

Overview of the Student Loan Market and Predictors of Student Loan Delinquencies

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The analysis and conclusions in this presentation are those of the author and do not necessarily reflect the views of the Federal Reserve Board, its members or its staff

Roadmap

- Overview of recent trends in the student loan market
- Predictors of student loan delinquencies (joint work with Kamila Sommer)

Student Loan Market

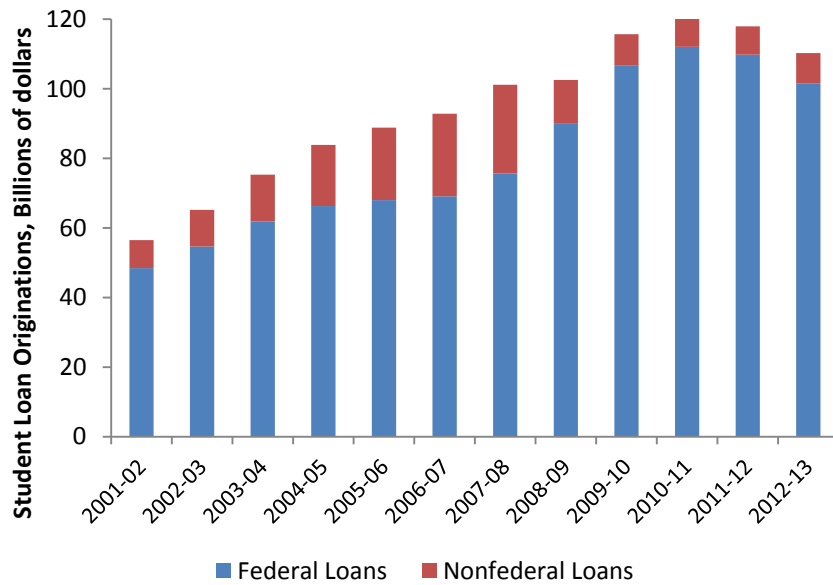
- U.S. consumers have over \$1.2 trillion in student loan debt
 - 41 million student loan borrowers, up from 24 million in 2005
 - Average student loan debt over \$26,000 per borrower, up from about \$16,000 in 2005
 - 70 percent of borrowers have less than \$30,000 in debt, 10 percent between \$50,000-\$100,000; and 4 percent more than \$100,000

Student Loan Market (cont'd)

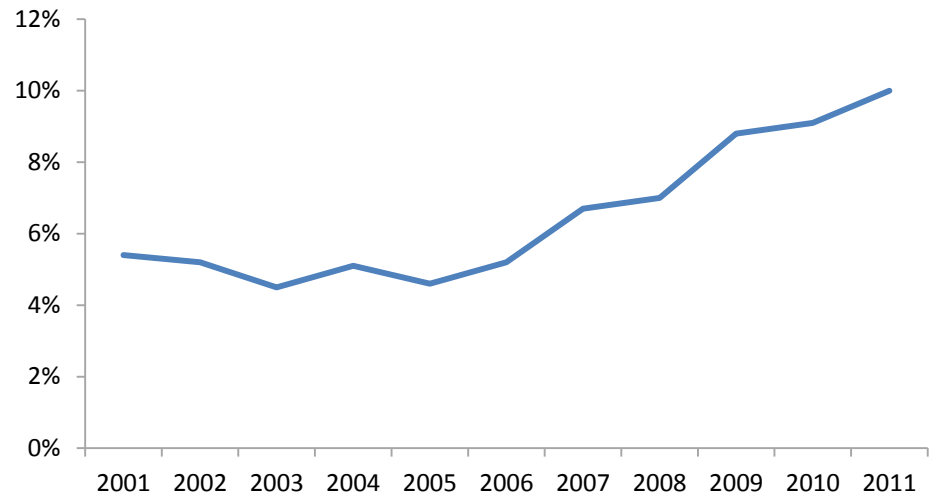
- Federal loans comprise about 90 percent of the market
 - Federal Family Education Loans (FFEL)
 - Originated by private lenders and guaranteed by the Federal Government
 - Discontinued in 2010
 - Direct Loans (DL)
 - originated by the Department of Education
 - Main source of federal loans since 2010
- Most federal student loans are not underwritten at the student level
- Student debt is not dischargeable in bankruptcy

