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Racial Disparities in Student Debt: Evidence from the Refund to Savings Initiative

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A postsecondary degree has long been seen as a crucial step in securing upward mobility in the United States. However, rising tuition costs have led to unprecedented levels of student debt, with 70% of all college students depending upon loans to finance their college degree. On average, students who graduated in 2012 borrowed \$29,400 over the course of their studies, contributing to a national student debt total that exceeds \$1.2 trillion. The size and trajectory of this debt in the United States has prompted many policymakers to consider solutions that continue to promote postsecondary enrollment but reduce overreliance on student loans.

This research brief, a product of work conducted as part of the Refund to Savings (R2S) Initiative, offers new findings from a recent analysis of student debt among low- and moderate-income (LMI) households. Our findings augment mounting evidence that such debt is concentrated among minorities,⁵ but the brief adds a new layer to these discussions by demonstrating that the trends may be exacerbated among borrowers from low-and moderate-income households. Our analysis employed robust methods that bolster these results and highlight their importance.

Indeed, we found a persistent and significant gap between the student debt held by White students from LMI households and that held by their LMI Black counterparts. Compared with their White peers, Black students were twice as likely to borrow in order to finance their postsecondary education. Our results also showed that indebtedness continued to be considerably higher among Black households after students graduated and earned their degree. These findings are unique given that the bulk of existing and emerging literature on student debt has not attended to racial disparities among low-income students.

Abundant evidence from the asset-building literature leads us to suggest that this discrepancy signals a potential for postcollege economic hardship for LMI

minority households. As policymakers and higher education researchers discuss new approaches to addressing student debt, this brief offers new insights for targeted student loan, grant, and financial aid reforms.

Background

Although student loans affect college students from all backgrounds, mounting evidence demonstrates that Black and low-income students shoulder a disproportionate burden of student debt. A recent analysis of student debt among U.S. college students found that, at each level of postsecondary education, the student loan debt accumulated by Black students is higher than that accumulated by White students. At the undergraduate level, enrolled Black students have, on average, \$1,808 more in student loan debt than their White peers do. By the time these two groups graduate with their bachelor's degrees, the gap widens to \$3,427.

Several explanations have been offered for expanding racial gaps in student debt. We will discuss three of those explanations here. First, research has tied economic outcomes to institutional characteristics of the colleges and universities attended by degree recipients. For-profit institutions, where Black students comprised one third of total enrollment in 2013, have been identified as a primary source of disparities in student debt. The average costs for a 4-year degree from such programs can be as much as 59% higher than that for the equivalent degree from a public university. In 2012, the graduates of private for-profit colleges left school with 43% more student debt than did the graduates of traditional nonprofit institutions.

A second and more discernible explanation for student debt disparities stems from recent changes to higher education policies and rising tuition costs. These developments have increased borrowing among students who are most in need of assistance. Annual increases in tuition expenses continue to outpace



general inflation. ¹² Reforms at the state-level have spurred disinvestment in higher education and reduced institutions' available need-based aid. ¹³ And federal reductions to education funding and financial aid have been included in congressional budget proposals since the Great Recession. ¹⁴ Between 2008 and 2013, federal appropriations fell for the Pell Grant, the Federal Work-Study Program, and other sources of federal aid. ¹⁵

Yet we know that these programs have a documented history of success. A recent analysis of the federal Pell Grant Program revealed that Black students who receive these grants are significantly more likely than nonrecipients to complete their degree. ¹⁶ And needbased aid support can offset the burden of costs or liquidity constraints for Black college students from LMI households. ¹⁷ Thus, declining need-based assistance has raised concerns that borrowing rates among LMI Black students will only increase over time. ¹⁸

Finally, longstanding asset and wealth gaps between White and Black households are perhaps central factors contributing to gaps in student debt. Asset-building research consistently demonstrates that assets play a crucial role in college affordability and financing for households. ¹⁹ The familial wealth profiles of Black and White households diverge substantially over generations. As of 2009, the wealth gap between White and Black families was estimated at \$236,500, triple the size of this gap in 1984. ²⁰ In the context of higher education, such wealth gaps place many LMI Black students in a position of great financial need, and we now know that much of that need will be unmet by traditional sources of aid. ²¹

To be sure, borrowing to pay for postsecondary education brings many advantages and gains. Loans provide a source of access for students who may otherwise lack the means to finance a degree. Moreover, social and economic returns to a college degree remain high.²² However, other empirical work has challenged the notion that student loans level the playing field for low-income and minority students.²³

Research Questions and Methods

We posed three research questions regarding student debt burdens among the LMI population:

- Are LMI Black students more likely than LMI White students to use education loans in paying for college?
- 2. Do LMI Black students accrue significantly higher levels of student debt than their LMI White peers do?
- 3. Do significant gaps in student loan debt persist between LMI Black and LMI White households after both groups graduate from college?

