Benchmarks:

Measures of College Affordability and Student Aid in North Carolina

Analysis by
Laura Greene Knapp
Education Research Consultant

for the

North Carolina State Education Assistance Authority

December, 2004

TABLE OF CONTENTS

Page

INTRODUCTION 1

EXECUTIVE SUMMARY 3-7

AFFORDABILITY MEASURE I: The College-Going Rate Within
One Year of High School Graduation.....9-10

AFFORDABILITY MEASURE II: Net Price of College Relative
To Family Income.....11-29

AFFORDABILITY MEASURE III: Average Cumulative Student
Education Debt Upon Graduation.....31-32

BENCHMARKS: Financial Aid to Students Attending
North Carolina Institutions 33-43

APPENDIX A: Notes on College Affordability.....53-55

APPENDIX B: Data Sources.....50-52

Introduction

The North Carolina State Education Assistance Authority is pleased to issue this report on the affordability of higher education at the state's public universities and the availability of student aid to North Carolina residents attending postsecondary institutions in the state.

The purpose of the study is to provide a longitudinal view of the affordability of higher education in our state and the availability of student aid through a wide variety of programs. The report assesses affordability measures that are designed to reveal, over time, changes in college attendance rates, net prices paid by various income groups for college attendance, and cumulative education indebtedness incurred by undergraduates in the state.[1] It also provides a detailed review of available student aid, documenting the sources and magnitude of aid available and changes in its volume over a ten year period.

In an era when colleges and universities across the nation are experiencing increases in tuition and other associated costs, higher education for North Carolinians remains affordable on a number of significant measures. Even as tuition at public institutions has risen, the North Carolina General Assembly has crafted need-based grant programs designed to assure access for all to the opportunities provided. These programs, which illustrate the linkage of necessary price increases and thoughtful public policy, were only partly funded for the period of this study. We anticipate their increased impact in years ahead. The UNC Need Based Grant Program, for example, has grown from $19 million in 2002-2003, the last year of this longitudinal study, to over $47 million in 2004-2005.

Campus-based and federal efforts on need-based aid have also offered significant benefits to students during the period of this study. The convergence of sources of aid in complementary ways is important in maintaining affordability of higher education.

By examining measures of affordability and financial aid availability, the Authority is attempting to provide educators and policy makers a systematic and measurable way to assess affordability issues and to insure that higher education is accessible to all North Carolinians.

This report represents the combination of two reports on these topics originally prepared for the Authority in 2003 by Laura Greene Knapp. Ms. Knapp updated her data and analysis for 2004. Sharon Grubb served as editor in developing the combined report.

- Steven E. Brooks

[1] For measurement of net prices and cumulative indebtedness, the data requirements are that the situation of each individual aid recipient be considered. This necessitates the use of "unit record data" by the researcher. For this edition, such data was available only from the sixteen campuses of the University of North Carolina. If unit record data can subsequently be obtained from North Carolina's Community College System and its 37 Independent Colleges and Universities, it is the intent of the Authority to include those important sectors of higher education in future editions on all three measures of affordability. This report, since it is largely based on data from students in the University of North Carolina system, illustrates the impact of the need based aid in that system. It is important to note that need based grant programs, funded by the state, are available at both Community Colleges and Independent Colleges. These programs, as does the UNC Need Based Grant program, help keep higher education affordable for North Carolinians.

Executive Summary

The purpose of this study is to provide a longitudinal view of the affordability of higher education to North Carolina residents at the public universities in our state and the availability of student aid to all postsecondary students attending college in North Carolina through a wide variety of programs.

The study describes three measures of affordability. The University of North Carolina remains affordable for North Carolinians relative to national trends on all three measures.

I. Affordability Measure I: The College-Going Rate Within One Year of High School Graduation

This measure looks at the number of high school graduates who enroll in college within one year of their graduation.[2] The measure is termed the "college-going rate."

Findings include:

- North Carolina's college-going rate had risen to 64% in 2002 from 52% in 1990. It has exceeded that of the nation as a whole since 1997.
- North Carolina's college-going rate surpasses that of other southeastern states.
- North Carolina has the second highest college-going rate of the twelve most populous states.

II. Affordability Measure II: Net Price of College Relative to Family Income and Financial Aid

This measure considers the net price of attending college at the University of North Carolina, with net price considered to be the total price of college less financial assistance the student receives to defray college expenses. The measure reveals the impact of price increases -- net of changes in family income and student financial aid -- for families at all income levels.

Variables examined include:

- Total price of a year at UNC, which considers not only tuition and fees, but also mandatory expenses such as books, housing, meals, personal expenses and transportation associated with a year of college life.[3]

---

[2] College enrollment includes enrollment in any postsecondary program within the United States.

[3] Note that the price of attendance is the weighted average price for all in-state students attending all 16 campuses of the UNC System. Frequently the components of the price are referred to as the "cost" of education. We have used the term "price" to indicate that no student pays the full cost of his or her education. For example, although this study does not classify the substantial subsidy provided by the State to each UNC institution as financial aid, the State funds which go directly into the operating budgets of UNC institutions benefit all UNC students through lower priced tuition. The subsidies thus lower the "price" charged to students without lowering the actual "cost" of education.

- Family income and expected family contribution.
- Financial aid received through grants and scholarships and loans.

Findings include:

- All variables increased during the five years studied, as indicated by the change in median values in Table 1. For reference, the Consumer Price Index during the same period rose by 11%.

Table 1
Changes from 1998-1999 through 2002-2003 for North Carolina Students

	Price	Expected Family Contribution[4]	Grant Aid	Borrowing
Lowest income quintile families	+31%	+37%	+41%	+11%
Second income quintile families	+31%	+22%	+64%	+7%
Third income quintile families	+31%	+17%	+95%	+8%
Fourth income quintile families	+31%	+24%	+39%	+13%
Highest income quintile families	+31%	+30%	+51%	+12%

- Grant aid combined with increasing family ability to pay rose nearly three times more than the price of higher education during the study period.

- Remaining need after grant aid rose during the study period for all but the highest income families. However, it remained within the capacity of students in all income groups to fund via work and low-interest student loans.

Table 2

Remaining need after grant aid	1998-1999	2002-2003
Lowest income quintile families	$3,862	$4,593
Second income quintile families	$3,843	$4,235
Third income quintile families	$3,167	$3,701
Fourth income quintile families	$520	$1,005
Highest income quintile families	$0	$0

[4] This represents changes in the Expected Family Contribution, or EFC, under the Federal Methodology that determines financial aid eligibility. EFC is sometimes referred to as Ability to Pay.

- After application of both grant and loan aid, there was no remaining need among students from families within the top two income quintiles in both 1998-1999 and 2002-2003. The remaining need of students from the bottom two quintiles could have been met with earnings from work during the academic year. Work earnings were not a part of this study since data are not available for most student employment.

Table 3

Remaining need after grant and loan aid	1998-99	2002-03
Lowest income quintile families	$1,555	$2,031
Second income quintile families	$1,010	$1,202
Third income quintile families	$43	$336
Fourth income quintile families	$0	$0
Highest income quintile families	$0	$0

- The percentage of the total college price actually paid by families after grant aid declined during the study period. The net price of attendance after grants and loans declined or remained constant for students from the three lowest family income quintiles while it increased slightly for students from the two highest family income quintiles.

Table 4

Percent of price paid by families	1998-1999	2002-2003
After Grants		
Lowest income quintile families	49%	45%
Second income quintile families	67%	59%
Third income quintile families	82%	74%
Fourth income quintile families	87%	86%
Highest income quintile families	94%	93%
After Grants and Loans		
Lowest income quintile families	21%	21%
Second income quintile families	34%	31%
Third income quintile families	45%	43%
Fourth income quintile families	50%	54%
Highest income quintile families	50%	56%

III. Affordability Measure III: Cumulative Student Education Debt Upon Graduation

This measure assesses the average cumulative student education debt accrued during undergraduate education by dependent North Carolina resident borrowers attending the University of North Carolina. Three cohorts are presented for whom cumulative debt measures are available on a unit record level. Additionally, national trends and prior survey research into the indebtedness of UNC system graduates are considered.

Findings include:

- Average cumulative education debt among UNC students who borrowed was $14,370 in 2002-2003, representing an increase of almost 5 percent over cumulative debt in 2000-2001. This level of indebtedness would result in repayment at approximately $176 per month for 120 months, a standard ten year repayment period.

- Average cumulative education indebtedness nationally was estimated at $16,708 in 1999-2000 in one study and at $17,100 in 2002 in another. These national averages exceed average cumulative education debt for UNC students by 14-16%.

Benchmarks: Financial Aid to Students Attending North Carolina Institutions

As an added set of information designed to enrich the unit record data from UNC, this section of the report presents data on financial aid received by all students attending all postsecondary institutions in North Carolina. These include community colleges, independent colleges, all sixteen campuses of the University of North Carolina, and proprietary institutions. Independent colleges include senior colleges and universities, junior colleges, seminaries, and Bible colleges. Proprietary institutions include colleges and schools which operate on a for-profit basis and a few vocational/training programs which were not included in any of the other categories.

Findings include:

- Students attending North Carolina institutions received $2.2 billion in financial aid from all sources in 2003-2004. This figure has more than doubled since 1994-1995, growing from $1 billion in inflation adjusted dollars.

- The composition of aid received by students attending North Carolina institutions changed little between 1994-1995 and 2003-2004. Grants and scholarships represented 49 percent of financial aid received by students at North Carolina institutions in 1994-1995 and 50 percent of aid in 2003-2004. This exceeds the national average. According to the College Board's 2004 publication of *Trends in Student Aid*, nationally grants and scholarships comprised 44 percent of student aid in 1994-1995 and 38 percent of aid in 2003-2004.

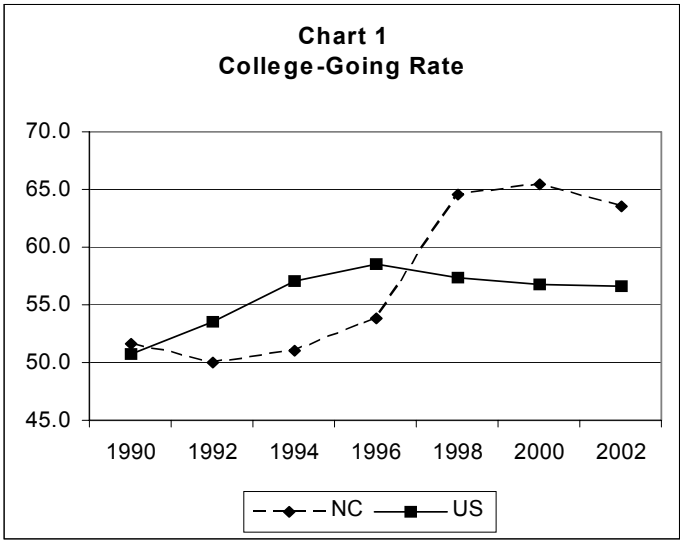
- The distribution of financial aid received by students attending different types of institutions varies mainly with the price of attendance in each sector. Students attending UNC institutions and independent colleges and universities receive a larger proportion of aid mainly because the price of attendance is higher than that of community colleges.

- North Carolina scholarship and grant programs grew approximately 78 percent between 1994-1995 and 2003-2004. North Carolina funded need-based programs more than doubled during the period due to the introduction of two new programs, the UNC Need Based Grant and Community College Grants.

AFFORDABILITY MEASURE I: The College-Going Rate Within One Year of High School Graduation

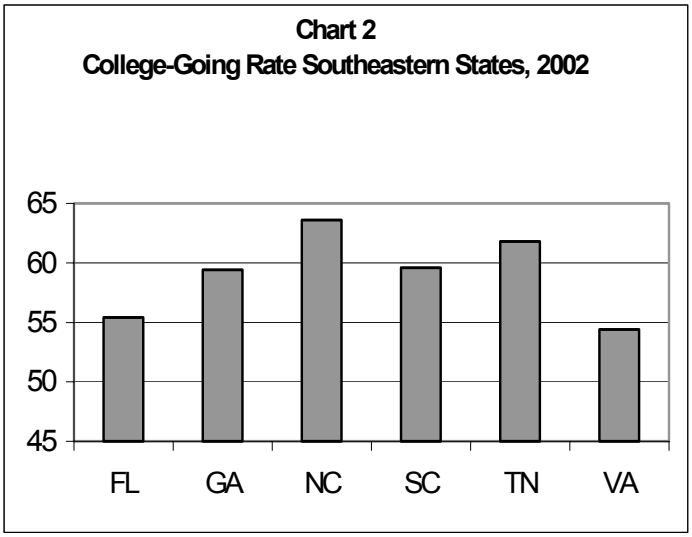
The college-going rate measures the proportion of high school graduates who enter college within one year of high school graduation. Since 1990, North Carolina's college-going rate has increased from 52 percent to 64 percent.

High school graduates include high school diploma recipients only and do not include recipients of GEDs, certificates of completion, or other alternative means of completing high school without actual graduation. College enrollment includes enrollment in any postsecondary program of study within the United States. Thus, North Carolina high school graduates who attend college in a different state the following fall are included in North Carolina's college-going rate.

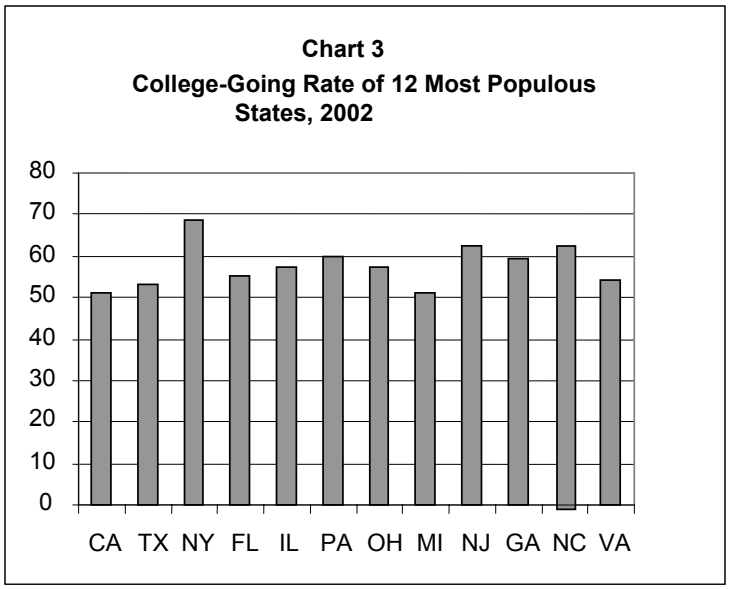


Comparative Data

- North Carolina's college-going rate has exceeded that of the nation as a whole since 1997 (Chart 1).
- North Carolina had the highest college-going rate among states in the Southeastern U.S. in 2002 (Chart 2).



- North Carolina has the second highest college-going rate of the twelve most populous states in the U.S. (Chart 3)[5].



[5]The twelve largest states were determined by the population count of the 2000 census.

AFFORDABILITY MEASURE II: Net Price of College Relative to Family Income

The net price of attending college in North Carolina is considered to be the total price of college less financial assistance the student receives to fund her or his education. In order to discuss the net price of college for families in North Carolina, there must first be an understanding of the relationship between college price, family income, expected family contribution, and financial aid.

College Price

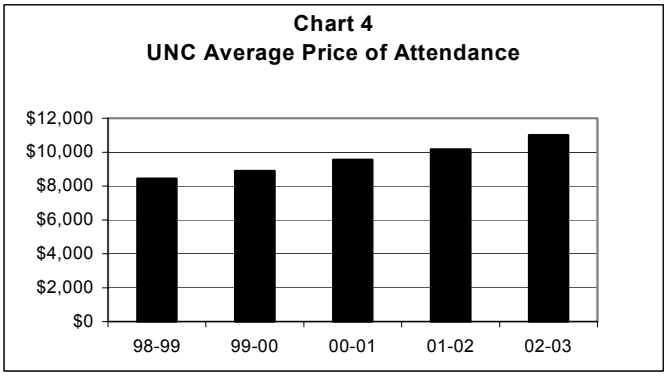
The price of a year in college is much greater than the tuition and fees charged by an institution, which cover only the price of attending classes and participating in a college's educational activities. In addition, students must purchase books and supplies for their classes and cover living expenses such as housing, food, clothes, and transportation. Some students have special circumstances which result in additional expenses, such as child care costs for their own young children. All of these factors should be considered when calculating the total price of college attendance, as presented in the example for 2002-2003 in Table 5.

