DEMOGRAPHIC PREDICTORS OF ACCRUED UNDERGRADUATE FEDERAL STUDENT LOAN DEBT

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This study sought to determine which demographic variables (student gender, age, race, family income, dependency status, and parental level of educational attainment) best predict total accrued federal student loan debt for undergraduate degree recipients attending a four-year public Midwestern United States research university. The sample consisted of 1,880 first-time enrolled, full-time undergraduate students who matriculated in August 2009 and borrowed their first federal student loan during the first year of enrollment. Data was obtained from the Free Application for Federal Student Aid (FAFSA), institutional federal student loan, enrollment, and graduation data and analyzed through the graduating class of May 2015.

A multiple regression analysis for research question one generated a four-factor model: Family Income, Minority Status, Father’s Level and Mother’s Level of Educational Attainment were significant predictors of total accrued federal student loan debt upon graduation. A logistic regression analysis generated three models based on total accrued federal student loan debt upon graduation above/below $10,000, $20,000, and $30,000. The $10,000 model indicated one significant predictor, Mother’s Level of Educational Attainment. The $20,000 model indicated two significant predictors, Family Income and Mother’s Level of Educational Attainment. The $30,000 model indicated three significant predictors, Family Income, Minority Status, and Father’s Level of Educational Attainment.

Research question two examined differences in total federal student loan debt between four-year or less and more than four-year undergraduate degree completers. An independent samples t-test analysis revealed a significant difference in total accrued federal student loan debt
for degree completion within a four-year time frame. Research question three examined differences between undergraduate degree completers and non-completers in the amount of federal student loans borrowed during each enrollment year and in total. An independent samples t-test analysis revealed that degree completers borrowed significantly less federal student loans than non-completers during year one of enrollment, but significantly more in years three, four, and five. The federal student loan total borrowed between degree completers and degree non-completers was also significant. An ANCOVA analysis revealed that degree completers borrowed significantly more federal student loans than non-completers when controlling for number of years enrolled.

Practice and policy implications and recommendations regarding the administration of non-repayable financial aid (scholarships and grants), individualized financial aid/student loan advising/counseling, college curricular initiatives, institutional/federal financial aid processes, and student retention are provided.
This dissertation is dedicated to all those who have a goal and embrace the power of change.
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CHAPTER I. INTRODUCTION

In 1981, the cost of higher education in the U.S. outpaced inflation for the first time in history and has continued this upward trajectory every year since that time (Robb, Moody, & Abdel-Ghany, 2012; Vedder, 2004). As cited in Rampall (2012), U.S. Bureau of Labor Statistics indicate that college tuition and fees increased 559% between 1983-2012. Since 1981, there has also been a corresponding overall reduction, in constant dollars, of non-repayable (do not need to be repaid after graduation) financial aid resources such as federal and state funded scholarships and grants. Additionally, state funding for public higher education has also declined an average of more than 40% since 1980 (Archibald & Feldman, 2011; Sortenson, 2012; Vedder, 2004). A lag in household income relative to the cost of higher education has further compounded the fiscal challenges associated with obtaining a college degree (TICAS, 2014). Consequently, 60% of the estimated two million Americans who attend college annually borrow student loans to cover their higher education costs (U.S. Department of Education, 2013). This borrowing trend has led to a current outstanding student loan debt in the U.S. of more than $1.3 trillion with the vast majority of this debt attributable to federal student loans (Best & Best, 2013, FinAid, 2015).

The federal student loan program began with the passage of the National Defense Education Act (NDEA) of 1958 and was originally designed to attract academically talented students to the teaching profession and to college majors in science, mathematics, engineering, and a modern foreign language (Best & Best, 2014). In 1965, the federal student loan program underwent a major iteration as part of the Higher Education Act (HEA) and was broadened to include all students who were desirous of pursuing a college education regardless of academic achievement or chosen course of study. At this time, student loans were designed to supplement non-repayable scholarships and grants that were also part of this landmark legislation (Collinge,
By providing funding sources to students and loan guarantees to banks, two goals of the HEA were to make higher education affordable and accessible to a much broader stratum of the U.S. population than was currently being educated and to increase the number of college degrees awarded to members of the low and middle socioeconomic classes. (Collinge, 2009; Vedder, 2004). During the ten-year period from 1960-1970, the U.S. population experienced a 16% overall growth increase while there was a corresponding 67% increase in the number of adults who earned a four-year college degree, with non-white Americans experiencing a 200% increase (Vedder, 2004).

As the number of college attendees and graduates rose throughout each decade so did the annual and aggregate total of outstanding student loans (Best & Best, 2014). By 2011, the aggregate outstanding U.S. federal and private student loan debt totaled more than credit card debt for the first time and, in 2012, surpassed the $1 trillion threshold (Ross, 2013); it currently exceeds $1.3 trillion, is rising by more than $100 billion annually, and increases at an estimated $3,000 per second (Best & Best, 2014; FinAid, 2015). Seventy percent of 2012 U.S. college graduates graduated with student loan debt averaging $29,400 (Reed & Cochrane, 2013), which represents a 118% increase over the 2007 average debt of $13,500 (Ross, 2013). As reported by the U.S. Department of Education in September 2015, the fiscal year 2012 three-year national cohort student loan default rate has been calculated at 11.8%, which reflects the national average of all schools who had borrowers that entered student loan repayment in 2012 and are now in default (U.S. Department of Education, 2015). Additionally, it has been reported that 41% of 2005 college graduates are either delinquent (a payment due date has been missed) or in default (a payment has not been made for 270 days) on their student loan payments (Ross, 2013).
Statement of the Problem

Student loan debt levels present an alarming and growing challenge for higher education and the U. S. economy (Vedder, 2004; Whitsett & O’Sullivan, 2012). Many researchers and policy makers assert that student loan debt levels negatively impact the borrowers and overall U.S. economy by delaying or preventing borrowers from entering the housing market; accessing capital; engaging in traditional life-cycle events such as marriage and starting a family; engaging in entrepreneurial ventures; and entering the middle-class (Baum & O’Malley, 2003; Chopra, 2013; Collinge, 2009; McKee, 2012; Ross, 2013). The current high levels of student loan debt also limit economic and social choices and opportunities for the borrowers (Rothstein & Rouse, 2011). Additionally, college accessibility and affordability are negatively impacted by student loans because of their unintended contribution to the upward spiral of the cost of higher education (Baum, 2015; Collinge, 2009; Ross, 2013; Vedder, 2004).

The ever-rising cost of higher education and declining federal and state support for higher education are the two factors most often attributed to contributing to the burgeoning rise in student loan debt (Collinge, 2009; Ross, 2013; Vedder, 2004). However, most student loan reform advocates and student loan borrowers also assert that there is another factor inherent within the administration of student financial aid and student loans that has an equally significant impact on student loan debt; wide variation in the quality and depth of financial aid advising during the college application process at the outset of and during a student’s college career (Collinge, 2009; Ross, 2013). This is of particular significance because the financial aid and student loan application process is extremely complex in timing and structure and, for many students, has become an obstacle rather than a path to a college degree (Abernathy et al., 2013).

The required federal financial aid form, Free Application for Federal Student Aid
(FAFSA), is lengthy, confusing, and cumbersome, and the majority of college applicants do not know the full amount of non-repayable aid resources (i.e. scholarships and grants) for which they may qualify until long after they have completed the college admissions application process (Abernathy et al., 2013). Further adding to the complexity is the fact that students and their parents have limited opportunities for face-to-face interactions and one-to-one advising and counseling with financial aid professionals at the institutions to which they have applied or will attend (Johnson, 2012). Additionally, despite mandatory participation in an online federal student loan entrance-counseling program required for all first-time federal student loan borrowers, many student loan borrowers indicate they do not recall the counseling information. Student borrowers also indicate that, prior to signing the master promissory note for their student loans, they were not fully aware of the loan terms, interest rates, repayment schedules, penalty fees, loan servicers, and the consequences of default (Johnson, 2012).

**Purpose of the Study**

The purpose of this study was to determine which demographic variables best predict total accrued federal student loan debt for Bowling Green State University (BGSU) undergraduate degree recipients among first-time enrolled, full-time undergraduate students attending BGSU. The independent demographic variables studied were student gender, age, race, family income, dependency status, parental level of educational attainment, college degree completion, and number of years to complete the college degree. The dependent variable studied was the total amount of accrued federal student loan debt by BGSU undergraduate degree completers and non-completers. The sample consisted of 1,880 first-time enrolled, full-time undergraduate students who matriculated in August 2009 and borrowed their first federal student loan during the first year of enrollment. Data was obtained from the Free Application for
Federal Student Aid (FAFSA), institutional federal student loan data, and institutional enrollment and graduation data and was analyzed through the graduating class of May 2015.

**Research Questions**

1. Which demographic variables (student gender, age, race, family income, dependency status, and parental level of educational attainment) best predict total accrued federal student loan debt for Bowling Green State University (BGSU) undergraduate degree recipients among first-time enrolled, full-time undergraduate students attending BGSU?

2. Is there a significant difference in the total amount of federal student loan debt accrued between four-year or less and more than four-year BGSU undergraduate degree completers?

3. Is there a significant difference between BGSU undergraduate degree completers and non-completers in the amount of federal student loan dollars borrowed during each year of enrollment and the total amount of federal student loan dollars borrowed?

**Significance of the Study**

The quality and depth of financial aid advising greatly varies during the college admissions process at the outset of and during a student’s college career (Abernathy et al., 2013; Collinge, 2009; Johnson, 2012; Ross, 2013). Within this environment, students and parents are increasingly concerned about the amount of student loan debt that may be required to finance the cost of higher education and these concerns are often manifested during the admissions process (Callender & Jackson, 2005; Ross, 2013; Burdman, 2005). Consequently, the amount of financial aid non-repayable scholarships and grants an institution is able to offer to students in financial aid award packages has become a highly competitive consideration in a student’s decision to matriculate at a particular institution (Linsenmeier, Rosen, & Rouse, 2006; Nielsen, Sorenson, & Taber, 2010). Also, post matriculation, a lack of funds and concern about
borrowing too much money are often key factors affecting retention and graduation rates (Robb et al., 2012). This is important for BGSU because retention and graduation rates are key components of the state funding formula for public higher education in the State of Ohio.

Therefore, this study has significance because the results may help to identify undergraduate students who are at risk for accumulating high amounts of federal student loan debt. Identification of these students in advance of and at the outset of matriculation and during their years of enrollment could help inform the distribution of the finite pool of non-repayable sources of financial aid (scholarships and grants). An increase in non-repayable financial resources may reduce a student’s need to borrow student loans and positively impact student recruitment and enrollment as well as retention and graduation rates. Additionally, this study helped identify financial aid advising areas of focus for further research and review, which will be discussed in Chapter V.

Two important leadership applications are associated with this research. Financial aid and enrollment administrators may apply the findings of this study when determining how to strategically allocate available institutional fiscal and human resources in the administration of the financial aid program in order to produce the most significant impact on student recruitment, enrollment, retention, and graduation rates. Additionally, the study findings may inform the development of policies and procedures designed to improve and enhance institutional based financial aid advising as well as create additional student loan counseling initiatives which could be targeted toward students most at risk for accumulating high levels of federal student loan debt.

**Delimitations**

The problem of burgeoning student loan debt has many dimensions that could be studied. The decision to focus this study on demographic variables that predict the total accrued federal debt...
student loan debt for BGSU undergraduate degree recipients was, therefore, the first delimitation. Second, the population of first-time enrolled, full-time undergraduate students at BGSU may limit the generalizability of the findings to other institutions. Also, this study focused on total accrued federal student loan debt. Frequently, students also borrow private student loans from a host of various financial institutions and private student loan debt was not examined as part of this study due to the unavailability of this data. Finally, the demographic variables of interest to the researcher are not the only variables that could have been examined.

**Definition of Terms**

*COA (Cost of Attendance)*: The total costs (both direct and indirect) to a student to attend a college for one academic year. Direct costs include tuition and fees. Indirect costs include allowances for room and board, books, supplies, transportation, loan fees, dependent care, rental/purchase of a personal computer, eligible study-abroad programs, and costs associated with a disability (Student Aid Glossary, 2015).

*College degree completion*: In the context of this study, college degree completion refers to a student who earned an undergraduate degree from BGSU (completer) or a student who enrolled at BGSU, but did not earn an undergraduate degree from BGSU (non-completer).

*Constant dollar*: One U.S. dollar (USD) as valued in a particular year and then adjusted for inflation in order to determine its actual purchasing power at the present time (Business Dictionary, 2016).

*Deferment*: A postponement of student loan payments permitted under certain stated conditions as defined by the federal government. During deferment, interest charges on the loan may or may not continue to accrue (Student Aid Glossary, 2015).

*Delinquent student loan*: A student loan is considered delinquent as soon as a payment is
not received by the scheduled due date (Student Aid Glossary, 2015).

**Demographic variable:** a variable that describes the particular characteristics of the study participants (Lee & Schuele, 2010). The demographic variables examined in this study were student gender, age, race, family income, dependency status, parental level of educational attainment.

- **Gender:** Male or female (FAFSA, 2009).
- **Age:** Student age (in years) at the time of matriculation in August 2009 (FAFSA, 2009).
- **Race:** American Indian or Alaskan Native; Asian; Black or African American; Native American; Hawaiian/Other Pacific Islander; Hispanic/Latino; White (IPEDS, 2015).
- **Family Income:** Amount of adjusted gross income (AGI) listed by the student’s parent(s) on the Free Application for Federal Student Aid (FAFSA) and as reported by parent(s) on the U.S. Internal Revenue Service (IRS) form 1040 (FAFSA, 2009).
- **Dependent Student:** A student who does not meet any of the criteria for an independent student as defined by the federal government (FAFSA, 2009).
- **Independent Student:** A student who meets at least one of the following criteria as determined by the federal government:
  1) at least 24 years old;
  2) married;
  3) a graduate or professional student;
  4) a veteran;
  5) a member of the armed forces;
  6) an orphan;
7) a ward of the court;
8) someone with legal dependents other than a spouse;
9) an emancipated minor; or
10) someone who is homeless or at risk of becoming homeless (Student Aid Glossary, 2015).

- **Parental Level of Educational Attainment:** In the context of this study, the highest level of formal education undertaken or completed by the student’s father and mother: middle school/junior high; high school; college or beyond; unknown (FAFSA, 2009).

**FAFSA (Free Application for Federal Student Aid):** A required federal application that must be completed annually to determine a student’s eligibility for all non-repayable (grants, scholarships, Work-Study) and repayable (federal student loans) financial aid administered through colleges and universities, states, and the federal government (Student Aid Glossary, 2015).

