SCRATCHING BENEATH THE SURFACE

An Analysis of Cohort Default Rates

By Daniel L. Bennett, The Center for College Affordability & Productivity

Earlier this year, the Department of Education released its student loan default rate data. At face value, the aggregated default rate data is ugly for all of higher education, as nearly 14 percent of former students entering repayment defaulted within three years. As with previous releases, the data seemed to paint an even uglier picture of the for-profit sector. A chart published by *The Chronicle of Higher Education* indicated that the three-year trial default rate was 25 percent in the proprietary sector, meaning that one in four former students of proprietary institutions defaulted on their student loan within three years of entering repayment. In comparison, the aggregate three-year rates were 10.8 and 7.6 percent in the public and nonprofit sectors, respectively.

Many of the proprietary sector's adversaries took the release of the data as an opportunity to pounce on the sector. Senator Tom Harkin, D–Iowa, who has organized a series of controversial hearings on for-profit education over the past year, was quoted as saying, "[It is] clear from these default rates that students who attend for-profit colleges are dramatically worse off after they leave than students at private or public nonprofit schools." When similar data were released in September 2010, Secretary of Education Arne Duncan seized upon the moment to promote greater regulation of the sector, suggesting

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that "While for-profit schools have profited and prospered thanks to federal dollars, some of their students have not … Far too many for-profit schools are saddling students with debt they cannot afford in exchange for degrees and certificates they cannot use. This is a disservice to students and taxpayers."

Although the default rate data is admittedly less than ideal, it should not be taken at face value for purposes of making public policy. Any meaningful analysis needs to scratch beneath the surface by looking at a variety of variables that likely impact the rate at which students default on their loans. Simply analyzing default rates using the ownership control of an institution fails to account for factors that are crucial to understanding variations in default rates, such as characteristics of the student body, educational offerings and institutional performance measures. Preliminary results from a working paper for The Center for College Affordability & Productivity that I'm writing does just that, combining economic theory and regression analysis to develop models that can be used to better understand what drives the variation in loan default rates among institutions.

Table 1 provides the results of one such model that was developed using a sample of 2,275 schools and utilizes a variety of control variables to estimate the effect that each variable has on three-year default rates. The first set of controls suggests that default rates vary by institutional ownership status (public, for-profit or non-profit). All else equal, default rates of for-profit institutions were found to be greater than non-profit and public institutions. The model estimates the default rate of a for-profit institution to be 5.67 and 9 percent higher than that of non-profit and public institutions, respectively. The degree of government subsidization of an institution, however, had a positive effect on its default rate, all else equal. Every 10 percent of an institution's revenue coming from government subsidies (excluding financial aid) is associated with 0.25 percent increase in its default rate, offsetting some of the difference between for-profit and subsidized institutions. This is not the end of the analysis, however, as all else is not equal. There are a number of other factors which are paramount in affecting an institution's default rate.

Table 1: Regression on 2008-09 3-Year Trial Default Rates

Independent Variables	Coefficient	Standard Error	t-value
Constant***	11.340088	1.143516	9.917
For-Profit***	5.671580	0.565445	10.030
Public*	-1.338982	0.647034	-2.069
Subsidy%*	0.025496	0.011010	2.316
HBCU***	3.208249	0.948206	3.383
Non Degree***	8.966609	0.658440	13.618
Associate***	7.223312	0.483139	14.951
Bachelor***	3.971997	0.546128	7.273
Master**	1.227639	0.427696	2.870
Hispanic %***	0.034547	0.008786	3.932
African American %***	0.058874	0.008464	6.956
Pell %***	0.125309	0.010979	11.414
Male %***	0.084493	0.009430	8.960
Borrower %***	-0.038216	0.008822	-4.332
Instruction Exp %***	-0.045856	0.009016	-5.086
Graduation Rate***	-0.041026	0.008560	-4.793
Retention (FT)***	-0.075595	0.011499	-6.574
Retention (PT)***	-0.015587	0.006544	-2.382

***significant at .001 level, **significant at .01, *significant at .05 level, Residual standard error: 5.817 on 2257 degrees of freedom, Multiple R-squared: 0.5697, Adjusted R-squared: 0.5665, F-statistic: 175.8 on 17 and 2257 DF, p-value: < 2.2e-16

Degree level offerings

One set of factors is the educational offerings of an institution. Using the highest degree level of a school, it was found that the higher degree level offered by an institution, the lower its default rate. Non-degree granting institutions were found to have default rates which were 8.97 percent greater than doctoral degree-granting schools, 7.74 percent greater than Master's degree-granting schools, and 4.99 and 1.74 percent higher than Bachelor's and Associate degree-granting schools, respectively. This suggests that the level of educational offering significantly affects an institution's default rate. Therefore, aggregating the default rates of all for-profit or public institutions, irrespective of degree level, into a single category does not lend itself to a meaningful comparison.

