This PDF is a selection from a published volume from the National Bureau of Economic Research

Volume Title: Measuring and Managing Federal Financial Risk

Volume Author/Editor: Deborah Lucas, editor

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-49658-9

Volume URL: http://www.nber.org/books/luca07-1

Conference Date: February 8-9, 2007

Publication Date: February 2010

Chapter Title: Comment on "Guaranteed versus Direct Lending: The Case of Student Loans"

Chapter Author: Janice C. Eberly

Chapter URL: http://www.nber.org/chapters/c3076

Chapter pages in book: (205 - 211)

- De Fraja, G. 2002. The design of optimal education policies. *The Review of Economic Studies* 69 (2): 437–66.
- Dynarski, S. 2002. The behavioral and distributional implications of aid for college. *The American Economic Review* 92 (2): 279–85.
- Edlin, A. S. 1993. Is college financial aid equitable and efficient? *The Journal of Economic Perspectives* 7 (2): 143–58.
- Gramlich, E. 1990. *A guide to cost-benefit analysis*. Englewood Cliffs, NJ: Prentice-Hall.
- Lucas, D., and D. Moore. 2007. The student loan consolidation option. Congressional Budget Office Working Paper no. 2007-05, Washington, DC.
- Hanushek, E. A. 1989. Expenditures, efficiency, and equity in education: The Federal government's role. *The American Economic Review* 79 (2): 46–51.
- Jagannathan, R., A. Kaplin, and S. G. Sun. 2003. An evaluation of multi-factor CIR models using LIBOR, swap rates, and cap and swaption prices. *Journal of Econometrics* 116 (1–2): 113–46.
- Keane, M. P. 2002. Financial aid, borrowing constraints, and college attendance: Evidence from structural estimates. *The American Economic Review* 92 (2): 293–97.
- New American Foundation. 2009. History of guaranteed (a.k.a. Federal Family Education Loans) and Direct Student Loans. Available at: http://www.newamerica .net/programs/education\_policy/student\_loan\_watch/history.
- Price Waterhouse Coopers. 2005. The limitations of budget score-keeping in comparing the federal student loan programs. Available at: http://www.studentloan facts.org/resources/.

# **Comment** Janice C. Eberly

This chapter brings rigorous quantitative evaluation to an important policy topic, and hence it is hard to quarrel with either the motivation or the execution. Student lending is important both as a Federal budget item and as a component of household balance sheets (as I argue later). Moreover, student loans are an instrument of access to higher education. Largely as a result of these programs, some prominent researchers argue that financing should no longer be considered a barrier to college enrollment (Carneiro and Heckman 2005). Nonetheless, policymakers should remain vigilant about the cost and efficiency of the programs that provide this access.

The chapter makes three contributions. First, it provides a primer on student lending programs, which are large and ubiquitous in higher education in the United States. Second, the chapter makes an important technical contribution by calculating the cost of student loans in the main federal programs. This is a substantial undertaking because of the complexity

Janice C. Eberly is the John L. and Helen Kellogg Professor of Finance at the J. L. Kellogg School of Management, and a research associate of the National Bureau of Economic Research.

and opaque measurement of these programs. Finally, the chapter explores policy implications by comparing the direct lending and guaranteed loan programs. The former provides financing for student loans directly from the government, while the guaranteed or Federal Family Education Loan Program (FFELP) provides a federal guarantee to loans originated and held privately.

My comments focus on three issues raised by the chapter. First, why are student loans an important segment to understand? Student loans represent a large and growing segment of household debt. This category of household liabilities is relatively new, at least in its current form, but composes more than 40 percent of household debt for young households (age of household head less than thirty-five). Second, because of the structure of federal loan programs, valuing the outstanding liabilities is not easy. The valuation project undertaken by this chapter is challenging, but important and useful to understand the nature of the instruments held by the federal government, as well as liabilities incurred by students. Finally, there are policy implications for education finance, which is largely a government-owned or sponsored activity. The chapter suggests that direct lending is substantially cheaper to the government than the guaranteed loan program through private financial institutions. Recent legislation has tended to move in the direction suggested by the chapter, in cutting the subsidy payments to the institutions that originate and distribute the guaranteed loans.