**Federal student loan:** A loan funded by the federal government for the purpose of assisting a student in paying for higher education. This is a loan that must be repaid with interest. (Student Aid Glossary, 2015).

**Financial aid award letter:** An offer of financial aid from a college/university that indicates the names and amounts of sources of aid that are available to a student who accepts admission and enrolls (Student Aid Glossary, 2015).

**First-time enrolled student:** In the context of this study, a student who had not previously attended any college or university and was enrolled at BGSU for the first time.

**Full-time student:** In the context of this study, a student who was enrolled for a minimum of 12 credit hours per semester, as defined by the BGSU Office of Registration and Records.
**Grace period:** Refers to the time period after a student loan borrower graduates, leaves school, or is no longer enrolled in college at least half-time during which payments are not required on certain federal student loans. During a grace period, interest charges on the loan may or may not continue to accrue (Student Aid Glossary, 2015).

**Inflation:** A sustained increase in the price of goods and services (Business Dictionary, 2016)

**Liquidity:** A measure of how easily an asset may be converted to cash with no loss in immediate value (Business Dictionary, 2016).

**Legal dependent:** Any individual whose support and maintenance is the legal responsibility of another person, e.g. minor children (Black’s Law Dictionary, 2015).

**Matriculate:** To enroll in a college or university.

**Non-repayable student financial aid:** A form of student financial aid that does not have to be repaid, most commonly in the form of scholarships and grants (Student Aid Glossary, 2015).

**Number of years to complete the college degree:** In the context of this study, the number of years it took a completer to earn an undergraduate degree from BGSU.

**Private student loan:** A loan that a student or parent obtains directly from a bank, credit union, or other type of financial lending institution to finance the cost of higher education. Private loans are not based on demonstrated financial need as determined by the FAFSA and the interest charges are not subsidized by the federal government (Student Aid Glossary, 2015).

**Repayable student financial aid:** A form of student financial aid that must be repaid, for example, a student loan (Student Aid Glossary, 2015).

**Scholarship:** A monetary award to be used to pay educational expenses. It is generally based on established criteria for academic achievement or other accomplishments and usually
does not need to be repaid (Student Aid Glossary, 2015).

**Student loan default:** A student loan is considered in default if the borrower fails to make payments as agreed in the promissory note. Generally, a student loan is considered in default if a payment has not been made in more than 270 days (Student Aid Glossary, 2015).

**Subsidized student loan:** A federal student loan based on demonstrated financial need as determined by the FAFSA for which the federal government pays all interest for the borrower during approved time periods, as when a student is enrolled full-time or is in eligible grace or deferment time periods (Student Aid Glossary, 2015).

**Total accrued federal student loan debt:** In this study, the amount of total federal student loan debt accumulated by a student to finance the cost of his or her college degree while enrolled at BGSU.

**Unsubsidized student loan:** A student loan on which interest charges begin to be charged and accumulate from the initial date of the loan’s disbursement (cash released for student use) and for which the student is responsible for paying regardless of the status of the loan or the student’s enrollment status (Student Aid Glossary, 2015).

**Work-Study:** A federal student financial aid program that provides funds to colleges/universities for the purpose of funding part-time, on-campus employment opportunities for students in order for them to earn money to help pay their educational expenses (Student Aid Glossary, 2015).
CHAPTER II. LITERATURE REVIEW

Introduction

Since its inception in 1958 as part of the National Defense Education Act (NDEA) to its current structure today, the federal student loan program has experienced staggering growth in both scope and complexity (Best & Best, 2014). Steady and alarming increases in the aggregate amount of outstanding student loan debt and an upward trajectory in student loan default rates have accompanied this growth (Avery & Turner, 2012). Currently, outstanding student loan debt exceeds $1.3 trillion, is rising by more than $100 billion dollars annually, and increases at an estimated $3,000 dollars per second (Best & Best, 2014; FinAid, 2015). As reported by the U.S. Department of Education in September 2015, the fiscal year 2012 three-year national cohort student loan default rate has been calculated at 11.8% (U.S. Department of Education, 2015). The increased media attention and reporting of these statistics combined with the aftermath of the subprime mortgage crisis, the U.S. economic recession, and the unemployment and underemployment rates of college graduates have thus converged to heighten awareness and concern among policymakers, college administrators, students and their families, and the general public about the magnitude of outstanding student loan debt, and especially, about the ability of loan borrowers to manage repayment and avoid default (Abernathy et al., 2013). Consequently, the heightened awareness and concerns have given rise to the current U.S. national dialogue regarding the cost of higher education, student loans, and student loan debt (Best & Best, 2014).

Considering the vast array of complex components and considerations inherent within this dialogue, it is not surprising that the research literature is replete with studies focused on student loans and student loan debt (Cho, Xu, & Kiss, 2015). However, it has been reported that some of this research may lack relevancy today because the most comprehensive studies were
conducted in the mid to late 1990s within a different historical context (Gross, Cekic, Hossler, & Hillman, 2009). For example, new federal student loans in 2009-10 totaled $97 billion compared with an average of $23 billion in the early 1990s (Avery & Turner, 2012). Additionally, a majority of these studies have historically focused on the resultant ramifications of post-student loan borrowing while examining a limited number of variables (Cho et al., 2015; Gross et al., 2009). Consequently, there is a dearth of research literature focused on simultaneously examining multiple variables and their relationship to student loan debt in order to apply the findings prior to or at the outset of the undergraduate college career and during the student loan borrowing cycle.

To inform a more comprehensive understanding of and provide current context for an examination of federal student loans and student loan debt, this chapter continues with a chronological overview of the historical evolution of federal student loans and student loan debt in the U.S. This will be followed by a review of student loans and student loan debt literature as it relates to the individual independent and dependent variables to be addressed within this study: student age, gender, race, dependency status, family income, parental level of educational attainment, and college completion. Literature pertinent to the related topics of the impact of student loans on students, institutions, and financial aid advising and counseling will then be reviewed. The chapter will conclude with a summary.

Federal Student Loans Historical Overview

National Defense Student Loan (NDSL)

Prior to 1958, a small number of colleges provided funds for and administered their own student loan programs to assist their enrolled students in paying for their college education (Best & Best, 2014). In 1958, the National Defense Education Act (NDEA) was enacted by Congress...
which created the first federal student loan program known as the National Defense Student Loan (NDSL) program. Under the NDSL program, the federal government disbursed funds that were capitalized through the U.S. Treasury and distributed directly to colleges and universities for student lending. The recipient colleges and universities were required to match one dollar for every nine dollars received from the federal government. Colleges and universities then made the loans directly to individual students who repaid their outstanding debt to the colleges and universities in order to replenish the loan funds and continue the lending cycle (Best & Best, 2014).

The maximum annual NDSL was capped at $1,000 and the total maximum lifetime borrowing amount was $5,000 with an interest rate of 3%. Provisions in the NDSL program allowed for cancellation of up to one-half of the total loan amount borrowed with interest for those individuals who pursued teaching careers in public schools. Loan preferences were provided to students preparing for careers in science, mathematics, engineering, and a modern foreign language (Best & Best, 2014). By 1962, the NDSL annual cost to the federal government was $108 million. During that same year, new NDSL loans totaled $100,000,000 for the first time. The NDSL program has since evolved into what is known today as the Perkins Loan Program (Best & Best, 2014).

**Guaranteed Federal Student Loan (GSL)/Stafford Loan**

The guaranteed federal student loan (GSL) program was the next iteration in the evolution of federal student loans. The GSL program began in 1965 as part of the Higher Education Act (HEA) with an appropriation of $15,000,000 and was primarily intended to supplement scholarships and non-repayable grants that were also part of this legislation (Collinge, 2009). Unlike the NDSL program, the GSL program did not provide loan funds
directly to colleges and universities. Rather, it was designed to reduce the annual cost of student loans to the federal government by guaranteeing student loans made by private banks and non-profit organizations. The federal government also subsidized the interest of 6% (the federal government paid all of the interest charges) while a student was enrolled in college or during economic cycles of high interest rates. The federal government also paid half of the 6% interest charges after a student left school for all loan borrowers from low and middle-income families.

Between 1965 and 1972, the GSL program grew to seventeen times its original size. In 1971 new student loans topped $1,000,000,000 for the first time in the history of the student loan program (Best & Best, 2014). Since 1965, modifications have been made to the GSL program, which is now known as the Stafford Loan program. Currently, interest on a Stafford Loan may be subsidized (the federal government pays the interest during certain specified time periods and/or circumstances) or non-subsidized (the federal government does not pay the interest on the student loan); subsidies are dependent upon the type of federal student loan borrowed and the initial date of the disbursement of the loan proceeds to the student borrower. The maximum annual loan amounts for Stafford loans vary by year in college and dependency status and the current interest rate is based on the 10-year Treasury bill plus 2.05% with a cap of 8.25 % (Best & Best, 2014).

**Federal Family Education Loan Program (FFELP)/Secondary Markets**

As the demand for federally guaranteed student loans increased and lenders became dissatisfied with student loans due to their illiquidity and cumbersome administration, policy makers began to consider a secondary market for federal student loans. In 1972, a government agency, the Student Loan Marketing Association (Sallie Mae) was created to administer the GSL program. Under Sallie Mae, lenders still made loans to students but they would then sell the
loans to Sallie Mae. After purchasing the loans, Sallie Mae bundled them as long-term investments and subsequently sold them in a secondary market (Best & Best, 2014). These loans became known as the Federal Family Education Loan Program (FFELP). With passage of the Health Care and Education Reconciliation Act of 2010, Congress eliminated the FFELP program for all new loans made after July 1, 2010. Since that time, all federal student loans have been direct loans issued by the Federal government (Hershbein & Hollenbeck, 2015).

**Higher Education Act Amendments/Bankruptcy Discharge**

Rising college costs, which have outpaced inflation every year since 1981 and continue to do so (Cho et al., 2015; Vedder, 2004), have historically and consistently fueled the increasing demand for student loans. Such demand resulted in the issuance of $10,000,000,000 in new student loans in 1986 (Best and Best, 2014). This rapid rise in the amount of outstanding student loan debt and an accompanying increase in default rates caused alarm among lawmakers and policy makers, which resulted in several amendments to the Higher Education Act in 1976 and 1990. These amendments began to make it more difficult for student loan borrowers to discharge their loans in bankruptcy (Ang & Jimenez, 2015; Ross, 2013). A 1998 amendment to the Higher Education Act made student loan debt completely non-dischargeable in bankruptcy unless the debtor could show undue hardship. Proof of undue hardship has proven extremely difficult to argue in court because it has still not been clearly defined by Congress (Ang & Jimenez, 2015).

**Parent Loans for Students (PLUS)**

Even as the federal student loan program continued to become more complex and the total amount of outstanding debt continued to grow, new federal loan programs were added. In 1980, unsubsidized Parent Loans for Students (PLUS) were established. PLUS were available to
both parents and graduate and professional students and could be made directly by the federal
government or by private lenders and repayment began immediately. However, the federal
government did not and does not subsidize PLUS loans, which makes them more expensive for
the student borrowers; the PLUS program continues today (Best & Best, 2014; Student Aid
Glossary, 2015).

Direct Federal Loans and Private Borrowing

During the early 1990s, policy makers began to rethink federally guaranteed student
loans and once again favor direct student loans from the federal government. In response,
Congress passed the Omnibus Reconciliation Act in 1993, which began a program to phase in
direct lending of student loans from the federal government (Best & Best, 2014). In addition to
federal student loans, private borrowing from banks and other lending institutions by students
and their parents increased in response to the increased cost of higher education attendance. It is
estimated that private student loans represented 20% of the debt of all 2012 college graduates
(Abernathy et al., 2013).

In 2011, the aggregate outstanding federal and private student loan debt in the United
States totaled more than credit card debt for the first time in history and in 2012 it surpassed the
$1 trillion dollar threshold (Ross, 2013). From 2007-2012, the average amount of student loan
debt more than doubled from $13,500 to $29,400 for all students in public, private non-profit,
and for-profit college. For fiscal year 2012, the three-year student loan national cohort default
rate has been calculated at 11.8% (U.S. Department of Education, 2015).

Historical Summary

Over the course of its history, the federal student loan program has experienced
staggering growth in both scope and complexity (Best & Best, 2014). As illustrated in Figure 1,
the 1958 federal student loan flow chart shows that the first federal student loans were administered in a simple arrangement between the federal government, colleges and universities, and student borrowers. The federal government annually disbursed funds directly to colleges and universities for lending to students and the colleges and universities were required to match one dollar for every nine dollars received from the federal government. The loans were made by the colleges and universities directly to individual students. The individual student borrowers then repaid their outstanding debt back to the colleges and universities in order to replenish the loan funds and continue the lending cycle (Best & Best, 2014; Edmiston et al., 2013).

Figure 1
Federal Student Loan Administration in the U.S. 1958

Federal Student Loan Administration in the U.S. (1958)


The present administration of student loans is illustrated in Figure 2. This 2013 flow chart is considerably more complex than the administration of student loans in 1958. Although federal student loans represent a majority of the total annual student loan volume, student loans have become an intricate amalgamation of federal loans, loans from private sources such as banks and non-profit lenders, loans administered by states, and loans funded by individual colleges and universities. The resultant complexity of the current system of
administration has contributed to the present student loan debt and default problems (Edmiston et al., 2013).

Figure 2

Student Loan Administration in the U.S. 2013

Source: Best & Best (2014) as adapted from Edmiston, Brooks, & Shepelwich (2013, Figure 1). Reprinted with permission.

Demographic Characteristics, Student Loans, and Student Loan Debt

Studies examining the demographic characteristics of student loan borrowers are an important component in developing a comprehensive understanding of student loans and student loan debt and such studies contribute knowledge and information to the national discussion and debate surrounding policy decisions affecting the administration of the federal student loan
program (Baum, 2015). Several demographic variables were analyzed in this study: student age, gender, race, dependency status, family income, parental level of education, and degree completion. A discussion of related literature germane to these variables follows.