Table 5
2002-2003 UNC Total Price of Attendance

Tuition	$ 1,935
Fees	1,142
Room (double occupancy)	2,774
Board (full meal plan)	2,331
Books	773
Other Expenses	2,055
Total price	$11,011

Note: Prices include weighted average price of attendance for all in-state students attending all 16 campuses of the UNC System during the 2002-03 academic year. See Appendix A Table VI for detail.

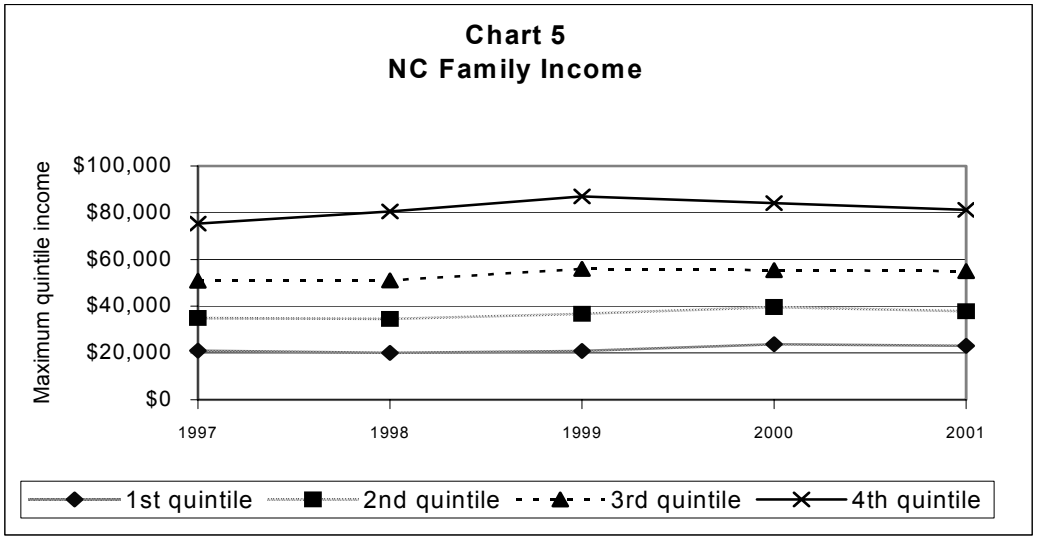
Considering the weighted average UNC price of attendance of $11,011 for the 2002-2003 academic year shown in the example, total tuition and fees of $3,077 represented only 28 percent of the total college price for that year. Between 1998-1999 and 2002-2003, the average price of attending the University of North Carolina rose 30.6%, from $8,432 in 1998-1999 to $11,011 in 2002-2003[6].



[6]The average price of attendance for the system as a whole was calculated by weighting each institution's price by the number of students at each campus. Data is from The University of North Carolina Institutional Profiles. See Appendix A Table V for details.

North Carolina Family Income

The term "family income" in this report refers to the income earned by intact families residing in North Carolina, as reported annually by the U. S. Bureau of Labor Statistics[7]. For the purposes



of this study, families were divided into five equal groups, or quintiles, according to their incomes. Family income remained relatively stable for all quintiles between 1997 and 2001, with growth rates ranging between 9.8% for the upper limit of the lowest income quintile and 7.9% for the lower limit of the highest income quintile, as depicted in Chart 4. Table 1 shows the actual ranges for each quintile for the year 2001. The ranges for all years in the study are listed in Table IV in Appendix A.

Expected Family Contribution

Need-based financial aid is based on a policy assumption that the primary responsibility for paying for college rests with the student and family, insofar as the student and family can reasonably be expected to pay. The Expected Family Contribution, or EFC, is calculated by a statutory federal formula, called the "Federal Methodology," which considers

Table 6
2001 NC Family Income

1st quintile	$0 to $23,080
2nd quintile	$23,081 to $37,800
3rd quintile	$37,801 to $55,000
4th quintile	$55,001 to $81,240
5th quintile	$81,241 and above

[7] The U.S. Bureau of Labor Statistics conducts an annual survey of households across the United States to collect information about their prior year income and earnings and various household characteristics such as household type, such as whether the household contains an intact family, and individual living alone, or several individuals living in "group quarters". Family income data in this report was reported in the Current Population Survey's March 2003 supplement.

financial information as well as family circumstances. Financial information considered by the formula includes income and selected assets of the student, the student's family if the student is financially dependent on parents, and the student's spouse if the student is married.

An individual student's eligibility for financial aid is determined by financial and demographic information he or she provides through the FAFSA or "Free Application for Federal Student Aid." Financial information includes parent income, student income and limited asset information. Demographic information includes number of family members, number of family members currently attending college, and the age of the older parent. The student submits this form to the U.S. Department of Education, where the information is analyzed according to the formula to determine the family's EFC. Because income can vary considerably from year to year and the academic year begins before current year income is earned, prior year income is used in this calculation. Thus, 2001 income would be considered to determine eligibility for financial aid for the 2002-2003 academic year.

In determining the amount of need-based financial aid for which a student might qualify, the EFC is compared to the college price. If the student's EFC is equal to or larger than the college price, they are said to have no additional financial "need." However, if the student's expected family contribution is less than the college price, then the student has demonstrated a "need" for additional financial resources in the amount of the difference, as shown in the example in Table 7.

Table 7
Relationship Between Price of Attendance, EFC, and Need:

Total Price of Attendance	$11,011
- EFC	- 5,000
Need	$6,011

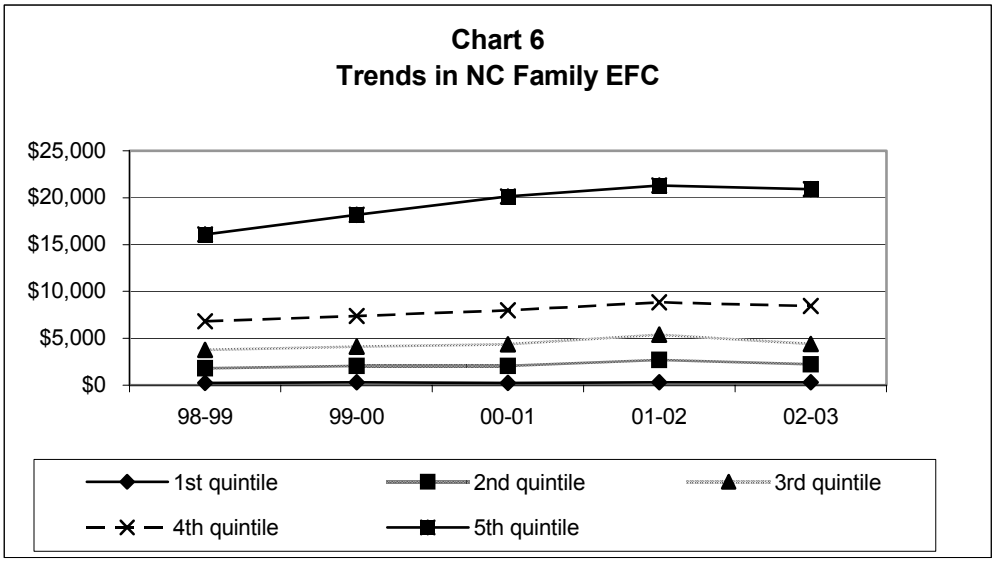
Average EFC for North Carolina residents attending the University of North Carolina. In order to consider differences in expected family contributions for families at different income levels, the average EFC was calculated for each of the five North Carolina family income quintiles, using data for North Carolina resident student aid applicants who attended UNC for

any of the five years between 1998-1999 and 2002-2003[8]. Table 8 presents the average EFC for each quintile for the academic years 1998-1999 and 2002-2003. Data for all income quintiles can be found in Table VIII in Appendix A.

Table 8
North Carolina Family Income and Corresponding EFC by Year

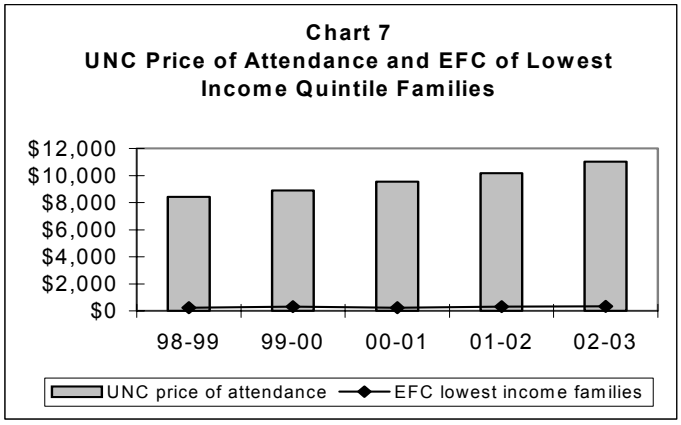
	1997 Income	1998-1999 Average EFC	2001 Income	2002-2003 Average EFC
1st quintile	$0 to $21,012	$236	$0 to $23,080	$324
2nd quintile	$21,013 to $35,002	$1,823	$23,081 to $37,800	$2,228
3rd quintile	$35,003 to $50,824	$3,780	$37,801 to $55,000	$4,412
4th quintile	$50,825 to $75,259	$6,803	$55,001 to $81,240	$8,460
5th quintile	$75,260 and above	$16,083	$81,241 and above	$20,914

Chart 6 depicts trends in average EFC over the five year period for each quintile. This chart closely resembles the North Carolina Family Income trend data presented in Chart 5, as would be expected.

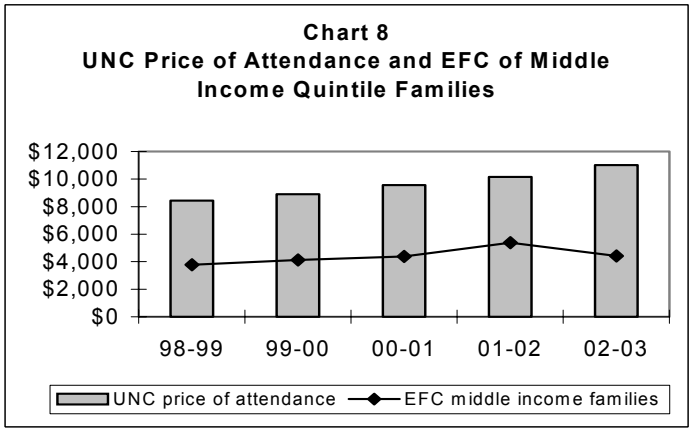


[8] Data set includes all students who applied for financial aid and either received financial aid or had need of at least $100. Additional information regarding the methodology for calculating the relationship between family income and EFC for all UNC students is contained in Appendix A.

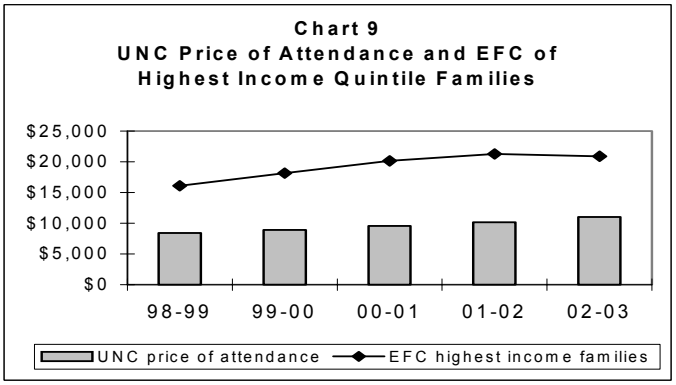
Relationship between trends in EFC and UNC total price of attendance. Among the lowest income aid recipients, average EFC remained low relative to the price of attendance during the study period. These students would be unable to attend college without financial assistance.



For aid recipients from the third quintile, or middle income families, average EFC was 40 percent of the price of attendance in 2002-2003, down from 45 percent in 1998-1999.



Students from the highest income families have average EFCs that are significantly higher than the UNC weighted average price of attendance in each year 1998-1999 through 2002-2003, regardless of the increases in UNC price.



Financial Need of North Carolina Residents Attending UNC

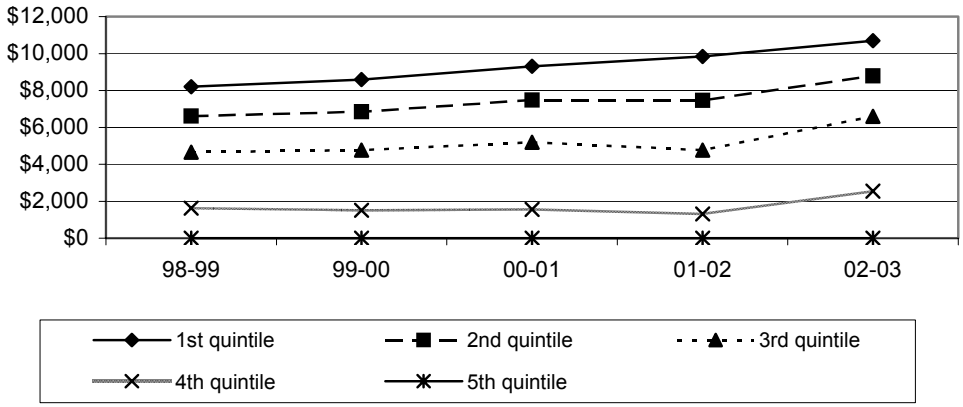
For each year in the study, average financial need for each income quintile was determined by taking the difference between the average weighted price of attendance at UNC and the average EFC for that quintile. For example, during 2002-2003 for students in the lowest income families, the difference between the total college price of $11,011 and their average EFC of $324 is $10,687, the amount of assistance those students "need" to be able to pay for college.

Table 9 indicates the average financial need for each quintile in the 1998-1999 and 2002-2003 academic years, while Chart 10 depicts overall trends during this period. It should be noted that all families have access to low interest loans in order to help pay their EFC. Few families pay for the EFC solely from current income.

Table 9
Average Financial Need for All Incomes

	1998-1999		2002-2003	
Total College Price	$8,432		$11,011	
Average Financial Need	Average EFC	Average Need	Average EFC	Average Need
1st quintile	$ 236	$8,196	$ 324	$10,687
2nd quintile	1,823	6,609	2,228	8,783
3rd quintile	3,780	4,652	4,412	6,599
4th quintile	6,803	1,629	8,460	2,551
5th quintile	16,083	0	20,914	0

Chart 10
Trends in Financial Need



Financial Assistance for North Carolina Residents Attending UNC

There are three main sources of financial aid to assist students and their families in paying for college: the federal government, the State of North Carolina, and institutional and private sources. There are also three basic types of financial aid for students: grants and scholarships, loans, and campus employment.

Grants and scholarships are aid funds that require no work or repayment on the part of the student. Such awards often require the recipient to belong to a special population, such as financially needy, academically gifted, or athletically skilled. All grant aid will be considered in this report and is attributed to its funding source.

The federal government provides grant aid mostly to needy students. The Pell Grant Program, awarded solely on the basis of financial need, is the largest federal grant program. The federal government also funds several smaller programs to special, specific groups of students. Examples of these programs include Veterans Benefits and Reserve Officers' Training Corps programs sponsored by the military. These programs usually do not require the student to demonstrate financial need.

The State of North Carolina also funds grant aid. Some grants are awarded solely on the basis of financial need, while others are awarded on the basis of participation in a specific program of study. The UNC Need Based Grant program, which first disbursed grant aid during the 1999-2000 academic year, provides grant aid to low and middle income students from North Carolina who are attending UNC[9]. Funding for the UNC Need Based Grant Program began at $1.25 million during 1999-2000 and has been increased each year to a funding level of $28.786 million for the 2003-2004 academic year. (For the 2004-2005 academic year subsequent to the period covered in this report, funding was increased to $47.365 million.)

Institutional and private grants are awarded on the basis of financial need as well as academic merit, athletic ability, or a variety of other criteria.

Aid in the form of loans must be repaid. Student loans vary widely in their terms and conditions for repayment. Most student loans do not require students to begin repayment of principal until they have left school. This report will consider only federal student loans borrowed through the Subsidized Stafford, Unsubsidized Stafford, and Perkins Loan programs. Private alternative loans, credit card indebtedness, and parental loans are not considered in this study. Parent loans, such as the Federal Parent Loans for Undergraduate Students, hold the parent, not the student, responsible for loan repayment.

