Pell Grant Mission Creep

HOW A FEDERAL PROGRAM FOR LOW-INCOME FAMILIES EXPANDED TO THE MIDDLE CLASS

Jason D. Delisle and Cody Christensen

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Executive Summary

The federal Pell Grant was designed to help low-income students pay for college. But over the past two decades, a growing share of middle-income students have become eligible for the program. This was not policymakers' explicit goal.

The change appears to have happened inadvertently and gradually. Eligibility for a Pell Grant is primarily based on the size of the maximum grant that the program awards, and there is no absolute income cutoff. If lawmakers increase the maximum grant more quickly than inflation—which they have on average over long periods of time—then more middle-income families become eligible for grants. In 1995–96, a dependent student from a three-person family earning the equivalent of $60,000 today would not have qualified for a grant; today the student receives more than $1,000 through the program.

This report examines how the program came to increasingly provide students from middle-income families with grants, particularly those earning between $50,000 and $60,000, focusing on changes that occurred between the 1995–96 and 2018–19 academic years. It concludes with recommendations for policymakers to improve the targeting of the Pell Grant program.

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The federal government has provided Pell Grants to low-income families to help pay for an undergraduate education since the 1970s. Today, the program disburses roughly $28 billion in aid to 6.6 million undergraduate students per year.[1] The maximum grant that a student may receive in the 2018–19 academic year is $6,095, an amount that lawmakers set annually.

A common talking point among advocacy organizations and lawmakers is that the purchasing power of a Pell Grant has failed to keep up with rising college prices.[2] They point to the 1970s, early in the program's history, when the maximum grant was enough to cover nearly 80 percent of the cost of attending a typical public four-year university. While lawmakers have routinely increased the grant, college tuition and living expenses have outpaced those increases. Today the maximum grant covers about 29 percent of college attendance costs, which advocates note is the lowest share in the program's history.[3]

Many advocates call for restoring the value of the Pell Grant to cover the same share of college prices today as it did in the mid-1970s. They argue that this would help more low-income students attend college and reduce debt burdens.

What they do not say is that such a change would also transform the Pell Grant program into a generous benefit for middle-income and even upper-income households. Eligibility is based on a sliding scale that incorporates the maximum grant size rather than on absolute income limits; as the maximum grant rises, students from families with incrementally higher incomes become eligible.

For example, if lawmakers increased the maximum grant to $16,855, thereby restoring its purchasing power to 1970s levels based on college prices, many students from families earning $90,000 or more would qualify for grants.[4] That would make the program unnecessarily and prohibitively costly because the funds flowing to those families would do nothing to advance college affordability for the low-income students who the program is supposed to assist. (Many advocates who support restoring the purchasing power also oppose implementing an income cap on eligibility.[5])

This scenario may seem theoretical—the chances that lawmakers triple the maximum grant in the near future are slim—but the effect it illustrates is already evident. Over the past 20 years, increases to the maximum Pell Grant have quietly and unintentionally caused the program to creep further into middle-income territory. In the mid-1990s, students from families earning the equivalent of $50,000 in today's dollars typically would not qualify for Pell Grants. Today, these students can each expect to receive a $2,890 annual grant. This change occurred largely without any identifiable agenda to provide Pell Grants to families at these income levels.

This report details how and why the Pell Grant program came to provide grants to families earning between $50,000 and $60,000 (which this report refers to as "middle-income") and why the grants

they receive have been increasing ever since. It covers the changes that occurred between the 1995–96 and 2018–19 academic years and focuses on years for which data from the quadrennial National Postsecondary Student Aid data set are available to provide supplementary statistics.[6] We chose 1995–96 to start our analysis because it is the earliest year for which we could locate Department of Education worksheets to calculate a family's Pell Grant eligibility.[7] We conclude by providing several recommendations for policymakers who wish to increase program benefits while keeping those funds targeted to students from low-income families.

