Student Loan Default Literature Review

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Whereas many prior studies evaluated the association between borrower or institutional characteristics and default behavior, the general finding of most researchers today is that college success plays a bigger role in predicting who will default than either the background of the borrower or the type of institution attended. All else being equal, students who are successful in their studies tend to have lower default rates than those who are not. This is a hopeful finding in that loan repayment appears to hinge on factors that are at least partially under the control of the borrower, the school, or both. This literature review will cover research into the variety of factors which may play a role in defaults.

College Success Variables

Overview

College experience and success variables are those that occur in college and which the college, the borrower, or both have some ability to affect. These characteristics include college major, academic achievement, transfer status, educational goals of the student, financial support, and degree completion (Volkwein et al. 1998).

The reason for the correlation between college success and default behavior is unknown; however, it is possible that the hard work and responsibility that result in college success are established habits that carry over to other responsibilities in students' lives, such as loan repayment. Also, borrowers who achieve success in college will most likely obtain better positions in the job market and be in a better position to repay their loans after they leave school (Steiner and Teszler 2003).

Graduation

In a study of California borrowers, failure to complete the academic program was one of the strongest predictors of default among all types of students (Woo 2002).

In a study of Texas A&M University students, borrowers who did not graduate had a nearly 14 percent default rate while borrowers who did graduate had less than a 2 percent default rate. The study further indicates that borrowers who obtain degrees have low default rates no matter what type of degree (Bachelor of Science, Bachelor of Arts, etc.) they get (Steiner and Teszler 2003).

Although college GPA is also a predictor of loan default and repayment behavior, a national study of borrowers who began higher education between 1973 and 1985 found that degree completion is more important than grades earned. Earned degree also outweighs the influence of institution type, especially among African Americans (Volkwein et al. 1998).

A mid-1980s study of borrowers at Pennsylvania colleges and universities also found that the single variable with the greatest statistical significance in default rates was graduation (Knapp and Seaks 1992).

For both Whites and African Americans, degree completion has a dramatic impact on lowering the rate of default, but the impact of each credential through bachelor's degree attainment is two to three times more important for African American borrowers than for Whites in lowering default rates. Researchers in this national study found that, for African Americans, completing a license/certificate or associate's degree lowered their default rate by about 18 percent, while completing a bachelor's degree lowered the probability of default by 14 percent. (Volkwein et al. 1998).

A study of University of Texas at Austin borrowers found that the highest degree attained accounted for 27 percent of the variation in default behavior in the study, the most of any variable in the study. The variable with the second greatest impact on defaults – number of credit hours failed – accounted for 21 percent of the variation in default behavior (Thein and Herr 2001).

Poor academic performance is the number one reason for student departure, and departure before degree completion is the number one reason for loan default (Volkwein and Cabrera 1998).

To the extent that graduation opens employment opportunities and raises earnings, successful retention programs will lower an institution's default rates (i.e. graduation "causes" success). However, it is also plausible that the tenacity

that causes some students to complete a degree may also be operating to reduce their default rates, such that graduation is more of an effect than a cause and will respond less to retention programs (Knapp and Seaks 1992).

Grade Point Average (GPA)

In the study of Texas A&M borrowers, student Grade Point Average (GPA) had the strongest association to default of any success variable. The default rate of borrowers with a GPA of 2.0 or less is nearly 18 percent, but for borrowers with a GPA of 2.5 or more the default rate is 2.0 or less, and for borrowers with a GPA above 3.0, default is less than 1 percent (Steiner and Teszler 2003).

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Most defaults at Texas A&M occur among borrowers who are not academically successful. Borrowers who have less than a 2.5 GPA account for 82.5 percent of all defaults (Steiner and Teszler 2003).

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As GPA rises, the probability of default falls. Woo found that a half grade increase in GPA (i.e. .53 on a 4.0 scale) reduced the chance of default by 14 percent (Woo 2002).

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Flint's study, which was national, found that among student academic characteristics, only GPA was related to repayment, such that higher GPAs are associated with avoidance of default (Flint 1997).

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A study of borrowers at a two-year public institution also found that low GPA (less than 2.0) was associated with higher default rates (Christman 2000).

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Further bolstering the strong relationship between GPA and default, Volkwein et al. found that having a GPA above 3.0 was associated with lower default rates (Volkwein et al. 1998).

