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PROBLEMS WITH THE NEW STUDENT LOAN PILOT PROGRAM

INTRODUCTION

The cost of college education in the United States has been skyrocketing. Secretary of Education William Bennett and others blame the student loan system, which encourages colleges to increase fees. This system, explains Bennett, has many failings besides the burden it places on taxpayers and the effect it has on fees. One is that it spreads subsidies thinly and widely, subsidizing students from relatively affluent families, thus leaving insufficient support available to poorer students. Another problem is that the repayment schedule for existing loan programs can be very onerous for graduates who enter low-paid professions.

In an effort to reform the student loan system, the Reagan Administration last year proposed a program to test a new form of student loan. Passed by Congress, the measure permits the U.S. Department of Education to conduct a five-year Income-Contingent Loan (ICL) pilot program. The Administration hopes that the success of this pilot program will strengthen its argument that the entire student loan system should be remodeled along similar lines.

Taxpayer Gains. Bennett praises the ICL pilot program as "the first major advance in federal student aid in the last two decades." For Bennett, a key advantage to ICL is that it gives students "potential access to large amounts of capital under manageable repayment terms geared to post-graduate earnings." Taxpayers also gain, says Bennett, because "the un-subsidized ICL promises to restore financial integrity to federal student aid programs, whose costs have soared out of control in recent years."

In the pilot program, the Department of Education will grant an average of \$500,000 per year to ten participating colleges for revolving funds to finance loans. The \$25 million program is to begin during the 1987-1988 academic year. The stated objectives of the ICL program, says Bennett, are to:

- 1) **make the student's loan repayment burden manageable** by allowing him or her as much time as needed to accommodate individual post-school income patterns;
- 2) **maintain federal support for campus-based direct student loan programs**, thereby allowing institutional flexibility in packaging individual student aid awards;
- 3) **enhance institutional choice** by authorizing substantially higher loan amounts than permitted under current law; and
- 4) **put no long-term burden on the federal budget** by requiring borrowers to make full repayment at 3 percent above Treasury borrowing costs.

As the name "income contingent" suggests, the program will permit payments that are related to a graduate's income. Under the pilot ICL program, the student will be able to borrow a total of \$17,500. The interest rate on the loan will be adjusted annually at a rate three points above the 90-day Treasury Bill rate. Students will pay nothing while they attend college, although interest will begin to accrue as soon as the student takes out the loan. When the student leaves school, he must begin repaying the loan plus accrued interest, after a two-year period in which a monthly payment of only \$50 will be required. The result: the loans will be somewhat more expensive to students--but less so to the taxpayer--compared with other loan programs.

Attractive to Students. Despite the higher cost, the Administration believes that the new form of loan will still be attractive to students. The main attraction is that repayments will be extended in a way to ensure that they will take no more than 15 percent of the borrowers' after-college income. Currently, payments are a fixed sum for a fixed period (10 years) under the Guaranteed Student Loan (GSL) and National Direct Student Loan (NDSL) programs.

In theory, the pilot program is admirable. It will reduce the interest rate subsidy to students, for whom a college degree is an investment leading to higher average incomes. It also will limit monthly payments for those students who choose less lucrative careers. This will be fairer to taxpayers without a college education, who currently must pay taxes so that students can obtain higher incomes.

As promising as the ICL appears, there is only a slim chance that the ICL pilot program will be a fair test of how a full-scale ICL program would work. Under the pilot program, as now designed, it is unlikely that ICL loans will prove attractive to many students.

Illogical Choice. In fact, the ICL program likely will lead to a much higher default rate than the Department of Education projects, despite the repayment flexibility available under ICL. Moreover, the reduction in subsidies will lead to significantly higher payments for most students choosing ICL, when compared with payments under other loan programs--even with the improved payment flexibility of ICL. Thus it would be illogical for most students to take part in the pilot program. As such, the program will not test ICL across a typical cross section of American students. Hence the results of the pilot program will provide little or no useful information on how a comprehensive ICL program would work.

