The influence of sociodemographic characteristics and knowledge about loans on student debt

by

Carla Sue Brinkman

A Thesis Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE

Major: Family Environment

Iowa State University
Ames, Iowa

1989

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1. INTRODUCTION TO THE STUDY

Purpose of the Study

The purpose of this study is to analyze the influence of selected sociodemographic variables and students' knowledge about their educational loans on the amount of total debt. The major objectives are to:

1) develop a sociodemographic profile of the students in the spring, 1988, graduating class at Iowa State University who have borrowed guaranteed student loans;

2) ascertain the students' knowledge about various aspects of their student loans including: (a) when they first borrowed, (b) interest rate, (c) grace period, (d) when repayment will begin, (e) amount of their monthly payment, and (f) their overall self-reported level of knowledge; and

3) examine the relationship among the sociodemographic profile of the students, their level of knowledge, and their total debt.

Importance of the Study

While educational borrowing has been around for many years, its recent growth coupled with increasing default rates has caused much concern about student borrowing today. One specific area of concern has been raised about students' knowledge about their student loans. The literature suggests that students lack knowledge about their student loans (Evangelauf, 1987; Holland and Healy, 1989; Marchese, 1986;

McCormick, 1987; Popik, Bluitt, Bushman, and Moreland, 1986). In an effort to help alleviate this problem, Congress included a provision in the Higher Education Reauthorization Act of 1986 that requires institutions that certify loans to counsel Guaranteed Student Loan (GSL) and Supplemental Loan (SLS) borrowers prior to their departure from the institution (Guthrie, 1986). However, Holland and Healy (1989) found that students still lacked knowledge about their loan repayment following the conclusion of the exit interview counseling sessions. Thus, the literature suggests that more student education is still needed to help borrowers become more knowledgeable about their loans.

With one-third to one-half of all undergraduates leaving school in debt for their education, concern also has been raised about the impact of the mounting debt burdens. At this point, however, most of this concern is based on impressionistic and anecdotal evidence (Hansen, 1986). Data and studies on the impact of student borrowing are few, fragmentary, and frequently out-of-date and/or contradictory. Hansen (1986) suggests there is a pressing need for better data and research on student borrowing to help separate valid from invalid concerns about high borrowing levels. However, before the impact of debt burdens can be assessed, information is needed which describes the background of the students who are borrowing, their level of knowledge about their loans, and their total debt. Once these baseline data are available, the impact of the student debt on the college graduates can be assessed. This study is designed to provide the much needed empirical baseline information.

CHAPTER 2. LITERATURE REVIEW

Overview of Loan Programs

Student loans originated in the private sector, with individual lending institutions loaning money directly to students (Lee, 1985). The federal government finally entered the picture in 1942-43 when it initiated a small wartime student loan program (Moore, 1983). Since that time, the federal government has become increasingly active in the student loan arena. It created the Perkins Loan (formerly National Defense Student Loan [NDSL]) in 1958, the Health Professions Student Loan (HPSL) in 1963, the Nursing Student Loan (NSL) in 1964, and the Stafford Loan (formerly Guaranteed Student Loan [GSL]) in 1965 (Clohan, 1985; McAlvey and Price, 1985). The 1980s brought an expansion of the Stafford Loan program, which now includes Parent Loans for Undergraduate Students (PLUS) and Supplemental Loans for Students (SLS).

Most of the literature groups the available student loan programs into three categories: Perkins loans, Stafford Loans (including PLUS and SLS), and Other Loans. This section will provide a brief overview of these programs.

Perkins Loans

Title II of the National Defense Education Act of 1958 authorized the National Defense Student Loan (NDSL) program (Moore, 1983). In 1972, this loan program was retitled National Direct Student Loan (NDSL), and was finally renamed the Perkins Loan in 1986 in memory of Carl D. Perkins, the late chairman of the House Education and Labor Committee

(U.S. Department of Education [USDE], 1988).

The Perkins Loan is a campus-based loan. Students must apply through their college financial aid office and demonstrate financial need in order to qualify for this long-term, low interest (5 percent) loan. The amount of money students may borrow under this program depends on their financial need, the availability of Perkins Loan funds at their particular school, and their other financial aid. By law, the maximum amount borrowed may not exceed a total of $4,500 for students enrolled in a vocational program or students who have completed less than 2 years of their bachelor's degree program; $9,000 for undergraduates who have completed their first 2 years toward their bachelor's degree and are in their third year; or $18,000 for graduate or professional study. The second and third amounts listed include any previous Perkins loans. Perkins loan borrowers get a 9-month grace period after they graduate, leave school, or drop below half time before they must begin repayment (USDE, 1988).

Stafford Student Loans

The Stafford Student Loan program was first authorized by Congress as the Guaranteed Student Loan (GSL) program under Title IV, part B of the Higher Education Act of 1965 (Clohan, 1985). It was renamed the Stafford Loan on July 1, 1988, in honor of Senator Robert T. Stafford of Vermont, former Chairman of the Senate Subcommittee on Education, Arts, and Humanities (U. S. Department of Education [USDE], 1989). Since it was called the GSL program up until July 1, 1988, it will be referred to as such in this thesis when reviewing literature prior to that date.

The GSL program began as a source of "loans of convenience" for middle-income families and marked the beginning of a new era in educational borrowing (Kramer and Van Dusen, 1986). The GSL program was designed to make long-term, deferred payback, educational loans available to all eligible students (National Association of Student Financial Aid Administrators [NASFAA], 1987). To encourage lenders to participate in the program, the federal government initially guaranteed the loans and repaid the lenders if a borrower defaulted, went bankrupt, died, or became permanently and totally disabled. Now, state guarantee agencies in every state insure the loans and the federal government reinsures them (USDE, 1988).

Currently students must apply for a Stafford Student Loan through their school's financial aid office. The amount of money they may borrow depends on their financial need after other financial aid has been subtracted and on the following loan limits. First- and second-year undergraduate students may borrow up to $2,625 a year. Undergraduates who have achieved at least third-year status may borrow up to $4,000 a year. Graduate or professional students (i.e., veterinary medicine, dentistry, law, etc.) may borrow $7,500 a year. The total Stafford Student Loan/GSL debt an undergraduate may have outstanding is $17,250. Graduate or professional students may borrow an additional $34,500, for a total of $54,750. Students who began borrowing after September, 1983, are borrowing GSLs at 8 percent interest. Students who borrowed their first GSL prior to October, 1983, at either 7 or 9 percent, continue to get that interest rate for subsequent Stafford Student Loans as long as

they have not entered into repayment. The federal government pays the interest on the loan until the grace period ends. Stafford Student Loan/GSL borrowers have a 6-month grace period after they graduate, leave school, or drop below half time before they go into repayment (USDE, 1988).

Two newer loan programs, PLUS and SLS, are included here in the discussion of Stafford Student Loans because they are authorized under the GSL provisions of Title IV-B of the Higher Education Act as amended. The PLUS loan was created by the Education Amendments of 1980, which authorized nonsubsidized deferred payback loan guarantees for parents of dependent undergraduate students. The SLS loan for graduate or professional students and independent undergraduate students started in 1981. These loans were initially called Auxiliary Loans to Assist Students (ALAS) and were not actually called SLS until the Higher Education Amendments of 1986. Although these loans have been around since the early 1980s, the 1986 reauthorization was actually the first legislation to refer to them by these acronyms (National Association of Student Financial Aid Administrators [NASFAA], 1987).

Under the PLUS program, parents may borrow up to $4,000 per year, up to a total of $20,000 for each dependent student who is enrolled at least half-time. Under SLS, graduate/professional students and independent undergraduates may borrow up to $4,000 per year, to a total of $20,000. While these limits are above and beyond what can be borrowed under the Stafford Student Loan program, the total amount of the PLUS or SLS and all other financial aid may not exceed the cost of education. PLUS and

SLS borrowers fill out applications and give them to the school to process and send on to the requested lender just like Stafford Student Loan borrowers. However, PLUS and SLS borrowers do not have to demonstrate financial need in order to qualify for the loan. The only test they may have to undergo is a credit analysis (USDE, 1988). PLUS and SLS loans have variable interest rates, adjusted in June of each year. The interest rate for the 1988-89 award year was 10.45 percent. PLUS and SLS borrowers generally must begin repaying both principal and interest within 60 days after the loan disbursement. However, deferment options are available that allow borrowers to forego making payments on the principle until the deferment ends. While the deferments do not apply to interest, the lender may allow the interest to accumulate until the deferment ends. If students wait until the end of deferment to make interest payments, then they are charged interest on the principle plus interest that accrued during deferment (U.S. Department of Education [USDE], 1989).

Other Loans

Typically, the literature groups all other educational loan programs such as the Health Professions Student Loan (HPSL), Nursing Student Loan (NSL) and other loans (such as state or institutional loans) into an "other loan" category. This is only practical because of the relatively small size, narrow scope, and wide variety of the other loans available. Because these other loans come from a variety of sources, the available literature either reports only part of the statistics or ignores them altogether.

The "other loan" category is worth mentioning here because these loans can contribute to a student's total educational debt and can increase the complexity of a student's loan knowledge.

Iowa State University has an institutional loan program called the University Long Term Loan (ULTL). This loan fund, established in 1910, is funded from gifts or memorials of friends and alumni who have been greatly interested in the welfare of students at Iowa State University. The regulations concerning these funds are similar to those governing the Perkins Loan program. The applicant must establish financial need. Interest on the loan begins to accrue at the annual rate of 5 percent on the unpaid balance six months after the student ceases to be at least a half-time student (Staff, 1985, pp. 23.1.1-23.1.2).

Trends in Educational Borrowing

In the 1960s loans accounted only for about 20 percent of all financial aid (Gillespie and Carlson, 1983). Today, loans are the largest single source, almost 50 percent, of student financial aid (Lewis and Merisotis, 1987). Annual loan volume has quintupled in the last decade and now amounts to about $10 billion. In addition, average loans have more than doubled since 1970-71 to an estimated $925 for NDSL's and $2,381 for GSLs in 1986-87 (Hansen, 1986).

Considering the rate of inflation and the increase in the number of students attending a postsecondary school over the past 20 years, it comes as no surprise that student loans have increased. This section will look at the trends in the following four segments of student loans:

loans as a percentage of total aid, dollars borrowed, number of borrowers and average loan, and the default rate.

Loans as a Percentage of Total Aid

Over the years students have had to rely increasingly on loans, as opposed to grants, and work in order to finance their education (Simpson and Mendelson, 1986). Table 1 shows the increasing proportion of student financial aid that is in the form of loans.

The data in Table 1 are representative of the sum of all NDSL/Perkins, GSL (PLUS/SLS), and other loans divided by the total federal, state and institutional aid. The increase seen in the 1980s directly parallels the Reagan administration's emphasis on increased student loans rather than grants (Davidson, 1986).

Not every state nor every school has the same share of aid in loans. For example, in Iowa during the 1984-85 school year loans made up 42 percent of financial aid (Iowa College Aid Commission [ICAC], 1986). In 1983 student loans in Texas made up 60.8 percent of total aid. This percentage increased to 65.3 percent in 1987 ("TGSLC Research Shows," 1988). At Iowa State University in 1986-87 loans were 62.5 percent of the aid (Holland, 1987). The growing reliance on loans has resulted from a lack of available funds for grants and college work study ("TGSLC Research Shows," 1988).

Even though there is some variation among states, one fact is evident. An increasing number of students today are relying more heavily on loans, as opposed to grants and work, in order to finance their college education. Unpublished data from the financial aid office at

Table 1. Loans as a % of total student financial aid

Academic Year	% of Total Aid as Loans
1963-64	20.8
1970-71	28.9
1975-76	16.9
1977-78	21.6
1979-80	32.3
1980-81	40.9
1981-82	44.2
1982-83	44.9
1983-84	48.0
1984-85	50.0
1985-86[a]	48.9
1986-87[a]	49.4

Note. Data for 1963-64 through 1979-80 are from Gillespie and Carlson (1983). Data for 1980-81 through 1986-87 are from Lewis and Merisotis (1987).

[a]Estimated data.

Iowa State University show that 57 percent of all students who received financial aid got all or part of their aid in loan money during the 1986-87 academic year (Lephart, 1988).

Because of this increased emphasis on student loans, many people have become very concerned about the total amount of debt burden a student can reasonably be expected to carry (McCormick, 1987).

Dollars Borrowed

As expected, the total amount of money borrowed has risen dramatically right along with enrollment trends and the increased loan as a percentage of total aid. At nearly $9.1 billion borrowed nationally in 1986-87, the GSL program (including PLUS and SLS) is now the largest single source of aid (Lewis and Merisotis, 1987). Table 2 shows the increase in dollars borrowed nationally and for Iowa State University (ISU).