To answer these questions, we analyzed data from the R2S Initiative, a unique intervention designed to encourage LMI tax filers to save their income tax refund. Comprehensive methods and procedures for the R2S intervention are described elsewhere.²⁴

Data analyzed for this work come from the R2S Initiative's evaluation component, a longitudinal Household Financial Survey (HFS). Immediately following the tax-filing process, participants (N = 680,545) were invited to complete the first-wave baseline module of the HFS survey. Respondents completed the second-wave follow-up HFS 6 months after tax season. Data from the survey enabled us to evaluate the impact of the R2S intervention on relevant savings outcomes and to comprehensively examine the financial lives of LMI tax filers. The full sample of HFS respondents from the 2013 survey was 20,816. For this analysis, we used respondent data collected from the HFS sample during tax year 2013 (n = 17,684).²⁵

The two dependent variables of interest in this brief were (1) use of student loans (1 = yes; 0 = no) and (2) total student debt burden (in dollars). We compared debt outcomes of White and Black households because evidence has shown that wealth and income gaps remain widest between these two groups. Moreover, the growing chorus of research on wealth and educational disparities consistently finds Black-White gaps to be most reliable over time, ²⁶ with comparisons between Black households and their Asian or Hispanic/Latino counterparts being highly variable.

To estimate differences between Black and White households, we used two rigorous analytical methods: a two-part regression model and matching estimators. We estimated a two-part model to account for a large number of zero observations in our dependent measure of total student debt burden. Given that most indebted households in the HFS sample were LMI, the disposition of most college goers would likely be to borrow. Matching estimators enabled us to mitigate selection bias on socioeconomic measures in HFS. Further, a matching approach provides a better estimation of the robustness of differences in student debt between White and Black households.

Average gross income of indebted households: \$17,265



Research Findings: An Uneven Racial Distribution

Participant Characteristics

This sample of LMI households was on the lower end of the income distribution. Average gross income for the full HFS sample was \$17,276 in 2012, roughly on par with the incomes of indebted households (\$17,265).²⁷

Postsecondary education was a common pursuit of many LMI households in the HFS sample. Over one third of HFS respondents reported that they have had some postsecondary education (38%), and slightly fewer households (27%) were enrolled in college at the time of response. Twenty-six percent of households have completed their postsecondary degree (2- or 4-year). Overall, 51% of all HFS households reported having student debt, regardless of education level.

As expected, outstanding student debt was more often reported as level of education increased. Respondents with some graduate- or professional-level schooling were most likely to report outstanding student debt (68%). Women (54%) were more likely than men (46%) to report it. There were observed racial differences on these characteristics, as well. Sixty-five percent of Black participants reported having student debt, while 49% of White participants reported similarly. Households from Asian (50%), Hispanic (51%), or other (55%) racial or ethnic groups were also less likely to report student debt than were Black households. Compared with respondents who reported no student debt, those who reported having such debt were somewhat more likely to report higher credit card debt (\$282 more).

Racial Disparities in Student Debt

Results of our analyses demonstrate that certain students had significantly greater odds of borrowing to pay for their college degree. The odds that a female student would borrow were 15% higher than the odds that her male counterpart would do so. As expected, the presence of assets or other outstanding debts appeared to influence student borrowing. While credit card debt was associated with a modest 2% increase in the likelihood of borrowing—an estimated \$399 more in student debt-other liabilities were more strongly associated with borrowing. For each type of outstanding debt, the odds of borrowing increased by 38%. In contrast, households with a diverse number of assets

had significantly lower odds of borrowing. For each asset

type, we expected to see 8% lower odds of borrowing,

51% of households have student debt

although this accounted for a somewhat nominal difference in estimated student debt (-\$199).

The Black-White gap for loan use was significant. Black households were consistently more likely to borrow and borrowed at higher levels than did their White peers. In fact, the odds of borrowing to pay for college were higher for LMI Black households than for White, Hispanic or Latino, and Asian households. The odds of borrowing were two times greater for LMI Black students than for LMI White students.