Age

A review of the literature finds that 20% of the adult population in the U.S. (age 20 and older) carries student loan debt. Data from the 2012 National Financial Capability Study (NFCS) indicate that the highest percentage of student loan borrowers (40%) is between the ages of 20-29 and the percentage of student loan borrowers is inversely related to the age of the borrowers. Student loan borrowers between the ages of 30-39 represent 30% of all student loan borrowers; ages 40-49 represent 19%; ages 50-59 represent 12%; and age 60 and over represents 4% (Ratcliffe & McKernan, 2013). Although student loan borrowers age 60 and over represent the smallest percentage of total borrowers by age, recent statistics from the Federal Bank of New York indicate that the number of student loan borrowers age 60 and over increased from 700,000 borrowers in 2005 to the current figure of 2.2 million borrowers. Additionally, according to 2013 data from the U.S. Government Accountability Office (GAO), total outstanding student loan debt by borrowers age 65 and older increased from $2.8 billion in 2005 to $18.2 billion in 2013. Researchers and policy makers attribute this burgeoning increase in student loan debt in this age demographic to educational loans incurred for both the personal educational opportunities of the borrowers as well as educational opportunities for their children (Kitroeff, 2015; Stratford, 2014). It has also been reported that the amount of student loan debt held by American adults ages 29-37 ranks second only to the amount of mortgage debt held by those in this age demographic (Ratcliffe & McKernan, 2013).

The literature also revealed studies that considered the age of borrowers while enrolled in
college and at the beginning and during loan repayment when analyzing student loan debt
that accumulated student loan debt would be repaid by the borrower through a study that
examined several possible determinants of repayment, including the age of the borrowers
utilizing state salary data merged with undergraduate alumni student records from a large public,
urban university (N=2,372). The undergraduate alumni student records contained enrollment,
financial aid, and degree data and the salary data was calculated from the actual amount of state
unemployment tax paid by each individual. This type of data set was somewhat unique in that it
contained actual salary and student loan debt data, rather than self-reported data.

The age of the student loan borrowers was analyzed within an ordinary least squares
regression analysis and study results indicated that every year of chronological age positively
correlated with an average increase of $312 in accumulated student loan debt. The study also
found a positive correlation between increasing chronological age and the probability of default
on a student loan debt when controlling for income level. This is an important finding because
there is a direct correlation between level of income and successful retirement of accumulated
student loan debt (Harrast, 2004). Therefore, this finding may have negative ramifications for
federal student loan forgiveness programs such as Pay As You Earn (PAYE) and Revised Pay As
You Earn (REPAYE) because these programs extend repayment of outstanding student loan debt
from 10 years to 20-25 years (Haneman, 2015).

Another study examined borrower age as one of several potential risk factors associated
with student loan defaults for student loan borrowers who previously attended a large, public
university in Texas and were currently in repayment (Herr & Burt, 2005). Data for this study
were generated from the National Student Loan Database System (NSLDS), Texas Guaranteed
Student Loan Corporation (TG), and student records from the university, which included enrollment and financial aid data. The average age of the student loan borrowers in the sample \((N=23,707)\) was 30. Logistic regression analysis did not initially reveal age of the student loan borrower as a statistically significant variable. However, age did enter the model once degree information was added, with the resulting coefficient implying that older students are more likely to default on their student loans. Further analysis of the data indicated that student loan borrowers between the ages of 20-24 and over the age of 40 had a higher rate of student loan debt default than student loan borrowers between the ages of 25-39. This indicated the existence of a non-linear relationship between student loan debt default and age of the student loan borrower.

**Gender**

Studies describing the possible effect of gender on the accumulation and repayment of student loan debt are present in the literature (Dwyer, McCloud, & Hodson, 2012; Dwyer, Hodson, & McCloud, 2013; Flint, 1997; Haneman, 2015; Harrast, 2004, Ratcliffe & McKernan, 2013). Statistical trends gleaned from this literature indicate that females currently constitute a majority of all undergraduates enrolling in U.S. colleges (Dwyer et al., 2013). Also reported are the rates at which student loan debt is incurred by female and male borrowers, which are approximately the same (Ratcliffe & McKernan, 2013). Additionally, some studies have shown that males are more likely than females to default on their student loans (Flint, 1997).

In one study (Dwyer et al., 2012), the effect of indebtedness on young adults’ completion of a college degree was examined. Data were drawn from the National Longitudinal Study of Youth 1997 (NLSY97). The sample \((N=1,898)\) was nationally representative of young adult males and females ages 25 and older who had enrolled in college but were not presently
attending (graduated or dropped out). College graduation was defined as having received a college degree. Educational debt was defined as the last loan assumed while the respondent was enrolled in college. Logistic regression analysis indicated that student loans support college completion and the attainment of a degree. However, results also showed a point of diminishing returns when accrued student loan debt went above the $10,000 threshold. Accrued student loan debt above the $10,000 threshold was found to reduce the likelihood of college completion and degree attainment. Among male and female college students carrying high levels of student loan debt, the results revealed that females drop out of college in greater numbers than men. Relative to gender differences in borrowing, Harrast (2004) found no significant difference in the borrowing behaviors of females and males.

Relative to the student loan debt burden post-degree attainment, females were found to be burdened by their accrued student loan debt after graduation (Rader, 2014). One year after graduation, employment compensation for females is, on average, 82 cents for every dollar paid to males even when controlling for college major, type of job, and number of hours worked per week. This equates to a 7% wage gap between females and males and means that female student loan borrowers expend more of their earnings on student loan repayment than do males.

The literature also revealed that female student loan borrowers are at a disadvantage in some federal income-based student loan repayment plans, especially Revised Pay As You Earn (REPAYE) (Haneman, 2015). This is due to a provision in REPAYE mandating that both household incomes be considered when determining repayment terms for a married borrower regardless of the borrower’s Internal Revenue Service (IRS) filing status (married filing jointly or married filing separately). This provision negatively affects married, employed females who have student loan debt and whose spouses also have student loan debt due to the existing gender
pay gap and the consequences of secondary earner bias in the calculation of income on which the repayment formula is based.

Race

Research studies examining racial differences relative to the accumulation, effects, and repayment of student loan debt are among the most common in the literature (Gross et al., 2009). Baum and Steele (2010) examined data from the National Postsecondary Student Aid Study (NPSAS) 2007-2008, relating to bachelor’s degree recipients who had accumulated high levels of student loan debt as compared to the degree recipient’s race, family income, and dependency status (dependent/independent). Race was defined as White, Black, Hispanic/Latino, and Asian. Family income was categorized as: less than $30,000 (low-income); $30,000 to $59,999 (middle income) and $60,000-$99,999 (middle-income), and $100,000 plus (high-income). High level of student loan debt was defined as total student loan debt of $30,500 or more for an undergraduate bachelor degree recipient graduating in 2007 and 2008. Cumulative student loan debt of $30,500 or more was utilized for this analysis because this amount represented the 75th percentile of undergraduate bachelor’s degree recipients among all 2007-08 graduates who borrowed student loans prior to the completion of their degree.

A dependent student was defined as a student not meeting one of the following federally established criteria for an independent student:

1) at least 24 years old;
2) married;
3) a graduate or professional student;
4) a veteran;
5) a member of the armed forces;
6) an orphan;
7) a ward of the court;
8) someone with legal dependents other than a spouse;
9) an emancipated minor; or
10) someone who is homeless or at risk of becoming homeless (Student Aid Glossary, 2015).

Results of this analysis indicated that a greater percentage of Black bachelor’s degree recipients (27%) graduated with a high level of student loan debt (total undergraduate cumulative amount of student loan debt of $30,500 or more) in comparison to Whites (16%), Hispanics/Latinos (14%), and Asians (9%).

Another study (Jackson & Reynolds, 2013) examined racial differences in cumulative levels of federal student loan debt relative to differences in enrollment persistence, college completion (degree attainment), federal student loan default, and parental socioeconomic status within a cohort of Black and White first year college students. Cumulative level of federal student loan debt was defined as the total amount of student loan debt borrowed through the Perkins, PLUS, or Stafford federal loan programs. Private loans were not considered. Enrollment persistence was defined as the number of months the study participant was enrolled at a degree granting institution on either a full or part-time basis between the years of 1996-2001. College completion (bachelor’s degree attainment) was defined as whether or not the study participant received a bachelor’s degree as of 2001. Federal student loan default was defined as whether or not the study participant ever defaulted on a federal student loan. A federal student loan is considered to be in default if a payment has not been made in 270 calendar days (U.S. Department of Education, 2015). Parental socioeconomic status included the parental income for

The data were obtained from the 1995-1996 Beginning Postsecondary Students (BPS) longitudinal study with three and six-year academic follow-ups. The study sample ($N = 6,780$) was restricted to non-Hispanic White and non-Hispanic Black beginning college students between the ages of 16-25 who either began post-secondary work at a 4-year college or those who planned to attain at least a 4-year degree. Results of a linear regression analysis indicated that Black students assume larger amounts of total federal student loan debt than White students and have a higher risk of default on their student loans. These findings reflect statistics indicating that, on average, Black college students have fewer familial financial resources than do White college students (Jackson & Reynolds, 2013).

**Dependency Status**

For purposes of determining eligibility for all federal student financial aid, including federal student loans, student responses from the FAFSA are utilized to classify students into one of two categories: dependent or independent. Hence, student dependency status is also an important variable relating to student loans and student loan debt. Federal guidelines define a dependent student as an individual who does not meet any of the criteria for an independent student. A student is classified as independent if he/she meets at least one of the following criteria:

1) at least 24 years old;
2) married;
3) a graduate or professional student;
4) a veteran;
5) a member of the armed forces;
6) an orphan;
7) a ward of the court;
8) someone with legal dependents other than a spouse;
9) an emancipated minor; or
10) someone who is homeless or at risk of becoming homeless (Student Aid Glossary, 2015).

From survey data, Baum and Steele (2010) found, on average, there are fewer dependent student loan borrowers than independent student loan borrowers and of the dependent students who do assume student loans they borrow less than independent students. According to the College Board (2015), 11% of dependent student 2011-12 bachelor’s degree recipients accrued more than $40,000 in student loan debt as compared to 25% of the independent student (without dependents) bachelor degree recipients and 29% of the independent student (with dependents) bachelor degree recipients who accrued more than $40,000 in student loan debt.

A recent study (Gordon, 2013) sought to determine attitudes and perceptions toward student loan debt by a group of 28 undergraduate, independent students enrolled at a large Midwestern regional public university. Twenty individuals were interviewed during their junior year of college and eight were interviewed in close proximity to graduation/degree attainment. Questions were structured around debt tolerance and the value of a higher education degree. All participants met one of the federal criteria for independent student status. Results suggested that independent students viewed student loan debt as a necessity to attain a college degree and that a college degree is needed in order to secure future employment. Some participants indicated negative impacts on their social and academic experiences because of the accumulation of student loan debt. Additionally, responses highlighted challenges for students who meet the
technical definition for a dependent student as established by the federal government, but are not receiving any support from parents who either cannot or will not assist them.

**Family Income/Parental Level of Education**

Higher levels of educational attainment for one or both parents have been found to positively correlate to the successful loan repayment by student borrowers due to the increased amount of parental income and socioeconomic status resulting from advanced educational opportunities (Gross et al., 2009). Studies examining family income and parental level of educational attainment and their relationship to student loans and student loan debt are, therefore, present in the literature. One such study (Houle, 2013) examined the relationship between young adult student loan debt, parental socioeconomic status (SES), parental level of education, and race/ethnicity. A young adult was defined as a male or female who had attended college and was between the ages of 25-28. Parental SES was defined as parent reported income and parental level of education was defined as the highest level of education attained by either parent. Race was defined as White, Black, and other race. Data were drawn from the National Longitudinal Study of Youth 1997 (NLSY97). The sample (N=4,789) was nationally representative of males and females between the ages of 12 and 16 at the time of the first interview, who subsequently participated in annual follow up interviews through 2009.

Linear regression analysis yielded results indicating that the relationship between parents’ SES and student loan debt was nonlinear. Young adults from middle-income families (those with an annual income of $40,000-99,000) had a higher risk for accumulating student loan debt than young adults from low-income families (annual income of less than $40,000) and high-income families (annual income of more than $99,000). Baum and Steele (2010) also found that middle-income bachelor degree recipients were more likely than low-income and high-income bachelor
Degree recipients to accumulate student loan debt of $30,500 and above. The findings from both of these studies are consistent with current financial aid practices regarding demonstrated financial need. Non-repayable grant-based aid for higher education (aid that does not have to be repaid) is predominantly based on financial need (Houle, 2013; Price, 2004). Therefore, low-income students receive more non-repayable grants and scholarships than middle-income students and higher-income students have more available financial resources available that limit the amount of student loan debt they need to assume.

Degree Completion

The accumulation of student loan debt has been shown to affect college completion and degree attainment rates (Dwyer et al., 2013; Dwyer et al., 2012; Jackson & Reynolds, 2013). In one study (Dwyer et al., 2012), lower student loan borrowing levels were shown to support college completion and degree attainment. However, there was a point of diminishing returns when accrued student loan debt went above the $10,000 threshold. At this level, accrued student loan debt was found to reduce the likelihood of college completion and degree attainment. In the study conducted by Jackson and Reynolds (2013), results indicated that borrowing federal student loans significantly affects greater enrollment persistence and higher odds of completing college, especially for Black students. Harrast (2004) determined that the number of semesters needed to attain degree completion was the most controllable influencer of the accumulation of student loan debt.

The Impact of Student Loans

Although the impact of student loans on individual students, higher education institutions, and financial aid advising are not the specific focus of this study, they are interrelated components relating to the significance of this study and the primary leadership
applications of the findings. Therefore, it is instructive to review literature relating to these topics.

**Student Loan Impact on Individual Students**

Student loans and student loan debt have been found to positively and negatively impact individual student loan borrowers (Cho et al., 2015). One goal of the Higher Education Act of 1965 was to make higher education accessible to a broader stratum of the U.S. population than had previously been the case (Collinge, 2009, Vedder, 2004). Student loans have created this desired positive impact by making college accessible to individuals who might not otherwise have the financial resources to enroll (Burdman, 2005). Studies have shown (Jackson & Reynolds, 2013) that borrowing federal student loans significantly affects greater enrollment persistence and higher odds of completing college, especially for Black students.

Dwyer, Hodson, and McCloud (2012) reported that two-thirds of college degree holders were able to enroll in college and attain a degree because of their ability to secure student loans to finance the cost of their education. As a result of completing a college degree, a resultant positive impact frequently cited in the research literature is the long-term economic benefits college graduates experience over their counterparts who do not pursue a college degree, such as better employment prospects and higher earnings over the course of their lifetimes (Avery & Turner, 2012; Brown, Haughwout, Lee, Scally, & van der Klaauw, 2014; Goldin & Katz, 2008). From an analysis of 2002 U.S. Census Bureau data, it is estimated that Americans holding a bachelor’s degree earn an average lifetime income of 75% more over the course of their working lives as compared to individuals with a high school diploma (Carnevale, Rose, & Cheah, 2011).