Finally, campus employment aid requires the student to work for aid funds. Eligible jobs usually

[9] The UNC Need Based Grant program assumes a $4,500 level of self help before grants from the program are awarded. This means that all students are expected to fund $4,500 of their UNC education, regardless of their family income, through either summer or term-time earnings or through education borrowing. The amount of $4,500 was developed by the 1999 UNC Task Force on Financial Aid, based upon realistic expectations for work earnings and borrowing potential.

have flexible schedules to accommodate the student's class schedule. The promise of payment is made at the beginning of the semester with funds disbursed as the job is accomplished or for hours worked. Campus employment aid is not considered in this analysis for two reasons. First, it is a relatively small proportion of total financial aid awarded to UNC students. Second, many students work at jobs that are not part of their financial aid package and data was not available on earnings from those jobs. Therefore, in order to be consistent, only financial aid provided through grants and loans was examined.

However, if "unmet" need for a student exists, it must be considered relative to what a reasonable work expectation might be for that student during the calendar year. For example, a student who worked 15 hours per week during the academic year – without working at all during the summer or during semester breaks – could earn approximately $2,400 at the minimum wage, which was $5.15 per hour in 2002-2003.

Grants to North Carolina Residents Attending UNC

Grant aid from all sources awarded to North Carolina residents attending UNC increased in each of the five years of the study. As expected, students from families in the lowest income quintile received the highest grant awards. These students had the lowest EFC and thus the highest levels of need.

Table 10
Total Grant Aid from All Sources

	1998-1999	2002-2003	Dollar Change	Percent Change
1st quintile	$4,334	$6,094	$1,760	41%
2nd quintile	2,766	4,548	1,782	64%
3rd quintile	1,485	2,898	1,413	95%
4th quintile	1,109	1,546	437	39%
5th quintile	476	717	241	51%

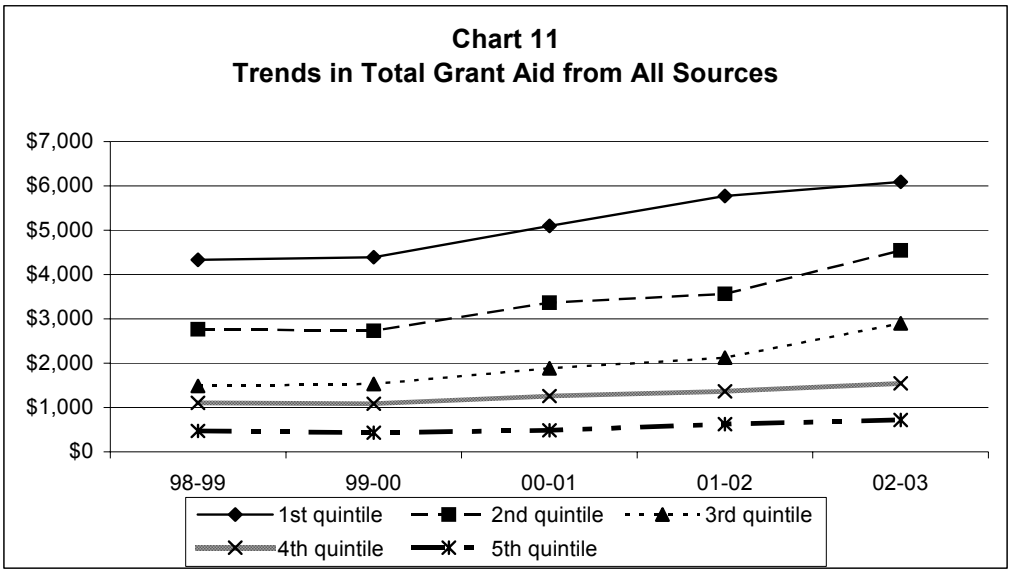
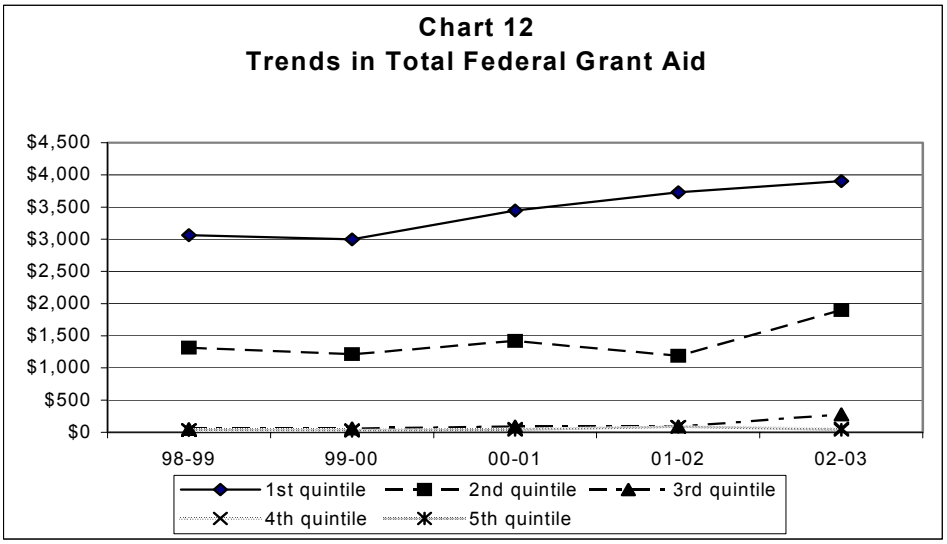


Table IX in Appendix A details distribution of grant aid by source for each income quintile over the study period.

Federal grant aid. The federal government is the largest source of grant aid, with over half of the grant aid awarded to the lowest income aid recipients in each year coming from the Pell Grant program. Since the major federal grant programs are targeted toward the lowest income students, the amounts of grant aid to the top three income quintiles are quite low.

Table 11
Total Federal Grant Aid

	1998-1999	2002-2003	Dollar Change	Percent Change
1st quintile	$3,062	$3,904	842	27%
2nd quintile	1,314	1,900	586	45%
3rd quintile	54	278	224	415%
4th quintile	35	62	27	77%
5th quintile	33	39	6	18%

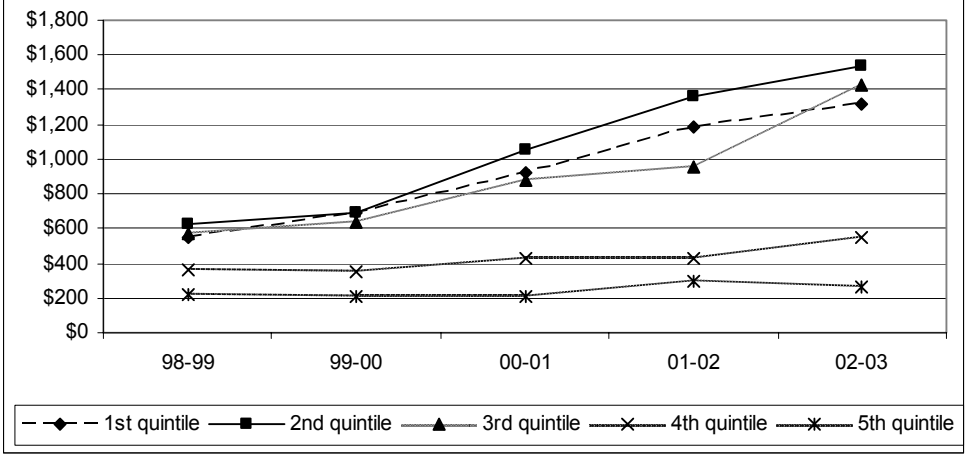


North Carolina grant aid. Average North Carolina grant aid (primarily funded through the UNC Need Based Grant program) more than doubled for students from families in the first, second, and third income quintiles.

Table 12
Total North Carolina Grant Aid

	1998-1999	2002-2003	Dollar Change	Percent Change
1st quintile	$546	$1,313	$767	140%
2nd quintile	627	1,539	912	145%
3rd quintile	575	1,432	857	149%
4th quintile	367	550	183	50%
5th quintile	217	264	47	22%

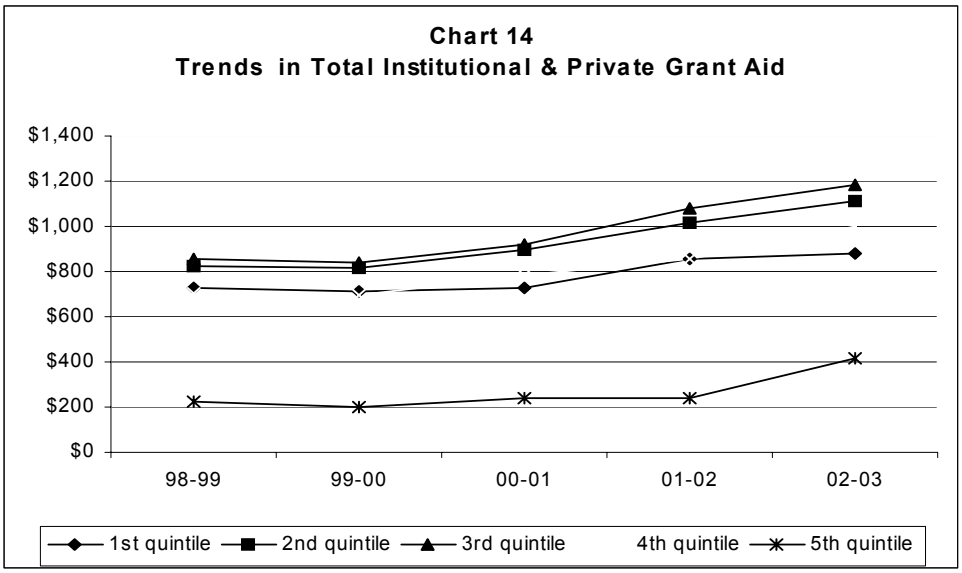
Chart 13
Trends in Total North Carolina Grant Aid



Institutional and private grants. Institutional and private grants to students from all income quintiles also increased during the study period.

Table 13
Total Institutional and Private Grant Aid

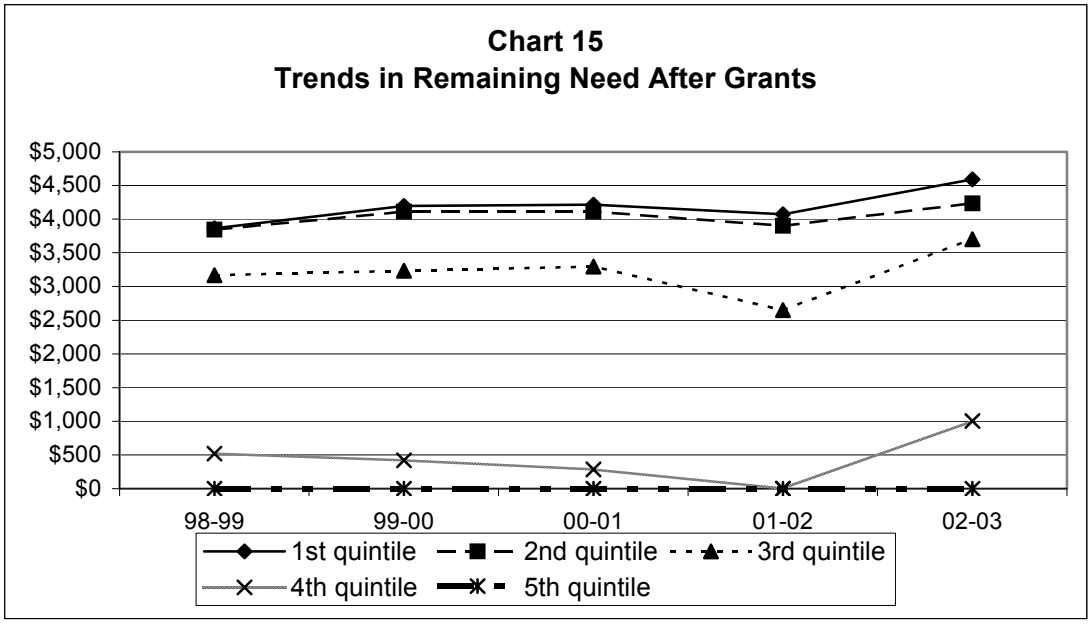
	1998-1999	2002-2003	Dollar Change	Percent Change
1st quintile	$726	$877	$151	21%
2nd quintile	825	1,109	284	34%
3rd quintile	856	1,188	332	39%
4th quintile	707	1,001	294	42%
5th quintile	226	414	188	83%



Remaining need after grant aid. Once EFC and grant aid are subtracted from total price of attendance, students and their families are responsible for paying the amount of financial need remaining through loans, savings, or current earnings. As can be seen in Chart 15, 2002-2003 saw an increase in remaining need after grants after several years of little change. The increase in funding for the UNC Need Based Grant Program from $28 million in 2003-2004 to over $47 million in 2004-2005 should help to limit or reverse this upward trend in future years.

Table 14
Remaining Need After Grants

	1998-1999	2002-2003	Dollar Change	Percent Change
1st quintile	$3,862	$4,593	$731	19%
2nd quintile	3,843	4,235	392	10%
3rd quintile	3,167	3,701	534	17%
4th quintile	520	1,005	485	93%
5th quintile	0	0		



Student Loans

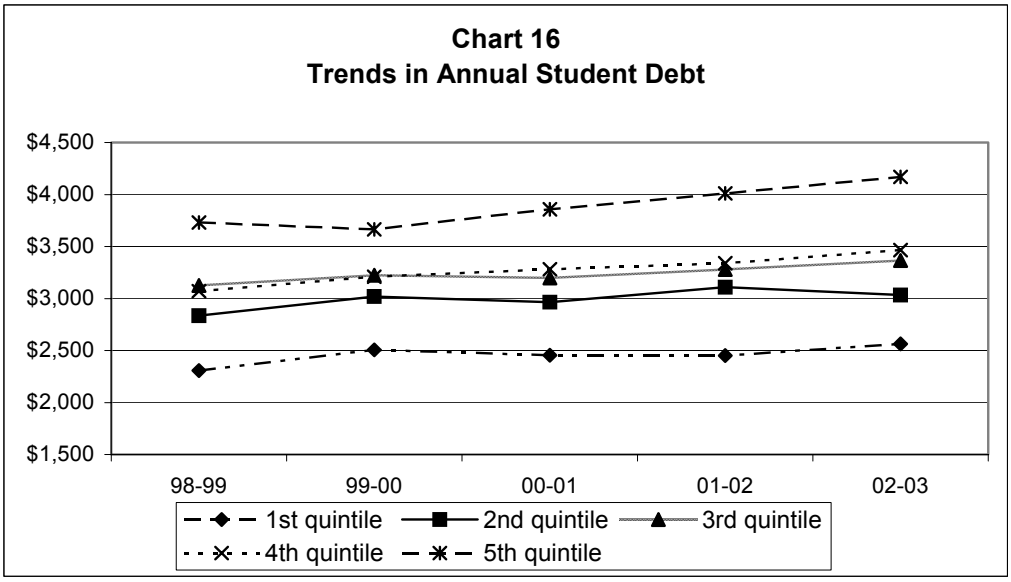
Loans are a significant type of student aid that supplement grants for some students and that provide the sole means of financial assistance for others. Depending on the type of loan, students and their families can use education debt to cover their expected family contribution or to meet financial need. Some student loans, such as the Subsidized and Unsubsidized Stafford Loans and Federal Perkins Loans, come with a low interest rate and do not require repayment until the student has completed her or his education. The interest on the Unsubsidized Stafford Loan accrues during the in-school period, while for the Subsidized Stafford Loan and the Federal Perkins Loan no interest accrues until after the borrower is no longer enrolled. Unsubsidized Stafford Loans are available to all students, regardless of whether they have need. Thus, students in each income group have access to loan programs. Borrowing through these programs, especially by students from middle and upper income families, can be a cost-effective means of paying their EFC.

Because aid recipients from the lowest income quartile received the most grant assistance, they typically needed to borrow less money each year, as shown in Table 15.

