

## MODELS OF MANAGEABLE EDUCATIONAL DEBT LEVELS

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This report was solicited as part of Auburn Theological Seminary's National Study of Theological Student Indebtedness. The objectives of the report are (I) to address the primary question, How do we know what a manageable debt level is? through description of the models developed to determine manageable debt levels for post-secondary school student borrowers; (II) to discuss the assumptions behind these models, based on existing literature in the field; and (III) to suggest some implications these models and their assumptions may have for the financing of theological students' graduate education. An annotated bibliography of the literature used to prepare this report is attached.

The project summary for the study asserts that: "The extant higher education literature on debt repayment contains several attempts to define reasonable ceilings of educational debt. No consensus exists. The lack of consensus is attributable to the use of different models of personal finance." (p. 6) The research undertaken for this report leads to a somewhat different conclusion. The following discussion proposes that (1) a consensus does exist about the formulas or "rules of thumb" by which reasonable thresholds of educational debt can be determined for individual students; (2) two basic models, which use the same (variants of these) formulas, have been developed; but (3) because these models do not and cannot adequately capture all the factors that contribute to borrowers' ability and willingness to pay, there is "no consensus on where the threshold separating manageable from unmanageable levels of debt should be set." (Stedman, 1984:24)

Financial aid administrators have attempted to determine manageable debt levels for students that meet students' current financing needs but do not result in an onerous burden on their future lives. Concomitantly, researchers have attempted to evaluate the predictive reliability of formulas used to determine manageable debt levels in light of students' actual repayment behavior. They have also attempted to forecast future trends in loan repayment and the impact these trends have on educational consumers' choices, educational institutions, and the larger economy. (Horch, 1978; Wabnick and Goggin, 1981; Johnson and Sullivan, 1983)

Administrators and researchers have sought to define the concept of debt

"manageability" both from the student's point-of-view, in terms of the impact of educational debt on his or her future quality of life, and from the loan grantor's point-of-view, in terms of the success of individual loan repayment schedules and, more generally, in terms of an institution's ratio of loan repayers to loan defaulters. For example, Stedman defines "unmanageability" as ". . . defaults or other potentially undesirable changes in borrowers' behavior such as a reduction in home purchasing." (Stedman, 1984:1)

The first model of debt management, which will be called the "Individual Budget" model, is oriented to the student's point-of-view. The second, which will be called the "Commercial Lender" model is oriented towards the lender's point-of-view.

## **I. The "Individual Budget" Model**

### *A. Description*

This model, developed by Horch (1978) and outlined by Stedman (1984) and Hanson (1992), focuses on developing a comprehensive profile of borrowers' monthly incomes in relation to their expenses for the loan repayment period in order to determine a threshold for total educational debt.

On the level of personal choice, the following information from the borrower is required:

- professional plans;
- desired region where borrower will live and work;
- desired standard of living.

On the macro level, the administrator or student needs to obtain:

- anticipated starting salary and projected growth rate (obtained from BLS statistics on borrower's profession);
- projected fixed costs-of-living, which may be based on federal (BLS) standard household expenditure budgets ("breadbasket statistics"), including projected rates of inflation in primary categories such as food, housing, etc.;
- all prior (undergraduate) educational debt;
- anticipated non-educational debt;
- spouse debt, if applicable.

Using the information, a monthly and annual discretionary (or "disposable") income amount can be determined for the borrower -- the "Other Family Consumption" BLS expenditure category -- and added to the projected monthly budget scheme.

The total manageable educational debt principal is then calculated, incorporating assumptions about educational loan interest rates and minimum/maximum repayment periods, using the "Eight Percent (8%) Rule for undergraduates or the Fifteen (15%) Percent Rule" for graduate students. In developing his model for undergraduate borrowers, Horch (1978) proposed a flexible income-to-debt range, stipulating that discretionary income which will be applied towards educational loan repayment should not exceed 7.5% of a borrower's actual (net) monthly take home pay, or 5.5% of annual gross income, with an upper limit of 8%. These percentages can be modified for different budget standards (i.e., living standards) and a progressive repayment schedule constructed accordingly. (Horch, 1978:7)

#### *B. Assumptions*

First, Horch's model assumes that all of a borrower's discretionary income, referred to as the "Other Consumption" component in BLS budget standards, will be available for educational debt repayment, unless otherwise specified. This could be a misleading assumption if BLS standards for fixed cost components are inaccurate and the borrower draws upon budgeted discretionary income to meet necessary living expenses.

