

EXPLORING PARENTAL ACTIONS TO
FINANCE HIGHER EDUCATION

by

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How do Parents Finance their children's College education?
The Role of Parents in Financing Higher Education
How are Parents using Loans to fund Higher Education?

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(ABSTRACT)

The cost of attending college has risen dramatically over the last two decades. Because of the vast increase in the cost of tuition and fees, the burden of financing higher education has shifted away from the federal, state, and local governments to the family.

Numerous studies have been conducted on how students are sharing the burden of financing their higher education. However, research has not focused primarily on parents and specifically, parents of dependent students and what factors influenced their actions to finance higher education.

The purpose of this study was to examine parental actions to finance higher education. Data were analyzed from the 1995-96 National Postsecondary Student Aid Study (NPSAS: 96). The National Postsecondary Student Aid Study (NPSAS) is a comprehensive nationwide study conducted by the Department of Education's National Center for Education Statistics (NCES). Information is collected based on a nationally representative sample of all students who enrolled in less-than-two year institutions, community and junior colleges, four-year colleges, and major universities in the United States and Puerto Rico. Undergraduate, graduate, and first-year professional students who receive financial aid, as well as those who did not receive aid, participate in NPSAS.

NPSAS collects information on student demographics, family income, education expenses, employment, education aspirations, parental demographic characteristics,

parental support, and how students and their families meet the costs of postsecondary education. For the purposes of this study, variables were selected that elicited data about financing higher education, student demographics, family characteristics, and institutional attributes.

Results of this study indicated that the gender and race of students were factors in the amount of loans that were assumed by parents. Full-time students were more likely than part-time students to have parents that assumed loans.

The study also indicated that students who lived on-campus were more likely than students who live off-campus or live off-campus with parents to have parents that assumed loans. However, the age of students did not matter in the percentage of parents who assumed loans to pay for their child's education.

Parents who had a lower yearly income were more likely to assume loans to pay for college, however, the average amount of loans generally increased as parents income increased. Students from single-parent and separated-parent families were more likely than students from married-parent and divorced-parent families to have parent(s) that assumed loans to pay for college. However, the amount of savings that parents had did not matter in the percentage or the average amount of loans that were assumed by parents.

Further results of the study indicated that students who attended private institutions were more likely than students who attended public institutions to have parents that assumed loans. As the cost of attendance increased, there was a higher likelihood of having parents who assumed loans. Even though the amounts of parent

contributions varied, there was no significant difference in the percentages or average amount of loans that were assumed by parents.

Recommendations for future research include a continued focus on how families, as a whole, are financing higher education, repayment practices and default rates of parents who assumed loans to pay for higher education, specific types of loans that parents use to fund higher education, parental debt and what ratio of their debt is due to educational loans.

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CHAPTER ONE INTRODUCTION

The cost of college tuition has risen dramatically over the last several years. In 1980, the average undergraduate tuition and fees at a public 4-year institution was approximately \$700. The same education in 1995 had risen to almost \$3,000 (Chronicle for Higher Education, 1997).

One reason for the dramatic increase was due in part to the changing shares of revenue for higher education. Revenue for Higher Education is derived from five major sources. Those sources include the federal government, state and local governments, philanthropy, other sources, and the family (Hauptman & Roose, 1993).

Federal Spending

In 1950, the federal government was responsible for more than 45% of the total spending for higher education. This share of spending decreased dramatically to nearly 10% in 1990. One reason for the decrease was the utilization of the (GI Bill). The GI Bill provided money to soldiers returning from World War II in an effort to further educate and thus reintroduce them into American society. After the adoption of the GI Bill, the federal government reduced the amount of money it provided to fund higher education (Hauptman & Roose, 1993).

State and Local Governments

Another major contributor to revenue for higher education is state and local governments. State and local governments have contributed different amounts to public and private higher education. For public higher education, state and local governments have remained constant in the amounts they contributed. Since 1950, they have been responsible for approximately 30% of total spending.

For private higher education, state and local governments have consistently been responsible for four percent of total spending related to private higher education (Hauptman & Roose, 1993).

Philanthropy

The shares of revenues from philanthropy have increased slightly from 1950 to 1990. In 1950, philanthropy accounted for five percent of total spending for higher education. This figure increased to nearly six percent by 1990 (Hauptman & Roose, 1993).

Other Sources

“Other” sources of revenue are defined as revenues generated from university hospitals and non-educational activities. Of total revenue for higher education, “other” sources contributed two percent in 1950. As the services at university hospitals increased and services related to non-educational activities increased, the share in revenue also increased. In 1990, “other” sources accounted for nearly 11% of total revenue for higher education (Hauptman & Roose, 1993).

Family Share

While state and local government’s share of total spending for higher education remained constant over the last 40 years, the amount that the federal government contributed to total spending decreased dramatically. That decrease has shifted the burden to fund higher education to the family. The family share in 1950, accounted for approximately 30% of the total spending for higher education. This figure increased to nearly 50% by 1990 (Hauptman & Roose, 1993).

Within the family share of funding higher education, the contributions made by parents and students have also shifted over time. In 1950, the parent share accounted for approximately 20% of the total spending for higher education and the student share accounted for nearly ten percent of total spending. By 1990, the parent share increased to 30% and the student share increased to nearly 20% of total spending.

In summary, the financial responsibility for higher education has changed dramatically since 1950 when the federal government was responsible for nearly 50% of total spending. At present, the family is now responsible for nearly 50% of the total spending for higher education.

Families today have adopted a variety of methods to help fund their share of higher education. Some ways include using current income and savings, while others include different types of financial aid. There are two types of financial aid that are available to families to help fund their share of higher education. Those types include gift aid and self-help aid.

Gift Aid refers to grants, scholarships and similar funds that do not have to be paid back. The grants that are available from the federal government are Pell Grants and the Federal Supplemental Educational Opportunity Grants (FSEOG). Both of these grant programs have several restrictions regarding qualifications and amounts available. Another form of gift aid is scholarships. Scholarships are usually merit based and can come from the federal or state government, private organizations, or postsecondary institutions.

Self-help aid is the second form of financial aid. It comes in the forms of employment (e.g. Federal Work Study), or student and parent loans.

Federal Work Study provides an avenue for students to earn money by working on the college campus during the academic year. However, there are also restrictions as to who qualifies for Federal Work Study money.

Federal loans are available to both students and parents. Some examples of federal loans available are the Direct and Federal Family Education Loan (FFEL), Stafford Loans (loans for students), and Direct and FFEL PLUS Loans (loans for parents). This study examines the dramatic increase of the share of higher education that is being borne by parents, specifically, it answers the question: How are parents using loans to fund higher education?

Purpose of the Study

The purpose of this study was to examine parental actions to finance higher education. The overall research question was, “How are parents funding their share of the total spending for higher education?” There have been a lot of studies published that have examined how students funded their higher education and how students used loans to pay for college. However, there is only a small amount of literature that has been published about parents and how they are paying for their students’ higher education.

Data were analyzed from the 1995-96 National Postsecondary Student Aid Study (NPSAS: 96). The National Postsecondary Student Aid Study (NPSAS) is a comprehensive nationwide study that is conducted by the U.S. Department of Education’s National Center for Education Statistics (NCES). Information is collected based on a nationally representative sample of all students who enrolled in less-than-two year institutions, community and junior colleges, four-year colleges, and major universities in the United States and Puerto Rico. Undergraduate, graduate, and first-year

professional students who receive financial aid, as well as those who did not receive aid, participate in NPSAS.

NPSAS collects information on student demographics, family income, education expenses, employment, education aspirations, parental demographics characteristics, parental support, and how students and their families meet the costs of postsecondary education. For the purposes of this study, variables were selected that elicited data about financing higher education, student demographics, family characteristics, and institutional attributes.

The variables included race of students, age of students, gender of students, attendance status of students, local housing status of students, income of parents, total amount of loans assumed by parents, type of loan assumed by parents, parent savings, marital status of parents, institutional type, and cost of attendance (COA).

Research Questions

Specifically, the present study was designed to test the following research questions:

1. Is there a significant difference between race of students and the amount of loans assumed by parents?
2. Is there a significant difference between age of students and the amount of loans assumed by parents?
3. Is there a significant difference between gender of students and the amount of loans assumed by parents?
4. Is there a significant difference between housing status of students and the amount of loans assumed by parents?

5. Is there a significant difference between attendance status of students and the amount of loans assumed by parents?
6. Is there a significant difference between income level of parents and the amount of loans assumed by parents?
7. Is there a significant difference between amount of parent savings and the amount of loans assumed by parents?
8. Is there a significant difference between marital status of parents and the amount of loans assumed by parents?
9. Is there a significant difference between the total parent contribution and the amount of loans assumed by parents?
10. Is there a significant difference between institutional type and the amount of loans assumed by parents?
11. Is there a significant difference between cost of attendance and the amount of loans assumed by parents?

Significance of the Study

This study was significant for professional practice and research. In terms of practice, several constituencies may benefit from the results including financial aid officers, parents who borrow money to pay for their student's education, and the federal government.

Financial aid officers might use the results of this study to design better educational programs for those parents who assume loans to pay for their student's education. They can also use the results of this study to learn more about the types and amounts of loans that parents are assuming to pay for higher education.

Parents can use the results of this study to gain a better understanding of the PLUS loan program. They can also use the results of this study to better educate themselves concerning the type and amount of loan they choose.

State legislatures can use the results of this study to design better educational programs for those parents who assume loans to pay for their student's education. The legislature can use the results of this study to consider legislation requiring institutions to further educate parents about the implications and ramifications of assuming loans to help fund higher education.

Along with the constituencies that may benefit from the results of this study for practice, there are also implications for future research. This study may lead to research examining future parental plans to finance higher education. For example, further research could be conducted on parental savings to examine how and to what extent parents are saving to fund their student's education.

This study might also lead to future research that examines parents' knowledge concerning the costs associated with sending their student to college.

Limitations of the Study

This study had present study limitations, methodological limitations, and historical limitations.

Present Study Limitations

The first limitation was only examining actions to finance higher education. Because this study concentrates specifically on what parents do to finance their child's education, it does not present a complete picture of how one pays for a higher education.

Another limitation is that factors that may have influenced parental actions to finance higher education were not examined. Some of the factors that were not examined were parental education, parental debt and parental assets and investments.

The level of parents' education may have affected the amounts of loans they assumed to finance higher education. When comparing parents that have earned a bachelor's degree or beyond to those parents that never attended college, there might be a difference in the amount of loans that were assumed to pay for higher education.

Parental debt is another limitation of this study. Parental debt in relation to the amounts of loans that were assumed by parents was not examined in this study. If parents had more than one family member in college at the same time, this may have affected the amounts of loans that were assumed. Another factor that could influence parental debt was previous loans. If parents assumed loans to help fund their student's higher education for more than just the time period examined for this report, the results of this study may have been different.

The ratio of loans to the cost of attendance is another limitation of this study. If parents who assumed loans to finance higher education were compared to the cost of attendance of their student, the results of this study may have been different. Parents are allowed to borrow more than the cost of attendance in an effort to cover other costs that may be associated with their student's education.

Methodological Limitations

Other limitations of this study included methodological and historical limitations of the National Postsecondary Student Aid Study. The NPSAS: 96 study design was

complex. Data were collected from 950 postsecondary institutions, 50,000 students, and 8,800 parents who were selected to participate in this study.

A major concern surrounding the methodology for NPSAS: 96 was designing a data collection system that was flexible enough to gather comprehensive financial data and possessed the ability to compare each element of those data. Data were gathered from government data files, institutions, students, and parents. However, these alone cannot provide an accurate summary of postsecondary educational financing (Department of Education, 1997).

Financial aid offices, at each institution surveyed, keep records regarding certain types of financial aid. Those records, however, are not necessarily inclusive of all financial support and assistance. One limitation is that the financial aid records may not reflect the financial aid that students received from another institution. Another limitation is that the records cannot provide detailed, accurate information about the other sources of aid and educational financing that students receive other than those recorded by that financial aid office.

Historical Limitations

There are also historical limitations in relation to the National Postsecondary Student Aid Study. The first NPSAS was conducted in 1987 (NPSAS: 87), and has been conducted triennially. Subsequent surveys were conducted in 1990 (NPSAS: 90), 1993 (NPSAS: 93), and in 1996 (NPSAS: 96).

NPSAS: 96 has several “special features” built into the survey that account for historical limitations in previous NPSAS studies. Because NPSAS has implemented and completed three prior rounds of NPSAS, and their associated field tests, NCES and its

contractors have developed and refined several systems and methods to facilitate subsequent rounds. For NPSAS 96, the additions and refinements were:

1. Enriching study data by obtaining, through electric data interchange (EDI) with a Department of Education (ED) data system, financial data provided by federal aid applicants on the Free Application for Federal Student Aid (FAFSA) and resulting Student Aid Reports (SAR) – obtained for school years 1995-96 and 1996-97;
2. Enriching study data by obtaining, through EDI with the ED National Student Loan Data System (NSLDS) files, information available for loan recipients during the 1995-96 school year;
3. Increasing precision of study estimates by eliminating the previously used first state of student sampling (i.e. geographic area);
4. Introducing cost efficiencies through a dynamic two phase sampling of students for telephone interview; and
5. Improving the quality of collected institutional data of records through an enhanced Computer Assisted Data Entry (CADE) procedure.

NPSAS: 96 also introduced procedures that helped to broaden the base of postsecondary student types for whom telephone interview data could be collected.

In the past three NPSAS studies, information was not collected from students that had severe hearing impairments. NPSAS: 96, however, implemented use of Telephone Display for Deaf (TDD) devices to facilitate telephone communications with those students.

Another limitation was that previous NPSAS studies were not able to collect telephone interview information from students with insufficient English translation skills. For NPSAS: 96, a Spanish translation interview was prepared so that interviews with students that either did not speak English or had difficulty with the English language could be conducted.

Organization of the Study

This study is organized around five chapters. The first chapter described the topic to be examined, the purpose of the study, the research hypotheses, and the significance of the study. The second chapter reviews the literature that is relevant to the study including factors that influence student debt, parents views on the value of a college education and how they will finance higher education, and parental plans and actions to finance higher education. Chapter three describes the methodology that was employed by NPSAS: 96 to collect the data, the data analysis system, which was used to generate tables for this analysis, and the data analysis procedures used in this study. Chapter four reports the results of the research. Chapter five discusses those results and the implications of the study for future research and professional practice.

CHAPTER TWO LITERATURE REVIEW

This section reviews the literature relevant to the study including the limited amount of literature available on parental actions to finance higher education and parental attitudes about funding higher education. This section will also examine literature from a student perspective that provides insight to the present study.

In the past ten years, the cost associated with funding a college education has increased dramatically. While the costs associated vary depending on type of institution, whether it is public or private, and the residency status of the student, tuition and fees have far surpassed the rate of inflation (Evangelauf, 1990).

At the same time, little research has been conducted on the effects the rising costs of education will have on parents. Due to the rising costs of higher education, more and more parents are taking out loans to help fund their student's education. The literature review on parents has been split into sections that include parental plans to finance higher education and parental attitudes about financing higher education. The literature review on students has been split into sections that include factors that influence student debt, student knowledge of loan debt and borrower attitudes about student loans.

Parental Plans to Finance Higher Education

Miller (1996) studied parental plans to finance higher education, analyzing data from the 1988 National Education Longitudinal Survey (NELS). This survey was sent to 25,000 eighth graders in over 1,000 public and private schools. The National Center for Educational Statistics (NCES) designed the study to gather longitudinal data concerning the transitions that students make from eighth grade, through high school, college and finally as they enter the workforce.

In 1992, NCES sent a follow-up survey to 17,000 parents. Questions in the follow-up survey were specifically related to family finances, parental plans to finance higher education and knowledge that they possessed concerning financial aid programs.

The results indicated that most parents had made some plans to prepare for the cost to send their children to college. The most common plan was to reduce their expenses (44.4%), while 38.1% reported that they had or were going to establish a savings account. However, 33.4% of the parents indicated that they had done nothing to prepare for the cost of sending their children to college and only 26% had opened a savings account within the last three years (Miller, 1996). Most parents (85%) indicated that their savings alone would not cover the cost of college.