#### The Importance of Student Loans

Student loan programs loom large for both borrowers and lenders. From the government's point of view, the annual cash commitment is large, as is the liability that the government takes on by either holding or guaranteeing the loans. Quantifying the size of this liability is also one of the goals of this chapter. Similarly, the amount of debt taken on by student borrowers is substantial. Student loan debt is becoming a visible presence in household balance sheets.

Debbie and Damien's chapter describes the quantity of debt from the government's and lenders' perspective, which was \$380 billion in 2005. Here I focus on the student level. The average federal student loan debt among 2004 graduating seniors is \$19,202 (Stafford and Perkins loans); adding in parent loans (PLUS) takes the total to \$21,814. For graduate and professional students, the debt level doubles, on average (see table 7C.1).

Looking at student lending in the context of household balance sheets, it is helpful to first start with total household debt, using data from the Survey of Consumer Finances. Median total household debt has almost doubled from \$22,000 to \$38,000 from 1989 to 2004 (in real 2004 dollars). Generally, however, this debt is concentrated among households headed by

Graduate and professional degree programs	Graduate education debt		All education debt (Grad and Undergrad)	
	Percent borrowing	Cumulative debt (US \$)	Percent borrowing	Cumulative debt (US \$)
Total	60.1	37,067	70.1	42,406
Master's degree	58.4	26,895	69.3	32,858
Doctoral degree	51.0	49,007	58.3	53,405
Professional degree	86.5	82,688	88.4	93,134
MBA	53.0	35,525	63.6	41,687
MSW	76.5	27,136	81.0	37,029
PhD	40.0	36,917	46.8	41,540
EdD	53.4	49,050	65.7	47,725
Law (LLB or JD)	87.7	70,933	89.7	80,754
Medicine	95.0	113,661	95.0	125,819

#### Table 7C.12004 education debt

Source: Department of Education.

forty- to fifty-year-olds, and is in the form of collateralized mortgage debt. Education debt is not broadly held, though the share of households with holdings has risen from nine percent to 14 percent from 1989 to 2004, and both the median level of education debt and the mean have doubled; the mean has risen from \$8,000 to \$16,000 per household. However, these aggregate values mask the concentration of debt among younger households, who have experienced the run-up in student lending. Among households under age thirty-five, almost 30 percent have student loans (see figure 7C.1). Among these households, the median level of education debt is \$9,000, which is more than 40 percent of their total debt (the median level of total debt is \$22,000).

The data also indicate that education debt is concentrated among the lowest wealth households. Keep in mind that student loans are not meanstested and are unsecured debt. If the investment in education pays off, then this is not necessarily bad—presumably, higher education generally leads to higher future income. There is strong evidence of the return to education in the large literature documenting the education skill premium.

It is more difficult to document how well students understand the obligations they assume when they take on an education loan. The terms are often far from transparent, and may include conditions that depend on the student's payment history. Moreover, student loans are not discharged in bankruptcy, and it is very difficult to default on student loan debt. Consider the following exchange on a student loan question-and-answer website (the following adapted from www.WikiAnswers.com). Question: "How long before outstanding student loans are forgiven?" Answer: "It doesn't matter

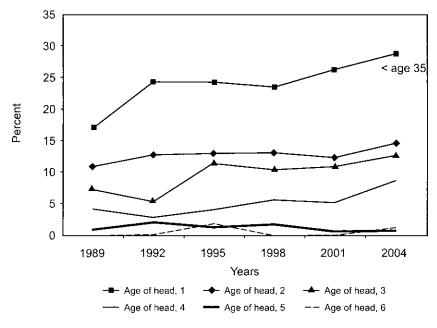


Fig. 7C.1 2004 percent of families with education debt, by age of head of household

Source: Survey of Consumer Finances.

how long you had the loan, you have to pay it back unless you are disabled, a teacher in low-income schools, part of the peace corps, or the school forged your signature." In fact, the Department of Education regularly garnishes the wages and tax refunds of borrowers who fail to make their payments on federal loans. Garnishment is limited to 15 percent of disposable income, and continues until the debt is fully repaid.