Student body characteristics

Another set of vital factors in explaining the variation in an institution's default rate are the characteristics of its student body. The gender and racial composition of a school's undergraduate student body was found to be a significant predictor of its default rate. Colleges with higher proportions of male, African American and Hispanic students were found to be positively correlated with higher default rates. The model predicts that a 10 percent increase in a school's enrollment of males is associated with a 0.84 percent increase in its default rate. Meanwhile, an increase in African American and Hispanic students by 10 percent is associated with an increase in default rate of 0.59 and 0.35 percentage points, respectively. It has been suggested that many students from these two

racial groups are often the first in their families to attend college and/or lack financial resources from their families to help offset the growing cost of college, resulting in them having higher default rates on average. Further research is needed in this area.

Government funding correlation

Another aspect of an institution's student body that affects its default rate is the financial aid received by its students. The percentage of a school's students receiving a Pell Grant, the federal government's main needs-based program, was found to be positively correlated with its default rate. The model estimates that a 10 percent increase in Pell Grant recipients is associated with a 1.25 percent default increase, making it greater than the combined effect of African American and Hispanic students. This suggests that the more of an institution's students that come from low-income families, the higher its default rate – a result that is somewhat expected as such students often have less financial support from their families and may be the first in their family to attend college. Perhaps counterintuitive is the small but negative relationship found to exist between the percentage of an institution's students participating in a federal loan program and its default rate. A 10 percent increase in an institution's borrowing has the effect of lowering its default rate by 0.38 percent. There are a few plausible explanations for this finding. One is that increased willingness to borrow among students to pay for college is reflective of a greater benefit from it. The other is that as more of a school's students borrow, the diversity of its loan portfolio grows, lowering the overall default risk exposure.