Sixty percent of parents reported they expected to receive financial aid in the forms of grants, scholarships, or fellowships. Another 47% of parents expected financial aid to come in the form of school-based work programs. Less than one-half, 45%, of parents responded that loans would play a factor in the financial aid package they expected to receive. However, the percentage of parents who had actually applied for loans and work programs was less than one-half of the parents who thought they would use those programs (Miller, 1996).

Surprisingly, a large portion of parents (30%) also reported that they expected there to be no or low expenditures for their dependent students entering college. An additional 25% of parents reported that they expected to spend less than \$2,500 on expenses related to their student's education.

The results also suggested that parents did not possess accurate knowledge concerning the financial aid programs available. Most parents reported that they

anticipated that their students would receive financial aid in the form of grants and/or scholarships.

In another study, Churaman (1992) focused on parental support for dependant undergraduate students. Data were analyzed from the National Postsecondary Student Aid Study (NPSAS: 87).

Parental support was divided into two different categories that included the amount and type of resources given to the student and the timing of the allocation (past, present or future allocation) to the student. The sample consisted of 7,341 students that were enrolled in undergraduate programs across the nation carrying at least six credit hours in the fall of 1986. Chi-square analyses were used to examine the differences between the amount of financial aid borrowed by married versus single students.

Results indicated that parents contributed an average of \$4,363 to single students while parents only contributed an average of \$1,807 to married students. Other forms of aid students received from parents included car costs, food, housing and clothes, however, the amounts of the support varied among categories.

When examining the relationship of timing to parental allocation of funds, parents were asked, "Did/will you/spouse contribute/lend money?" Parents (76.5%) indicated that "yes" they had contributed funds. The most frequent source of funds allocated was current income (85.1%) compared to 9.1% of parents who took a second job to contribute funds to the cost of their children's higher education.

The U.S. Department of Education (1992) also examined parental financial support for undergraduate education. Data were again analyzed from the National Postsecondary Student Aid Study (NPSAS 87).

The parents of a subsample of 27,000 students were surveyed to collect information on education costs and financing and on family financial, educational, and family finances of students. All differences described in the study were statistically significant at the 0.05 alpha level using a two-tailed Student's t test.

Parents were surveyed to determine if they had taken out any loans to pay for their child's educational and living expenses for the 1987-88 school year. They were also asked to indicate the types and amounts of loans used. Parents were specifically asked if they took out any of the following loans: federal-sponsored Parent Loans for Undergraduate Students (PLUS), supplemental education loans, state-sponsored parent loans, school-sponsored loans, signature loans, home equity loans, line of credit, loans against life insurance policies, and others (Department of Education, 1992).

Results indicated that 14% of all students had parents who assumed some type of loan to fund their child's higher education. Only 2% of students had parents that took out PLUS loans and 11% had parents who obtained loans other than federal, state, or institutional loans. The average amount of all loans assumed by parents was \$3,986.

In relation to the student characteristics, the results indicated that there was no statistically significant difference in the percentages of students from different racial-ethnic groups who had parents that assumed loans. However, students who were under 21 years of age were more likely than older students to have parents who assumed loans to pay educational and living expenses (Department of Education, 1992).

The parent characteristics results indicated that students who received \$3,000 or more in parent support were more likely than student who received \$500-\$2,999 to have parents who assumed loans. However, there was no statistically significant difference in

the income or assets of parents and amount of loans they assumed to pay for their child's education.

Parents were more likely to assume loans when the cost of attending postsecondary education was higher. When the cost of attending was \$10,000 or more per year, 25% of the students had parents who assumed loans. When the cost of attending ranged from \$6,000 to \$9,999, 21% of students had parents who assumed loans and when the cost of attending was \$3,000 to \$5,999, 16% of students had parents who assumed loans.

Low-income families have a hard time paying for college. They usually have little savings and lack substantial assets to borrow money to help fund their child's education related expenses. The U.S. Department of Education (1996) examined how low income undergraduates financed postsecondary education during the 1992-93 academic year. Data were analyzed from the 1992-93 Postsecondary Student Aid Study (NPSAS: 93) and the Beginning Postsecondary Students Longitudinal Study (BPS: 90/94).

Low-income undergraduates were defined as, "students with a family income below 125 percent of the federally established poverty threshold for their family size." (Department of Education, 1996). Results indicated that 20% of all undergraduates enrolled in 1992-93 were from low-income families and 12% of all dependant undergraduates were from low-income families according to the definition.

Parents of undergraduate students were responsible for their children's education to the extent they could afford it. Therefore, all dependant undergraduate students' financial aid takes into account parents' income. In the section related to dependant undergraduates, the results revealed that dependant students who came from 4-person

families were defined as low income if their parent's income was less than \$17,405 (Department of Education, 1996).

Parental Attitudes About Funding Higher Education

Between 1985 and 1993, the cost of attending a public college or university increased 19% and the cost of attending a private college or university increased 30% (Gallup & Robinson, 1996). At the same time, the amounts of grants and scholarships available from the federal government have decreased. Thus leaving families to bare the remaining costs associated with sending their students to college (Gallup & Robinson, 1996). There has been little research conducted on parental attitudes towards financing their students' higher education, nor has research been conducted to examine what types of financial aid parents can expect to receive.

In 1996, Gallup and Robinson conducted research funded by the The Sallie Mae Foundation to examine the importance of financing college among families' other financial obligations, the level of responsibility felt by parents and students for financing an education, and the expectations about sources of funding to be used (Gallup & Robinson, 1996).

Gallup and Robinson conducted a telephone survey with a sample of 1,100 participants. 300 of the participants were students while 800 of the participants were parents of college-bound high school students. Parents (84%) indicated that a college education was very valuable to their child's financial well being and (92%) of parents stated that a college education was the most important investment they will make for their child.

In response to questions related to the relative importance of financing a college education, 31% of parents reported that financing their children's college education was their first priority (Gallup & Robinson, 1996). Similarly, 31% of parents indicated they were much more likely to agree that it was their responsibility to finance their children's education. Additionally, only 8% of students agreed that it was their parents' responsibility to finance their education. Conversely, 19% of students reported that they strongly believed that it was their responsibility to finance their higher education.

When asked questions related to sources of financing a college education, 47% of parents indicated that grants and/or scholarships would fund the majority of their children's educational expenses. Another 42% of parents indicated that student loans would help fund the majority of their children's educational expenses. Only 11% of parents indicated that they would have to take some type of parent loan to help fund the majority of their children's educational expenses.

The majority of parents of college-bound high school students have an understanding of the high costs that are associated with sending their children to college. When considering the costs associated with funding higher education, parents reported that they believed that a college education was a worthwhile and valuable expense.

Miller (1997) studied parents' views of a college education and how they planned to pay for it. The sample population was selected from a randomly generated list of respondents that was purchased from the Donnelley Marketing Database of United States households. Donnelley databases hold information on approximately 90% of US households. Sources for the Donnelly databases include white pages telephone directory

listings, US Postal Service's national change of address file, US Census Data, state driver's license information, and voter registration information (Miller, 1997).

The respondents that were selected for the study were parents of traditional age (18-24) college students. Parents of older students who are considered non-traditional were excluded from this study because the financial priorities of those parents were likely to be different from those selected for this study.

Interviews were conducted in May 1996. At the time of the interview, participants were not informed that the Sallie Mae corporation was sponsoring the survey. Interviewees were asked questions related to the value of a college education, the perceived costs of financing a college education, relative importance of financing a college education, expected funding sources for college expenses and how parents expected to manage the costs of college.

When parents were asked about the value of a college education in relation to their child's financial well being, 84% of parents reported that a college education was very valuable or indispensable. A related question asked parents about the value of a college education in relation to their child's personal well being. Parents (82%) responded that they believed that a college education was very valuable or indispensable to the personal well being of their children.

It is interesting to note that parent respondents that did not have a college education were least likely to think that a college education was valuable or indispensable. Only 22% of the parents without a college degree responded that they thought a college education would be very valuable for their child's financial well being. Additionally, only 19% of the parents without a college degree responded that they

thought a college degree would be very valuable for their child's personal well being (Miller, 1997).

When parent respondents were asked questions related to the perceived costs of financing a college education, 92% of parents agreed that a college education was still a good investment. In an effort to examine parents' knowledge of the costs associated with financing a four-year college education, parent respondents were asked to estimate tuition and related expenses that included room, board, books, and personal expenses. Respondents' estimates were compared to projected average attendance costs nationwide.

Parent respondents (84%) were able to provide a cost for public schools. Of those parents who provided an estimate, 60% thought that the costs of financing a college education was either at or above the actual average cost.

When parent respondents were asked questions related to the relative importance of financing a college education, 92% of parents agreed with the statement, "A college education is the most important investment I will make for my child" (Miller, 1997). The importance that parents placed on financing a college education varied among age.

Younger parents (under 40) were more likely to use their everyday budget to fund their child's education. Younger parents (40%) stated that funding their child's education was their first priority.

Older parents (50 or older) were not as likely to use their everyday budgets to pay for their child's education. Older parents (33%) also stated that funding their child's education was their first priority.

When parent respondents were asked how they expected to pay for their child's education, financial aid was among the most popular answers. Parent respondents (51%)

indicated that they planned to use their own savings to help pay for their child's education. A little less than one-half (47%) of parents responded that they expected to use grants and scholarships, and (42%) of parents responded that they expected to use loans to help pay for their child's education.

Factors That Influence Student Debt

The first section explores research concerning factors that influence student debt. Hira and Brinkman (1992) studied the factors influencing the size of student debt. They asked participants about their loan histories including when they first borrowed money, the interest rate of the loan, and the length of the grace period that was allowed by each loan. These questions were used to measure students' knowledge about their loans.

From a sociodemographic perspective, the results revealed that the average borrower was White, an unmarried undergraduate who was 24 years old. The average amount borrowed was \$8,476. The study also revealed that first time borrowers possessed some knowledge regarding their loans. Almost 90% of the participants in the study correctly reported when they first borrowed money to pay for college. Nearly 77% of the participants possessed knowledge about their grace period as well. However, the percentage dropped to 63% when the participants were asked questions related to interest rates, and only 58% knew when repayment of their loans would begin (Hira & Brinkman, 1992).

The variables used in the study consisted of students who first borrowed, the interest rate, grace period, date of first payment, size of monthly payments, knowledge index, and self-reported knowledge. The correlation of variables revealed that there was variation among debt accrued by students with different sociodemographic

characteristics. There was also a difference in the knowledge index related to age of the student taking out a loan, the marital status of the student, and the employment status of the student receiving loans to pay for their college education.

A study was conducted by the U.S. Department of Education (1993) that examined the profile of undergraduates in U.S. Postsecondary Education Institutions. Data were analyzed from the 1990 National Postsecondary Student Aid Study (NPSAS: 90). One of the chapters of the report addressed the enrollment characteristics of undergraduate students, specifically, the housing arrangements of undergraduate students. The results indicated that during the 1989-90 academic year, 57% of all undergraduates lived off-campus. Another 28% of undergraduate students lived with their parents, while 15% of all undergraduates lived in campus housing. (Department of Education, 1993).

Further results revealed that younger undergraduate students who were less than 23 years old (25%) lived on-campus and undergraduates who attended private institutions (40%) were more likely than students attending public institutions (11%) to live in campus housing.

Student Knowledge of Loan Debt

Another important factor is to explain student knowledge of loan debt. This information further clarifies the purpose of this study. Holland and Healy (1989) conducted a study that addressed The Higher Education Reauthorization Act of 1986. That act required institutions to counsel students who received a Guaranteed Student Loan (GSL) or a Supplemental Loan (SLS) about repayment of their loans prior to the time students graduated and had to start repaying their loans. The consultations were designed to educate students on how much loan debt they had accrued while in college, to

explain about repayment options, and to answer general questions regarding those repayments options.

The researchers also examined student knowledge of their total debt level and what they knew about loan repayment. The sample population consisted of 790 students who participated in group exit interviews. Twelve interview sessions were conducted with an average of 35 to 50 students in each session. After each session, students were asked to volunteer to answer a short survey that would help the university better understand loan recipients. Out of the 516 students who participated in exit interviews, 468 students completed the survey. Results indicated that students are not knowledgeable about the amount of total debt that they accumulate nor are they knowledgeable about repayment schedules and how those schedules can affect their budget.

Student perceptions of loan debt burdens have also been examined. Analyses were conducted to examine borrower perceptions of debt burdens and debt-to-income ratios. Students who apply for loans are more likely to possess knowledge of monthly payments rather than total loan debt (Greiner, 1996). While it is important to examine literature that is related to student perceptions of loan debt, it is also necessary to examine student attitudes about loans in general.

Borrower Attitudes About Student Loans

The third section discusses borrower attitudes about student loans. In a study comparing the repayment of student loans and the impact of education debt, Boyd and Wennerdahl (1993) examined a group of Stafford Loan borrowers who were in the process of repaying their loans. Borrowers from several states were included in the study, which was conducted during two separate years. In 1985 and 1991, the participants were

sent surveys that solicited information regarding their level of loan debt, demographic characteristics and the impact of loan repayment on personal and economic decisions.

Respondents indicated that it was necessary for them to borrow money to pay for their college education. However, in both years, the researchers found that only six percent of the participants wished they had borrowed more money to pay for college. Nearly 60 % of the same respondents wished that they had borrowed less money to pay for college.

The results indicated that loan repayment had a significant impact on the personal and economic decisions of alumni. Respondents indicated in some cases that their loan repayments exceeded 10 % or more of their net (take home) pay. Because of this, participants indicated that they had to make adjustments in their lifestyles and spending habits.

Conclusion

In relation to parental plans and actions to finance higher education, parents believed that a college education was a valuable investment to provide a better future for their children. However, parental plans were to use savings and current income to help finance the majority of the expenses related to their children's education. Past research has not focused primarily on parents of dependent students and what factors influence their actions to finance higher education. The present study sought to address this gap in the literature and to contribute to the limited body of knowledge about parental actions to finance higher education.

The literature also revealed that students possessed some knowledge about the student loan process. Students also possessed knowledge relating to the grace period for

loan repayment. However, there was a lack of knowledge about the amount of loans in relation to the monthly repayment amount.

CHAPTER THREE METHODOLOGY

The purpose of this study was to examine parental plans to finance higher education. This chapter will provide background information on the NPSAS study, the data analysis system, the research hypotheses used in the present study, and data analysis procedures. When analyzing data from an established national study, it is important to understand the background of the study.

NPSAS: 96

The U.S. Department of Education provides some type of financial assistance to about one in every three students attending a postsecondary institution. During the 1991-92 academic school year, federal and state governments awarded more than \$30 billion dollars in grants, loans and work-study aid (Department of Education, 1997). Until 1987, there had been little information collected about students who benefit from federal aid.

The National Postsecondary Student Aid Study (NPSAS) is a comprehensive nationwide study conducted by the Department of Education's National Center for Education Statistics (NCES). Information is collected based on a nationally representative sample of all students that enrolled in less-than-2-year institutions, community and junior colleges, 4-year colleges, and major universities in the United States and Puerto Rico. Undergraduate, graduate, and first year professional students who receive financial aid of any type, as well as those who did not receive aid, participate in NPSAS (Department of Education, 1997).

The study has been conducted under contract for NCES once every three years. However, with the current reduction in the federal budget, NPSAS will now be conducted under contract for NCES once every four years beginning with 1999-2000. NPSAS collects information on student demographics, family income, education expenses, employment, education aspirations, parental demographic characteristics, parental support, and how students and their families meet the costs of postsecondary education (Department of Education, 1997).

Design

The first NPSAS was conducted during the 1986-87 school year. Data were gathered from institutional records on about 60,000 students at 1,100 colleges, universities, and other postsecondary institutions. About 43,000 of these students and 13,000 parents completed questionnaires via telephone interviews.