Table 15
Average Annual Student Debt

	1998-1999	2002-2003	Dollar Change	Percent Change
1st quintile	$2,307	$2,562	$255	11%
2nd quintile	2,833	3,033	200	7%
3rd quintile	3,124	3,365	241	8%
4th quintile	3,070	3,465	395	13%
5th quintile	3,731	4,170	439	12%

These annual loan amounts appear manageable, even for those students from the highest income group with the highest loan amounts. As a point of reference, the Consumer Price Index during the same period rose by 11%.

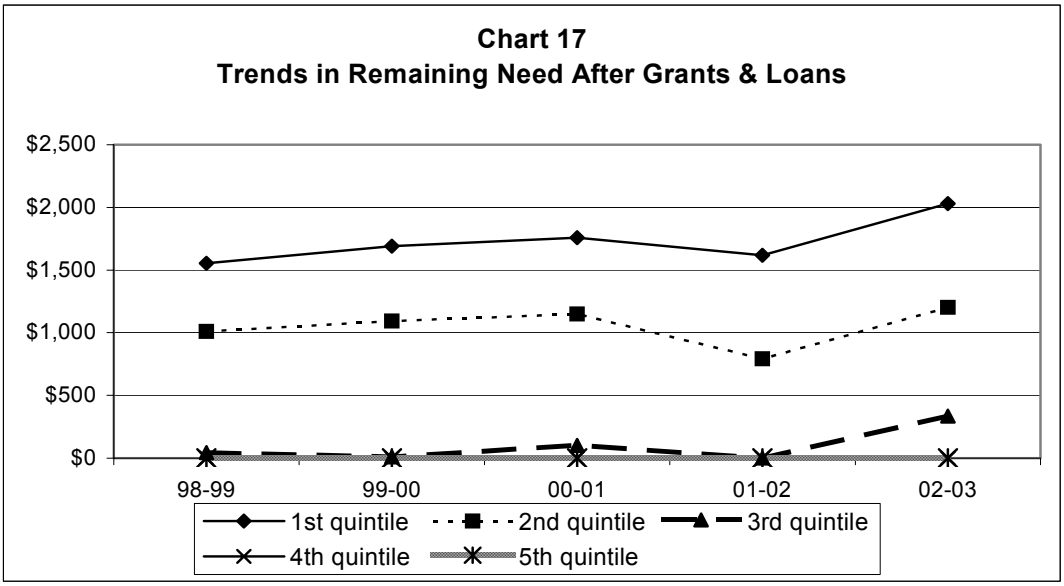


Remaining need after receipt of grants and loans. The three lowest income quintiles were the only groups with need remaining after grant and loan assistance was considered. The recent upward trend seen in remaining need after grants continues to be reflected in Chart 17 showing remaining need after grants and loans. Increases in the UNC Need Based Grant Program are anticipated to help reduce this.

It should be remembered that this report does not include any work aid in its analysis. Thus, if some of these aid recipients had on- or off-campus employment earnings, they may have had no remaining need.

Table 16
Remaining Need After Grants and Loans

	1998-1999	2002-2003	Dollar Change	Percent Change
1st quintile	$1,555	$2,031	$476	31%
2nd quintile	1,010	1,202	192	19%
3rd quintile	43	336	293	681%
4th quintile	n/a	n/a		
5th quintile	n/a	n/a		



UNC Net Price of Attendance

As previously discussed, the total price of college is not the actual amount paid by many students. The amount that a student actually pays in order to attend is the total price minus financial aid. The total price of college is considered the gross price and that amount minus financial assistance is the net price of college.

The net price of college can be considered two ways. The first, called in this report "total price net of grants" considers only grant and scholarship assistance, or aid that does not have to be repaid. By this definition, the net price of UNC equals the total price of attendance minus any grant assistance. This net price represents what the student must pay either in the present from savings or earnings, or in the future through education loan repayment.

The second way, called here "total price net of grants and loans" considers both grant and loan aid. Although student loans must be repaid, repayment generally is deferred while the student attends college. This second type of net price measures the amount that the student must pay in the present and does not consider deferred student loan repayments.

Detailed data for calculating price using both methods are presented in Appendix A Table X.

Table 17
UNC Net Price of Attendance

Total Price
- Financial Assistance
Net Price

Total Price
- Grants and Scholarships
Total Price Net of Grants

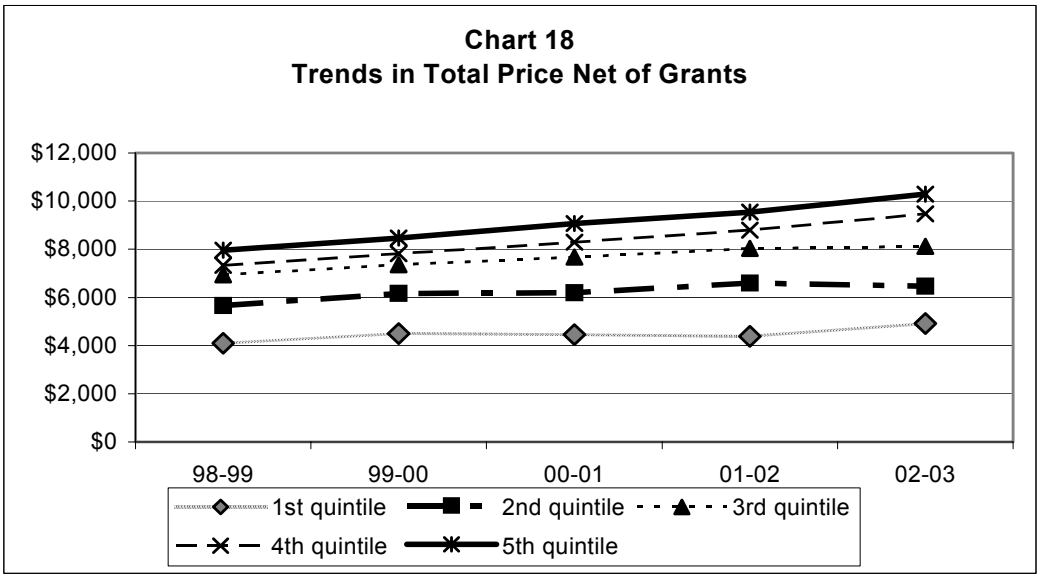
Total Price
- Grants, Scholarships, and Loans
Total Price Net of Grants and Loans

Net price after grant aid. Considering total price net of grants, students from the lowest income families pay significantly less on average, for a year at UNC than students from middle or upper income families, as is reflected in the following table.

Table 18
Total Price Net of Grants

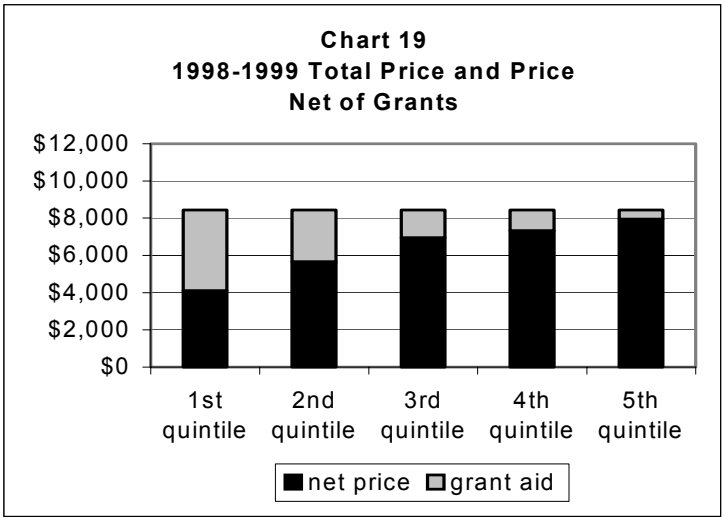
	1998-1999	2002-2003	Dollar Change	Percent Change
Total Price				
All students	$8,432	$11,011	$2,579	31%
Net Price				
1st quintile	$4,098	$4,917	819	20%
2nd quintile	5,666	6,463	797	14%
3rd quintile	6,947	8,113	1,166	17%
4th quintile	7,323	9,465	2,142	29%
5th quintile	7,956	10,294	2,338	29%

In 1998-1999, the net price after grant aid for the lowest income students was below the $4,500 self help requirement of the UNC Need Based Grant program and for 2002-2003 it was only slightly above that amount. Students from the lowest income families contribute approximately the expected amount toward their education through either earnings or loans, based on the UNC

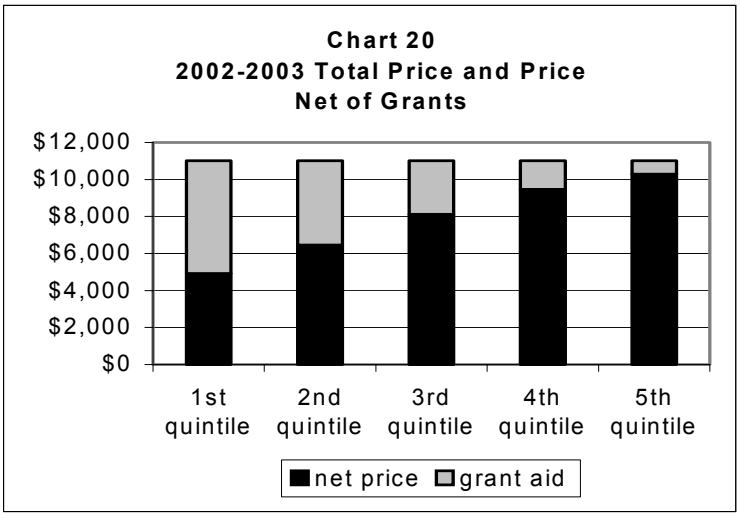


Need Based Grant methodology.

Considered differently in Chart 19, in 1998-1999 aid recipients from the lowest income families paid on average 49 percent of the total price of attendance; aid recipients from the third quintile 82 percent; and aid recipients from the upper income quintile 94 percent of UNC's total price of attendance.



Five years later, the proportion of UNC total price paid by aid recipients from families at the lowest and middle income quintiles was even less, as can be seen in Chart 20. During the 2002-2003 academic year, lowest income families paid 45 percent of total price of attendance on average and aid recipients from third quintile income families paid 74 percent. The proportion held steady at 94 percent for families at the upper income quintile.



Net price after grant and loan aid. Considering loan aid in addition to grants, aid recipients from the lowest income families again paid significantly less on average for a year at UNC than aid recipients from middle or upper income families, as can be seen in Table 19. During the study period, the actual dollar amount of the increase in the total price of attendance at UNC exceeded the price net of grants and loans paid by aid recipients in all family income categories.

Table 19
Total Price Net of Grants and Loans

	1998-1999	2002-2003	Dollar Change	Percent Change
Total Price				
All students	$8,432	$11,011	$2,579	31%
Net Price				
1st quintile	$1,791	$2,355	$564	31%
2nd quintile	2,833	3,430	597	21%
3rd quintile	3,823	4,748	925	24%
4th quintile	4,253	6,000	1,747	41%
5th quintile	4,225	6,124	1,899	45%

Chart 21
Trends in Total Price Net of Grants and Loans

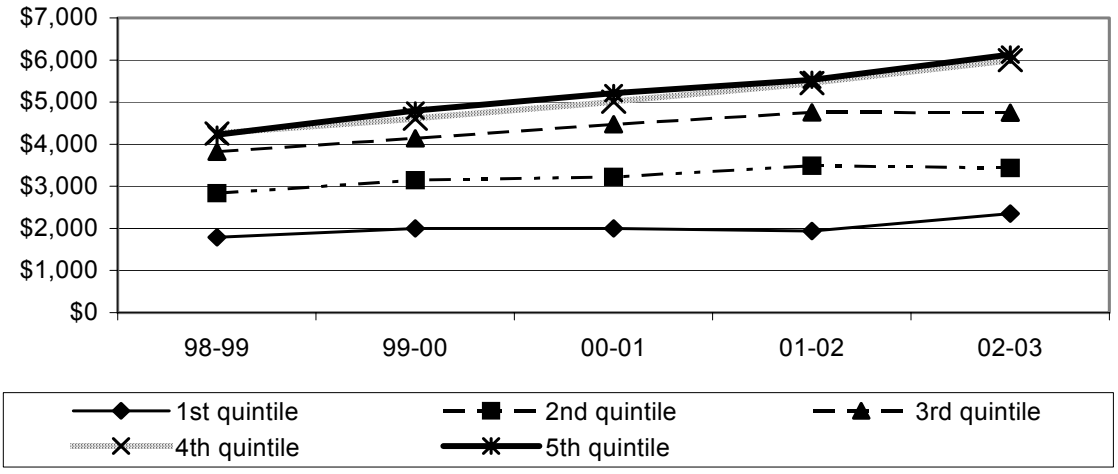
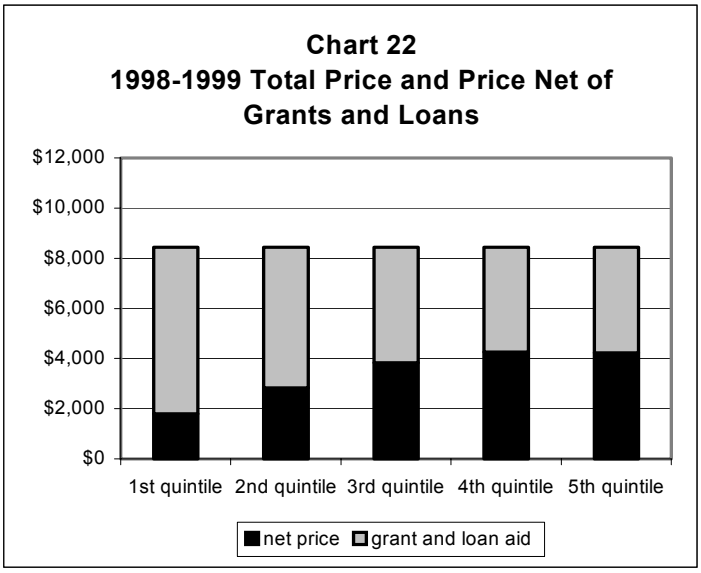
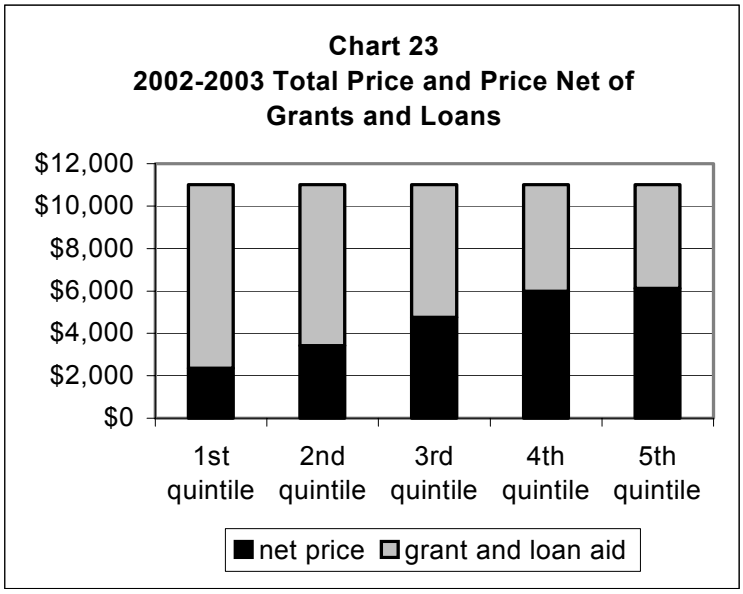


Chart 22 depicts price net of grants and loans as a proportion of total price of attendance in 1998-1999. Aid recipients from families at the lowest income quintile actually paid 21 percent of the total price of attendance on average, while those from families in the third, or middle, quintile paid 45 percent, and those from families at the upper income quintile paid 50 percent.



The data from the 2002-2003 academic year, presented in Chart 23, reveal that the percentage paid of total price of attendance at UNC had declined slightly to 18 percent on average for aid recipients from families at the lowest income level and to 43 percent for those from middle income families. It had risen during the same period for recipients from families at the upper income quintile to an average of 56 percent of UNC's total price of attendance.



AFFORDABILITY MEASURE III: Cumulative Student Education Debt Upon Graduation

In order to accurately assess the long term effects of borrowing on students, the total amount of debt incurred to pay for college, or cumulative education debt, should be addressed.