Pell Grant Eligibility

A student's Pell Grant is typically determined by the difference between two numbers: his or her family's "expected family contribution" (EFC) and the maximum Pell Grant set in law that year. A student's EFC is determined by a complex formula that takes into account the student's dependency status, family size, income, assets, and other variables. This information is collected in the Free Application for Federal Student Aid (FAFSA), which the student must file annually to be eligible for the grant.[8]

As the name implies, the EFC formula calculates what a student's family can contribute toward college expenses. It mainly reflects a share of a family's earnings and assets above numerous exemptions. In general, the formula assigns wealthy families higher EFCs and low-income families lower EFCs, often $0.[9]

The maximum Pell Grant that lawmakers set in law for a given year—the second factor that affects a student's eligibility—is determined in the annual budget and appropriations process. Table A1 in the appendix shows the maximum Pell Grant for each academic year dating back to the program's creation. Students whose EFCs are less than the maximum Pell Grant in a given year are eligible for a grant equal to the difference between the two numbers:

Student's Pell Grant = Maximum Grant – EFC

Consider a student who, based on the information on his FAFSA, is determined to have an EFC of $4,000. Since the maximum Pell Grant is $6,095 in the 2018–19 academic year, this student qualifies for a $2,095 Pell Grant. (Grant amounts throughout this report reflect full-time attendance.) A family with an EFC larger than $6,095 would not qualify for any grant. Families with a $0 EFC qualify for the maximum grant.[10]

An Unintended Middle-Income Program

While advocates and lawmakers express concern that the Pell Grant currently covers a smaller share of college costs than it once did, lawmakers have substantially increased the grant over time in response to rising college prices. At $6,095 in the 2018–19 academic year, the maximum grant is $2,646 larger than it was in the 1995–96 academic year after adjusting for inflation.[11] (All figures in this report are in 2018 dollars.) In other words, lawmakers have been increasing the maximum grant at a rate that exceeds inflation but not enough to keep up with increases in college prices.[12]

This dynamic—a maximum Pell Grant that increases more quickly than inflation—tends to expand the program to additional students higher up the income distribution. We simulate how this has affected the grant for recipients from hypothetical three-person families (married parents and one dependent college student) earning $50,000 and $60,000 using Department of Education forms that detail the EFC formula. For simplicity, our examples are for dependent students, but our findings apply to independent students as well, and the effect is even more pronounced.[13]

While the maximum grant has been rising more quickly than inflation, our analysis of the EFC formula shows that an identical family earning $50,000 or $60,000 (in today's dollars) would actually be assigned a *lower* EFC in real terms today than in 1995–96. In theory the EFC should remain the same over time in real terms when holding family income constant. This decline is because lawmakers changed
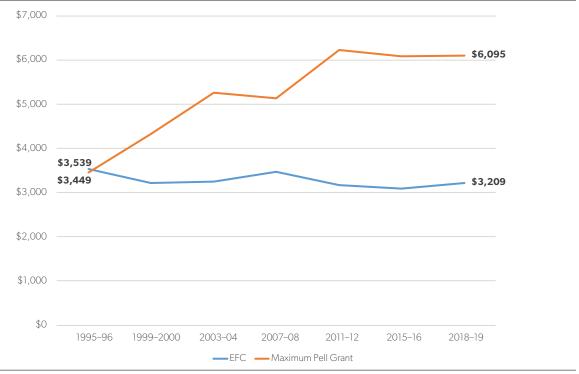
Figure 1. Maximum Pell Grant Compared with EFC for a Family Earning $50,000 by Academic Year

Note: All figures are in 2018 dollars. EFC calculation assumes dependent student, household of three, parents married filing jointly, and assets less than the exemption.
Source: Authors' calculations using Office of Federal Student Aid, Expected Family Contribution Formula A Worksheet.

the formula in the mid-2000s to exempt more of a family's income from the calculation.[14]

Figures 1 and 2 illustrate these trends based on an analysis of the EFC formula for a dependent student from a hypothetical three-person household with a $50,000 income.[15] As shown in Figure 1, the maximum Pell Grant was $3,449 in the 1995–96 academic year. The family would have had an EFC of $3,539 that year, an amount that exceeds the maximum grant and makes the student ineligible for a grant. Today, however, the same family would qualify for a $2,885 grant.[16] That is because the family's EFC is slightly lower in real terms, but the maximum Pell Grant has almost doubled over the same period. Unlike in 1995–96, the maximum grant now exceeds the family's EFC by $2,885, which is the value of the Pell Grant the student is awarded.

As shown in Figure 1, the gap between those two figures has been growing in fits and starts over the period

studied. This results in larger grants over time, which is shown in Figure 2. The appendix shows the changes in Pell Grant eligibility for a student from a four-person family (married parents) with a higher income and two dependent children enrolled in college.

We conduct the same analysis for a student from a family earning $60,000. Like the findings above, Figures 3 and 4 show that the student was ineligible for a Pell Grant in the early years of this analysis, but increases in the maximum grant have allowed the student to qualify more recently.