Higher borrowing rates and loan use among LMI Black households yielded higher student debt burdens. The outstanding student debt of Black respondents (\$27,416) was \$7,721 higher than that of their White counterparts (\$19,695). Estimated debt was lowest for Asian (\$18,267) and Hispanic or Latino (\$17,618) households. Further, the Black-White debt gap persisted after graduation. We estimate that the student debt burden for Black graduates was \$6,975 higher than that for White graduates. Results of the matching estimators confirmed these significant findings.

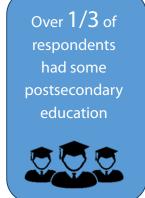
Conclusions

Higher education has long been a vehicle for upward mobility. However, the findings presented in this brief have three important implications for minority and lowincome households that borrow to pay for college. First,

because this sample was low income, the high prevalence and burden of student debt signals that these households face a high risk of financial hardship. Facing liquidity constraints, over half of all households in this sample demonstrated a need to borrow in order to pay for a college degree.

Second, racial disparities in the levels of outstanding student debt among LMI households could exacerbate existing educational and economic barriers faced by Black households. Black-White disparities in student debt were substantial on two key indicators: borrowing rates and overall indebtedness. Perhaps the most

concerning finding is that wide gaps in overall debt burden remained fairly stable after graduation, a time when most graduates are expected to enter the loan repayment period.



Third, researchers have recently warned that student debt may not be inconsequential for the economic security of borrowers. ²⁸ Student debt may constrain future consumption, borrowing, and asset accumulation. Outstanding student debt lowers the odds of homeownership and may lead graduates to delay important wealth-building investments. ²⁹ As if to demonstrate this, households without student debt had seven times the net worth of indebted households, ³⁰ and they had 52% more in retirement savings. ³¹ And risk of student-loan default remains high, with nearly 12% of all borrowers defaulting in 2012. ³² In short, borrowing against future earnings to pay for a college degree carries unanticipated risks.

Findings have recently highlighted significant gaps on various economic indicators between Black and White college graduates. For instance, minority and low-income borrowers have higher rates of student loan default than do White or high income borrowers.³³ Postcollege earnings have also lagged for Black graduates. Whereas median family income for White bachelor's degree recipients was \$94,351 in 2013, it was \$52,147 for Black counterparts. Most concerning, median income has actually declined for Black college graduates by just over 12% since 1992.³⁴ If these postcollege gaps persist, the burden of borrowing and repayment could exacerbate the divergent wealth and economic portfolios of these two groups. In light of this evidence, we believe that the financial risks for Black and low-income borrowers are likely to be higher.

To address student debt disparities, policymakers should introduce reforms to existing student-loan programs. They should consider a range of new evidence-based alternatives to make college affordable and reduce the burden of student debt for low-income minorities. In the next section, we discuss possible policy alternatives.

College Affordability and Assets

Asset-based policies offer one evidence-based solution to reduce disparities in student debt. Families with an adequate supply of liquid assets are likely to rely less on student loans to finance a college degree.³⁵ A strong body of evidence has prompted states such as Maine and Oklahoma to test universal college savings accounts at birth.

As part of a collaborative research intervention by the Center for Social Development, the SEED for Oklahoma Kids experiment offered low-income children a 529 college savings account at birth and saw a 43% increase in the average value of the accounts over a 7-year period. ³⁶ Early findings have demonstrated promising educational outcomes for low-income and minority children who participated in the experiment. ³⁷ Following this evidence, Connecticut and Rhode Island have implemented universal college savings accounts that are available to all children born or adopted in state. ³⁸

Financial Aid Reforms

Need-based financial aid programs have a history of success. In fact, receipt of need-based forms of aid is one of the strongest predictors of college success among low-income minority students.³⁹ However, recent years have brought historic changes to the available funding and eligibility requirements for those programs. The federal Pell Grant Program, which covers over nine million low-income students, has taken the biggest hit.⁴⁰

The recently introduced Aid Like a Paycheck pilot is an innovative policy designed to assist students in managing the burden of college costs. 41 Whereas aid recipients currently receive a lump-sum disbursement of leftover grant aid after covering tuition and related expenses, Aid Like a Paycheck disburses the Pell Grant and other aid incrementally throughout the semester. Incremental disbursements help stabilize students' consumption over the semester, thereby avoiding many of the pitfalls that require students to increase their borrowing. Further, the program allocates aid payments incrementally, and continued receipt of aid is contingent upon enrollment. It is believed that this contingency, as it has been proposed, could further address the central issue of student retention for low-income collegegoers.

