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### Cover Page Footnote

413 Jubilee Hall, 400 South Orange Avenue, South Orange, NJ 07079. Phone (973) 761-9106. I would like to thank Brad Curs and Sara Goldrick-Rab for helpful comments on earlier versions of this paper, Braden Hosch for sharing his expertise on cost of attendance components, and Olga Komissarova for her assistance in preparing the manuscript.

# Do High Cohort Default Rates Affect Student Living Allowances and Debt Burdens? An Empirical Analysis

By: Robert Kelchen<sup>1</sup>

*The federal government holds colleges accountable for their students' cohort default rates (CDRs), with colleges facing the potential loss of all federal financial aid dollars if their CDRs are too high for three consecutive years. Yet a sizable portion of student borrowing is for non-tuition living expenses—funds that the college does not get to keep. In this paper, I examine whether colleges at risk of federal sanctions due to high CDRs respond by reducing living allowances in an effort to limit borrowing and if student debt burdens decrease after a college receives a high default rate. Using data from public two-year and for-profit colleges for students who entered repayment between 1998 and 2011 matched with living allowances and student debt levels from subsequent years, I find no evidence that colleges are engaging in these types of strategic behaviors in an effort to preserve access to federal student financial aid funds.*

**Keywords:** *Cohort default rates, cost of attendance, accountability, student debt*

The approximately \$140 billion in federal financial aid dollars that flow to colleges and universities each year (Baum, Ma, Pender, & Libassi, 2018) represent a significant portion of many colleges' operating budgets. As a result, institutions of higher education have a strong incentive to respond to any threats to this important source of revenue. Under Title IV of the Higher Education Act, colleges can lose access to federal financial aid for failing to meet all of the conditions set forth in the program participation agreements they sign with the U.S. Department of Education. In addition to complying with anti-discrimination provisions and agreements to share data with the U.S. Department of Education, colleges must meet a number of basic quality metrics. Some of these include being accredited by a recognized agency, having sufficient oversight and governance practices, and being financially stable (Federal Student Aid, 2017).

One additional requirement that a number of colleges struggle to satisfy on a regular basis is the cohort default rate (CDR) metric, which subjects colleges to sanctions up to and including the loss of all federal financial aid eligibility (including Pell Grants) if the percentage of borrowers defaulting on their loans within a given period of time exceeds a given threshold. In 2018, seven colleges faced the loss of all federal grant and loan aid for having three-year default rates over 30% for three consecutive years, while an additional five colleges were also subject to the loss of federal loan eligibility for having the most recent cohort default at a rate over 40% (Federal Student Aid, 2018b).

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Although very few colleges actually face the loss of federal financial aid due to high default rates, a substantial proportion of federal student aid funds flows through colleges with default rates close to the threshold for potential sanctions. Between the 2007-08 and 2013-14 academic years, the percentage of federal student loans disbursed to students attending colleges with default rates over 15% rose from 11% to 22%, while the percentage of all federal grants flowing through these colleges rose from 24% to 44% (Jaquette & Hillman, 2015). These rates are even higher at community colleges and for-profit institutions (the focus of this paper), where a majority of both grant and loan dollars go to colleges with default rates over 15%. This places some institutions at risk of additional oversight or potentially even losing funds if economic conditions limit students' ability to repay loans. This also has implications for students, as a majority of students now rely on federal financial aid to help make college more affordable (Baum et al., 2018).

Colleges currently have a limited set of options to help avoid losing access to all federal financial aid dollars. The most extreme option is to opt out of offering federal student loans in an effort to preserve access to Pell Grants and other non-loan types of federal financial aid, and two types of colleges are more likely to do so. The majority of colleges opting out are community colleges, many of which have higher percentages of minority students relative to other community colleges (Cochrane & Szabo-Kubitz, 2016), while a number of small, relatively inexpensive for-profit colleges have opted out of the federal student loan program (Hillman & Jaquette, 2014). This option comes with risks to the college, as research by Wiederspan (2016) has shown that students who attend community colleges that have opted out of the federal loan program have poorer outcomes than similar students at other colleges who can access loans.

Many colleges have chosen to implement a comprehensive default management strategy, which often involves the use of outside firms to follow up with students who may be at risk of default (e.g., Blumenstyk, 2010). This can include encouraging students to enroll in income-driven repayment plans, which now cover nearly 40% of all new federal student loan dollars (author's calculations using Federal Student Aid data). Yet it can also result in colleges pushing students into deferment and forbearance programs until the measured default rate window passes, and there is evidence that a number of for-profit colleges used this practice to manage default rates even as it resulted in students' loan balances rising (United States Senate Health, Education, Labor and Pensions Committee, 2012).

One option that many colleges would like to pursue is to reduce what they consider 'overborrowing' for college—students who take on more debt than may be necessary for their program of study or may be beyond their ability to repay. Reducing debt has become an important policy concern due to the relationship between debt burdens and default rates after controlling for other factors such as whether the student graduated (e.g., Gross, Cekic, Hossler, & Hillman, 2009; Lochner & Monge-Naranjo, 2015), even as some researchers have expressed concerns about some students borrowing too little for college rather than too much (Boatman, Evans, & Soliz, 2017; Goldrick-Rab & Kelchen, 2015; Marx & Turner, 2019). But current federal law does not give colleges the ability to summarily restrict loan offers to what they deem necessary, with the exception of an experimental sites initiative that allowed 28 colleges to reduce annual loan limits for groups of students by \$2,000 per year (Federal Student Aid, 2015). However, the House of Representatives' 2017 version of Higher Education Act reauthorization proposed to allow colleges to set lower borrowing limits at the program level (NASFAA Policy & Federal Relations Staff, 2017).