For this family earning $60,000, the student's EFC has declined in real terms over time while the maximum grant has increased substantially. By the 2011–12 academic year, the maximum grant had increased such that it exceeded the family's EFC. Thus, the student became eligible for a Pell Grant equal to the difference between those two numbers, nearly $1,200 in this case. In the 2018–19 academic year, the student's
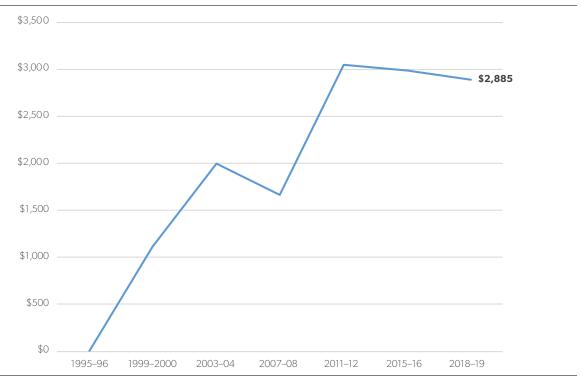
Figure 2. Estimated Pell Grant for a Family Earning $50,000 by Academic Year

Note: All figures are in 2018 dollars. EFC calculation assumes dependent student, household of three, parents married filing jointly, and assets less than the exemption.
Source: Authors' calculations using Office of Federal Student Aid, Expected Family Contribution Formula A Worksheet.

grant would still exceed $1,000.[17] (The slight decline between the 2011–12 and 2018–19 academic years occurs because the student's EFC increased more quickly than the maximum Pell Grant after adjusting for inflation.)

We can cross-check these findings with data from the National Postsecondary Student Aid Study (NPSAS), a nationally representative survey of undergraduate students administered by the US Department of Education. In the 1995–96 academic year, the NPSAS data show that only 24 percent of students from families that earned between $50,000 and $60,000 (in today's dollars) and filed a FAFSA received a Pell Grant. In the 2015–16 academic year, 60 percent of these students received a grant, lending support to our finding that more of these families have gained eligibility over time.[18] While our stylized examples suggest that none of these families would have been eligible in 1995–96, the students who

received grants that year had larger household sizes (5.1) and multiple children in college, which reduces their EFCs relative to the examples shown above.[19]

Targeting Pell Grants to Low-Income Families

One of the most straightforward ways to ensure that increases to the Pell Grant are focused on low-income students is to add an absolute income cutoff and index it to inflation. Former Speaker of the House Paul Ryan (R-WI) proposed this idea several times while chairman of the House Budget Committee. He worried that increasing eligibility among middle-income families "drains resources from those who need the most help."[20]

Under this type of proposal, students from households earning more than a specified income level,
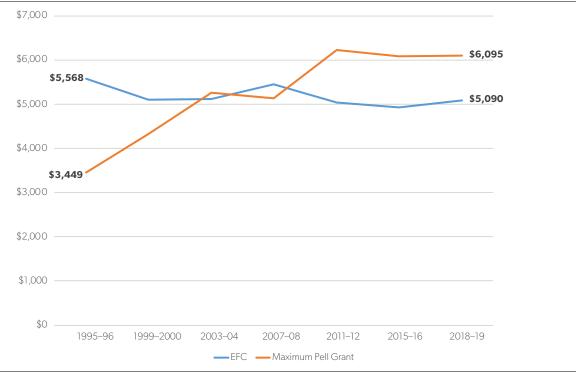
Figure 3. Maximum Pell Grant Compared with EFC for a Family Earning $60,000 by Academic Year

Note: All figures are in 2018 dollars. EFC calculation assumes dependent student, household of three, parents married filing jointly, and assets less than the exemption.

Source: Authors' calculations using Office of Federal Student Aid, Expected Family Contribution Formula A Worksheet.

$50,000 for example, would be ineligible for a Pell Grant.[21] The existing terms of the program would remain such that grants would be awarded as they are today except not to students from families with adjusted gross incomes above the cutoff. In addition to being one of the most straightforward solutions, an income cap is more transparent to families than the existing formula based on EFC and the maximum grant because it is easier for them to know whether they qualify.

A potential downside to this approach is that it undermines some parts of the Pell Grant formula that account for family size. Families with more household members are assigned smaller EFCs, as are families with multiple dependent children enrolled in college. These families are deemed to have fewer resources to pay for a postsecondary education than smaller families with the same income. Families with multiple children in college receive a relatively large grant under

these rules because the family's EFC is simply divided by the number of dependents in college in the household. An income cap of $50,000 would treat all families earning this amount the same regardless of household size or the number of children enrolled in college.