Easing the Burden of Repayment

Income-driven repayment (IDR) plans enable graduates to tie their monthly repayment amount to their income. The objective of such plans is to assist graduates working in fields with low wage growth or low initial earnings. The plans are intended to help graduates avoid default and manage repayment burden. The current system of IDR plans offers several options to qualifying graduates, but awareness and take-up have been low.⁴² The plans have also earned a reputation for being cumbersome and difficult to understand.⁴³

Reforms to IDR plans should be targeted, ensuring that enrollment efforts consider financially at-risk students in repayment. One solution gaining support is automatic enrollment into IDR plans upon graduation. Those who do not wish to repay their loans under an income-driven plan would be required to opt out of IDR and would be placed into a standard repayment plan that uses traditional criteria for setting the monthly repayment amount.⁴⁴ Automatic enrollment schemes could significantly reduce barriers to enrollment and the risk of eventual default for low-income borrowers in repayment.

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End Notes

- 1. Chopra (2013).
- 2. Institute for College Access & Success (2013).
- 3. Chopra (2013).
- 4. Morales and Baylor (2015).
- 5. Huelsman (2015).
- 6. Chen and DesJardins (2010); Goldrick-Rab, Kelchen, and Houle (2014); Houle (2014); Kerby (2013); Kim, DesJardins, and McCall (2009); Price (2004).
- 7. Jackson and Reynolds (2013).
- 8. Jackson and Reynolds (2013).
- 9. Belfield (2013).
- 10. Deming, Goldin, and Katz (2012); Knapp, Kelly-Reid, and Ginder (2012); National Center for Education Statistics (2014).
- 11. Institute for College Access & Success (2014).
- 12. College Board (2015).
- 13. Best and Keppo (2012).
- 14. Reich and Debot (2015).
- 15. National Association of Student Financial Aid Administrators (2015).
- 16. Flowers (2011).
- 17. Monks (2014).
- 18. Saunders (2015).
- 19. Elliott, Destin, and Friedline (2011); Zhan and Lanesskog (2014); Zhan and Sherraden (2011a, 2011b).
- 20. Shapiro, Meschede, and Osoro (2013).
- 21. Lynch, Engle, and Cruz (2010).
- 22. Hout (2012).
- 23. Callender and Jackson (2005); Dwyer, McCloud, and Hodson (2012); Kim (2007).
- 24. Grinstein-Weiss et al. (2015).
- 25. Grinstein-Weiss et al. (2015).
- 26. Conley (2001); Ladson-Billings (2006); Yeung and Conley (2008).
- 27. Unless otherwise noted, characteristics presented here reflect averages for all respondents in the full sample.
- 28. Elliott and Lewis (2013, 2015).
- 29. Gicheva and Thompson (2015); Elliott and Lewis (2015).

- 30. Fry (2014).
- 31. Elliott, Grinstein-Weiss, and Nam (2013).
- 32. U.S. Department of Education (n.d.).
- 33. Gross et al. (2009).
- 34. Emmons and Noeth (2015).
- 35. Zhan and Lannesskog (2014).
- 36. Beverly et al. (2015).
- 37. Clancy and Sherraden (2014).
- 38. Connecticut Higher Education Trust (n.d.); Rhode Island Higher Education Assistance Authority (2015).
- 39. Kim et al. (2009).
- 40. Institute for College Access & Success (2016).
- 41. Ware, Weissman, and McDermott (2013).
- 42. Scott-Clayton (2012).
- 43. Institute for College Access & Success (2006).
- 44. Akers and Chingos (2014).

References

Akers, B., & Chingos, M. M. (2014). Student loan safety nets: Estimating the costs and benefits of income-based repayment. Brookings Institution, Retrieved from Brookings Institution, Brown Center on Education Policy website: http://www.brookings.edu/research/papers/2014/04/14-income-based-repayment-akers-chingos

Belfield, C. (2013). Student loans and repayment rates: The role of for-profit colleges. *Research in Higher Education*, *54*(1), 1-29. doi:10.1007/s11162-012-9268-1

Best, K., & Keppo, J. (2014). The credits that count: how credit growth and financial aid affect college tuition and fees. *Education Economics*, 22(6), 589-613. doi:10.1080/09645292.2012.687102