Federal regulations limit the amount of financial aid that a student can receive to the total cost of attendance (COA), which includes tuition and fees, room and board, books and supplies, and a category of miscellaneous expenses such as transportation, personal care, and child care (Federal Student Aid, 2017). Many students have enough room remaining in their financial aid package after grants and work-study funds to accept the maximum amount of federal student loans, which is between \$5,500 and \$12,500 for undergraduates based on the student's year in school and dependency status. But students attending less-

expensive colleges or attending part-time may not be able to take out the maximum amount of loans without hitting the cost of attendance limit for financial aid, meaning that colleges could potentially reduce student borrowing by lowering the cost of attendance. In the 2011-12 academic year, more than 75% of financially independent students at community colleges and 25% of similar students at for-profit colleges did not have enough room in their aid package to take out the maximum in federal loans (author's calculation using data from the National Postsecondary Student Aid Study).

Colleges have a great deal of leeway in how they determine the cost of attendance, as long as they fall within broad federal guidelines (NASFAA, 2014). If a college is trying to reduce the amount that its students borrow, it can reduce the COA in two ways. The first way is to lower tuition and fees or room and board charges for on-campus students, which reduces the amount of revenue that the college receives. The second way, which does not directly affect a college's budget, is to reduce indirect expenses in the cost of attendance such as estimated living expenses for off-campus students and an estimated transportation allowance for all students.

The flexibility in determining living allowances means that colleges that are concerned about default rates or student borrowing levels in general may seek to set lower living allowances for off-campus students in an effort to limit borrowing. This can take two forms: increasing allowances by a smaller amount than they otherwise would have or reducing the prior year's allowance. In this paper, I explore whether for-profit and community colleges (the institutions that are most likely to have high cohort default rates) are engaging in these types of practices. My research questions are the following:

- (1) Do colleges that are just above the threshold of facing sanctions for high cohort default rates have smaller increases in living allowances for off-campus students than colleges that are just below the threshold?
- (2) Are colleges just above the threshold of facing sanctions more likely to reduce their off-campus living allowances than colleges just below the threshold?
- (3) Do graduates and dropouts of colleges just above the threshold of facing sanctions have different amounts of student debt than graduates and dropouts of colleges just below the threshold?

### **An Overview of Cohort Default Rates**

Cohort default rates represent one of the primary metrics that the U.S. Department of Education uses to hold colleges accountable for their performance (see Kelchen (2018) for a full list of federal accountability policies in higher education). A former student of a college is considered to have defaulted if he or she does not make a payment on their federal loans for a 360-day period (Federal Student Aid, 2018a). CDRs are based on federal subsidized and unsubsidized loans, excluding parent and graduate student PLUS loans and Perkins loans. Colleges were evaluated using a two-year CDR for accountability purposes through the release of the outcomes for the cohort of students entering repayment in Fiscal Year 2011 in 2013 (the period of time for this study). Currently, colleges are evaluated using a three-year CDR, with the time period being expanded in an effort to capture a longer period of post-college outcomes.

Colleges with a CDR over a certain percentage (25% using the two-year CDR and 30% using the three-year CDR) in a given year must adopt a comprehensive default management plan that must be reviewed by the U.S. Department of Education, and a default rate of over 40% in one year results in the potential loss of federal student loans. Three consecutive default rates over 25% (two-year CDR) or 30% (three-year CDR) result in the potential loss of federal grant and loan eligibility for a period of three years. Table 1 below shows trends in two-year cohort default rates by institutional sector and year. Two-year CDRs peaked at 22.4% for the cohort entering repayment in 1990 before steadily falling to under six percent by 1999.

Default rates then remained around five percent in the early and mid-2000s before rising to 10% in 2011, the final cohort for which a two-year rate was calculated.

Table 1

*Two-year cohort default rates by sector and year (pct).*

Year	Overall	2-yr public	4-yr public	4-yr private nonprofit	For-profit
1987	17.6				
1988	17.2				
1989	21.4				
1990	22.4				
1991	17.8				
1992	15.0				
1993	11.6				
1994	10.7	13.8	6.8	6.9	21.1
1995	10.4	14.2	7.1	7.4	19.9
1996	9.6	13.3	7.0	7.0	18.2
1997	8.8	12.7	6.9	6.1	15.4
1998	6.9	10.7	5.7	4.7	11.4
1999	5.6	8.8	4.6	3.8	9.3
2000	5.9	9.3	4.8	4.0	9.4
2001	5.4	8.7	4.4	3.5	9.0
2002	5.2	8.5	4.0	3.2	8.7
2003	4.5	7.6	3.3	2.8	7.3
2004	5.1	8.1	3.5	3.0	8.6
2005	4.6	7.9	3.0	2.4	8.2
2006	5.2	8.5	3.4	2.5	9.7
2007	6.7	9.9	4.3	3.7	11.0
2008	7.0	10.1	4.4	4.0	11.6
2009	8.8	11.9	5.2	4.6	15.0
2010	9.1	13.4	6.0	5.2	12.9
2011	10.0	15.0	6.8	5.2	13.6

SOURCE: Office of Federal Student Aid, U.S. Department of Education.

NOTES:

(1) The cohort entering repayment in 2011 was the last year for which two-year CDRs were calculated.

(2) Public two-year colleges include colleges offering credentials of less than two years in length due to a lack of data availability.

(3) Data by institutional sector are unavailable prior to 1994.

There is substantial variation in the typical default rate by institutional sector and type. For the 2011 cohort, community colleges had the highest two-year CDRs (15%), although only about 37% of community college students take out federal loans (author's calculation using data from the National Postsecondary Student Aid Study). For-profit colleges had slightly lower default rates than community colleges, with a 13.6% CDR for the 2011 cohort; however, for-profit students make up 44% of all loan defaults due to their high borrowing rate (Turner, 2015). Both four-year public and four-year private nonprofit colleges had CDRs well below 10%, reflecting the greater level of financial resources possessed by their student bodies and the larger average returns to attending a four-year college versus a two-year college or a for-profit institution (e.g., Hout, 2012).