Other solutions to target Pell Grant resources to low-income students could work within the program's current rules to maintain features of the existing formula that determine eligibility, such as family size. For example, lawmakers could limit the program to students with a $0 EFC rather than set a specific income limit. That would successfully target aid to the poorest students but maintain the features of the formula that are sensitive to family size and other factors.

The Congressional Budget Office estimates that this policy would cut program costs by $2.2 billion annually.[22] Those savings could then be redirected in a budget-neutral manner to fund about a $500 increase
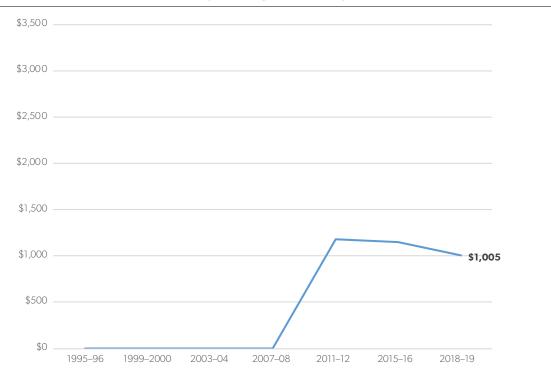
Figure 4. Estimated Pell Grant for a Family Earning $60,000 by Academic Year

Note: All figures are in 2018 dollars. EFC calculation assumes dependent student, household of three, parents married filing jointly, and assets less than the exemption.
Source: Authors' calculations using Office of Federal Student Aid, Expected Family Contribution Formula A Worksheet.

in the maximum Pell Grant for students with the fewest resources who are most in need of federal financial aid.[23]

However, restricting grants to students from families with a $0 EFC may go further than what is needed to prevent middle-income students from receiving benefits. Some students with family incomes below $50,000, whose EFC is low but greater than $0, would lose eligibility under this approach. Lawmakers could simply set the cutoff at an EFC above zero, but low enough to prevent most families earning $50,000 or more from receiving a grant. Our analysis suggests that a $2,500 maximum EFC cutoff (indexed to inflation) would produce that outcome.[24]

Similar to an EFC cutoff, policymakers could change the current minimum grant rule to limit eligibility to families earning less than $50,000. However, this approach seems unnecessarily confusing relative to the EFC cutoff as it requires an additional step that produces a similar result. The minimum grant rule

requires a student to qualify for at least 10 percent of the maximum grant to receive a grant ($610 for the 2018–19 academic year).[25] If the minimum grant were increased to 50 percent of the maximum grant, most students from families earning over $50,000 would not be eligible.

As a final option, policymakers could simply index the maximum grant and changes in the EFC formula to the rate of inflation as measured by a broad index, such as the Personal Consumption Expenditures Price Index.[26] This would prevent the Pell Grant program from expanding further into the middle class. It would hold the difference between a student's EFC and maximum grant constant, thereby preventing additional middle-class families from receiving the grant.

If college prices continue to rise more quickly than broad measures of inflation, however, policymakers will face political pressure to increase the Pell Grant accordingly, thus undermining this

approach. That is why implementing an EFC cutoff may be the best solution to better target benefits in the Pell Grant program.

Conclusion

This report calls attention to a trend in the Pell Grant program that has largely gone unnoticed by policymakers. Increases in the maximum Pell Grant between the 1995–96 and 2018–19 academic years have allowed more middle-income families to qualify for the program. Today, students from families earning between $50,000 and $60,000 can easily qualify for a grant, which is a stark change from earlier decades when families with this income level (in today's dollars) were far less likely to be eligible.

Some in the policy community might contend that this analysis overstates middle-income eligibility for Pell Grants because only about 12 percent of Pell Grant recipients were from families earning more than $50,000 in the 2015–16 academic year.[27] However, families earning in the same income range represented only 5 percent of Pell Grant recipients in the 1995–96 academic year, meaning the share has more than doubled. This trend will also continue if lawmakers again increase the grant more quickly than inflation in the near future.

Perhaps the most striking thing about this change is that it occurred without any discussion about whether policymakers intended it to happen—or whether it is good policy at all. It is difficult, if not impossible, to find lawmakers who argue for increases to the Pell Grant on the grounds that it will allow more middle-income families to qualify for larger grants. Yet that is the effect of increasing the maximum grant more quickly than inflation. We ask lawmakers to consider whether that *should* be the effect.

To be sure, some observers see Pell Grants for middle-income families as a worthwhile policy. They argue that college costs have risen at such a high rate that these families should now be eligible. The problem is that these advocates do not need to make the case for such a policy explicitly to advance it. They need only make the case for providing low-income families with larger Pell Grants, which simultaneously expands the program to middle-income families. That effect should be at the center of the debate over increasing Pell Grants, rather than an implicit goal.