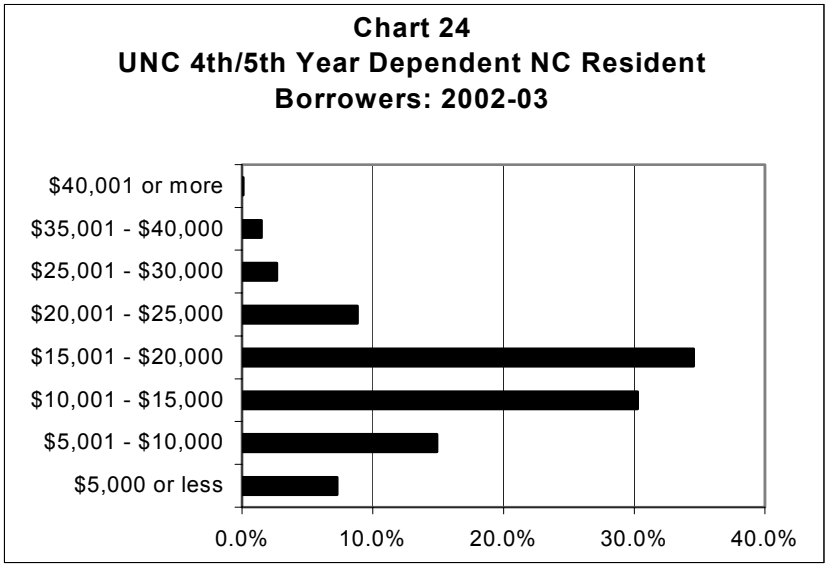
For this report, average cumulative education debt from federal student loan programs was calculated for North Carolina resident, dependent borrowers who were enrolled full-time at UNC for at least four full academic years[10]. For example, cumulative debt for students who were in their fourth or fifth year of enrollment in 2002-2003 was calculated based on loans borrowed during either or all of the five preceding academic years, 1998-1999 through 2002-2003 and is presented in Table 20.

Table 20

Cumulative Education Debt

Year	Average	Median
2000-2001	$13,701	$14,251
2001-2002	$14,031	$14,500
2002-2003	$14,370	$14,668

Chart 24 shows the percentage of students with varying levels of cumulative debt for the year 2002-2003.



[10] Students were considered if they were enrolled for four full-years. Students who were enrolled for partial years, for example only the fall semester, were excluded.

Average cumulative education debt of North Carolina resident borrowers is less than the national average as calculated by two recent national studies. The National Association of Student Financial Aid Administrators lists the 1999-2000 average cumulative federal student loan debt for undergraduates attending four-year public institutions at $16,708, 22 percent higher than that of dependent North Carolina residents in their 4th or 5th year at UNC during 2000-2001 and 16 percent higher than dependent North Carolina residents in their 4th or 5th year at UNC during 2002-2003.

Also, a recent survey by the Nellie Mae Foundation examined the impact of education debt. The survey asked questions of a sample of borrowers who were repaying their education loans during 2002[11]. Among survey respondents who attended public four-year colleges, average debt was $17,100, 19 percent higher than the dependent North Carolina residents in their 4th or 5th year at UNC during 2002-2003.

[11] Borrowers had begun repayment at least six months prior to the survey but not more than four years prior (1998-2001).

BENCHMARKS: Financial Aid to Students Attending North Carolina Institutions

Tables in this section include data on financial aid received by all students attending all postsecondary institutions in North Carolina. These include community colleges, independent colleges, all sixteen campuses of the University of North Carolina, and proprietary institutions. Independent colleges include senior colleges and universities, junior colleges, seminaries, and Bible colleges. Proprietary institutions include colleges and schools which operate on a for-profit basis and a few vocational/training programs which were not included in any of the other categories.

Financial aid program data is generally available in summary form by institution rather than by "unit record data" per student as presented previously in this report's discussions of Affordability Measures II and III. The U.S. Department of Education provides data on funding for each major federal financial aid program. However, they do not provide information on the number of North Carolina residents who receive aid from these programs. Thus, data is available on all students attending postsecondary institutions in North Carolina, but not for all North Carolina residents enrolled in postsecondary programs of study.

FEDERAL PROGRAMS

Pell Grant Program
The Federal Pell Grant program is the foundation of federal financial assistance programs. The federal government directly awards Pell Grants to the lowest income or "neediest" undergraduate students. For the 2003-04 academic year, the maximum Pell Grant was $4,050.

Campus-Based Programs
There are three federal programs that distribute campus-based funds to postsecondary institutions, which in turn distribute the funds to their students according to federal eligibility guidelines. Institutions are required to provide a 25 percent match of federal dollars ($75 federal:$25 campus). Institutions may contribute more than the required portion if they award all dollars according to federal guidelines. Both federal dollars and the institutional match are reported here.

- **Federal Supplemental Educational Opportunity Grants (FSEOG).** FSEOGs are awarded on the basis of financial need, with preference given to Pell recipients.

- **Federal Work Study Program (FWS).** This program requires students to work, usually on-campus, for their aid funds. The promise of payment is made at the beginning of the semester with funds disbursed after hours are worked.

- **Federal Perkins Loan Program (Perkins).** This loan program has a fixed interest rate of 5 percent. Loan eligibility is based entirely on financial need. Current annual loan limits allow undergraduates to borrow a maximum of $4,000 per year and graduates to borrow a maximum of $6,000 per year.

Federally Funded State Student Incentive Grants
Funds for these grants come from a federal matching program that awards dollars to needy undergraduate students. The federally funded portion of the program is reported here and the North Carolina funded portion is included in the NC Scholarship and Grant category.

Federal Family Education Loan Program (FFELP)
Low-interest loans are made by banks and guaranteed by the federal government. FFELP includes three individual programs: Subsidized Stafford Loans, Unsubsidized Stafford Loans, and Parent Loans to Undergraduate Students (PLUS).

Most FFELP loans made in North Carolina are offered through the North Carolina Insured Student Loan Program, which offers low interest loans to students and parents. Loan capital is provided by the North Carolina State Education Assistance Authority and other investors.

- **Federal Stafford Loans.** There are two types of Stafford loans, Subsidized and Unsubsidized. Student eligibility for both programs is determined by federal criteria. Subsidized Stafford loans require that the student demonstrate financial need as defined by federal eligibility requirements. Subsidized Stafford borrowers receive a federal interest subsidy while they are enrolled and begin loan repayment six months after leaving school. Unsubsidized Stafford borrowers do not receive a federal interest subsidy. Thus, although repayment of principal is not required to begin until six months after leaving school, the Unsubsidized Stafford borrower must either begin interest repayment immediately or capitalize interest and begin repayment of loan principal plus accrued interest six months after leaving school. (Supplementary Loans for Students (SLS) was replaced by the Unsubsidized Stafford Program, which operates under many of the same principles and rules. SLS received no further funding after 1994.)

  Students may borrow Stafford loans totaling up to $2,625 during their first year of undergraduate study, up to $3,500 during their second year, and up to $5,500 for each remaining year of undergraduate study. Undergraduate students who are not financially dependent on their parents may borrow additional Unsubsidized Stafford loans of $4,000 per year for the first two years and $5,000 per year for the third year and beyond of undergraduate studies. Graduate students may borrow up to $18,500 for each year of graduate study but only $8,500 of this amount may be in Subsidized Stafford loans. Total borrowing through this program during undergraduate study is limited to $23,000 for students who are financially dependent on their parents and $46,000 for students who are not financially dependent on their parents. Graduate students may borrow up to $138,500 for their graduate and undergraduate study combined.

- **Parent Loans to Undergraduate Students (PLUS).** PLUS loans are made to parents of students enrolled in undergraduate programs of study. These loans do not require proof of financial need, but parent borrowers may not have an adverse credit history and must show ability to meet monthly payments. Since the 1992 Reauthorization of the Higher Education Act, parents may borrow an amount up to the cost of their dependent child's education expenses.

Decreases in loans made through FFELP after 1994 resulted from the Federal Direct Student Loan Program replacing FFELP at some North Carolina institutions; that trend has now been reversed.

Ford Federal Direct Student Loan Program (FDSLP)

The Student Loan Reform Act of 1993 authorized this federal loan program which competes with the FFELP. It is a direct lending program rather than a guaranteed loan program. Under FDSLP, the U.S. Treasury Department issues debt to provide loan capital and participating colleges act as agents for the Department of Education in making education loans to students. The FDSLP also includes Subsidized Stafford, Unsubsidized Stafford, and Parent Loans to Undergraduate Students.

Table 21. Financial Aid in Dollars[12, 13]

Current dollars in thousands	'94-95	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	Estimated '03-04
FEDERAL PROGRAMS										
Pell Grants	$113,788	$113,463	$119,547	$138,235	$164,972	$169,189	$190,750	$257,064	$319,844	$359,880
Campus-Based Programs										
FSEOG	16,486	17,161	16,630	17,755	19,283	22,123	23,118	21,154	21,503	20,254
FWS	14,621	15,215	15,175	17,812	18,871	18,718	19,443	21,253	21,469	30,129
Perkins Loans	23,148	24,223	22,513	24,061	24,656	24,776	25,855	28,925	38,645	51,633
State Student Incentive Grant	1,533	1,375	1,375	1,108	555	555	1,239	1,459	1,459	1,623
Family Education Loan programs										
Subsidized Stafford	240,496	186,769	210,539	225,893	214,667	219,623	250,840	270,036	305,730	337,616
Unsubsidized Stafford	112,327	101,321	128,320	150,575	157,951	179,146	215,819	253,720	289,305	317,551
SLS	265	0	0	0	0	0	0	0	0	0
PLUS	37,713	36,052	43,521	57,921	60,692	62,736	79,340	93,249	109,970	152,217
Ford Direct Loan Programs										
Subsidized Stafford	1,953	83,358	89,164	95,926	95,538	98,184	81,823	83,281	93,096	101,948
Unsubsidized Stafford	1,021	37,260	46,164	56,080	56,251	64,223	58,324	63,115	67,002	69,473
PLUS	775	12,259	13,879	16,202	19,461	26,813	25,045	27,071	35,099	42,976
Total Federal Aid	564,127	628,456	706,827	801,568	832,897	886,087	971,597	1,120,326	1,303,121	1,485,300
NC SCHOLARSHIP & GRANT PROGRAMS										
Need-Based Programs	33,156	33,506	37,615	41,662	46,715	55,763	64,119	77,343	87,075	106,380
Non-Need-Based Programs	62,952	68,316	73,836	81,780	92,735	100,310	107,140	109,796	99,969	105,389
Total State Scholarships & Grants	96,108	101,822	111,452	123,442	139,450	156,073	171,259	187,139	187,044	211,769
INSTITUTIONAL & PRIVATE GRANTS										
Total Inst. & Pvt. School. & Grants	187,046	202,528	222,932	253,772	256,890	269,286	306,697	351,305	422,948	509,202
TOTAL FINANCIAL AID	$847,281	$932,806	$1,041,2	$1,178,78	$1,229,237	$1,311,446	$1,449,553	$1,658,771	$1,913,113	$2,206,271

Note that tables use the following abbreviations:

FSEOG Federal Supplemental Educational Opportunity Grant
FWS Federal Work Study
SLS Supplemental Loans for Students
PLUS Parent Loans to Undergraduate Students

Table 22. Financial Aid in Inflation Adjusted Dollars

Inflation adjusted dollars in thousands	'94-95	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	Estimated '03-04
FEDERAL PROGRAMS										
Pell Grants	$140,783	$136,664	$139,998	$159,046	$186,579	$185,979	$202,734	$268,423	$326,870	$359,880
Campus-Based Programs										
FSEOG	20,398	20,670	19,475	20,428	21,808	24,318	24,570	22,089	21,975	20,254
FWS	18,090	18,326	17,770	20,494	21,342	20,576	20,665	22,192	21,940	30,129
Perkins Loans	28,640	29,176	26,364	27,684	27,885	27,235	27,480	30,203	39,494	51,633
State Student Incentive Grant	1,897	1,657	1,611	1,274	627	610	1,317	1,523	1,491	1,623
Family Education Loan programs										
Subsidized Stafford	297,552	224,959	246,554	259,901	242,782	241,418	266,598	281,968	312,446	345,032
Unsubsidized Stafford	138,975	122,039	150,271	173,243	178,637	196,924	229,378	264,931	295,660	324,526
SLS	328	0	0	0	0	0	0	0	0	0
PLUS	46,660	43,424	50,966	66,641	68,641	68,961	84,325	97,370	112,386	155,561
Ford Direct Loan Programs										
Subsidized Stafford	2,416	100,403	104,417	110,367	108,051	107,927	86,963	86,961	95,141	104,188
Unsubsidized Stafford	1,263	44,878	54,061	64,523	63,619	70,597	61,988	65,904	68,474	70,999
PLUS	959	14,765	16,253	18,641	22,010	29,474	26,618	28,267	35,870	43,920
Total Federal Aid	697,962	756,961	827,739	922,243	941,981	974,020	1,032,636	1,169,831	1,331,746	1,517,928
NC SCHOLARSHIP & GRANT										
Need-Based Programs	41,022	40,357	44,050	47,934	52,833	61,297	68,147	80,761	88,988	108,716
Non-Need-Based Programs	77,887	82,285	86,467	94,092	104,881	110,264	113,871	114,648	102,165	107,704
Total State Schol. & Grants	118,909	122,642	130,517	142,026	157,714	171,561	182,018	195,408	191,153	216,421
INSTITUTIONAL & PRIVATE GRANTS										
Total Inst. & Pvt. Schol. & Grants	231,421	243,940	261,068	291,977	290,535	296,009	325,965	366,829	432,239	520,387
TOTAL FINANCIAL AID	$1,048,292	$1,123,543	$1,219,324	$1,356,246	$1,390,230	$1,441,590	$1,540,620	$1,732,068	$1,955,139	$2,254,736

[12] Because this publication was completed before many financial aid programs had completed their accounting processes for the year, all 2003-04 numbers should be considered estimates.

[13] All tables are presented in two ways, in current dollars and inflation adjusted dollars. The national Current Price Index (CPI_U) was used to adjust for inflation and the 2003-2004 academic year was used as the base year for inflation adjusted dollar conversions.

NORTH CAROLINA PROGRAMS

North Carolina Programs include all programs whose funding is appropriated by the North Carolina General Assembly. North Carolina provided approximately $212 million in appropriations to 29 student scholarship and grant programs during 2003-2004. Approximately half of State-funded scholarship dollars in North Carolina are distributed through programs that included financial need as a requirement for award. They are listed as need-based programs.

Non-need-based programs award financial aid according to requirements other than financial need. Examples of common requirements for such programs include enrollment in a specific program of study (NC Teaching Fellows) or membership in a branch of the armed services (NC Veterans Scholarships). The largest state funded program is the NC Legislative Tuition Grant program that provides a set amount of aid to all North Carolina residents attending independent colleges in North Carolina.

