiring students from lower-income families to borrow disproportionately.

## Examples

Examples of what these benchmarks mean, in practice, are below.

- **Adult student:** A single adult student (with no children) returning to college after a lull may be

making \$30,000 on average over the course of 10 years before returning to school. He or she would be expected to contribute \$53.83 monthly, \$646 per year or \$6,460 in total toward the full cost of postsecondary education.<sup>9</sup>

- **Single parent:** A single parent with one child making \$35,000 might only be able to contribute \$26/month or \$3,410 over the course of 10 years. This would mean that he or she should not have to pay more than \$3,410 for a total degree program.
- **Average family of four:** Under this benchmark, a family of four consistently making an average of \$50,000 could afford to contribute \$1,500 (in total) to college education for students in the family, based on the idea that they could save \$12.50 per month for 10 years. Any students enrolled could also contribute \$3,625 per year from work (assuming 10 hours per week at \$7.25 per hour in pre-tax earnings).<sup>10</sup> Any financial contribution required of the family beyond these work and savings expectations would be considered unaffordable.
- **Upper-middle-income family of four:** A family making an average of \$100,000 annually over 10 years might be able to contribute \$51,500, based on a savings estimate of \$429/month during that time. Any students in the family could also contribute \$3,625 per year for each year of postsecondary education. If the family had only saved \$10,000 to contribute to college at the time of a student's entry to college, the family would still be responsible for the remainder which could, for instance, be contributed via a combination of money from current earnings, additional work, or loans.

In each of these scenarios, the student could also contribute an additional \$14,500 (\$3,625 per year) from work over the course of four years to the total cost of attendance (including living expenses) for an educational program.

Though the Rule of 10 refers to 10 percent of income, it is important to remember that the 10 percent only applies to the amount earned over the income threshold. When looking at the effective rate paid under this benchmark, none of the families in the examples above would be expected



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to contribute more than 5 percent of total income toward college expenses each year.

## What the Rule of 10 could mean for postsecondary affordability

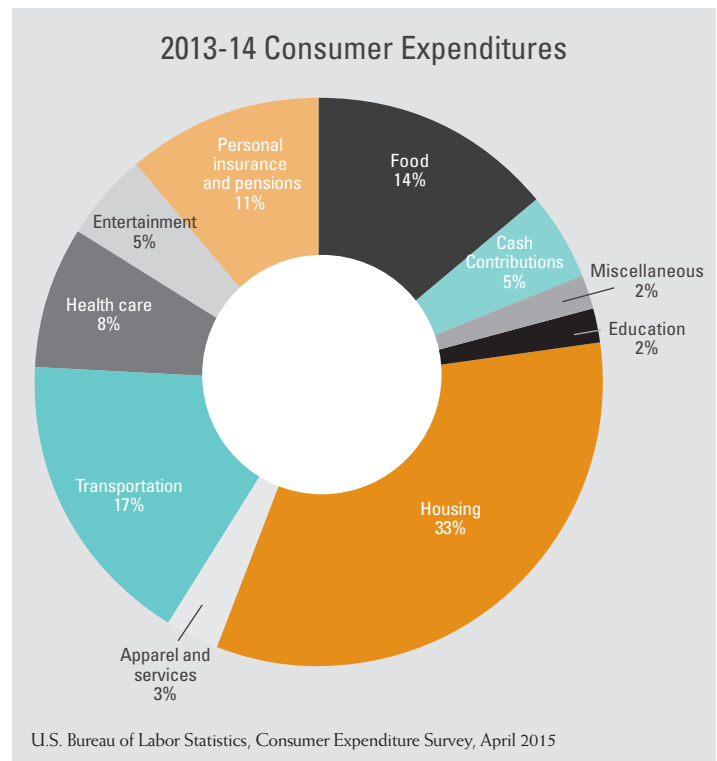
The broader use of this sort of commonly understood benchmark has the potential to change the way people think about college affordability. For instance, state policymakers could use the benchmark in determining the appropriate path forward on new approaches such as “Promise” programs. Federal policymakers could use the benchmark in informing the development of a new federal-state partnership for aid. And practitioners could use the benchmark in advising students of their best options for college. Institutions could use the affordability benchmark to aid in tuition setting, set targets for cost reductions, or to identify needs for program redesign.