Trends in the Student Loan Market

Student Loan Originations

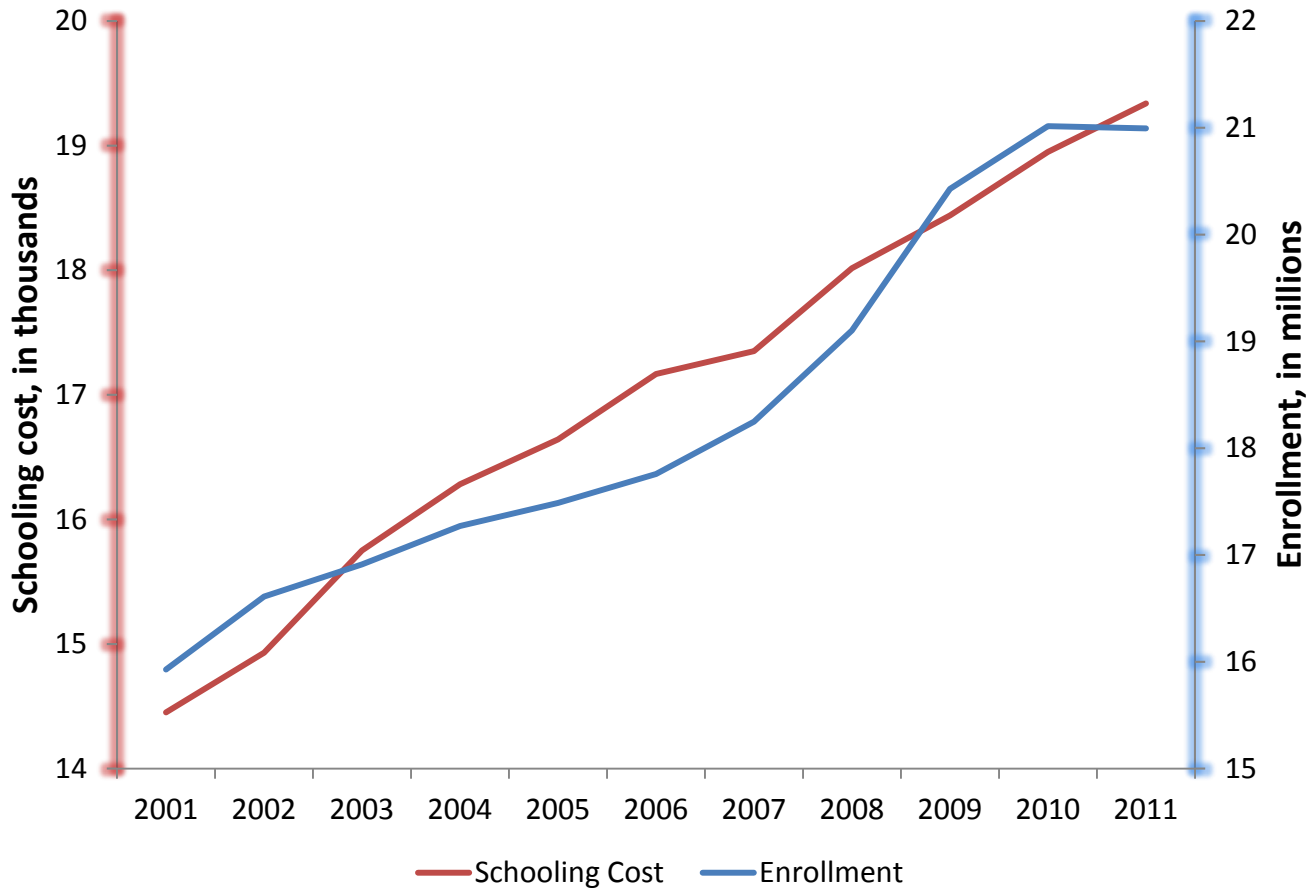


2-year Cohort Default Rate