Avery and Turner (2012) analyzed economic data from the U.S. Census Bureau Current Population Survey (CPS) that included earnings for high school diploma and college degree
holders over the period of 1965 to 2010. The results of this analysis indicated, on average, that the total life-time earnings increment for a college degree recipient compared to a high school graduate has increased substantially over the course of the last three decades regardless of gender. The results also showed that during times of recession or economic downturns, college degree completers experience lower rates of unemployment than do individuals with a high school diploma only.

The literature also suggests, however, that student loans negatively impact individuals in two important ways (Burdman, 2005). First, for those individuals who do attend college and borrow to attain their degrees, high amounts of student loan debt have been found to negatively affect their future financial well-being by delaying or preventing them from entering the housing market; accessing capital; engaging in traditional life-cycle events such as marriage and starting a family; engaging in entrepreneurial ventures; and entering the middle-class (Chopra, 2013; Collinge, 2009; Elliott & Lewis, 2015; McKee, 2012; Ross, 2013). Survey data (Baum & Saunders, 1998) from student loan borrowers found that 40% of degree completers delayed purchasing a home; 31% delayed the purchase of a car; 22% delayed having children.

Second, some individuals are averse to incurring debt and this aversion may be attributable to numerous factors including low income level, individual familial values, and cultural and racial mores. The fear of borrowing large sums of money to attend college and aversion to debt have been shown to produce the unintended consequence of limiting educational options, especially among racial minorities and those from low-income households (Burdman, 2005; Callender & Jackson, 2005; Dowd, 2008; Price, 2004). For example, an analysis of data from the Federal Reserve indicated that Hispanics and low-income individuals were less inclined to borrow funds to attend college and enroll in smaller numbers than Black students if the accrual
of student loan debt is a consideration in their decision process (Burdman, 2005). Female and older students were also found to be less inclined to borrow in order to attend college if student loans were the primary source of financial aid they were offered (Cunningham & Santiago, 2008). Finally, results of another study indicated that accrued student loan debt above $10,000 reduces the likelihood of college completion and degree attainment (Dwyer et al., 2012).

**Student Loan Impact on Institutions**

Institutions cannot educate and graduate students unless they first enroll those individuals desirous of obtaining a college degree. In order to enroll and persist until graduation, students must have the financial resources to pay for their educational expenses. Federal student loans constitute the majority of aid students receive to attend college and thus are an important factor in enrollment decisions affecting higher education institutions (College Board, 2015). For all students annually enrolling in a 4-year U.S. higher education institution there is, on average, a 50% chance of persisting to degree completion. This may be due to the continually increasing known costs associated with obtaining the degree versus the uncertainty surrounding the possibility of long-term returns (Robb et al., 2012). Once enrolled, persistence to degree completion and accompanying graduation rates are especially critical statistics for public higher education institutions in Ohio because retention and graduation rates are key metrics within the state-funding model.

Undergraduate post-enrollment research literature examining the effect of student loans and student loan debt on undergraduate persistence revealed some inconsistent findings. For instance, Jackson and Reynolds (2013) found that borrowing federal student loans significantly affects greater enrollment persistence especially for Black students. However, Dwyer et al., (2012) found that borrowing student loans increased the likelihood of persistence to degree
completion until the point at which accumulated student loan debt reached more than $10,000. At that point, accumulated student loan debt was found to reduce the likelihood of persistence to college completion.

In another study (Robb et al., 2012), undergraduate students attending two major universities (one each in the Southeast and Midwest) were surveyed to determine if they felt emotionally burdened by their student loan debt and what affect this might have on persistence to their degree completion. Demographic variables of year in school and parental income were also examined. The sample \( N=1,390 \) was restricted to students under the age of 30. Logistic regression analysis indicated that year in school and parental income were significant predictors of difficulty persisting to degree completion because of the emotional burden of student loan debt. Students from low-income families and freshmen students reported higher levels of emotional burden than students from high-income families and all other classes (sophomores, juniors, and seniors) of students. The amount of student loan debt was also significant. As student loan debt increased, so did the likelihood of feeling emotionally burdened.

**Financial Aid Advising and Student Loans**

The administration of student financial aid and student loans has a significant impact on decisions made by student borrowers relative to student loan debt because there is wide variation in the quality and depth of financial aid advising during the college application process and at the outset of and during a student’s college career (Collinge, 2009; Ross, 2013). This is of particular significance because the financial aid process (which includes federal student loans) is extremely complex in timing and structure and, for many students, has become an obstacle rather than a path to a college degree (Abernathy et al., 2013). The process for completing the required forms and the forms themselves (e.g. FAFSA) are lengthy, confusing, and cumbersome and the
majority of college applicants do not know the full amount of non-repayable financial aid (scholarships and grants) for which they may qualify until long after they have completed the college admissions application process (Abernathy et al., 2013).

In one study examining the college financial aid application process, Johnson (2012) conducted multiple interviews with high school seniors ($N=8$) and their parents from two South Dakota high schools regarding their college financial aid application experiences. Participants were selected utilizing convenience and snowball sampling. Questions were structured to ascertain what the students and parents learned throughout the college financial aid application process. Results indicated that students and their parents have limited opportunities for face-to-face interactions and one-to-one advising and counseling with financial aid professionals at the institutions to which they have applied or will attend. Additionally, despite mandatory participation in an online federal student loan entrance-counseling program required for all first-time federal student loan borrowers, a majority of the study participants indicated they did not recall the counseling information. They also indicated that, prior to signing the master promissory note for their student loans, they were not fully aware of the loan terms, interest rates, repayment schedules, penalty fees, loan servicers, and the consequences of default (Johnson, 2012). These findings are consistent with published reports on the confusion and complexities relating to student financial aid and student loan application processes (Abernathy et al., 2013; McKenzie, 2009).

A student loan is an investment in human capital that requires thoughtful decisions regarding several highly complex questions relating to enrolling in college, field of study, and the financial mechanisms available to fund attainment of a college degree (Robb et al., 2012). The study by Johnson (2012) and other related literature (Abernathy et al., 2013; Avery &
Turner, 2012; McKenzie, 2009) point to the need for more individualized financial aid and student loan counseling initiatives.

**Summary**

These studies have added to a body of research that has helped inform a more comprehensive understanding of the magnitude of complexities associated with student loan debt, access to higher education, and student loan repayment/defaults. And, considering the vast array of complex considerations inherent in the administration of the federal student loan program, it is not surprising that the research literature is replete with studies that have examined various demographic variables relating to student loan borrowers and their parents as described in this literature review. Some of the research has focused on examining the effects of individual demographic variables such as the student age, gender, race, dependency status, family income of the student borrower, and parental level of education on the amount of student loan debt accumulated by bachelor’s degree recipients and their ability to repay the debt (Baum & Steele, 2010; Flint, 1997; Haneman, 2015; Harrast, 2004; Herr & Burt, 2005; Houle, 2013; Jackson & Reynolds, 2013; Kitroeff, 2015; Stratford, 2014). Student dependency status (dependent/independent as defined by the federal government) and the accumulation of student loan debt have also been a focus of study (Baum & Steele, 2010; Gordon, 2013).

Student loan defaults have been yet another focus of research studies and default studies are abundant within the literature (Gross et al., 2009). A student’s age has been found to contribute to student loan defaults, especially among older students who are more likely to have greater financial obligations (Herr & Burt, 2004). Further, in one study, a student’s cumulative debt load was found to increase by $312 for each year of age (Harrast, 2004). Additionally, studies have addressed college completion and degree attainment rates relative to the
accumulation of student loan debt, student financial stress, and level of risk aversion of undergraduate students (Burdman, 2005; Dowd, 2008; Dwyer et al., 2012; Harrast, 2004; Jackson & Reynolds, 2013; Price, 2004).

Other studies have focused on the long-term economic benefits college graduates experience over their counterparts who do not pursue a college degree, such as better employment prospects and higher earnings over the course of their lifetime (Avery & Turner, 2012; Brown et al., 2014; Goldin & Katz, 2008). The impact of student loans on individual students, higher education institutions, and student financial aid and student loan application processes has also been studied (Johnson, 2012; Robb et al., 2012).

There is, however, a paucity of research that simultaneously examines multiple demographic variables in order to attempt to identify students who may be most susceptible to accumulating high amounts of student loan debt prior to or at the outset of the undergraduate college career and student loan borrowing cycle. This study was designed to simultaneously examine multiple demographic variables at the beginning of the undergraduate college career and student loan borrowing cycle in order to help fill this gap in the research literature.
CHAPTER III. METHODOLOGY

Introduction

The purpose of this study was to determine which demographic variables (student gender, age, race, family income, dependency status, and parental level of educational attainment) best predict total accrued federal student loan debt for Bowling Green State University (BGSU) undergraduate degree recipients among first-time enrolled, full-time undergraduate students attending BGSU. This chapter presents the study’s research design, participants, data sources, procedures, data analysis process, and study assumptions, all of which may be useful to other researchers who may wish to replicate this study in the future.

Research Design

According to Creswell (2014), a correlational research design should be utilized when a researcher is attempting to describe and measure the relationship between two or more variables. In this study, a correlational research design was employed because the researcher sought to identify the relationship between a set of independent variables (student gender, age, race, family income, dependency status, and parental level of educational attainment) and a single dependent variable (total accrued federal student loan debt for BGSU undergraduate degree completers). The correlational research design was also appropriate for this study because the researcher investigated the degree to which the independent variables predict an outcome, the dependent variable (Mertler & Vannatta, 2013).

Participants

This study included a dataset of 2,190 participants who were full-time undergraduate students that matriculated at BGSU for the first time in August 2009 and who had not previously attended any other college or university. BGSU is a Midwestern four-year public research
university located in Bowling Green, Ohio. The total undergraduate population in August 2009 was approximately 14,000 students, and 3,094 students (22%) were freshmen. Undergraduate student demographics include: 56% females and 44% males; 78% White, 10% African American/Black, 4% Hispanic, 1% Asian, and 2% international students. The average age of the undergraduate students is 21 years of age, and 86% are Ohio residents.

The study participants were identified through a secondary data set obtained from the BGSU Office of Student Financial Aid and the BGSU Office of Registration and Records. The population consisted of all first-time enrolled undergraduate students who matriculated in August of 2009. The sample consisted of an original data set of 2,190 participants. From this data set, 1,880 BGSU first-time enrolled, full-time undergraduate students were identified that matriculated in August 2009 and borrowed a federal student loan, which represented approximately 61% of the 3,094 first-time enrolled undergraduate students who matriculated in August 2009. Data for federal student loan debt per year of enrollment and upon graduation and degree completion/non-completion data were analyzed through the graduating class of May 2015.

The researcher sought and received approval to conduct the study from the BGSU Human Subjects Review Board (HSRB) by completing the Review Determination Form utilizing the exempt category. The exempt category was requested because the researcher did not obtain data through intervention or interaction with individuals and there were no identifiers associated with the secondary data set utilized, thereby rendering the data completely anonymous (see Appendix A).

**Data Sources**

Three data sources were utilized in this study and included:
1. FAFSA - Free Application for Federal Student Aid (see Appendix B);
2. BGSU student financial aid federal student loan data; and
3. BGSU Office of Registration and Records student enrollment and graduation data.

The FAFSA was completed by the study participants and their parents prior to matriculation in 2009 and was the source for the independent variable data relating to student gender, age, family income, dependency status, and parental level of educational attainment. The FAFSA is a free federal application that must be completed and submitted annually by prospective and enrolled college students and parents of dependent students to determine a student’s eligibility for all non-repayable (grants, scholarships, Work-Study) and repayable (federal student loans) financial aid administered through colleges and universities, states, and the federal government. FAFSA questions solicit demographic (e.g., gender, age, parental education) and financial (e.g., family income, assets) information for analysis in order to determine a student’s ability to contribute financial resources toward their cost of higher education (Student Aid Glossary, 2015).

The 2009 BGSU Application for Undergraduate Admission (see Appendix C) was the source of the data for first-time enrolled, full-time undergraduate student status and race. Data for degree completion/non-completion and number of years to complete the undergraduate college degree was obtained from the BGSU Office of Registration and Records. BGSU student financial aid records were the source of the data for the dependent variable of the amount of federal student loan debt for each participant. All data was coordinated through the BGSU Office of Student Financial Aid and the Interim Director of Scholarships and Student Awards.

Procedures

The BGSU Office of Registration and Records identified all undergraduate students who matriculated in August 2009 and were first-time college enrollees. This list of students was
cross-referenced with student financial aid data to generate a list of first-time enrolled, full-time undergraduate students who matriculated at BGSU in August 2009 and were federal student loan borrowers. Each student identification number (ID) was matched with the yearly total of federal student loan dollars disbursed along the independent variable fields of student gender, age, race, family income, dependency status, parental level of educational attainment, completion/non-completion of a college degree, and number of years to complete the college degree. The yearly totals were matched through the graduating class of May 2015. The researcher received the data from the Office of Student Financial Aid in an Excel spreadsheet format with all identifiers removed thus rendering the data completely anonymous.

**Research Questions**

1. Which demographic variables (student gender, age, race, family income, dependency status, and parental level of educational attainment) best predict total accrued federal student loan debt for Bowling Green State University (BGSU) undergraduate degree recipients among first-time enrolled, full-time undergraduate students attending BGSU?

2. Is there a significant difference in the total amount of federal student loan debt borrowed between four-year or less and more than four-year BGSU undergraduate degree completers?

3. Is there a significant difference between BGSU undergraduate degree completers and non-completers in the amount of federal student loan dollars borrowed during each year of enrollment and the total amount of federal student loan dollars borrowed?

**Data Analysis**

Several categorical and quantitative independent variables were examined within this study: student gender, age, race/minority status, family income, dependency status, parental level of educational attainment, college degree completion, and number of years to complete the
college degree. The dependent variable studied was the amount of accrued federal student loan debt by a BGSU undergraduate degree completer or non-completer. Table 1 summarizes the type, scale, and source of data for the study variables. The independent variables of student gender, age, family income, dependency status, and parental level of educational attainment were obtained from the completed FAFSA form, while data for race, years to degree completion and college degree completion was obtained from the BGSU Office of Registration and Records. The variables of gender, dependency status, parental level of educational attainment, race, years to degree completion, and college degree completion are categorical variables.

Age and family income are quantitative variables. Data for the dependent variable of annual federal student loan debt was obtained from the BGSU Student Financial Aid Office. Data for the dependent variable of total accrued federal student loan debt upon graduation was obtained from the BGSU Office of Student Financial Aid. For the logistic regression analysis relating to research question one, this variable was treated as a categorical variable with two categories: above and below accrued federal student loan debt levels upon graduation of $10,000, $20,000, and $30,000.