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Researchers speculate that GPA may serve as a proxy for ability and motivation, traits associated with success in later life as well as in college (Volkwein and Szelest 1995).

Continuous Enrollment

Students who are continuously enrolled are less likely to default than students who drop out. This result was not driven solely by program completion: students who did not graduate but were continuously enrolled had a substantially lower probability of default than similar non-graduates with interrupted enrollment periods (Podgursky et al. 2002).

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Leaving school is a significant risk factor in predicting default. This was true for students in Woo's California study in all programs and types of schools (Woo 2002).

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Borrowers who withdraw from school for whatever reason have higher default rates, with default rates rising as the number of times withdrawn rises. In addition, students who withdraw for administrative or academic reasons have higher default rates than students who withdraw for work-related reasons (Steiner and Teszler 2003).

Number of Hours Failed

Consistent with other findings as to the importance of college success in loan repayment, the more hours which borrowers at Texas A&M University fail, the more likely they are to default later (Steiner and Teszler 2003).

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In a national study of two-year public school students, borrowers who failed any hours also had higher default rates (Christman 2000).

College Experience Variables

College Major

College major plays a moderate role in predicting default, with General Studies majors having a higher default rate (14.7 percent) than other majors (Steiner and Teszler 2003).

Volkwein and Szelest (1995) found that specific majors can be associated with lower default rates. A college major in a scientific, engineering, or agricultural discipline lowers the default probability by over 4 percent among two-year, four-year, and university borrowers (Volkwein and Szelest 1995).

Borrowers who change majors once or twice have lower default rates, whereas those who change majors more than twice have higher rates (Steiner and Teszler 2003).

Borrowers who obtain second majors have lower default rates than borrowers who do not obtain second majors (Steiner and Teszler 2003).

The greater the incongruence between a student's undergraduate major and his or her current employment, the higher the risk factor for default (Flint 1997).

Attendance Factors

The default rates of borrowers decrease as their length of time at college increases: students enrolled only 1-4 semesters have higher default rates than students enrolled for longer periods, and students with 110 or fewer hours of credit have higher default rates than students with 111 or more hours (Steiner and Teszler 2003).

Similar to the findings on number of semesters in college and number of hours of credit, the number of years enrolled also plays a part in default. Borrowers who leave school after two to five years have low default rates whereas borrowers who leave after one year or less default at a rate of 14 percent. However, extending attendance beyond five years has a negative impact on default: undergraduate borrowers who have six or more years between the time they first attended school and their most recent departure have relatively high default rates. This holds true even among students who are successful at completing their studies: even among borrowers who graduate, those who take six or more years have considerably higher default rates than those who graduate in five years or less (Steiner and Teszler 2003).

Borrowers who do not attend college during any summer semester have a default rate of 8.9 percent whereas borrowers who attend during two summer semesters have a default rate of 2.9 percent (Steiner and Teszler 2003).

At two-year public schools, borrowers enrolled for less than two semesters had higher default rates than those enrolled for longer periods of time (Christman 2000).

Class Level

Students whose last level while enrolled was freshman, sophomore, or junior are more likely to default than seniors or graduates, perhaps because seniors are closer to graduation (a college success variable known to be associated with lower rates of default) than students at lower levels (Thein and Herr 2001).

Student Employment

The influence of working in college lowers default by 7.5 percent for non-White borrowers, but had no influence on White borrowers. However, this study did not study the impact on default of working a small number of hours while enrolled versus a large number of hours (Volkwein et al. 1998).

Exit Counseling

In-person exit counseling is strongly related to default behavior. Borrowers at Texas A&M who receive exit counseling through in-person contact with a counselor have a 1.3 percent default rate, while borrowers who do not receive in-person counseling have an 11.1 percent default rate. However, in-person exit counseling might owe much of its association with default to the fact that nearly everyone who graduates receives in-person exit counseling, but few borrowers who do not graduate receive it (Steiner and Teszler 2003).

However, other studies using large samples and diverse institutions have tended to find few significant effects on default from counseling-related variables (Flint 1997).

Other

In the study of Texas A&M borrowers, it was found that the greater the number of semesters that a borrower spent in a dorm, the lower the default rate. This may indicate greater integration into the institution, which is associated with success, which is in turn associated with loan repayment (Steiner and Teszler 2003).