The increases and decreases seen in the data in Table 2 can be paralleled with legislative changes in the programs. The dramatic increase in GSL in 1979-80 can be tied to the passage of the Middle Income Student Assistance Act of 1978. The act removed the income ceiling for interest subsidy benefits, thereby increasing the number of eligible borrowers (Lee, 1985). The next large jump in GSLs, in 1980-81, can be attributed partially to increased loan limits that were established by the Education Amendments of 1980. The drop in GSLs in 1982-83 is tied to the Omnibus Budget Reconciliation Act of 1981 (also called the Postsecondary Student Assistance Amendment Act of 1981). This act limited the number of borrowers by establishing a "needs test" for

Table 2. Loans to students in current dollars (in millions)

	National			ISU[a]	
Year	NDSL	GSL(PLUS/SLS)	Other	NDSL	GSL[b]
1963-64	114	-	-	NA	-
1970-71	240	1,015	42	NA	NA
1975-76	460	1,267	45	NA	NA
1976-77[c]	NA	NA	NA	1.70	2.38
1977-78	615	1,737	42	1.84	3.44
1979-80	646	3,926	42	2.23	12.14
1980-81	694	6,203	61	1.83	21.75
1981-82	580	7,223	88	2.02	26.31
1982-83	597	6,694	157	1.90	18.87
1983-84	682	7,578	219	1.50	22.13
1984-85	677	8,608	244	2.15	23.50
1985-86[d]	703	8,839	248	1.96	23.79
1986-87[d]	829	9,099	210	2.25	25.85
1987-88	NA	NA	NA	2.83	27.22

Note. National data for 1963-64 through 1979-80 are from Gillespie and Carlson (1983). National data for 1980-81 through 1986-87 are from Lewis and Merisotis (1987). ISU data are from Lephart (1988). NA = not available.

[a]Information on Other loans at ISU not available.

[b]Does not include PLUS/SLS.

[c]National data were not reported for 1976-77.

[d]National data are estimated while ISU data are actual.

students from families with adjusted incomes over $30,000 per year (NASFAA, 1987).

With the increase in GSL borrowing limits established by the Higher Education Amendments of 1986, one would expect a substantial increase in 1987-88. As seen in Table 2, data at ISU support that presumption.

Number of Borrowers and Average Loans

Since the percentage of aid in loans and the dollars borrowed have increased, it seems only logical to expect the number of borrowers and average loans to have increased similarly.

Table 3 shows the national trends in number of borrowers and average loans, while Table 4 gives the data for ISU.

The number of borrowers is directly affected by the eligibility requirements established in the legislation. The Middle Income Assistance Act of 1978 effectively relaxed the eligibility requirements for GSLs and led to the increase in borrowers seen through 1981-82. In 1981, however, the passage of the Omnibus Budget Reconciliation Act tightened the requirements once again by setting an income ceiling for borrower eligibility. The effect of this is seen in 1982-83 with the drop in GSL borrowers both nationally and at ISU. Lee (1985) suggests, however, that the relatively small size of the decrease indicates that more lower-income borrowers were taking out loans.

The average GSL continued to increase in 1987-88 at ISU but was accompanied by a decline in the number of borrowers. This decline directly parallels the passage of the Higher Education Reauthorization Act of 1986, which tightened the eligibility requirements. Effective

Table 3. National number of borrowers and average loans

	Borrowers (in thousands)			Average Loan (in dollars)		
Year	NDSL	GSL	PLUS/SLS	NDSL	GSL	PLUS/SLS
1963-64	217	-	-	478	-	-
1970-71	452	1,017	-	532	998	-
1975-76	690	922	-	667	1,374	-
1977-78	795	1,014	-	773	1,713	-
1979-80	953	1,940	-	677	2,204	-
1980-81	816	2,904	1	853	2,135	2,500
1981-82	684	3,135	29	848	2,280	2,565
1982-83	675	2,942	80	884	2,208	2,456
1983-84	719	3,147	122	949	2,307	2,610
1984-85	697	3,546	177	971	2,297	2,633
1985-86	701	3,536[a]	193[a]	1,003	2,335	2,644
1986-87[a]	896	3,499	281	925	2,381	2,735

Note. Data for 1963-64 through 1979-80 are from Gillespie and Carlson (1983). Data for 1980-81 through 1986-87 are from Lewis and Merisotis (1987).

[a]Estimated data.

Table 4. ISU borrowers and average loans[a]

	# of Borrowers		Average Loan (in dollars)	
Year	NDSL	GSL	NDSL	GSL
1976-77	2,899	1,742	586	1,367
1977-78	3,032	2,300	606	1,493
1979-80	3,268	6,725	683	1,804
1980-81	2,681	10,138	682	2,146
1981-82	2,670	11,746	758	2,240
1982-83	2,625	8,653	724	2,181
1983-84	1,993	9,369	754	2,362
1984-85	2,713	9,772	793	2,405
1985-86	2,066	9,917	951	2,399
1986-87	1,823	10,596	1,233	2,440
1987-88	2,311	9,686	1,226	2,810

Note. Data are from Lephart (1988).

[a]Information not available for PLUS/SLS.

October 17, 1986, all students have been required to demonstrate financial need via a federally approved method (currently Congressional Methodology) in order to receive a GSL. Since most loans for the 1986-87 school year had already been processed under the previous regulations, the effect was not seen until the 1987-88 school year.

The decline in number of borrowers in 1987-88 corresponds with the slightly lower amount of total dollars borrowed that year. However, the data suggest that even though there has been a decrease in the number of students borrowing, these students are borrowing higher amounts and will leave school deeper in debt.

In terms of the total student population nationwide, these data represent one-third to one-half of all college students who are now leaving school in debt (Evangelauf, 1987). At Iowa State University, 48 percent of the students who graduated fall, 1987, left school with a guaranteed student loan debt (Holland, 1988). The increased debt load is felt by graduate students as well as undergraduate students. Dennis (1983) states that the graduate degree holder will have greater debt upon completion of the graduate degree than was once the case.

While it is known that the number of borrowers has been increasing, information is sketchy about the background of these borrowers. Statistics have not been routinely kept that identify the profile of borrowers (Washington Office of the College Board, 1986). However, Dresch (1986) suggests that "one class of students is encouraged to borrow more money than it needs, while another class cannot borrow enough." He is apparently referring to the days when middle- and upper-

income families were borrowing "cheap" money that they didn't really need to use for college, but borrowed it to gain the advantages of low interest and deferred payments. Davidson (1986), however, reports from a different angle. He points out that the increased borrowing is occurring among students who can least afford to be burdened by heavy debt. Lee (1985) specifically points to data from the UCLA/ACE Cooperative Institutional Research Program (CIRP) which show that students from lower-income families are now as likely to borrow as are wealthier students.

Default Rate

To this point, all the literature has pointed toward a society where graduating students will leave school deeper in debt than ever before. No discussion on student loans would be complete without some discussion of the default rate. As a point of reference, default rate commonly refers to the amount of money owed on delinquent loans divided by total money loaned.

While Witkin (1987) reports that student loan defaults have more than tripled in just five years, and Cronin (1986) suggests that loan administrators face a $1 billion annual student loan default, Davis (1985) suggests that the GSL default problem is not as serious as is commonly perceived by lenders, government officials, and financial aid administrators. In fact, the U. S. Bureau of the Census (1985) shows that the national GSL default rate fell from a high of 12.5 percent in 1980 to 10.7 percent in 1984. It increased slightly to a projected 11.4 percent in 1986. In 1986, the Iowa GSL default rate was only 6 percent

while the ISU GSL default rate was only 2.5 percent (Pins, 1986). The national NDSL default rate reached a high of 16.1 percent in 1980 and has decreased to a preliminary 14.8 percent in 1983. Data after 1983 were not available on NDSL loans. While the default rate has not changed greatly, it is true that both GSL and NDSL programs have experienced increased dollar volumes of defaulted loans during this period (U.S. Bureau of the Census, 1985).

Witkin (1987) concedes that the figures for defaults can be misleading. He admits the increase he refers to is a reflection of the expansion of the student loan program in response to increasing tuition costs. Even though the overall default rate went down, the dollar volume of loans in default has grown as a result of the increased loan volume (Engelgau, 1985).

A survey of default rates was done in 1983 by Jerry Davis of the Pennsylvania Higher Education Assistance Agency. Looking at the change between 1981 and 1983, he found that Arizona, California, the District of Columbia, Hawaii, Nebraska, Texas, and West Virginia had the biggest increase in default rates (ranging from 4 to 13 percent) and also had newer guarantee agencies with lower dollar volume loaned than states with "established" guarantee agencies. He defines "established" guarantee agencies as ones who guaranteed at least 40 percent of their total loans before fiscal 1981. To prove his point that the default rate is tied closely to the newness of the guarantee agency, Davis found that default rates dropped in 17 of the 23 states with "established" guarantee agencies. The 31 states where default rates increased had newer

guarantee agencies. Iowa was among the latter, with an increase of 2.5 percent, for a total default rate in 1983 of 3.8 percent. Davis explains that the overall national default rate fell from 10.17 percent in 1981 to 9.16 percent in 1983 because the states that guarantee the largest volume of loans (Illinois, Massachusetts, New Jersey, New York, and Pennsylvania) have "established" guarantee agencies with lower default rates. Thus, he believes his study further indicates that the default problem is not as bad as many people believe (Engelgau, 1985).

McCormick (1987, p. 32) points out that student loan defaults are currently a serious national concern and admits that they clearly are a problem. But he also suggests that they are a "fact of life in any social program that lends money to young people with no credit history, no collateral, no cosigner, and no assurance of success in their educational pursuits." He advocates more national research to discover some long-range solutions to the problems of default.

Students' Loan Knowledge

While much has been written about student loans, very little has been written about college students' knowledge about their own student loans.

Barberini (1986) suggests that educational loan programs must be based on informed student borrowers. Unfortunately, several authors suggest that students lack knowledge and need more or better information (Evangelauf, 1987; Holland and Healy, 1989; Marchese, 1986; McCormick, 1987; Popik et al., 1986). As McCormick (1987, p. 35) suggests in

discussing ideas for reducing the default rate, "improved student consumer information" is needed. Dennis (1983) states that student borrowers are unlike consumer borrowers and should be counseled at the time the loan is made to make them aware that they have a legal and moral obligation to repay the money. While Myhre (1979) suggests that this is not unlike consumer borrowers, the intimation remains that students lack knowledge about their loans.

The literature suggests that schools and lending institutions should be counseling and educating students about borrowing. Marchese (1986) points to a need to provide students with better information, due to the expanding loans. Kramer and Van Dusen (1986) suggest that emphasis should be placed on counseling student borrowers and potential borrowers about the risks of debt burden, to assure that they are willing borrowers making informed decisions. Kramer and Van Dusen also imply that not all borrowers are currently well informed. Evangelauf (1987) further suggests that student borrowers need more knowledge in how to manage credit. While she cites no empirical evidence, Evangelauf points out that student loans may not be the student's total debt. She states that individuals do not typically find that holding student loans prevents them from incurring other types of debt.

Popik et al. (1986) found that many students did not read information regarding their GSL and that they maintained a "laissez-faire" attitude about borrowing. Thus, Popik et al. suggest the need for an elective course dealing with financial principles which would include a session on managing educational debt.

A related study on money management knowledge of college students was done by Danes and Hira (1987). While this particular study did not look at student knowledge specifically in the area of student loans, it did support the need for more education in specific money management areas.

With the growth in student loans and the growing concern about student borrowers, one would think that improving students' knowledge about their loans would become increasingly important. At this point, with the lack of research about students' knowledge of their loans, it seems appropriate and necessary that a study be done to examine students' knowledge level.

CHAPTER 3. PROCEDURES

The Data

Each candidate for a degree at Iowa State University is required to complete a Graduation Approval Slip ("OK Slip"). Certain offices and instructors must sign the slip giving their approval for the student's graduation. The Student Financial Aid Office (SFAO) must sign those students' slips who have borrowed GSLs. To facilitate this process and to comply with the loan counseling requirement of the Higher Education Reauthorization Act of 1986, students who borrowed GSLs are instructed to attend a group exit interview with the SFAO. During the group exit interviews, the SFAO staff member hands out a comprehensive booklet prepared by the SFAO Loan Coordinator about loan repayment procedures, gives a 20-minute presentation about material in the booklet, allows time for questions, and signs the OK Slips at the end.

Data for this study were collected via a 29-item survey (see Appendix) given to students at the beginning of each exit interview for the Spring, 1988, graduating class. Of the 2,690 students receiving degrees, 1,090 had borrowed through the GSL program and 1,000 of these GSL borrowers attended group interviews. The other 90 students met individually with SFAO personnel. There were 11 different group exit interview sessions, with attendance ranging from 50 to 200 students at each session.