To collect the vast information on students and parents, planning and development of operational controls were designed. NPSAS: 96 relied on an integrated system of computer assisted data capture approaches including an (a) Electronic Data Interchange (EDI) with extant data bases, (b) Computer Assisted Date Entry (CADE), and (c) Computer Assisted Telephone Interviewing modules developed to record, abstract, or transfer data. (Department of Education, 1997).

The sample populations for NPSAS: 96 were comprised of three sources. The sources included institutional participation, student information and a parent sample.

Institutional Participation

Out of a sample of 973 institutions, 900 eligible institutions were asked to participate in NPSAS: 96 by providing a comprehensive list of all their students (an

enumeration, regardless of financial aid status) for the sample selection and assistance in abstracting data from student records for sampled students. Of the 900 eligible institutions, 836 actually provided a student enrollment list or database that could be used for sample selection. Institutional level, institutional control and institutional sector categorized the 836 participating institutions (Table 1).

Student Information

Students' data were collected by obtaining information directly from the student financial aid records. Collecting this information was a three-stage process.

The first stage involved an electronic data interchange (EDI) with the Department of Education (ED) CPS (Central Processing System) database of electronic Student Aid Reports (SAR). The data accessed included information from the Free Application for Federal Student Aid (FAFSA) and Student Aid Reports.

The second stage involved collection of information from student records at the 836 postsecondary institutions in the NPSAS sample using a Computer Assisted Data Entry (CADE) software system. The abstracted information included

1. Central Processing System data, including a full Student Aid Report,
2. Previously verified institutional characteristics and identifiers from the contractor sampling files (e.g. level of offering, control, calendar system, institutional-specific dates for terms of enrollment, grading system, stratum, whether clock or credit hours were awarded),
3. Student names, ID numbers, and sampling strata (from the contractor sampling files), and

Table 1

Institution-Level Rates for Obtaining Institutional Data (CADE) by Selected Classifications

Type of Institution	Eligible	Provided Record Data		
		Number	Percent Unweighted	Percent Weighted
All Institutions	836 ^a	804 ^b	96.2	96.3
Institutional level				
Less than 2-year	100	93	93.0	94.6
2-year	238	229	96.2	97.7
4-year non-doctorate granting	242	237	97.9	97.8
4-year doctorate-granting	256	245	95.7	97.1
Institutional Control				
Public	434	424	97.7	98.7
Private, not-for-profit	274	261	95.3	97.6
Private, for-profit	128	119	93.0	93.5
Institutional Sector				
Public, less than 2-year	31	31	100.0	100.0
Public, 2 year	159	155	97.5	98.2
Public, 4-year non-doctorate-granting	119	117	98.3	99.4
Public, 4-year doctorate-granting	125	121	96.8	97.6
Private, not-for-profit, 2-year or less	42	38	90.5	98.4
Private, not-for-profit, 4-year non-doctorate granting	102	100	98.0	97.1
Private, not-for-profit, 4-year doctorate-granting	130	123	94.6	96.8

Table 1 continued

Institution-Level Rates for Obtaining Institutional Data (CADE) by Selected Classifications

Type of Institution	Eligible	Provided Record Data		
		Number	Percent Unweighted	Percent Weighted
Private, for-profit, less than 2-year	61	56	91.8	93.4
Private, for-profit, 2-year or more	67	63	94.0	94.0

Note: ^a The eligible group is comprised of the 836 NPSAS-eligible institutions that provided lists for student sampling.

^b Includes institutions providing only partial data and those providing data for only a subset of sampled students; eight of the institutions provided these data only after interviewing had been initiated for students selected from their institution.

Source: NCES, NPSAS: 96 Methodology Report

4. Customized additional financial aid sources/programs unique to the specific institution and associated state (Department of Education, 1997).

The third stage involved Electronic Data Interchanges with the Department of Education's Pell Summary records and the department of education's National Student Loan Data System (NSLDS). All 62,717 initial sample student participants were matched according to their social security number.

The initial student sample was composed of 62,717 students from the original 973 institutions. Once the students from the 73 ineligible institutions were excluded, there were 59,100 NPSAS-eligible students (Table 2) matched to the National Student Loan Data System (NSLDS) from the 836 participating institutions (Department of Education, 1997).

Computer Assisted Telephone Interviewing

Another element of the student sample for NPSAS: 96 was data collected through Computer Assisted Telephone Interviewing (CATI). The second student sample was a completely different sample than those students matched to the NSLDS. This initial student sample was composed of 63,616 students from 973 postsecondary institutions. There were 3,996 students for whom no institutional record data had been obtained or were found to be NPSAS-ineligible and therefore were excluded from the CATI selection process.

Among the 59,593 NPSAS-eligible students, 51,195 were sampled in the Phase 1 locating and interviewing stage. There were actually 12,798 students that were both located and interviewed during Phase 1. Most of those cases (12,620) completed full interviews. The remaining 178 completed only the Spanish-language abbreviated

Table 2

Results of NSLDS Matching Attempt, by Selected Institutional and Student
Classifications

Type of Student	Number Eligible	Provided Record Data			
		Loan During		Loan Historically	
		Number	Percent	Number	Percent
All Institutions	62,717	21,418	31,453	96.3	50.2
Institutional level					
Less than 2-year	5,005	1,697	33.6	2,369	47.0
2-year	12,892	3,105	24.1	5,168	40.1
4-year non-doctorate granting	19,983	6,983	36.2	10,313	53.5
4-year doctorate-granting	25,497	9,633	37.8	13,605	53.4
Institutional Control					
Public	35,651	9,407	26.4	15,307	42.9
Private, not-for-profit	20,547	8,548	41.6	11,769	57.3
Private, for-profit	6,519	3,463	53.1	4,379	67.2
Institutional Sector					
Public, less than 2-year	1,511	108	7.1	331	21.9
Public, 2-year	8,509	760	8.9	2,158	25.0
Public, 4-year non-doctorate-granting	10,637	3,333	31.3	5,166	48.6
Public, 4-year doctorate-granting	14,994	5,206	34.7	7,652	51.0
Private, not-for-profit, 2-year or less	2,538	994	39.2	1,418	55.9
Private, not-for-profit, 4-year non-doctorate-granting	7,556	3,150	41.7	4,433	58.7
Private, not-for-profit, 4-year doctorate-granting	10,453	4,404	42.1	5,918	56.6
Private, for-profit, less than 2-year	3,060	1,555	50.8	1,898	62.0
Private, for-profit, 2-year or more	3,459	1,908	55.2	2,481	71.7

Table 2 continued

Results of NSLDS Matching Attempt, by Selected Institutional and Student
Classifications

Type of Student	Number eligible	Provided Record Data			
		Loan During		Loan Historically	
		Number	Percent	Number	Percent
<u>Student Level</u>					
Undergraduate	50,266	17,964	35.7	24,671	49.1
Graduate	9,745	1,654	17.0	4,685	48.1
First-professional	2,706	1,800	66.5	2,099	77.6

Note: Only sampled students, for whom a legitimate ID number was available at that time were submitted for NSLDS matching. Of the 62,717 submitted, 3,617 were determined to be ineligible for NPSAS: 96.

Source: Source: NCES, NPSAS: 96 Methodology Report

interview. An additional 580 students were found to be NPSAS-ineligible. Reasons for exclusions included death, those determined to be incapacitated, incarcerated, institutionalized and those out of the country during the data collection period (Department of Education, 1997).

The remaining 37,819 students in the sample either could not be located or were not interviewed during Phase 1. From that group, 27,178 students were selected for the more intensive Phase 2 locating and interviewing. Most of those cases (23,327) were ultimately found and interviewed.

Parent Sample

A subset of students were selected for administration of an interview to their parent(s) in an effort to obtain supplemental interview data (e.g. parent demographics, finances, and postsecondary decision-making regarding their child). Among the 5,016 eligible parents (Table 3), there were 3,313 full interviews conducted and some 39 partial interviews conducted.

Data Analysis System

The Data Analysis System (DAS) is a Windows based software application that provides public access to NCES survey data. All data is encrypted to protect respondents' confidentiality. With the DAS, users can generate tables of percentages, means, or correlation coefficients by choosing the DAS variables (based on survey questionnaire items) that they would like to appear in a table and indicate what function should be used. For previous NPSAS studies, DAS was available on CD-ROM. However, the U.S. Department of Education has made the NPSAS DAS data available by accessing the NCES DAS Web site.

Table 3

Overall Parent Interview Rates, by Selected Classifications

Type of student of parent	Eligible	Interviewed	
		Number	Percent
All student's parents	5,016	3,352	66.8
Institutional level			
Less than 2-year	302	155	51.3
2-year	1,027	659	64.2
4-year non-doctorate granting	1,662	1,127	67.8
4-year doctorate-granting	2,025	1,411	69.7
Institutional Control			
Public	3,038	2,113	69.6
Private, not-for-profit	1,522	994	97.6
Private, for-profit	456	245	53.7
Institutional Sector			
Public, less than 2-year	72	44	61.1
Public, 2 year	633	421	66.5
Public, 4-year non-doctorate-granting	1,003	704	70.2
Public, 4-year doctorate-granting	1,330	944	71.0
Private, not-for-profit, 2-year or less	223	141	58.7
Private, not-for-profit, 4-year non-doctorate-granting	604	396	65.6
Private, not-for-profit, 4-year doctorate-granting	695	467	67.2
Private, for-profit, less than 2-year	206	106	51.5
Private, for-profit, 2-year or more	250	139	55.6

Source: NCES, NPSAS: 96 Methodology Report

Users can download the entire NCES DAS for NPSAS: 96 as well as several other NCES databases. Users specify the information they would like to appear in a table by creating a table parameter file (TPF) and uploading the TPF to the NCES DAS Web site.

The Web site will process the TPF and generate the table in the form of a PRN file. The PRN file provides the table numbers (usually percentages of students) and the corresponding standard errors that have been calculated taking into account the complex sampling procedures used in the NCES surveys in a comma delimited format. All comparisons are made and tested from the tables at the .05 Alpha level.

Variables

The variables were selected that elicited data about financing higher education, student demographics, family characteristics, and institutional attributes.

Student Demographic Variables

The raw variables that were used to elicit data about the student demographics were: RACE (race of students), AGE (age of students), GENDER (gender of students), ATTEND2 (attendance status of students), STUDTYPL (student year in school), LOCALRES (housing status of students), and DEPEND (dependency status of students).

Family Characteristic Variables

The raw variables that were used to elicit data about the family characteristics were C97_189 (total parent contribution), DEPINC (dependent student's parent income), PMARITAL (parent marital status), PNETWOR (parent net-worth), PMONEY (parent's cash, saving, and checking accounts), PLUSAMT3 (PLUS loan amount), TOTLOAN2 (total loan amount including PLUS),

Institutional Attributes and Weight

The raw variables that were used to elicit data about institutional attributes were BUDGETFT (Cost of Attending), CONTROL (institutional control), LEVEL (institutional level), LOANLVL (student level reported for last loan), OTHLNAMT (other source loan amount) SECTOR (institutional level & control), and WEIGHT (weight for undergraduate students). A detailed description of the raw variable names for the student demographics, family characteristics, and institutional attributes can be found in Appendix A.

Research Questions

The purpose of this study was to examine parental actions to finance higher education. The study was designed to investigate the following research questions:

1. Was there a significant difference between race of students and the amount of loans assumed by parents?
2. Was there a significant difference between age of students and the amount of loans assumed by parents?
3. Was there a significant difference between gender of students and the amount of loans assumed by parents?
4. Was there a significant difference between housing status of students and the amount of loans assumed by parents?
5. Was there a significant difference between attendance status of students and the amount of loans assumed by parents?
6. Was there a significant difference between income level of parents and the amount of loans assumed by parents?

7. Was there a significant difference between amount of parent savings and the amount of loans assumed by parents?
8. Was there a significant difference between marital status of parents and the amount of loans assumed by parents?
9. Was there a significant difference between the total parent contribution and the amount of loans assumed by parents?
10. Was there a significant difference between institutional type and the amount of loans assumed by parents?
11. Was there a significant difference between cost of attendance and the amount of loans assumed by parents?

Weighted Statistics

In an effort to ensure accuracy of information collected, NPSAS: 96 has six analysis weights that are specifically associated with the Computer Assisted Data Entry (CADE) respondents, Study respondents, and undergraduate students. The weight names and associated databases are:

1. CADEWT: for all CADE respondents (55,665);
2. DASWT0: for all students on the restricted-use analysis file (48,389);
3. DASWT1: for Study respondents who were undergraduates in first term (41,482). These students are included in the undergraduate Data Analysis System.
4. CATIWT0: for all Computer Assisted Telephone Interviewing (CATI) respondents on the restricted analysis files (31,328);
5. CATIWT1: for CATI respondents who were undergraduates in first term (27,414). These respondents were included in the undergraduate Data Analysis System;

BPSWT: for CATI respondents who were first time borrowers (FTB) students (12,040) (Department of Education, 1997).

The CADE and CATI weights apply to the respondents from the CADE and CATI data collection procedures. The Study respondents apply to those students who responded to specified CADE and CATI data items. The definitions for these three types of respondents are:

1. CADE respondents: students whose CADE data indicated they were enrolled in the institutions and their aid status was known either from their CADE data or from their data obtained from the Pell payment file or the National Student Loan Data System(NSLDS).

2. Study respondents: students selected for CATI who either had complete CADE data or had completed enough of Section A of the CATI interview to determine their FTB status;

3. CATI respondents: students who had completed enough of Section A of the CATI interview to determine their FTB status (Department of Education, 1997).

Data Analysis Procedures

All hypotheses were examined using tests of statistical significance (t-tests). The researcher, according to NCES guidelines, rejected the hypotheses if the t value reached a significance level of $p < .05$. T-test analyses are the accepted standard for NCES when comparing variables to determine significance. The purpose of the t-test is to determine if the observed difference between the two sample means is greater than what would be expected by chance if the two population means were in fact identical.

According to NCES, when performing multiple tests at the same time,

the Bonferroni adjustment can be used to adjust the significance level for each individual test so that the overall significance level for the family of comparisons remains at alpha (0.05) rather than cumulating up with the number of comparisons. (National Center for Education Statistics, 1993)

It is important to apply the Bonferroni adjustment because it allows researchers to conduct several t-tests simultaneously while controlling the overall probability of making a Type I error (the rejection of the research question when it is true).

The next section describes the specific tests that were performed for the student demographics, parent characteristics, and institutional attributes.

Student Demographics

Race of Student and Loans Assumed by Parents

To examine the race of students and differences in the amount of loans assumed by parents, respondents were divided into five categories: White, Non-Hispanic; Black, Non-Hispanic; Hispanic; Asian/Pacific Islander; American Indian/Alaskan Native. A t-test analysis was conducted to see if a significant difference existed between race of students and amount of loans assumed by parents.

Age of Students and Loans Assumed by Parents

To examine the age of students and differences in the amount of loans assumed by parents, respondents were divided into four categories: Less than 19 years old, 20-21 years old, 22-23 years old, 24 years or older. A t-test analysis was conducted to see if a significant difference existed between age of students and amount of loans assumed by parents.

Gender of Students and Loans Assumed by Parents

To examine the differences between gender of students and the amount of loans assumed by parents, respondents were divided into two categories: male and female. A t-test analysis was conducted to see if a significant difference existed between gender of students and amount of loans assumed by parents.

Attendance Status of Students and Loans Assumed by Parents

To examine the full-time-part-time status of students and differences in loans assumed by parents, respondents were divided into five categories: 1st year-freshman, 2nd year-sophomore, 3rd year-junior, 4th year senior, and 5th year or higher undergraduate. A t-test analysis was conducted to see if a significant difference existed between full-time-part-time status of students and amount of loans assumed by parents.

Housing Status and Loans Assumed by Parents

To examine the housing status of student sand differences in loans assumed by parents, respondents were divided into three categories: on-campus or school owned housing, off-campus without parents, and off-campus with parents. A t-test analysis was conducted to see if a significant difference existed between housing status of students and amount of loans assumed by parents.