Second, the rules of thumb employed in the Horch model are based on studies of GSL loan borrowers' repayment histories. (Cronin and Simmons, 1987) As one author asserts, "Ultimately, the mean findings (i.e., that 5.5% of gross or 7.5% of take home represents an average ratio of repayment to income) are valuable only in the measure they provide of those above and below average. This is especially pertinent since the range, particularly above the mean, is quite large. (Martin, 1985:55) In other words, there are many borrowers who manage quite well with larger income-to-debt ratios.

The 8% (undergraduate) and 15% (graduate) formulas employed in the Individual Budget model should not be burdened with the status of law. The Individual Budget model calculates manageable debt levels based on projections about individual career choices, salaries, etc., but research on borrower behavior apparently does not disaggregate information about actual repayment histories according to comparable categories. The research, therefore, does not

actually provide an accurate measure of the effectiveness of the eight and fifteen percent rules for specific groups of students. Indeed, future empirical studies that examine borrower behavior more closely by disaggregating specific categories of borrowers (e.g., borrowers with M.Div. degrees by professional career, salaries, and other financial information) might suggest that different rules of thumb for borrowers with different characteristics provide better indicators for determining manageable debt.

## **II. The "Commercial Lender" Model**

### *A. Description*

The "Commercial Lender" model for estimating debt thresholds employs a simpler calculus of borrower information. This model, however, does not require the student to project a detailed budget. The following information is needed:

- gross monthly income;
- monthly housing cost (rent or, in the case of ownership, principal, interest, homeowners insurance, and real estate taxes);
- automobile student loan and other reoccurring debt (all revolving credit and consumer loans).

In order to determine a borrower's capacity to repay a loan, lenders determine a percentage of gross monthly income, housing cost, and other consumer debt. The Federal National Mortgage Association (FNMA), a private organization that makes a secondary market in conventional home mortgages, provides guidelines specifying that "all monthly obligations should not exceed a range of 33-36% of the stable monthly income" and "the monthly housing expense should not exceed a range of 25-38% of the stable monthly income of the borrower. (Johnson and Sullivan, 1983:7)

Banks do not rigidly follow these guidelines. The research by Johnson and Sullivan indicates a range of 28-60% (total monthly payments on consumer and mortgage debt/pretax monthly income) with a mode of 40%. Based on FNMA guidelines, the percentage of automobile loan, student loan, and other recurring debt should not exceed 8% (36% less 28% or 33% less 25%).

FNMA guidelines also specify other considerations that may justify higher payment-to-payment ratios:

- energy efficiency of the property or energy efficient items;
- demonstrated ability of borrower to devote a greater portion of income to basic needs, such as housing expenses;
- demonstrated ability of the borrower to maintain a good credit history, accumulate savings, and maintain a debt-free position;
- a large down payment on the purchase of the property;
- potential for increased earnings of the borrower as indicated by education or job training relative to the time employed or practicing in his/her profession;
- borrower's net worth substantial enough to evidence an ability to repay the mortgage.

(Johnson and Sullivan, 1938:7-8)

The third consideration is an indicator of the "behavioral dimension" of a borrower, that is, her "willingness to pay." This consideration underlies a lender's willingness to issue credit cards on the basis of little financial information (e.g., annual gross income).

#### *B. Assumption*

The major assumption of the "Commercial Lender" model is that the market "discloses" information about both a borrower's ability and willingness to pay. On this basis, lenders "know" that borrowers are able to assume a total monthly consumer debt of approximately 8%. Credit history, an indicator of willingness to pay, is an important variable "tested" in the market. Students may choose not to assume any other non-housing debt and allocate the total to the student loan indebtedness. Lenders have an interest in remaining within the FNMA guidelines, regardless of legal requirement, because the secondary market in home mortgages reveals important information about what borrowers are able to repay.