Borrowers who attended graduate or professional school default at a lower rate than those who have not. While these students incurred more debt and took longer to begin earning money, they were more successful in school and had very good prospects in the labor market. A corollary to this was the number of schools a borrower had attended. If borrowers attend more than one school, they are less likely to default. Generally, it is the more successful students who continue on to graduate school, which usually involves attending more than one school (Woo 2002).

Post-college Variables

Unemployment

Post-college characteristics are those that occur after a borrower has left school and include educational and occupational attainment (i.e. income, highest degree earned, occupation, and indebtedness), marital status, and number of dependents. Woo found that the strongest post-school variable associated with default is filing for unemployment insurance. Borrowers who experienced unemployment showed an 83 percent increase in their probability of default over their original probability (Woo 2002).

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Nationally, borrowers indicate that the most important reasons for default are being unemployed (59 percent said this) and working at low wages (49 percent) (Volkwein et al. 1998).

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In a study of borrowers who left postsecondary education between 1976 and 1985, defaulters were surveyed about the importance of various factors (many of which were post-college factors) that may have led to their default, including unemployment, low income, the presence of other more important loans to repay, dissatisfaction with their educational program, and intervening personal problems. Some 83 percent of proprietary school borrowers and 74 percent of two-year school borrowers said that being unemployed and without income were very or somewhat important reasons for their having defaulted (Dynarski 1994).

Income

Not surprisingly, borrowers with high earnings after they leave school are less likely to default than those with low earnings. This fact underlines the risk students assume in taking out large loans and then entering low-paying careers.

But, in predicting default, this income variable was only half as strong as the variables for unemployment or dropping out (Woo 2002).

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Earning above $25,000 is associated with lower default rates and earning under $10,000 is associated with higher default rates (Volkwein et al. 1998).

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Flint found that lower disposable incomes and greater incongruence between undergraduate major and current employment are risk factors for default (Flint 1997).

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In an earlier study, defaulters were surveyed about the importance of various factors (many of which were post-college factors) that may have led to their default, including unemployment, low income, the presence of other more important loans to repay, dissatisfaction with their educational program, and intervening personal problems. Some 69 percent of four-year school borrowers said they were working, but had insufficient funds (Dynarski 1994).

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Having an adequate disposable income is a necessary, but not sufficient, condition for honoring the terms of a student loan. Low incomes increase default risk, but many of those having the apparent ability to repay nevertheless choose not to. In this study, 11.6 percent of borrowers who had disposable incomes greater than total amount borrowed ended up defaulting, whereas 83 percent of borrowers with disposable incomes less than total amount borrowed were in repayment (Flint 1997).

Personal and Family

Being separated, divorced, or widowed increases default probability by over 7 percent, and having dependent children increases default probability by 4.5 percent per child (Volkwein and Szelest 1995).

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Having dependent children combined with being single, separated, divorced, or widowed produces default rates above 40 percent (Volkwein et al. 1998).

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The variables that reduce default are substantially the same across ethnic populations, but their influence on non-Whites is larger than it is on Whites:

among all populations, being female and being married lower the default rate and do so more dramatically for non-Whites than for Whites (Volkwein et al. 1998).

Loan Repayment Factors

Borrowers who have ever been in deferment or forbearance are less likely to default, perhaps because borrowers who are organized enough to follow through on using deferments are also better able to handle repayment in general (Woo 2002).

Borrowers who went into delinquency more than once were more likely to default. Each period of delinquency increases the borrower's chances of default by 4.8 percentage points, which is almost 50 percent of the original probability (Woo 2002).

Knowledge of Repayment Obligation

Lack of knowledge about repayment is not a strong factor in default: 93 percent of borrowers surveyed realized the loan had to be repaid. However, one in four was confused by the repayment process, and three out of four were not aware of loan deferment options (Volkwein et al. 1998).

Repayment After Default

Follow-up studies of defaulters reveal that two out of three reported making payments since the official default first occurred. Not only did 66 percent resume payment, but 31 percent completed payment (Volkwein and Cabrera 1998).

Background Characteristics of Borrowers

Overview

Background characteristics are those the student brings with him or her to college which an institution has little or no ability to affect, such as age, gender, ethnicity, parents' education and income, high school curriculum and achievement, borrower aptitude and attitude. The latter – attitude – refers to the borrower's attitude toward a variety of things which could affect his or her propensity to default, including loans, debt, and other financial responsibilities (Volkwein and Szelest 1995).