Parent Characteristics

Income Level of Parents and Loans Assumed by Parents

To examine the income level of parents and differences in amounts of loans assumed by parents, respondents were divided into seven categories: Less than \$12,000; \$12,000 to \$23,999; \$24,000 to \$29,999; \$30,000 to \$49,999; \$50,000 to \$74,999; \$75,000 to \$99,999; and \$100,000 or more. A t-test analysis was conducted to see if a

significant difference existed between income level of parents and amount of loans assumed by parents.

Parent Savings and Loans Assumed by Parents

To examine the differences between parent savings and the amount of loans assumed by parents, respondents were divided into ten categories: Less than \$500; \$500 to \$999; \$1,000 to \$2,999; \$3,000 to \$4,999; \$5,000 to \$7,499; \$7,500 to \$9,999; \$10,000 to \$14,999; \$15,000 to \$24,999; \$25,000 to \$49,999; \$50,000 or more. A t-test analysis was conducted to see if a significant difference existed between parent savings and amount of loans assumed by parents.

Marital Status and Loans Assumed by Parents

To examine the marital status of parents and differences in loans assumed by parents, respondents were divided into five categories: single, married, separated, divorced and widowed. A t-test analysis was conducted to see if a significant difference existed between marital status of parents and amount of loans assumed by parents.

Total Parent Contribution and Loans Assumed by Parents

To examine the total parent contribution and differences in loans assumed by parents, contributions of parents were divided into seven categories: Less than \$1,500; \$1,500 to \$2,999; \$3,000 to \$5,999; \$6,000 to \$9,999; \$10,000 to \$14,999; \$15,000 to \$19,999; \$20,000 or more. A t-test analysis was conducted to see if a significant difference existed between total parent contribution and amounts of loans assumed by parents.

Institutional Attributes

Cost of Attendance and Loans Assumed by Parents

To examine Cost of Attendance and differences in amount of loans assumed by parents, the cost of attending an institution was divided into nine categories: Less than \$2,500, \$2,500 to \$4,999, \$5,000 to \$7,499, \$7,500 to \$9,999, \$10,000 to \$14,999, \$15,000 to \$19,999, \$20,000 to \$24,999, \$25,000 to \$29,999, \$30,000 or more. A t-test analysis was conducted to see if a significant difference existed between cost of attendance and amount of loans assumed by parents.

Institutional Type and Loans Assumed by Parents

To examine institutional Type and differences in amount of loans assumed by parents, institution type was divided into nine categories: Public 4-year; Public 2-year; Public less than 2-year; Private, not for profit 4-year; Private, not for profit 2-year; Private, not for profit, less than 2-year; Private, for-profit, 4-year; Private, for-profit, 2-year; Private, for-profit, less than 2-year. A t-test analysis was conducted to see if a significant difference existed between institutional type and amount of loans assumed by parents.

CHAPTER FOUR RESULTS

The purpose of this chapter is to report the findings of the present study. This chapter summarizes the data analysis of each variable tested and will answer the eleven research questions.

Data Analysis

This study examined national data from NPSAS: 96 to answer the research questions posed in chapter three. Analyses revealed significant differences between categories of variables for several of the research questions posed. Results are described below according to variables examined, and details are provided in Tables 4-49. The raw t-test comparison data can be found in Appendix B.

Race

Black, non-Hispanic dependant students were more likely than white, non-Hispanic and Hispanic students to have parents who assumed loans to pay for their college education (43.2% compared to 30.4 % and 25.6% respectively). However, the percentage of parents of white students (30.4%) who assumed loans to parents of Hispanic students (25.6%) who assumed loans, there was no significant difference (Table 4).

The average loan amount assumed by parents of Hispanic students (\$3,920) was lower than the amount of loans that were assumed by parents of Black, non-Hispanic students (\$4,685). However, the average amount assumed by the parents of White, non-Hispanic students (\$4,685) was not significantly different from the amount assumed by the parents of Black, non-Hispanic students (\$4,365). Similarly, the average loan amount

Table 4

Percentage of Dependent Students Receiving Parental Support From Loans Assumed By Parents and Average Amount, by Type of Loan and Race/Ethnicity of Student: Fall 1995

Race	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	8,200	30.9	4.8	0.3	\$4,564	\$5,916	\$4,642
Race/ethnicity of student							
White, non-Hispanic	5,886	30.4	5.0	0.3	\$4,685	\$6,060	\$5,030
Black, non-Hispanic	785	43.2	6.6	0.2	\$4,365	\$5,256	---
Hispanic	831	25.6	3.1	0.1	\$3,920	\$5,187	---
Asian/Pacific Islander	560	27.3	3.7	0.6	\$4,555	\$6,279	---
American Indian/Alaskan							
Native	66	31.4	3.6	0.0	\$3,738	---	---
Other		28.4	2.7	1.2	\$4,858	---	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 5

Standard Errors for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Type of Loan and Race/Ethnicity of Student: Fall 1995

Race	Percentage of Dependent Students			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	0.69	0.25	0.05	63.18	148.38	538.47
Race/ethnicity of student						
White, non-Hispanic	0.79	0.27	0.05	70.12	161.83	643.16
Black, non-Hispanic	2.31	0.88	0.07	174.54	427.82	---
Hispanic	1.97	0.44	0.07	158.71	501.43	---
Asian/Pacific Islander	1.84	0.55	0.50	142.08	456.13	---
American Indian/ Alaskan Native	4.50	1.28	0.00	457.18	---	---
Other	6.39	0.94	0.85	353.98	---	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 6

T-test Results for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Race/Ethnicity of Student: Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
Race/ethnicity of student		
White, non-Hispanic/Black, non-Hispanic	1	0
White, non-Hispanic/Hispanic	0	1
Black, non-Hispanic/Hispanic	1	0

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

assumed by parents of Black, non-Hispanic students (\$4,365) was not significantly different from the amount assumed by the parents of Hispanic students (\$3,920).

Age

Table 7 exhibits that there were no statistically significant differences in the percentages of students who were 19 years or younger (31.3%) compared to students who were aged 20-21 years (31.7%) or aged 22-23 years (28.8%). However, the average amount of loans assumed by parents of students who were 19 years or younger (\$4,265) was lower than the average amount of loans assumed by parents of students who were aged 20-21 years (\$4,810) and aged 22-23 (\$4,697).

Gender

Female students were more likely than male students to have parents who assumed loans (32.5% compared with 29.1%). The average amount of loans assumed by parents were similar, however. No significant differences existed in the average amounts of loans assumed by parents regardless of student's gender (Table 10).

Student Housing Status

Students who lived on-campus were more likely than students who lived off-campus or lived with parents to have parents who assumed loans (53.6% compared with 29.4% and 17.9% respectively). The average amount of loans assumed by parents of on-campus students (\$4,941) was higher than the average amount of loans assumed by parents of students who live off-campus with parents or relatives (\$3,635).

Table 7

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Age of Student: Fall 1995

Age	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	8,200	30.9	4.8	0.3	\$4,564	\$5,916	\$4,642
Age as of 12/31/95							
19 years or younger	3,346	31.3	6.1	0.3	\$4,265	\$6,198	\$5,120
20-21 years	3,179	31.7	4.4	0.4	\$4,810	\$5,935	\$3,850
22-23 years	1,674	28.8	3.1	0.3	\$4,697	\$4,739	---
24 years or older	---	---	---	---	---	---	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 8

Standard Errors for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Type of Loan and Age of Student: Fall 1995

Age	Percentage of Dependent Students			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	0.69	0.25	0.05	63.18	148.38	538.47
Age as of 12/31/95						
19 years or younger	0.93	0.34	0.05	79.67	172.54	774.36
20-21 years	0.86	0.31	0.11	86.74	233.56	681.36
22-23 years	1.05	0.31	0.10	87.00	251.57	---
24 years or older	---	---	---	---	---	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 9

T-test Results for the Percentage of Dependent Students Receiving Parental Support From Loans
Assumed by Parents and Average Amount, by Age of Student: Fall 1995

Comparison Category	Percentage of Dependant Students	Average Amount
Age as of 12/31/95		
19 years or younger/22-23 years	0	1
19 years or younger/20-21 years	0	1
20-21 years/22-23 years	0	0

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Table 10

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Gender of Student: Fall 1995

Gender	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	8,200	30.9	4.8	0.3	\$4,564	\$5,916	\$4,642
Gender							
Male	3,883	29.1	5.0	0.3	\$4,653	\$5,758	\$5,727
Female	4,317	32.5	4.7	0.4	\$4,492	\$6,066	\$3,857

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 11

Standard Errors for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Type of Loan and Gender of Student: Fall 1995

Gender	Percentage of Dependent Students with			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	0.69	0.25	0.05	63.18	148.38	538.47
Gender						
Male	0.85	0.33	0.05	84.04	178.22	1102.97
Female	0.83	0.28	0.09	74.29	211.68	484.46

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 12

T-test Results for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Gender of Student: Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
Gender		
Male/Female	1	0

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

The average amount of loans assumed by parents of off-campus students (\$4,716) was higher than the average amount of loans assumed by parents of students who live off-campus with parents or relatives (\$3,635). No significant differences existed in the average amounts of loans assumed by parents between on-campus and off-campus students (Table 13).

Student Attendance Level

Full-time 1st year freshman (Table 16), 2nd year sophomore (Table 19), 3rd year junior (Table 22), and 4th year senior students (Table 25) were more likely than part-time 1st year freshman, 2nd year sophomore, 3rd year junior, and 4th year senior students to have parents who assumed loans. However, there was no significant difference between the percentages of full-time 5th year or higher seniors and the percentages of part-time 5th year or higher seniors in regards to the percent or amount of loans assumed by parents (Table 28).

Juniors who were 3rd year and 4th year senior students were more likely than 1st year freshman students to have parents who assumed loans (48.0% and 42.4% compared with 34.7%). Higher levels of education were associated with a greater average amount of loans assumed by parents (Table 31). The average amount of loans assumed by parents of 5th year senior students (\$5,419) was higher than the average amount of loans assumed by parents of 1st year freshman students (\$3,993) (Table 31).

Parent Income

Parents who had an income less than \$12,000 per year were more likely to assume loans to pay for their student's education compared with parents who had an income of \$100,000 or more per year (34.3% compared with 13.6%). Parents that had an income

Table 13

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Housing Status of Student: Fall 1995

Student Housing Status	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	8,200	30.9	4.8	0.3	\$4,564	\$5,916	\$4,642
Student housing status 95-96							
On-campus	2,098	53.6	10.2	0.7	\$4,941	\$6,524	\$4,687
Off-campus	2,788	29.4	4.1	0.4	\$4,716	\$5,573	\$4,595
With parents or relatives	3,313	17.9	2.1	0.0	\$3,635	\$4,605	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 14

Standard Errors for the Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Housing Status of Student: Fall 1995

Student Housing Status	Percentage of Dependent Students with			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	0.69	0.25	0.05	63.18	148.38	538.47
Student housing status 95-96						
On-campus	1.10	0.55	0.16	89.95	200.13	603.05
Off-campus	0.92	0.33	0.08	84.23	206.66	1123.83
With parents or relatives	0.81	0.23	0.02	93.60	303.73	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "----" indicates too few cases for reliable estimate.

Table 15

T-test Results for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Student Housing Status: Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
Student Housing Status 95-96		
On Campus/Off Campus	1	0
On Campus/With parents or relatives	1	1
Off Campus/With parents or relatives	1	1

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

"---" Indicates too few cases for reliable estimate.

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Table 16

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Selected Student Characteristics: Fall 1995

1 st Year Freshman	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	3,616	25.5	5.1	0.2	\$3,861	\$5,718	\$5,413
Attendance intensity first term enrolled 1995							
1 st year Freshman							
Full-time	2,334	34.7	7.2	0.3	\$3,993	\$5,749	\$5,468
Part-time	1,282	8.1	1.1	0.0	\$2,894	\$5,127	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 17

Standard Errors for the Percentage of Dependent Students Receiving Parental Support From
Loans Assumed by Parents and Average Amount, by Type of Loan and Selected Student

Characteristics: Fall 1995

1 st year Freshman	Percentage of Dependent Students with			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	0.85	0.31	0.03	77.14	171.09	1289.78
Attendance intensity first term enrolled 1995						
1 st year Freshman						
Full-time	1.14	0.44	0.05	81.07	177.80	1301.22
Part-time	0.68	0.21	0.01	146.97	391.61	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 18

T-test Results for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Selected Student Characteristics: Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
1 st year Freshman		
Full-time/Part-time	1	1

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Table 19

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Selected Student Characteristics: Fall 1995

2 nd year Sophomore	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	1,926	28.2	4.1	0.3	\$4,170	\$6,043	---
Attendance intensity first term enrolled 1995							
2 nd year Sophomore							
Full-time	1,355	33.6	5.2	0.4	\$4,256	\$6,042	---
Part-time	571	14.5	1.6	0.0	\$3,777	\$6,047	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 20

Standard Errors for the Percentage of Dependent Students Receiving Parental Support From
Loans Assumed by Parents and Average Amount, by Type of Loan and Selected Student

Characteristics: Fall 1995

2 nd year Sophomore	Percentage of Dependent Students with			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	1.11	0.38	0.08	105.28	250.57	---
Attendance intensity first term enrolled 1995						
2 nd year Sophomore						
Full-time	1.37	0.51	0.11	113.71	266.31	---
Part-time	1.57	0.35	0.03	202.96	667.61	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 21

T-test Results for the Percentage of Dependent Students Receiving Parental Support From
Loans Assumed by Parents and Average Amount, by Selected Student Characteristics:

Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
2 nd year Sophomore		
Full-time/Part-time	1	1

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Table 22

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Selected Student Characteristics: Fall 1995

3 rd year Junior	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	1,143	45.3	6.4	0.9	\$5,457	\$6,527	---
Attendance intensity first term enrolled 1995							
3 rd year Junior							
Full-time	886	48.0	6.6	0.9	\$5,459	\$6,881	---
Part-time	257	35.9	6.1	0.8	\$5,570	\$5,079	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 23

Standard Errors for the Percentage of Dependent Students Receiving Parental Support From
Loans Assumed by Parents and Average Amount, by Type of Loan and Selected Student

Characteristics: Fall 1995

3 rd year Junior	Percentage of Dependent Students with			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	1.27	0.55	0.29	108.11	371.19	---
Attendance intensity first term enrolled 1995						
3 rd year Junior						
Full-time	1.43	0.61	0.35	119.58	410.34	---
Part-time	2.32	1.45	0.44	229.17	641.37	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "----" indicates too few cases for reliable estimate.

Table 24

T-test Results for the Percentage of Dependent Students Receiving Parental Support From
Loans Assumed by Parents and Average Amount, by Selected Student Characteristics:

Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
3 rd year Junior		
Full-time/Part-time	1	0

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Table 25

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Selected Student Characteristics: Fall 1995

4 th year Senior	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	1,218	40.0	4.3	0.3	\$5,297	\$5,780	---
Attendance intensity first term enrolled 1995							
4 th year Senior							
Full-time	850	42.4	4.9	0.4	\$5,445	\$5,666	---
Part-time	368	32.9	2.8	0.1	\$4,944	\$5,978	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 26

Standard Errors for the Percentage of Dependent Students Receiving Parental Support From
Loans Assumed by Parents and Average Amount, by Type of Loan and Selected Student

Characteristics: Fall 1995

4 th year Senior	Percentage of Dependent Students with			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	1.15	0.40	0.09	88.18	363.49	---
Attendance intensity first term enrolled 1995						
4 th year Senior						
Full-time	1.36	0.51	0.13	105.96	425.08	---
Part-time	1.99	0.57	0.09	151.26	823.97	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 27

T-test Results for the Percentage of Dependent Students Receiving Parental Support From
Loans Assumed by Parents and Average Amount, by Selected Student Characteristics:

Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
4 th year Senior		
Full-time/Part-time	1	1

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Table 28

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Selected Student Characteristics: Fall 1995

5 th year or higher Undergraduate	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	70	44.5	4.8	0.6	\$5,454	---	---
Attendance intensity first term enrolled 1995							
5 th year or higher undergraduate							
Full-time	42	47.6	3.7	1.0	\$5,419	---	---
Part-time	28	38.3	5.8	0.0	---	---	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 29

Standard Errors for the Percentage of Dependent Students Receiving Parental Support From
Loans Assumed by Parents and Average Amount, by Type of Loan and Selected Student

Characteristics: Fall 1995

5 th year or higher Undergraduate	Percentage of Dependent Students with			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	3.79	1.15	0.62	208.32	---	---
Attendance intensity first term enrolled 1995						
5 th year or higher undergraduate						
Full-time	4.72	1.51	1.03	267.28	---	---
Part-time	5.48	1.54	0.00	---	---	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 30
T-test Results for the Percentage of Dependent Students Receiving Parental Support From
Loans Assumed by Parents and Average Amount, by Selected Student Characteristics:
Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
5 th year or higher Undergraduate		
Full-time/Part-time	1	---

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

"---" Indicates too few cases for reliable estimate.