Beverly, S. G., Clancy, M. M., Huang, J., & Sherraden, M. (2015). The SEED for Oklahoma Kids Child Development Account experiment: Accounts, assets, earnings, and savings (CSD Research Brief No. 15-29). Retrieved from Washington University, Center for Social Development website: http://csd.wustl.edu/Publications/Documents/RB15-29.pdf

Callender, C., & Jackson, J. (2005). Does the fear of debt deter students from higher education? *Journal of Social Policy*, *34*(4), 509-540. doi:10.1017/S004727940500913X

Chen, R., & DesJardins, S. L. (2010). Investigating the impact of financial aid on student dropout risks: Racial and ethnic differences. *Journal of Higher Education* 81(2), 179-208. doi:10.1353/jhe.0.0085

Chopra, R. (2013, July 17). Student debt swells, federal loans now top a trillion. Retrieved from Consumer Financial protection Bureau website: http://www.consumerfinance.gov/newsroom/student-debt-swells-federal-loans-now-top-a-trillion/

Clancy, M., & Sherraden, M. (2014). Automatic deposits for all at birth: Maine's Harold Alfond College Challenge (CSD Policy Report 14-05). Retrieved from Washington University, Center for Social Development website: http://csd.wustl.edu/Publications/Documents/PR14-05.pdf

College Board. (2015). *Trends in college pricing 2015* (Trends in Higher Education Series Report). Retrieved from http://trends.college-pricing-web-final-508-2.pdf

Committee for Education Funding. (2015). *Chairman Price's budget hurts students and education* [Fact sheet]. Retrieved from http://cef.org/wp-content/uploads/2015/03/CHAIRMAN-PRICEs-Budget-hurts-students-and-education.pdf

Connecticut Higher Education Trust. (n.d.). CHET Baby Scholars. Retrieved April 11, 2016, from https://www.aboutchet.com/buzz/baby.shtml

Conley, D. (2001). Decomposing the Black-White wealth gap: The role of parental resources, inheritance, and investment dynamics. *Sociological Inquiry*, 71(1), 39-66. doi:10.1111/j.1475-682X.2001.tb00927.x

Deming, D. J., Goldin, C., & Katz, L. F. (2012). The for-profit postsecondary school sector: Nimble critters or agile predators? *Journal of Economic Perspectives*, 26(1), 139-164. doi:10.1257/jep.26.1.139

Dwyer, R. E., McCloud, L., & Hodson, R. (2012). Debt and Graduation from American Universities. *Social Forces*, *90*(4), 1133-1155.

Elliott, W., III, Destin, M., & Friedline, T. (2011). Taking stock of ten years of research on the relationship between assets and children's educational outcomes: Implications for theory, policy and intervention. *Children and Youth Services Review*, 33(11), 2312-2328. doi:10.1016/j.childyouth.2011.08.001

Elliott, W., III, Grinstein-Weiss, M., & Nam, I. (2013). *Is student debt compromising homeownership as a wealth-building tool?* (CSD Working Paper No. 13-33). Retrieved from Washington University, Center for Social Development website: http://csd.wustl.edu/Publications/Documents/WP13-33.pdf

Elliott, W., III, & Lewis, M. (2013). Student loans are widening the wealth gap: Time to focus on equity. Retrieved from University of Kansas, School of Social Welfare, Assets and Education Initiative website: https://aedi.ku.edu/sites/aedi.ku.edu/files/docs/publication/CD/reports/R1.pdf

Elliott, W., III, & Lewis, M. (2015). Student debt effects on financial well-being: Research and policy implications. *Journal of Economic Surveys*, 29(4), 614-636. doi:10.1111/joes.12124

Emmons, W. R., & Noeth, B. J. (2015). Why didn't higher education protect Hispanic and Black wealth? (In the Balance, Issue No. 12). Retrieved from Federal Reserve Bank of St. Louis, Center for Household Financial Stability website: https://www.stlouisfed.org/-/media/Publications/In%20the%20Balance//Images/Issue 12/ITB August 2015.pdf

Flowers, L. A. (2011). Attaining the American Dream:
Racial differences in the effects of Pell Grants on students'
persistence and educational outcomes. Retrieved from Ohio
State University, Kirwan Institute for the Study of Race and
Ethnicity website: http://www.kirwaninstitute.osu.edu/reports/2011/11_2011_RacePellGrantsandEducationOutcomes.pdf