Recommendations in *The Official Guide to Financing Your MBA* reflect both models of manageable debt levels described above, although support for the rules of thumb seems only to be based on the Commercial Lender model. The *Guide* suggests sample budgets as if the model is the Individual Budget model, but actually the budgeting strategy is designed to show that detailed budgets are not necessary.

The *Guide*, using 36% as the "maximum total recurring monthly payment," demonstrates that if the maximum suggested housing payment" is assumed to be 28%, a student can, without car and other recurring debt, allocate 8% to her monthly student loan payment. According to the *Guide*, "a reasonable range would be 8-10% of gross income for debt payment." (p.72) The recommendations of both Individual Budget model and the Commercial Lender model converge on the same rule of thumb.

The *Guide* is more obscure about the reasons for recommending 15% of the monthly gross income as a "maximum manageable level." We know how the "reasonable level of 8% was determined. But how did the author arrive at the 15% maximum? Perhaps the 15% maximum is based on the evidence of empirical research. "Federal Reserve gross income ratio of 12-15%; that is, not counting home mortgage debt service, the typical American consumer encumbers between 12 and 15% of gross income for consumer debt." (Horch, 1985:80)

The 8% and 15% rules of thumb employed in the two models recommended by financial aid administrators are supported both by findings from commercial market research and by existing empirical research on educational debt repayment. The 1985 NASFAA study conducted by Dr. Joseph D. Boyd provides evidence for the 8% rule. (Cronin and Simmons, 1987:28-36) His updated research probably will confirm our suspicion that the burden of student loan indebtedness has increased since 1985 and that students will face a painful, and for many perhaps impossible, adjustment in lifestyle if their total consumer debt exceeds 15%. (Information from a telephone conversation with the author.) Student borrowers' first "choice" may be to forgo any car and other recurring debt. Their second "choice" may be to default on student loans.

### **III. Implications and Conclusions**

Neither the Individual Budget nor the Commercial Lender model can, of course, account for variations in how individuals or families actually allocate their incomes in relation to the components of the standards that are used to develop a budget for the borrower. As Theresa Orr points out, borrower attitude and "willingness to repay" may have as significant an impact on borrower behavior as "ability to repay." (Orr, 1985:2) Based on a study conducted by the Massachusetts Loan Counseling Task Force, Orr argues that focusing on "... counseling information, and education for students about what it means to use credit to pay for education

and what lifestyle compromises may be involved in order to discharge the obligation to pay" may be as important to effective financial aid counseling as the determination of manageable debt levels. (Orr, 1985:1; see also Martin in Cronin and Simmons)

Commercial lenders routinely include evaluations of "willingness to repay" in their decision-making models through a review of borrowers' credit histories, often operationalized as one item in a credit scoring system. (Johnson and Sullivan, 1983:3-4) This is impractical for educational lenders because many student borrowers may be too young to have credit histories. Moreover, there may be legal and ethical issues that prohibit educational lenders from seeking information from commercial credit data banks such as TRW. Borrowers' commercial credit histories for determining future repayment behavior in relation to educational loans may not be predictive in individual cases, and they cannot tell us how to increase understanding or change behavior. Furthermore, borrowers may view the repayment of student loans quite differently than they view the repayment of other kinds of debt. In other words, *commercial* credit histories may not be predictive of borrower's behavior in relation to *educational* debt. At present, Theresa Orr's recommended student counseling strategies seem like the best course for addressing the factor of "willingness to repay" in determining manageable debt levels.

In other respects, however, the relationship between commercial debt and educational debt may be significant for student borrowers and educational lenders. Borrowers with high educational debt have more difficulty financing first homes. Without the collateral of a residence on which to base a second mortgage, consumers have difficulty gaining other forms of commercial credit. (Johnson and Sullivan, 1983:44-45; Stedman, 1984:23-24).