The ICL pilot experience probably will play into the hands of ICL opponents. The reason for this is that as long as the ICL pilot program is voluntary and other highly subsidized loan programs exist alongside it, there is no reason to suppose that there will be significant demand for it.

Bennett believes that decreasing student subsidies will give students an incentive to re-evaluate the financial return to higher education, and that this in turn will put pressure on colleges to reduce costs to attract students. But this cannot happen through a small voluntary pilot program, leaving other subsidies intact. It is only likely to come about if the government withdraws completely from the loan business and eliminates subsidies to all but a small minority of needy students. The Department should be focusing on this political task, not on an experiment that cannot work.

WILL THE ICL PROGRAM MEET ITS GOALS?

A major difficulty with investments in such "human capital" as skills and education is that they cannot be capitalized to serve as a source of collateral, unlike investments in buildings and machinery. This creates considerable risk for any institution lending money to individuals based on their human capital and expected earnings. The result, understandably, is that banks are much less inclined to lend to students than, say, to businessmen.

The ICL program tries to reduce the default risk by linking the repayment schedule to after-college income. Loan payments under ICL would be contingent on the level of a student's future income, but with monthly payments no more than a maximum of 15 percent of his or her adjusted gross income. Presumably, this means that if post-schooling income is zero, then payments also are to be zero. Interest on the loan, however, will continue to accrue and be converted to principal. Subject to the 15 percent maximum, ICL payments are, on the other hand, to be adjusted for changes in interest rates to make students bear the risk of future financial market conditions. Under programs with fixed interest rates, it is taxpayers who bear the risk of future market fluctuations.¹

Shifting the Risks. Most individuals are risk averse, as demonstrated by the willingness of most home buyers to pay a premium (higher interest rate) to avoid the uncertainty in payments under variable rate mortgages. Thus, since the ICL program not only decreases the interest subsidies to students, but also shifts the risk of changes in future interest rates from taxpayers to students, students will be less inclined to borrow.²

1. The Higher Education Amendments of 1986 phase in variable interest rates for existing loan programs.

2. Besides the risk allocation aspect of a variable interest rate, which is distributional, there is also an allocative or efficiency argument for variable rates. From an efficiency standpoint, loanable funds should be allocated to investments with the highest rate of return. For example, if students had been charged the T-bill rate plus 3 percent in the early 1980s (see Table 1), it is likely that some students would have reevaluated the returns from college.

Because of the limited market for unsecured investment loans in human capital, it is difficult to determine what would be an unsubsidized market interest rate for student loans. A cautious estimate might be the interest charge on unsecured credit cards or personal notes. An additional complication is that students are not required to start payments until they finish school, which can be five years or more after they take the loan. The potential repayment period, moreover, can stretch indefinitely into the future. This potential for prolonged repayment periods represents a radical departure from current loan programs, which limit the repayment period to ten years. Thus the distinction between short-term and long-term interest rates is much more important under the ICL program than under the current loan system.

The loan payments will be based on the 90-day T-bill rate plus 3 percent. To review the implication of choosing this rate, in contrast to rates for longer term borrowing, Table 1 compares the 90-day T-bill rate with the 10-year Treasury security rate during the past 10 years.

TABLE 1
HISTORICAL INTEREST RATES

Year	Consumer Price Index Increase	90-Day T-bill interest rate	10-Year Treasury interest rate
1976	05.80 percent	04.99 percent	07.61 percent
1977	06.50 percent	05.27 percent	07.42 percent
1978	07.70 percent	07.22 percent	08.41 percent
1979	11.30 percent	10.04 percent	09.44 percent
1980	13.50 percent	11.51 percent	11.46 percent
1981	10.40 percent	14.03 percent	13.91 percent
1982	06.10 percent	10.69 percent	13.00 percent
1983	03.20 percent	08.63 percent	11.10 percent
1984	04.00 percent	09.53 percent	10.75 percent
1985	03.10 percent	07.24 percent	10.64 percent
Ave.	07.16 percent	08.91 percent	10.37 percent

Except for years of high inflation, the T-bill rate was significantly below the 10-year rate. The average difference over the 10-year period was 1.5 percentage points. Thus, if the ICL program is intended to eliminate the interest subsidy, then a longer term rate should be used as the basis for setting the interest to be paid by the student. This longer term rate more closely corresponds to the period for which the federal government is obligated than does the T-bill rate. Moreover, there is an advantage in using the longer term rate, since it tells students what the market anticipates the future interest rates will be. Hence they can make a more informed choice about borrowing funds.