Table 23. North Carolina Programs in Current Dollars

in thousands	'94-95	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	'03-04
NEED-BASED PROGRAMS										
American Indian Scholarships	203	0	0	0	0	0	0	0	0	0
Appropriated Grants	7,614	8,118	9,852	9,812	9,903	10,062	9,958	10,732	14,618	14,875
Board of Governors Dental Scholarships	321	355	379	380	426	397	442	471	488	541
Board of Governors Medical Scholarships	775	896	1,052	1,094	1,054	1,209	1,192	1,322	1,501	1,637
Community Colg & Technical Institute Schol.	414	304	328	341	347	0	0	0	0	0
Community College Grants	0	0	0	0	0	2,747	4,304	5,833	6,578	8,282
ECSU Incentive Scholars Program	1,489	1,322	1,347	1,377	1,408	1,471	1,384	1,242	1,322	0
Freshman Scholars Program	0	0	0	0	0	0	67	202	279	0
Incentive Scholarships (UNC PBI & PSU)	1,669	1,751	2,045	1,622	1,531	1,565	1,505	1,420	1,385	0
Incentive Schol.& Grants for Native	224	430	481	502	524	588	699	727	711	0
Legislative College Opportunity	0	0	0	0	0	0	151	96	122	0
Minority Presence Scholarships	1,619	1,655	1,631	1,658	1,679	1,464	1,539	1,602	1,644	0
NC Student Incentive Grants	1,533	1,355	1,563	1,437	1,543	1,549	1,563	1,600	1,574	3,741
Health, Science & Mathematics Schol./Loans	2,540	2,634	2,765	2,831	2,927	2,971	2,918	2,992	2,915	3,239
Nurse Education Scholarship Loans	980	946	925	966	1,016	1,004	984	1,121	839	1,062
State Contractual Scholarships	13,774	13,740	15,248	19,642	24,356	29,486	31,272	32,311	32,970	33,793
UNC Need Based Grant	0	0	0	0	0	1,251	6,140	14,857	19,147	28,786
Teacher Assistant Scholarship Fund	0	0	0	0	0	0	0	816	984	957
Vocational Rehabilitation Awards	0	0	0	0	0	0	0	0	9,615	6,757
UNC Campus Scholarships	0	0	0	0	0	0	0	0	0	5,649
Total Need-Based	33,156	33,506	37,615	41,662	46,715	55,763	64,119	77,343	87,075	112,029
NON-NEED-BASED PROGRAMS										
NC Legislative Tuition Grants	25,654	27,309	28,813	33,150	37,688	40,963	43,911	45,499	45,272	47,980
NC National Guard Education Awards	0	0	0	0	0	0	0	0	0	0
NC Teaching Fellows	7,361	7,352	7,282	7,283	9,378	9,320	9,583	9,597	9,738	9,675
NC Veterans Scholarships	3,585	3,808	4,048	4,129	4,183	4,024	4,209	4,458	4,930	1,412
Nurse Scholars Program	3,165	3,157	3,193	3,220	3,068	3,217	4,164	3,701	3,526	3,916
Principal Fellows Program	770	2,100	2,910	3,200	3,240	3,580	3,660	3,500	3,600	3,570
Prospective Teacher Scholarship/Loans	1,397	1,729	1,507	1,819	1,844	1,803	1,424	1,246	1,654	1,390
Social Workers' Scholarship/Loan Fund	121	91	0	0	0	0	0	0	0	0
Tuition Remission	15,165	15,955	18,492	19,999	22,666	24,538	26,726	30,210	31,249	36,009
Vocational Rehabilitation Awards	5,734	6,815	7,591	8,979	10,668	12,865	13,463	11,585	0	0
Total Non-Need-Based	62,952	68,316	73,836	81,780	92,735	100,310	107,140	109,796	99,969	105,389
Total NC State Funded Financial Aid Pgms	96,108	101,822	111,452	123,442	139,450	156,073	171,259	187,139	187,044	217,418

Note that ECSU Incentive Scholarship Dollars were reported as Incentive Scholarships during the 1993-94 program year. Beginning in 1994-95, ECSU Incentive Scholarships are reported separately

Table 24. North Carolina Programs in Inflation Adjusted Dollars

in thousands	'94-95	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	'03-04
NEED-BASED PROGRAMS										
American Indian Scholarships	251	0	0	0	0	0	0	0	0	0
Appropriated Grants	9,421	9,778	11,537	11,289	11,199	11,060	10,584	11,206	14,939	14,875
Board of Governors Dental Scholarships	398	427	444	437	482	436	470	492	499	541
Board of Governors Medical Scholarships	959	1,079	1,232	1,259	1,193	1,329	1,267	1,380	1,534	1,637
Community Colg & Technical Institute Schol.	512	367	385	393	393	0	0	0	0	0
Community College Grants	0	0	0	0	0	3,020	4,574	6,090	6,722	8,282
ECSU Incentive Scholars Program	1,843	1,592	1,578	1,585	1,592	1,617	1,471	1,297	1,351	0
Freshman Scholars Program	0	0	0	0	0	0	71	211	285	0
Incentive Scholarships (UNC PBI & PSU)	2,065	2,109	2,395	1,866	1,732	1,720	1,599	1,483	1,415	0
Incentive Schol.& Grants for Native	277	518	563	577	592	646	743	759	726	0
Legislative College Opportunity	0	0	0	0	0	0	161	100	125	0
Minority Presence Scholarships	2,004	1,994	1,910	1,908	1,899	1,609	1,635	1,673	1,680	0
NC Student Incentive Grants	1,897	1,632	1,830	1,654	1,746	1,703	1,661	1,671	1,608	3,741
NC Veterans Scholarships	0	0	0	0	0	0	0	0	0	0
Health, Science & Mathematics Schol./Loans	3,143	3,173	3,238	3,257	3,310	3,266	3,101	3,124	2,979	3,239
Nurse Education Scholarship Loans	1,213	1,139	1,084	1,111	1,149	1,104	1,046	1,171	858	1,062
State Contractual Scholarships	17,041	16,550	17,856	22,599	27,546	32,412	33,237	33,739	33,694	33,793
UNC Need Based Grant	0	0	0	0	0	1,375	6,526	15,513	19,567	28,786
Teacher Assistant Scholarship Fund	0	0	0	0	0	0	0	852	1,006	957
Vocational Rehabilitation Awards	0	0	0	0	0	0	0	0	9,826	6,757
UNC Campus Scholarships	0	0	0	0	0	0	0	0	0	5,649
Total Need-Based	41,022	40,357	44,050	47,934	52,833	61,297	68,147	80,761	88,988	112,029
NON-NEED-BASED PROGRAMS										
Contract Pgms in	0	0	0	0	0	0	0	0	0	0
NC Legislative Tuition Grants	31,740	32,893	33,742	38,141	42,624	45,028	46,669	47,509	46,267	47,980
NC National Guard Education Awards	0	0	0	0	0	0	0	0	0	0
NC Teaching Fellows	9,107	8,855	8,528	8,379	10,606	10,245	10,185	10,021	9,952	9,675
NC Veterans Scholarships	4,435	4,586	4,741	4,751	4,731	4,423	4,474	4,655	5,038	1,412
Nurse Scholars Program	3,916	3,803	3,739	3,705	3,470	3,536	4,425	3,864	3,603	3,916
Principal Fellows Program	953	2,529	3,408	3,682	3,664	3,935	3,890	3,655	3,679	3,570
Prospective Teacher Scholarship/Loans	1,728	2,082	1,765	2,093	2,085	1,982	1,514	1,301	1,691	1,390
Social Workers' Scholarship/Loan Fund	150	110	0	0	0	0	0	0	0	0
Teacher Assistant Scholarship/Loan	0	0	0	0	0	0	0	0	0	0
Tuition Remission	18,763	19,218	21,655	23,010	25,635	26,973	28,405	31,545	31,936	36,009
Vocational Rehabilitation Awards	7,095	8,209	8,890	10,331	12,065	14,142	14,308	12,097	0	0
Total Non-Need-Based	77,887	82,285	86,467	94,092	104,881	110,264	113,871	114,648	102,165	105,389
Total NC State Funded Financial Aid Pgms	118,909	122,642	130,517	142,026	157,714	171,561	182,018	195,408	191,153	217,418

Note that ECSU Incentive Scholarship Dollars were reported as Incentive Scholarships during the 1993-94 program year. Beginning in 1994-95, ECSU Incentive Scholarships are reported separately.

INSTITUTIONAL AND PRIVATE GRANTS

Institutional and private aid includes all grant aid from institutional sources and from private sources when the institution makes the award decision. These funds include not only need-based aid, but also aid awarded on the basis or criteria such as academic merit, athletic ability, or musical or artistic talent. Although institutionally funded and privately funded aid vary widely, it is included here in aggregate because of the way the data is collected and reported by the UNC Office of the President.

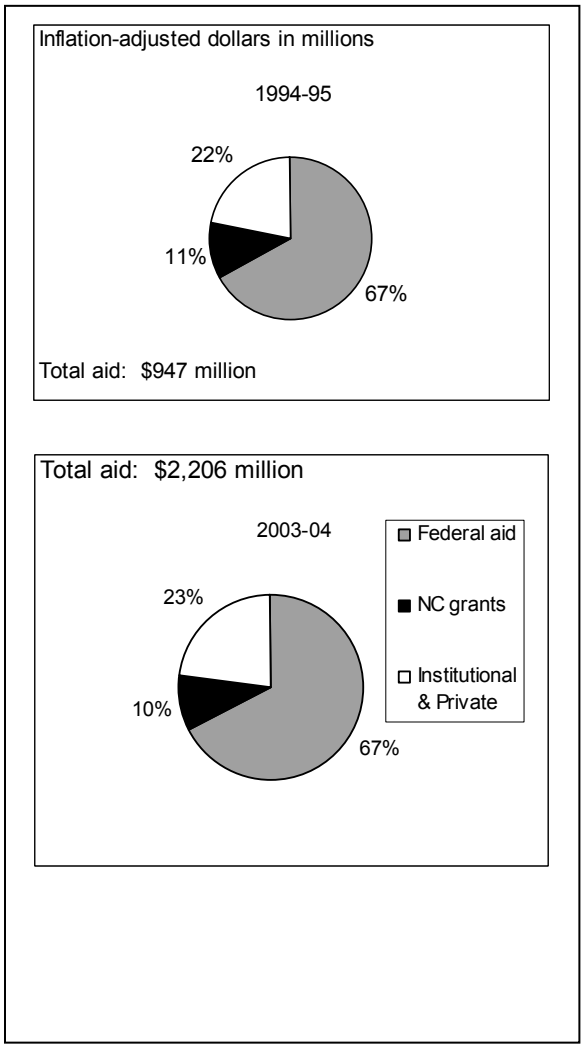
DISTRIBUTION OF AID BY SOURCE

Students attending North Carolina postsecondary institutions receive financial aid from several sources: the federal government, North Carolina state government, institutions, and private donors. Institutional and private aid are presented in aggregate in this report.

From 1994-1995 to 2003-2004, North Carolina postsecondary students' total financial aid more than doubled to exceed $2.2 million. Student aid received from federal sources rose 163 percent in the period. North Carolina scholarship and grant funding rose 120 percent, and institutional and private grants rose 172 percent.

The distribution of aid among sources has remained fairly stable since 1994, as seen in Chart 25.

Chart 25
Distribution by Source

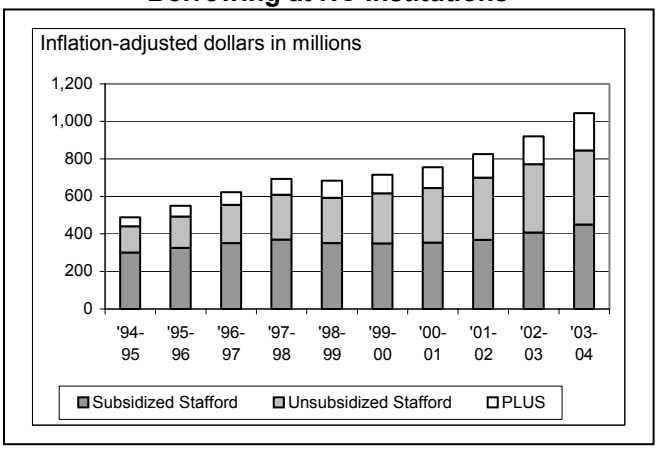


BORROWING BY STUDENTS AT NC INSTITUTIONS

In 1994-1995, students at North Carolina institutions borrowed $300 million through the Subsidized Stafford program and $141 million through the Unsubsidized Stafford and SLS programs in inflation adjusted dollars. By 2003-2004, Subsidized Stafford borrowing had risen 50 percent to $449 million and Unsubsidized Stafford borrowing had risen 181 percent to $396 million.

Much of the increase in total borrowing is due to an increase in the number of borrowers rather than individual debt, as can be seen in Tables 25-28. In fact, among needy students, average borrowing actually declined in constant dollars during the period. However, borrowing of non-need based loans and parent borrowing from the PLUS program grew during the study period.

Chart 26
Borrowing at NC Institutions



DISTRIBUTION OF AID BY TYPE

Table 25. Aid Received as Grants, Loans, and Federal Work Study

	'94-95	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	Estimated '03-04
CURRENT DOLLARS in thousands										
Grants	414,962	436,349	471,937	534,312	581,150	617,226	693,063	818,121	952,798	1,102,728
Loans	417,698	481,241	554,100	626,658	629,216	675,502	737,046	819,397	938,847	1,073,413
Federal Work Study	14,621	15,215	15,175	17,812	18,871	18,718	19,443	21,253	21,469	30,129
Total Current Dollars	847,281	932,806	1,041,211	1,178,782	1,229,237	1,311,446	1,449,553	1,658,771	1,913,113	2,206,271
INFLATION ADJUSTED DOLLARS in thousands										
Grants	513,408	525,573	552,668	614,752	657,263	678,478	736,604	854,272	973,728	1,118,566
Loans	516,794	579,644	648,886	721,000	711,625	742,536	783,351	855,605	959,471	1,095,858
Federal Work Study	18,090	18,326	17,770	20,494	21,342	20,576	20,665	22,192	21,940	30,129
Total Inflation Adjusted Dollars	1,048,292	1,123,543	1,219,324	1,356,246	1,390,230	1,441,590	1,540,620	1,732,068	1,955,139	2,244,553
PERCENT OF TOTAL DOLALRS										
Grants	49.0	46.8	45.3	45.3	47.3	47.1	47.8	49.3	49.8	50.0
Loans	49.3	51.6	53.2	53.2	51.2	51.5	50.8	49.4	49.1	48.7
Federal Work Study	1.7	1.6	1.5	1.5	1.5	1.4	1.3	1.3	1.1	1.4

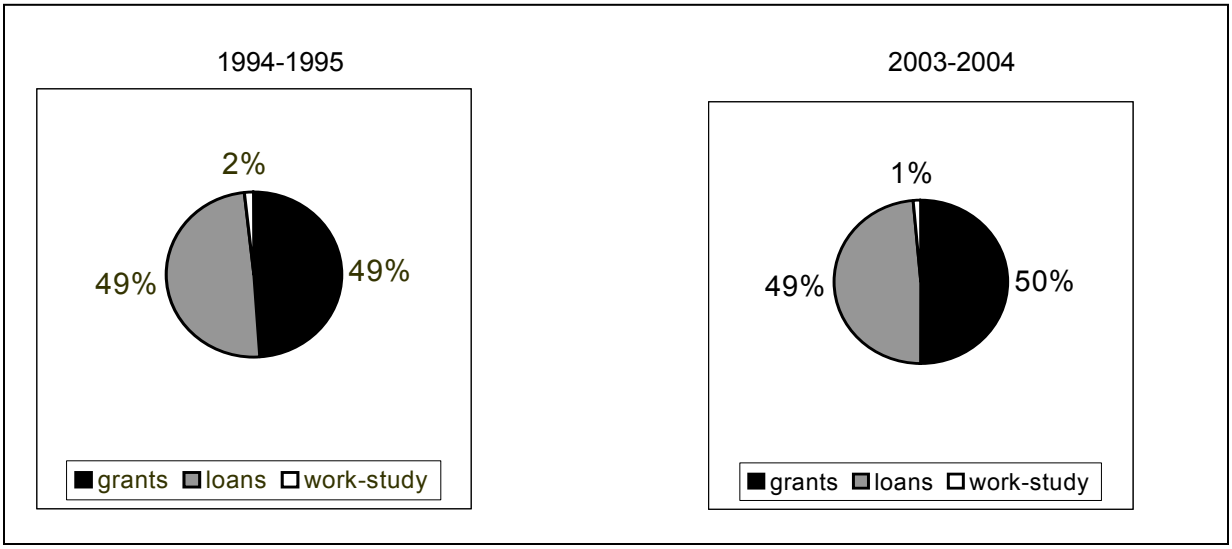
Grants and scholarships are aid funds that require no work or repayment on the part of the student. Grants and scholarships often require the recipient to belong to a special population, such as financially needy or academically gifted.

Loan aid must be repaid. Student loans vary widely in their terms and conditions for repayment. Most student loans do not require the student to begin repayment of principal until they have left school.

Federal Work Study aid requires the student to work for aid funds.
Most often the required jobs have flexible schedules to accommodate the student's class schedule. The promise of payment is made at the beginning of the semester with funds disbursed after the job is accomplished or hours are worked.

The distribution of aid among these three types was virtually unchanged in the ten year period covered by this report.

Chart 27
Distribution by Type



DISTRIBUTION OF FEDERAL PROGRAM DOLLARS BY SECTOR

Students attend four different types of postsecondary institutions in North Carolina: one of the sixteen campuses of the University of North Carolina (UNC) system, a community college, an independent college, or a proprietary school. The distribution of financial aid received by students from federal programs attending each of these types of institutions is shown in the following tables and charts.