Prior research has shown that both student-level factors such as race, gender, and family income and institutional-level factors such as level and sector are associated with default rates and eventual student loan repayment rates (Gross et al., 2009; Hillman, 2014; Ishitani & McKittrick, 2016; Kelchen & Li, 2017; Webber & Rogers, 2014). Of particular relevance to this study is research by Hillman (2015), who examined trial (pre-accountability) three-year CDRs from the cohort of students leaving college in 2008. He showed that for-profit colleges, minority-serving institutions, and colleges serving large percentages of black and low-income students are more likely to have CDRs above the 30% cutoff that would subject institutions to additional federal oversight or sanctions.

There is also some evidence that students respond to the possibility that a college might lose its eligibility for federal student financial aid due to high CDRs. Darolia (2013) analyzed for-profit colleges close to the 25% two-year default rate cutoff for facing sanctions using data from 1990 to 2000. He found that colleges just above the threshold have fall enrollment levels about 17% to 18% lower than colleges just below the sanctioning threshold, with the enrollment decline driven by fewer new students rather than an increase in the number of students transferring away from the college.

## Data, Sample, and Methods

To examine whether there is a relationship between colleges facing pressures to reduce federal cohort default rates and any reductions of cost of attendance components or overall student debt burdens, I used a 14-year panel dataset consisting of students who entered repayment in Fiscal Years 1998 through 2011. In the following section, I detail the data, sample selection procedures, and analytic methods.

### Data

I used two-year cohort default rates for the cohorts of students entering repayment in Fiscal Year 1998 through Fiscal Year 2011, the final cohort for which two-year CDRs were calculated. I did not use data from newer cohorts on three-year CDRs, where the threshold moved from 25% to 30%. Although draft three-year CDRs were calculated for the 2009-2011 cohorts, they were not used for accountability purposes and thus these cohorts can be used in my analyses. These data, from the U.S. Department of Education's Office of Federal Student Aid and compiled through the College Scorecard, reflect the percentage of borrowers who defaulted within two fiscal years after entering repayment. During this period, a 25% default rate in any given year required colleges to develop a default management plan and submit it to the U.S. Department of Education for review, while three consecutive CDRs above 25% resulted in the potential loss of federal financial aid dollars. While relatively few colleges lost access to federal funds, a larger number of colleges crossed the 25% threshold in at least one year. Colleges with a CDR over 40% in any year could lose access to federal student loan dollars, but there were not enough institutions with these default rates during the length of the panel to conduct any analyses.

The default rate data were matched with data on cost of attendance (COA) components from IPEDS from the academic year following the initial release of CDRs to colleges, meaning that data from the 2000-01 through 2013-14 academic years were used to match up with the FY 1998-FY 2011 repayment cohorts. For example, I used the 2011-12 COA components to match up with the cohort of students entering repayment in FY2009 and tracked through the end of FY2010 (September 30, 2010), as colleges received the draft default rates in early 2011 and had several months to adjust their pricing before the start of the following academic year. As robustness checks, I also used two-year and three-year lags to account for the possibility of delayed responses (using the 2012-13 and 2013-14 COA components for the 2009 repayment cohort).

The COA components of interest included tuition and fees, room and board (for students living away from home only, as colleges do not have to report a room and board allowance to the federal government for students living at home with their family), and a miscellaneous expense category including transportation, laundry, and entertainment. I focused on changes in the posted allowances for full-time students living off-campus with their family (living ‘at home’) and those living off-campus without their family, excluding COAs for students living on-campus because few for-profit and community colleges have on-campus housing. I excluded the books and supplies category with the COA because colleges appear to adjust the allowance infrequently and because colleges may differ in what percentage of revenue they receive from the textbook allowance.

I used two different measures to examine whether colleges changed cost of attendance components in response to default rate pressures. First, I used the logged value of each of the COA components, adjusted for inflation using the Consumer Price Index. This explores whether colleges with a default rate subject to sanctions increased their allowances at lower rates than colleges not subject to sanctions. Second, I considered an indicator of whether a college decreased the living allowance (in nominal dollars) by at least \$1 from the previous. The action of cutting living allowances in a period in which the cost of living was generally increasing is a likely indicator of a college trying to reduce student budgets. As a robustness check, I also used a \$100 decline as the threshold; the results were generally similar and are not presented here for the sake of brevity.

Colleges reported COA data in two different ways. Nearly all bachelor’s degree-granting for-profit colleges and community colleges granting associate degrees reported COA components for the length of an academic year—typically nine months. However, the majority of for-profit colleges and vocationally-oriented public community and technical colleges reported COA components for the length of the largest program offered. The majority of the programs lasted between 9 and 18 months, and I excluded any colleges with programs shorter than six months or larger than 48 months due to likely data reporting issues. For the purposes of consistency, I also excluded data from colleges if the largest program (as evidenced by its two-digit CIP code) changed from the code reported in 2013-14 before normalizing all program reporter data to a nine-month length to compare alongside academic year reporters. Prior to 2006, the length of a program was only measured in hours, while it was measured in both hours and years between 2006 and 2012. I estimated the length in months in prior years by taking the ratio of hours per month in 2006 and applying that to earlier data if the length of the program (in hours) was within 20% of the 2006 length.

I also used data on student debt from the College Scorecard to explore whether colleges with high default rates were successful in reducing students’ debt burdens. The College Scorecard dataset includes two measures of interest for student debt: median debt amounts for graduates who borrowed and median debt amounts for dropouts who borrowed. I use debt from the year following the cost of attendance metrics (so pairing 2012-13 debt data with cost of attendance data from 2011-12), as most of these colleges offer programs of just one or two years in length. Debt amounts were also adjusted for inflation using the Consumer Price Index.