To see how the affordability benchmark could be used, consider again the model of housing affordability. A generally accepted standard among housing finance experts is that no more than 30 percent of a family’s income should be devoted to housing costs. This standard shows up in different ways in various contexts. In discussing the needs for affordable housing, the U.S. Department of Housing and Urban Development suggests that “families who pay more than 30 percent of their income for housing are cost burdened and may have difficulty affording necessities such as food, clothing, transportation, and medical care.”<sup>11</sup>

In earlier decades, Fannie Mae and Freddie Mac would essentially not purchase mortgages with balances that exceeded a 28 percent debt-to-income ratio,<sup>12</sup> causing lenders to use this ratio in their underwriting standards as well. Though this ratio has crept up over time, it was rooted in the same rule of thumb about general housing affordability. Of course, individuals, lenders and government entities consider other factors when making decisions about mortgages, and there are certain circumstances under which the threshold might be higher or lower. Still, these examples from the housing community suggest that a generally accepted benchmark can be useful in framing public policy expectations that are fleshed out with more detail depending on the programmatic context.

As with the housing benchmark, this proposed college affordability benchmark merely expresses what families have the capacity to contribute toward higher education. It does not suggest how we should meet families’ needs. To extend the housing analogy, though we can more universally describe whether housing is or is not affordable, having a benchmark is not, in and of itself, a solution to unaffordable housing. Likewise, this benchmark brings with it a clarity of analysis to the affordability problem within higher education. Moving forward, this benchmark could be used to judge policies according to their success in creating an affordable higher education system.

**So why 10 percent?** To be clear, 10 percent is not a magic number, and 10 years is no magic timeline. As we’ve learned from reviewing benchmarks in other social sectors, these sorts of public rules of thumb are often more art than science. Still, in the affordability benchmark, these amounts are not arbitrary. The measure is calculated by first taking the federally determined poverty level, and then doubling it to create an income exclusion that is the basis of the term “discretionary income.” The idea is that any



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income above 200 percent of the federal poverty level is “discretionary.”<sup>13</sup> Then, the expectation is that 10 percent of this “discretionary” amount could be reasonably saved for postsecondary expenses over a period of 10 years. Of course, there are limitations to this model — income typically doesn’t stay constant over 10 years, interest on savings and returns on investment vary, and family structures change over time. When implementing this model on a practical level, decisions will need to be made about which measure of income to use and how to determine whether students are still members of their original family unit, among other considerations.

It should be noted that the measure of discretionary income suggested in this model (200 percent of poverty) is more generous than the current measure used in the federal income-based repayment plans (150 percent of poverty). Policymakers purposefully chose to base the federal income-based repayment calculation on Adjusted Gross Income; clearly, no such choice has been made regarding this proposed benchmark.

For context regarding how families now apportion their resources, see the preceding pie chart, which is based on data from the Consumer Expenditure Survey.<sup>14</sup> Again, the affordability benchmark contemplates that families would spend 10 percent of their *discretionary* income, creating an effective rate of between 0 percent and 5 percent of total income in the examples above, depending on the family’s income.

### A note on relying on debt as a postsecondary affordability mechanism

In constructing this benchmark, we necessarily took a consumption view of paying for college rather than focusing on the return on investment (ROI) approach. We discussed at length what a reasonable amount of debt for postsecondary education might be. In particular, debt without a degree is not a desirable outcome, so accurately determining an appropriate amount of financing for postsecondary education requires some understanding of the risk associated with non-completion, as well as the likely payoff of various programs. Given the high degree of uncertainty regarding all of these items — the inability to guarantee returns, the serious disparities in completion by income and race, and concerns about debt aversion among certain student populations

— we decided to use a consumption-focused measure of affordability rather than one focused on investment.

Our analysis focuses on figuring out what resources students and families might reasonably be expected to contribute to a college education up front. That is, we did not make the assumption that affordability should necessarily be framed in terms of appropriate levels of future investment or debt. Considerations of how loans should be factored into an individual’s student aid package are probably best made within the context of the individual student’s career aspirations, choice of educational provider, personal risk tolerance, and program of study. Not only do low-income students borrow more than middle- and upper-income students, black students borrow more than other students. Also, an aversion to borrowing may cause Latino students to work more or attend part time, compromising their ability to focus on school. These demographically linked trends in borrowing are troubling and suggest that we should consider the policy impacts of unequal resources from the start of conversations about affordability.