Gender

Woo found that being female decreased a borrower's chance of default by 36 percent (Woo 2002).

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A study of Missouri borrowers also found that men are more likely to default than women (Podgursky et al. 2002).

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A third study, this one national, found that being male increases default probability by 5.8 percent (Flint 1997).

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However, Volkwein and Szelest found no significant difference in default rates between males and females (Volkwein and Szelest 1995).

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A mid-1980s study of Pennsylvania borrowers found no link between gender and default (Knapp and Seaks 1992).

Age

Older students are more likely to default than younger students, perhaps due to a weakening of ties to parents and family who might assist a student experiencing financial difficulties (Woo 2002).

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The Missouri study also found that older students are more likely to default than younger students (Podgursky et al. 2002).

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Each year beyond the age of 21 increases default probability by 3 percent (Flint 1997).

Ethnicity

Background variables associated with lower default rates include being Asian American or White, having a college-educated parent, and coming from a family with an income over $30,000. Variables associated with higher default rates are being African American or American Indian, coming from a family of little

formal education, and having a GED or no high school diploma (Volkwein et al. 1998).

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Another study also found that being African American increases default probability by 11.7 percent (Flint 1997).

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However, Volkwein et al. find that borrowers in every ethnic group who have similar earned degrees, marital status, and family size exhibit almost identical records of earned income and loan repayment. Thus, the borrower's socioeconomic status, type of institution attended, grades earned, and choice of major appear to be less important than whether he or she completed a degree, is married or single, and has dependent children. African Americans and Hispanics have lower levels of degree attainment, lower levels of academic achievement, almost twice the number of children, and twice the rate of separation and divorce, than Whites. These circumstances, rather than ethnicity, appear to explain the differences in default rates (Volkwein et al. 1998).

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African American and Hispanic defaulters are significantly more likely to be unemployed, to be dissatisfied with their educational programs, and to have personal problems that interfere with repayment (Volkwein and Cabrera 1998).

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Across all ethnic groups, borrowers owe about one-half of their original loan amounts four years after graduating (Lochner and Monge-Naranjo 2003).

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The variables that reduce default are substantially the same across ethnic populations, but their influence on non-Whites is larger than it is on Whites: among all populations, being female and being married lower the default rate, and do so more dramatically for non-Whites than for Whites (Volkwein et al. 1998).
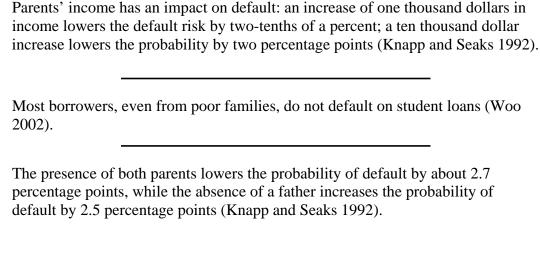
Family Background and Income

Background variables associated with lower default rates include being Asian American or White, having a college-educated parent, and coming from a family with income over $30,000. Variables associated with higher default rates are being African American or American Indian, coming from a family of little education, and having a GED or no high school diploma (Volkwein et al. 1998).

Parents' income has an impact on default: an increase of one thousand dollars in income lowers the default risk by two-tenths of a percent; a ten thousand dollar increase lowers the probability by two percentage points (Knapp and Seaks 1992).

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Most borrowers, even from poor families, do not default on student loans (Woo 2002).

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The presence of both parents lowers the probability of default by about 2.7 percentage points, while the absence of a father increases the probability of default by 2.5 percentage points (Knapp and Seaks 1992).

Academic Preparedness

In general, the higher the high school class rank of a borrower, the less likely the borrower is to default. Texas A&M borrowers whose high school class rank was below the 25th percentile had a 12.8 percent default rate compared to a 3.2 percent default rate for borrowers at or above the 90th percentile. However, the relationship is fairly weak compared to other variables in the study (Steiner and Teszler 2003).

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Borrowers with higher SAT Equivalency Scores (Equivalency Scores convert non-SAT scores to the SAT scale for students who took the ACT) have lower default rates. For borrowers with a combined verbal and math SAT score below 900 the default rate was 6.9 percent versus 4.4 percent for borrowers with a combined SAT of 901 to 1400. However, it should be noted that the vast majority of borrowers in the study had SAT scores above 900 (Steiner and Teszler 2003).