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Table 31

T-test Results for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Selected Student Characteristics:
Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
Selected Student Characteristics		
1 st year Freshman FT/4 th year Senior FT	1	1
1 st year Freshman FT/3 rd year Junior FT	1	1
1 st year Freshman FT/5 th year or higher Undergraduate FT	0	1
1 st year Freshman PT/4 th year Senior PT	1	1
1 st year Freshman PT/3 rd year Junior PT	1	1
1 st year Freshman PT 5 th year or higher Undergraduate PT	1	---

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

"---" Indicates too few cases for reliable estimate.

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

within the range of \$12,000 to \$23,999 per year and \$24,000 to \$29,999 per year were also more likely to assume loans to pay for their student's education compared to parents that had an income in the range of \$75,000 to \$99,999 per year (37.7% and 38.0% compared with 25.8%). There was a large difference in the average amounts assumed by parents depending on their income level. For the highest income category, \$100,000 or more, the average amount assumed was \$6,432. For the lowest income category, less than \$12,000, the average amount assumed was \$3,774 (Table 32).

Parent Savings

There was no significant difference between the amount of parent savings and the amount of loans that were assumed by parents. The average amounts assumed by parents were also similar. Parents who had savings of less than \$500 assumed an average of \$4,336 to help fund their student's college education. Similarly, parents who had savings of \$50,000 or more assumed an average of \$4,633 to help fund their student's college education (Table 35).

Parent Marital Status

Students from single-parent families (40.4%) were more likely than those from married-parent families (30.9%) to have parent(s) who assumed loans. Students from separated-parent families were more likely than those who came from both married-parent and divorced-parent families to have parent(s) who assumed loans (38.2% compared with 30.9% and 29.0% respectively) (Table 38).

The average amount of loans that was assumed by single parents (\$3,907) was less than the average amount that was assumed by married parents (\$4,668) (Table 38).

Table 32

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and
Average Amount, by Type of Loan and Income of Parents: Fall 1995

Parent Income	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	16,677	25.8	2.4	0.2	\$4,589	\$5,916	\$4,188
Dependent students parents income -1994							
Less than \$12,000	863	34.3	2.9	0.2	\$3,774	\$4,171	---
\$12,000 - \$23,999	1,076	37.7	3.0	0.3	\$3,911	\$4,403	---
\$24,000 - \$29,999	565	38.0	4.3	0.4	\$4,301	\$4,401	---
\$30,000 - \$49,999	1,852	37.0	5.5	0.5	\$4,422	\$5,058	\$3,332
\$50,000 - \$74,999	2,105	28.1	5.8	0.3	\$4,950	\$6,116	---
\$75,000 - \$99,999	865	25.8	6.4	0.2	\$5,470	\$7,325	---
\$100,000 or more	873	13.6	4.1	0.4	\$6,432	\$9,070	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 33

Standard Errors for the Percentage of Dependent Students Receiving Parental Support From
Loans Assumed by Parents and Average Amount, by Type of Loan and Income of Parents:

Fall 1995

Parent Income	Percentage of Dependent Students with			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	0.57	0.13	0.03	56.07	148.42	509.27
Dependent students parents income -1994						
Less than \$12,000	1.68	0.41	0.09	93.16	434.15	---
\$12,000 - \$23,999	1.55	0.34	0.09	98.13	272.36	---
\$24,000 - \$29,999	2.43	0.69	0.13	121.16	351.94	---
\$30,000 - \$49,999	1.21	0.42	0.17	86.55	194.32	387.99
\$50,000 - \$74,999	1.03	0.41	0.07	98.61	209.42	---
\$75,000 - \$99,999	1.26	0.55	0.11	171.81	372.10	---
\$100,000 or more	0.91	0.41	0.14	287.70	519.06	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 34

T-test Results for the Percentage of Dependent Students Receiving Parental Support From
Loans Assumed by Parents and Average Amount by Income of Parents: Fall 1995

Comparison Category	Percentage of Dependant Students	Average Amount
Dependant students parent income - 1994		
Less than \$12,000/\$100,000 or more	1	1
Less than \$12,000/\$75,000 - \$99,999	1	1
\$12,000 - \$23,999/\$75,000 - \$99,999	1	1
\$24,000 - \$29,000/\$50,000 - \$74,999	1	1

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Table 35

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Parent Savings: Fall 1995

Parent Savings	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	8,200	30.9	4.8	0.3	\$4,564	\$5,916	\$4,642
Parent's savings 95-96							
Less than \$500	2,729	43.3	5.8	0.4	\$4,336	\$5,277	\$4,240
\$500 - \$999	652	43.6	8.5	0.4	\$4,777	\$5,457	---
\$1,000 - \$2,999	1,066	47.2	8.6	0.3	\$4,798	\$6,327	---
\$3,000 - \$4,999	379	47.7	7.1	1.0	\$4,571	\$6,485	---
\$5,000 - \$7,499	278	44.3	6.8	0.2	\$4,852	\$7,103	---
\$7,500 - \$9,999	117	42.0	8.5	0.3	\$5,028	\$6,212	---
\$10,000 - \$14,999	137	49.2	6.6	0.2	\$4,547	\$5,844	---
\$15,000 - \$24,999	125	43.9	6.6	0.2	\$4,748	\$7,684	---
\$25,000 - \$49,999	84	42.3	3.9	0.5	\$4,239	---	---
\$50,000 or more	61	34.2	3.2	0.6	\$4,633	---	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 36

Standard Errors for the Percentage of Dependent Students Receiving Parental Support From
Loans Assumed by Parents and Average Amount, by Type of Loan and Parent Savings:

Fall 1995

Parent Savings	Percentage of Dependent Students with			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	0.69	0.25	0.05	63.18	148.38	538.47
Parent's savings 95-96						
Less than \$500	1.18	0.39	0.09	76.57	197.36	762.93
\$500 - \$999	1.83	0.79	0.15	121.12	253.47	---
\$1,000 - \$2,999	1.55	0.63	0.10	117.78	298.77	---
\$3,000 - \$4,999	2.36	0.85	0.74	137.27	349.67	---
\$5,000 - \$7,499	2.53	0.89	0.09	199.90	634.76	---
\$7,500 - \$9,999	3.35	1.56	0.33	257.08	638.36	---
\$10,000 - \$14,999	3.01	1.12	0.15	192.29	733.92	---
\$15,000 - \$24,999	2.92	1.11	0.16	207.54	677.35	---
\$25,000 - \$49,999	3.72	1.07	0.24	227.46	---	---
\$50,000 or more	3.99	1.30	0.65	388.54	---	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 37

T-test Results for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Parent Savings: Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
Parent Savings 95-96		
Less than \$500/\$50,000 or more	0	0
Less than \$500/\$7,500 - \$9,999	0	0
\$500 - \$999/\$50,000 or more	0	0

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Table 38

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Marital Status of Parent: Fall 1995

Parent Marital Status	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	8,200	30.9	4.8	0.3	\$4,564	\$5,916.	\$4,642
Parents marital status 95-96							
Single	244	40.4	5.2	0.1	\$3,907	\$4,856	---
Married	5,876	30.9	5.3	0.3	\$4,668	\$6,155	\$4,044
Separated	291	38.2	4.7	0.2	\$4,094	\$4,853	---
Divorced	1,457	29.0	3.6	0.4	\$4,468	\$5,299	---
Widowed	332	27.1	2.8	0.3	\$4,209	\$4,430	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 39

Standard Errors for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Type of Loan and Marital Status of Parent: Fall 1995

Parent Marital Status	Percentage of Dependent Students with			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	0.69	0.25	0.05	63.18	148.38	538.47
Parents marital status 95-96						
Single	3.02	1.13	0.08	219.77	747.73	---
Married	0.72	0.27	0.07	67.95	157.32	492.15
Separated	2.50	0.88	0.16	157.83	608.76	---
Divorced	1.15	0.39	0.12	111.27	327.62	---
Widowed	2.11	0.50	0.20	151.49	501.11	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 40

T-test Results for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Marital Status of Parent: Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
Parent marital status 95-96		
Single/widowed	1	0
Single/Married	1	1
Single/Divorced	0	1
Separated/Widowed	0	0
Separated/Married	0	1
Separated/Divorced	1	0

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Parent Contribution

Students whose parents contributed between \$500 to \$2,999, \$3,000 to \$7,499, & \$7,500 to \$9,999 were more likely than students whose parents contributed less than \$500 to have parents who assumed loans (64.8%, 73.0%, 70.1%, and 62.5% compared with 50.6% respectively) (Table 41). The average amount of loans assumed by parents were generally higher depending on the amount of parental support. Parents that contributed more than \$20,000 to their student's education had an average loan amount of \$6,017. Parents that contributed less than \$500 to their student's education had an average loan amount of \$4,184.

Institutional Characteristics

Students who attended public 4-year institutions were more likely than students who attended public 2-year institutions to have parents who assumed loans (37.7% compared with 9.6%). Students who attended private not-for-profit 4-year institutions were more likely than students that attended public 4-year and public 2-year institutions to have parents who assumed loans (52.1% compared with 37.7% and 9.6% respectively). Students who attended private not-for-profit 2-year institutions were more likely than students who attended public 2-year institutions to have parents who assumed loans (41.0% compared with 9.6%) (Table 44).

Generally, there was no difference in the average loan amounts assumed by parents of students attending public or private 4-year institutions. The average amount assumed by parents of students who attended public 4-year institutions was \$4,327. The average amount assumed by parents of students who attended 4-year private not-for-profit and for-profit were \$5,416 and \$5,752 respectively (Table 44).

Table 41

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Total Parent Contribution: Fall 1995

Parent Contribution	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	8,200	30.9	4.8	0.3	\$4,564	\$5,916	\$4,642
TPC: Total Parent Contribution							
Less than \$500	927	50.6	4.6	0.4	\$4,184	\$5,025	---
\$500 - \$2,999	551	62.5	7.3	0.4	\$4,264	\$4,658	---
\$3,000 - \$7,499	508	70.1	13.4	0.6	\$4,651	\$5,192	---
\$7,500 - \$9,999	184	73.0	15.2	0.8	\$5,159	\$6,377	---
\$10,000 - \$14,999	315	64.8	13.0	0.5	\$4,933	\$6,670	---
\$15,000 - \$19,999	166	60.5	15.9	0.3	\$5,653	\$7,807	---
\$20,000 or more	208	60.6	16.1	0.3	\$6,017	\$9,109	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 42

Standard Errors for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Type of Loan and Total Parent Contribution: Fall 1995

Parent Contribution	Percentage of Dependent Students with			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	0.69	0.25	0.05	63.18	148.38	538.47
TPC:						
Total Parent Contribution						
Less than \$500	2.00	0.51	0.12	85.55	246.87	---
\$500 - \$2,999	2.03	0.73	0.14	82.87	223.65	---
\$3,000 - \$7,499	1.87	1.19	0.21	118.40	267.90	---
\$7,500 - \$9,999	2.51	1.66	0.33	174.83	318.37	---
\$10,000 - \$14,999	3.79	1.37	0.19	152.45	212.92	---
\$15,000 - \$19,999	3.27	1.78	0.23	278.29	501.59	---
\$20,000 or more	3.03	1.64	0.20	288.71	586.86	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 43

T-test Results for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Total Parent Contribution: Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
Total Parent Contribution		
Less than \$500/\$20,000 or more	0	1
Less than \$500/\$15,000 - \$19,999	0	1
Less than \$500/\$10,000 - \$14,999	1	1
Less than \$500/\$7,500 - \$9,999	1	1
Less than \$500/\$3,000 - \$7,499	1	1
Less than \$500/\$500 - \$2,999	0	0
\$3,000 - \$7,499/\$20,000 or more	0	1

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

"---" Indicates too few cases for reliable estimate.

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Table 44

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Selected Institutional Characteristics: Fall 1995

Institutional Type	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	8,200	30.9	4.8	0.3	\$4,564	\$5,916	\$4,642
Institution type (level & control) 95-96							
Public 4-year	3,297	37.7	5.2	0.4	\$4,327	\$5,293	\$3,621
Public 2-year	2,928	9.6	0.9	0.0	\$3,017	\$5,184	---
Public less-than-2-year	50	2.4	0.1	0.0	---	---	---
Private nfp, 4-year	1,579	52.1	8.9	0.8	\$5,416	\$7,448	\$5,834
Private nfp, 2-year	68	41.0	11.8	0.3	\$4,247	\$3,706	---
Private nfp, less-than-2-year	4	6.2	0.0	0.0	---	---	---
Private for profit, 4-year	30	50.3	13.6	0.2	\$5,752	\$5,268	---
Private for profit, 2-year	120	62.5	18.3	0.4	\$4,845	\$4,535	---
Private for profit, less-than-2-year	119	57.9	19.2	0.7	\$4,556	\$4,298	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 45

Standard Errors for the Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Selected Institutional Characteristics: Fall 1995

Institutional Type	Percentage of Dependent Students with			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	0.69	0.25	0.05	63.18	148.38	538.47
Institution type (level & control) 95-96						
Public 4-year	0.87	0.39	0.08	75.02	145.45	760.62
Public 2-year	0.83	0.20	0.00	154.64	845.50	---
Public less-than-2-year	1.09	0.13	0.00	---	---	---
Private nfp, 4-year	1.39	0.68	0.21	125.09	280.24	948.53
Private nfp, 2-year	5.96	4.03	0.20	363.32	281.27	---
Private nfp, less-than-2-year	5.20	0.00	0.00	---	---	---
Private for profit, 4-year	11.02	3.41	0.19	439.24	793.84	---
Private for profit, 2-year	4.89	3.27	0.34	374.73	650.54	---
Private for profit, less-than-2-year	7.44	4.53	0.40	339.87	381.29	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 46

T-test Results for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Selected Institutional Characteristics: Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
Institutional Type (level & control) 95-96		
Private nfp 4-year/Public 4-year	1	1
Private nfp 4-year/Private fp 4-year	0	0
Private nfp 2-year/Public 2-year	1	0
Private nfp 2-year/Private fp 2-year	0	0
Public 4-year/Public 2-year	1	1
Public 4-year/Private fp 2-year	1	0
Public 4-year/Private nfp 2-year	0	0
Private fp 4-year/Public 2-year	1	1
Private fp 4-year/Private fp 2-year	0	0
Private fp 4-year/Private nfp 2-year	0	1
Private nfp 4-year/Public 2-year	1	1
Private nfp 4-year/Private fp 2-year	0	0
Private nfp 4-year/Private nfp 2-year	0	0

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

The average amounts assumed by parents of students who attended 2-year institutions were also similar. Parents who assumed loans for students who attended public 2-year institutions had an average loan totaling \$3,017. The average amount assumed by parents for students who attended private not-for-profit and for-profit 2-year institutions were \$4,247 and \$4,845 respectively (Table 44).

Cost of Attendance

Students whose cost of attending postsecondary education was between \$2,500 to \$4,999 and 5,000 to \$7,499 were less likely than students whose cost of attending postsecondary education was \$30,000 or higher to have parents who assumed loans (9.3% and 12.3% compared with 35.8%) (Table 47).