Main Factors Accounting for Increase in Student Loan Originations

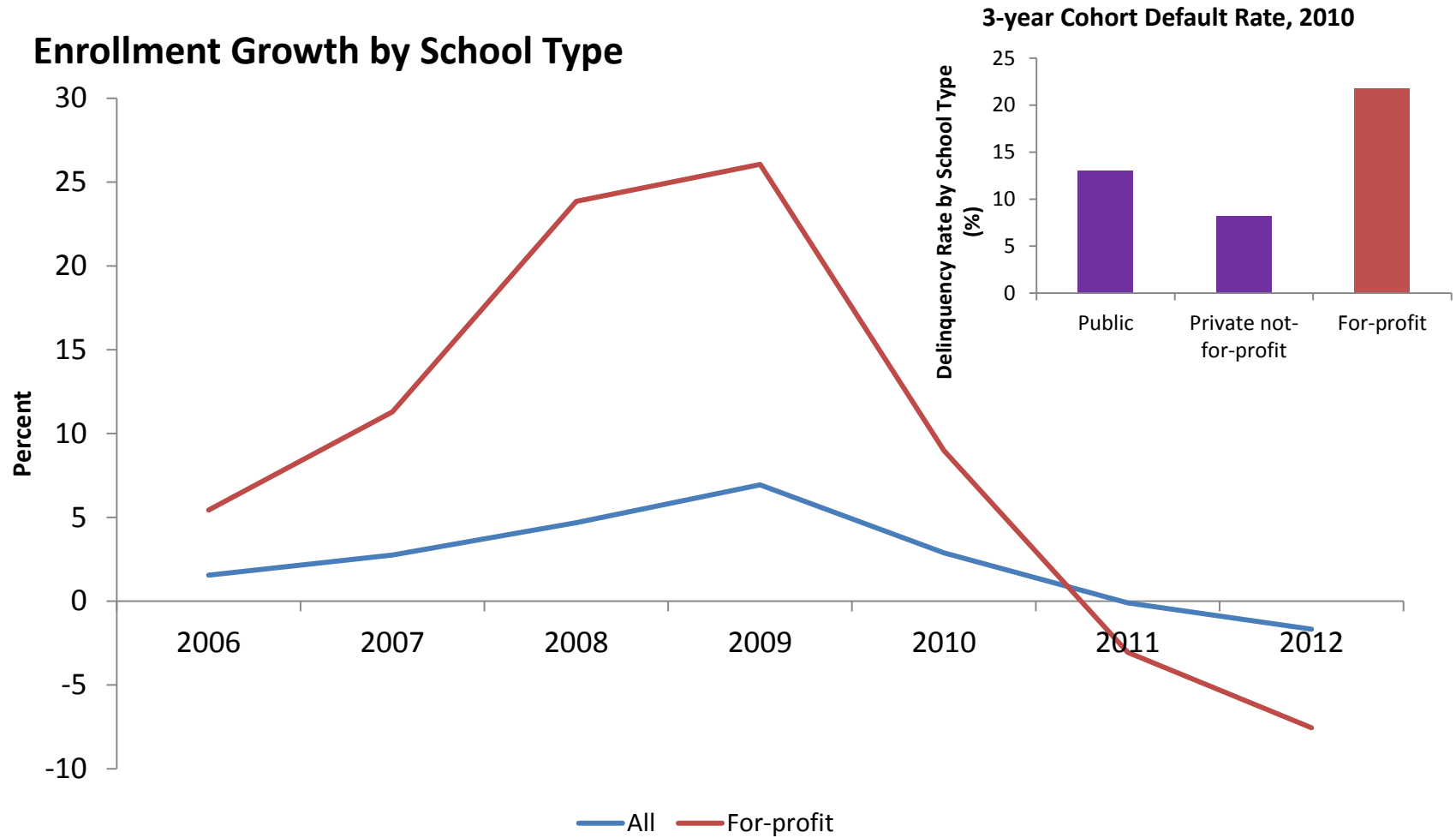
Fall Enrollment and Schooling Cost per full-time equivalent student