Avoiding the debate about whether middle-income families should receive Pell Grants has consequences. Any effort to increase the maximum Pell Grant to help low-income students will, under current terms, also increase grants for families earning over $50,000—and it will also cause families with higher incomes to become newly eligible for grants. That creates a political and budgetary hurdle to providing larger Pell Grants to low-income students that few in the policy community appreciate. If more advocates and lawmakers considered these unintended consequences, they might be more willing to structure the program in a way that channels resources to the families that most need them.

Acknowledgments

About the Authors

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Appendix

Table A1. Nominal and Inflation-Adjusted Maximum Pell Grant by Academic Year

Academic Year	Maximum Pell Grant (Nominal)	Maximum Pell Grant (2018 Dollars)	Academic Year	Maximum Pell Grant (Nominal)	Maximum Pell Grant (2018 Dollars)
1973–74	$452	$2,003	1996–97	$2,470	$3,573
1974–75	$1,050	$4,312	1997–98	$2,700	$3,838
1975–76	$1,400	$5,306	1998–99	$3,000	$4,211
1976–77	$1,400	$5,002	1999–2000	$3,125	$4,328
1977–78	$1,400	$4,700	2000–01	$3,300	$4,493
1978–79	$1,600	$5,037	2001–02	$3,750	$5,015
1979–80	$1,800	$5,282	2002–03	$4,000	$5,261
1980–81	$1,750	$4,703	2003–04	$4,050	$5,252
1981–82	$1,670	$4,126	2004–05	$4,050	$5,150
1982–83	$1,800	$4,176	2005–06	$4,050	$5,041
1983–84	$1,800	$3,973	2006–07	$4,050	$4,929
1984–85	$1,900	$4,026	2007–08	$4,310	$5,133
1985–86	$2,100	$4,277	2008–09	$4,731	$5,523
1986–87	$2,100	$4,134	2009–10	$5,350	$6,175
1987–88	$2,100	$4,005	2010–11	$5,550	$6,320
1988–89	$2,200	$4,025	2011–12	$5,550	$6,221
1989–90	$2,300	$4,040	2012–13	$5,550	$6,105
1990–91	$2,300	$3,882	2013–14	$5,645	$6,117
1991–92	$2,400	$3,912	2014–15	$5,730	$6,110
1992–93	$2,400	$3,796	2015–16	$5,775	$6,079
1993–94	$2,300	$3,542	2016–17	$5,815	$6,021
1994–95	$2,300	$3,464	2017–18	$5,920	$6,032
1995–96	$2,340	$3,449	2018–19	$6,095	$6,095

Note: Annualized Personal Consumption Expenditure average used for inflation adjustments.
Source: Authors' calculations; and Congressional Research Service, "Federal Pell Grant Program of the Higher Education Act: Primer," Appendix A, November 28, 2018, https://fas.org/sgp/crs/misc/R45418.pdf.

Figure A1. Estimated Pell Grants for a Family Earning $70,000 by Academic Year

Note: All figures are in 2018 dollars. EFC calculation assumes dependent students, household of four, parents married filing jointly, two children enrolled in college, and assets less than the exemption. Each dependent student receives a grant.
Source: Authors' calculations using Office of Federal Student Aid, Expected Family Contribution Formula A Worksheet.
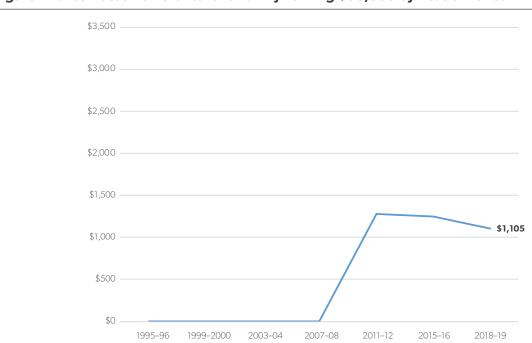
Figure A2. Estimated Pell Grants for a Family Earning $80,000 by Academic Year

Note: All figures are in 2018 dollars. EFC calculation assumes dependent students, household of four, parents married filing jointly, two children enrolled in college, and assets less than the exemption. Each dependent student receives a grant.
Source: Authors' calculations using Office of Federal Student Aid, Expected Family Contribution Formula A Worksheet.