The data analysis process began with quantification of all text-based variables by the researcher (see Table 1). The data was then downloaded into the Statistical Package for Social Sciences (SPSS) for recoding and screening for missing data, outliers, normality, linearity, and homoscedasticity. The original dataset contained 2,190 student records. Of those, 310 records were eliminated because they did not contain data indicating that a federal student loan was borrowed during the first year of enrollment, which was one of the criteria for inclusion in the study. Thus, there were 1,880 participants in the study (n=1,880).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Type of Variable</th>
<th>Scale</th>
<th>Source</th>
</tr>
</thead>
</table>
| Gender  | Categorical     | 1=Female  
2=Male | FAFSA #21 |
| Age     | Quantitative    | Actual age in number of years | FAFSA #9 |
| Race    | Categorical     | 1=Am. Indian/Alaska Native  
2=Asian  
3=Black  
4=Hispanic/Latino  
5=Native Hawaiian/Other Pacific  
6=White  
7=Not Specified | BGSU 2009 Application for Undergraduate Admission |
| Minority Status | Categorical | 1=White  
2=Minority | BGSU 2009 Application for Undergraduate Admission |
| Family Income | Quantitative | Actual dollar amount of parental adjusted gross income | FAFSA #86 |
| Dependency Status | Categorical | 1=Dependent  
2=Independent | FAFSA #48-60 |
| Parent’s Level of Educational Attainment | Categorical | 1=Unknown  
2=Middle school/junior high  
3=High school  
4=College or beyond | FAFSA #24 and #25 |
| Years to Degree Completion | Categorical | 1=4 years or less  
2=more than 4 years | BGSU Registration & Records |
| College Degree Completion | Categorical | 1=Yes  
2=No | BGSU Registration & Records |
| Annual Federal Student Loan Debt | Quantitative | Actual dollar amount | BGSU Student Financial Aid records |
| Total Accrued Federal Student Loan Debt Upon Graduation | Quantitative | Actual dollar amount | BGSU Student Financial Aid records |
Before conducting the statistical analysis for each research question, it was necessary to recode the data for the variables of Age and Race. The Age variable was originally reported in the data set as the exact date of birth for each participant (month, day, and year), which was then transformed into age in years as of the August 2009 matriculation date. Race was also transformed due to the low number of participants in several Race categories. The six Race categories were collapsed into two dichotomous categories—White (1) and Minority (2)—and this variable was named Minority Status. Manual coding for 17 cases was required because the participants indicated more than one race in their responses. For these cases, the first race selected by the participants was utilized, as this was likely their dominant race. Cases where the participant did not specify a Race were excluded from the analysis. Data screening for outliers in Family Income led to the elimination of eight cases where family income level was greater than or equal to $300,000.

Multiple regression was utilized to analyze multivariate outliers using Mahalanobis distance. Regression results were used to eliminate cases from the analysis with a Mahalanobis distance > 22.458, which is based on the Chi-Square criteria ($df = 6, \alpha = .001$). After the identified outliers and non-specified Race cases were eliminated from the analysis, approximately 992 participants remained. Since all 992 cases reported dependent student status, the variable of Dependency Status was eliminated from the analysis.

Following the data screening, descriptive statistics were generated and included the mean and standard deviation for the quantitative variables (age, family income, annual accrued federal student loan debt, and total accrued federal student loan debt upon graduation-degree completion). Frequencies and percentages were generated for the categorical variables (gender, race, dependency status, parental level of educational attainment, years to degree completion,
college degree completion, total accrued federal student loan debt upon graduation). Research question one examined multiple independent variables to determine the best combination of predictors of total accrued federal student loan debt upon graduation (see Table 2).

For research question one, multiple regression was conducted and was the appropriate statistical methodology because a single quantitative dependent variable (total accrued federal student loan debt upon graduation) and multiple independent variables (gender, age, race/minority status, family income, dependency status, and parental level of educational attainment) were analyzed (Mertler & Vannatta, 2013). Although the independent variables of Gender, Minority Status, and Dependency Status are categorical and typically not included in a regression analysis, the dichotomous nature of the variables allowed for their inclusion. The assumptions of linearity, normality, homoscedasticity, and multicollinearity (the tolerance for all variables was greater than .1) were tested prior to the multiple regression analysis (Mertler & Vannatta, 2013).

Logistic regression was also employed to analyze the data for research question one. This was the appropriate statistical methodology because there was one dichotomous dependent variable analyzed at three levels (above/below $10,000, $20,000, and $30,000 of total accrued federal student loan debt for BGSU first-time enrolled, full-time undergraduate degree recipients) and there were multiple independent variables (see Table 2) that were both categorical and quantitative (Gender, Age, Race, Family Income, Dependency Status, and Parental Level of Educational Attainment) (Mertler & Vannatta, 2013). To reduce the number of categorical variables within the logistic regression analysis, the dichotomous variables of gender, race, dependency status, and parental level of educational attainment were treated quantitatively.
Table 2

*Research Questions, Variables, and Data Analyses*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Independent Variable(s)</th>
<th>Dependent Variable(s)</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Which demographic variables (student gender, age, race, family income, dependency status, and parental level of educational attainment) best predict total accrued federal student loan debt for Bowling Green State University (BGSU) undergraduate degree recipients among first-time enrolled, full-time undergraduate students attending BGSU?</td>
<td>• Gender • Age • Race • Family Income • Dependency Status • Parental Level of Educational Attainment</td>
<td>• Total accrued federal student loan debt upon graduation</td>
<td>• Multiple regression • Logistic regression</td>
</tr>
<tr>
<td>2. Is there a significant difference in the total amount of federal student loan debt borrowed between four-year or less and more than four-year BGSU undergraduate degree completers?</td>
<td>• Years to Degree Completion</td>
<td>• Total accrued federal student loan debt upon graduation</td>
<td>• Independent samples t-test</td>
</tr>
<tr>
<td>3. Is there a significant difference between BGSU undergraduate degree completers and non-completers in the amount of federal student loan dollars borrowed during each year of enrollment and the total amount of federal student loan dollars borrowed?</td>
<td>• Degree Completion</td>
<td>• Total annual federal student loan debt borrowed per year of enrollment • Total accrued federal student loan debt</td>
<td>• Independent samples t-test • One-way ANCOVA</td>
</tr>
</tbody>
</table>
The following assumptions were tested prior to the logistic regression analysis: 1) adequate group sizes for the dependent variable and categorical independent variables—each group/category had an adequate sample size and an adequate ratio of cases to variables, 2) limited outliers—family income values of $300,000 and above were eliminated from the analysis, 3) no multicollinearity of the independent variables—the tolerance for all variables was greater than .1 (Mertler & Vannatta, 2013).

Research question two examined group differences in order to determine if there was a causal relationship between one independent variable with two categories (four years or less/more than four years to degree completion) and one quantitative dependent variable (total accrued federal student loan debt upon graduation) (see Table 2). For research question two, an independent samples t-test was employed by the researcher to analyze the data and was the appropriate statistical methodology because there was a single independent variable (number of years to degree completion) consisting of two categories (four years or less and more than 4 years) and there was one quantitative dependent variable being analyzed (total accrued federal student loan debt at graduation) (Mertler & Vannatta, 2013). The assumptions of normality and equal variance (homogeneity) were tested prior to the independent samples t-test analysis for question two (Reid, 2014).

Research question three examined group differences in order to determine if there was a causal relationship between one independent variable with two categories (degree completer/non-completer) and one quantitative dependent variable (total annual federal student loan debt borrowed during each year of enrollment and total accrued federal student loan debt) (see Table 2). For research question three, an independent samples t-test was employed by the researcher to analyze the data. This was the appropriate statistical methodology because there was one
independent variable consisting of two categories (degree completer/non-completer) and one quantitative dependent variable (total annual federal student loan debt borrowed each year of enrollment and total accrued federal student loan debt) (Mertler & Vannatta, 2013). The assumptions of normality and equal variance (homogeneity) were tested prior to the independent samples t-test analysis for question three (Reid, 2014).

A one-way ANCOVA was also conducted for research question three to control for the number of years enrolled while examining total federal student loan debt differences between BGSU undergraduate degree completers and non-completers. This was the appropriate statistical methodology because there was one independent variable with two categories (degree completer/non-completer) and one quantitative dependent variable (total annual federal student loan debt borrowed each year of enrollment and total accrued federal student loan debt) and the researcher was attempting to control for the number of enrolled years (Mertler & Vannatta, 2013), as this variable (covariate) likely influences the total annual federal student loan debt borrowed each year of enrollment and total accrued federal student loan debt. The assumptions of homogeneity of variances and normality were tested prior to the ANCOVA analysis for research question three.

**Study Assumptions**

Two assumptions must hold true in order for the results of this study to be considered valid and reliable. The first assumption is that all the information provided by the study participants on the FAFSA, BGSU admissions application, and student loan application was true and accurate.

Second, it must be assumed that the data obtained from the BGSU Office of Student Financial Aid Office and the BGSU Office of Registration and Records met the researcher’s
criteria for inclusion in this study.
CHAPTER IV. RESULTS

The purpose of this study was to determine which demographic variables (student gender, age, race, family income, dependency status, and parental level of educational attainment) best predict total accrued federal student loan debt for Bowling Green State University (BGSU) undergraduate degree recipients among first-time enrolled, full-time undergraduate students attending BGSU. Relationships between total accrued federal student loan debt among undergraduate degree completers and non-completers were also analyzed. Descriptive and inferential statistics generated from the study data were examined in relation to the three research questions and are described within this chapter. A results summary is also presented.

Descriptive Results

The original dataset contained 2,190 student records. Of those, 310 records were eliminated because they did not contain data indicating that a federal student loan was borrowed during the first year of enrollment, which was one of the criteria for inclusion in the study. Thus, there were 1,880 participants in the study (n=1,880). As indicated in Table 3, the age of the participants ranged from 16 to 38 (M=18.10). The number of years the participants were enrolled ranged between one and six years (M=3.74). Family income (see Table 4) of the study participants ranged from zero to $954,000 (M=$74,658). The highest amount of annual federal student loan debt occurred in the fourth year of enrollment (M=$6,845) and the lowest amount of annual federal student loan debt occurred in the fifth year of enrollment (M=$5,073).

Table 3

Descriptive Statistics for Age and Years Enrolled

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1880</td>
<td>18.10</td>
<td>.98</td>
<td>16.0</td>
<td>38.0</td>
</tr>
<tr>
<td>Years Enrolled</td>
<td>1877</td>
<td>3.74</td>
<td>1.09</td>
<td>1.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>
As shown in Table 4, 1,143 of the study participants were BGSU degree completers, while 737 were non-completers. BGSU degree completers borrowed higher levels of accrued federal student loan debt ($M$=$27,115) than the non-completers ($M$=$15,013).

Table 4

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Income ($)</td>
<td>1880</td>
<td>74,658</td>
<td>58,162</td>
<td>0</td>
<td>954,000</td>
</tr>
<tr>
<td>Federal Student Loan Debt ($)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 1 ($)</td>
<td>1880</td>
<td>5,907</td>
<td>1,714</td>
<td>866</td>
<td>10,450</td>
</tr>
<tr>
<td>Year 2 ($)</td>
<td>1599</td>
<td>5,297</td>
<td>2,778</td>
<td>0</td>
<td>12,442</td>
</tr>
<tr>
<td>Year 3 ($)</td>
<td>1469</td>
<td>5,893</td>
<td>2,815</td>
<td>0</td>
<td>12,444</td>
</tr>
<tr>
<td>Year 4 ($)</td>
<td>1251</td>
<td>6,845</td>
<td>2,871</td>
<td>0</td>
<td>12,442</td>
</tr>
<tr>
<td>Year 5 ($)</td>
<td>615</td>
<td>5,073</td>
<td>3,119</td>
<td>0</td>
<td>12,375</td>
</tr>
<tr>
<td>Year 6 ($)</td>
<td>118</td>
<td>5,541</td>
<td>4,041</td>
<td>0</td>
<td>12,368</td>
</tr>
<tr>
<td>Total Federal Student Loan Debt ($) SAMPLE</td>
<td>1880</td>
<td>22,371</td>
<td>11,252</td>
<td>1,123</td>
<td>57,157</td>
</tr>
<tr>
<td>Total Federal Student Loan Debt-Completer($)</td>
<td>1143</td>
<td>27,115</td>
<td>8,966</td>
<td>1,123</td>
<td>57,157</td>
</tr>
<tr>
<td>Total Federal Student Loan Debt-Non-Completer($)</td>
<td>737</td>
<td>15,013</td>
<td>10,457</td>
<td>1,569</td>
<td>57,073</td>
</tr>
</tbody>
</table>

Descriptive statistics were generated for the independent demographic variables: gender, age, race, minority status, family income, dependency status, parental level of educational attainment, college degree completion, and number of years to complete the degree (see Table 5). The breakdown of the study participants by gender, race, minority status, and dependency status was closely representative of the population of enrolled undergraduate students at BGSU.

The descriptive statistics revealed that a majority of the study participants were female (57.7%). Over three quarters (76.6%) of the participants identified their race as White followed by 14.8% who identified their race as Black. A clear majority of the study participants (97%) were dependent students as defined by U.S. federal criteria for the purpose of determining eligibility for federal financial aid resources.