Hiding the Default Risk. The most serious problem with calling the ICL program an unsubsidized program, however, is the hidden risk of default. About 10 percent of all the dollars loaned out under the Guaranteed Student Loan (GSL) program go into default. Even when loans to defaulting students are referred to debt collection agencies, there is a final loss rate of approximately 4 percent. Under the National Direct Student Loan (NDSL) program, the default rate is 15 to 16 percent of all money borrowed. The loss rate after the collection process decreases by less than 1 percentage point because of poor collection efforts by institutions.³

Significantly, the authority for the regulations to be issued for the ICL program comes from the NDSL program. It is difficult to determine an annual risk premium based on default rates that are based on total money borrowed. But the experience of the NDSL program suggests strongly that unless the ICL program results in a significant reduction in the loan default rate, the 3 percent interest rate add-on will not be sufficient to cover both the default rate and administrative costs. If this is the case, then contrary to claims by the Department of Education, the program will involve a subsidy to students.

WILL THE ICL PROGRAM DECREASE OR INCREASE THE DEFAULT RATE?

The crux of the subsidy issue in the ICL program is the likely effect on the default rate. On the plus side, the ICL program, compared with other federal loan programs, is advantageous to taxpayers in that it decreases the annual interest subsidy to students while in school, eliminates the risk of future market fluctuations, and reduces the total taxpayer subsidy to students. On the negative side, taxpayers face costs and risks because the repayment period under the ICL program is substantially longer. The interest subsidy each year is lower than for other loan programs, but this is offset by the longer period of subsidy, the larger loan amount available per student, and a possible higher default rate of ICLs relative to other loan programs.

To the degree that taxpayers benefit in the ICL program, relative to other subsidized loan programs, there are additional costs to students. But the student does enjoy some benefits. The student can borrow larger amounts than under other loan programs, has a wider range of choice among lending institutions, and has a more flexible repayment schedule conditioned on the level of future income.

The Advantage of Repayment Flexibility. Compared with other loan programs the larger ICL amount is insignificant, especially when the reduced subsidy is factored into the calculation.⁴ Thus, if there is a student advantage, it lies with the flexible repayment terms. Indeed, Bennett has emphasized the ICL repayment

3. These figures are approximate and based on conversations with the U.S. Department of Education.

4. Changes in the Higher Education Amendments of 1986 also increased per student loan amounts under other programs. For example, a student can borrow \$17,250 under a GSL--only \$250 less than a ICL (\$17,500).

flexibility as the principal student benefit. He claims too that repayment flexibility will also benefit taxpayers by reducing the default rate.⁵ But the default rate is likely to increase when the subsidies are reduced and individual loan payments are increased or extended over time.

How will a student fare under the program? Table I in Appendix A indicates the repayment schedule under the terms of the ICL program. The calculations show that at an interest rate of 15 percent on the loan (12 percent T-Bill plus 3 percent) the student would need an after-school income of \$40,083 just to make the interest payments on the maximum loan and yet keep these payments below 15 percent of his income. An income below this figure means that the maximum permissible repayments under the ICL program would fall below the interest charged on the loan and so the student's debt would grow. Moreover, the figures indicate that the longer repayment period does little to lower monthly payments. The annual income needed to pay off the loan over 30 years would still be \$40,560, compared with \$42,240 if the debt were to be cleared in 20 years.

The average gross income of males in the U.S., age 25 to 29 with 4 years of college, was \$18,118 in 1981. Adjusting for inflation, the figure for 1986 was \$21,907. Assuming a 5 percent rate of inflation, the average after-school income for graduates by 1993 will be \$30,825. Thus under the ICL program, unless interest rates fall to unusually low levels a student would need to earn significantly above the average graduate salary to be able to make payments, subject to the 15 percent of income maximum rule, without falling deeper and deeper into debt.