A total of 920 students (92%) of those in attendance returned the survey. However, since it was necessary to verify information for

certain knowledge variables, 91 surveys were eliminated from the sample. Of those that were eliminated, 74 were thrown out because respondents did not provide identification numbers. The other 17 files were tossed because actual data were unavailable to the researcher. The elimination of unverifiable cases resulted in a sample size of 829.

The Variables

At this point, most studies that relate to student debt have been done at a macro level. The literature shows national trends with limited state and institutional data. To date, only one study has been found that looks at the borrowers' sociodemographic profile, repayment knowledge, and debt (Holland and Healy, 1989). No study has been done which specifically tests the students' knowledge on several aspects of their student loans. Since the literature was of little help in selecting variables for this study, several sociodemographic, knowledge, and debt variables were selected for this baseline study.

The variables in this study are the student's age, sex, marital status, ethnic background, college, degree, residency, housing, grade point average (GPA), employment status, GSL history, monthly payments, expected salary, student loan knowledge, and total educational debt.

Sociodemographic variables

Age This interval variable was operationalized as a continuous variable. Students were asked to report their age.

Sex This dichotomous, nominal variable was coded (1) for males and (2) for females.

Marital status For this nominal variable, students were asked to identify their current marital status as one of the following: (1) single, (2) married, (3) divorced, (4) separated, or (5) widowed.

Ethnic background The nominal variable ethnic background was operationalized by asking students to identify their ethnic background as one of the following: (1) Caucasian, (2) Black, (3) Hispanic, (4) Asian American, (5) Native American, or (6) other.

College For this nominal variable, students were asked to identify the college from which they were graduating as one of the following: (1) Agriculture, (2) Business, (3) Design, (4) Education, (5) Engineering, (6) Family and Consumer Sciences, (7) Science and Humanities, or (8) Veterinary Medicine. However, due to the special handling of exit interviews for veterinary medicine students, there were no veterinary medicine graduates in the sample.

Degree This was an ordinal variable in which students reported whether they were receiving a (1) bachelor's degree, (2) master's degree, or (3) doctorate. Two students wrote in that they were getting a 2-year certificate. These two cases were coded (0).

Residency Students were asked to report their residency status for the purpose of paying tuition. This dichotomous, nominal variable was coded (1) for resident and (2) for nonresident.

Housing For this nominal variable, students were asked where they resided spring semester. They answered in one of the following categories: (1) parent's home, (2) residence hall, (3) Greek house, (4) off-campus, (5) USAC, or (6) other. Since the student financial aid

office allows a standard off-campus budget increase for students who live off-campus (including Greek house, USAC, or other), the housing variable was recoded for further analysis into (1) residence hall and (2) all other categories.

GPA This ratio variable was operationalized as a continuous variable. Students were asked to report their cumulative grade point average. The student reported GPA was used in the analysis.

Employment status For this nominal variable, students first reported whether or not they worked. Those who did not work were coded (1) and those who worked were coded (2). If they worked, then they were asked to report whether they worked (1) on-campus only, (2) off-campus only, or (3) both on and off-campus.

Guaranteed student loan history Three questions were used to describe the GSL borrowers' loan history--when the students first borrowed, the interest rate on their GSL, and the length of their grace period. When students first borrowed was a categorical variable directly related to the interest rate. Students who began borrowing prior to 1981 were coded (1) and borrowed at 7 percent; those who began borrowing from 1981 through September, 1983 were coded (2) and borrowed at 9 percent; and those who first borrowed after September, 1983 were coded (3) and borrowed at 8 percent. Students were asked to provide the information on the survey (see Appendix). Then the information was verified from student records in the Student Financial Aid Office at Iowa State University or by calling the loan guarantee agency, Iowa College Aid Commission, servicer, USA Funds. The verified information were used for

this variable. Because all three of the GSL history questions are a function of the same underlying concept, only "first borrowed" was used in the correlation analysis.

Monthly payments Students were asked if they knew approximately how much their total monthly loan repayments would be. If they answered yes, then they were asked to report the approximate amount. This interval, continuous variable represents the students' reported amount of their monthly loan payment.

Expected salary For this continuous, interval variable, students reported what they expected their annual starting salary to be.

Students' loan knowledge

Multiple indicators were used to measure students' loan knowledge. Six individual indicators included: knowledge of when they first borrowed, knowledge of interest rate, knowledge of grace period, knowledge of the month payment begins, self-perceived knowledge, and knowledge of amount of monthly payment. The first four knowledge variables were created by comparing the answers reported by the students on their surveys to information in their files in the Student Financial Aid Office or by calling the loan guarantee agency's servicer, USA Funds. Each of these four ordinal variables was coded (0) if the student reported that he or she did not know the information, (1) if the student answered incorrectly, and (2) if the student answered correctly.

Self-reported knowledge was a continuous variable in which students rated their level of knowledge about their student loans. It was coded (1) through (5), with one low and five high.

For the knowledge of amount of monthly payment variable, the students were asked if they knew approximately how much their monthly loan payments would be. Those who did not know answered no and were coded (1), while those who thought they knew answered yes and were coded (2).

A composite variable, a knowledge index, was created by summing the six individual knowledge variables. Since self-reported knowledge was originally coded as a five point scale, it was recoded so that it was not weighted more heavily in the index than the other variables. Categories of self-reported knowledge were recoded so that (1) and (2) equaled (0), (3) equaled (1), and (4) and (5) equaled (2). A reliability test for this index was performed using the SPSS^{x} subprogram RELIABILITY (SPSS Inc., 1986). While the items do have face validity, reliability testing was used to assess the degree to which the items in the index were measuring the same underlying concept. The criteria established were that: (1) the alpha levels of the index should be greater than .50 and (2) there should be more than a .01 increase in the alpha level in order to omit an item from the index.

The standardized item alpha was .5697 for the index when all knowledge variables were summed. When the knowledge of first borrowed variable was omitted from the index, the standardized item alpha for the adjusted index increased to .6601. Thus, the adjusted index was used in further statistical analysis.

Total educational debt

Students were asked to report their debt on each of the following loans: GSL, NDSL/Perkins, ULTL, PLUS, SLS/ALAS, HEAL, HPL, or other. These were summed to get a continuous, interval variable which represents the total educational debt.

Data Analysis

The data were analyzed using the Statistical Package for the Social Sciences (SPSS Inc., 1986). Frequency analysis, one-way analysis of variance, Pearson product-moment correlation analysis, and analysis of variance were done. The goals were to describe the profile of student loan borrowers and to assess the impact on levels of student debt of students' sociodemographic characteristics and knowledge about loans.

CHAPTER 4. DISCUSSION

Frequency Analysis

The first data analysis task for a descriptive study is to examine the basic distributional characteristics of each individual variable. Frequency distributions and percentages are used to help describe the variables. "A frequency distribution is a listing of categories of possible values for a variable, together with a tabulation of the number of observations in each category" (Agresti and Agresti, 1979, p. 33). The percentage represents the proportion of the total set of observations that fall into a particular category for a variable.

Other descriptive statistics used are the mean, median, mode, and range. The mean, median, and mode are measures of central tendency while the range is a measure of dispersion. The mean, or average, is the sum of the individual values for each case divided by the number of cases. The median is the numerical value of the middle case, or the 50th percentile, in a rank-ordered set of observations. The mode is the value of the variable which occurs most often. The range is the difference between the highest and the lowest value for a set of observations (Agresti and Agresti, 1979; Babbie, 1983).

Frequencies and descriptive statistics were obtained to describe the student's sociodemographic profile, educational loan knowledge, and total debt.

Sociodemographic characteristics of the student borrower

Age The actual range in age was from 20 to 57 years old, with a mean age of 23.5 and a median age of 23. As would be expected for a student population, a large majority, 76.3 percent, were 23 years old or younger. Slightly over 37 percent of the students were the modal age of 22 (see Figure 1).

Sex Far more male (61.9 percent; n=513), than female (38.1 percent; n=316), students are in the sample. This varies slightly from the graduating population (see Figure 2). The graduating population was 59.3 percent male (n=1594) and 40.7 percent female (n=1096). While the difference is small, it may suggest that slightly more males than females borrow to finance their education.

Marital status It is not surprising that the majority of the students, 80.9 percent, have never been married (see Table 5). This may be explained in part by the age of the sample. There was a strong, significant correlation between age and marital status (see Table 24 in Appendix). This suggests that students who are married (or have been) are more likely to be older.

Ethnic background As would be expected from the population at Iowa State University, the vast majority of students in the sample are Caucasian, 94.0 percent (see Table 6). However, that percentage does vary slightly from the known distribution of the population. Minority students made up 6 percent of the sample, but were only 3 percent of the graduating class. Thus, minority students were overrepresented slightly in the sample. These findings are similar to those by Holland and Healy

Age Profile

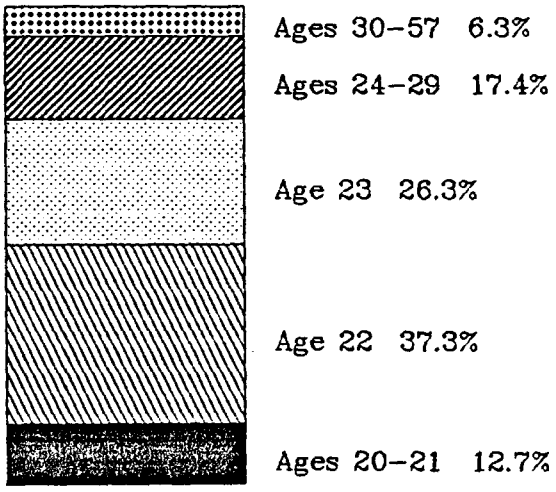

Figure 1. Frequency chart of the age profile of the students

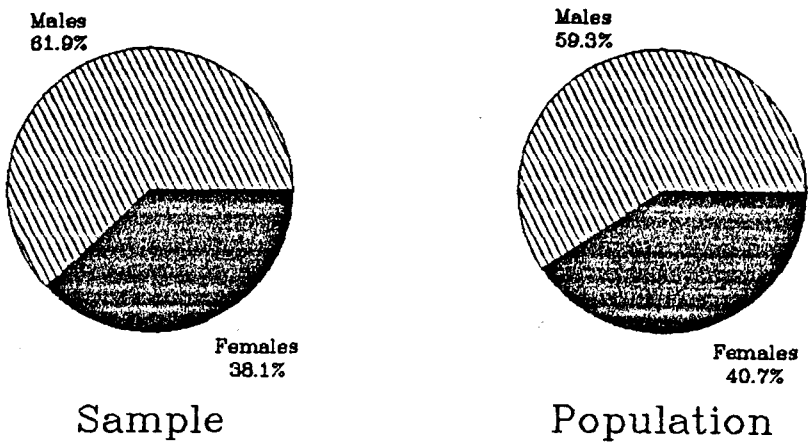

Figure 2. Sample and population pie graphs of the sex variable

Table 5. Marital status of the student

Category	Frequency	Percentage
Never Married	671	80.9
Married	143	17.3
Separated, Divorced, or Widowed	15	1.8
Total	829	100.0

Table 6. Ethnic background of the student

Category	Frequency	Percentage
Caucasian	773	94.0
Black	5	.6
Hispanic	2	.2
Asian American	9	1.1
Native American	23	2.8
Other	10	1.2
Total	822	100.0

(1989) that minority students were overrepresented among student loan borrowers.

Degree Most of the students in the sample, 97.3 percent, were graduating with their bachelor's degree (see Table 7). This is somewhat different from the graduating population (see Figure 3). According to the Office of the Registrar at Iowa State University, 83.7 percent of the Spring, 1988, graduates received bachelor's degrees; 8.6 percent master's degrees; 3.7 percent doctorate degrees; and 4.0 percent Doctor of Veterinary Medicine degrees. This difference is most likely due to the special handling of exit interviews for graduate and veterinary medicine students. In the case of graduate students, it also could reflect the higher proportion of international students who are ineligible for GSLs, or less borrowing by eligible students who are able to finance most of their education with graduate assistantships and stipends or other unique employment or family histories.

College Table 8 shows the number of graduates from each college and the number of graduating borrowers in the sample from each college. As seen in Figure 4 there were slightly more borrowers in proportion to the population from the Agriculture, Business, Design, and Engineering Colleges. Fewer students from the Education, Family and Consumer Science, and Science and Humanities Colleges borrowed in proportion to the population.

Residency Typical of the population at Iowa State University, the majority of borrowers (83.0 percent; n=686), were Iowa residents. The other 17.0 percent (n=141) were nonresidents.