Fry, R. (2014). Young adults, student debt and economic wellbeing (Social and Demographic Trends Report). Retrieved from Pew Research Center website: http://www.pewsocialtrends.org/files/2014/05/ST_2014.05.14 student-debt_complete-report.pdf

Gicheva, D., & Thompson, J. (2015). The effects of student loans on long-term household financial stability. In B. Hershbein & K. M. Hollenbeck (Eds.), *Student loans and the dynamics of debt* (pp. 287-316). Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. doi:10.17848/9780880994873.ch9

Goldrick-Rab, S., Kelchen, R., & Houle, J. (2014). The color of student debt: Implications of federal loan program reforms for Black students and Historically Black Colleges and Universities [Discussion paper]. Retrieved from University of Wisconsin-Madison, Wisconsin HOPE Lab website: https://news.education.wisc.edu/docs/WebDispenser/news-connections-pdf/thecolorofstudentdebt-draft.pdf?sfvrsn=4

Grinstein-Weiss, M., Perantie, D. C., Russell, B. D., Comer, K., Taylor, S. H., Luo, L., Key, C., & Ariely, D. (2015). *Refund to Savings 2013: Comprehensive report on a large-scale tax-time savings program* (CSD Research Report No. 15-06). St. Louis, MO: Washington University, Center for Social Development. Retrieved from http://csd.wustl.edu/Publications/Documents/RR15-06.pdf

Grinstein-Weiss, M., Perantie, D. C., Taylor, S. H., Guo, S., & Raghavan, R. (2016). Racial disparities in education debt burden among low- and moderate-income households. *Children and Youth Services Review*, 65, 166-174. doi:10.1016/j.childyouth..2016.04.010

Gross, J. P. K., Cekic, O., Hossler, D., & Hillman, N. (2009). What matters in student loan default: A review of the research literature. *Journal of Student Financial Aid*, 39, 19-29.

Houle, J. N. (2014). Disparities in debt: Parents' socioeconomic resources and young adult student loan debt. *Sociology of Education* 87(1), 53-69. doi:10.1177/0038040713512213

Hout, M. (2012). Social and economic returns to college education in the United States. *Annual Review of Sociology*, *38*, 379-400. doi:10.1146/annurev.soc.012809.102503

Huelsman, M. (2015). The debt divide: The racial and class bias behind the "new normal" of student borrowing. Retrieved from Dēmos website: http://www.demos.org/sites/default/files/publications/The%20Debt%20Divide.pdf

Institute for College Access & Success. (2006). Addressing Student Loan Repayment Burdens [White Paper]. Retrieved from http://ticas.org/sites/default/files/pub_files/WHITE_PAPER_FINAL_PDF.pdf

Institute for College Access & Success. (2013). Student debt and the class of 2012 (Project on Student Debt Report). Retrieved from http://ticas.org/sites/default/files/legacy/fckfiles/pub/classof2012.pdf

Institute for College Access & Success. (2014). Student debt and the class of 2013. Retrieved from http://ticas.org/sites/default/files/legacy/fckfiles/pub/classof2013.pdf

Institute for College Access & Success. (2016, April 6). *Pell Grants help keep college affordable for millions of Americans*. Retrieved from http://ticas.org/sites/default/files/pub_files/overall_pell_one-pager.pdf

Jackson, B. A., & Reynolds, J. R. (2013). The price of opportunity: Race, student loan debt, and college achievement. *Sociological Inquiry*, 83(3), 335-368. doi:10.1111/soin.12012

Kerby, S. (2013, May 16). Borrowers of color need more options to reduce their student-loan debt. Retrieved from Center for American Progress website: https://www.americanprogress.org/issues/race/news/2013/05/16/63533/borrowers-of-color-need-more-options-to-reduce-their-student-loan-debt/

Kim, D. (2007). The effect of loans on students' degree attainment: differences by student and institutional characteristics. *Harvard Educational Review*, 77(1), 64-100. doi:10.17763/haer.77.1.n14t69l0q8292784

Kim, J., DesJardins, S. L., & McCall, B. P. (2009). Exploring the effects of student expectations about financial aid on postsecondary choice: A focus on income and racial/ethnic differences. *Research in Higher Education*, 50(8), 741-774. doi: 10.1007/s11162-009-9143-x

Knapp, L. G., Kelly-Reid, J. E., & Ginder, S. A. (2012). Postsecondary institutions and price of attendance in 2011-12, degrees and other awards conferred: 2010-11, and 12-month enrollment-2010-11. First look (Preliminary data) (Report No. NCES 2012-289). National Center for Education Statistics. Retrieved from http://eric.ed.gov/?id=ED533488