Notes

1. US Department of Education, "Department of Education Fiscal Year 2020 President's Budget," May 15, 2019, www2.ed.gov/about/overview/budget/budget20/20pbapt.pdf.

2. For examples of this, see National College Access Network, "Restore the Purchasing Power of the Pell Grant," www.collegeaccess.org/restorepell; Charlotte Pollack, "Report Details Erosion of Pell Purchasing Power, Suggests Strategies to Improve Equity," National Association of Student Financial Aid Administrators, February 5, 2015, www.nasfaa.org/news-item/942/Report_Details_Erosion_Of_Pell_Purchasing_Power_Suggests_Strategies_To_Improve_Equity; Institute for College Access & Success, "How to Secure and Strengthen Pell Grants to Increase College Access and Success," October 16, 2018, https://ticas.org/sites/default/files/pub_files/pell_recs_one_pager.pdf; Education Trust, "FY 19 Appropriations Priorities," press release, March 27, 2018, https://edtrust.org/press-release/fy-19-appropriations-priorities/; United Negro College Fund, "Purchasing Power of Federal Pell Grants Has Dropped to Its Lowest Level Ever," www.uncf.org/the-latest/the-purchasing-power-of-federal-pell-grants-has-dropped-to-its-lowest-level; and David Reich, "2018 Funding Bill Should Boost Pell Grants," Center on Budget and Policy Priorities, February 28, 2018, www.cbpp.org/blog/2018-funding-bill-should-boost-pell-grants.

3. In the 1975–76 academic year, the inflation-adjusted maximum Pell Grant covered approximately 79 percent of tuition, fees, and room and board at a public four-year institution. Authors' calculations using College Board, *Trends in College Pricing 2018*, 2018, https://trends.collegeboard.org/college-pricing; and US Department of Education, Institute of Education Sciences, National Center for Education Statistics, "Tuition Costs of Colleges and Universities," https://nces.ed.gov/fastfacts/display.asp?id=76. Values are adjusted for inflation using the Consumer Price Index. The Consumer Price Index is used in this instance to make figures comparable with those commonly referenced by advocacy groups. For more information, see Federal Reserve Bank of St. Louis, "Consumer Price Index for All Urban Consumers: All Items," https://fred.stlouisfed.org/series/CPIAUCSL.

4. This assumes a three-person family (married parents and one dependent college student) with assets below the exemption levels. Families earning $90,000 would qualify for a $2,640 Pell Grant if the maximum Pell Grant were $16,855. Families earning between $50,000 and $60,000 could easily qualify for a Pell Grant over $12,000. Authors' calculations using Office of Federal Student Aid Expected Family Contribution worksheets.

5. For example, see Joy Resmovits, "Pell Grants for Poor Students Lose $170 Billion in Ryan Budget," HuffPost, April 5, 2012, www.huffpost.com/entry/pell-grants-paul-ryan-budget_n_1383178; Michael Stratford, "Higher Ed Cuts in GOP Budget," Inside Higher Ed, April 2, 2014, www.insidehighered.com/news/2014/04/02/ryan-budget-calls-cuts-pell-grant-elimination-neh; and Michael Stratford, "GOP Would Freeze Pell," Inside Higher Ed, March 18, 2015, www.insidehighered.com/news/2015/03/18/house-republicans-again-propose-10-year-freeze-pell-grant-maximum-award.

6. The report includes the 2018–19 year because it is the most recent year for which Pell Grant information is available, although the most recent NPSAS data set covers the 2015–16 academic year. For more information, see US Department of Education, Institute of Education Sciences, National Center for Education Statistics, "National Postsecondary Student Aid Study (NPSAS)," https://nces.ed.gov/surveys/npsas/. This report uses the NPSAS for the 1995–96, 1999–2000, 2003–04, 2007–08, 2011–12, and 2015–16 academic years for supplementary analysis and statistics.

7. The US Department of Education archives EFC formula worksheets on their website dating back to the 1997–98 academic year. The EFC Formula Worksheet for the 1995–96 academic year is available in a separate Department of Education manual. To our knowledge, there are no online versions of the EFC Formula Worksheets earlier than the 1995–96 academic year. For more information, see US Department of Education, Federal Student Aid, "iLibrary—EFC Formula Guide," https://ifap.ed.gov/ifap/byAwardYear.jsp?type=efcinformation&set=archive; and US Department of Education, "Precertification Training: 1995–96," https://files.eric.ed.gov/fulltext/ED396649.pdf.