## Sample

Beginning with all colleges that participated in the federal Title IV student loan programs, received a cohort default rate, and reported a cost of attendance for off-campus students at least once during the period of my study (default rates for the 1998-2011 cohorts of students matched with cost of attendance and student debt components from 2000-01 through 2013-14), I excluded all four-year public institutions and all private nonprofit colleges because so few of these institutions ever reached the 25% threshold for potential sanctions. Just one of the 7,756 observations for four-year public colleges and 82 of 16,568 observations for private nonprofits had CDRs above 25%. High default rates were far more common at public 2-year and certificate-granting colleges as well as in the for-profit sector, so these two groups of institutions were the focus of this analysis.

My analytic sample consisted of 4,810 colleges and universities, including 1,349 public institutions that primarily granted associate degrees or certificates and 3,471 for-profit colleges. The summary statistics for those colleges active in the 2013-14 academic year (n=4,377) can be found in Table 2.

Table 2

*Summary statistics of the dataset (2013-14, unless noted).*

Characteristic	All colleges		For-profits		Publics	
	Mean	(SE)	Mean	(SE)	Mean	(SE)
Level of institution (pct)						
Four-year	13.3	(3.1)	18.5	(4.0)	--	--
Two-year	46.5	(1.9)	32.7	(1.9)	81.0	(1.2)
Certificate-granting	40.2	(2.1)	48.7	(3.2)	19.0	(1.2)
Total FTE enrollment (2013-14)	1,452	(73)	527	(46)	3,649	(143)
Cohort default rate (2011 cohort, pct)	13.0	(0.2)	12.7	(0.2)	13.7	(0.2)
CDR for 2011 cohort over 25% (pct)	3.6	(0.4)	3.8	(0.5)	3.2	(0.6)
Ever had CDR over 25% (pct)	10.7	(0.8)	12.0	(1.1)	7.4	(0.7)
Cost of attendance components (9-month basis, 2014\$)						
Tuition and fees	10,655	(292)	13,398	(262)	3,894	(75)
Declined from previous year (pct)	13.4	(2.0)	16.8	(2.7)	5.1	(0.6)
Room/board (living w/o family)	8,129	(125)	8,249	(171)	7,836	(79)
Declined from previous year (pct)	11.5	(1.0)	11.7	(1.4)	11.0	(0.9)
Other expenses (living w/o family)	4,244	(97)	4,405	(130)	3,845	(52)
Declined from previous year (pct)	19.6	(2.0)	21.3	(2.7)	15.3	(1.1)
Other expenses (living w/ family)	3,995	(96)	4,079	(129)	3,789	(52)
Declined from previous year (pct)	21.2	(2.0)	22.7	(2.7)	17.4	(1.2)
Student debt, 2014-15 (2014 \$)						
Graduates	13,476	(583)	14,640	(714)	10,080	(143)
Dropouts	5,741	(174)	5,915	(227)	5,259	(58)
Number of unique OPEIDs	3,177		1,923		1,214	
Number of unique UnitIDs	4,377		3,127		1,250	

SOURCES: Federal Student Aid/College Scorecard (cohort default rates and student debt), Integrated Postsecondary Education Data System (all others).

NOTES:

(1) Colleges reporting COA components for the length of their largest program were scaled to a 9-month basis to compare to colleges reporting for a traditional academic year.

(2) Declines from the previous year are measured in nominal dollars.

(3) Standard errors are clustered at the OPEID level to reflect how some OPEIDs include multiple UnitIDs.

The average default rate in the cohort of students entering repayment in Fiscal Year 2011 was 13.0%, with for-profit colleges (12.7%) and public colleges (13.7%) having broadly similar CDRs. Just 3.8% of for-profit colleges and 3.2% of public colleges had default rates over the sanctionable level of 25% that year, while 12.0% of for-profit colleges and 7.4% of public colleges were over 25% at least once during the panel. This highlights that only a subset of colleges nationwide are likely affected by the threat of facing federal sanctions for high default rates.

Although tuition and fees were more than three times higher at for-profit colleges than public colleges (\$13,398 vs. \$3,894), the other cost of attendance components were broadly similar across the two types of colleges in the sample. Room and board allowances were \$8,129 for nine months at the average college, while the miscellaneous expense category for students living away from their families was \$4,244 compared to \$3,995 for students living with their families. Between 12% and 21% of colleges reduced their living allowances in nominal dollars between the 2012-13 and 2013-14 academic years, with slightly higher rates of decreases among for-profit colleges compared to public colleges. Finally, student debt burdens among those who left college in the 2014-15 academic year were \$13,476 for graduates who borrowed and \$5,741 for dropouts who borrowed; students who borrowed at for-profit colleges had more student debt than students who borrowed to attend public colleges.