A slightly higher percentage of the participant’s fathers (49.5%) indicated high school as their level of educational attainment than did the participant’s mothers (44.8%). However,
Table 5

*Demographic Characteristics of Participants*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>$f$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>796</td>
<td>42.3</td>
</tr>
<tr>
<td>Female</td>
<td>1084</td>
<td>57.7</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>16</td>
<td>0.9</td>
</tr>
<tr>
<td>Asian</td>
<td>19</td>
<td>1.0</td>
</tr>
<tr>
<td>Black</td>
<td>278</td>
<td>14.8</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>74</td>
<td>3.9</td>
</tr>
<tr>
<td>Native Hawaiian/Other Pacific</td>
<td>3</td>
<td>0.2</td>
</tr>
<tr>
<td>White</td>
<td>1440</td>
<td>76.6</td>
</tr>
<tr>
<td>Not Specified</td>
<td>50</td>
<td>2.7</td>
</tr>
<tr>
<td>Minority Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1440</td>
<td>78.7</td>
</tr>
<tr>
<td>Minority</td>
<td>390</td>
<td>21.3</td>
</tr>
<tr>
<td>Dependency Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependent</td>
<td>1823</td>
<td>97.0</td>
</tr>
<tr>
<td>Independent</td>
<td>57</td>
<td>3</td>
</tr>
<tr>
<td>Father’s Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle School/Junior High</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>High School</td>
<td>917</td>
<td>49.5</td>
</tr>
<tr>
<td>College or Beyond</td>
<td>815</td>
<td>44.0</td>
</tr>
<tr>
<td>Unknown</td>
<td>121</td>
<td>6.5</td>
</tr>
<tr>
<td>Mother’s Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle School/Junior High</td>
<td>34</td>
<td>1.8</td>
</tr>
<tr>
<td>High School</td>
<td>843</td>
<td>44.8</td>
</tr>
<tr>
<td>College or Beyond</td>
<td>935</td>
<td>49.7</td>
</tr>
<tr>
<td>Unknown</td>
<td>61</td>
<td>3.2</td>
</tr>
<tr>
<td>Years Enrolled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>206</td>
<td>11.0</td>
</tr>
<tr>
<td>2</td>
<td>161</td>
<td>8.6</td>
</tr>
<tr>
<td>3</td>
<td>239</td>
<td>12.7</td>
</tr>
<tr>
<td>4</td>
<td>853</td>
<td>45.4</td>
</tr>
<tr>
<td>5</td>
<td>347</td>
<td>18.5</td>
</tr>
<tr>
<td>6</td>
<td>71</td>
<td>3.8</td>
</tr>
<tr>
<td>Year of Graduation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>69</td>
<td>6.0</td>
</tr>
<tr>
<td>2013</td>
<td>769</td>
<td>67.2</td>
</tr>
<tr>
<td>2014</td>
<td>261</td>
<td>22.9</td>
</tr>
<tr>
<td>2015</td>
<td>44</td>
<td>3.9</td>
</tr>
<tr>
<td>College Completion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completers</td>
<td>1143</td>
<td>57.7</td>
</tr>
<tr>
<td>Non-Completers</td>
<td>737</td>
<td>42.3</td>
</tr>
</tbody>
</table>
49.7% of the participant’s mothers \((n = 935)\) indicated college or beyond as their level of educational attainment versus 44% of the participant’s fathers \((n = 815)\). Most of the participants were enrolled for four years (45.4%) while 3.8% were enrolled for six years. A majority of the degree completers obtained their degrees in four years (67.2%).

**Inferential Results**

Before conducting the statistical analysis for each research question, the variables of Age and Race were recoded. The Age variable was originally reported in the data set as the exact date of birth for each participant (month, day, and year), which was then transformed into age in years as of the August 2009 matriculation date. Race was also transformed due to the low number of participants in several Race categories. The six Race categories were collapsed into two dichotomous categories—White (1) and Minority (2)—and was named Minority Status. Manual coding for 17 cases was required because the participants indicated more than one race in their responses. For these cases, the first race selected by the participants was utilized, as this was likely their dominant race. Cases where the participant did not specify a Race were excluded from the analysis. Data screening for outliers in Family Income led to the elimination of eight cases where family income level was greater than or equal to $300,000.

**Research Question 1**

Which demographic variables (student gender, age, race, family income, dependency status, and parental level of educational attainment) best predict total accrued federal student loan debt for Bowling Green State University (BGSU) undergraduate degree recipients among first-time enrolled, full-time undergraduate students attending BGSU?

Multiple regression was utilized to analyze multivariate outliers among the degree completers \((n=1,005)\). The results of the linear regression eliminated 13 cases from the analysis.
with a Mahalanobis distance > 22.458, which is based on the Chi-Square criteria \((df = 6, \alpha = .001)\). After the identified outliers and non-specified Race cases were eliminated from the analysis for research question one, there was a remaining sample of approximately 992 participants for research question one.

Forward multiple regression and logistic regression were conducted to determine which independent variables (student Gender, Age, Minority Status, Family Income, Dependency Status, Father’s Level of Educational Attainment, and Mother’s Level of Educational Attainment) were predictors of total accrued federal student loan debt upon graduation. Although the independent variables of Gender, Minority Status, and Dependency Status are categorical and typically not included in a regression analysis, the dichotomous nature of the variables allowed for their inclusion.

Descriptive statistics were conducted for the degree completers of all the independent variables and dependent variables. In addition, Pearson coefficients were calculated for the independent variables with the dependent variable. Descriptive results (see Table 6) indicate that

Table 6
Descriptive Statistics with Correlation Coefficients for Total Accrued Federal Student Loan Debt Upon Graduation and Demographic Predictor Variables \((n=992)\)

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Correlation with Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(r)</td>
<td>(p)</td>
<td></td>
</tr>
<tr>
<td>Family Income($)</td>
<td>83001.49</td>
<td>47725.32</td>
<td>-.205</td>
</tr>
<tr>
<td>Age</td>
<td>18.00</td>
<td>0.41</td>
<td>-.008</td>
</tr>
<tr>
<td>Gender</td>
<td>1.39</td>
<td>0.49</td>
<td>.021</td>
</tr>
<tr>
<td>Minority Status</td>
<td>0.14</td>
<td>0.35</td>
<td>.156</td>
</tr>
<tr>
<td>Dependency Status</td>
<td>1.00</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Father’s Level of Educational Attainment</td>
<td>3.49</td>
<td>0.50</td>
<td>-.147</td>
</tr>
<tr>
<td>Mother’s Level of Educational Attainment</td>
<td>3.54</td>
<td>0.52</td>
<td>-.159</td>
</tr>
<tr>
<td>Total Accrued Federal Student Loan Debt Upon Graduation($)</td>
<td>26517.43</td>
<td>8438.00</td>
<td></td>
</tr>
</tbody>
</table>
all 992 cases reported dependent student status, therefore the variable of Dependency Status was eliminated from the analysis. Correlation coefficients indicate strong relationships of the dependent variable (total accrued federal student loan debt upon graduation) with Family Income ($r = -.205$), Mother’s Level of Educational Attainment ($r = -.159$), Minority Status ($r = .156$), and Father’s Level of Educational Attainment ($r = -.147$).

**Multiple regression.** Multiple regression generated an overall model of four predictors (Family Income, Minority Status, Father’s Level of Educational Attainment, and Mother’s Level of Educational Attainment) that significantly predicts total accrued federal student loan debt upon graduation; $R^2=.072$, $R^2_{adj}=.069$, $F(4, 987)=19.29, p<.0001$. This model accounted for 7% of variance in total accrued federal student loan debt upon graduation (see Table 7). Family Income was the first variable entered into the model and accounted for the most variance, $R^2=.042$. The combined addition of Minority Status, Father’s Level of Educational Attainment, and Mother’s Level of Educational Attainment accounted for an additional 3% of the model variance.

Table 7

**Summary of Model Predicting Total Accrued Federal Student Loan Debt Upon Graduation**

<table>
<thead>
<tr>
<th>Step</th>
<th>R</th>
<th>$R^2$</th>
<th>$R^2_{adj}$</th>
<th>$\Delta R^2$</th>
<th>$F_{chg}$</th>
<th>$p$</th>
<th>$df_1$</th>
<th>$df_2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Family Income</td>
<td>.205</td>
<td>.042</td>
<td>.041</td>
<td>.042</td>
<td>43.28</td>
<td>&lt;.0001</td>
<td>1</td>
<td>990</td>
</tr>
<tr>
<td>3. Father’s Level of Educational Attainment</td>
<td>.261</td>
<td>.068</td>
<td>.065</td>
<td>.010</td>
<td>10.52</td>
<td>.0010</td>
<td>1</td>
<td>988</td>
</tr>
<tr>
<td>4. Mother’s Level of Educational Attainment</td>
<td>.269</td>
<td>.072</td>
<td>.069</td>
<td>.005</td>
<td>4.81</td>
<td>.0290</td>
<td>1</td>
<td>987</td>
</tr>
</tbody>
</table>

Regression coefficients (see Table 8) indicate that total accrued federal student loan debt upon graduation decreases as family income increases. The coefficients also indicate that higher levels of parental education for both fathers and mothers are significantly associated with a
decrease in total accrued federal student loan debt upon graduation. Minority Status is positively and significantly associated with higher totals of accrued federal student loan debt upon graduation meaning that minority students accrue more federal student loan debt than White students.

Table 8

*Regression Coefficients for Model Predicting Total Accrued Federal Student Loan Debt Upon Graduation*

<table>
<thead>
<tr>
<th></th>
<th>$B$</th>
<th>$\beta$</th>
<th>$t$</th>
<th>Bivariate $r$</th>
<th>Partial $r$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Income</td>
<td>-.02</td>
<td>-.140</td>
<td>-4.20</td>
<td>-.205</td>
<td>-.132</td>
</tr>
<tr>
<td>Minority Status</td>
<td>3045.35</td>
<td>.134</td>
<td>4.04</td>
<td>.156</td>
<td>.128</td>
</tr>
<tr>
<td>Father’s Level of Educational Attainment</td>
<td>-1464.80</td>
<td>-.081</td>
<td>-2.66</td>
<td>-.147</td>
<td>-.084</td>
</tr>
<tr>
<td>Mother’s Level of Educational Attainment</td>
<td>-1179.45</td>
<td>-.066</td>
<td>-2.19</td>
<td>-.159</td>
<td>-.070</td>
</tr>
</tbody>
</table>

Logistic regression—above/below $10,000$. Data relating to the first research question was also analyzed utilizing forward logistic regression to examine total accrued federal student loan debt upon graduation above/below $10,000, $20,000, and $30,000 (see Table 9). The logistic regression model predicting total federal student loan debt upon graduation above/below $10,000 was comprised of one factor-Mother’s Level of Educational Attainment (-2 Log Likelihood = 295.22, $\chi^2(1) = 7.64$, $p = .006$). The regression coefficient ($B$) for Mother’s Level of Educational Attainment was negative, indicating that as mother’s educational level increases, the likelihood to have total accrued federal student loan debt above $10,000 decreases. The odds ratio of .39 supports this inverse relationship. Although this model was statistically significant, the Log Likelihood value was extremely high indicating poor model fit. The model correctly classified 96.5% of the cases.
Logistic regression—above/below $20,000. The logistic regression model predicting total federal student loan debt upon graduation above/below $20,000 was comprised of two factors - Family Income and Mother’s Level of Educational Attainment (-2 Log Likelihood = 907.62, $\chi^2(2) = 16.67, p <.0001$). The regression coefficient ($B$) for family income was negative and very small, indicating that as family income decreases, the likelihood to have total accrued federal student loan debt above $20,000 increases. The regression coefficient for Mother’s Level of Educational Attainment was also negative indicating that as mother’s educational level decreases, the likelihood to have total accrued federal student loan debt above $20,000 increases. The odds ratio of .70 supports this inverse relationship. Although this model was statistically significant, the Log Likelihood value was extremely high indicating poor model fit. The model correctly classified 82.4% of the cases.

Logistic regression—above/below $30,000. The logistic regression model predicting total federal student loan debt upon graduation above/below $30,000 was comprised of three factors – Family Income, Minority Status, and Father’s Level of Educational Attainment (-2 Log Likelihood = 1161.79, $\chi^2(3) = 44.01, p <.0001$). The regression coefficient ($B$) for Family Income was once again negative and very small, indicating that as family income decreases, the likelihood to have total accrued federal student loan debt above $30,000 increases. The regression coefficient ($B$) for Minority Status was positive, indicating that being a minority increases the likelihood to have total accrued federal student loan debt above $30,000. The odds ratio of 1.70 indicates that minority students are slightly more than one and a half times more likely than White students to have total accrued federal student loan debt above $30,000 upon graduation. The regression coefficient ($B$) for Father’s Level of Educational Attainment was negative indicating that as father’s educational level decreases, the likelihood to have total
accrued federal student loan debt above $30,000 increases. The odds ratio of .70 supports this inverse relationship. Although this model was statistically significant, the Log Likelihood value was extremely high indicating poor model fit. The model correctly classified 71% of the cases.

Table 9

*Logistic Regression Models for Total Accrued Federal Student Loan Debt Upon Graduation of Above/Below $10,000, $20,000, and $30,000*

<table>
<thead>
<tr>
<th>Total Accrued Federal Student Loan Debt Upon Graduation</th>
<th>Predictors</th>
<th>B</th>
<th>Wald</th>
<th>df</th>
<th>p</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above/Below $10,000</td>
<td>1. Mother’s Level of Educational Attainment</td>
<td>-1.02</td>
<td>6.45</td>
<td>1</td>
<td>.0110</td>
<td>.36</td>
</tr>
<tr>
<td>Above/Below $20,000</td>
<td>1. Family Income</td>
<td>-.001</td>
<td>.364</td>
<td>1</td>
<td>.0070</td>
<td>.10</td>
</tr>
<tr>
<td></td>
<td>2. Mother’s Level of Educational Attainment</td>
<td>-1.364</td>
<td>7.29</td>
<td>1</td>
<td>.0070</td>
<td>.10</td>
</tr>
<tr>
<td>Above/Below $30,000</td>
<td>1. Family Income</td>
<td>-.001</td>
<td>16.10</td>
<td>1</td>
<td>&lt;.0001</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>2. Minority Status</td>
<td>.533</td>
<td>7.66</td>
<td>1</td>
<td>.0060</td>
<td>1.70</td>
</tr>
<tr>
<td></td>
<td>3. Father’s Level of Educational Attainment</td>
<td>-.402</td>
<td>7.13</td>
<td>1</td>
<td>.0006</td>
<td>.67</td>
</tr>
</tbody>
</table>

Research Question 2

Is there a significant difference in the total amount of federal student loan debt borrowed between four-year or less and more than four-year BGSU undergraduate degree completers?

An independent samples *t*-test was conducted to determine the effect of graduating within four years on the total amount of accrued federal student loan debt for degree completers.

Among the degree completers analyzed, 838 graduated in four years or less with a total federal student loan debt mean of $25,192 (*SD*=$8,041). In contrast, 305 degree completers needed five or more years to graduate and reported a total federal student loan debt mean of $32,397 (*SD*=$9,260). The inferential result showed there was a significant difference in the total amount
of accrued federal student loan debt based upon degree completion within a four-year timeframe; 

$t(1141)= -12.85, p<.001$, two-tailed, Cohen’s $d= .76$. The large effect size reveals that completing one’s degree within four years accounts for 76% of the variance in total federal loan debt.

**Research Question 3**

Is there a significant difference between BGSU undergraduate degree completers and non-completers in the amount of federal student loan dollars borrowed during each year of enrollment and the total amount of federal student loan dollars borrowed?

Independent-samples $t$-tests were conducted. Significant group differences (see Table 10) were found in all years except for years two and six. In addition, the total amount borrowed was also significant between completers and non-completers. Interestingly, completers borrowed significantly less in year one ($M=5,757, SD=1,493$) and significantly more in years three ($M=6,470, SD=2,196$), four ($M=7,034, SD=2,628$), and five ($M=5,241, SD=2,870$) as well as the total amount ($M=27,115, SD=8,966$).