Issues Associated with Increases in Tuition and Enrollment

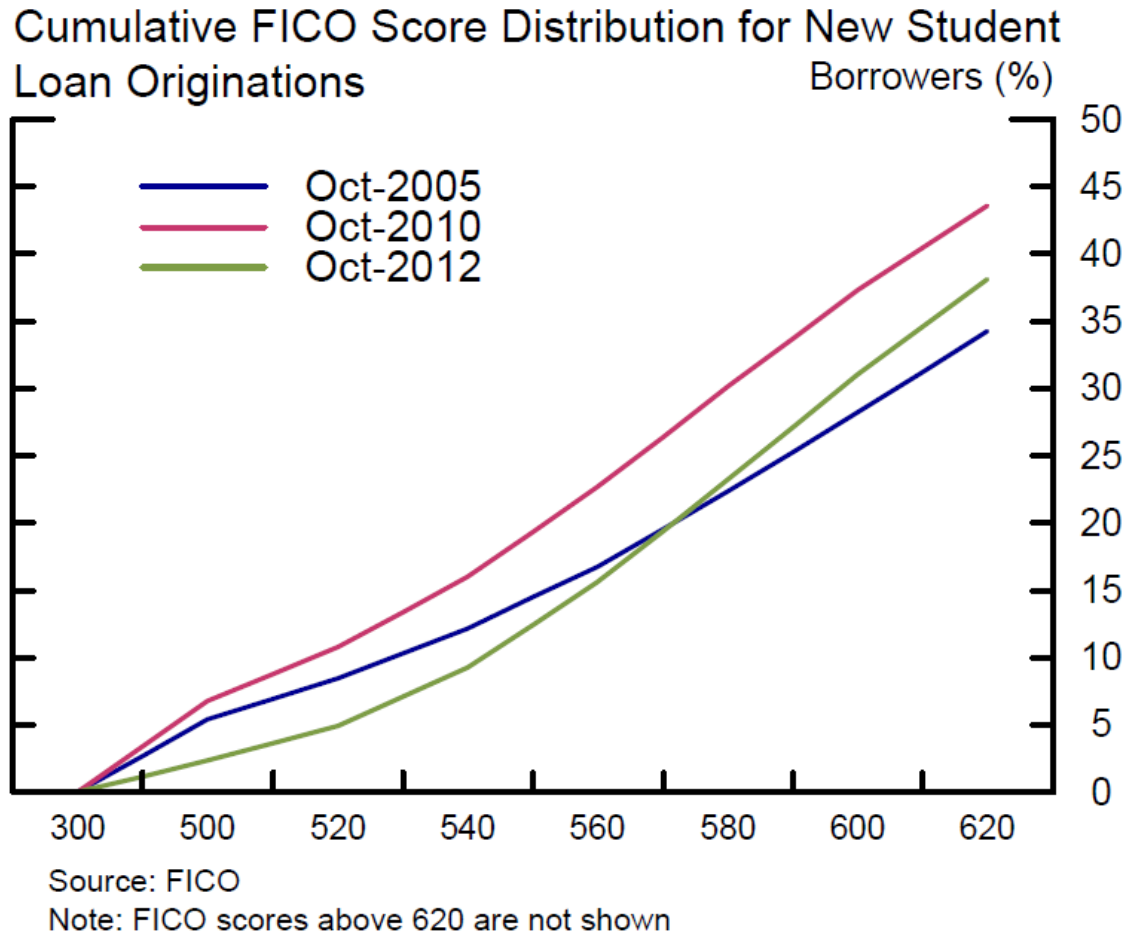
- Tuition increases reduce the return to the investment
- Studies still support that college education pays-off
 - Lots of heterogeneity
 - Heterogeneity might have increased during the recession
- Increases in enrollment should be beneficial
 - However, composition tilted towards enrollees who may be more likely to have problems repaying debt

Compositional Change in Enrollment



Source: National Center for Education Statistics and Department of Education.
Note: Based on data for Fall enrollment.