## Methods

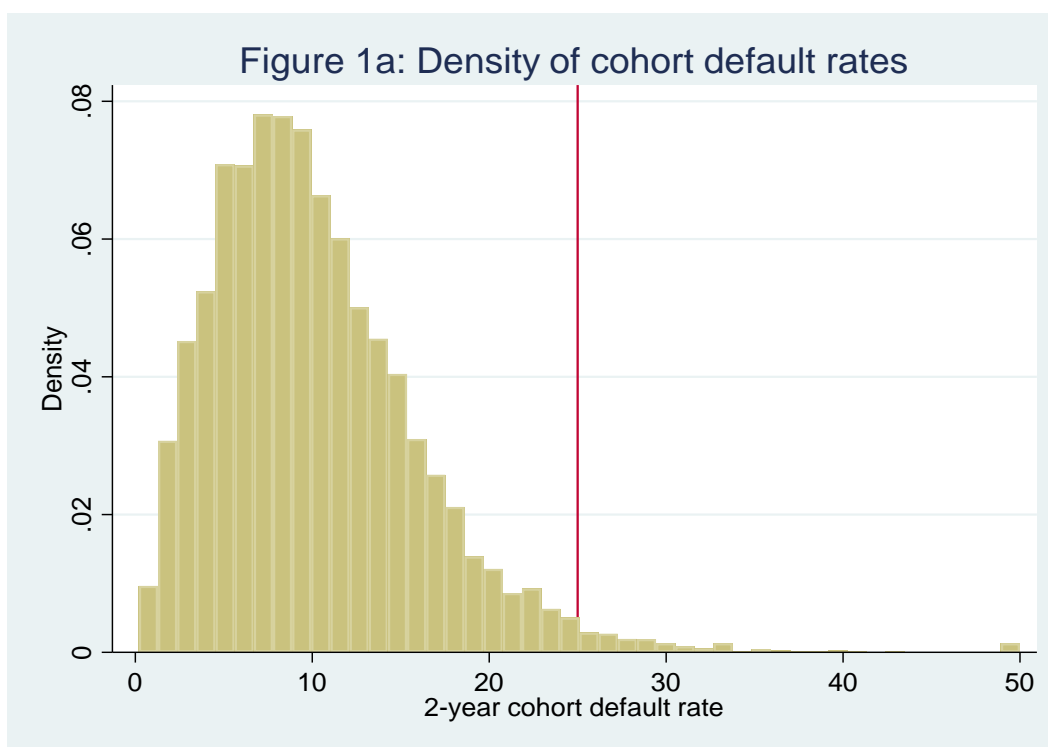
I used panel regression discontinuity techniques (e.g., Lee & Lemieux, 2010) to test for whether for-profit and community colleges with two-year CDRs just above the 25% cutoff for facing federal sanctions reduced cost of attendance components in the year following the release of default rate data for the most recent cohort compared to for-profit and community colleges just below the cutoff. Regression discontinuity techniques compare otherwise similar colleges that fell on either side of a threshold (here, the 25% CDR cutoff), while panel regressions are used to look at multiple years of data.

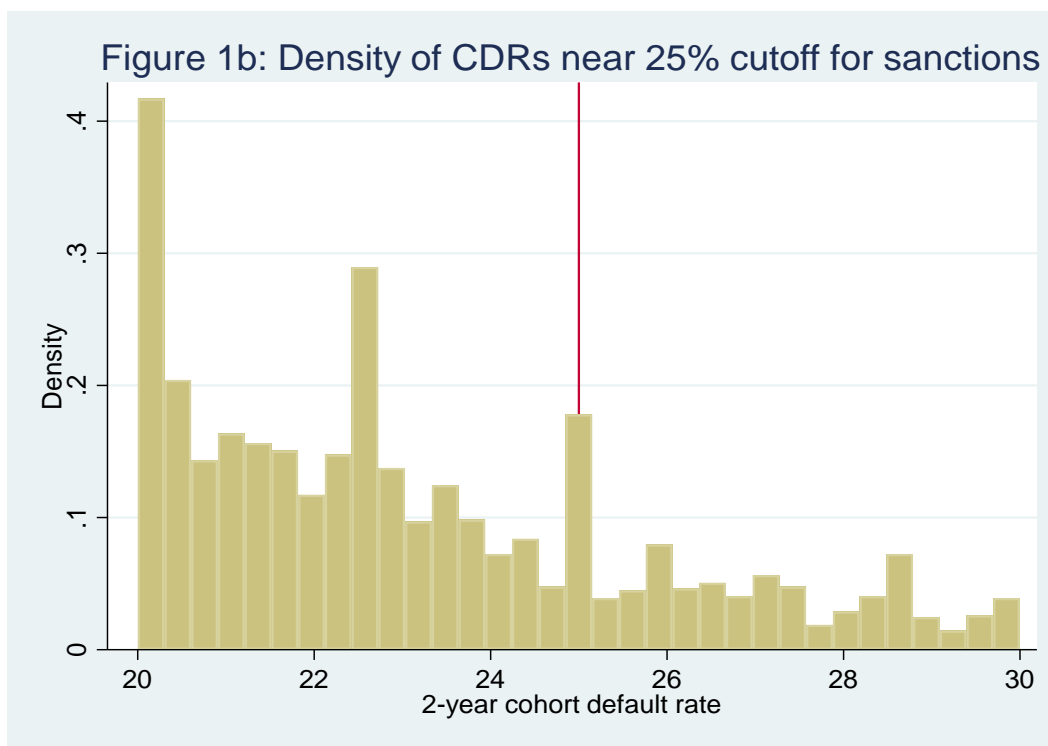
Colleges received the draft cohort default rate between February and April of the year following the end of the two-year repayment period that was used during the period of this study. As this is before most colleges would set tuition for the following academic year, I assumed that colleges facing the potential of either heightened oversight or the loss of federal financial aid may start reacting quickly to their draft default rate. However, I allowed for the possibility of delayed responses by also examining the following two academic years.

The key threat to the validity of this regression discontinuity approach occurs if colleges are able to manipulate their CDR to fall just below the 25.0% threshold for receiving possible sanctions (e.g., McCrary, 2008). Because colleges get a copy of their draft cohort default rate and then have the potential to challenge

any potential inaccuracies before the final default rate is released to the public the following fall, it is possible that colleges that were just over the 25% threshold to face sanctions under the draft default rates were able to successfully lower their default rates to below 25% after appealing to the Department of Education. There is no published evidence that colleges systemically were able to lower their default rates during the length of the panel, as the first large-scale change to draft default rates before their release to the public did not occur until 2014—after the move to three-year CDRs as the official accountability metric and after the period of analysis in this paper (Field, 2014).

I then graphically explored whether colleges appeared to be able to manipulate their default rates to be just under the 25% threshold, with Figure 1a showing the broader distribution of CDRs and Figure 1b zoomed in around the 25% threshold. These histograms show a jump in the number of observations at a default rate of exactly 25.0%, which results in a college receiving sanctions. There were 164 observations with a default rate between 24.0% and 24.9%, 90 with a default rate of exactly 25.0%, and 89 with a default rate between 25.1% and 25.9%. Put differently, there are more observations at or just above the 25% cutoff to receive sanctions (179) than just below it (164)—suggesting that colleges are unable to effectively manipulate their default rates to avoid sanctions.