Table 7. Degree student is receiving

Category	Frequency	Percentage
2-Year Certificate	2	.2
Bachelor's	807	97.3
Master's	15	1.8
Doctorate	2	.2
Total	826	100.0

Table 8. College from which the student graduated

Category	Sample n	Sample %	Population[a] N	Population[a] %
Agriculture	120	14.5	355	13.2
Business	163	19.7	490	18.2
Design	54	6.5	155	5.8
Education	73	8.8	269	10.0
Engineering	184	22.2	554	20.6
Family and Consumer Science	55	6.6	194	7.2
Science and Humanities	180	21.7	673	25.0
Total	829	100.0	2690	100.0

[a]Data are from Iowa State University Registrar's Office (1988).

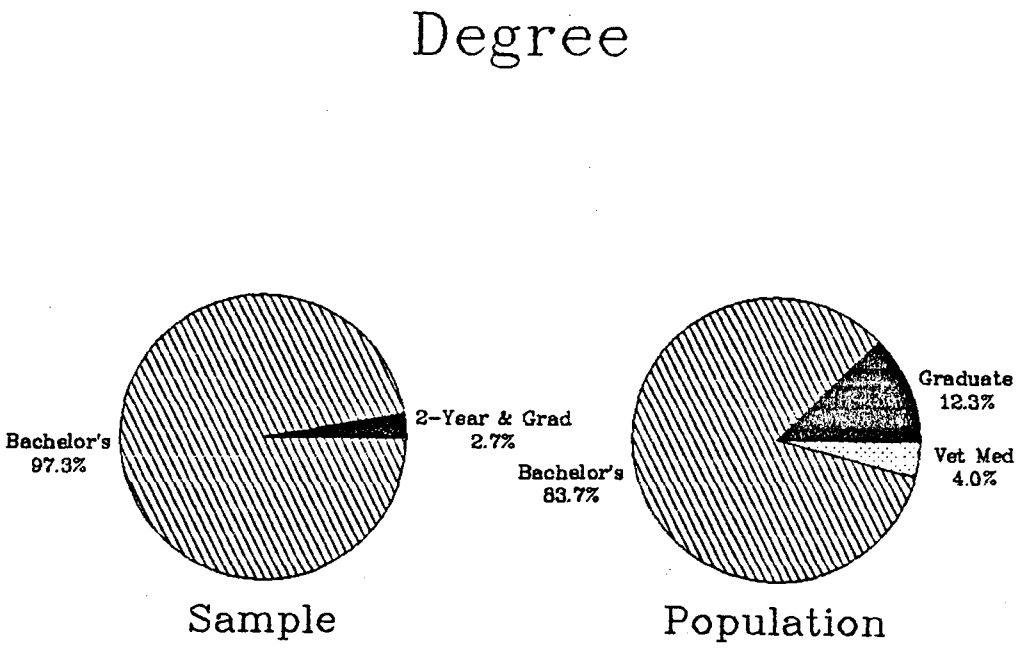

Figure 3. Sample and population pie graphs of the degree variable

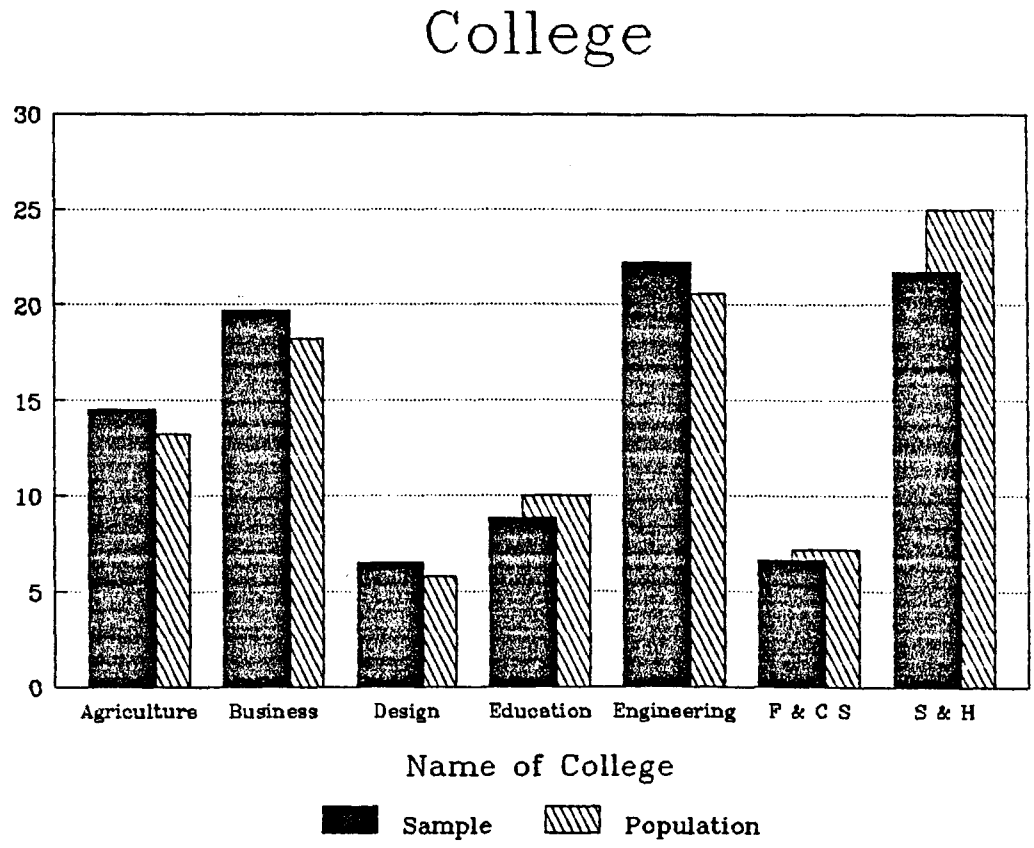

Figure 4. Sample and population bar chart of the college from which the student was graduating

Housing The majority of students, 66.9 percent, lived off campus. Only 15.0 percent lived in the residence halls. Other housing arrangements were reported less frequently (see Figure 5).

Grade point average Grade point averages ranged from 2.00 to 4.00, with a mean of 2.97 and a median of 3.00 (see Figure 6). The data represent a fairly normal bell-shaped distribution with only a slight skew to the left.

Employment status As seen in Figure 7, the majority of student borrowers, 77.7 percent, worked while going to school. The students' job location was equally distributed, with one-third working on campus only, one-third working off campus only, and one-third working both on and off campus.

Guaranteed student loan history Table 9 shows when the students first borrowed guaranteed student loans, the interest rate at which they borrowed, and the length of the grace period prior to repayment. The nature of the GSL program suggests that the frequencies should correspond for these three variables. However, since 7 of the 36 who borrowed prior to 1981 had completely repaid a previous GSL, when they began borrowing again they had to start borrowing at the new interest rate. Thus, only 29 were still borrowing at 7 percent.

Monthly loan payments Almost 70 percent of the students reported that they did not know how much their monthly student loan repayments would be. Of the 259 students who reported a monthly loan payment, 3.5 percent (n=9), answered an amount of less than $50. These 9 people were probably guessing because the minimum required loan payment

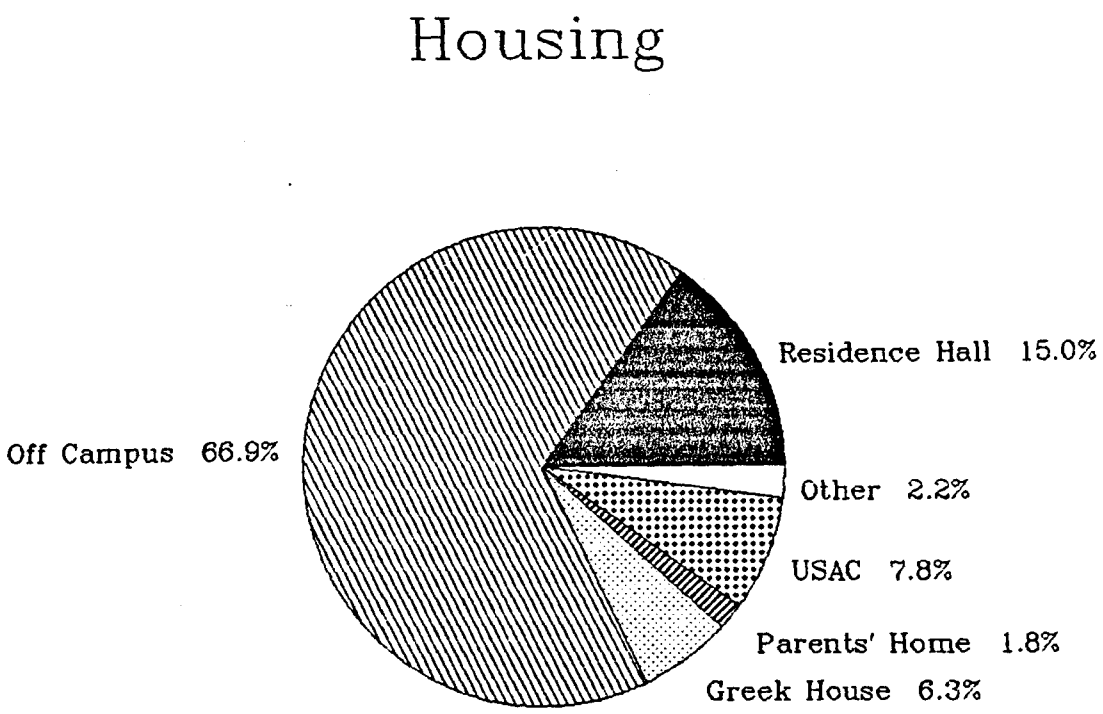

Figure 5. Frequency pie graph of the housing variable

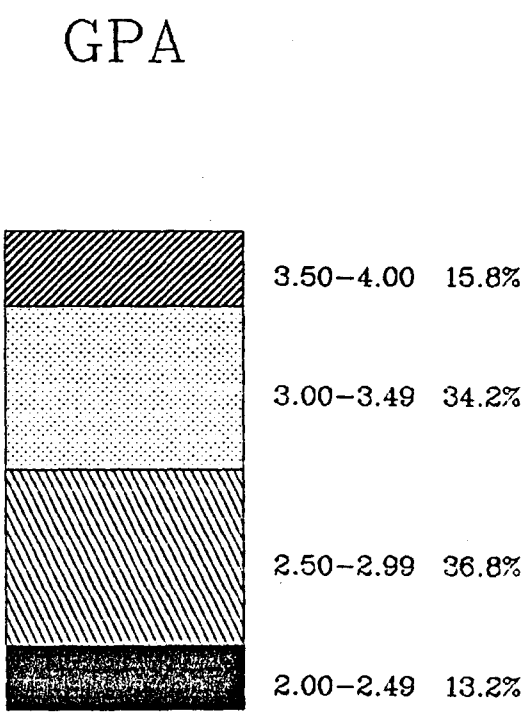

Figure 6. Frequency graph of the GPA variable

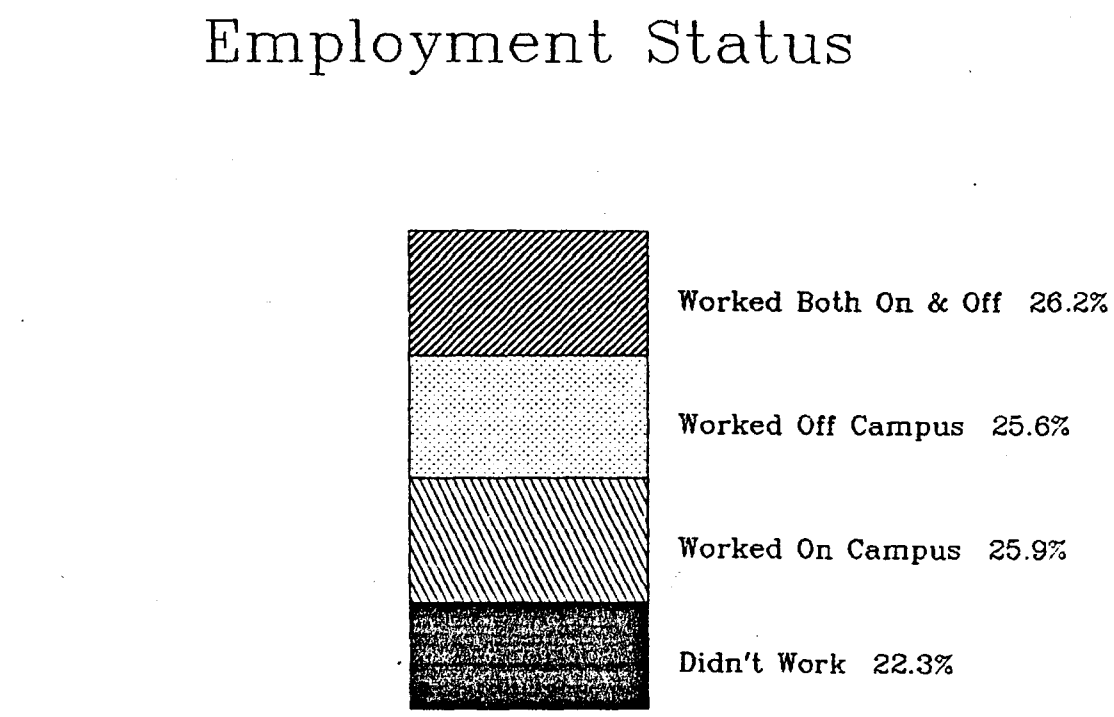

Figure 7. Frequency graph of the employment status of the student

Table 9. Guaranteed student loan history

Category	Frequency	Percentage
When student first borrowed		
Prior to 1981	36	4.3
Between 1/1/81 and 9/83	216	26.1
After September, 1983	577	69.6
Total	829	100.0
Interest rate		
7 Percent	29	3.5
8 Percent	583	70.3
9 Percent	217	26.2
Total	829	100.0
Grace period		
6 Months	800	96.5
9 Months	29	3.5
Total	829	100.0