The higher the cost of attendance, the higher likelihood of having parents who assumed loans. Students whose cost of attendance was \$30,000 or higher had parents assuming loans that averaged \$8,917. Students whose cost of attending was between \$2,500 and \$4,999 had parents assuming loans that averaged \$2,348 (Table 47).

Summary

Results of this study indicated that the gender and race of students were factors in the amount of loans that were assumed by parents. Full-time students were more likely than part-time students to have parents that assumed loans.

The study also indicated that students who lived on-campus were more likely than students who live off-campus or live off-campus with parents to have parents that assumed loans. However, the age of students did not matter in the percentage of parents who assumed loans to pay for their child's education.

Table 47

Percentage of Dependent Students Receiving Parental Support from Loans Assumed by Parents and Average Amount, by Type of Loan and Cost of Attendance: Fall 1995

Cost of Attendance	Weighted Sample Size in thousands (N)	Percentage of Dependent Students			Average Amount		
		Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other
Total	8,200	30.9	4.8	0.3	\$4,564	\$5,916	\$4,642
Student budget (full-time, full-year) 95-96							
Less than \$2,500	---	---	---	---	---	---	---
\$2,500 - \$4,999	259	9.3	0.0	0.0	\$2,348	---	---
\$5,000 - \$7,499	2,289	12.3	0.4	0.0	\$2,559	\$2,676	---
\$7,500 - \$9,999	1,968	29.1	2.6	0.3	\$3,614	\$3,631	---
\$10,000 - \$14,999	2,039	39.5	7.1	0.3	\$4,508	\$4,797	---
\$15,000 - \$19,999	854	50.3	10.9	0.6	\$5,495	\$6,473	---
\$20,000 - \$24,999	415	57.0	11.4	0.8	\$6,089	\$7,896	---
\$25,000 - \$29,999	385	47.4	8.3	1.9	\$6,360	\$10,516	---
\$30,000 or more	---	35.8	9.9	1.3	\$8,917	---	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "----" indicates too few cases for reliable estimate.

Table 48

Standard Errors for the Percentage of Dependent Students Receiving Parental Support From Loans Assumed by Parents and Average Amount, by Type of Loan and Cost of Attendance:
Fall 1995

Cost of Attendance	Percentage of Dependent Students with			Average Amount		
	Any loans	PLUS (federal)	Other*	All loans	PLUS (federal)	Other*
Total	0.69	0.25	0.05	63.18	148.38	538.47
Student budget (full-time, full-year) 95-96						
Less than \$2,500	---	---	---	---	---	---
\$2,500 - \$4,999	3.59	0.00	0.00	127.35	---	---
\$5,000 - \$7,499	0.93	0.11	0.01	78.27	338.21	---
\$7,500 - \$9,999	1.62	0.35	0.09	66.40	129.21	---
\$10,000 - \$14,999	1.32	0.57	0.08	75.37	149.30	---
\$15,000 - \$19,999	1.90	0.95	0.18	156.71	232.91	---
\$20,000 - \$24,999	2.43	1.04	0.28	193.52	348.32	---
\$25,000 - \$29,999	1.88	1.15	0.94	322.83	529.37	---
\$30,000 or more	5.05	3.37	0.70	1394.11	---	---

*Other than federal, state, or institutional

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Note: "---" indicates too few cases for reliable estimate.

Table 49

T-test Results for the Percentage of Dependent Students Receiving Parental Support From
Loans Assumed by Parents and Average Amount, by Cost of Attendance: Fall 1995

Comparison Category	Percentage of Dependent Students	Average Amount
Student Budget (full-time, full-year) 95-96		
\$2,500 - \$4,999/\$30,000 or more	1	1
\$5,000 - \$7,499/\$30,000 or more	1	1
\$7,500 - \$9,999/\$25,000 - \$29,999	1	1
\$15,000 - \$19,999/\$30,000 or more	0	0

Note: "1" Indicates statistical significance at alpha level (.05)

"0" Indicates no statistical significance at alpha level (.05)

"---" Indicates too few cases for reliable estimate.

Source: NCES, NPSAS:96 Undergraduate Students 10/24/97

Parents who had a lower yearly income were more likely to assume loans to pay for college. However, the average amount of loans generally increased as the parent income increased. Students from single-parent and separated-parent families were more likely than students from married-parent and divorced-parent families to have parent(s) that assumed loans to pay for college. However, the amount of savings that parents had did not matter in the percentage or the average amount of loans that were assumed by parents.

Further results of the study indicated that students who attended private institutions were more likely than students who attended public institutions to have parents that assumed loans. As the cost of attendance increased, the higher the likelihood of having parents who assumed loans. Even though the amounts of parent contributions to students varied, there was no significant difference in the percentages or average amount of loans that were assumed by parents. These results, and their implications for future practice and research are discussed in the next and final chapter of this analysis.

CHAPTER FIVE SUMMARY, DISCUSSION, IMPLICATIONS, AND CONCLUSION

Summary

The burden to finance higher education has shifted from federal, state, and local governments to the family. Because of this shift, students and parents are utilizing loans more frequently than ever to pay for college. There have been several studies that addressed loans that were related to students and how they finance higher education. However, there has been little research about parents and the loans they assume to pay for their child's higher education.

The purpose of this study was to examine parental actions through loans to finance higher education. Data were analyzed from the 1996 National Postsecondary Student Aid Study to answer eleven research questions.

This chapter discusses the results of the study and their implications for future research. The first section provides discussion about the research questions that were found to be statistically significant and how these results compare to previous studies. Next, the implications for practice are addressed. Finally, some implications for future research are offered related to parental actions to finance higher education.

Discussion

The research questions upon which this study was based were:

1. Is there a significant difference between race of students and the amount of loans assumed by parents?
2. Is there a significant difference between age of students and the amount of loans assumed by parents?

3. Is there a significant difference between gender of students and the amount of loans assumed by parents?
4. Is there a significant difference between housing status of students and the amount of loans assumed by parents?
5. Is there a significant difference between attendance status of students and the amount of loans assumed by parents?
6. Is there a significant difference between income level of parents and the amount of loans assumed by parents?
7. Is there a significant difference between amount of parent savings and the amount of loans assumed by parents?
8. Is there a significant difference between marital status of parents and the amount of loans assumed by parents?
9. Is there a significant difference between the total parent contribution and the amount of loans assumed by parents?
10. Is there a significant difference between institutional type and the amount of loans assumed by parents?
11. Is there a significant difference between cost of attendance and the amount of loans assumed by parents?

The discussion section of this chapter is divided into three categories. The categories include student demographics, parent characteristics, and institutional attributes. The variables that were examined for student demographics included race, age, gender, attendance status, and local housing status.

Student Demographics

Race

The race of students was a factor in the percentage of parents who assumed loans. Black, non-Hispanic students were more likely than White, non-Hispanic and Hispanic students to have parents that assumed loans to pay for their child's education. These results contradict findings of a previous NPSAS study conducted by the Department of Education (1992). They found that there was no statistically significant difference in the percentages of students from different racial-ethnic groups whose parents assumed loans.

The differences found in this study may be due to the higher percentage of parents who assumed loans for the 1995-96 school year. The Department of Education (1992) analyzed data from NPSAS:87 and reported that 13.2% of Black students had parents who assumed loans, 14.9% of White students had parents who assumed loans, and 10.5% of Hispanic students had parents who assumed loans.

Another reason that the results of this study are different from previous NPSAS studies may be due in part to the data collection efforts. The data collection efforts for parent information have changed since NPSAS: 87, the first run of the study. For NPSAS: 87, a parent questionnaire was mailed to the parents or guardians of a subsample of students. For NPSAS: 96, the data collection of parent information came from several different sources. Sources included extracting information directly from the institutional financial aid records of students, obtaining information from FAFSA (Free Application for Federal Student Aid) forms, and parent interviews utilizing the CATI (Computer Assisted Telephone Interviewing).

The increase in the percentages of students who have parents who assumed loans is indirectly supported by the research conducted by Gallup and Robinson (1996). They reported that 92% of parents stated that a college education was the most important investment they will make for their child.

Age

The results of this study indicated that there was no statistically significant difference in relation to the age of students and the percentage of parents who assumed loans. However, the average amount of loans assumed by parents was a factor. The average amount of loans assumed by parents of students who were 19 years or younger was lower than the average amount of loans assumed by parents of students who were aged 20-21 years and aged 22-23.

These results contradict those found by a previous NPSAS study conducted by the Department of Education (1992). They found that the age of students did play a factor in the percentage of students who had parents who assumed loans to pay for college.

The results of this study may be different from previous NPSAS studies because of the percentage of parents who assumed loans. The Department of Education (1992) stated that only 14.4% of students had parents who took out any loans to help fund their higher education. For NPSAS: 96, the percentage of dependant students who had parents who assumed any loans has risen to nearly 31%.

Gender

The differences between gender and the percentages of students who had parents who assumed loans were interesting. This study found that female students were more likely than male students to have parents who assumed loans. The previous NPSAS

study conducted by The Department of Education (1992) did not reveal if there was or was not a significant difference in the percentage of students who had parents who assumed loans to pay for their higher education. Previous studies have not revealed sufficient evidence to make assumptions related to the gender of students and the amount of loans that were assumed by parents. However, the researcher believes that it is possible that parents of female students were more likely than parents of male students to assume loans simply because there are more female students (4,317,000) compared to the number of male students (3,883,000) in the sample.

Housing Status

The housing status of students was a factor in the percentage of parents who assumed loans. Students who lived on-campus were more likely than students who lived off-campus or off-campus with parents or relatives to have parents who assumed loans. These results are supported by the Department of Education (1993) who reported that the on-campus housing status of students (25%) was significant with respect to those students who were aged 23 years or younger; however, according to data from NPSAS: 90, a majority of undergraduates (57%) lived off-campus. The Department of Education (1993) also reported that undergraduate students who were more likely to live on-campus attended private institutions.

There are major differences in the percentage of undergraduate students who lived on-campus in 1989-90 (25%) and the percentage of dependant undergraduate students who lived on-campus in 1995-96 (53.6%). One reason for the difference in the percentages may be due in part to the focus of the study conducted by the Department of Education (1993). Their study examined all students that included dependent and

independent undergraduates. The present study examined only dependant undergraduates who had parents who assumed loans to help fund their higher education.

Attendance Status

Attendance status was a factor in the percentage of parents who assumed loans. Generally, full-time students were more likely than part-time students to have parents who assumed loans. Student level was associated with a greater average amount of loans assumed by parents. The average amount of loans assumed by parents of 5th year senior students (\$5,419) was higher than the average amount of loans assumed by parents of 1st year freshman students (\$3,993). These results indirectly support those of Hira and Brinkman (1992) who reported that knowledge of student loans increased as students progressed in college. These results are also indirectly supported by Miller (1996) who reported that 45% of parents expected to assume loans as part of their student's financial aid package.

One possible reason for the differences in average loan amounts between 1st year freshman and 5th year seniors could be the parent's ability to borrow more loans as students progress in college. Also, for dependant undergraduates to receive federal, state, or local financial aid benefits, they are required to be full-time students. This may have also played a factor in the difference in the percentage of parents who assumed loans for full-time and part-time students, as well as the differences in the average amounts.

The next category for discussion is the parent characteristics. The variables used to examine parent characteristics were parent income, parent savings, parent marital status, and total parent contribution.

Parent Characteristics

Parent Income

Parent's income influenced the amount of loans that were assumed by parents. Parents who had an income less than \$12,000 per year were more likely than parents whose income was \$100,000 or more per year to assume loans to pay for their student's education. There was a large difference in the average amounts assumed by parents depending on their income level. For the highest income category, \$100,000 or more, the average amount assumed by those parents was \$6,432. For the lowest income category, less than \$12,000, the average amount assumed by those parents was \$3,774. Churaman (1992) who reported that parents contributed current income to help fund their child's education supports the results of this study.

It is possible that the differences in the percentage of parents who assumed loans according to income level are due, in part, to higher income families who did not have to borrow as much money to send their children to college. However, the average amounts assumed by parents were vastly different. This may have occurred because lower income families are eligible for more gift-aid money from the federal, state, and local governments and, in turn, borrowed less to pay for their student's education.

These results also are supported by the Department of Education (1996) who reported that 20% of all undergraduates came from low-income families. Results also indicated that dependant students who came from 4-person families were defined as low income if their parents' income was less than \$17,405.

Parent Savings

There was no significant difference between the amount of parent savings and the amount of loans that were assumed by parents. The average amounts assumed by parents also were similar. Parents who had savings of less than \$500 assumed an average of \$4,336 to help fund their student's college education. Similarly, parents who had savings of \$50,000 or more assumed an average of \$4,633 to help fund their student's college education. These results are indirectly supported by Miller (1996) who reported that 38.1% of parents had or were going to establish a savings account. However, 33.4% of parents indicated that they had done nothing to prepare for the cost of sending their children to college and only 26% had opened a savings account within the last few years. Most parents (85%) indicated that their savings alone would not cover the cost of college.

Another reason that there was no significant differences in the amount of parent savings and the amount of loans that were assumed by parents may be that parents are not required to reveal the amount of savings on the Free Application for Federal Student Loans or during any part of the financial aid process if they meet certain income criteria. Also, parent savings is not calculated as income in the expected family contribution.

Parents who have a high amount of savings may be investing their savings while their students are in college and, in turn, taking out loans to pay for their students' education. While their student is in school, there is no interest that accrues on the principal of the student loan.

Parent Marital Status

Students from single-parent families were more likely than those from married-parent families to have parent(s) who assumed loans. Students from separated-parent

families were more likely than those who came from both married-parent and divorced-parent families to have parent(s) who assumed loans. The average amount of loans assumed by single parents was less than the average amount of loans assumed by married parents. Previous studies have not revealed sufficient evidence to make assumptions related to the marital status of parents and the amount of loans that were assumed by parents. However, the findings of this study are self-evident. There is a greater likelihood that two-income families will have more assets and savings than single-income families. Separated-parent families were also more likely to assume loans. One reason may be that separated-parent families support two different households.

Total Parent Contribution

Students whose parents contributed between \$500 and \$10,000 were more likely than students whose parents contributed less than \$500 to have parents who assumed loans. The average amount of loans assumed by parents was generally higher depending on the amount of parental support. Parents who contributed more than \$20,000 to their student's education had an average loan amount of \$6,017. Parents who contributed less than \$500 to their student's education had an average loan amount of \$4,184.

Charaman (1992) who found that 75% of parents indicated that they had contributed funds toward their student's related educational expenses indirectly supports the results of this study.

The final category for discussion in this study is institutional attributes. Variables that were used in this study to examine institutional attributes were institutional type and cost of attendance.

Institutional Attributes

Institutional Type

Students who attended public 4-year institutions were more likely than students who attended public 2-year institutions to have parents who assumed loans. Generally, students who attended private institutions were more likely than students who attended public institutions to have parents who assumed loans.

Generally, there was no difference in the average loan amounts assumed by parents of students attending public or private 4-year institutions. The average amount assumed by parents of students who attended public 4-year institutions was lower than the average amount assumed by parents of students who attended 4-year private not-for-profit and for-profit institutions.

One reason why parents of students who attended private institutions were more likely than parents of students who attended public institutions to assume loans may be due in part to the higher cost of attending private schools. This is supported by the Chronicle for Higher Education (1997) that reported that the average tuition at a private 4-year institution was \$12,823 and the average tuition at a public 4-year institution was \$2,996 for academic year 96-97.

These results are also supported by the Department of Education (1992) who reported that students in private institutions were more likely than students in public institutions to have parents who assumed loans to pay for higher education.

Cost of Attendance

Students whose cost of attending postsecondary education was between \$2,500 to \$4,999 and \$5,000 to \$7,499 were less likely than students whose cost of attending postsecondary education was \$30,000 or higher to have parents who assumed loans.

The higher the cost of attendance, the higher the likelihood of having parents who assumed loans. Students whose cost of attendance was \$30,000 or higher had parents assuming loans that averaged \$8,917. Students whose cost of attending was between \$2,500 and \$4,999 had parents assuming loans that averaged \$2,348. These results are supported by the Department of Education (1992) who reported that a greater likelihood of borrowing was associated with higher cost of attending postsecondary education.