### A Sketch of Student Lending Programs: Direct and Guaranteed

The Federal government currently offers two parallel systems for students to finance higher education. In both cases, the Government sets the terms of the student loan (interest rate, maturity, deferment options, etc.), so the terms of the two government programs are broadly the same from a borrower's viewpoint. The administration and financing of the two loan programs, however, are quite different.

In the direct lending program, the government makes the loan directly to the student and services the loan through a third-party servicer.

In the guaranteed lending program a "bank" or other financial institution originates and services the loan to the student. The government pays the bank a floating rate plus a premium, to compensate the lender for the cost of funds, plus the preferential loan terms of student loans and for administrative costs. The government compensates the lender 97 percent of principal if the student defaults.<sup>1</sup>

The Stafford loan is one of the largest guaranteed student loan programs. Congress sets the interest rate, pegged to a floating rate until 2006, now fixed. The "first hundred hours" legislation in 2007 halved this rate. The loans have a basic maturity of ten years, but this can be extended to up to thirty years under various programs. Stafford loans can either be "subsidized" loans or "unsubsidized." The government pays the interest accumulation on a subsidized loan while the student is in school or defers payment. The subsidy is need-based and borrowing is capped at \$23,000 for undergraduates, and \$65,500 for graduate students. The student pays all the interest on an unsubsidized loan, and the total borrowing is capped at \$23,000 for undergraduates and \$138,500 for graduate students (total, including any undergraduate borrowing).

Because the total cost of education can easily exceed the caps on Stafford loans, Congress has also created the "PLUS" loan, or Parent Loan. This program allows parents to borrow on behalf of undergraduate dependents. The interest rate is fixed at 8.5 percent, and the maturity varies from ten to thirty years. The PLUS program was recently extended to graduate education. Prior to this extension, adult graduate and professional students typically turned to the private loan market to finance their educations in excess of the caps on Federal Stafford loans. The introduction of the PLUS loan for graduate and professional students greatly reduced demand for these private loans.

The private loan program is the final source of education debt financing. There is no government guarantee, but the loans are not dismissed in bankruptcy (as of 2005). These loans are privately offered by financial institutions in a very competitive market. Because there is no federal back up, these loans provide a market benchmark against which to compare the federal programs. This is a key component of the analysis of the government programs, since the private market provides an estimate of the market interest rate for student loans.

## Comparing Private versus Federal Loans: How Big is the Subsidy and Who Gets It?

The presence of these three loan programs—direct lending, guaranteed loans, and private loans—allows a three-way comparison of private versus the two government loan programs. In particular, using the private loans as a benchmark, Debbie and Damien estimate how heavily subsidized the federal loans are. Moreover, they can then compare the subsidies and costs embedded in the two federal loans and compare their costs to the

<sup>1.</sup> This amount can vary depending on the servicer, and at times was as high as 99 percent. New legislation retained the 97 percent guarantee.

government. Specifically, the government pays nothing for private loans. For direct loans it pays the difference between the market interest rate and the interest rate that the student pays, plus any subsidized interest, plus its own administrative costs. For guaranteed loans, the government pays the principal if the loan defaults, plus payments to the originators to compensate them for the subsidized interest rate, as well as their administrative costs.