Table 10. Amount of monthly loan payments reported by student

Category (in dollars)	Frequency	Percentage
20-49	9	3.5
50-99	84	32.4
100-149	82	31.7
150-199	50	19.3
200-249	22	8.5
250-299	4	1.5
300-349	3	1.2
350-400	5	1.9
Total	259	100.0
Mean=123		
Median=120		

is $50. The average anticipated monthly loan payment reported by the students was $123. The majority of students (64.1 percent) thought they would be paying between $50 and $149 per month. Anticipated repayments ranged from $20 to $400 (see Table 10).

Annual expected starting salary As seen in Figure 8, anticipated annual starting salaries ranged from $7,600 to $41,600. The mean was $23,695 and the median was $20,000, indicating that the distribution was skewed to the right. Slightly more than one third of the students, 35.7 percent, anticipated annual starting salaries between $15,000 and $19,999.

Students' loan knowledge

As described in Chapter 3, multiple indicators were used to measure student knowledge. Table 11 shows how many students correctly answered the following: when they first borrowed a guaranteed student loan, at what interest rate they had borrowed, the length of their grace period, and when they would begin repayment. As seen in Table 11, most students, 89.8 percent, were correct in reporting when they first borrowed. However, fewer were correct in reporting their grace period, interest rate, and when they would begin repayment. This shows that as many as 42.2 percent lack knowledge about at least one aspect of their student loans.

Not only do students lack knowledge, but Table 12 shows that some students are aware of their lack of knowledge. Only 38.9 percent considered themselves fairly knowledgeable or very knowledgeable (see Table 12). When asked if they knew approximately how much their monthly

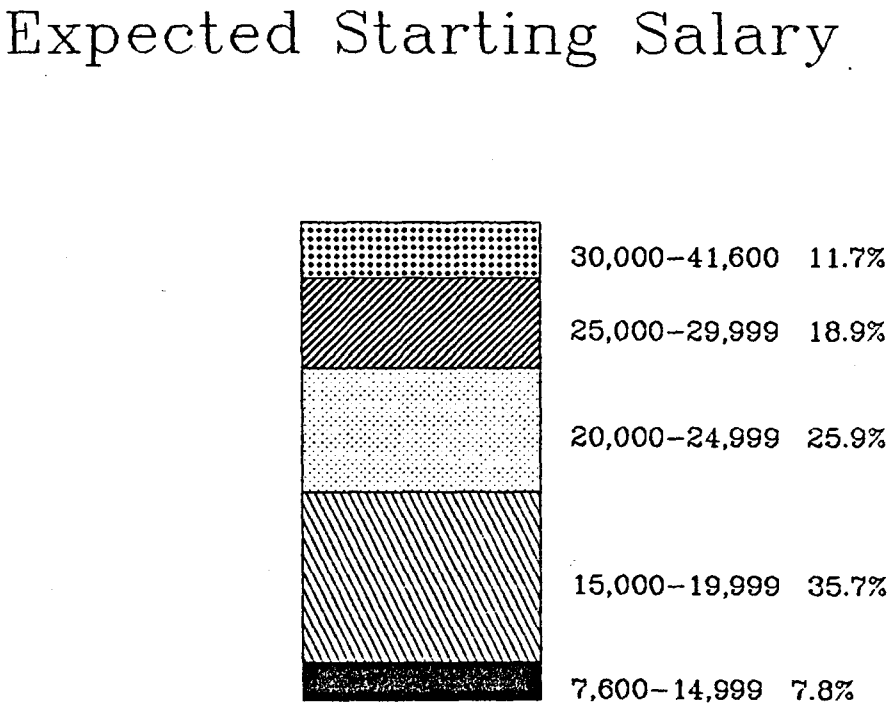

Figure 8. Frequency graph of the expected starting salary of the student

Table 11. Student knowledge about the guaranteed student loan

Category	Correct		Incorrect		Did Not Know		Total	
	n	%	n	%	n	%	n	%
When first borrowed	733	89.8	83	10.2			816	100.0
Interest rate	521	63.1	99	12.0	206	24.9	827	100.0
Grace period	634	76.6	34	4.1	160	19.3	828	100.0
When repayment begins	474	57.8	125	15.2	221	27.0	820	100.0

Table 12. Student's perception of his or her level of student loan knowledge

Category	Frequency	Percentage
Know Nothing	11	1.3
Know Very Little	106	12.8
Know Some	387	46.9
Fairly Knowledgeable	278	33.7
Very Knowledgeable	43	5.2
Total	825	100.0

Table 13. Knowledge index

Knowledge Scores	Frequency	Percentage
1-2	60	7.5
3-4	86	10.7
5-6	152	19.0
7-8	277	34.7
9-10	225	28.1
Total	800	100.0
Mean=6.8		
Median=7.0		

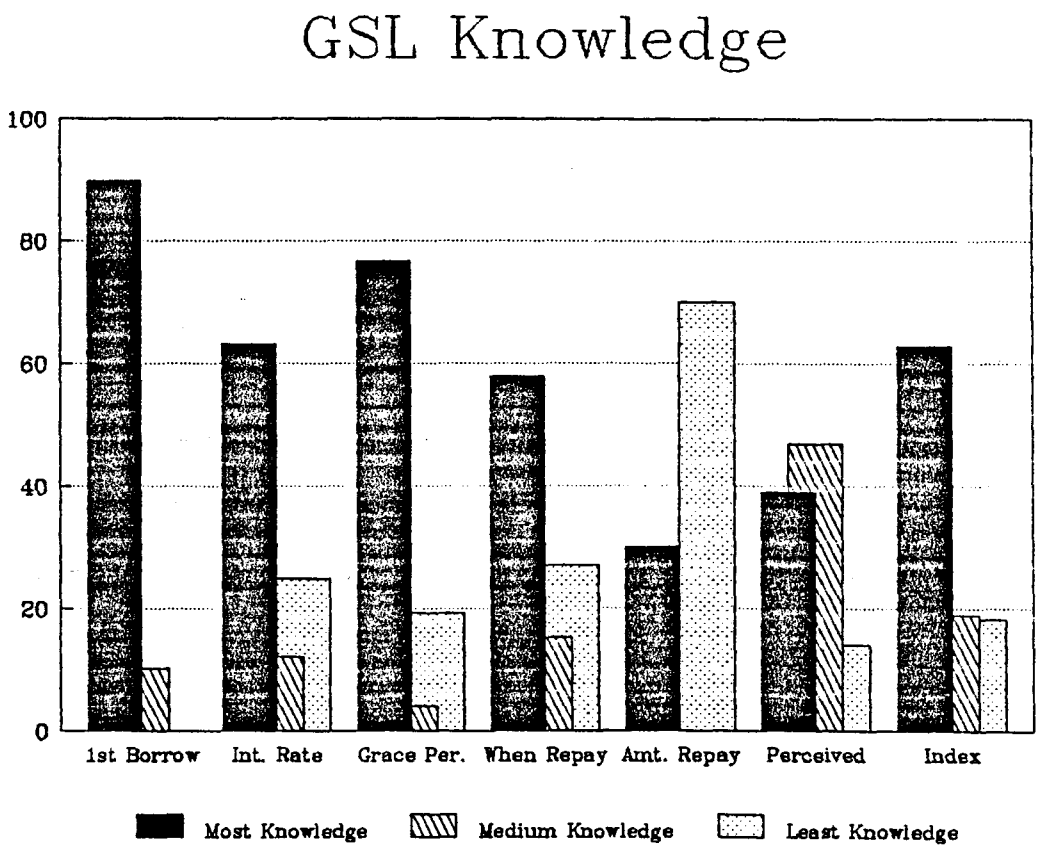

Figure 9. Bar graph summarizing the knowledge variables

repayments would be, 69.7 percent (n=562) answered no. Thus, it can be concluded that knowledge of monthly payments is the biggest area where students lack knowledge.

Table 13 shows the knowledge index that was created to serve as a composite variable. The mean of 6.8 and median of 7.0 suggest that most students are somewhat knowledgeable overall. Figure 9 summarizes all of the knowledge variables for visual comparison.

Total educational debt

The student's educational loan debt is reported in Table 14. As expected, the most widely used educational loan program is the guaranteed student loan (n=764). The mean GSL borrowed was $7,864, with the median being $8000. The average total debt was slightly higher, with the mean equal to $8,476 and the median equal to $8,200 (see Figure 10). The average total debt of this sample was slightly higher than the $7,761 average debt reported by Holland and Healy (1989) for the fall, 1987, bachelor's graduates. This difference may show the beginnings of what people have predicted to be the result of the Reauthorization Act of 1986: increased borrowing.

Correlation Analysis

Pearson's product-moment correlation coefficient (r) is a measure of association used to summarize the strength of the linear relationship between variables. The value of r ranges from -1.0 to +1.0, with a value of zero indicating no linear relationship (Norusis, 1987). A strong relationship is one that has an r closer to the absolute value of 1.

Table 14. Student's educational loan debt

Category (in dollars)	Frequency	Percentage
Guaranteed student loan		
$600-2,499	51	6.7
2,500-4,999	133	17.4
5,000-7,499	137	17.9
7,500-9,999	173	22.7
10,000-12,499	170	22.2
12,500-14,999	87	11.4
15,000-20,000	13	1.7
Total	764	100.0
Mean=7,864		
Median=8,000		
National direct student loan		
$200-1,999	145	66.2
2,000-3,999	46	21.0
4,000-5,999	22	10.0
6,000-7,999	3	1.4
8,000-10,000	3	1.4
Total	219	100.0
Mean=1,880		
Median=1,300		
University long term loan		
$500	1	20.0
1,000	2	40.0
1,200	1	20.0
1,600	1	20.0
Total	5	100.0
Mean=1,060		
Median=1,000		
Parent loan for undergraduate students (PLUS)		
$600-2,499	4	30.8
2,500-4,999	8	61.5
5,000-7,499	0	0.0
7,500-9,000	1	7.7
Total	13	100.0
Mean=3,246		
Median=3,000		

Table 14. (continued)

Category (in dollars)	Frequency	Percentage
Supplemental loan for students (SLS)		
$960-999	1	16.7
1,000-1,999	1	16.7
2,000-2,999	2	33.3
3,000-3,960	2	33.3
Total	6	100.0
Mean=2,420		
Median=2,550		
Other educational debt		
$200-1,999	12	38.7
2,000-3,999	12	38.7
4,000-5,999	3	9.7
6,000-8,000	4	12.9
Total	31	100.0
Mean=2,795		
Median=2,000		
Total educational debt		
$750-4,999	166	21.4
5,000-9,999	302	39.0
10,000-14,999	253	32.6
15,000-22,500	54	7.0
Total	775	100.0
Mean=8,476		
Median=8,200		
Mode=10,000 (n=64)		