Different Story. The average T-bill rate in the last 10 years was 8.91 percent (Table 1). If this average is assumed for the next several years then the average interest rate on ICLs would be about 12 percent (T-bill plus 3 percent). Those students who will earn at least \$30,825 in 1993 (the average inflation-adjusted income based on the 1981 average income) would be able to pay off the principal in 20 years (see Table I, Appendix A). Thus, for an average or better student income, and assuming interest rates in the future no higher than the last decade, the ICL program would be manageable. But for students earning below the average income, the story is different.

A student's income does not have to fall much below the average at a 12 percent interest rate before payments are insufficient to cover even interest, let alone any principal. And if the prevailing interest rate were to be just 1 or 2 percentage points above the average rate in recent years, then the payments of many students would be insufficient to cover interest only.

If the principal owed increased, or the repayment period had to be extended, there would be a greater probability that the student would default or declare

5. Address by William J. Bennett, United States Secretary of Education, "The Future of Federal Student Financial Aid," sponsored by the Institute for Educational Affairs, Catholic University, Washington, D.C., November 19, 1986, pp. 7-11.

bankruptcy.⁶ Moreover, if payments prove to be insufficient to cover the interest costs of the ICL program, it will not sustain revolving loan funds.

Interest rates, of course, could remain at low levels, and the future incomes of college graduates could increase at a much higher rate than inflation. Yet even under these highly favorable conditions the ICL program would not be attractive to students. An implicit assumption of the ICL program is that its terms are more favorable to students than other loan programs. Two implications follow if this assumption is not correct. First, there may not be any student demand for an ICL if other loan programs are available. And second, if ICL repayment terms are more onerous relative to other loan programs, then the ICL default rate will be higher than existing loan programs. So the comparative terms of ICL and other student loan programs will have a significant impact on student attitudes to the new program.

HOW DOES ICL COMPARE WITH GSL?

The Higher Education Amendments of 1986 permit a student to borrow up to \$17,250 under the Guaranteed Student Loan program--only \$250 less than the ICL program. Table II in Appendix B compares the payments faced by students under the two programs. The calculations show that only low-income graduates could expect lower monthly payments under ICL, with its higher interest rates but extended repayment period, than under the 10-year payoff required under the GSL program. The claimed benefits of flexibility and extended payment schedule, in fact, do nothing to make an ICL loan more attractive to the average student. Under all reasonable assumptions the graduate will end up paying more each month under the ICL program than under GSL, and for as many as 20 years longer.

Thus as long as other loan programs are available, it is unlikely there will be any significant demand for ICL. Those students with high expected future incomes certainly would not choose an ICL because their payments could be higher and the repayment period shorter compared with a GSL. Indeed, if there is any demand at all for ICL, it is likely to come from students with very low expected future incomes. This will result in adverse selection, such that payments to the program might not even cover interest costs, making it impossible to sustain a revolving fund.

Table II in Appendix B also suggests that the ICL default rate is likely to be higher than that of other loan programs since default rates can be assumed to be positively related to the amount and duration of monthly payments.

6. There are costs associated with bankruptcy such as the loss of any credit for an extended period of time. It is possible that a payment of 15 percent of a student's post-schooling income is less costly than declaring bankruptcy even though there is no expectation of ever paying off the principal of an ICL.

CONCLUSION

The objectives of the ICL program are laudable. But the analysis points to the futility of offering students one financial aid program when other more heavily subsidized programs are available. If students can be persuaded to take part in the ICL program then there might be a tiny reduction in the federal deficit. But any taxpayer savings from the ICL program are contingent upon student default rates. Under almost any set of assumptions, the ICL default rate would likely be higher than other federal loan programs.

Bennett believes that decreasing or eliminating loan subsidies will provide students with the incentive to reevaluate the return to higher education, which in turn will put pressure on higher education institutions to decrease costs. But this effect is likely to come about only if the government gets out of the loan business or truly eliminates subsidies in all loan programs.