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There is virtually no difference in the default rates of borrower who met the minimum high school coursework requirements for Texas (4 credits of English, 3.5 of math, 3 of science, and 2 of a foreign language) and those who did not meet them (Steiner and Teszler 2003).

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In a study of borrowers at two-year schools, having a GED as opposed to a regular high school diploma was associated with a higher default rate (Christman 2000).

Borrower Attitude

A study of non-federally guaranteed loans extended to law school students in the early 1990s challenges the notion that there are institutional as well as borrower explanations for default. In this study, variables associated with borrower characteristics, such as ethnicity and family income, were entered first into the model followed by institutional variables. The study found that, after taking into account the characteristics a student brought with him or her to postsecondary study, very little predictiveness was added to the model by also taking into account the characteristics and practices of the school the borrower attended. That is to say, this study found default is primarily related to borrower willingness and ability to repay, not to anything the institution is doing (Monteverde 2000).

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Quantitative research as well as interviews with students, staff, and faculty indicate that students possess certain characteristics independent from the institution that cause them to default on their loans, including their attitude toward debt and default and dissatisfaction with the institution (Christman 2000).
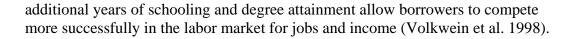
Debt

Level of Indebtedness

Although the opposite would seem to make more sense, borrowers with high indebtedness are actually less likely to default than borrowers with low indebtedness, perhaps because high indebtedness is associated with more schooling and thus more success, which is the main variable associated with low default (Woo 2002).

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Borrowers who take out $5,000 or less in loans default at a considerably higher rate than all other borrowers. Not surprisingly, borrowers who take out small loan amounts are more apt to stay in school a short time and have lower graduation rates than other borrowers. That is, the loan amount is a partial proxy for education attainment (Steiner and Teszler 2003).

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Other studies also found that the amount borrowed has either no effect or a beneficial effect on repayment. Having higher indebtedness is associated with lower default rates, perhaps because higher levels of indebtedness resulting from

additional years of schooling and degree attainment allow borrowers to compete more successfully in the labor market for jobs and income (Volkwein et al. 1998).

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Borrowers with small debts are more likely to default than those with large debts. It appears that the decision to incur additional debt by a borrower who is already in school is not as consequential as the initial decision to borrow in the first place (Woo 2002).

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A study on how student borrowers perceive their education debt indicates that, although students who received Pell Grants as undergraduates (i.e. low-income borrowers) have debt and loan payment levels similar to overall averages, they report lower starting salaries and current earnings than other borrowers, resulting in higher average payment-to-income ratios that may make repayment difficult (Baum and O'Malley 2003).

Perception of Debt

Debtload and the fear of taking on debt influence student decisions ranging from institutional choice to major to personal decisions. In a study examining the influence of debtload on college persistence, the authors found that borrowers in repayment expressed anger at having to assume more debt than students of a generation earlier (Cofer and Somers 1999).

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In the 2002 National Student Loan Survey, Pell recipients who left school without completing a degree were much more likely than other non-completers to report that loans played a significant role in the decision to leave (Baum and O'Malley 2003).

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Students and their families are willing to invest time and money and to assume debt when the students are rewarded by grants and good grades and feel socially integrated into the campus environment (Cofer and Somers 1999).

School-type Variables

Borrowers who attend doctoral-granting institutions tend to have lower default rates and borrowers who attend proprietary (i.e. for-profit) institutions tend to have higher default rates. Nevertheless, although student loan policy and national legislation is based substantially on the belief that colleges and universities exert considerable influence on the actions of their students, Volkwein et al. (1998)

found little evidence of this. Default rate differences by school type are based more upon the nature of the borrowers and their achievements than on the nature of the institutions they attend. The authors suggest that different institutions simply attract different types of students (Volkwein, et al. 1998).

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Woo also found that the fact that students in short-term (proprietary or two-year) programs have a higher default rate than students in long-term (four-year) programs appears to be a function of the types of students who enroll in the programs rather than some factor associated with the programs or schools themselves (Woo 2002).

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Despite earlier studies to the contrary, there is little evidence that institutional characteristics have an impact on default. Rather, loan repayment and default behavior can mostly be predicted by the characteristics of individual borrowers, including choice of major, performance in college, and subsequent postcollege achievement and behavior. Staying in college, earning good grades, completing a degree, getting and staying married, and not having dependent children are all actions that lower the likelihood of default (Volkwein and Szelest 1995).