Ladson-Billings, G. (2006). From the achievement gap to the education debt: Understanding achievement in U.S. schools. *Educational Researcher*, *35*(7), 3-12. doi:10.3102/0013189X035007003

Lynch, M., Engle, J., & Cruz, J. L. (2010). Subprime opportunity: The unfulfilled promise of for-profit colleges and universities [Report]. Retrieved from ERIC database: http://eric.ed.gov/?id =ED513339

Monks, J. (2014). The role of institutional and state aid policies in average student debt. *The ANNALS of the American Academy of Political and Social Science*, 655(1), 123-142. doi:10.1177/0002716214539093

Morales, J., & Baylor, E. (2015, April 28). Borrower voices explain the need for affordable student-loan repayment. Retrieved from Center for American Progress website: https://www.americanprogress.org/issues/higher-education/news/2015/04/28/111929/borrower-voices-explain-the-need-for-affordable-student-loan-repayment/

National Association of Student Financial Aid Administrators. (2015). *National student aid profile: Overview of 2015 federal programs*. Retrieved from http://www.nasfaa.org/uploads/documents/2015_national_profile.pdf

National Center for Education Statistics. (2014). Characteristics of postsecondary students. Retrieved U.S. Department of Education, National Center for Education Statistics website: https://nces.ed.gov/programs/coe/pdf/coe_csb.pdf

Price, D. V. (2004). Educational debt burden among student borrowers: An analysis of the Baccalaureate & Beyond panel, 1997 follow-up. *Research in Higher Education*, 45(7), 701-737. doi:10.1023/B:RIHE.0000044228.54798.4c

Reich, D., & Debot, B. (2015, October 21). House Budget Committee plan cuts Pell Grants deeply, reducing access to higher education [Report]. Retrieved from Center on Budget and Policy Priorities website: http://www.cbpp.org/research/house-budget-committee-plan-cuts-pell-grants-deeply-reducing-access-to-higher-education

Rhode Island Higher Education Assistance Authority. (2015). *College savings*. Retrieved April 11, 2016, from http://www.riheaa.org/cbf/cbfbaby.php

Saunders, K. (2015). Barriers to success: Unmet financial need for low-income students of color in community college. Retrieved from Center for Law and Social Policy website: http://www.clasp.org/resources-and-publications/publication-1/Barriers-to-Success-Unmet-Financial-Need-for-Low-Income-Students-of-Color.pdf

Scott-Clayton, J. (2012). *Information constraints and financial aid policy* (NBER Working Paper No. 17811). Retrieved from National Bureau of Economic Research website: http://www.nber.org/papers/w17811

Shapiro, T., Meschede, T., & Osoro, S. (2013). The roots of the widening racial wealth gap: Explaining the Black-White economic divide (Research and Policy Brief). Retrieved from Brandeis University, Institute on Assets and Social Policy website: http://www.naacpldf.org/files/case_issue/Shapiro%20racialwealthgap brief.pdf

U.S. Department of Education. (n.d.). Three-year official cohort default rates for schools [Database]. Retrieved February 20, 2016, from http://www2.ed.gov/offices/OSFAP/defaultmanagement/cdr.html

Ware, M., Weissman, E., & McDermott, D. (2013, September). Aid like a paycheck: Incremental aid to promote student success (Policy Brief). Retrieved from MDRC website: http://www.mdrc.org/sites/default/files/ALAP%20brief.pdf

Yeung, W. J., & Conley, D. (2008). Black-white achievement gap and family wealth. *Child Development*, 79(2), 303-324. doi:10.1111/j.1467-8624.2007.01127.x

Zhan, M., & Lanesskog, D. (2014). The impact of family assets and debt on college graduation. *Children and Youth Services Review*, 43, 67-74. doi:10.1016/j.childyouth.2014.04.011

Zhan, M., & Sherraden, M. (2011a). Assets and liabilities, educational expectations, and children's college degree attainment. *Children and Youth Services Review*, 33(6), 846-854. doi:10.1016/j.childyouth.2010.12.006

Zhan, M., & Sherraden, M. (2011b). Assets and liabilities, race/ethnicity, and children's college education. *Children and Youth Services Review*, 33(11), 2168-2175. doi:10.1016/j.childyouth..2011.06.024

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