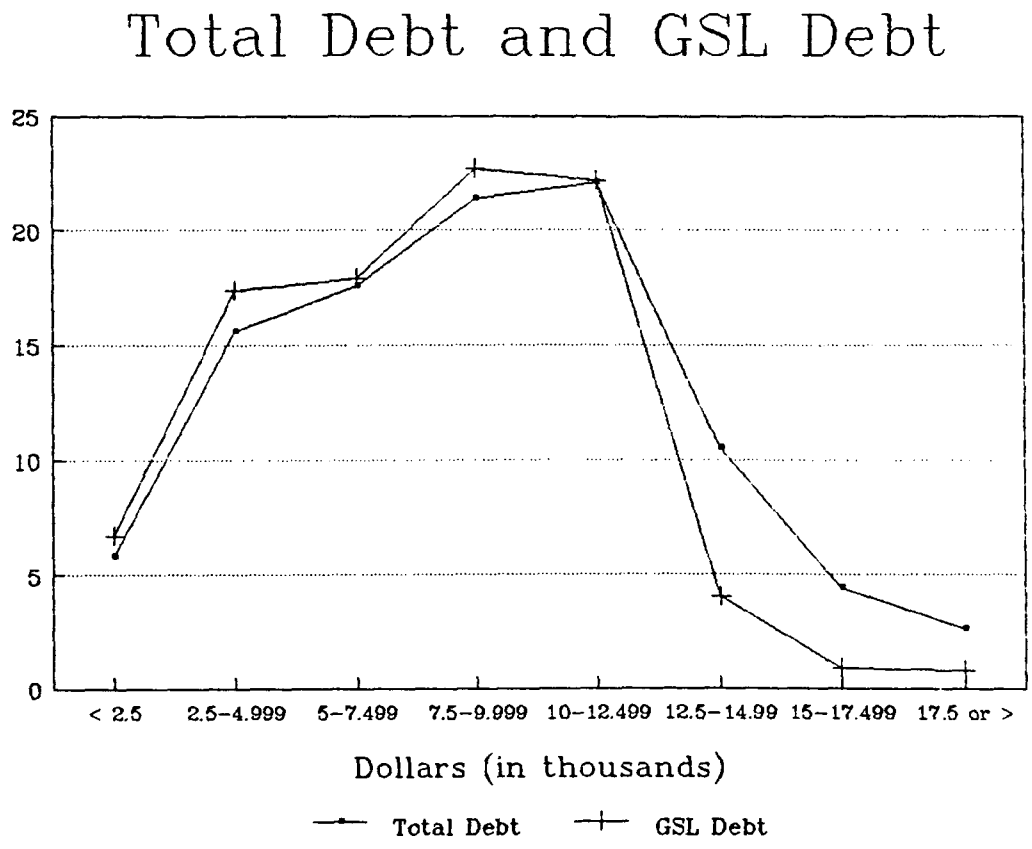

Figure 10. Line graph of the total debt and GSL debt variables

However, for most pairs of variables studied in the social sciences, it is unusual to observe r values greater than .5 in absolute value (Agresti & Agresti, 1979, p. 303).

One advantage of the Pearson correlation coefficient is that it indicates whether the association is positive or negative. A negative coefficient indicates an inverse relationship, which means that when one variable is higher in value, the other variable tends to be lower in value. A positive correlation indicates a positive relationship, which means that as the values of one variable increase, so do the values of the other (Hedderson, 1987, p.92).

Pearson correlation analysis can also be used to look for multicollinearity. Multicollinearity refers to the situation in which some or all of the independent variables are highly correlated. It can cause problems with respect to regression analysis. The greater the degree of collinearity (correlations in the .8 to 1.0 range), the less the validity of the relative importance indicated by the partial regression coefficients (Nie et al., 1975, p. 340).

Pearson product-moment correlations are most appropriately used with interval level variables, but can also be used with dichotomous and ordered categorical variables (Babbie, 1983; Hedderson, 1987). Five variables, as originally coded in this study, did not meet these conditions because they were nondichotomous, nominal level variables: marital status, ethnic background, college, housing, and where the student worked. Marital status, ethnic background and housing were recoded into dichotomous variables so that they would be appropriate for

use in the Pearson correlation. Marital status was recoded as (1) for never married and (2) for married, separated, divorced, or widowed. Ethnic background was recoded as (1) for Caucasian and (2) for all minorities. Because housing is categorized at as either on- or off-campus for financial aid purposes, housing was recoded (1) for residence halls and (2) for off-campus, parent's home, Greek house, USAC, and other. Once these variables were dichotomized, they could appropriately be used in the Pearson correlation analysis.

Since college enrollment and where the student worked could not logically be recoded into dichotomous variables, they were not included in the Pearson correlation. Instead, a one-way analysis of variance was used to analyze the relationship between the mean of total debt and the categories of college and where the student worked, and between the knowledge index and the categories of college and where the student worked. The SPSS^{x} ONEWAY procedure was used to calculate the one-way analysis of variance (SPSS Inc., 1986). As a result of the ONEWAY procedure, college was found to be significantly related to total debt ($F=3.67$ $p<.01$). The Scheffe multiple comparison test revealed that only two colleges, Agriculture and Engineering, were significantly different from each other at the .05 level. Students in the College of Agriculture had a mean total debt of $7,553, while those in the College of Engineering had a mean total debt of $9,379. Students in the College of Family and Consumer Sciences had the lowest mean total debt, $7,543, while students in the College of Design had the highest mean total debt, $9,768. The results of the ONEWAY procedure for total debt by where the

student worked did not indicate a significant relationship between these variables ($F=2.88$ $p>.05$). The Scheffe test did not find any of the categories significantly different at the .05 level. Students who worked on campus only had a mean total debt of $8,053, while students who worked off campus only had a mean total debt of $8,931, and students who worked both on and off campus had a mean total debt of $8,943. The one-way analysis of variance revealed that neither college nor where the student worked were significantly related to the knowledge index. Thus, since where the student worked was not significantly related to total debt or the knowledge index, it was eliminated from further analysis. Also, since college was not significantly related to the knowledge index, it was excluded from further analysis where the knowledge index was the dependent variable.

The Pearson correlation analysis results are presented in three separate sections: (1) correlation of sociodemographic variables with knowledge variables, (2) correlation of sociodemographic variables with debt variables, and (3) correlation of knowledge variables with debt variables.

Correlation of sociodemographic variables with knowledge variables

As seen in Table 15, age of the student was positively and significantly correlated with students' self-reported knowledge about their loans and knowledge of the amount of their monthly payment. However, the relationship was not very strong.

Sex of the student was significantly correlated with three knowledge variables. Females were more knowledgeable about when they first

Table 15. Pearson product-moment correlations between sociodemographic variables and knowledge variables

Sociodemographic Variables	Knowledge Variables		
	Knowledge of First Borrowed	Knowledge of Interest Rate	Knowledge of Grace Period
Age	-.054	.031	-.012
Sex	.081*	-.079*	-.015
Marital Status	-.026	.078*	.010
Ethnic Background	-.021	-.023	.005
Residency	-.060	-.108**	-.055
Housing	-.040	.005	-.004
GPA	.088*	.020	-.004
Employment Status	-.072*	.028	.057
First Borrowed	.187***	-.091**	.021
Monthly Payments	-.152*	.184**	.105
Expected Salary	-.074	.047	.020

*p <.05.

**p <.01.

***p <.001.

Knowledge of Month Payment Begins	Self-Reported Knowledge	Knowledge of Amount of Monthly Payment	Knowledge Index
-.022	.129***	.107***	.051
.033	-.106***	-.032	-.065
-.009	.175***	.122***	.091**
-.007	-.007	.046	.006
-.098**	-.073*	-.097**	-.142***
-.026	.053	.059	.009
-.062	-.018	-.026	-.039
.065	.052	.060	.076*
.008	-.127***	-.099**	-.079*
.105	.112	-.012	.174**
-.008	.072	-.005	.050

borrowed and were also more likely to report themselves as knowledgeable. Males were more knowledgeable about the interest rate on their loans. The fact that females were more knowledgeable about when they first borrowed was supported by the highly significant relationship between when students first borrowed and their knowledge of when they first borrowed (see Table 15) as well as the relationship between sex and when students first borrowed (see Table 20 in the Appendix). Thus, the data suggest that more females borrowed for the first time more recently and that those students who borrowed more recently are more likely to be knowledgeable about when they first borrowed.

Marital status was significantly and positively correlated with three knowledge variables, as well as with the knowledge index. Students who were either married, separated, divorced, or widowed were more knowledgeable about the interest rate on their loan and the amount of their monthly payment. They also reported themselves as more knowledgeable. These findings are similar to those of Danes and Hira (1987), who found that married students were more knowledgeable about money management practices.

Ethnic background was not significantly related to any of the knowledge variables or the knowledge index. Therefore, it was concluded that there was no difference between students from different ethnic backgrounds with regard to knowledge about loans.

Residency status was negatively related to every knowledge variable as well as to the knowledge index. The relationship was statistically significant between four of the six knowledge variables and residency.

Thus, the data suggest that Iowa residents are more knowledgeable about their loans than are students from other states.

Housing was not significantly related to any of the knowledge variables or the knowledge index. Thus, there appears to be no significant difference in knowledge based on where students lived.

Grade point average was significantly but weakly correlated with only one knowledge variable. Grade point average was positively correlated with some knowledge variables while negatively correlated with others. None of the relationships is very strong. Thus, grade point average is not a very good predictor of knowledge about loans.

Employment status, defined simply as whether or not the student worked, was significantly and negatively related to only one knowledge variable. It was positively and significantly related to the knowledge index. These findings suggest that students who worked were more likely to know when they first borrowed. However, students who did not work were more knowledgeable overall.

When the student first borrowed was significantly related to four of the six knowledge variables and to the knowledge index variable. One correlation was positive, while the other four were negative. These findings suggest that students who first borrowed more recently were more knowledgeable about when they first borrowed but were less knowledgeable overall.

Amount of monthly payment was significantly correlated with three knowledge variables. One correlation was negative, while the other two were positive. Students with lower monthly payments were more

knowledgeable about when they first borrowed but less knowledgeable about their interest rate and less knowledgeable overall. The significant positive relationship between monthly payments and the knowledge index suggests that students with higher monthly payments are more knowledgeable overall.

Expected salary was not significantly correlated with any of the knowledge variables or knowledge index. Thus, expected annual starting salary was not related to knowledge about student loans.

Correlation of sociodemographic variables with debt variables

As seen in Table 16, total educational debt was significantly correlated with all of the sociodemographic variables except sex and ethnic background. These correlations suggest that there was no difference between borrowers with regard to sex or ethnic background. Furthermore, these correlations suggest that students with higher debt levels were: older, married (or had been married), nonresidents, living off campus, averaging lower GPAs, working during school, borrowing earlier, expecting higher monthly payments, and anticipating a higher salary. These findings vary slightly from those of Holland and Healy (1989), who found no statistically significant relationship between total debt and GPA, age, or expected salary.

It is not surprising that "when the student first borrowed" was strongly and negatively correlated with the total debt and guaranteed student loan debt. This finding probably relates to the length of time it has taken to get through school and the total dollars expended to complete their degree programs. However, this study did not examine

Table 16. Pearson product-moment correlations between sociodemographic variables and debt variables

Sociodemographic Variables	Debt Variables: Total Educational Debt	Guaranteed Student Loan Debt	Perkins Loan Debt
Age	.173***	.107**	.180**
Sex	-.040	-.043	.064
Marital Status	.139***	.109**	.159*
Ethnic Background	.032	.009	.055
Residency	.079*	.012	.363***
Housing	.088*	.090*	-.075
GPA	-.120***	-.142***	.090
Employment Status	.079*	.071	.091
First Borrowed	-.390***	-.415***	.100
Monthly Payments	.719***	.656***	.521***
Expected Salary	.095*	.077*	.037

*p <.05.

**p <.01.

***p <.001.

those variables.

As would be expected, amount of monthly loan payments was the variable most strongly correlated with debt. It follows that the higher the debt, the higher the amount of the monthly repayment will be. The fact that these variables were not even more strongly correlated may suggest a margin of error by students in reporting how much they have borrowed and how much their payments will be. As defined earlier, these were student-reported amounts, not verified amounts.

Since the guaranteed student loans made up the majority of the total debt, it is not surprising that all the same sociodemographic variables, except residency and employment status, were significantly correlated with guaranteed student loan debt and total debt. Residency and employment status were only weakly, although significantly, correlated with total debt.

Perkins loan debt was significantly correlated with age, marital status, residency, and monthly payments. As previously discussed, the high correlation with monthly payments is a very logical one. The strong and significant positive correlation with residency can be explained partially by the awarding policy of Perkins loans. As described in the literature review, Perkins loans are awarded to students with a high financial need. Since nonresident tuition is much higher than resident tuition, nonresidents are more likely than residents to have Perkins loan debt, and Perkins loans are awarded to students with high financial need, it would appear that nonresidents tend to have higher financial need than residents. Thus, the packaging policy which awards Perkins loans to high

need students would be giving more Perkins loan dollars to nonresidents than residents. Age and marital status may also be related to financial need. Older than average students and married, separated, divorced, or widowed students most likely would be independent, and therefore not getting parental support and possibly having higher need than dependent students.