Implications and Recommendations

The results of this study and the research conducted by previous studies lay the platform for which these recommendations were developed. The recommendations are divided into implications for practice and recommendations for future research.

Implications for Practice

This study has implications for future practice for constituencies. First, parents can use the results of this study to have a better understanding of the parent loans available and the factors that were associated with those parents who assumed loans to pay for their child's higher education.

Findings of this study are important indicators in that income can play an important role to help finance higher education. Parents assumed that they will be able to use current income as a means of financing higher education. However, as the costs

associated with a higher education continue to rise, parents may need to turn to loans to help finance their student's education.

Parents can also use the results of this study to gain a better understanding about the costs associated with the different institutional types. Four-year institutions generally charge more for tuition and fees than two-year colleges.

Financial Aid officers can use the results of this study to design better educational programs for those parents who assumed loans to pay for their student's education. Findings of this study revealed that student's race, age, gender, housing status and attendance level are factors related to the percentage of parents who assumed loans to pay for higher education.

Recommendations for Future Research

Because there has been little research on parental actions to finance higher education, it is necessary to continue research related to parents and how they are paying for college. The costs associated with attending college and how families are paying for college are ever changing. Therefore, continued research on how families are financing higher education is important.

For instance, a study could be conducted that compared student and parent actions to finance higher education.

A comparison study should be conducted specifically on the average amounts of loans that are assumed by parents and students. The results of this study will continue to help educate families about the effects of borrowing money to pay for higher education.

This study concentrated on parental actions to finance higher education. It is recommended that future studies focus on the repayment practices of parents and how

those repayments affect their overall living expenses and budget. There is currently no literature available that specifically addresses the effects on parents who finance their child's higher education.

The cost of higher education continues to rise. More and more parents are borrowing to pay for their student's college education. Future research should examine the default rates of parents and the implications it has on families and their ability to actually pay for higher education.

There are several different types of loans that are available to parents. The federal government offers PLUS loans to parents while state and local governments offer different types of loans to parents. Some parents may take a second mortgage on their house or borrow against savings and retirement plans to pay for their student's college expenses. It is recommended that future research specifically examine the different types and average amounts of loans that are assumed by parents to fund higher education.

The debt level of students has been studied in recent years. However, there has been little research conducted on parents. Future research should examine parents' total debt and what ratio of their debt is due to educational loans.

Conclusion

The costs associated with attending postsecondary institutions have continued to rise. Tuition continues to rise faster than current inflation. Because of this increase, more and more parents will probably use loans as a means to finance their student's higher education.

This study found that different student demographics, different parent characteristics, and different institutional attributes are all factors when parents make the

decision to assume loans to finance their student's higher education. There needs to be a continued effort to examine how students and parents are financing higher education in order to foster understanding and education between legislators that make decisions regarding students and parent loan programs, and the people that depend heavily on those loans to finance their higher education.

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APPENDICES

Appendix A
Variable Specifications

Variable Specifications

AGE - *Age of student as of 12/31/95*

Indicates student's age. Calculated from date of birth (BDATE). Related variable: ZAGE Source for student's age. Sources: Derived, Imputation

ATTEND2 – *Attendance intensity for first term enrolled 1995*

Indicates the student's attendance status during the fall or during the first month enrolled after October. Excludes students enrolled during the summer of 1995.

Related variables: ATTEND - Attendance status during the fall or during the first month enrolled after October. ATTNSTAT - Intensity of enrollment and persistence across the academic year. ATTNPTRN - Attendance pattern across the academic year Sources: Derived, CADE, Student CATI

BUDGETFT - *Total student budget (full-time, full-year) - Cost of Attending*

Indicates total student budget amount for full-time, full-year students at the NPSAS institution, including tuition and fees (TUITION) and total non-tuition cost allowances (SBNONTUN). Student budgets are based on typical or average expected expenses, and vary with the student's dependency status and residence arrangements.

Full time budgets were estimated for students based on the actual reported amounts or institutional averages of non-tuition costs for categories of students, based on local residence (LOCALRES) and dependency status (DEPEND) and average full-time tuition. This is the typical budget for a full-time, full-year student. It is reported for analysis purposes (this is what the budget would have been) but only used to calculate need or net cost for full-time/full-year students. Related variables: BUDGETAJ (Attendance adjusted student budget) For information about attendance adjustment and overall organization of cost and net cost variables, see BUDGETAJ. Sources: CADE, Pell file, Imputation

CONTROL - *Institutional control*

Institution control of the NPSAS school.
Sources: N96 CADE

C97_189 – *Total Parent Contribution*

TPC: total parent contribution. (ISIR). Sources: CPS97

This abbreviation represents intermediate steps taken in calculating the EFC. They show the separate components of the need analysis formula, such as the "employment expense allowance" or "parents contribution from assets." These components are defined in the law and illustrate the steps used in arriving at the EFC. The values can be useful to FAAs in doing recalculations or in making professional judgment adjustments to data.

Intermediate values appear on the electronic Institutional Student Information Record (ISIR), but are not reported on the paper ISIR.

The intermediate values shown on both the SAR and electronic ISIR are identified as follows: CPS188 TI - Total income, CPS189 ATI - Allowances against total income, CPS190 STX - State and other tax allowance, CPS191 EA - Employment allowance, CPS192 IPA - Income protection allowance, CPS193 AI - Available income, CPS194 DNW - Discretionary net worth, CPS195 APA - Education savings and asset protection,

CPS196 PCA - Parents' contribution from assets, CPS197 AAI - Adjusted available income, CPS198 TPC - Total parents' contribution, CPS199 TSC - Total student's contribution (indep), CPS200 APC - Adjusted parents' contribution

DEPEND – *Dependency status of students*

Student dependency status. Students were considered independent if they met any of the following criteria:

- 1) Age twenty-four or older as of 12/31/95 (born before January 1, 1972)
- 2) A veteran of the U.S. Armed Forces (VETERAN)
- 3) Enrolled in a graduate or professional program (beyond a bachelor's degree) in 1995-96 (STYPEFST)
- 4) Married (SMARITAL)
- 5) Orphan or ward of the court (ORPHAN)
- 6) Had legal dependents, other than spouse (NDEPEND>0)

Where not available, data from the 1996-97 FAFSA (C97_196) was used.

Related variables:

DEPEND2 Dependency status for financial aid

DEPEND4 Dependency status for financial aid including marital status

LOANDEP Dependency status used to determine Stafford loan limits

ZDEPEND Source for dependency status

Sources: CPS96, CADE, Student CATI, Derived

DEPINC – *Dependent student's parents income – 1994*

Indicates dependent student parent's total income for 1994. Equal to total income (CINCOME) for dependent students (DEPEND=1). Sources: Derived, Imputation

GENDER - *Student Gender CADE*

Student gender. Numeric recode of character variable ASGENDER. Sources: N96 CADE, CPS

LEVEL - *Institutional level*

Institution level of NPSAS school.

Sources: N96 CADE

LOCALRES - *Housing Status*

Indicates housing status used in needs analysis. The student housing status as reported either by the NPSAS school in CADE (CNLCLRES) for the student budget, by the student on the financial aid application and reported in CPS132-CPS137 for NPSAS school, or by the student in the CATI interview Sources: CPS96, CADE, student CATI, imputation

LOANLVL- *Student Level report for last loan (NSLDS)*

Indicates student level reported for last loan (NSLDS). If there is no NSLDS record, LOANLVL is based on UGLEVEL2.

Sources: NSLDS

OTHLNAMT - *Other source-loans*

Indicates the amount of loans that were not federal, state, or institutional received during 1995-96. Examples of such loans are loans from employers or personal loans secured through financial institutions. Does not include loans from family or friends. See grid under TOTAID for more information. Sources: CADE, Student CATI

PARED – *Parent's education level*

Indicates parent's highest level of education. Equal to maximum of highest level of education completed by father (DADED) and highest level of education completed by mother (MOMED). Note: For a more detailed version of highest educational level completed by parents see PAREduc. Related variables: ZPARED Source for parents' education. Sources: Derived

PMARITAL - *Parent's marital status*

Indicates parent's marital status. Constructed from parent reported marital status (PLMARST). Where not available student reported data (SCPARMAR), data reported on FAFSA (CPS95), and reported on the 1996-97 FAFSA (C97_088) were used. Related variables: ZPMARIT Source for parent's marital status. Sources: CPS96, Parent CATI, Student CATI, Imputation

PNETWOR – *Parent's net worth*

Indicates parent's net worth in 1995-96. Sum of parent's cash, savings and checking (PMONEY), and the net values of farm (PARFRMNT), business (PARBUSNT), and other investments (PARINVNT). Negative values set to zero. Sources: Derived

PMONEY – *Parent's cash, saving, and checking accounts (SAR)*

Indicates parent's cash, checking and savings in 1995-96. Based on parent's cash, savings, and checking reported on FAFSA (CPS111 and CSPACASH) or parent interview (PNTOTSAV). Sources: CPS96, Parent CATI

PLUSAMT3 - *PLUS loan amount-total*

Indicates the total federal PLUS loans (Direct and FFEL) received during 1995-96. PLUS loans are unsubsidized variable-interest rate loans awarded to parents of dependent students who are able to meet criteria for credit worthiness. PLUS loans are awarded up to the maximum amount of the cost of attendance at the institution minus any other financial aid. Two types of PLUS loans are available to eligible students, Direct and FFEL PLUS loans. Direct loans are available through the institution, and FFEL loans are offered by commercial lenders such as banks, credit unions, or savings and loans associations. Interest rate cannot exceed 9 percent. PLUS loans received at the second institution (PLUSAMT4) are included in the calculation of PLUSAMT3. PLUSAMT3 is a component of the following composite variables: T4LNAMT2, TITIVAMT, TFEDLN2, TFEDAID, TFEDAID2, TOTLOAN, TOTLOAN2, TOTAID, TFEDOTHR, TOTOTHR. Related variables: SCHOOL2 Loans at a second institution PLUSAMT1 PLUS loan amount – FFEL PLUSAMT2 PLUS loan amount - direct

PLUSAMT4 PLUS loan amount received at second institution Sources: CADE, NSLDS

RACE- *Race/ethnicity of student*

Student's race/ethnicity. Students were categorized into four racial categories: American Indian/Alaskan Native, Asian Pacific Islander, Black non-hispanic, and White non-hispanic. Hispanic ethnicity (HISPANIC) was then examined for students reporting White and Black races only. If these students reported a Hispanic ethnicity they were coded as Hispanic. Based on race reported by student (SGRACE), or if not available, as reported by sample institutions (ASTHRACE). Approximately 5% imputed.

Related variables: CENRACE Race-census categories ZRACE Source for race/ethnicity. Sources: Student CATI, CADE, and Imputation

SECTOR - *Institutional type (level & control)*

Institution type (level & control).

Sources: N96 CADE

STUDTYPL - *Student type (3-level UG/G/FP) in last term*

Student type during last term at NPSAS school, 3-level (Undergraduate, graduate, or first-professional). Sources: N96 CADE

TOTLOAN2 – *Total amount of all loans*

Indicates the total amount of all loans: federal, state institutional and private sector received during 1995-96. Equal to the sum of total loan amount (TOTLOAN) and the amount of PLUS loans to parents (PLUSAMT3). TOTLOAN, not TOTLOAN2, was used to calculate TOTAID (total amount of all aid). Sources: CADE, NSLDS

Weight - *of Undergraduates in first or last term*

Weight for undergraduates in first or last term. Use this weight when the primary source of the data is from the institution (CADE), or the Central Processing System (CPS). For example, when producing percentages and average amounts of financial aid by institution type or family income level, DASWT1 should be used. However, when producing estimates where the items of interest are based entirely on CATI data (or require CATI data to be reliable), use the CATI weight. These would include estimates such as, the percentage employed or percent who did any community service or other items where the primary source of the information is the telephone interview (Student CATI). The items where the appropriate weight to use is the CATI weight typically include a note "Use CATIWT1 for weight" for undergraduates and "Use CATIWT2 for weight" for graduate and first-professional students. Sources: Derived

Appendix B

T-test Comparisons for Selected Variables

T tests for comparisons testing percentage of parents who assumed loans and selected student characteristics

Comparison Category	Estimate 1	Estimate 2	Standard Error 1	Standard Error 2	Calculated t value	Number of Categories	# of Comparison	Bonferonni Z	Statistical Sign
Race									
White/Black	30.4	43.2	0.79	2.31	5.243	5	10	2.81	1
White/Hispanic	30.4	25.6	0.79	1.97	2.26149	5	10	2.81	0
Black/Hispanic	43.2	25.6	2.31	1.97	5.79719	5	10	2.81	1
Age									
<19/22-23	31.3	28.8	0.93	1.05	1.78235	4	6	2.635	0
<19/20-21	31.3	31.7	0.93	.086	0.31578	4	6	2.635	0
20-21/22-23	31.7	28.8	0.86	1.05	2.13669	4	6	2.635	0
Parent Income									
<12,000/100,000	34.3	13.6	1.68	0.91	10.8341	7	21	3.04	1
<12,000/75,000-99,999	34.3	25.8	1.68	1.26	4.04762	7	21	3.04	1
12,000-23,999/75,-99,999	37.7	25.8	1.55	1.26	5.95738	7	21	3.04	1
24-29,9/50-74,999	38.0	28.1	2.43	1.03	3.75102	7	21	3.04	1
Institutional Variables									
Private, np4/Public 4	52.1	37.7	1.39	0.87	8.78147	9	36	3.2	1
Private, np4/Private fp 4	52.1	50.3	1.39	11.02	0.16206	9	36	3.2	0
Private, np2/Public 2	41.0	9.6	5.96	0.83	5.2181	9	36	3.2	1
Private, np2/Private, fp2	41.0	62.5	5.96	4.89	2.78883	9	36	3.2	0
Public 4/Public 2	37.7	9.6	0.87	0.83	23.3697	9	36	3.2	1
Public 4/Private, fp 2	37.7	62.5	0.87	3.27	7.32914	9	36	3.2	1
Public 4/Private, np 2	37.7	41.1	0.87	5.96	0.56449	9	36	3.2	0
Private, fp4/Public 2	50.3	9.6	11.02	0.83	3.68285	9	36	3.2	1
Private, fp4/Private fp2	50.3	62.5	11.02	3.27	1.06134	9	36	3.2	0
Private, fp4/Private np 2	50.3	41.1	11.02	5.96	0.73433	9	36	3.2	0

T tests for comparisons testing percentage of parents who assumed loans and selected student characteristics

Comparison Category	Estimate 1	Estimate 2	Standard Error 1	Standard Error 2	Calculated t value	Number of Categories	# of Comparison	Bonferonni Z	Statistical Sign
Private, np4/Public 2	52.1	9.6	1.39	0.83	26.2516	9	36	3.2	1
Private, np4/Private, np2	52.1	41.1	1.39	5.96	1.7974	9	36	3.2	0
Parent Savings									
<500/50,000 or more	43.3	34.2	1.18	3.99	2.18706	10	45	3.26	0
<500/ 7,500- 9,999	43.3	42.0	1.18	3.35	0.36602	10	45	3.26	0
500-999/50,000 or more	43.6	34.2	1.83	3.99	2.1414	10	45	3.26	0
Gender									
Male/Female	29.1	32.5	0.85	0.83	2.8619	2	1	1.96	1
Parent Marital Status									
Single/Widow	40.4	27.1	3.02	2.11	3.61012	5	10	2.81	1
Single/Married	40.4	30.9	3.02	0.72	3.05993	5	10	2.81	1
Single/Divorced	40.4	29.0	3.02	1.15	3.52772	5	10	2.81	1
Separated/Widowed	38.2	27.1	2.5	2.11	3.39304	5	10	2.81	1
Separated/Married	38.2	30.9	2.5	0.72	2.80595	5	10	2.81	0
Separated/Divorced	38.2	29.0	2.5	1.15	3.34324	5	10	2.81	1
Student Variables									
1 st year Fresh FT/PT	34.7	8.1	1.14	0.68	20.0391	2	1	1.96	1
2 nd year Soph FT/PT	33.6	14.5	1.37	1.57	9.16639	2	1	1.96	1
3 rd year Junior FT/PT	48.0	35.9	1.43	2.32	4.43987	2	1	1.96	1
4 th year Senior FT/PT	42.4	32.9	1.36	1.99	3.94137	2	1	1.96	1
5 th year Senior + PT/PT	47.6	38.3	4.72	5.48	1.28587	2	1	1.96	0
Fresh FT/Sr FT	34.7	42.4	1.14	1.36	1.33901	5	10	2.81	1
Fresh FT/Jr FT	34.7	48.0	1.14	1.43	7.27254	5	10	2.81	1
Fresh FT/5 th FT	34.7	47.6	1.14	4.72	2.65666	5	10	2.81	0