Compositional Change in Enrollment (cont'd)



- Most of the delinquencies are concentrated in the low credit score risk group

Implications of Compositional Change in Enrollment

- Surge in enrollment of non-traditional students and lower credit quality of students during the recession likely contributed to the increase in delinquency rates
- Increase in heterogeneity of enrollees might also have increased heterogeneity in returns to education
- Recent factors might help reduce student loan delinquency rates
 - Reduction in enrollment of non-traditional students
 - Improvement in credit quality
 - Improvement in the labor market
 - Expansion of income-driven repayment plans
- However, dropout rates are structurally high

Predictors of Student Loan Delinquencies

- Existing studies explored demographic, socioeconomic and education determinants of student loan delinquencies, but ignored credit risk attributes
- Our paper bridges gap by including credit data information into the analysis of student loan delinquencies

Data

- Cohort of young individuals b/w ages 23 and 31 in 2004
- Credit records by TransUnion, LLC, available approx. bi-annually b/w 1997 and 2010
- Educational records available through December 2007
- Focus on borrowers with:
 - Student loan debt when entering the last repayment spell
 - Existing education records
- Final sample: panel of 5,837 individuals

Empirical Framework

- Probability model
- Dependent variable:
 - 120+ days past due on student loan debt within 5 years after entering last repayment spell
- Controls:
 - Individual credit bureau data
 - Records on college enrollment, graduation and major
 - Characteristics of the schools attended
- Preferred specification: students with at most a Bachelors degree

Regression Results

Dependent variable: 120+ days past due on student loan debt within 5 years after entering last repayment spell

Results limited to individuals with at most a Bachelor degree

Coeff. Sign/Significance

Demographics

Age at Repayment (-)**

Age at Repayment Squared (+)**

Pell Grants

Received Pell Grants (+)

Average Pell Grants Received (+)**

School Records

Dropout (+)

BA Degree (-)***

Private 4-year, Not-for-profit (+)

Public 2-year (-)**

Private, for-profit (+)

School Cohort Default Rate (+)***

Coeff. Sign/Significance

Credit Records (At or Prior to Repayment)

Student Debt Amount (+)**

Ln(Credit Score) (-)***

Missing Credit Score (-)***

W/ Credit Card Debt (-)***

W/ Mortgage Debt (-)***

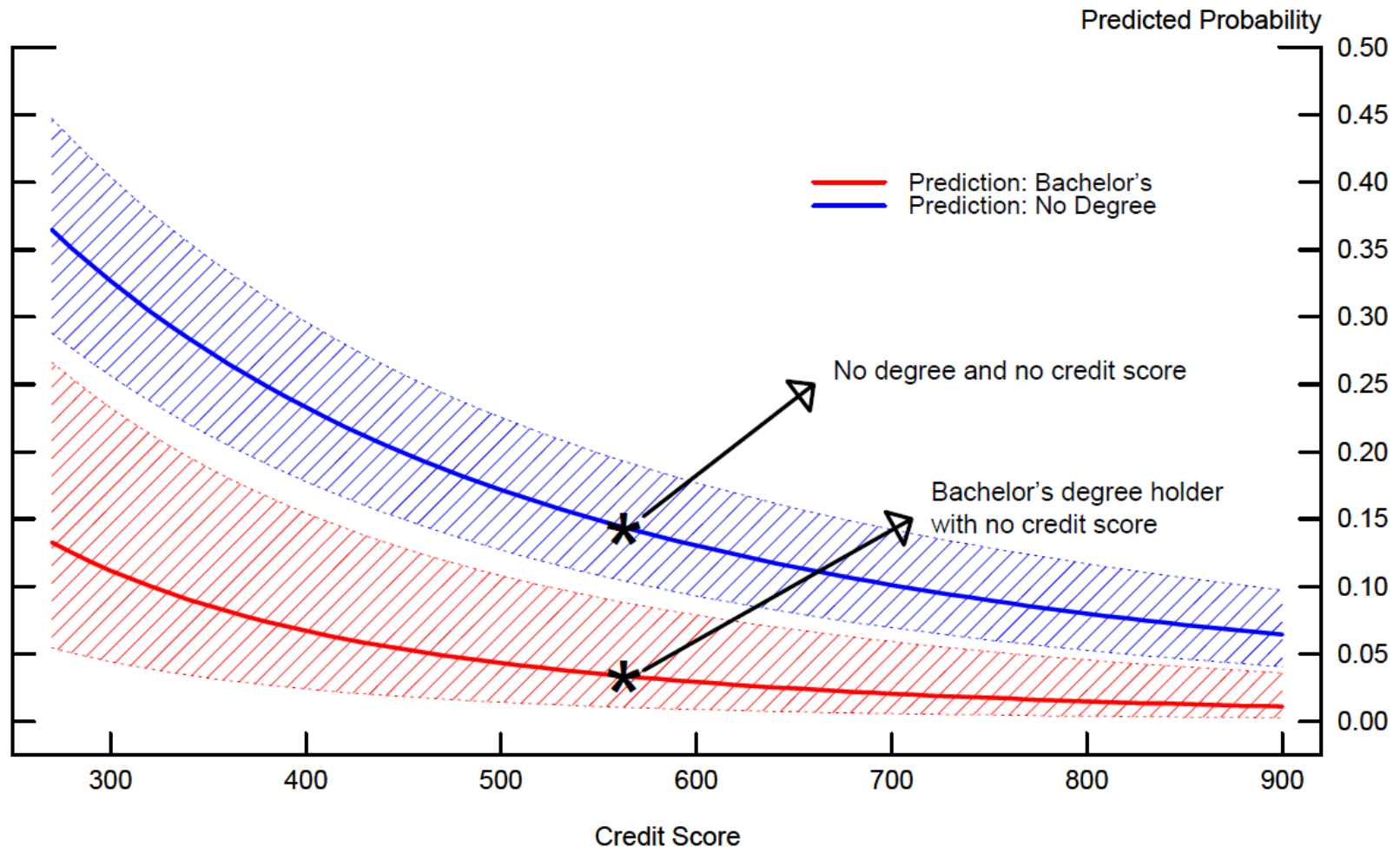
W/ Auto Debt (+)