Note: The red line in both Figures 1a and 1b represents the 25% CDR threshold.

My analytic strategy consisted of panel regressions with the key independent variable being whether a college was over the 25% CDR threshold for potentially facing federal sanctions. There were two main sets of outcomes: the inflation-adjusted cost of attendance components and student debt amounts as well as a binary indicator for whether a college reduced its cost of attendance components in nominal dollars. I ran separate models allowing one-year, two-year, and three-year lags between when default rates were released and when prices were measured (with debt burdens receiving an additional one-year lag). My models also included institutional-level and year-level fixed effects as well as a set of third-order polynomials between the default rate and the 25% threshold for sanctions (following Darolia (2013)). Finally, standard errors were clustered at the Federal Student Aid OPEID level instead of the IPEDS UnitID level to reflect how default rates are reported to the federal government. This primarily affected the large for-profit college chains in my sample.

The primary models (with a one-year lag) were run separately for for-profit and public colleges to see whether their reactions to potentially facing sanctions differed from each other. Because for-profit colleges do not have the typical shared governance structure of nonprofit colleges (both public and private) that results in greater deliberation in the decision-making process, for-profits might be expected to respond quicker to any external pressures to cut costs (e.g., Deming, Goldin, & Katz, 2012). However, this might not be true if changes in COA components can be approved in an expedited process at nonprofit colleges.

As an additional test for whether regression discontinuity models are appropriate, I tested for whether there was a discontinuity at the 25% default rate threshold using outcome measures from one year following the cohort of students entering repayment. For example, I used 2011-12 cost of attendance components for students who entered repayment in FY 2010, as draft default rates would not have been released to colleges until early 2012 and released to the public in late 2012. The results (Table 3) showed no statistically significant differences at  $p < .05$ , suggesting that colleges are generally not manipulating living expenses prior to receiving a draft default rate that indicates potential sanctions.

**Table 3: Tests for continuity of pre-treatment outcome metrics.**

Test: Coefficient on 25% CDR indicator

Measure (from the year before default rates were released)	All colleges		For-profit colleges		Public colleges	
	Coeff.	(SE)	Coeff.	(SE)	Coeff.	(SE)
<b>Cost of attendance components (ln)</b>						
Tuition and fees	-0.037	(0.023)	-0.035	(0.031)	-0.045	(0.032)
Room and board (w/o family)	-0.001	(0.040)	0.004	(0.060)	-0.051	(0.046)
Other expenses (w/o family)	0.037	(0.062)	0.107	(0.083)	-0.113	(0.087)
Other expenses (w/family)	0.091	(0.090)	0.181	(0.112)	-0.089	(0.069)
<b>Annual drop in components (pct)</b>						
Tuition and fees	2.8	(5.1)	-1.2	(6.3)	15.4	(9.8)
Room and board (w/o family)	4.6	(5.5)	7.1	(7.3)	0.1	(8.0)
Other expenses (w/o family)	12.2*	(7.0)	14.0	(9.6)	7.9	(8.8)
Other expenses (w/family)	-8.9	(17.6)	-12.1	(23.2)	-1.1	(8.7)
<b>Student debt levels (ln)</b>						
Graduates	-0.022	(0.034)	0.002	(0.043)	-0.006	(0.059)
Dropouts	0.039	(0.033)	0.056	(0.048)	-0.038	(0.052)
Max number of observations	33,391		21,486		11,905	
Max unique OPEIDs	2,735		1,717		1,019	
Max unique UnitIDs	4,121		3,042		1,080	

SOURCES: Federal Student Aid and College Scorecard (default rates and debt burdens), IPEDS (all others).

NOTES:

- (1) \* represents  $p < .10$ , \*\* represents  $p < .05$ , and \*\*\* represents  $p < .01$ .
- (2) For example, the cohort of students entering repayment in FY 2011 was matched with 2012-13 tuition and fees. The default rate data window closed in 2012 and draft default rates were released to colleges in spring 2013, making this a pre-treatment observation.
- (3) Regression models also control for first, second, and third-order polynomials of the distance from the 25% default rate threshold and interactions between the distance and a 25% CDR indicator variable as well as including year and institutional fixed effects.
- (4) Standard errors are clustered at the OPEID level to reflect how some colleges with different UnitIDs share the same OPEID (and the same default rate).
- (5) The levels of COA components and student debt levels are adjusted for inflation using the CPI, while the indicator for a drop between two years is in nominal dollars to reflect the explicit decision to lower allowances.

## Limitations

The cohort default rate measure has been broadly criticized for its limitations, such as the ability of colleges to manipulate default rates by pushing students into deferment or forbearance statuses that result in rising balances but fewer defaults within the loan window (Miller, 2015) and the modest correlation between reported cohort default rates and the percentage of students repaying at least some principal (Kelchen & Li, 2017). Although these limitations may disproportionately affect colleges close to the 25% default rate threshold, they may affect colleges with lower default rates as colleges face incentives from their constituents and the federal government to keep default rates as low as possible. For example, colleges that have default rates less than 15% in each of the three most recent cohorts can disburse loan dollars to students in one payment at the beginning of the semester instead of having to wait to disburse half of the funds until the middle of the academic term (Federal Student Aid, 2018a). Although I did not analyze how colleges responded to the 15% default rate threshold in this paper, it deserves future study.

One key limitation of my dataset is that colleges with default rates at or near the threshold for facing sanctions may choose to exit the federal student loan program in order to preserve access to Pell Grant funds. Colleges that decided to drop out of federal student loan programs as a result of a high CDR prior to 2000 are not in the dataset, and colleges that dropped out during the length of my panel are only observed for a portion of the period. As most of the colleges that opt out of offering loans are community colleges and small for-profit colleges with low borrowing rates (Hillman & Jaquette, 2014), this is particularly salient in my analysis. It appears that approximately five colleges leave the federal student loan program each year while still awarding Pell Grants, although some eventually rejoin the program in later years. Future research should examine whether there is a relationship between leaving the federal student loan program and living allowances.

