# Distribution of Debt at Graduation by Amount of Debt, College Type and Degree Program 

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September 29, 2010

This paper explores the distribution of cumulative undergraduate student loan debt at graduation and excessive debt by amount of debt, college type and degree program. It reports several key findings:

- Of students who graduate with more than $\$ 50,000$ in debt, $33.6 \%$ are at public colleges, $54.3 \%$ are at non-profit colleges and $12.0 \%$ are at for-profit colleges.
- Of students who graduate with less than $\$ 5,000$ in debt (including no debt), $83.3 \%$ are at public colleges, $11.8 \%$ are at non-profit colleges and $4.9 \%$ are at for-profit colleges.
- Of students who graduate with excessive debt relative to the degree or certificate received, $33.8 \%$ are at public colleges, $25.5 \%$ are at non-profit colleges and $40.7 \%$ are at for-profit colleges.
- $22.0 \%$ of graduates from for-profit colleges graduated with excessive debt, compared with $10.9 \%$ of graduates from non-profit colleges and $3.6 \%$ of graduates from public colleges.

The following chart illustrates the distribution of cumulative student loan debt at graduation according to institution level and control. The data in this report is derived from the data analysis system for the 200708 National Postsecondary Student Aid Study (NPSAS).


The next chart is similar, but shows the distribution by institution control and degree program. This chart replaces institution control with degree program because the correlation between institution level and degree program at for-profit colleges is not one-to-one, raising questions concerning comparisons based on institution level. As demonstrated in a previous paper, ${ }^{1}$ only $51 \%$ of completions at for-profit 4-year colleges are for Bachelor's degrees, compared with $95 \%$ at public 4 -year colleges and $96 \%$ at non-profit 4-year colleges. Instead, $43 \%$ of completions at for-profit 4-year colleges are for Associate's degrees and $6 \%$ are for non-degree certificates. Similarly, only $63 \%$ of completions at for-profit 2-year colleges are for Associate's degrees, compared with $89 \%$ at public 2-year colleges and $89 \%$ at non-profit 2-year colleges. Instead, $37 \%$ of completions at for-profit 2-year colleges are for non-degree certificates.

## Distribution of Borrowers by Debt at Graduation, Institution Control and Degree Program



Notice how the degree program chart appears more compressed at the lower debt levels for for-profit colleges than the institution level chart. ${ }^{2}$ For example, while $42 \%$ of graduates from for-profit 4 -year colleges have more than $\$ 25,000$ in debt, $66 \%$ of Bachelor's degree recipients from for-profit colleges have more than $\$ 25,000$ in debt. This distinction is important when benchmarking excessive debt, since excessive debt should be measured against the type of degree and not the level of institution as a better proxy for future earnings. Since for-profit colleges tend to graduate more students with lower level degrees, calculating debt figures relative to institution level as opposed to degree program tends to dilute average debt figures. For example, while $8.5 \%$ of graduates from for-profit 4 -year colleges accumulate more than $\$ 45,000$ in student loans, a common benchmark of excessive debt for a Bachelor's degree, the figure increases to $16.7 \%$ when the data is restricted to Bachelor's degree recipients at for-profit colleges.

[^0]In both sets of charts the debt distribution seems to be dominated by the percentage of students graduating with minimal debt of less than $\$ 5,000$. This raises the question of how much of the differences in debt at graduation are due to differences in the percentage of students borrowing to pay for their education and how much are due to the amount of debt among the students who borrow. The following charts show the distribution of debt at graduation for students who graduate with more than $\$ 5,000$ in student loan debt.



The distributions do not differ as much according to institution control after excluding data for students who graduate with less than $\$ 5,000$ in student loan debt. These charts show greater similarities between
for-profit and non-profit 4-year colleges, for-profit and non-profit Associate's degree recipients and forprofit and public certificate recipients. But there are still several significant differences, especially when the data is disaggregated by type of degree as opposed to institution level. An analysis of the variance between the two sets of distributions suggests that almost half of the variance is due to the percentage of students graduating with debt and slightly more than half of the variance is due to the amount of debt.

The following chart shows the distribution of debt at graduation for Bachelor's degree recipients according to institution control and a set of cost bands based on out-of-pocket $\operatorname{cost}^{3}$ in an attempt to equalize costs across institutions. Out-of-pocket cost was calculated based on student-specific data and averaged across institution types. Low cost was defined as a college with an out-of-pocket cost less than $\$ 12,500$, mid-cost was defined as a college with an out-of-pocket cost of $\$ 12,500$ to $\$ 25,000$ and highcost was a college with an out-of-pocket cost greater than $\$ 25,000$. About a third of students at for-profit and non-profit colleges fall into each cost group. Public colleges were less uniformly distributed, with about three-fifths of students in the low-cost group, a third in the mid-cost group and less than $10 \%$ in the high cost group. As this chart demonstrates, there are still substantial differences in borrowing according to institution control even when out-of-pocket costs are equalized across the institution types. Students at for-profit colleges borrowed more than students at non-profit colleges and students at non-profit colleges borrowed more than students at public colleges.


[^1]The average cumulative debt at graduation in the next chart demonstrates a similar relationship where debt at graduation is higher at the for-profit colleges despite equal out of pocket costs.


So while higher cost may be contributing to the higher debt at for-profit colleges, the debt is still higher even when one controls for cost. Similar patterns are demonstrated when tuition and cost of attendance are substituted for out-of-pocket cost.