Obs. 4,398

R-Squared 0.182

Additional Controls: School sector with which the borrower was ever associated while enrolled, open admission indicator, time-dummy for year when entered repayment, and degree major dummies. Omitted categories: having an Associate's degree/Certificate for degrees and being most recently associated with a public, 4-year school for sectors

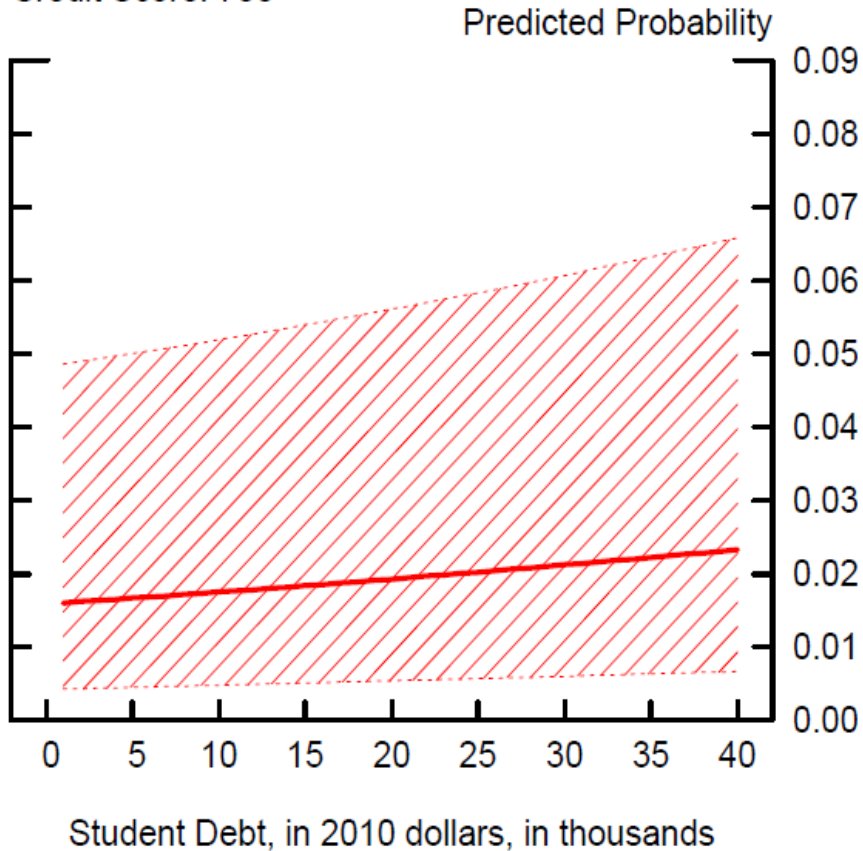
Probability of Student Loan Delinquency, by Credit Score