As long as Guaranteed Student Loans and other highly subsidized loan programs are available, the ICL pilot program will provide little or no useful information regarding the impact on default rates or the deficit of changing the entire federal loan program to a version of ICL. In fact, the five-year pilot program will reveal very little, except perhaps that the students who enroll in it know little about financial principles.

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APPENDIX A

Repayments Under the ICL Program

Table I indicates the financial situation a student could face under the ICL. The table shows the principal balance owed at the end of 7 years and the required post-schooling income needed to make payments. Column 1 provides a range of possible interest rates charged on the loans. Column 2 shows the principal balance owed at the end of 7 years for each interest rate, assuming the student borrows \$2,500 for the first and second year, \$3,500 the third year, and \$4,500 in the fourth and fifth years for a total amount borrowed of \$17,500. These are the permissible maximum amounts under the ICL program.

For example, at an interest rate of 9 percent (that is, a T-bill rate of 6 percent plus 3 percentage points) the student will have a principal balance obligation of \$24,030 at the end of five years of study. The difference between the \$24,030 principal balance and the \$17,500 amount that the student actually borrowed is the accrued interest.⁷ That is, the \$6,530 difference is a measure of the additional taxpayer subsidy that is paid under other loan programs such as NDSL or GSL, where no interest is charged until repayments begin. Column 2 is the principal balance remaining at the end of 7 years with an assumption that the student pays the maximum \$50 per month payment for two years upon completion of his five years of study, as specified under the ICL program.⁸

Column 3 is the monthly payment necessary to pay the interest only, without retiring any of the principal, and column 4 represents the adjusted gross income required by the student simply to pay the interest.⁹ Thus if the interest rate were 15 percent, the principal balance owed at the end of 7 years would be \$40,083 the accrued interest over the 7-year period of \$22,583 (\$40,083-\$17,500), and the

7. Interest was calculated by taking the compound interest on the \$22,500 borrowed in the first year for five years, the compound interest on \$2,500 borrowed in the second year for four years, and so on for subsequent amounts borrowed in the third, fourth, and fifth years to arrive at the total compounded interest for the five-year period.

8. Secretary Bennett has stated that "Payments would begin nine months after graduation. For the first two years they would be a fixed rate between \$20 and \$50, depending on the size of the loan. At the end of this two-year period, the payments would become contingent on the borrower's Adjusted Gross Income for the prior year. There would be no minimum payment, and year payments would never exceed 15 percent of the beneficiary's income. Special deferments would still be available." (Address by Secretary Bennett, November 19, 1986 p. 11.) Thus, the principal balances calculated in column 2 are an underestimate if the student is given a grace period of nine months after graduation in which no payments are required, although interest would continue to accrue. Column 2 ignores the nine-month grace period and assumes the student makes \$50 per month payments at the end of 5 years and not 5 years and 9 months. Note that the \$50 per month payment is insufficient to cover interest on the principal balance owed at the end of 5 years regardless of what interest rate is assumed in Table 2.

9. Adjusted Gross Income under the 1986 Tax Reform Act is likely to be similar except for adjustments such as alimony paid or IRA or Keogh deductions. The required income figure in column 4 is calculated by taking the interest-only monthly payment in column 3 and multiplying it by 12 months to obtain an annual payment, then dividing the annual payment by 15 percent (maximum percent of income required for payment).

TABLE I

**7-YEAR PRINCIPAL BALANCE UNDER ICL:
INCOMES AND PAYOFF PERIODS**

(Assuming maximum loan of \$17,500)

(1)	(2)	(3)	(4)	(5)	(6)
Percentage Interest Rate	Principal Balance End of 7-Years	Monthly Interest Payment Only	No Payoff Required Income	20-Yr. Payoff Required Income	30-Yr. Payoff Required Income
08.0	\$27,722	\$185	\$14,785	\$18,560	\$16,240
09.0	\$29,211	\$219	\$17,527	\$21,040	\$18,800
10.0	\$30,785	\$257	\$20,523	\$23,760	\$21,600
11.0	\$32,446	\$297	\$23,794	\$26,800	\$24,720
12.0	\$34,201	\$342	\$27,361	\$30,160	\$28,160
13.0	\$36,055	\$391	\$31,248	\$33,760	\$31,920
14.0	\$38,014	\$443	\$35,480	\$37,840	\$36,000
15.0	\$40,083	\$501	\$40,083	\$42,240	\$40,560
16.0	\$42,271	\$564	\$45,089	\$47,040	\$45,440
17.0	\$44,582	\$632	\$50,527	\$52,320	\$50,880