8. To qualify for a Pell Grant, students must complete the FAFSA by the application deadline, which is usually June 30 of the

academic year. The program is limited to US citizens or foreign residents, and only undergraduates who have not previously earned a bachelor's degree are eligible. Students can only receive a Pell Grant for up to 12 full-time semesters.

9. Higher-income families that have multiple children in college will be assigned a smaller EFC than other families with lower income levels and fewer children in college because a student's expected family contribution is divided by the total number of college students in the family.

10. Several caveats apply when determining a student's Pell Grant award. First, Pell Grant eligibility is different for students who attend institutions with low attendance costs. If the student's expected family contribution is lower than the cost of attendance and if that amount is less than the maximum Pell Grant, the student receives a smaller grant equal to the difference between the cost of attendance and the EFC. Additionally, a student's Pell Grant award is prorated by enrollment intensity. Students enrolled half the time receive half the award they are eligible for, students enrolled three-quarters of the time receive three-quarters of their award, and so on. Students must also qualify for at least 10 percent of the maximum Pell Grant to receive a grant.

11. In the 1995–96 academic year, the inflation-adjusted maximum Pell Grant was $3,449. See appendix for the maximum Pell Grant for all academic years. Authors' calculations using Personal Consumption Expenditures. For more information, see Federal Reserve Bank of St. Louis, "Personal Consumption Expenditures Excluding Food and Energy (Chain-Type Price Index)," https://fred.stlouisfed.org/series/PCEPILFE.

12. The maximum Pell Grant in 1995–96 was historically low in real terms relative to the years preceding and following it. This has a small but notable effect on our findings. We could not locate Department of Education worksheets to calculate Pell Grant eligibility for years earlier than 1995–96, which is why we start our analysis that year. If we use the EFC worksheets for 1995–96 to calculate a student's Pell Grant eligibility using the maximum award level from earlier years, our main finding still holds, although it is slightly less pronounced. We substituted the inflation-adjusted maximum Pell Grant in the 1990–91 academic year, which was about $400 higher than in 1995–96, to check the sensitivity of using the 1995–96 year as the starting point. A family earning $50,000 would receive a $590 grant in today's dollars if the maximum grant were $400 higher than the actual amount in 1995–96. Our analysis shows $0 actual Pell Grant eligibility that year. The results are similar when substituting the maximum grant in the 1985–86 academic year. Given that the family qualifies for a $2,890 maximum grant in 2018–19, we still observe a large change in eligibility over the time period even if we were to start our analysis in earlier years. There was no change to our analysis for a family earning $60,000. Using the 1995–96 EFC worksheet, the student did not qualify for a Pell Grant under the actual 1995–96 maximum grant or higher maximum grant amount from the 1990–91 academic year.

13. In the 2015–16 academic year, 47 percent of Pell recipients were dependents, and half of those students were enrolled exclusively full time. Of all Pell recipients, 28 percent were dependent, full-time students. Authors' calculations using data from the 2016 NPSAS.

14. The policy change that had the largest effect on the decline we observed in the EFC during this period was a change to the amount of income a family can exempt from the EFC calculation (the "income protection allowance"). Congress enacted this change in 2007 through the College Cost Reduction and Access Act. Specifically, the law tied annual changes in the income protection allowance inflation after the 2012–13 academic year. In our analysis, the largest changes in the EFC formula occurred between 2007–08 and 2011–12 because the larger income protection allowance contributes to a smaller EFC. In our examples, a student from a family earning $50,000 or $60,000 has a roughly $400 increase in his or her income protection allowance between the 2007–08 and 2011–12 academic years after adjusting for inflation. For more information, see Pub. L. No. 100-84 § 601(c); and Federal Register, "Federal Need Analysis Methodology for the 2019–20 Award Year-Federal Pell Grant, Federal Work-Study, Federal Supplemental Educational Opportunity Grant, William D. Ford Federal Direct Loan, Iraq and Afghanistan Service Grant, and TEACH Grant Programs," May 17, 2018, www.federalregister.gov/documents/2018/05/17/2018-10586/federal-need-analysis-methodology-for-the-2019-20-award-year-federal-pell-grant-federal-work-study.

15. The examples shown in Figures 1–4 are constructed from the Office of Federal Student Aid's Expected Family Contribution worksheets. The Personal Consumption Expenditure is used to adjust for inflation, and all figures are reported in 2018 dollars. For relevant years, we assume each family receives the average federal education tax credit for its income level in the respective year calculated using data from the NPSAS. These tax benefits are included in the EFC calculation and *reduce* a family's available income. A few

other assumptions are needed to calculate each family's EFC. We assign each family an average state tax rate from Table A1 of the EFC worksheet. We assume a household of three, which accounts for two parents (married and jointly filing taxes) and one dependent college student. We assume the dependent student has no income and that the age of the oldest parent is 45. We assume both parents are working, with each adult earning half the household's total income. Lastly, we assume the family's assets counted in the EFC do not exceed the allowances in the formula and therefore do not increase its EFC.