Table 26. All Federal Aid

Year	UNC	Community Colleges	Independent Colleges	Proprietary Schools
CURRENT DOLLARS in thousands				
'94-95	278,795	58,523	213,375	11,900
'95-96	319,895	60,786	234,974	11,425
'96-97	364,587	64,797	264,212	11,855
'97-98	411,365	79,448	294,386	15,262
'98-99	424,035	94,564	294,696	19,047
'99-00	456,952	98,021	306,694	23,865
'00-01	494,055	101,769	346,049	28,485
'01-02	567,887	143,970	372,363	34,648
'02-03	648,517	182,165	414,908	56,073
PERCENTAGE DISTRIBUTION				
'94-95	50	10	38	2
'95-96	51	10	37	2
'96-97	52	9	37	2
'97-98	51	10	37	2
'98-99	51	11	35	2
'99-00	52	11	35	3
'00-01	51	10	36	3
'01-02	51	13	33	3
'02-03	50	14	32	4

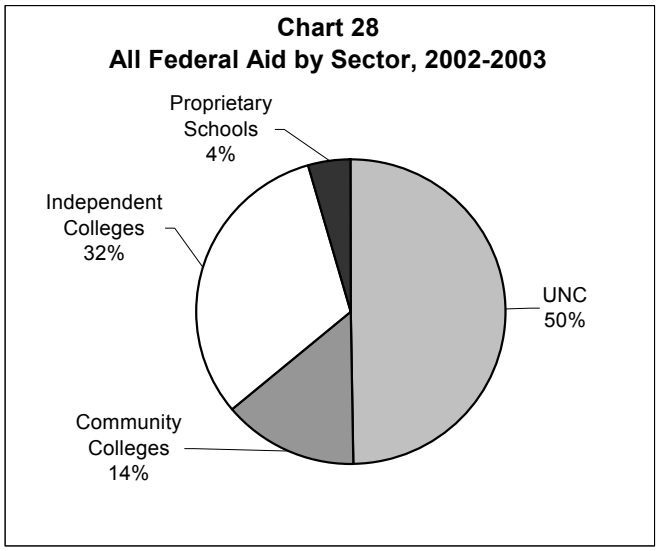


Table 27. Family Education Loans and Ford Direct Loans

Year	UNC	Community Colleges	Independent Colleges	Proprietary Schools
CURRENT DOLLARS in thousands				
'94-95	211,367	9,960	165,285	7,938
'95-96	251,110	12,568	185,565	7,776
'96-97	294,769	14,713	214,165	7,940
'97-98	331,466	20,929	238,956	11,245
'98-99	334,026	21,973	233,590	14,971
'99-00	368,102	19,634	243,988	19,001
'00-01	398,621	14,042	275,956	22,572
'01-02	454,469	14,873	293,955	27,175
'02-03	512,543	17,936	321,664	48,058
PERCENTAGE DISTRIBUTION				
'94-95	54	3	42	2
'95-96	55	3	41	2
'96-97	55	3	40	1
'97-98	55	3	40	2
'98-99	55	4	39	2
'99-00	57	3	37	3
'00-01	56	2	39	3
'01-02	57	2	37	3
'02-03	57	2	36	5

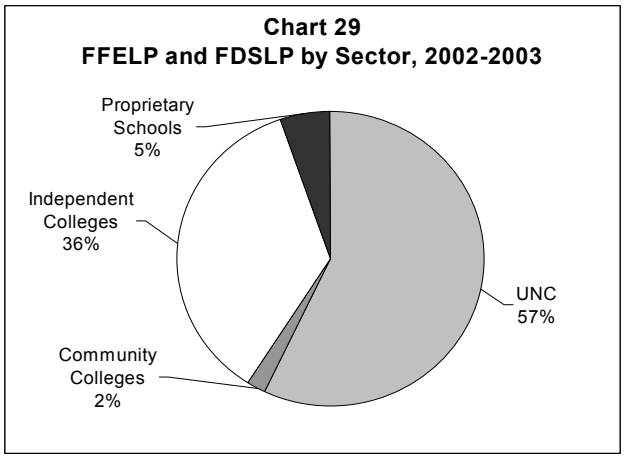


Table 28. Campus-Based Programs

Year	UNC	Community Colleges	Independent Colleges	Proprietary Schools
CURRENT DOLLARS in thousands				
'94-95	24,621	3,934	25,253	448
'95-96	25,637	3,948	26,603	411
'96-97	24,010	4,173	25,684	450
'97-98	27,153	4,708	27,363	404
'98-99	28,863	4,762	28,772	412
'99-00	29,301	4,913	30,953	450
'00-01	28,892	5,235	33,822	468
'01-02	29,406	5,888	35,493	545
'02-03	34,983	6,474	39,574	585
PERCENTAGE DISTRIBUTION				
'94-95	45	7	47	1
'95-96	45	7	47	1
'96-97	44	8	47	1
'97-98	46	8	46	1
'98-99	46	8	46	1
'99-00	45	7	47	1
'00-01	42	8	49	1
'01-02	41	8	50	1
'02-03	43	8	48	1

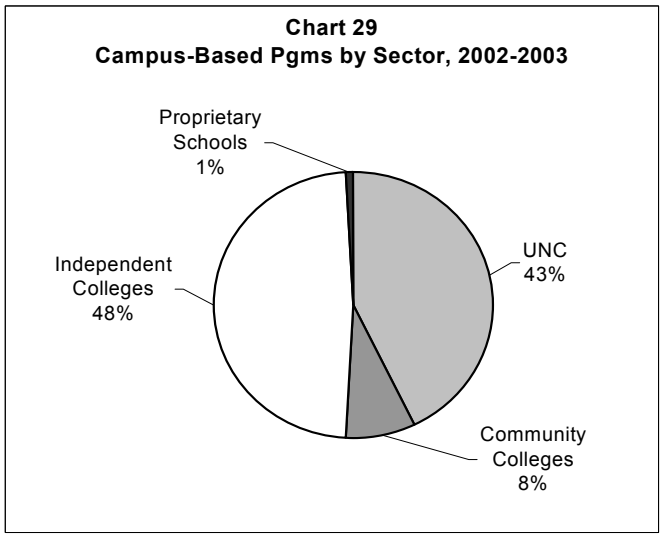
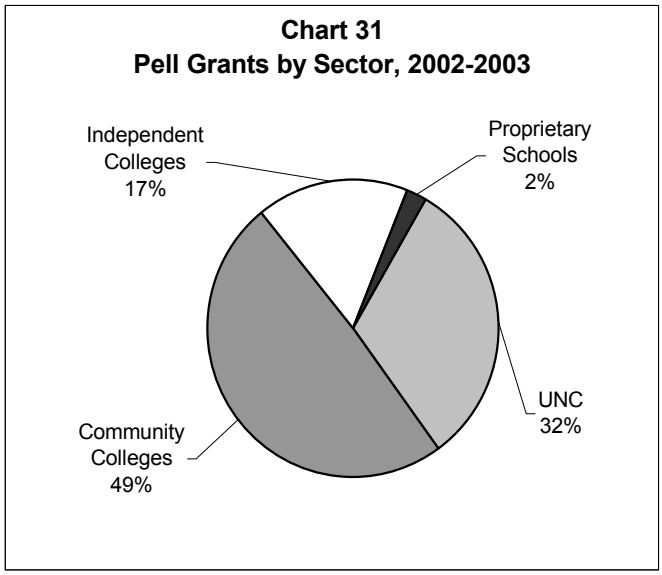


Table 29. Pell Grants

Year	UNC	Community Colleges	Independent Colleges	Proprietary Schools
CURRENT DOLLARS in thousands				
'94-95	42,807	44,629	22,837	3,514
'95-96	43,148	44,270	22,807	3,238
'96-97	45,808	45,911	24,363	3,465
'97-98	52,745	53,811	28,067	3,612
'98-99	61,146	67,829	32,334	3,663
'99-00	59,549	73,474	31,752	4,414
'00-01	66,542	82,492	36,271	5,445
'01-02	84,012	123,208	42,915	6,928
'02-03	100,990	157,755	53,669	7,430
PERCENTAGE DISTRIBUTION				
'94-95	38	39	20	3
'95-96	38	39	20	3
'96-97	38	38	20	3
'97-98	38	39	20	3
'98-99	37	41	20	2
'99-00	35	43	19	3
'00-01	35	43	19	3
'01-02	33	48	17	3
'02-03	32	49	17	2



NUMBER OF RECIPIENTS AND AID PER RECIPIENT FROM FEDERAL AID PROGRAMS

These tables show the number of recipients and average aid per recipient for each of the federal aid programs. Campus-based program data was not yet available for 2003-2004. Students can borrow from more than one program within a given year so total borrowing per student for a single year can easily exceed the average loan from any single program. Students also can borrow in multiple years, so cumulative debt upon leaving school can greatly exceed the average loan in any given year.

Comparable information is not available for state and institutional programs. An unduplicated number of North Carolina scholarship and grant recipients was not available, thus average aid per recipient was not calculable. Institutional and private grants include a variety of programs, all of which are institution specific and an unduplicated count of recipients and thus, average aid per recipient, is unavailable for those programs.

Table 30. Pell Grants

Year	Recipients	Current Dollar Aid per Recipient	Inflation Adjusted Dollar Aid per Recipient
‘94-95	81,107	1,403	1,736
‘95-96	79,916	1,420	1,710
‘96-97	80,948	1,477	1,729
‘97-98	83,522	1,655	1,904
‘98-99	89,036	1,853	2,096
‘99-00	90,383	1,872	2,058
‘00-01	96,395	1,979	2,103
‘01-02	114,119	2,253	2,352
‘02-03	133,373	2,398	2,451

Table 31. Campus-Based Programs

Supplemental Educational Opportunity Grants

Year	Recipients	Current Dollar Aid per Recipient	Inflation Adjusted Dollar Aid per Recipient
'94-95	22,657	728	900
'95-96	23,284	737	888
'96-97	23,557	706	827
'97-98	23,585	753	866
'98-99	22,945	840	950
'99-00	23,070	959	1,054
'00-01	22,200	1,041	1,107
'01-02	22,953	922	862
‘02-03	23,537	914	934

Work Study

Year	Recipients	Current Dollar Aid per Recipient	Inflation Adjusted Dollar Aid per Recipient
'94-95	18,016	812	1,004
'95-96	19,075	798	961
'96-97	16,940	896	1,049
'97-98	17,529	1,016	1,169
'98-99	17,966	1,050	1,188
'99-00	18,217	1,028	1,129
'00-01	18,189	1,069	1,136
'01-02	19,146	1,110	1,159
‘02-03	18,692	1,149	1,174

Perkins Loans

Year	Recipients	Current Dollar Aid per Recipient	Inflation Adjusted Dollar Aid per Recipient
'94-95	13,132	1,763	2,181
'95-96	12,980	1,866	2,248
'96-97	12,319	1,827	2,140
'97-98	12,826	1,876	2,158
'98-99	12,982	1,899	2,148
'99-00	12,355	2,005	2,204
'00-01	12,323	2,098	2,230
'01-02	13,037	2,219	2,317
‘02-03	15,895	2,431	2,485

Table 32. Family Education Loan Program

Subsidized Stafford

Year	Recipients	Current Dollar Aid per Recipient	Inflation Adjusted Dollar Aid per Recipient
'94-95	77,300	3,111	3,849
'95-96	57,252	3,262	3,929
'96-97	63,812	3,299	3,864
'97-98	71,945	3,140	3,612
'98-99	65,586	3,273	3,702
'99-00	66,241	3,316	3,645
'00-01	73,941	3,392	3,606
'01-02	78,849	3,425	3,576
'02-03	88,476	3,456	3,531

PLUS

Year	Recipients	Current Dollar Aid per Recipient	Inflation Adjusted Dollar Aid per Recipient
'94-95	7,642	4,935	6,106
'95-96	6,404	5,630	6,781
'96-97	7,147	6,089	7,131
'97-98	10,086	5,743	6,607
'98-99	9,928	6,113	6,914
'99-00	9,768	6,423	7,060
'00-01	11,820	6,712	7,134
'01-02	13,391	6,964	7,271
'02-03	14,706	7,478	7,642

Unsubsidized Stafford

Year	Recipients	Current Dollar Aid per Recipient	Inflation Adjusted Dollar Aid per Recipient
'94-95	36,500	3,077	3,808
'95-96	30,827	3,287	3,959
'96-97	37,833	3,392	3,972
'97-98	45,554	3,305	3,803
'98-99	44,231	3,571	4,039
'99-00	48,466	3,696	4,063
'00-01	56,169	3,842	4,084
'01-02	64,089	3,959	4,134
'02-03	72,337	3,999	4,087

SLS

Year	Recipients	Current Dollar Aid per Recipient	Inflation Adjusted Dollar Aid per Recipient
'94-95	119	2,228	2,757
'95-96	0	0	0
'96-97	0	0	0
'97-98	0	0	0
'98-99	0	0	0
'99-00	0	0	0
'00-01	0	0	0
'01-02	0	0	0
'02-03	0	0	0

Table 33. Ford Federal Direct Loan Program

Subsidized Stafford

Year	Recipients	Current Dollar Aid per Recipient	Inflation Adjusted Dollar Aid per Recipient
'94-95	689	$2,835	$3,507
'95-96	28,058	2,971	3,578
'96-97	29,640	3,008	3,523
'97-98	32,051	2,993	3,443
'98-99	31,617	3,022	3,417
'99-00	31,965	3,072	3,376
'00-01	26,138	3,130	3,327
'01-02	27,221	3,059	3,195
'02-03	28,864	3,225	3,296

Unsubsidized Stafford

Year	Recipients	Current Dollar Aid per Recipient	Inflation Adjusted Dollar Aid per Recipient
'94-95	341	$2,994	$3,704
'95-96	13,496	2,761	3,325
'96-97	15,962	2,892	3,387
'97-98	18,787	2,985	3,434
'98-99	18,982	2,963	3,352
'99-00	20,604	3,117	3,426
'00-01	18,224	3,200	3,401
'01-02	20,097	3,141	3,279
'02-03	20,276	3,304	3,377

PLUS

Year	Recipients	Current Dollar Aid per Recipient	Inflation Adjusted Dollar Aid per Recipient
'94-95	193	$4,017	$4,969
'95-96	2,764	4,435	5,342
'96-97	2,941	4,719	5,526
'97-98	2,926	5,537	6,371
'98-99	3,971	4,901	5,543
'99-00	5,043	5,317	5,844
'00-01	4,433	5,650	6,005
'01-02	4,821	5,615	5,863
'02-03	5,964	5,885	6,014

APPENDIX A: Notes on College Affordability

Measure I: The College-Going Rate Within One Year of High School Graduation

Data used in assessing this measure were reported by the National Center for Education Statistics and published in the September 2002 edition of Postsecondary Education OPPORTUNITY.

Table I. College Continuation Rate

Year	NC	US	Difference (US - NC)
1990	51.6	50.7	-0.8
1992	50.0	53.6	3.6
1994	51.0	57.1	6.1
1996	53.8	58.5	4.7
1998	64.5	57.3	-7.2
2000	65.4	56.7	-8.7
2002	63.6	56.6	-7.0

Table II.
College-Going Rate of Southeastern States, 2002

	College Continuation Rate
Florida	55.4
Georgia	59.4
North Carolina	63.6
South Carolina	59.6
Tennessee	61.8
Virginia	54.4

Table III.
College-Going Rate of 12 Most Populous States, 2002

	College Continuation Rate
California	51.1
Texas	53.4
New York	68.7
Florida	55.4
Illinois	57.4
Pennsylvania	59.8
Ohio	57.5
Michigan	51.1
New Jersey	62.7
Georgia	59.4
North Carolina	63.6
Virginia	54.4

Measure II: Net Price of College in Relation to Family Income

Table IV. Family Income Quintiles

1997	1998	1999	2000	2001
$0 to $21,012	$0 to $20,002	$0 to $20,800	$0 to $23,708	$0 to $23,080
$21,013 to $35,002	$20,003 to $34,589	$20,801 to $36,740	$23,709 to $39,588	$23,081 to $37,800
$35,003 to $50,824	$34,590 to $50,980	$36,741 to $56,000	$39,589 to $55,351	$37,801 to $55,000
$50,825 to $75,259	$50,981 to $80,509	$56,001 to $87,000	$55,352 to $84,132	$55,001 to $81,240
$75,260 and above	$80,510 and above	$87,001 and above	$84,133 and above	$81,241 and above

Source: US Census at ferrett.bls.census.gov/cgi-bin/ferrett. CPS, March supplement was used for income data.