interest-only monthly payments would be \$501. The required post-schooling income to make the interest payments would be \$40,083. Note the sensitivity of principal owed at the end of 7 years (column 2) to the interest rate (column 1). A one percentage point change in the interest charged can change the principal owed by more than \$2,000.

Column 5 calculates the income necessary for the student to pay off the loan in 20 years. For example, if the interest rate were 9 percent, then a monthly payment of \$263 would be required to cover interest payments and to pay off the principal balance of \$29,211 in 20 years. The required income would have to be \$21,040.¹⁰ At an interest rate of 15 percent, the required income for a payoff in 20 years is \$42,240. Column 6 is calculated in the same manner as columns 4 and 5, except that a 30-year payoff is assumed.

It should be noted that the required incomes in columns 4, 5 and 6 do not differ considerably when the payoff period is extended from 20 years to 30 years, or to an indefinite period for that matter. This is especially true at high interest rates. For example, at an interest rate of 15 percent, the required income for interest payments only is \$40,083, while a 20-year payoff requires an income of \$42,240 and a 30-year payoff an income of \$40,560. Thus the flexibility of extended payments

10. $(\$263 \times 12)$ divided by 15 percent.

has perhaps been overestimated by the Department. As columns 5 and 6 in Table II illustrate a 50 percent increase in the allowable payoff period makes very little difference in payments and the required incomes to support these payments.

Thus Table I indicates that the ICL program would require students to earn fairly high post-schooling incomes in order to pay the interest, without even reducing the ICL principal. If the required income is not earned, then the unpaid interest will be added to the principal, making the principal owed by the student grow even larger. The average gross income of males in the U.S., age 25 to 29 with 4 years of college, was \$18,118 in 1981.¹¹ If this figure is adjusted for inflation, then the average gross income for 1986 would be \$21,907.¹² If the inflation rate is assumed to be 5 percent per year for the 1987-1993 period, then the average inflation-adjusted income for such students could be assumed to be \$30,825 in 1993. Table II (column 4) indicates that the required post-schooling income merely to pay interest at the end of 7 years and a 13 percent interest rate is \$31,248. Thus if the ICL interest rate were to be 13 percent or more, or a student's actual income in 1993 turned out to be less than the 1993 inflation-adjusted average income of \$30,825, the ICL principal would increase indefinitely as long as the student's post-schooling income continued to be insufficient to support interest-only payments.

11. *Money Income of Households, Families, and Persons in the United States, 1981*, Bureau of Labor Statistics, 1985, Table 48, p. 164.

12. The 1981 mean gross income for the expanded age groups of 25-34 males was \$20,468. If the same inflation adjustments are made, then the 1993 mean gross income would be \$34,825. As Table II illustrates, at high interest rates, the required income may exceed \$34,825.

APPENDIX B

Payments Under ICL and GSL

Table II compares the Income-Contingent Loan (ICL) program with the Guaranteed Student Loan (GSL) program, assuming that the amount borrowed is \$17,500 under each program and that the GSL qualifies for federal interest subsidies. The first column in Table II is the assumed interest rate. Column 2 is the monthly payment on a GSL of \$17,500 over a 10-year pay-off period (the maximum repayment period for a GSL is 10 years). Because interest on a GSL is subsidized while the student is in school, the principal balance owed at the end of the fifth year is the same as the amount borrowed. Column 3 is the monthly payment on a ICL over the same 10-year period if the student were to start payments at the end of the fifth year. The higher monthly ICL payment in column 3, compared with the GSL payment in column 2, is due solely to the absence of interest subsidies while the student is in school. All other terms are identical.