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The student body size of an institution does not appear to play a role in default. If monitoring of students and close personal contact reduced default, then smaller school size and lower default rates would go together, but researchers find the relationship to be inverse and not significant (Knapp and Seaks 1992).

Loan Servicing Factors

Learning of student loans from lenders is related to avoidance of default. Having multiple lenders tends to increase the default risk (Flint 1997).

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Borrowers whose loans were held by more than one servicer were more likely to default, with each additional servicer increasing the chances of default by 18 percent. In addition, the number of loans – but not the amount borrowed – is related to default, with more loans signaling a higher risk. The number of servicers and loans may bear some relationship to the number of checks the borrower has to send monthly and perhaps to the ease with which his or her debts can be assessed and managed (Woo 2002).

Whereas having loans held by more than one servicer is positively associated with default, having one's loan sold is negatively associated with the probability of default (Woo 2002).

Default Definition and Trends

Official Cohort Default Rates (CDR) and Trends

The Cohort Default Rate (CDR) is the percentage of borrowers who enter repayment in a given Fiscal Year (FY) who default on their loans by the end of the next FY (the two-year cohort period). For FY 2002, CDR is the number of borrowers who entered repayment in FY 2002 and defaulted by the end of FY 2003, divided by the total number of borrowers who entered repayment in FY 2002. Schools are subject to sanctions if their CDR exceeds 25 percent for three consecutive years, or 40 percent in one year (ED, *National Student Loan Default Rates*, 2004).

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The official CDR in the U.S. is declining – from 11.6 percent for borrowers entering repayment in FY 1993 to 5.2 percent for borrowers entering repayment in FY 2002. In addition, the number of schools subject to sanctions as a result of their CDR has declined from 433 schools sanctioned due to FY 1993 CDR to 1 school sanctioned due to FY 2002 CDR (ED, *National Student Loan Default Rates*, 2004).

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CDR by school sector is also declining. From FY 2000 to FY 2002, CDR decreased from 4.8 percent to 4 percent for public four-year schools, from 9.2 percent to 8.5 percent for public two-year schools, from 3.8 percent to 3.1 percent for private four-year schools, and from 9.4 percent to 8.7 percent for proprietary schools (ED, *National Student Loan Default Rates*, 2004).

1998 Change to CDR

A borrower is generally considered to be in default if a claim is paid on a loan during the two-year cohort period. Due to a 1998 amendment to the Higher Education Act (HEA) that changed the definition of default from loans delinquent 180+ days to those delinquent 270+ days, the timeframe for considering a borrower to be in default has increased. As a result of these changes, which first affected the FY 1998 cohort, some defaults that used to occur within the two-year period are now occurring outside the two-year period and thus are not included in the official CDR:

- Before 1998, it would take about 330 days for a borrower to be considered in default (60 days from entering repayment until the first payment is due + 180 days delinquency + about 90 days to pay the claim = 330 days).

- Now it takes about 420 days for a borrower to be considered in default (60 + 270 + 90 = 420). Since 420 days are more than a year, it is possible for some of the last borrowers who enter repayment in the cohort to make no payment before the end of the two-year period, and yet not be considered in default (ED-OIG 2003).

ED's Office of Inspector General (OIG) has determined that this change in definition has materially reduced CDR: the official CDR for the FY 1999 cohort was 5.7 percent versus 6.6 percent under the old definition. The OIG also found that official CDRs do not provide sufficient information to reflect general trends in defaults, in particular, because they do not capture information on defaults beyond the two-year cohort period (ED-OIG 2003).

Exclusion of Borrowers in Deferment and Forbearance

Borrowers may be eligible for deferment or forbearance if they are unemployed, have health problems, or meet certain other criteria. Borrowers in deferment or forbearance are considered in repayment and therefore are included in the denominator of the CDR, but, because they do not have to make payments and may not have been subject to the risk of default, may be excluded from the numerator. As a result, the number of borrowers who default is divided by a number that is larger than the total number of borrowers who are subject to risk of default, potentially lowering a school's CDR (ED-OIG 2003).

From FY 1996 to 1999, the percent of borrowers in deferment or forbearance more than doubled (from 10.1 percent to 21.7 percent). If these borrowers were excluded from the denominator of the official CDR, the FY 1999 CDR would have been 7.3 percent rather than 5.7 percent (ED-OIG 2003).

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