### Implications and next steps

We believe this work can add value to discussions at the federal, state and institutional levels in the months and years to come — in part because it infuses a typically emotional, anecdote-driven conversation with a more concrete idea of what college affordability looks like based on family income,

The benchmark does not dictate tuition or financial aid policy, and many students will not be able to afford many colleges, based on current pricing and financial aid availability. However, the benchmark reflects an upper limit on what individuals should be expected to pay for college based on their family circumstances. We believe the benchmark must make sense for students and families in order for it to work as a frame of reference for policy.

Since there is no guarantee now that families can depend on the Rule of 10 to help them find an affordable, high-quality college option, it is up to policymakers and the higher education community to work together to make the benchmark a reality. Lumina suggests using the Rule of 10 framing as a benchmark to actually make college affordable for all students, acknowledging that institutions, systems and



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states could employ many different strategies to meet the benchmark.

This draft benchmark provides an outline for future, more detailed interpretive work that could inform policy and practice. Next steps in determining how to actualize the benchmark will necessarily include consideration of a full set of specific actions that could be taken by higher education leaders and policymakers.

Issues for further consideration could include (but are not limited to):

- How best to assess quality within the context of "affordability."
- Examining whether current constructs of dependency status still make sense.
- How best to calculate the appropriate amounts and time horizon for someone whose life circumstances change significantly during the time considered by the benchmark.
- How to improve and increase need-based aid to help meet the benchmark.
- How to determine appropriate state subsidies for public institutions while controlling costs and managing tuition to make the benchmark more realistic.

Lumina looks forward to working with diverse groups of thinkers to flesh out specific ways this benchmark might be used to rethink how students pay for college.

The staff of Lumina Foundation accepts responsibility for this working concept. It reflects our work, not consensus of those involved in the discussions. Further discussion and modification of this idea will be advanced after a period of public review and expert critique.

## Endnotes

1. Lumina Foundation and Gallup (2015). *Postsecondary Education Aspirations and Barriers*. Washington, D.C.
2. The net price for full-time students is the cost of tuition plus non-tuition costs, including books, supplies, room, board, transportation and personal expenses minus all grant aid.
3. Department of Education, NCES. (2012). National Postsecondary Student Aid Study (NPSAS: 12), Student Aid Financial Estimates for 2011-12. Institute of Education Sciences. Washington, D.C.
4. Department of Education, NCES. (1997). National Postsecondary Student Aid Study (NPSAS: 96), Methodology Report. Institute of Education Sciences. Washington, D.C.
5. Bailey, M. & Dynarski, S. (2011). *Gains and Gaps: Inequality in U.S. College Entry and Completion*. NBER. Cambridge, Mass.
6. Huelsman, M. (2015). *The Debt Divide: The Racial and Class Bias Behind the "New Normal" of Student Borrowing*. Demos. New York City.
7. Urban Institute. (2014). *Nine Charts about Wealth Inequality in America*. Washington, D.C.
8. The actual amount might be lower once payroll taxes are calculated. These examples do not include after-tax numbers, for ease of explanation of the concept.
9. If one were to assume a modest interest rate on actual savings, the amount expected would be closer to \$7,000; however this conceptual piece does not include the effects of compound interest for ease of explanation.
10. The actual amount might be lower once payroll taxes are calculated. These examples do not include after-tax numbers, for ease of explanation of the concept.
11. Housing and Urban Development (HUD). *Community Planning and Development: Affordable Housing*. Washington, D.C.
12. Schwartz, M. & Wilson, E. (2007). *Who Can Afford To Live in a Home? A look at data from the 2006 American Community Survey*. U.S. Census Bureau. Washington, D.C.
13. Of course, the federal poverty guidelines themselves are not without controversy, but they are a commonly accepted way of determining what it takes to have a basic standard of living in different parts of the country. The poverty guidelines differ by family size and whether a family unit is in the continental U.S. or elsewhere in the country.
14. U.S. Bureau of Labor Statistics (April 2015). *Consumer Expenditure Survey*.

## About Lumina Foundation

Lumina Foundation is an independent, private foundation committed to increasing the proportion of Americans with high-quality degrees, certificates and other credentials to 60 percent by 2025. Lumina's outcomes-based approach focuses on helping to design and build an accessible, responsive and accountable higher education system while fostering a national sense of urgency for action to achieve Goal 2025.

*As a private foundation, Lumina Foundation does not support or oppose any legislation. Lumina provides educational information, nonpartisan research and analysis to advance Goal 2025.*



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