Correlation of knowledge variables with debt variables

As seen in Table 17, all of the knowledge variables and the knowledge index were significantly related to both total debt and guaranteed student loan debt. In all cases except one, higher debt is associated with more knowledge. The exception is that higher debt is associated with a lack of knowledge about when the student first borrowed a guaranteed student loan. This finding is supported by the fact that students who borrowed most recently were more knowledgeable about when they first borrowed (see Table 15) and those who borrowed most recently had overall lower debt (see Table 16). Therefore, those students who started borrowing earlier did not know when they first borrowed, but they had more debt overall.

The only knowledge variable that was significantly correlated with Perkins loan debt was self-reported knowledge. This finding is not surprising, as this was the only knowledge variable related to the Perkins loan program.

After examining the results of the frequency distributions, one-way analysis of variance, and Pearson product-moment correlations, two analysis of variance models were examined. The first analysis of

Table 17. Pearson product-moment correlations between knowledge variables and debt variables

Knowledge Variables	Debt Variables		
	Total Educational Debt	Guaranteed Student Loan Debt	Perkins Loan Debt
Knowledge of First Borrowed	-.144***	-.135***	-.022
Knowledge of Interest Rate	.219***	.219***	-.015
Knowledge of Grace Period	.073*	.079*	.015
Knowledge of Month Payment Begins	.105**	.091**	.015
Self-Reported Knowledge	.178***	.168***	.159*
Knowledge of Amount of Monthly Payment	.117***	.107**	-.002
Knowledge Index	.214***	.206***	.027

*p <.05.

**p <.01.

***p <.001.

variance looked at the influence of the following sociodemographic variables on the knowledge index: age, sex, marital status, residency, housing, grade point average, employment status, and expected salary. The second analysis of variance examined the influence on total debt of the following sociodemographic variables and the knowledge index: age, sex, marital status, college, residency, housing, grade point average, employment status, and expected salary. Degree and ethnic background were not included because of the lack of variance in the distributions. Monthly payments and GSL history (first borrowed) were eliminated because they were not logical predictors of total debt.

Analysis of Variance

Analysis of variance (ANOVA) is a general statistical technique used to analyze the relationship between a dependent variable and a set of independent or predictor variables. Analysis of variance tests for differences among the group means (SPSS Inc., 1986, p. 451). It was used in this study to assess the influence of selected sociodemographic variables on knowledge and to assess the influence of selected sociodemographic variables and knowledge about loans on total debt. A short explanation of the various statistics used in reporting the results of ANOVA is included in the discussion.

In this study, raw scores for most of the variables were used. However, marital status and housing were recoded as dichotomous variables. Marital status was coded (1) for never married and (2) for married, separated, divorced, or widowed. Housing was coded (1) for

residence halls and (2) for off campus, parent's home, Greek house, USAC, and other.

Analysis of variance of knowledge by sociodemographic variables

Continuous independent variables are called covariates, while the categorical independent variables are called factors or main effects (SPSS Inc., 1986, p. 451). The sociodemographic covariates and main effects used in this analysis of variance can be seen in Table 18.

The F value tests whether the independent variables have a statistically significant effect on the dependent variable. Relatively large F values represent strong evidence that the independent variables affect the dependent variable (Agresti and Agresti, 1979, pp. 342-343). P denotes the attained significance level, which indicates the probability of obtaining a value at least as large as the observed one if the null hypothesis is true. The smaller the value, the more statistically significant is the relationship (Agresti and Agresti, 1979, p. 127). As seen in Table 18, only sex and residency contribute significantly to the level of knowledge.

R^2 measures the proportion of the total variation in Y that is explained by the simultaneous predictive power of all independent variables. It is calculated by dividing the explained sum of squares by the total sum of squares. The low R^2 for this analysis shows that only 4 percent of the variance in knowledge was explained by the independent variables in this analysis. Thus, more information is needed to discover what enhances student knowledge.

Table 18. Analysis of variance of the knowledge index by selected sociodemographic variables

Source of Variance	Sum of Squares	df	F
Covariates	10.447	3	.611
Age	1.988	1	.349
GPA	8.490	1	1.490
Expected salary	1.565	1	.275
Main effects	132.802	5	4.660***
Sex	22.192	1	3.893*
Marital status	20.269	1	3.556
Residency	59.683	1	10.471***
Housing	.539	1	.094
Employment status	14.780	1	2.593
Explained	153.254	8	3.361***
Residual	3,659.363	642	
Total	3,812.618	650	
R^2=.04			

*p <.05.

**p <.01.

***p <.001.

Analysis of variance of total debt by sociodemographic variables and knowledge

As seen by the attained significant levels in Table 19, age, college, residency, housing, employment status, GPA, and the knowledge index contribute significantly to the amount of total debt. These results correspond to the one-way analysis of variance and Pearson correlation analysis with one exception. The Pearson correlation resulted in a significant, positive relationship between expected salary and total debt. However, when college was included in the model for the analysis of variance, salary was no longer a significant predictor of total debt. These findings are slightly different from those of Holland and Healy (1989). They found that total debt was not significantly influenced by academic ability, age, or anticipated annual income.

R^2 is the measure of association referred to as the coefficient of multiple determination. The larger the value of R^2, the better the set of independent variables is collectively in predicting Y. R^2 can range from 0 to 1 (Agresti and Agresti, 1975, p. 333). The R^2 from the total debt analysis of variance was .15, indicating that the independent variables included in this model explained 15 percent of the variation in total debt in this study (see Table 19).

Table 19. Analysis of variance of total debt by selected sociodemographic variables and the knowledge index

Source of Variance	Sum of Squares	df	F
Covariates	840,233,100	4	13.63***
Age	146,081,262	1	9.48**
GPA	183,000,564	1	11.88***
Knowledge index	452,571,174	1	29.37***
Expected salary	25,012,971	1	1.62
Main effects	545,447,861	11	3.22***
College	260,193,141	6	2.81**
Sex	5,414,340	1	.35
Marital status	26,876,605	1	1.74
Residency	64,415,611	1	4.18*
Housing	64,753,125	1	4.20*
Employment status	80,338,635	1	5.21*
Explained	1,625,072,638	15	7.03***
Residual	9,354,324,947	607	
Total	10,979,397,584	622	
R^2=.15			

*p <.05.

**p <.01.

***p <.001.

CHAPTER 5. SUMMARY AND CONCLUSIONS

Purpose

The purpose of this study was to analyze the influence of sociodemographic characteristics and knowledge about loans on student debt. Major objectives were to: 1) develop a sociodemographic profile of the student borrowers, 2) ascertain the students' knowledge level about their student loans, and 3) examine the relationships among the students' profile, their knowledge, and their total debt.

Procedures

The data for this study were collected at group exit interviews of student loan borrowers graduating from Iowa State University during Spring, 1988. A 29-item survey was used to gather information about the student loan borrowers' sociodemographic profile, knowledge about their loans, and total debt level. SPSS^{x} was utilized to analyze the data. The sample consisted of 829 student loan borrowers.

Profile of the Student Loan Borrowers

The majority of the student loan borrowers were undergraduates (97%) and Caucasian (94%). In addition, 85 percent lived off campus, 83 percent were Iowa residents, 81 percent had never been married, 78 percent were working while going to school, and 76 percent were under 24 years of age. Slightly over half were male (62%). They also were representative of 7 colleges, had an average GPA of 2.97, anticipated an average monthly loan

payment of $123, and expected an average annual starting salary of $23,695.

Most students had some knowledge about their student loans, with an average score on the knowledge index of 6.8 out of a possible 10. The majority of students knew when they first borrowed (90%), the grace period on their GSL (77%), the interest rate on their GSL (63%), and when repayment would begin (58%). However, a critical finding was that the majority of students (70%) did not know how much their monthly loan payments would be.

The average total educational debt for the student loan borrower was $8,476. The majority of this debt was borrowed under the GSL program, with an average total GSL debt of $7,864.

Major Findings and Conclusions

The one-way analysis of variance of total debt by college revealed that college was significantly related to total debt. The Scheffe test revealed that students in engineering had significantly higher debt levels than students in agriculture.

Pearson correlation analysis revealed that the student borrowers who had higher scores on the knowledge index were significantly more likely to be married (or had been), Iowa residents, who worked during school than students who had lower knowledge index scores. In addition, students who scored higher on the knowledge index began borrowing earlier, and had higher debt levels (and, therefore, higher monthly loan payments) than students who scored lower on the knowledge index. Those who had higher

total debt were older, married (or had been), nonresidents, who lived off campus, had lower GPAs, worked during school, borrowed earlier, and expected a higher monthly payment as well as a higher salary.

The results of the analysis of variance indicated that age, college, residency, housing, employment status, GPA, and knowledge were significant in explaining variations in total debt. However, only sex and residency were significant in explaining variations in knowledge.

These findings may suggest that older students are spending more years in school, therefore incurring more debt to complete their degrees. Nonresidents pay higher tuition and appear to have to borrow more to meet their costs. It appears that the lifestyle choice of living off campus and the financial aid office guidelines which allow these students increased borrowing eligibility have caused these students to incur more debt than those students in the residence halls. Those students who worked may have had a higher need than their nonworking peers, and therefore had to work as well as borrow to meet expenses; or, they may have also had additional expenses related to working, which may have caused them to borrow more than those students who did not work. It is not clear why students with lower GPAs borrowed more. It is possible that they may have had to repeat courses or take a lighter credit load per semester, therefore taking longer to get through school, or they may have had a higher financial need, which caused them to borrow more. Those with higher debt levels were probably more knowledgeable because they had gone through the borrowing process more often.

Implications

While an institution-specific bias is recognized as a possible limitation of this study, the results still have important implications that apply to student loan borrowers. Results of this study have implications for school officials, lenders, guarantee agencies, federal policy makers, home economists, financial counselors, and researchers.

Financial aid administrators are faced with developing financial aid packaging policies that do not put a heavier debt burden on one particular group of students. Results of this study show that there is equity of debt burdens between students of different sex and ethnic background. However, there is a significant difference in debt burdens for Iowa residents and nonresidents, and between residence hall students and off campus students. It may be that nonresidents and off campus students borrow more because of their higher costs. Since financial need was not included in this study, the question remains whether intervening variables might include the students' number of years in college, financial need, and the financial aid office's packaging policy.

Department of Residence staff may want to use this information to recruit more students to live in the residence halls. One advantage of living in the residence halls that they could promote would be graduating with lower debt burdens.

Financial aid administrators, lenders, guarantee agencies, and federal policy makers are all concerned about the student loan default rate. While this study did not specifically look at default, it may be used as a baseline study to discover if lack of knowledge about student

loans has any predictive power in explaining default. The literature suggests that the default rate is highest among students who have borrowed the least amount of money. This study found that those who borrowed the least amount of money were also least knowledgeable about their loans. It is recommended that a follow-up study be done on this same group in 5 years to discover if the lack of knowledge has any bearing on default.

Whether or not the lack of knowledge influences the default rate, institutions, lenders, guarantee agencies, and the federal government all share in the responsibility for educating students about their student loans. This study provides empirical evidence that documents students' lack of knowledge. Additional information obtained from the survey shows that students are interested in learning more about their student loans. They see the financial aid offices and lenders as the primary sources of more information. Because students who borrow the least are least knowledgeable, it is recommended that more in-depth loan counseling be done with students the first time they borrow. This could be done by financial aid administrators during freshman orientation, or through a seminar for first-time borrowers. Because of the complexity of the student loan programs, it is important that students receive written as well as verbal information. The information is most effective when it contains information that is student specific, such as previous loans, total amount borrowed, interest rate, grace period, when repayment is expected to begin, and the amount monthly payments will be if the student doesn't borrow any more money. This information should be provided to the student by either the lender or the guarantee agency each time the student

borrows.

Home economists and financial counselors who work with individuals and families on value clarification, goal setting, budgeting, and money management need information about college costs and possible debt burdens. This study suggests that 41 percent of Iowa State University graduates have borrowed an average of $8,476 to finance their education. It appears that certain lifestyle choices, such as where the student lives, can influence the amount of debt. This information is needed to help families and individuals make appropriate choices with regard to a college education.

Since this study explained only 15 percent of the variation in total debt and 4 percent of the variation in knowledge, more research is needed which includes other variables to further explain student debt and knowledge levels. Future research might include three additional variables: number of years in college, amount of financial need, and the financial aid office's packaging policy. Another limitation recognized in this study is that it does not include students who have borrowed money and either transferred or left school without graduating. While it is unknown how many students this involves, further research could be done which includes these students. Also, more research is needed to establish whether the amount of debt that students are leaving school with is burdensome.