T tests for comparisons testing percentage of parents who assumed loans and selected student characteristics

Comparison Category	Estimate 1	Estimate 2	Standard Error 1	Standard Error 2	Calculated t value	Number of Categories	# of Comparison	Bonferonni Z	Statistical Sign
Fresh PT/Sr PT	8.1	32.9	0.68	1.99	11.7928	5	10	2.81	1
Fresh PT /Jr PT	8.1	35.9	0.68	2.32	11.499	5	10	2.81	1
Student Housng Status									
On/Off	53.6	29.4	1.1	0.92	16.8757	3	3	2.4	1
On/Off with parents	53.6	17.9	1.1	0.81	26.1337	3	3	2.4	1
Off/Off with parents	29.4	17.9	0.92	1.81	9.3819	3	3	2.4	1
Cost of Attending									
2,500-4,999/30,000 +	9.3	35.8	3.59	5.05	4.27694	9	36	3.2	1
5,000-7,499/30,000 +	12.3	35.8	0.93	5.05	4.57651	9	36	3.2	1
7,500-9,999/25,-29,999	29.1	47.4	1.62	1.88	7.374	9	36	3.2	1
15,000-19,999/30,000 +	50.3	35.8	1.9	5.05	2.68737	9	36	3.2	0
Parent Contribution									
<500/20,000 +	50.6	60.6	2.0	3.03	2.7544	7	21	3.04	0
<500/15,000-19,999	50.6	60.5	2.0	.327	2.58274	7	21	3.04	0
<500/10,000-14,999	50.6	64.8	2.0	3.79	3.31363	7	21	3.04	1
<500/7,500-9,999	50.6	73.0	2.0	2.51	6.397955	7	21	3.04	1
<500/3,000-7,499	50.6	70.1	2.0	1.87	7.12187	7	21	3.04	1
<500/500-2,999	50.6	62.5	2.0	2.03	4.17585	7	21	3.04	1
3,000-7,499/20,000 +	70.1	60.6	1.87	3.03	2.6681	7	21	3.04	0

T tests for comparisons testing average amount assumed by parents and selected student characteristics

Comparison Category	Estimate 1	Estimate 2	Standard Error 1	Standard Error 2	Calculated t value	Number of Categories	# of Comparison	Bonferonni Z	Statistical Sign
Race									
White/Black	4685.5	4365.8	70.12	174.54	1.69964	5	10	2.81	0
White/Hispanic	4685.5	3920.7	70.12	158.71	4.40782	5	10	2.81	0
Black/Hispanic	4365.8	3920.7	174.54	158.71	1.88674	5	10	2.81	0
Age									
<19/22-23	4265.7	4697.7	79.67	87.0	3.66203	4	6	2.635	1
<19/20-21	4265.7	4810.2	79.67	86.74	4.62319	4	6	2.635	1
20-21/22-23	4810.2	4697.7	86.74	87.0	0.91573	4	6	2.635	0
Parent Income									
<12,000/100,000	3.774.4	6432.7	93.16	287.7	8.79047	7	21	3.04	1
<12,000/75,000-99,999	3774.4	5470.6	93.16	171.81	8.6788	7	21	3.04	1
12,000-23,999/75,-99,999	3911.0	5470.6	98.13	171.81	7.88238	7	21	3.04	1
24-29,9/50-74,999	4301.1	4950.2	121.16	98.61	4.15512	7	21	3.04	1
Institutional Variables									
Private, np4/Public 4	5416.3	4327.5	125.09	75.02	7.46463	9	36	3.2	1
Private, np4/Private fp 4	5416.3	5752.3	125.09	439.24	0.7357	9	36	3.2	0
Private, np2/Public 2	4247.3	3017.9	363.32	154.64	3.1135	9	36	3.2	0
Private, np2/Private, fp2	4247.3	4845.6	363.32	374.73	1.14629	9	36	3.2	0
Public 4/Public 2	4327.5	3017.9	75.02	154.64	7.61942	9	36	3.2	1
Public 4/Private, fp 2	4327.5	4845.6	75.02	374.73	1.35569	9	36	3.2	0
Public 4/Private, np 2	4327.5	4247.3	75.02	363.32	0.21618	9	36	3.2	0
Private, fp4/Public 2	5752.3	3017.9	439.24	154.64	5.87201	9	36	3.2	1
Private, fp4/Private fp2	5752.3	4845.6	439.24	374.73	1.5704	9	36	3.2	0
Private, fp4/Private np 2	5752.3	4247.3	139.24	363.32	3.86802	9	36	3.2	1

T tests for comparisons testing average amount assumed by parents and selected student characteristics

Comparison Category	Estimate 1	Estimate 2	Standard Error 1	Standard Error 2	Calculated t value	Number of Categories	# of Comparison	Bonferonni Z	Statistical Sign
Private, np4/Public 2	5416.3	3017.9	125.09	154.64	12.0583	9	36	3.2	1
Private, np4/Private fp2	5416.3	4845.6	125.09	374.73	1.4446	9	36	3.2	0
Private, np4/Private, np2	5416.3	4247.3	125.09	363.32	3.04228	9	36	3.2	0
Parent Savings									
<500/50,000 or more	4336.3	4633.6	76.57	388.54	0.75073	10	45	3.26	0
<500/ 7,500- 9,999	4777.8	4633.6	121.12	388.54	0.35432	10	45	3.26	0
500-999/50,000 or more	4336.3	5028.5	76.57	257.08	2.58052	10	45	3.26	0
Gender									
Male/Female	4653.8	4492.0	84.04	74.29	1.44248	2	1	1.96	0
Parent Marital Status									
Single/Widow	3907.1	4209.7	219.77	151.49	1.13366	5	10	2.81	0
Single/Married	3907.1	4668.6	219.77	67.95	3.31037	5	10	2.81	1
Single/Divorced	3907.1	4468.9	219.77	111.27	2.28065	5	10	2.81	0
Separated/Widowed	4094.0	4209.7	157.83	151.49	0.52887	5	10	2.81	0
Separated/Married	4094.0	4668.6	157.83	67.95	3.34389	5	10	2.81	1
Separated/Divorced	4094.0	4468.9	157.83	111.27	1.94138	5	10	2.81	0
Student Variables									
1 st year Fresh FT/PT	3993.0	2894.3	81.07	146.97	6.54585	2	1	1.96	1
2 nd year Soph FT/PT	4256.4	3777.5	113.71	202.96	2.05852	2	1	1.96	1
3 rd year Junior FT/PT	5459.8	5570.8	119.58	229.17	0.42941	2	1	1.96	0
4 th year Senior FT/PT	5445.2	4944.8	105.96	151.26	2.70954	2	1	1.96	1
5 th year Senior + PT/PT	5419.8	---	267.28	---	20.2776	2	1	1.96	---
Fresh FT/Sr FT	3993.0	5445.2	81.07	105.96	10.8847	5	10	2.81	1
Fresh FT/Jr FT	3993.0	5459.8	81.07	119.58	10.1529	5	10	2.81	1

T tests for comparisons testing average amount assumed by parents and selected student characteristics

Comparison Category	Estimate 1	Estimate 2	Standard Error 1	Standard Error 2	Calculated t value	Number of Categories	# of Comparison	Bonferonni Z	Statistical Sign
Fresh FT/5 th FT	3993.0	5419.8	81.07	267.28	5.10841	5	10	2.81	1
Fresh PT/Sr PT	2894.3	4944.8	146.97	151.26	9.72251	5	10	2.81	1
Fresh PT/Jr PT	2894.3	5570.8	146.97	229.17	9.8311	5	10	2.81	1
Fresh PT/5 th PT	2894.3	---	146.97	---	19.6931	5	10	2.81	---
Student Housng Status									
On/Off	4941.3	4716.8	89.95	84.23	1.82179	3	3	2.4	0
On/Off with parents	4941.3	3635.8	89.95	93.6	10.0566	3	3	2.4	1
Off/Off with parents	4716.8	3635.8	84.23	93.6	8.58487	3	3	2.4	1
Cost of Attending									
2,500-4,999/30,000 +	2348.8	8917.6	127.35	1394.11	4.69229	9	36	3.2	1
5,000-7,499/30,000 +	2559.8	8917.6	78.27	1394.11	4.5533	9	36	3.2	1
7,500-9,999/25,-29,999	5495.4	8917.6	156.71	1394.11	2.43939	9	36	3.2	0
15,000-19,999/30,000 +	3614.1	6360.9	66.4	322.83	8.33404	9	36	3.2	1
Parent Contribution									
<500/20,000 +	4184.4	6017.3	85.55	288.71	6.08698	7	21	3.04	1
<500/15,000-19,999	4184.4	5653.2	85.55	278.29	5.04495	7	21	3.04	1
<500/10,000-14,999	4184.4	4933.5	85.55	152.45	4.28513	7	21	3.04	1
<500/7,500-9,999	4184.4	5159.0	85.55	174.83	5.00722	7	21	3.04	1
<500/3,000-7,499	4184.4	4651.2	85.55	118.4	3.19566	7	21	3.04	1
<500/500-2,999	4184.4	4264.4	85.55	82.87	0.67167	7	21	3.04	0
3,000-7,499/20,000 +	4651.2	6017.3	118.4	288.71	4.3779	7	21	3.04	1

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EDUCATION:

Virginia Tech

MA.Ed Student Personnel Services, May 1998
Thesis: Parental Actions to Finance Higher Education

University of South Carolina

Bachelor of Arts, Political Science, May 1993

PROFESSIONAL EXPERIENCE:

Graduate Hall Director, Residential and Dining Programs Virginia Tech, Blacksburg, VA

8/1997 - Present

- Live-In Supervisor of a co-educational residence hall community of 986 residents
- Direct, Supervise, Hire, Train, Evaluate a staff of 15 Resident Advisors
- Develop and Participate in Fall and In-Service training programs
- Assume rotating campus duty coverage for 33 residence halls housing over 8,600 on-campus residents
- Monitor and Administer programming budget of approximately \$1000
- Conduct meetings with residents regarding conduct, discipline, and judicial issues
- Work cooperatively with Housekeeping and Maintenance staff
- Work cooperatively with W.E.L.L. (Wellness Environment for Living and Learning) staff
- Support initiative for S.P.I.C.E.S. programming
- Supervise and Advise hall staff in the implementation of educational and community development activities and programs
- Serve as resource person to the Residence Hall Federation Hall Council
- Participate on a core team of building supervisors to provide a living/learning environment for 2000 on-campus residents
- Participate on 1998-99 Resident Advisor recruitment and selection committee
- Participate on Resident Advisor Program Review Committee
- Develop and Administer midyear hire training program for Resident Advisors
- Serve as primary coordinator of opening and closing of residence hall

Graduate Advisor-Residence Hall Federation, Residential and Dining Programs Virginia Tech, Blacksburg, VA

6/1996 - 5/1997

- Supervised, Developed, Implemented, and Evaluated Fall Leadership retreat for 150 Hall Council Officers
- Supervised, Developed, Implemented, and Evaluated Fall/Spring Bi-Weekly Leadership Development Program
- Developed, Created, Implemented, and Evaluated the Executive Board Fall Training Workshop
- Served with the advisor as an on-going resource, advocate, and counsel for 9 Executive Board Officers
- Served as advisor to 9 Executive Board Chairpersons in the role of planning, coordinating, and supervising campus-wide programming and events
- Assisted and Encouraged the Executive Board Officers to create and maintain a and information link between Executive Board and 33 Hall Councils
- Served as liaison with 4 Community Assistants to insure routine communication and consistent program support across campus

Coordinator of Special Projects, Office of Orientation **2/1995 - 5/1996**
Coastal Carolina University, Myrtle Beach, SC

- Developed and Created Parent Handbook
- Developed and Designed Student and Parent orientation schedules
- Developed, Supervised, Implemented, and Evaluated training program for 20 orientation leaders
- Supervised activities of 20 Orientation Leaders
- Organized and Participated in recruiting and selection process for student leaders
- Assisted Director with creating and implementing orientation budget of \$75,000
- Conducted and Handled contract negotiations with major off-campus vendors
- Developed and Created various orientation publications
- Assisted the director with Supervision, Implementation and Evaluation of Summer and New Student Orientation programs
- Collateral assignment included working with Diversity Initiative with Office of Minority Student Relations
- Served on committee that planned and developed diversity programming for entire campus

Coordinator of Special Projects, Office of Student Activities **6/1993 - 2/1995**
Coastal Carolina University, Myrtle Beach, SC

- Publications editor, layout designer for Student Handbook
- Supervised, Coordinated, Implemented, and Evaluated activities of Pep Band
- Supervised, Hired, and Trained 5 employees and 4 vendors for the Student Center Room
- Assisted the director with advising of 80 student groups including the Campus Program Board and Greek Life Organizations
- Facilitated and Conducted contract negotiations with off-campus vendors for student groups
- Assisted the director with the creation, planning, and implementation of New Student Orientation Programs

RELATED PROFESSIONAL EXPERIENCE

Orientation Linen Crew Supervisor, Residential and Dining Programs **5/1997 - 8/1997**
Virginia Tech, Blacksburg, VA

- Supervised, Hired, Trained and Evaluated 9 summer orientation linen crew members
- Coordinated and Implemented residence hall room setup schedule and linen distribution for approximately 12,000 visiting parents and incoming students
- Maintained daily staffing schedule for crew members
- Conducted and Maintained linen and associated inventory supplies for the summer orientation program

First Year Experience Program Practicum, Residential and Dining Programs **1/97 - 5/97**
Virginia Tech, Blacksburg, VA

- Developed position descriptions for the Student Assistants and Resident Computer Consultants
- Developed marketing plan for recruiting Student Assistants and Resident Computer
- Participated in Hiring/placement and Evaluation of Student Assistants and Resident Computer Consultants
- Drafted training outline for Student Assistants and Resident Computer Consultants
- Attended and Participated in monthly FYE Sub-Committee Chairs meetings
- Attended and Participated in Bi-weekly FYE Structure Committee meetings
- Attended and Participated in Monthly Marketing Sub-Committee meetings

PROFESSIONAL ASSOCIATION MEMBERSHIPS AND CONFERENCES

ACPA, American College Personnel Association, 1996-Present

NASPA, National Association of Student Personnel Administrators, 1996 - Present

National Conference for The Freshman Year Experience, 1996

SROW, Southern Regional Orientation Workshop, 1993-1996

NACA, National Association for Campus Activities, 1991-1994

NODA, National Orientation Director's Association, 1993-1996

SAACURH, South Atlantic Affiliate of College and University Residence Halls, 1996

NACURH, National Association of College and University Residence Halls, 1996 Presented Program

UNDERGRADUATE EXPERIENCE

- Coordinator, Campus Program Board, 1992-1993
- Public Relations Student Coordinator, Office of Student Activities, 1991-92
- New Student Orientation Staff, 1991-1993
- Coordinator, 1992 AIDS Charity Basketball Tournament
- Treasurer, Student Government Association, 1990-1991
- Founding President, Sigma Nu Fraternity, Coordinator of Regional Conference
- Vice President, Phi Alpha Delta (Prelaw) Fraternity, 1989-1990
- Staff Writer, Circulations Manager, Student Newspaper, 1989-1992
- Staff Writer, Circulations Manager, Literary Art Magazine, 1990-1991