Table 10

<table>
<thead>
<tr>
<th>Year</th>
<th>Completer</th>
<th>Non- Completer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>$M$ ($)</td>
</tr>
<tr>
<td>Year 1</td>
<td>1143</td>
<td>5,657</td>
</tr>
<tr>
<td>Year 2</td>
<td>1129</td>
<td>6,104</td>
</tr>
<tr>
<td>Year 3</td>
<td>1099</td>
<td>6,470</td>
</tr>
<tr>
<td>Year 4</td>
<td>1054</td>
<td>7,034</td>
</tr>
<tr>
<td>Year 5</td>
<td>498</td>
<td>5,241</td>
</tr>
<tr>
<td>Year 6</td>
<td>80</td>
<td>5,605</td>
</tr>
<tr>
<td>Total</td>
<td>1143</td>
<td>27,115</td>
</tr>
</tbody>
</table>

Since a degree completer is more likely to be enrolled more years than a non-completer and thus have more debt, a one-way ANCOVA was conducted to control for the number of years
enrolled while examining total federal student loan debt differences between BGSU undergraduate degree completers and non-completers. Results indicate that the interaction between degree completion and number of years enrolled on total federal loan debt was not significant; \( F(1, 1873)=2.40, p=.122 \). The covariate of number of years enrolled significantly adjusted group means; \( F(1, 1874)= 1164.10, p=<.0001 \), partial \( \eta^2=.383 \) (see Table 11). The effect size reveals that number of years enrolled accounts for more than 38% of the variance in total federal loan debt. After such adjustment, completers reported significantly more federal loan debt than non-completers; \( F(1,1874)=57.45, p=<.0001 \), partial \( \eta^2=.03 \). These findings suggest there is a significant difference between completers and non-completers in total federal student loan debt when controlling for number of years enrolled. However, degree completion only accounts for 3% of the variance in total federal student loan debt.

Table 11

Original and Adjusted Means for Total Federal Loan Debt by Degree Completion

<table>
<thead>
<tr>
<th></th>
<th>Original ( M ) ($)</th>
<th>Adjusted ( M ) ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completer</td>
<td>27,114.91</td>
<td>23,680.72</td>
</tr>
<tr>
<td>Non-Completers</td>
<td>15,002.61</td>
<td>20,350.41</td>
</tr>
</tbody>
</table>

Summary

The purpose of this study was to determine which demographic variables (student gender, age, race, family income, dependency status, and parental level of educational attainment) best predict accrued total federal student loan debt for Bowling Green State University (BGSU) undergraduate degree recipients among first-time enrolled, full-time undergraduate students attending BGSU. Federal student loan debt among degree completers and non-completers was also examined. The researcher utilized a secondary data set that was obtained from the BGSU Office of Student Financial Aid and the BGSU Office of Registration and Records. The original
sample consisted of 2,190 BGSU first-time enrolled, full-time undergraduate students who matriculated in August 2009 and borrowed a federal student loan. After data screening, 1,880 participants remained in the sample. Federal student loan debt per year of enrollment and degree completion/non-completion data were analyzed through the graduating class of May 2015.

Data analysis was guided by the three research questions. Table 12 provides a summary of the results relating to each of the three questions. A multiple regression analysis generated a statistically significant four-factor model to predict total accrued federal student loan debt upon graduation (Family Income, Minority Status, Father’s Level of Educational Attainment, and Mother’s Level of Educational Attainment). The best predictor was Family Income.

Forward logistic regression was utilized to examine total accrued federal student loan debt upon graduation above/below $10,000, $20,000, and $30,000. Results indicated Mother’s Level of Educational Attainment was inversely related to federal student loan debt above $10,000 and $20,000. Father’s Level of Educational Attainment was inversely related to federal student loan debt above $30,000. A decrease in family income was positively related to an increased likelihood of federal student loan debt above $20,000 and $30,000. Results also indicated that minority students are slightly more than one and a half times more likely than White students to accumulate federal student loan debt above $30,000.

The independent samples t-test analysis revealed a significant difference in total accrued federal student loan debt based upon degree completion within a four-year timeframe. The independent samples t-test also revealed that degree completers borrowed significantly less federal student loan dollars than non-completers during the first year of enrollment, but significantly more in years three, four, and five and in the total amount.
Table 12

Results Summary for Research Questions

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Results</th>
</tr>
</thead>
</table>
| 1. Which demographic variables (student gender, age, race, family income, dependency status, and parental level of educational attainment) best predict total accrued federal student loan debt for Bowling Green State University (BGSU) undergraduate degree recipients among first-time enrolled, full-time undergraduate students attending BGSU? | **Multiple regression:**  
  • Four-factor model (Family Income, Minority Status, Father’s Level of Educational Attainment, Mother’s Level of Educational Attainment) accounts for 7% of the variance in total federal student loan debt.  
  • Total federal student loan debt decreases as family income and parental levels of education increase.  
  • Minority students accrue more federal student loan debt than White students.  
  **Logistic regression:**  
  • Mother’s Level of Educational Attainment inversely related to federal student loan debt above $10,000 and above $20,000.  
  • Father’s Level of Educational Attainment inversely related to federal student loan debt above $30,000.  
  • As family income decreases, the likelihood of federal student loan debt above $20,000 and $30,000 increases.  
  • Minority students are 1.7 times more likely than White students to accumulate federal student loan debt above $30,000. |
| 2. Is there a significant difference in the total amount of federal student loan debt borrowed between four-year or less and more than four-year BGSU undergraduate degree completers? | **Independent samples t-test:**  
  • Significant difference in total accrued federal student loan debt based upon degree completion within a four-year timeframe. |
| 3. Is there a significant difference between BGSU undergraduate degree completers and non-completers in the amount of federal student loan dollars borrowed during each year of enrollment and the total amount of federal student loan dollars borrowed? | **Independent samples t-test:**  
  • Completers and non-completers significantly differed in the amount of federal student loan debt in all years except years two and six and also differed in total amount.  
    o Completers borrowed significantly less in year one.  
    o Completers borrowed significantly more in years three, four, and five.  
  **One-way ANCOVA:**  
  • Covariate (number of years enrolled) significantly adjusted group means.  
  • Completers borrowed significantly more federal student loan debt than non-completers when controlling for number of years enrolled. |
ANCOVA results indicated no significant interaction between degree completion and number of years enrolled on total accrued federal student loan debt. Results also revealed that completers borrowed significantly more federal student loan debt than non-completers when controlling for number of years enrolled. Degree completion accounted for 3% of the variance in total federal student loan debt.
CHAPTER V. SUMMARY, DISCUSSION, AND CONCLUSIONS

This chapter is organized to first provide an overview of the problem. A summary of the research study follows, which includes the study purpose and a description of the research design. A detailed analysis and discussion of the data garnered from an examination of the statistical results outlined in Chapter IV are then presented for each research question. Recommendations for current and future practice and policy with leadership implications are discussed and the chapter concludes with recommendations for future research.

Problem Overview

In 1981, the cost of higher education in the U.S. outpaced inflation for the first time in history and has continued this upward trajectory every year since that time (Robb, Moody, & Abdel-Ghany, 2012; Vedder, 2004). Since 1981 there has also been a corresponding overall reduction, in constant dollars, of non-repayable financial aid resources such as federal and state funded scholarships and grants. As cited in Rampall (2012), the U.S. Bureau of Labor Statistics indicate that college tuition and fees increased 559% between 1983 and 2012. Additionally, state funding for public higher education has also declined an average of more than 40% since 1980 (Archibald & Feldman, 2011; Sortenson, 2012; Vedder, 2004). A lag in household income relative to the cost of higher education has further compounded the fiscal challenges associated with obtaining a college degree (TICAS, 2014). Consequently, 60% of the estimated two million Americans who attend college annually borrow student loans to cover their higher education costs (U.S. Department of Education, 2013). These borrowing trends have led to a current outstanding student loan debt in the U.S. of more than $1.3 trillion and the debt is growing at a rate of $3,000 per second (Best & Best, 2014, FinAid, 2015).

Student loan debt levels present an alarming and growing challenge for higher education
and the U. S. economy (Vedder, 2004; Whitsett & O’Sullivan, 2012). Many researchers and policy makers assert that student loan debt levels negatively impact the borrowers and overall U.S. economy by delaying or preventing borrowers from entering the housing market; accessing capital; engaging in traditional life-cycle events such as marriage and starting a family; engaging in entrepreneurial ventures; and entering the middle-class (Baum & O’Malley, 2003; Chopra, 2013; Collinge, 2009; McKee, 2012; Ross, 2013). The current high levels of student loan debt also limit economic and social choices and opportunities for the borrowers (Rothstein & Rouse, 2011). Additionally, college accessibility and affordability are negatively impacted by student loans because of their unintended contribution to the upward spiral of the cost of higher education (Baum, 2015; Collinge, 2009; Ross, 2013; Vedder, 2004).

The ever-rising cost of higher education and declining federal and state support for higher education are the two factors most often attributed to contributing to the burgeoning rise in student loan debt (Collinge, 2009; Ross, 2013; Vedder, 2004). Most student loan reform advocates and student loan borrowers also assert that there is another factor inherent within the administration of student financial aid and student loans that has an equally significant impact on student loan debt; wide variation in the quality and depth of financial aid advising during the college application process and at the outset of and during a student’s college career (Collinge, 2009; Ross, 2013). This is of particular significance because the financial aid and student loan application process is extremely complex in timing and structure and, for many students, has become an obstacle rather than a path to a college degree (Abernathy et al., 2013).

For instance, the required federal financial aid form, Free Application for Federal Student Aid (FAFSA), is lengthy, confusing, and cumbersome, and the majority of college applicants who submit the FAFSA for consideration do not know the full amount of non-repayable financial
aid resources (i.e. scholarships and grants) for which they may qualify until long after they have completed the college admissions application process (Abernathy et al., 2013). Further adding to the complexity is the fact that students and their parents have limited opportunities for face-to-face interactions and one-to-one advising and counseling with financial aid professionals at the institutions to which they have applied or will attend (Johnson, 2012), and students indicate that they would like more information from a financial aid counselor (Lyons & Hunt, 2003). Additionally, despite mandatory participation in an online federal student loan entrance-counseling program required for all first-time federal student loan borrowers, many student loan borrowers indicate they do not recall the counseling information. They also indicate that, prior to signing the master promissory note for their student loans, they were not fully aware of the loan terms, interest rates, repayment schedules, penalty fees, loan servicers, and the consequences of default (Johnson, 2012).

**Study Summary**

The purpose of this study was to determine which demographic variables (student gender, age, race, family income, dependency status, and parental level of educational attainment) best predict total accrued federal student loan debt for Bowling Green State University (BGSU) undergraduate degree recipients among first-time enrolled, full-time undergraduate students attending BGSU. Relationships between total accrued federal student loan debt among undergraduate degree completers and non-completers were also analyzed.

A correlational research design was utilized and the population consisted of all first-time enrolled undergraduate students who matriculated in August of 2009 at BGSU. The sample of 1,880 participants were first-time enrolled, full-time students who borrowed a federal student loan during the first year of enrollment.
The three data sources utilized in this study included:

1. FAFSA - Free Application for Federal Student Aid;
2. BGSU student financial aid federal student loan data; and
3. BGSU Office of Registration and Records student enrollment and graduation data.

The FAFSA was completed by the study participants and their parents prior to matriculation in 2009 and was the source for the data relating to student gender, age, family income, dependency status, and parental level of educational attainment. The 2009 BGSU Application for Undergraduate Admission was the source of the data for first-time enrolled, full-time undergraduate student status and race. Data for degree completion/non-completion and number of years to complete the undergraduate college degree was obtained from the BGSU Office of Registration and Records. BGSU student financial aid records were the source of the data for the amount of federal student loan debt (annual and total) for each participant. All data was coordinated through the BGSU Office of Student Financial Aid and the Interim Director of Scholarships and Student Awards.

Each student identification number (ID) was matched with the yearly total of federal student loan dollars disbursed along the independent variable fields of student gender, age, race, family income, dependency status, and parental level of educational attainment, as well as the fields indicating completion/non-completion of a college degree, and the number of years to complete the college degree. The yearly totals were matched with each student’s identification number through the graduating class of May 2015. The researcher received the data with all identifiers removed, thus rendering the data completely anonymous.

Several categorical and quantitative independent variables were examined within this study: student gender, age, race/minority status, family income, dependency status, parental level
of educational attainment, college degree completion, and number of years to complete the
college degree. The dependent variable studied was the amount of accrued federal student loan
debt (annual and total) by a BGSU undergraduate degree completer or non-completer. The
relationships between these variables were examined within the context of three research
questions.

Discussion

Before discussing the descriptive findings and the inferential findings for each research
question, it is instructive to describe and note the economic context during which the data was
originally obtained, as these economic circumstances may have had an effect on the findings.
The reported family income for each study participant was procured from the 2009 Free
Application for Federal Student Aid (FAFSA) application and represented the actual income
reported to the Internal Revenue Service (IRS) for the 2008 taxable calendar year. The National
Bureau of Economic Research determined and reports that a major recession began in the United
States in December 2007 and the Federal Reserve reports that the sub-prime mortgage crisis
reached critical levels during 2008 (Havemann, 2016; Rich, 2013). However, the full effect of
these economic circumstances on employment/unemployment rates and, subsequently, family
income was not yet realized during 2008. Therefore, the family income data analyzed in this
study may not have been fully reflective of the actual economic circumstances of the study
participants during their college enrollment and federal student loan borrowing cycle.

Subsequently, some participants may have had to borrow more student loan dollars than the
original family income data might suggest.

Descriptive Results

Comparisons to federal and state data may be useful when formulating a comprehensive
picture of the data from this study within the broader context of student loan debt. The average federal student loan debt of the degree completers in this study ($27,115) was slightly less than the reported 2014 average student loan debt for Ohio undergraduate degree recipients of $29,353 (TICAS, 2015). An important footnote on this descriptive is that the study average does not include federal student loan debt for BGSU degree completers who did not borrow a federal student loan during their first year of enrollment, but may have subsequently borrowed a federal student loan in years two and beyond. This was due to one of the criteria for inclusion in the study: participants had to have borrowed a federal student loan during the first year of enrollment.

The national average for student loan debt for 2015 undergraduate degree recipients has been estimated at $35,000 (TICAS, 2015), which is considerably more than the $27,115 average of the BGSU degree completers in this study. However, unlike the participants in this study, the national average includes total federal student loans even if the borrower did not borrow during the first year of enrollment. The national average also includes private student loans. This study did not include private student loans due to the unavailability of this data.