16. These results are similar for independent students in a household earning $50,000. An independent student in a three-person household (a married student with one dependent) would have qualified for a $1,205 Pell Grant in 1999–2000. In 2018–19 the student would qualify for $4,995. (We could not locate Department of Education worksheets to calculate Pell Grant eligibility for independent students for the 1995–96 academic year, which is why we use the subsequent year in our study, 1999–2000.)

17. These results are similar for independent students in a household earning $60,000. An independent student in a three-person household (a married student with one dependent) would have qualified for a $0 Pell Grant in 1999–2000. In 2018–19 the student would qualify for $3,355. (We could not locate Department of Education worksheets to calculate Pell Grant eligibility for independent students for the 1995–96 academic year, which is why we use the subsequent year in our study, 1999–2000.)

18. Figures are for dependent and independent students who filed the FAFSA and are US citizens or foreign residents, regardless of attendance intensity and dependency status. Authors' calculations using the NPSAS. Among independent students, 24 percent in this income group received a Pell Grant in 1995–96, and 52 percent received a grant in 2015–16. For dependent students only, the share receiving grants increased from 24 percent to 64 percent over that period. Authors' calculations using the NPSAS on the NCES Trendstats tool. See US Department of Education, Datalab, "TrendStats," https://nces.ed.gov/datalab/index.aspx?ts_x=ceebma70 and https://nces.ed.gov/datalab/index.aspx?ts_x=cebmp83.

19. For example, the average household size among this group was 5.1 in 1995–96. In the 2015–16 academic year, it was 4.2. The 1995–96 NPSAS does not include data on the number of children in college for each family; however, the EFC figures in the data are consistent with these families having at least two children in college at the same time. The 2015–16 NPSAS shows that these Pell Grant recipients had an average of 1.4 children in college at the same time. The average Pell Grant among the students who received a grant was $1,436 in the 1995–96 academic year. In the 2015–16 academic year, it had increased to $2,775. That increase is consistent with increases for low-income groups. But note that a much larger share of middle-income students (60 percent) are receiving grants in 2015–16 than in 1995–96, and the two groups of recipients differ significantly in household size and number of children in college. Authors' calculations using the NPSAS on the NCES Trendstats tool. See US Department of Education, Datalab, "TrendStats," https://nces.ed.gov/datalab/index.aspx.

20. Stratford, "GOP Would Freeze Pell."

21. In the 2015–16 academic year, 11.6 percent of all Pell Grant recipients came from households earning more than $50,000. Approximately two-thirds of these students are dependents, and these students receive an average grant of $2,465 (in 2018 dollars). Authors' calculations using the NPSAS on the NCES Powerstats tool. See US Department of Education, Datalab, "PowerStats," https://nces.ed.gov/datalab/index.aspx.

22. See Congressional Budget Office, "Options for Reducing the Deficit: 2019 to 2028," December 2018, www.cbo.gov/system/files/2018-12/54667-budgetoptions.pdf; and US Department of Education, "Federal Pell Grant Program Annual Data Reports," https://www2.ed.gov/finaid/prof/resources/data/pell-data.html.

23. The Congressional Budget Office estimates that restricting the Pell Grant program to students with a $0 EFC would save roughly $2.2 billion annually. Department of Education data sets indicate that roughly 4.5 million students received a Pell Grant with a $0 EFC. If the savings were channeled back to these students, they each could receive approximately $490 more in financial aid for those attending full time.

24. In the 2015–16 academic year, about 14 percent of full-time Pell recipients qualified for a grant with an EFC above $2,500. The median household income for these students is $52,000. Authors' calculations using the NPSAS on the NCES Powerstats tool. See US Department of Education, Datalab, "PowerStats," https://nces.ed.gov/datalab/index.aspx.

25. For additional information on how the minimum grant award is determined, see Congressional Research Service, "Federal Pell

Grant Program of the Higher Education Act: Primer," November 28, 2018, https://fas.org/sgp/crs/misc/R45418.pdf.

26. Federal Reserve Bank of St. Louis, "Personal Consumption Expenditures Excluding Food and Energy (Chain-Type Price Index)."

27. Authors' calculations using the NPSAS.