The approach in the chapter compares government cash outflows to the cash inflows in each of the Federal programs, taking present values using the appropriate cost of capital. A direct loan has the simplest cash flows: the Federal government disburses the loan and incurs administrative servicing costs, eventually receiving loan payments back, subject to deferrals, consolidation, early repayment, or default. The present value of the cash inflows (repayments) minus the cash outflow (the initial loan amount) gives the cost of the loan. Since the loans are offered at a below-market interest rate, this calculation is usually equal to a negative number, giving the present value of the subsidy to the student borrower.

The cash flows made by the government to support guaranteed loans are trickier. In this case the "bank" obtains financing privately and disburses it to the student. The bank incurs marketing and administrative costs, services the loan (or obtains a third party to do so), and receives repayments, subject to deferrals, consolidation, early repayment, or default. Government payments are made to the bank to defray its administrative costs and the subsidized interest rate, and the government also makes the guarantee payment in the case of student default. (Banks also make some payments back to the government, but we will focus on the net payment from the government to the bank.)

From the results in the chapter's table 7.5, consider a typical \$25,000 debt with a twenty-year term: it costs the government \$3,375 (13.5 percent) unsubsidized in direct lending and \$6,325 in the guaranteed program. If subsidized, these numbers jump to \$6,750 and \$9,250, respectively. First, note that even the unsubsidized loan is subsidized; the government pays 13.5 percent of the cost of the loan. If we assume that the \$3,375 cost in the direct lending program represents the cost of the preferential borrowing rate, plus reasonable administrative costs, then the student's cost is \$3,375 lower than it would be for a similar private loan. The cost to the government to make the same loan through the guaranteed loan program is almost twice as high—\$6,328—and the student receives fundamentally the same product.

The obvious question to ask then is what happens to the additional \$2,953, or 12 percentage points, in costs paid by the government to financial institutions to make guaranteed loans? Financial institutions may have higher costs than the direct lending program (due to a higher cost of capital or operational inefficiencies, for example). Originating and distributing federal student loans is a very competitive business, so it is likely (as Debbie and Damien argue) that any excess payments to lenders are dissipated through

competition. The extra cost could be spent on marketing, or in "sweeteners" to students that improve the borrowing terms; say, through a discounted interest rate for on-time payments or electronic withdrawals. This decomposition does not affect the subsidy to guaranteed lending, but it does change how one thinks about the incidence of costs. If the extra cost for guaranteed lending is due to higher financing/operating costs or marketing expenses, there is little payoff to the government of using guaranteed lending. If, on the other hand, the payments go to improved terms for borrowers, then the additional government cost is passed along to student borrowers. In this case, the guaranteed loan program is more expensive to the government, but the student borrowers receive a better loan.

#### **Policy Implications and Responses**

To the extent that the guaranteed program is more expensive to the government than direct lending, without passing through the benefits to students, the guaranteed program is simply more costly to the government without benefitting students. Not surprisingly, the program has been under increased scrutiny. The most recent reauthorization of the Higher Education Act in 2007 improved loan terms to students by halving the interest rate, and also cut payments to lenders. The former, as indicated in Debbie and Damien's table 7.8, dramatically increases the subsidy to students—by a factor of 2 even under direct lending. The reduction in payments to financial institutions has caused a large number of lenders to cease participation in the guaranteed lending program, leading to a substantial shift to direct lending.

These changes may indicate a change in the federal lending model, eliminating the dual approach, in which direct and guaranteed lending programs coexist, and instead moving toward a model in which all student loan financing is provided by the federal government. Even under direct lending, servicing is generally privately provided through third-party servicing contracts with the government. Origination could also follow a contracting model, where financial institutions originate loans and sell them to the government (as has occurred with the disruption in financial markets in 2008). This model preserves some of the potential benefits of competition in origination and servicing, while eliminating what Debbie and Damien identify as wasteful subsidies in the guaranteed lending program.

#### Reference

Carneiro, P., and J. J. Heckman. 2005. Human Capital Policy. in *Inequality in America: What role for human capital policies?*, ed. J. J. Heckman and A. B. Krueger, 77–240. Cambridge, MA: MIT Press.