I am also unable to observe colleges' draft cohort default rates, which are what institutions likely use to set tuition prices and living allowances for the following year. However, as I detailed earlier, it does not appear that colleges were generally able to get their default rates revised to fall below the 25% threshold for facing sanctions. Finally, some colleges in the dataset with high default rates may have been able to avoid sanctions due to having a small number of borrowers, although this information is never publicized by the Department of Education. Because averages across multiple cohorts are used in this situation, the exact number of borrowers needed to fall under this threshold may not be known until student borrowing decisions have been made for a given year.

## Results

I first examined whether colleges appeared to respond to receiving a CDR above 25% for their most recent cohort of students by changing their living allowances in a different way than colleges that had CDRs below this threshold for potential sanctions. As shown in the left set of columns in Table 4, there is no evidence that colleges with sanctionable default rates reduced their rate of change in living allowances compared to other colleges; moreover, they were also no more likely to cut their living allowances relative to other colleges. Student debt burdens were also not significantly affected, suggesting that colleges did not (or were not) able to respond by reducing student borrowing.

Table 4

*Regression discontinuity estimates of all colleges' responses to sanctionable default rate (at least 25% in the given year).*

Outcome measure (1-year lag)	All colleges		For-profit colleges		Public colleges	
	Coeff.	(SE)	Coeff.	(SE)	Coeff.	(SE)
<b>Cost of attendance components (ln)</b>						
Tuition and fees	-0.020	(0.021)	-0.024	(0.024)	-0.026	(0.036)
Room and board (w/o family)	0.025	(0.041)	0.012	(0.054)	0.079	(0.069)
Other expenses (w/o family)	0.058	(0.056)	0.063	(0.070)	0.123**	(0.061)
Other expenses (w/family)	0.097	(0.068)	0.103	(0.079)	0.171**	(0.069)
<b>Annual drop in components (pct)</b>						
Tuition and fees	0.1	(4.5)	0.9	(5.6)	2.3	(6.3)
Room and board (w/o family)	3.2	(7.0)	8.2	(8.8)	-10.6	(8.1)
Other expenses (w/o family)	5.2	(7.3)	10.5	(9.4)	-6.2	(7.6)
Other expenses (w/family)	6.9	(8.9)	11.7	(11.4)	-2.3	(8.2)
<b>Student debt levels (ln)</b>						
Graduates	0.022	(0.038)	0.007	(0.044)	-0.008	(0.054)
Dropouts	0.020	(0.026)	0.030	(0.034)	0.045	(0.040)
Max number of observations	35,391		21,486		11,905	
Max unique OPEIDs	2,736		1,717		1,019	
Max unique UnitIDs	4,122		3,042		1,080	

SOURCES: Federal Student Aid and College Scorecard (default rates and debt burdens), IPEDS (all others).

NOTES:

- (1) \* represents  $p < .10$ , \*\* represents  $p < .05$ , and \*\*\* represents  $p < .01$ .
- (2) Regression models also control for first, second, and third-order polynomials of the distance from the 25% default rate threshold and interactions between the distance and a 25% CDR indicator variable as well as including year and institutional fixed effects.
- (3) Standard errors are clustered at the OPEID level to reflect how some colleges with different UnitIDs share the same OPEIDs (and the same default rate).
- (4) The levels of COA components and student debt levels are adjusted for inflation using the CPI, while the indicator for a drop between two years is in nominal dollars to reflect the explicit decision to lower allowances.

The rest of Table 4 examines these patterns separately for for-profit (center) and public two-year or certificate-granting (right) colleges. Again, there is little evidence that colleges are strategically responding to high default rates by trying to change student borrowing. There are no statistically significant findings among for-profit colleges, while the only significant results among public colleges are that receiving a high CDR may be associated with larger living allowances in the miscellaneous expense categories for off-campus students ( $p < .05$ ). Again, there were no differences in debt burdens of graduates or dropouts based on whether their college crossed the 25% CDR threshold.

Finally, I explored the possibility that colleges may take more time than one year to react and change their living allowances. Table 5 repeats the overall results when using a one-year lag and also includes results under two-year and three-year lags. In general, the results are again statistically insignificant, although there are a few components using a two-year lag that are marginally significant at  $p < .10$  in both positive and negative directions. There are few clear trends between the one-year and three-year lags, although more

coefficients change from positive and insignificant to negative and insignificant when a three-year lag is used. Altogether, this suggests little evidence that colleges are manipulating their living allowances in an effort to limit student borrowing (and future defaults); these null findings also hold across a range of different specifications that are not shown here for the sake of brevity.

Table 5

*Sensitivity checks of all colleges' responses to sanctionable default rates (at least 25% in the given year) using different lag periods.*

Outcome measure	1-year lag		2-year lag		3-year lag	
	Coeff.	(SE)	Coeff.	(SE)	Coeff.	(SE)
<b>Cost of attendance components (ln)</b>						
Tuition and fees	-0.020	(0.021)	0.009	(0.019)	0.027	(0.022)
Room and board (w/o family)	0.025	(0.041)	-0.016	(0.036)	-0.011	(0.035)
Other expenses (w/o family)	0.058	(0.056)	-0.053	(0.052)	-0.030	(0.054)
Other expenses (w/family)	0.097	(0.068)	-0.022	(0.060)	0.020	(0.064)
<b>Annual drop in components (pct)</b>						
Tuition and fees	0.1	(4.5)	-6.7*	(3.8)	6.9	(5.1)
Room and board (w/o family)	3.2	(7.0)	7.9	(5.7)	-1.1	(5.1)
Other expenses (w/o family)	5.2	(7.3)	11.1*	(5.8)	4.4	(5.2)
Other expenses (w/family)	6.9	(8.9)	11.5*	(6.4)	6.4	(5.3)
<b>Student debt levels (ln)</b>						
Graduates	0.022	(0.038)	-0.015	(0.032)	-0.018	(0.032)
Dropouts	0.020	(0.026)	-0.019	(0.026)	-0.043	(0.059)
Max number of observations	35,391		35,366		32,601	
Max unique OPEIDs	2,736		2,853		2,655	
Max unique UnitIDs	4,122		4,153		3,888	

SOURCES: Federal Student Aid and College Scorecard (default rates and debt burdens), IPEDS (all others).