REFERENCES

Agresti, A. and Agresti, B. F. (1979). Statistical methods for the social sciences. San Francisco: Dellen.

Babbie, E. (1983). The practice of social research (3rd ed.). Belmont, CA: Wadsworth Publishing Company.

Barberini, P. G. (1986). Mechanisms that work: State and institutional models for student loan counseling. In Proceedings of the College Scholarship Service Colloquium on Student Loan Counseling and Debt Management (pp. 111-114). New York: College Entrance Examination Board.

Clohan, W. C. (1985). The guaranteed student loan program (GSLP) - Overview, history, policy issues, and recommendations for reauthorization. Arlington, VA: The Consumer Bankers Association.

Cronin, J. M. (1986). Student financial aid: An international perspective. College Board Review, 141 (Fall) p. 8ff. (From Higher Education Abstracts, 1987, 22(4), Abstract No. 1156-22/LGM, p. 467).

Danes, S. M. and Hira, T. K. (1987). Money management knowledge of college students. Journal of Student Financial Aid, 17(1), 4-16.

Davidson, J. (1986, December 29). Borrowing for college costs tripled in decade, congressional study finds. The Wall Street Journal, p. 6.

Davis, J. S. (1985). Ten facts about defaults in the guaranteed student loan program. Research report, Pennsylvania Higher Education Assistance Agency. (From Higher Education Abstracts, 1986, 21(3), Abstract No. 0855-21/GMT, p. 374).

Dennis, M. J. (1983). An expanded view of the role of the financial aid administrator in student debt management. Journal of Student Financial Aid, 13(3), 33-38.

Dresch, S. P. (1986). The educational credit trust: A proposal for reconstitution and reform of the student loan system. Economics of Education Review, 5(1), 1-16.

Engelgau, D. (1985). Rate of default declines on loans to students, varies widely among states. The Chronicle of Higher Education, 29(21), 26.

Evangelauf, J. (1987). Students' borrowing quintuples in decade, raising the specter of a 'debtor generation'. The Chronicle of Higher Education, 33(17), p. 1, 18.

Gillespie, D. A. and Carlson, N. (1983). Trends in student aid: 1963 to 1983. New York: College Entrance Examination Board.

Guthrie, M. (Ed.). (1986). The reauthorization of the higher education act of 1965 (NASFAA Federal Monitor No. 135). Washington, DC: National Association of Student Financial Aid Administrators.

Hansen, J. S. (1986). Student loans: Are they overburdening a generation? (Available from Joint Economic Committee Publications, Dirksen Senate Office Building, Room G01, Washington, DC, 20510).

Hedderson, J. (1987). SPSS^{x} made simple. Belmont, CA: Wadsworth.

Holland, A. (1987). [Statistical Fact Sheet #8: Percent of Aid as Grants, Loans, and Work at Iowa State University]. Unpublished raw data. Iowa State University Student Financial Aid Office.

Holland, A. (1988). Educational indebtedness of fall, 1987 graduates of Iowa State University. Unpublished manuscript. Iowa State University Student Financial Aid Office.

Holland, A. and Healy, M. A. (1989). Student loan recipients: Who are they, what is their total debt level, and what do they know about loan repayment. Journal of Student Financial Aid, 19(1), 17-25.

Iowa College Aid Commission. (1986). Data digest on Iowa postsecondary institutions, 1984-85. Des Moines, IA: Author.

Iowa State University Registrar's Office. (1988). [Statistical Data on the Spring 1988 Graduates]. Unpublished raw data.

Kramer, M. A. and Van Dusen, W. D. (1986). Living on credit. Change, 18(3), 10-19.

Lee, J. B. (1985). The distribution of student financial aid: Trends among the postsecondary sectors. Washington, DC: American Council on Education.

Lephart, R. A. (1988). [Statistical Data on Student Loans at Iowa State University]. Unpublished raw data. Iowa State University Student Financial Aid Office.

Lewis, G. L. and Merisotis, J. P. (1987). Trends in student aid: 1980 to 1987. New York: College Entrance Examination Board.

Marchese, T. J. (1986). Fulfilling the institution's responsibilities to student borrowers. In Proceedings of the College Scholarship Service Colloquium on Student Loan Counseling and Debt Management (pp. 1-31). New York: College Entrance Examination Board.

McAlvey, W. C. and Price, A. J. (1985). Student loan collection procedures (Revised edition). Washington, DC: National Association of College and University Business Officers.

McCormick, J. L. (1987). The default rate factor: Who is really at fault? Journal of Student Financial Aid, 17(1), 31-36.

Moore, J. W. (1983). Purposes and provisions of federal programs. In R. H. Fenske and R. P. Huff (Eds.), Handbook of student financial aid (pp. 27-54). San Francisco: Jossey-Bass.

Myhre, D. C. (Ed.). (1979). Financial counseling: Assessing the state of the art. Blacksburg, VA: Virginia Polytechnic Institute and State University.

National Association of Student Financial Aid Administrators. (1987). Encyclopedia of student financial aid. Washington, DC: Author.

Nie, N. H., Hull, C. H., Jenkins, J. G., Steinbrenner, K., and Bent, D. H. (1975). Statistical package for the social sciences. New York: McGraw-Hill.

Norusis, M. J. (1987). The SPSS guide to data analysis for SPSS^{x} with additional instructions for SPSS/pc+. Chicago: SPSS Inc.

Pins, K. (1986, February 15). IRS shaves refunds of students overdue on loan payments. The Des Moines Register, p. 2A.

Popik, R. S., Bluitt, J. S., Bushman, M. F., and Moreland, K. L. (1986). A class to prepare students to manage educational debt. Journal of Student Financial Aid, 16(3), 19-23.

Simpson, W. B. and Mendelson, M. (1986). Student loans: A moderate proposal. Academe, 72(6), 19-21.

SPSS Inc. (1986). SPSS^{x} user's guide (2nd ed.). New York: McGraw-Hill.

Staff. (1985). Financial aid and student employment policies and procedures (Book 2). Unpublished manuscript, Iowa State University, Student Financial Aid Office.

TGSLC Research Shows.... (1988, January/February). Texas Guaranteed Student Loan Corporation (TGSLC) Newsletter, 9(1), p. 4. (Available from Texas Guaranteed Student Loan Corporation, P. O. Box 15996, Austin, TX 78761).

U.S. Bureau of the Census. (1985). Statistical Abstract of the United States: 1986 (106th ed.). Washington, DC: Author.

U.S. Department of Education. (1988). The student guide: Five federal aid programs 88-89 (Publication No. 195-942). Washington, DC: U.S. Government Printing Office.

U.S. Department of Education. (1989). The student guide--Financial aid from the U.S. Department of Education: Grants, loans and work-study 1989-90 (Publication No. 225-501). Washington, DC: U.S. Government Printing Office.

Washington Office of the College Board. (1986). Who receives federal student aid? New York: College Entrance Examination Board.

Witkin, G. (1987, September 14). The bad business of student loans. U.S. News and World Report, p. 32.

ACKNOWLEDGMENTS

My most sincere thanks are expressed to my major professor, Dr. Tahira Hira, and my committee members, Dr. Mack Shelley, Dr. Ardy Ulrichson, and Dr. Mary Winter, for their support and guidance throughout my graduate study.

Appreciation is extended to the Iowa State University Human Subjects Review Committee who certified the use of my survey. Also thanks to the Iowa State University Student Financial Aid Office for co-sponsoring the research and funding the photocopying of the surveys and the data entry.

Special thanks to Margi Healy for helping me get my WYLBUR file set up and to Betsy Garrison for moral support and for saving me countless hours by helping me set up my system file.

Recognition is due to Dr. Penny Ralston, who acted as a mentor and helped me decide on an initial direction for my graduate study.

My parents, Charles and Thelma Amos, also deserve special mention for their continued support and belief in me and in the value of education.

Thanks are expressed to Iowa State University Extension for encouraging me to pursue an advanced degree and for giving me the flexibility to take classes while I was working full time in Boone and Greene counties as the Extension 4-H and Youth Leader. Appreciation is also extended to the Student Financial Aid Office for the opportunity to work part time as a Graduate Assistant/Financial Aid Counselor.

Last, but not least, I thank my husband, Mark, for his patience, encouragement, understanding, and help throughout this whole process.

APPENDIX

Table 20. Pearson product-moment correlations among sociodemographic characteristics

Variables	1	2	3	4
1. Age	_			
2. Sex	-.048	-		
3. Marital Status	.472***	-.008	-	
4. Ethnic Background	.091**	.057	.022	-
5. Residency	-.106**	-.012	-.138***	.066
6. Housing	.105**	-.007	.152***	-.040
7. GPA	.003	.146***	.097**	-.064
8. Employment Status	.012	.122***	.061	.060
9. First Borrowed	-.309***	.141***	-.187***	-.074*
10. Monthly Payments	.090	-.034	.160**	.029
11. Expected Salary	.089*	-.357***	.097*	-.007

*p <.05.

**p <.01.

***p <.001.

5	6	7	8	9	10	11
-						
.013	-					
-.040	-.015	-				
-.107	.088*	-.032	-			
.115***	-.013	.131***	-.076*	-		
.204***	.006	.035	.133*	-.246***	-	
.044	.016	.135***	-.072	-.120**	.199**	-

Guaranteed Student Loan Survey

Please answer the following questions by circling the appropriate letter or by filling in the blank where appropriate.

82

1. What is your social security number? _____

2. What degree are you receiving?
   a. bachelor's
   b. master's
   c. doctorate

3. In which college are you enrolled?
   a. Agriculture
   b. Business
   c. Design
   d. Education
   e. Engineering
   f. Family and Consumer Sciences
   g. Science and Humanities
   h. Veterinary Medicine

4. What is your age? _____

5. What is your sex?
   a. male
   b. female

6. What is your marital status?
   a. single
   b. married
   c. divorced
   d. separated
   e. widowed

7. What is your ethnic background? (optional)
   a. Caucasian
   b. Black
   c. Hispanic
   d. Asian American
   e. Native American
   f. other

8. What is your residency status for the purpose of paying tuition?
   a. resident
   b. non-resident

9. Where do you live?
   a. in Ames
   b. outside of Ames

10. Where do you reside this semester?(Select one)
    a. parent's home
    b. residence hall
    c. Greek house
    d. off-campus
    e. USAC
    f. other

11. What is your cumulative grade point average?_____

12. While you were in school, did you work during the academic year?
    a. No ... Skip to Question 14.
    b. Yes .. Go to Question 13.

13. Where did you work?
    a. on-campus only
    b. off-campus only
    c. both on and off-campus

14. When did you first borrow a GSL?
    a. prior to 1981
    b. between January 1, 1981 and September, 1983
    c. after September, 1983

15. Have you ever completely repaid a previous GSL?
    a. no
    b. yes

16. What is the interest rate on your most recent GSL?
    a. 7%
    b. 8%
    c. 9%
    d. don't know

17. How long is your grace period?
    a. 6 months
    b. 7 months
    c. 8 months
    d. 9 months
    e. don't know

- *OVER* -

18. When will your GSL repayment begin?

    a. June
    b. July
    c. August
    d. September
    e. October
    f. November
    g. December
    h. January
    i. February
    j. March
    k. April
    l. May
    m. don't know

19. What is your total debt from loans you took out to meet your educational expenses?

GSL $ _____
NDSL/Perkins $ _____
ULTL $ _____
PLUS $ _____
SLS/ALAS $ _____
HEAL $ _____
HPL $ _____
other $ _____

20. Do you know approximately how much your monthly student loan repayments will be?
    a. No ... Skip to Question 22.
    b. Yes .. Go to Question 21.

21. How much will your monthly repayments be? $_____

22. What do you anticipate your annual starting salary to be?
    $_____

23. Which statement do you feel best describes your knowledge of your student loans?
    a. I know nothing.
    b. I know very little.
    c. I know some.
    d. I'm fairly knowledgeable.
    e. I'm very knowledgeable.

24. How interested would you have been in learning more about your student loans prior to this exit interview?
    a. not at all interested
    b. not interested
    c. somewhat interested
    d. interested
    e. very interested

25. Which method do you feel would be the best way to learn more about your student loans?
    a. self-study of brochures
    b. elective seminars
    c. elective class for credit
    d. required credit course
    e. individual counseling
    f. other _____

26. What source would you choose first to learn more about your loan repayments?
    a. financial aid office
    b. lender
    c. Iowa College Aid Commission
    d. friend
    e. parent or relative
    f. other

27. How important do you feel it is to be knowledgeable about your student loan?
    a. very unimportant
    b. somewhat unimportant
    c. neutral
    d. somewhat important
    e. very important

Thanks for completing the survey! Please pass it to the front when you are finished.

21:BRINK