On a positive note for educational institutions, one study reports findings that people are not likely to forgo taking out loans for education in favor of borrowing for other consumer items. (Johnson and Sullivan) Nevertheless, good counseling of student borrowers about the impact their educational debt may have on their ability to acquire commercial credit in the future could influence their choices about both which professions to pursue and which institutions to attend. Private schools with higher tuition costs could be disadvantaged. Graduate and professional schools that train students for lower paying professions such as teaching and ministry may (if they have not already) suffer from students' more cautious choices. (Hansen, 1986; Martin, 1985; Stedman, 1984) Because women enter lower paying professions in greater numbers than men, and earn disproportionately lower salaries in general,

women with relatively high debt burdens face more difficult quality-of-life decisions than men. (Martin in Cronins and Simmons, 1987:31,33) If, as predicted, students must rely on increasingly higher loan levels to pay for their education, women's career choices may be diminished. Minorities may experience the same problems.

Finally, if commercial lenders do determine that educational borrowing is having a significant impact on their own markets (that consumers are increasingly forgoing commercial borrowing due to their commitment to repay educational debt), they (lenders) may respond in a number of ways that would complicate current educational lending assumptions. For example, commercial lenders may try to compete for higher market shares by extending easier credit terms to borrowers with good educational loan repayment histories. This sounds good, but if substantial percentage of existing borrowers assumed more combined debt, the repayment schemes they originally worked out to determine their manageable debt would be invalidated. As a result, some borrowers would extend their existing loan repayment schedules; others may default.

Other economic and social factors, such as changing national policies that affect employees' benefits packages, should not be overlooked in future evaluations of manageable educational debt thresholds. Considering the many factors that the existing literature identifies as impacting student borrowers' repayment behavior, graduate theological educational institutions could greatly benefit from more and better empirical research on their own students' career trajectories and loan repayment histories.

### **Bibliography**

Auburn Theological Seminary, National Study of Theological Student Indebtedness. 1990. Unpublished brochure of the Center for the Study of Theological Education. New York: Auburn Theological Seminary.

This brochure, prepared at the beginning of Auburn's study of theological student indebtedness, describes the origins, strategies, and goals of the project.

Cronin, Joseph Marr and Sylvia Quarles Simmons, editors. 1987. *Student Loans: Risk Realities*. Dover, MA: Auburn House Publishing Co.



The essays in this book are divided into four topic headings: The Repayment of Loans; The Impact of Student Loans On Access; The International Perspective on Student Loans; Supplementary Sources of Support. Chapter 2, "Repayment, Responsibility, and Risk," by Dennis J. Martin reviews the findings of a study sponsored by the National Association of Student Financial Aid Administrators which, "examined the financial capacity of those who entered the repayment stage and measured the amount of stress or strain encountered." The study, conducted by Dr. Joseph D. Boyd in 1985, collected data on 3,000 GSL borrowers in 12 states.

Graduate Management Admission Council. 1992. *The Official Guide To Financing Your MBA (1992-1994)*. Princeton, NJ.

Chapter 11, "Debt Management and Loan Repayment," attempts to help the answer the question, What is an appropriate amount to borrow to get my M.B.A.? Provides commercial, market-tested rules of thumb to enable students to estimate manageable loan burdens.

Hansen, Janet S. 1986. "Students Loans: Are They Overburdening a Generation?"

Unpublished manuscript. Prepared by the Director for Policy Analysis, Washington Office of the College Board, under contract with the Joint Economic Committee of the U.S. Congress.

A research report that, "addresses what we know about the ... question of whether heavy dependence on student loans is creating serious problems for individuals or the society in which they live." Summarizes and reviews existing models for determining manageable debt levels.

Manson, Jeffrey, E. 1992. "How Much Debt Is Too Much Debt?" Paper delivered at GAPSFAS Regional Workshop, New York City, February 6, 1992. Available from the author, Office of Financial Aid, Northwestern University.