TABLE II

A COMPARISON OF GSL AND ICL MONTHLY PAYMENTS

(1)	(2)	(3)	(4)	(5)	(6)
Interest Rates	Commencing payments after 5 Yrs.		Commencing payments after 7 Yrs.		
	10 Yrs payoff GSL Monthly Payment	10 Yrs ICL Monthly Payment	10 Yrs ICL Monthly Payment	20 Yrs payoff ICL Monthly Payment	30 Yrs payoff ICL Monthly Payment
8.0	\$212	\$284	\$336	\$232	\$203
9.0	\$222	\$304	\$370	\$263	\$235
10.0	\$231	\$325	\$407	\$297	\$270
11.0	\$241	\$348	\$447	\$335	\$309
12.0	\$251	\$371	\$491	\$377	\$352
12.5	\$256	\$383	\$514	\$399	\$375
13.0	\$261	\$396	\$538	\$422	\$399
14.0	\$272	\$422	\$590	\$473	\$450
15.0	\$282	\$450	\$647	\$528	\$507
16.0	\$293	\$479	\$708	\$588	\$568
17.0	\$304	\$510	\$775	\$654	\$636

The Department of Education argues that the advantage of the ICL to students is that payments are contingent on future incomes, thereby making payments less onerous than the arbitrary 10-year payoff required under GSL. But this advantage exists only if incomes are low. For example, consider a 9.0 percent interest rate. The monthly payments under GSL are \$222 over 10 years, whereas the monthly payments under an ICL are \$304 over the same 10-year period. A

student with a post-schooling income of \$17,760 upon graduation thus could make payments of 15 percent of his income or \$222 per month under GSL while payments of \$304 per month would be required under an ICL. The savings to the student of a GSL over an ICL for the same payoff period are \$9,840.¹³

Now consider the claim that the student benefits from the extended repayment period. Under the ICL program, column 4 assumes the student pays the maximum \$50 per month after graduation for two years and then makes monthly payments based on the principal owed at the end of 7 years for a period of 10 years (that is, \$50 per month for 2 years and then the monthly payment in column 4 for 10 years). Starting at an interest rate of 12.5 percent, the ICL payment proves to be more than double that of a GSL payment. Thus the benefit of paying \$50 per month for the sixth and seventh year contributes to a doubling of the monthly payment for the remaining ten years. Even those students expected to earn a low income upon the completion of school may be at a disadvantage with a ICL. Suppose the interest rate was 9.0 percent, for instance, and the student made ICL payments of 15 percent of his income, or \$370 (column 4) per month at the end of 7 years for a 10-year period. The required income would be \$29,600.¹⁴ But a student with GSL payments of 15 percent of his income, or \$222 per month (column 2) for 10 years would only require an income of \$17,760¹⁵ or \$11,840 less income. Thus, the ICL benefit of only having to pay \$50 per month for two years comes at the expense of the ICL student having to earn considerably more than a GSL student for the same 10-year payoff period. The claimed flexibility of an ICL does not seem to benefit the student under these circumstances.

Now consider the more extended repayment periods under the last two columns, which list the ICL monthly payments on the principal balance owed at the end of 7 years with 20- and 30-year payoff respectively. For example, at a 9 percent interest rate, the monthly payment for a 20-year payoff is \$263 and \$235 for a 30-year period. Even with an extended payoff of 30 years, the students monthly ICL payments exceeds that of GSL payment (\$222) with a 10-year payoff. So the ICL student would have to earn more than the GSL student with payments based on 15 percent of income, make higher payments, and make three times as many payments. Moreover, as Table II indicates, the required income and disparity between the ICL and GSL increases with an increase in the interest rate. Thus under almost any set of assumptions, a student who chooses an ICL over a GSL is going to be worse off.

13. All the calculations in Table II in Appendix B ignore the 9-month grace period after graduation when payments are not required under either the GSL or ICL. This means that the principal balance owed under a ICL actually is underestimated because interest would accrue into principal during the grace period.

14. $(\$370 \times 12)$ divided by 15 percent = \$29,600.

15. $(\$222 \times 12)$ divided by 15 percent = \$17,760.