The following chart demonstrates that as debt at graduation increases, the distribution of borrowers by college type shifts toward non-profit 4 -year colleges and away from public and for-profit 4-year colleges.


The next chart demonstrates a similar result for Bachelor's degree recipients.


Similarly, the next two charts show overall percentages for the same data, excluding debt less than $\$ 5,000$, on an absolute as opposed to relative basis.



The first set of charts might make it seem as though for-profit colleges are a small part of the problem. Of students who graduate with more than $\$ 50,000$ in debt, only $12.0 \%$ are at for-profit colleges, with $33.6 \%$ at public colleges and $54.3 \%$ at non-profit colleges. Likewise, $94.5 \%$ of students graduating with more than $\$ 50,000$ in debt received Bachelor's degrees, with only $9.6 \%$ at for-profit colleges compared with $30.9 \%$ at public colleges and $54.0 \%$ at non-profit colleges.

But this focuses on the highest debt levels for Bachelor's degree programs and 4-year colleges, overlooking the potential for excessive debt at lower level programs. If we define excessive debt thresholds at $\$ 45,000$ for a Bachelor's degree, $\$ 25,000$ for an Associate's degree and $\$ 15,000$ for a nondegree Certificate, for-profit colleges represent a much greater share of borrowers graduating with excessive debt. Of the borrowers graduating with excessive debt, $40.7 \%$ were at for-profit colleges, $33.8 \%$ were at public colleges and $25.5 \%$ were at non-profit colleges. (Overall, $27.1 \%$ of borrowers graduating with excessive debt received Certificates, $30.7 \%$ received Associate's degrees and $42.1 \%$ received Bachelor's degrees.)

This table and pie chart show the share of borrowers graduating with excessive debt by college type.

|  | Share of <br> Graduates with <br> Excessive Debt | College Type | Share of <br> Graduates with <br> Excessive Debt |
| :--- | ---: | :--- | :--- |
| College Type | $100.0 \%$ | Non-Profit Colleges | $25.5 \%$ |
| Total | $27.1 \%$ | Certificate | $1.3 \%$ |
| Certificate | $30.7 \%$ | Associate's Degree | $3.0 \%$ |
| Associate's Degree | $42.1 \%$ | Bachelor's Degree | $21.3 \%$ |
| Bachelor's Degree | $33.8 \%$ | For-Profit Colleges | $40.7 \%$ |
| Public Colleges | $4.9 \%$ | Certificate | $21.0 \%$ |
| Certificate | $12.3 \%$ | Associate's Degree | $15.5 \%$ |
| Associate's Degree | $16.6 \%$ | Bachelor's Degree | $4.3 \%$ |
| Bachelor's Degree |  |  |  |



Borrowers who graduate from a for-profit college are also more likely to graduate with excessive debt than borrowers who graduate from non-profit and public colleges. $22.0 \%$ of graduates from for-profit colleges graduated with excessive debt, compared with $10.9 \%$ of graduates from non-profit colleges and $3.6 \%$ of graduates from public colleges.

The likelihood of graduating with excessive debt is illustrated by the following chart and table.


|  | Percentage of <br> Graduates with <br> Excessive Debt |  | Percentage of <br> Graduates with |
| :--- | ---: | :--- | :--- |
| College Type | $7.3 \%$ | Non-Profit Colleges | Excessive Debt |
| Total | $13.8 \%$ | Certificate | $10.9 \%$ |
| Certificate | $6.6 \%$ | Associate's Degree | $14.4 \%$ |
| Associate's Degree | $6.0 \%$ | Bachelor's Degree | $20.7 \%$ |
| Bachelor's Degree | $3.6 \%$ | For-Profit Colleges | $10.1 \%$ |
| Public Colleges | $5.8 \%$ | Certificate | $22.0 \%$ |
| Certificate | $3.1 \%$ | Associate's Degree | $20.3 \%$ |
| Associate's Degree | $3.5 \%$ | Bachelor's Degree | $27.5 \%$ |
| Bachelor's Degree |  |  | $16.7 \%$ |

Thus, for-profit colleges have a greater share of students graduating with excessive debt, and students who graduate from for-profit colleges are more likely to graduate with excessive debt. Still, the traditional colleges are responsible for three-fifths of students graduating with excessive debt.

- Of the students graduating with excessive debt, $40.7 \%$ were at for-profit colleges, $33.8 \%$ were at public colleges and $25.5 \%$ were at non-profit colleges.
- $22.0 \%$ of graduates from for-profit colleges graduated with excessive debt, compared with $10.9 \%$ of graduates from non-profit colleges and $3.6 \%$ of graduates from public colleges.

Reducing the number of students who graduate with excessive debt should be a high priority public policy goal. The first step should involve understanding why some students are more likely to borrow than others and why some students borrow more than others. For example, why are students at for-profit colleges more likely to borrow and why do they borrow more than students at public and non-profit colleges, even after controlling for differences in out-of-pocket college costs?


[^0]:    ${ }^{1}$ Mark Kantrowitz, Default Rates by Institution Level vs. Degree Program, July 15, 2010. www.finaid.org/educators/20100715institutionlevel.pdf
    ${ }^{2}$ There is a similar compression of the debt distribution for Associate's degree recipients at non-profit colleges compared with non-profit 2-year colleges.

[^1]:    ${ }^{3}$ Out-of-pocket cost is the difference between the cost of attendance and all grants and scholarships.