NOTES:

- (1) \* represents  $p < .10$ , \*\* represents  $p < .05$ , and \*\*\* represents  $p < .01$ .
- (2) Regression models also control for first, second, and third-order polynomials of the distance from the 25% default rate threshold and interactions between the distance and a 25% CDR indicator variable as well as including year and institutional fixed effects.
- (3) Standard errors are clustered at the OPEID level to reflect how some colleges with different UnitIDs share the same OPEIDs (and the same default rate).
- (4) The levels of COA components and student debt levels are adjusted for inflation using the CPI, while the indicator for a drop between two years is in nominal dollars to reflect the explicit decision to lower allowances.

### Conclusion and Implications

As the potential loss of federal financial aid dollars due to high cohort default rates has the potential to jeopardize the existence of many colleges, institutions have an incentive to take steps to reduce CDRs. In this paper, I explored one potential way that colleges could potentially reduce student borrowing (and thus future default rates)—by reducing non-tuition portions of the cost of attendance that students can use to help pay for living expenses. I find no evidence that either public or for-profit colleges strategically reduced their living allowances after receiving a high default rate and that student debt burdens were unaffected.



This null finding could be explained by a combination of factors. The first is that colleges carefully set living allowances to meet the needs of their students instead of the institution as a whole. This is plausible, although the wide variation in living allowances within the same geographic area (Kelchen et al., 2017) suggests that colleges may not feel it is appropriate to cut living allowances following a high default rate rather than because their allowances are perfectly aligned with student needs.

Colleges (particularly public institutions) may not feel like the U.S. Department of Education will follow through and end their access to Title IV financial aid funds after three years of high default rates. The Congressional Research Service reported in 2015 that only 11 colleges had lost full Title IV access due to high default rates (United States Senate Health, Education, Labor and Pensions Committee, 2015), although this small number is partially due to colleges opting out of the federal student loan program to protect Pell Grant access. Colleges may also be able to avoid sanctions through default management practices (e.g., Blumenstyk, 2010), while community colleges can sometimes be exempted on account of the small percentage of students at their institutions that borrow (Federal Student Aid, 2018a). Finally, the Department of Education has previously changed default rate calculations just before releasing the data to the public in a way that allowed some colleges to avoid facing sanctions (Stratford, 2014); colleges may expect this to happen again if they face the loss of aid.

Due to the growth of income-driven student loan repayment programs, colleges are facing a decreasing risk of federal sanctions due to high cohort default rates. With the introduction of the student loan repayment metric in the College Scorecard, policymakers have a new metric that they can potentially use to examine whether a college's former students are able to handle their loan burdens. Loan repayment rates tend to be lower for community colleges and for-profit colleges than other sectors of higher education due to student characteristics and the generally lower returns to these credentials (Kelchen & Li, 2017), so colleges in these two sectors need to be acutely aware of any legislation (such as risk sharing proposals that require colleges to repay a portion of loans that their former students do not repay) that may hold colleges accountable for loan repayment rates in addition to or instead of default rates.

Colleges often raise concerns about being held accountable for students borrowing for the non-tuition portions of the cost of attendance. Although colleges do not appear to be manipulating the components in an effort to reduce their default rates, institutions do face incentives to limit the rate of increase in these measures for other reasons. For example, as the net price of attendance becomes an increasingly visible data element that is used in certain accountability systems, college administrators (who are influential in setting tuition prices) may pressure financial aid officers to reconsider increases in living allowances due to the implications on net price.

In order for colleges to be on a more similar footing with respect to living allowances, the federal government should consider adjusting for local living costs and economic conditions when holding colleges accountable for student charges, debt burdens, and repayment rates. For example, colleges that are in high cost of living areas with struggling local economies could have lower repayment rate expectations from the federal government than institutions that are in less-expensive, thriving areas. This would place more of a focus on tuition expenses or other types of revenue that colleges directly receive instead of judging colleges on the amount of loan dollars that pass through to students. This is especially important given the share of students who struggle with basic needs security in college above and beyond paying for tuition (Goldrick-Rab, Baker-Smith, Coca, Looker, & Williams, 2019).

Finally, colleges that are concerned about high cohort default rates would be wise to focus on student success initiatives that are designed to increase the likelihood of completion. Students who do not complete college are far more likely to default on their loans than students who graduate (Gross et al., 2009; Kelchen & Li, 2017), and research suggests that additional spending on improving institutional capacity is more

effective in increasing completion rates than trying to reduce the overall price tag (Deming & Walters, 2017). Colleges may wish to guard against reducing educational expenditures because many students are likely better off taking on more debt to complete a high-quality education than to borrow less and risk dropping out.

### **Nexus: Implications for Practice**

- Colleges face pressure to reduce their cohort default rates, but their options to limit student borrowing are currently limited as colleges generally cannot stop students from borrowing up to the federal loan limits.
- One potential way colleges could try to reduce borrowing is to reduce the allowance for non-tuition expenses in the total cost of attendance. Yet I find that colleges with high default rates do not engage in this type of strategic behavior, nor do they see lower student debt burdens among borrowers in subsequent years than colleges with slightly lower default rates.
- Financial aid professionals should be aware of pressures from the federal government, their accrediting agency, and institutional leaders to reduce cohort default rates and increase student loan repayment rates in the future. Focusing on college completion efforts may be the most effective method to improve student outcomes.
- Financial aid professionals should consider pushing for future accountability metrics to take non-tuition living expenses into account, particularly regarding variations in living costs in different parts of the country.

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