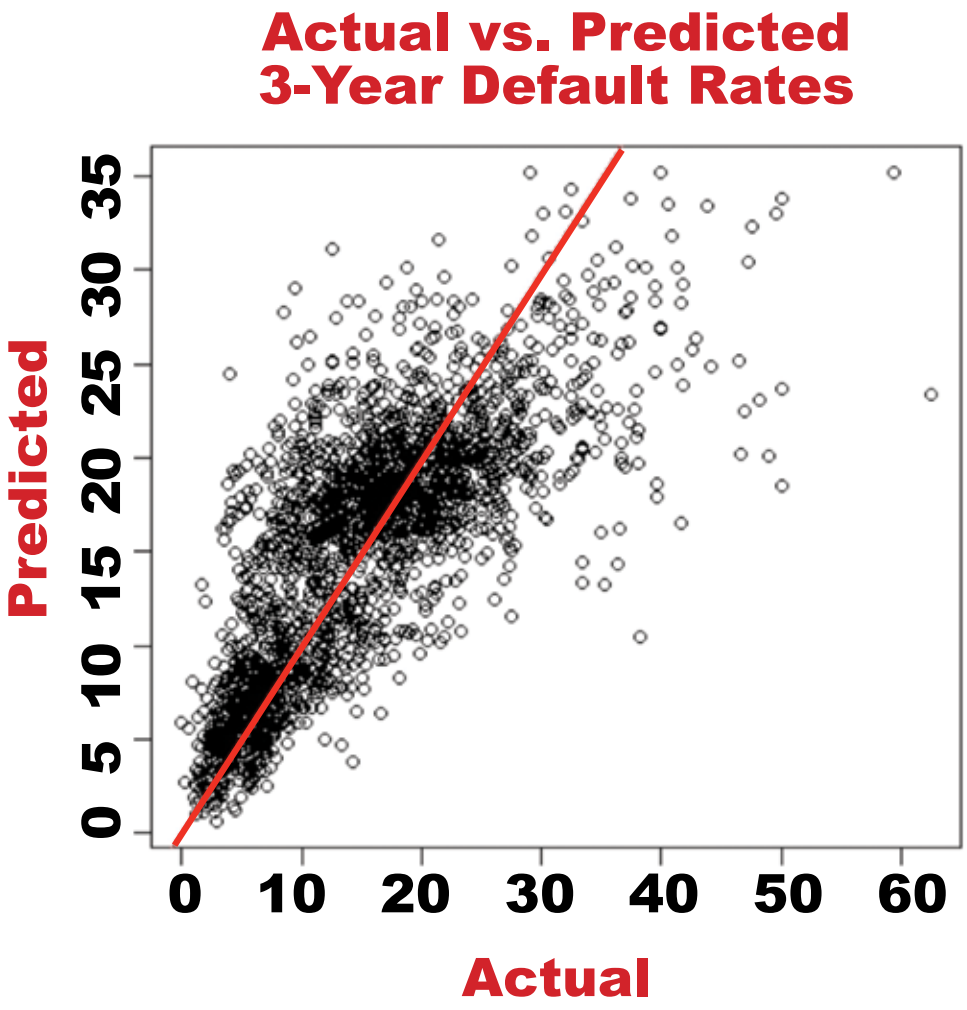
Institutional performance

The final set of factors contained in the model is related to institutional performance. The model includes the percentage of an institution's expenditures on instruction, its graduation rate, and both its part-time and full-time student retention rates. All four of these variables were found to be negatively correlated with default rates, suggesting that schools which perform well in these key areas can lower their default rates. A 10 percent increase in expenditures on instruction is associated with a 0.45 percent decrease in defaults. Similarly, a 10 percent increase in graduation rate is associated with a 0.41 percent reduction in default rate, while a 10 percent increase in full-time and part-time retention rates is associated with a 0.76 and 0.16 percent drop in default rates, respectively. These are intriguing results, as many colleges are increasingly guilty of mission creep, or allocating their resources to things other than instruction and helping their students persist until graduation. These results also have important public policy implications, as they suggest a greater emphasis needs to be placed on instruction and student outcomes.

Misguided policies

The most recent cohort student loan default rates are a troubling development for all of postsecondary education, but especially so for the for-profit sector. They have been used by adversaries to push for stricter regulation on the sector. This may be a misguided policy agenda that results in negative unintended consequences. While the rate at which students default on loans is an important policy concern, as scarce taxpayer resources are used to fund the government's student loan schemes, simply focusing on one metric – an institution's default rate – to determine which schools are permitted to exist is problematic due to perverse incentives. If the incentives are such that it would be disadvantageous to enroll minority, low-income and male students, then those who are arguably most in need of higher education might be adversely impacted. In addition, the incentives would be to offer fewer short-term, non-degree career training programs. This would reduce retraining opportunities for workers who have been displaced by an ever-changing economic landscape and skill-building opportunities for young persons whose career objective is to enter a vocation as opposed to pursuing an academic education.

Sound default rate policy should account for all of the factors which affect an institution's rate, rather than drawing an arbitrary line in the sand as a cutoff. The results discussed in this article suggest that there are a variety of institutional factors that influence default rates. All of these factors (as well as others) should be considered in building models similar to the one above to predict an institution's default rate, and then compared to its actual rate. The graph above plots the actual versus predicted three-year default rates of all schools included in the sample. The red line represents the best fit linear regression. Points located above the red line represent institutions with an actual default rate that is lower than predicted by the model, while those lying below the line have actual rates higher than predicted. As can be seen, the majority of institutions are clustered around the best fit line, suggesting that only institutions which are far to the right of the red line should be targeted for intervention, while those far to the left should be examined for potential emulation. Admittedly, this model is not perfect and is in need of refinement, preferably utilizing student-level data. However, it is a step in the right direction in so far as developing better public policy concerning student loans.



Daniel L. Bennett is the Administrative Director and a research analyst for The Center for College Affordability & Productivity, an independent higher education think tank based in Washington, D.C. He can be reached by email at dbennett@centerforcollegeaffordability.org. Or visit him online at www.CenterForCollegeAffordability.org and www.CollegeAffordability.BlogSpot.com.