Discussion of an empirical model developed at Northwestern University, the "NU Manageable Model." Outlines: (1) factors influencing manageable debt levels; (2) assumptions and design of the model; (3) five hypothetical case studies; (4) implications

for financial aid administrators.

Hauptman, Arthur M. 1986. *Students in Graduate and Professional Education: What We Know and Need to Know*. Washington, D.C.: The Association of American Universities.

"...this report assesses the adequacy of existing data sources on students who enroll for advanced degrees and how they finance their education." Provides a selected and annotated, "Selected Bibliography of Studies and Data Sources Relating To Graduate and Professional Education."

Horch, Dwight H. 1985. "Determining Student Capacity to Borrow." Pages 73-85 in *Proceedings: College Scholarship Service Colloquium on Student Loan Counseling and Debt Management*, December 2-4, 1985. New York: College Board, College Scholarship Service.

A discussion of "some of the essential ingredients of effective student debt counseling," based on the assumption that "effective debt counseling should attempt to measure the student's potential ability to discharge the debt in the future." Summarizes existing models of estimating manageable debt burdens and rules of thumb for borrowers.

\_\_\_\_\_. 1978. *Estimating Manageable Educational Loan Limits for Graduate and Professional Students*. Princeton, NJ: Educational Testing Service.

"Repayment formulas were derived from BLS consumption budget data, and were applied to projected future income profiles for samplings of lawyers, physicians, doctoral scientist and engineers [mostly males]...Based on each group's income profile, manageable educational loan repayments were computed for each year of repayment, and summed across alternative repayment periods, to arrive at the aggregate ability to repay during the pay-back period."

Johnson, Robert W. and A. Charlene Sullivan. 1983. "The Role of Educational Debt in Consumers' Total Debt Structure." Working Paper No. 45, Credit Research Center, Krannert Graduate School of Management. West Lafayette, IN: Purdue University.

"...examine[s] the implications of students' borrowing to finance higher education for

their post-education debt capacity." Specifically, the study "measured restrictions placed on the use of consumer debt by credit grantors and by consumers themselves to determine whether cumulative student loan debt may be high enough to cause some graduates to be temporarily rationed in other credit markets."

Martin, Dennis J. 1985. "Long-term Implications of Student Borrowing." Pages 45- 59 in *Proceedings* (Horch, 1985).

Examines findings of research on student loan borrowing, focusing particularly on NASFAA's study, "The Characteristics of GSL Borrowers and the Impact of Educational Debt," and the research's implications for future borrowing.

Orr, Theresa J. 1985. "'Reasonable Loan Limits: What Are They?': Text of Remarks to be Presented at the Annual Conference of Student Financial Aid Administrators, Washington, D.C., July 31, 1985." Available from the author, Director of Financial Aid, Harvard Medical School, Cambridge, MA.

A presentation which focused on the question of how a successful loan repayer is different from a defaulter. Discusses findings of the Massachusetts Loan Counseling Taskforce, principally that, "...'willingness' to repay is even more important than so-called 'ability' to repay." Includes four hypothetical profiles of repayers and defaulters.

Stedman, James B. 1984. *The Cumulative Educational Debt of Postsecondary School Students: Amounts and Measures of Manageability*. Washington, D.C.: Congressional Research Service, The Library of Congress.

"This paper reviews and assesses what has recently been reported on the levels of debt being accumulated by postsecondary students, what various analyses have concluded is the threshold for manageable debt, and what the results are when educational debt manageability thresholds are applied to current levels of student debt." Provides a good summary of existing debt management models and a discussion of their limitations.

Wabnick, Richard and William Goggin. 1981. *Indebtedness to Finance Postsecondary Education*. Washington, D.C.: Educational Policy Research Institute.

"The financial aspects of college loan burden are analyzed, based on the view that loan burden is a function of a borrower's capacity to repay the debt obligation. The following components of a financial model of indebtedness are addressed: the stock of education loans at the time repayment begins, the repayment flow associated with each stock of loans, the borrowers' earnings throughout the repayment period, and the borrower's expenditures patterns throughout the repayment period." Provides statistical analyses based on large amounts of data from BLS and other sources.