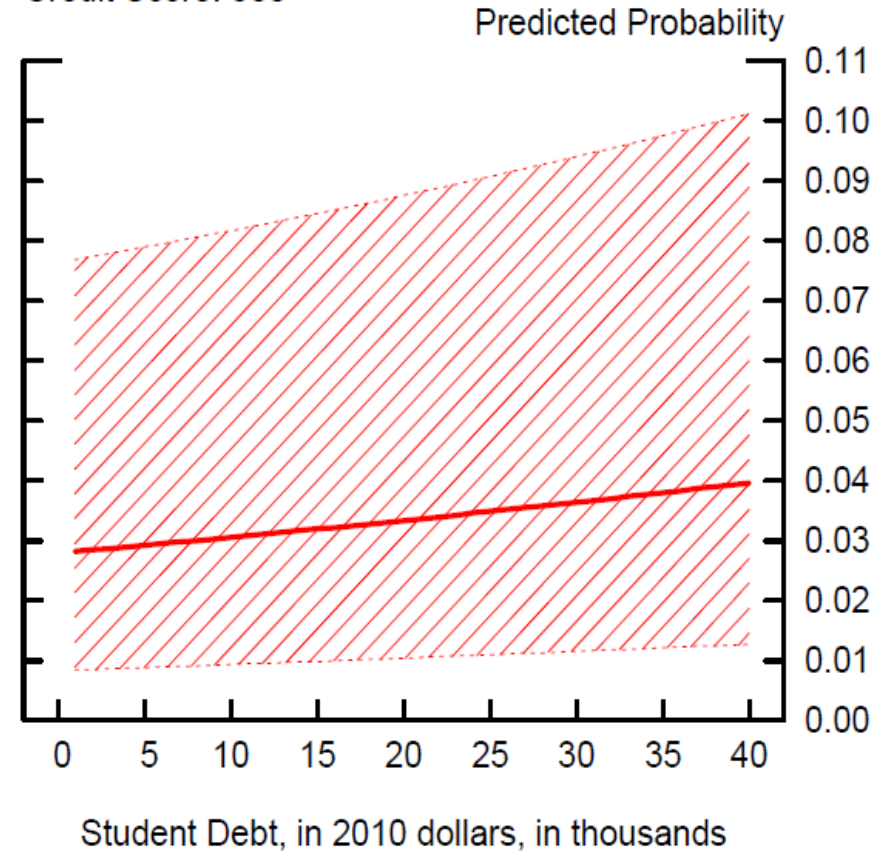
Calculations assume that the borrower entered repayment in 2005 at the age of 25, only attended a public, 4-year school with an average (5.8 percent) CDR, and received a Bachelor's Degree in Engineering. Moreover, the borrower did not receive any Pell Grants, had a student loan debt of \$26,900 prior to entering repayment and no other debt. Dashed lines represent 90 percent confidence intervals

Probability of Student Loan Delinquency, by Student Loan Balances

Credit Score: 700



Credit Score: 550



Calculations assume that the borrower entered repayment in 2005 at the age of 25, only attended a public, 4-year school with an average (5.8 percent) CDR, and received a Bachelor's Degree in Engineering. Moreover, the borrower did not receive any Pell Grants, had a credit score of 700 (550) prior to entering last repayment, and had no other debt. Dashed lines represent 90 percent confidence intervals

Main Takeaways

- Credit scores of even young borrowers highly predictive of future student loan delinquencies
- Limited effect of student loan debt balances in predicting future student loan credit events
 - Leaving school with no Bachelor Degree is associated with relatively low student loan balances but disproportionately greater student loan delinquency risk

Cumulative Delinquency Distribution, by Model-predicted Student Loan Delinquency Risk