Table V. Weighted Average Price of Attendance

	1998-1999		1999-2000		2000-2001		2001-2002		2002-2003	
	Total Price	Enrollment	Total Price	Enrollment	Total Price	Enrollment	Total Price	Enrollment	Total Price	Enrollment
ASU	7,534	10,051	7,852	9,891	8,648	10,630	9,103	11,059	9,928	11,417
ECU	8,276	12,653	8,598	12,927	9,107	12,734	10,146	13,198	11,770	13,709
ECSU	7,088	1,706	7,573	1,754	8,201	1,783	8,154	1,721	7,926	1,847
FSU	8,116	2,918	7,552	3,129	7,650	3,187	7,802	3,558	8,116	3,859
NC A&T	8,685	5,280	8,904	5,432	9,709	5,619	10,229	5,900	11,032	6,365
NCCU	7,969	3,544	8,686	3,466	8,707	3,641	9,313	3,792	9,775	4,291
NCSA	9,100	360	9,440	358	9,880	322	10,475	342	11,319	334
NCSU	8,904	19,495	9,062	19,399	10,188	20,099	10,876	20,456	11,723	20,905
UNC-A	8,493	2,782	8,562	2,793	9,377	2,886	10,392	2,891	11,360	2,979
UNC-CH	9,411	12,630	9,944	12,623	10,697	12,793	11,249	12,901	12,366	12,987
UNC-C	8,484	12,483	9,852	12,474	10,538	12,694	10,434	13,314	11,150	13,618
UNC-G	8,536	9,059	8,800	9,208	9,095	9,137	10,640	9,457	11,279	9,835
UNC-P	6,977	2,581	7,340	2,622	8,481	2,969	9,000	3,362	9,682	3,762
UNC-W	8,846	7,842	9,832	7,845	9,922	8,058	10,559	8,525	11,343	8,575
WCU	6,744	4,923	7,375	4,958	8,158	5,122	8,535	5,055	9,224	5,116
WSSU	8,364	2,590	8,567	2,494	8,833	2,653	9,307	2,740	10,098	3,138
UNC	8,432	110,897	8,898	111,373	9,554	114,327	10,161	118,271	11,011	122,737

Total price includes North Carolina resident changes for tuition, fees, room, board, books, and other expenses such as transportation.
Enrollment includes undergraduate North Carolina resident enrollment.

Source: UNC Institutional Profiles 1999-98 through 2003-04.

Table VI. Weighted Average Price of Attendance, Component Parts, Academic Year 2002-2003

	Tuition	Fees	Room	Board	Books	Other Expenses	Total Price	Total Enrollment
ASU	$1,520	$1,275	$2,585	$1,848	$ 500	$2,200	$ 9,928	11,417
ECU	1,819	1,161	3,040	2,550	800	2,400	11,770	13,709
ECSU	1,118	1,044	2,722	1,742	500	800	7,926	1,847
FSU	1,258	794	2,120	1,700	384	1,860	8,116	3,859
NC A&T	1,470	1,094	2,668	2,100	800	2,900	11,032	6,365
NCCU	1,574	1,100	2,464	1,742	800	2,095	9,775	4,291
NCSA	2,195	1,255	2,650	2,465	865	1,889	11,319	334
NCSU	2,814	1,013	3,296	2,500	700	1,400	11,723	20,905
UNC-A	1,592	1,292	2,290	2,360	850	2,976	11,360	2,979
UNC-CH	2,814	1,042	2,980	3,070	800	1,660	12,366	12,987
UNC-C	1,813	1,131	2,496	2,510	900	2,300	11,150	13,618
UNC-G	1,717	1,276	2,600	2,260	1,156	2,270	11,279	9,835
UNC-P	1,394	971	2,350	1,800	800	2,367	9,682	3,762
UNC-W	1,622	1,452	3,200	2,178	775	2,116	11,343	8,575
WCU	1,358	1,252	1,876	2,340	588	1,810	9,224	5,116
WSSU	1,168	1,158	2,466	1,806	1,000	2,500	10,098	3,138
UNC	$1,935	$1,142	$2,774	$2,331	$ 773	$2,055	$11,011	122,737

Price includes North Carolina resident changes for tuition, fees, room, board, books, and other expenses.
Room includes charges for double occupancy.
Board includes charges for a full meal plan.
Enrollment includes undergraduate North Carolina resident enrollment.
Source: UNC Institutional Profiles 2003-2004.

Relationship between Income and EFC. Data on North Carolina resident student aid applicants who attended UNC for any of the five years between 1998-1999 and 2002-2003 included detailed information on student characteristics such as class and major field of study as well as information regarding financial aid received from all sources. Family income information was not available, only the expected family contribution as calculated by the federal formula. Family income information was obtained for students attending one of the 16 campuses of the UNC system, the Chapel Hill campus, and this information was used to determine the relationship between EFC and income.

Aid applicants from UNC at Chapel Hill were divided by income according to the NC family income quintiles determined from the analysis of BPS data. Appropriate EFC intervals were determined using the Financial Aid Estimation Form available from Fin Aid: The Smart Student Guide to Financial Aid (available at www.finaid.org) and the measure of fit between income and EFC intervals for UNC at Chapel Hill student data. Thus, the relationship between EFC and income was determined for those financial aid applicants who attended UNC at Chapel Hill for each of the five study years.

The strength of the relationship between income and EFC can be measured using a chi-square statistic. As shown in Table VII, the relationship for each of the study years is significant at the 99 percent level. The accuracy of EFC as a predictor of income ranges from 91.1 percent for the 2001-2002 and 2002-2003 academic years to 95.4 percent for the 1998-1999 academic year.

Table VII. Strength of Relationship between EFC and Income

Academic Year	Chi-square	Accuracy of EFC as income predictor
2002-2003	5108.2**	91.1%
2001-2002	3,234.7**	91.1%
2000-2001	3,169.9**	93.7%
1999-2000	5,135.9**	94.4%
1998-1999	4,703.1**	95.4%

** denotes significance at the 99% level

Beginning with 2002-2003, parental income data was available for most UNC campuses. This data was not used in the study so that all years would use comparable methodology, however the 2002-2003 data was used to confirm the results of the EFC estimation. The strength of the relationship was confirmed.

Table VIII. North Carolina Family Income and Average EFC

1997 Income categories	1998-1999 Average EFC
$0 to $21,012	$236
$21,013 to $35,002	$1,823
$35,003 to $50,824	$3,780
$50,825 to $75,259	$6,803
$75,260 and above	$16,083
1998 Income categories	**1999-2000 Average EFC**
$0 to $20,002	$307
$20,003 to $34,589	$2,054
$34,590 to $50,980	$4,131
$50,981 to $80,509	$7,391
$80,510 and above	$18,174
1999 Income categories	**2000-2001 Average EFC**
$0 to $20,800	$241
$20,801 to $36,740	$2,075
$36,741 to $56,000	$4,373
$56,001 to $87,000	$8,005
$87,001 and above	$20,142
2000 Income categories	**2001-2002 Average EFC**
$0 to $23,708	$317
$23,709 to $39,588	$2,697
$39,589 to $55,351	$5,384
$55,352 to $84,132	$8,853
$84,133 and above	$21,296
2001 Income categories	**2002-2003 Average EFC**
$0 to $23,080	$324
$23,081 to $37,800	$2,228
$37,801 to $55,000	$4,412
$55,001 to $81,240	$8,460
$81,241 and above	$20,914

Table IX. Grant Assistance to UNC Aid Recipients

	Grant Assistance by Source				
	Federal	NC	Institutional/Private	Total Grants	Percent of Need met by Grants
1998-1999					
1st quintile	$3,062	$546	$726	$4,334	53%
2nd quintile	1,314	627	825	2,766	42%
3rd quintile	54	575	856	1,485	32%
4th quintile	35	367	707	1,109	68%
5th quintile	33	217	226	476	N/A
1999-2000					
1st quintile	$2,999	$686	$710	$4,395	51%
2nd quintile	1,216	696	820	2,732	40%
3rd quintile	61	632	841	1,534	32%
4th quintile	37	354	696	1,087	72%
5th quintile	28	204	203	435	N/A
2000-2001					
1st quintile	$3,445	$923	$732	$5,100	55%
2nd quintile	1,422	1,052	893	3,367	45%
3rd quintile	92	873	919	1,884	36%
4th quintile	55	423	784	1,262	81%
5th quintile	39	207	239	485	N/A
2001-2002					
1st quintile	$3,727	$1,189	$858	$5,774	59%
2nd quintile	1,191	1,359	1015	3,565	48%
3rd quintile	93	952	1081	2,126	45%
4th quintile	85	424	859	1,368	100%
5th quintile	86	300	238	624	N/A
2002-2003					
1st quintile	$3,904	$1,313	$877	$6,094	57%
2nd quintile	1,900	1,539	1109	4,548	52%
3rd quintile	278	1,432	1188	2,898	44%
4th quintile	62	550	1001	1,546	61%
5th quintile	39	264	414	717	N/A

Source: Original calculation using data provided by UNC General Administration.

Table X. Net Price of Attendance of UNC Aid Recipients

	Total Price (weighted average)	Average EFC	Total Grant Assistance	Net Price after Grants	Student Loans	Net Price after Grants and Loans
1998-1999						
1st quintile	$8,432	$236	$4,334	$4,098	$2,307	$1,791
2nd quintile	8,432	$1,823	2,766	5,666	2,833	2,833
3rd quintile	8,432	$3,780	1,485	6,947	3,124	3,823
4th quintile	8,432	$6,803	1,109	7,323	3,070	4,253
5th quintile	8,432	$16,083	476	7,956	3,731	4,225
1999-2000						
1st quintile	$8,898	$307	$4,395	$4,503	$2,506	$1,997
2nd quintile	8,898	$2,054	2,732	6,166	3,019	3,147
3rd quintile	8,898	$4,131	1,534	7,364	3,224	4,140
4th quintile	8,898	$7,391	1,087	7,811	3,208	4,603
5th quintile	8,898	$18,174	435	8,463	3,664	4,799
2000-2001						
1st quintile	$9,554	$241	$5,100	$4,454	$2,453	$2,001
2nd quintile	9,554	2,075	3,367	6,187	2,964	3,223
3rd quintile	9,554	4,373	1,884	7,670	3,196	4,474
4th quintile	9,554	8,005	1,262	8,292	3,280	5,012
5th quintile	9,554	20,142	485	9,069	3,856	5,213
2001-2002						
1st quintile	$10,161	$317	$5,774	$4,387	$2,451	$1,936
2nd quintile	10,161	2,698	3,565	6,596	3,108	3,488
3rd quintile	10,161	5,384	2,126	8,035	3,278	4,757
4th quintile	10,161	8,853	1,368	8,793	3,339	5,454
5th quintile	10,161	21,298	624	9,537	4,011	5,526
2002-2003						
1st quintile	$11,011	$ 324	$6,094	$4,917	$2,562	$2,355
2nd quintile	11,011	2,228	4,548	6,463	3,033	3,430
3rd quintile	11,011	4,412	2,898	8,113	3,365	4,748
4th quintile	11,011	8,460	1,546	9,465	3,465	6,000
5th quintile	11,011	20,914	717	10,294	4,170	6,124

Note: Net price after grants equals total price minus total grants.
Net price after grants and loans equals total price minus total grants minus total loans.
Source: Original calculations made using UNC General Administration data.

APPENDIX B: DATA SOURCES

College Affordability

The Advisory Committee on Student Financial Assistance. *Access Denied: Restoring the Nation's Commitment to Equal Educational Opportunity*. The Advisory Committee on Student Financial Assistance, Washington, DC, 2001.

Baum, Sandy and Marie O'Malley. College on Credit: How Borrowers Perceive their Education Debt, Results of the 2002 National Student Loan Survey. Nellie Mae Corporation, 2003.

Davis, Jerry. *College Affordability: A Closer Look at the Crisis*. Sallie Mae Education Institute, Washington, DC, 1997.

Fin Aid: The Smart Student Guide to Financial Aid, Financial Aid Estimation Form. www.finaid.org.

Illinois Student Assistance Commission. Changes in the Affordability of a College Education for Dependent Students in Illinois. ISAC Research Reports, Volume II, Number 1, Illinois, 2002.

Immerwahr, John. *The Affordability of Higher Education: A Review of Recent Survey Research*. Public Agenda and the National Center for Public Policy and Higher Education, California, 2002.

The Institute for Higher Education Policy. *Getting Through College: Voices of Low-Income and Minority Students in New England*. The Institute for Higher Education Policy and Nellie Mae Foundation, Washington, DC, 2001.

Kipp, Samuel M., Derek V. Price, and Jill K. Wohlford. *Unequal Opportunity: Disparities in College Access Among the 50 States*. Lumina Foundation for Education, Illinois, 2002.

Knapp, Laura Greene. *Benchmarks 1992-2002: Student Aid in North Carolina*, North Carolina State Education Assistance Authority, 2004.

Mortenson, Thomas G. "Chance for College by Age 19 by State in 2000*", Postsecondary Education Opportunity.* Number 123, September 2002.

The National Center for Public Policy and Higher Education. *Losing Ground: A National Status Report on the Affordability of American Higher Education*. The National Center for Public Policy and Higher Education, California, 2002.

The National Center for Public Policy and Higher Education. *Measuring Up 2000: The State by State Report Card for Higher Education*. The National Center for Public Policy and Higher Education, California, 2000.

The National Center for Public Policy and Higher Education. *Measuring Up 2002: The State by State Report Card for Higher Education*. The National Center for Public Policy and Higher Education, California, 2002.

University of North Carolina Institutional Profiles, 1998-99. University of North Carolina, Office of the President, Program Assessment and Public Service Division, Chapel Hill, NC. (available online at www.ga.unc.edu/UNC_Schools/profiles).

University of North Carolina Institutional Profiles, 1999-00. University of North Carolina, Office of the President, Program Assessment and Public Service Division, Chapel Hill, NC. (available online at www.ga.unc.edu/UNC_Schools/profiles).

University of North Carolina Institutional Profiles, 2000-01. University of North Carolina, Office of the President, Program Assessment and Public Service Division, Chapel Hill, NC. (available online at www.ga.unc.edu/UNC_Schools/profiles).

University of North Carolina Institutional Profiles, 2001-02. University of North Carolina, Office of the President, Program Assessment and Public Service Division, Chapel Hill, NC. (available online at www.ga.unc.edu/UNC_Schools/profiles).

University of North Carolina Institutional Profiles, 2002-03. University of North Carolina, Office of the President, Program Assessment and Public Service Division, Chapel Hill, NC. (available online at www.ga.unc.edu/UNC_Schools/profiles).

U.S. Department of Education. National Center for Education Statistics. *What Students Pay for College: Changes in the Net Price of College Between 1992-93 to 1999-2000*. NCES 2002-174. Laura Horn, Christina Change Wei, and Ali Berker. Project Officer: Dennis Carroll. Washington, DC: 2002.

Financial Aid to Students Attending North Carolina Institutions

Federal Campus-Based Program, the Office of Postsecondary Education, U.S. Department of Education.

Federal Family Education Loan Program (FFELP) and Federal Ford Direct Student Loan Program, the Office of the Undersecretary, U.S. Department of Education.

Federal Pell Grant Program, the Pell Grant Branch, Office of Student Financial Assistance, U.S. Department of Education.

North Carolina Scholarship and Grant Programs, North Carolina State Education Assistance Authority.

Institutional and Private Grants, data collected from institutions by UNC General Administration. Data were available for 1997-98 through 2002-03. Data for years prior to 1997 were estimated using available data from UNC General Administration and estimates from the

Department of Education's Integrated Postsecondary Education Data System. The 2003-04 data were estimated based on known program trends.

State Student Incentive Grant, North Carolina State Education Assistance Authority.

Trends in Student Aid: 2004. The College Board, www.collegeboard.com.