**Inferential Results**

**Research Question 1**

Which demographic variables (student gender, age, race, family income, dependency status, and parental level of educational attainment) best predict total accrued federal student loan debt for Bowling Green State University (BGSU) undergraduate degree recipients among first-time enrolled, full-time undergraduate students attending BGSU?

**Multiple regression.** A multiple regression analysis generated a statistically significant four-factor model to predict total accrued federal student loan debt upon graduation (Family
Income, Minority Status, Father’s Level of Educational Attainment, and Mother’s Level of Educational Attainment). The best predictor was Family Income. Results indicate that total federal student loan debt decreases as family income and parental levels of education increase, and minority students accrue more total federal student loan debt than White students.

Family Income was a significant predictor of total accrued federal student loan debt. This finding was consistent with previous studies (Addo, Houle, & Simon, 2016; Baum & Steele, 2010; Houle, 2013) where family income was also found to be a significant predictor of total student loan debt. However, in these previous studies, a non-linear relationship was found between family income and the accumulation of total student loan debt. Students from families with annual income levels between $40,000-$99,000 had a higher risk of accumulating student loan debt than did students from families with annual incomes below $40,000 and above $99,000. This is noteworthy because it highlights a potential shortcoming in the administration of federal student financial aid resources. Generally, students from families with annual incomes of less than $40,000 qualify for and receive more non-repayable forms of student financial aid (e.g. Pell Grants) than students from families with incomes in the middle stratum ($40,000-$99,000). Students from higher income families generally have more personally available financial resources than students from the middle income stratum. These available resources thus limit the need to borrow student loans and subsequently reduce total accrued student loan debt. In this study, family income was not segmented into low, middle, and high income levels and the findings show a linear relationship between increasing family income and decreasing federal student loan debt. This may suggest that the amount of non-repayable student financial aid (e.g. Pell Grants) targeted at lower income students has not kept an equal pace with inflation and the actual cost of a college degree. If so, then non-repayable financial aid may, therefore, be
insufficient to mediate family income differentials, thus resulting in the linear relationship found in this study.

Minority Status was also found to be a significant predictor of total accrued federal student loan debt and entered the model second. Similarly, other studies have also reported a relationship between race and the accumulation of student loan debt (Addo, Houle, & Simon, 2016; Baum & Steele, 2010; Houle, 2013; Jackson & Reynolds, 2013). On average, research has shown that Black students generally accumulate higher levels of student loan debt than White, Hispanic/Latino, and Asian students. Also, when compared to White, Black, and Hispanic/Latino students, Asian students accumulate the least amount of student loan debt (Baum & Steele, 2010). Further, in a recent study (Addo, Houle, & Simon, 2016) it was found that Black students hold 33% more student loan debt than White students. These differences between various racial groups may be attributable to several factors such as family income, individual familial values and priorities, or cultural and racial mores.

Due to the low number of participants in several Race categories in this study, it was necessary to transform the Race variable into two dichotomous categories—White and Minority. Therefore, direct comparisons to previously reported studies wherein race categories were segmented and examined separately were not possible. However, in the analysis for this study, Black students comprised the majority of the participants (71%) in the Minority Status variable. Therefore, a reasonable conclusion could be drawn that the findings in this study are consistent with previous research relative to the accumulation of student loan debt for Black students.

The final variables to enter the model and were significant predictors of total accrued federal student loan debt were Father’s Level of Educational Attainment and Mother’s Level of Educational Attainment. Previous studies (Addo, Houle, & Simon, 2016; Gross et al., 2009;
Houle, 2013) have also shown that parental level of education was a significant predictor of the accumulation of student loan debt. Interestingly, however, previous studies examined the highest level of educational attainment by either parent and not the highest level of educational level of each parent individually and separately, as was the case in this study.

Literature documents that higher levels of educational attainment result in greater lifetime earnings (Avery & Turner, 2012; Brown, Haughwout, Lee, Scally, & van der Klaauw, 2014; Goldin & Katz, 2008). On average, regardless of gender, the total life-time earnings increment for a college degree recipient compared to a high school graduate has increased substantially over the course of the last three decades (Avery & Turner, 2012). From an analysis of 2002 U.S. Census Bureau data, it is estimated that Americans holding a bachelor’s degree earn an average lifetime income of 75% more over the course of their working lives as compared to individuals with a high school diploma (Carnevale, Rose, & Cheah, 2011). Thus, since higher income levels have been found to be positively correlated with higher educational levels and higher income levels have been positively correlated with less accumulated student loan debt, parental level of educational attainment affects the potential availability of financial resources to pay for higher education expenses and may, therefore minimize the amount of accrued student loan debt.

The four-factor model generated in this study accounted for 7% of the variance in total accrued federal student loan debt and this finding was surprising. Given prior research findings germane to the specific individual demographic variables examined in this study and their relationship to accrued student loan debt (Baum & Steele, 2010; Dwyer et al., 2013; Gordon, 2013; Gross et al., 2009; Harrast, 2004; Houle, 2013; Jackson & Reynolds, 2013), it was anticipated that that model would account for a greater variance. In consideration of the calculated variance, three observations are posited.
First, after data screening (criteria for inclusion, multivariate outliers, non-specified Race cases, missing cases), there was a remaining sample of 992 participants for the analysis relating to research question one. This sample was considerably smaller than the original dataset of 2,190 and may have contributed to a smaller variance.

Second, all of the 992 cases remaining after the data screening reported student status as dependent. Since there were no independent students remaining in the sample for research question one, the Dependency Status variable was eliminated from the analysis. Students classified as independent, by federal government standards, are eligible to borrow higher annual amounts of federal student loans and accumulate more federal student loan debt than dependent students. As reported by Baum and Steele (2010), on average, there are more independent student loan borrowers than dependent student loan borrowers and independent student loan borrowers accrue more student loan debt than their dependent counterparts. According to the College Board (2015), of all 2011-12 bachelor’s degree recipients who accrued more than $40,000 in student loan debt, only 11% were dependent students while 25% were independent students without dependents and 29% were independent with dependents. Exclusion of the total federal student loan debt accrued by the independent students from the analysis may, therefore, have contributed to the lower than anticipated variance.

Finally, this study focused on total accrued federal student loan debt and did not include private student loans (loans that a student or parent obtains directly from a bank, credit union, or other type of financial lending institution to finance the cost of higher education). Private student loans represent approximately 7-10% of the more than $1.3 trillion dollars in outstanding student loan debt (Bernard, 2015). Private loans were not part of this study because, generally, college financial aid offices do not have access to private student loan data for enrolled students.
This is due to the fact that private student loans do not require demonstrated financial need (as determined by the FAFSA calculation), and are obtained outside the realm of the college administered student financial aid process. Also, available data on private student loan borrowing is usually self-reported and has been found to be unreliable when compared to federal student loan borrowing data collected and maintained by the federal government (Wei & Horn, 2013). Additionally, there are borrowing limits per academic year for undergraduate federal student loans based on year in college and there is a limit on the aggregate total amount of federal student loans that may be borrowed by undergraduate students. In this study, degree completers had an average total federal student loan debt of $27,115 and non-completers had an average total federal student loan debt of $15,013. However, total accrued student loan debt per undergraduate student would likely have been higher if private loans were able to have been factored into the analysis. Consequently, if total accrued student loan debt had been utilized as the dependent variable for the analysis, and were represented by greater dollar amounts of outstanding student loan debt, the variance would have likely been effected.

**Logistic regression.** Research question one was also examined utilizing forward logistic regression. Total accrued federal student loan debt upon graduation above/below $10,000, $20,000, and $30,000 was analyzed and three models were generated. The logistic regression model predicting total federal student loan debt upon graduation above/below $10,000 was comprised of one factor—Mother’s Level of Educational Attainment. This model indicated a significant inverse relationship between Mother’s Level of Educational Attainment and total accrued federal student loan debt upon graduation above $10,000, meaning the less education a mother attained, the greater the likelihood of a student accruing total federal student loan debt above $10,000. The $10,000 model correctly classified 96.5% of the cases and was statistically
significant. However, the Log Likelihood value was extremely high indicating poor model fit.

The logistic regression model predicting total accrued federal student loan debt upon graduation above/below $20,000 was comprised of two factors—Family Income and Mother’s Level of Educational Attainment. This model also revealed a significant inverse relationship between Mother’s Level of Educational Attainment and total accrued federal student loan debt upon graduation above $20,000, meaning the less education a mother attained, the greater the likelihood of a student accruing total federal student loan debt above $20,000. Additionally, this model revealed that a decrease in family income was significantly related to an increased likelihood of total accrued federal student loan debt above $20,000. The $20,000 model correctly classified 82.4% of the cases and was statistically significant. Again, however, the Log Likelihood value was extremely high indicating poor model fit.

The logistic regression model predicting total accrued federal student loan debt upon graduation above/below $30,000 was comprised of three factors—Family Income, Minority Status, and Father’s Level of Educational Attainment. This model revealed a significant inverse relationship between Father’s Level of Educational Attainment and total accrued federal student loan debt upon graduation above $30,000, meaning the less education a father attained, the greater the likelihood of a student accruing total federal student loan debt above $30,000. Results also indicate that Minority Status is a significant predictor of total accrued federal student loan debt upon graduation and minority students are slightly more than one and a half times more likely than White students to accumulate federal student loan debt above $30,000. The $30,000 model correctly classified 71% of the cases and was statistically significant. This model also generated an extremely high Log Likelihood, indicating a poor model fit. Since each model generated an extremely high Log Likelihood indicating poor model fit, this might be explained
by the small sample size (n=992) utilized for research question one.

As previously discussed, studies present in the literature (Addo, Houle, & Simon, 2016; Gross et al., 2009; Houle, 2013) support the finding in this study that Parental Level of Educational Attainment is a significant predictor of the accumulation of student loan debt. However, the previous studies examined the highest level of educational attainment by either parent and not the highest level of educational attainment of each parent separately and individually, as was the case in this study. Within this context, it is interesting that Mother’s Level of Educational Attainment was a significant predictor in the $10,000 and $20,000 models, but did not enter the model at the $30,000 level. Likewise, Father’s Level of Educational Attainment only entered the $30,000 model. Due to the focus in previous studies on the highest level of education attained by either parent, it is, therefore, not possible to make direct comparisons to the findings from this study. However, these relationships could potentially be explored and examined through additional research. For example, mother’s level of educational attainment might be examined relative to its impact on job prospects and earnings, especially in family situations where the mother is a single parent.

Even though direct comparisons between Father’s Level of Educational Attainment and Mother’s Level of Educational Attainment (individually) cannot be made with other findings in the reviewed literature, it is instructive to note related research addressing cumulative student loan debt above the $10,000 and $30,000 levels. In one such study, Dwyer, et al. (2012) found that borrowing student loans increased the likelihood of persistence to degree completion until the point at which accumulated student loan debt reached more than $10,000. At that point, accumulated student loan debt was found to reduce the likelihood of persistence to college completion. Consideration of this finding, in concert with findings from this study, could
potentially be of value to both college admissions and financial aid administrators during pre-enrollment student advising and when considering the allocation of non-repayable financial aid resources (scholarships and grants) in order to attempt to keep borrowing levels below the $10,000 threshold.

Minority students were found to be 1.7 times more likely than White students to accumulate total federal student loan debt above $30,000. As previously described within the multiple regression analysis, the low number of participants in several Race categories in this study made it necessary to transform the Race variable into two dichotomous categories - White and Minority. Therefore, direct comparisons to reported studies wherein race categories were segmented and examined separately were challenging. However, in the analysis for this study, Black students comprised nearly three-fourths of the participants (71%) in the Minority Status variable. Therefore, a reasonable conclusion might be that the increased likelihood of minority students to accumulate total student loan debt above $30,000, as found in this study, is consistent with previous research relating to student loan debt levels for Black students. For instance, Addo, Houle, and Simon (2016) found that an average White student loan borrower with a debt of $22,000 equated to a comparable average cumulative student loan debt student loan debt of $36,960 for a Black student. This difference was correlated with lower levels of parental education, family income, lower net worth for the Black student loan borrowers. However, to elucidate on the Minority Status findings from this study, future research should focus on examining multiple racial categories individually.

**Research Question 2**

Is there a significant difference in the total amount of federal student loan debt borrowed between four-year or less and more than four-year BGSU undergraduate degree completers?
The independent samples $t$-test analysis revealed a significant difference in total accrued federal student loan debt based upon degree completion within a four-year timeframe. Among degree completers in this study, 838 graduated in four years or less with a total federal student loan debt mean of $25,192 ($SD=$8,041). In contrast, 305 degree completers needed five or more years to graduate and reported a total federal student loan debt mean of $32,397 ($SD=$9,260). The effect size was large, indicating that 76% of the variance in total federal student loan debt was attributable to completing one’s degree within four years. This finding is consistent with existing literature (Harrast, 2004) which determined that the number of semesters needed to attain degree completion was the most controllable influencer on the accumulation of student loan debt.

Reducing the number of years to complete an undergraduate degree is a controllable strategy to help limit the overall cost of obtaining a bachelor’s degree. Thus, limiting the time required to obtain the degree thus reduces the amount of student loan debt that may be incurred. To date, some progress has been made in this regard. For example, in the State of Ohio, high school students have an option to enroll in Ohio’s College Credit Plus Program. Through this program, students take college courses in conjunction with a community college or university while still in high school, earning both high school and college credit for those courses successfully completed. If enrolled through public universities or colleges, the costs associated with these courses (tuition, books, and fees) are paid by the U.S. Department of Education. Students are able to earn free college credits which are transferrable to college, thus reducing the amount of time and financial resources needed to complete a bachelor’s degree. The findings of this study provide support for initiatives similar to the Ohio College Credit Plus Program.
Research Question 3

Is there a significant difference between BGSU undergraduate degree completers and non-completers in the amount of federal student loan dollars borrowed during each year of enrollment and the total amount of federal student loan dollars borrowed?

**Independent samples t-test.** The independent samples t-test revealed that degree completers \((M=5,657, SD=1,493)\) borrowed significantly less federal student loan dollars than non-completers \((M=6,293, SD=1,947)\) during the first year of enrollment, but significantly more in years three \((M=6,470, SD=2,196)\), four \((M=7,034, SD=2,628)\), and five \((M=5,241, SD=2,870)\). The total amount of federal student loan dollars borrowed between completers \((M=27,115, SD=8,966)\) and non-completers \((M=15,013, SD=10,457)\) was also significant.

These findings were different from a U.S. Department of Education study (Wei & Horn, 2013) which found no statistical difference in the amount of student loan dollars borrowed between degree completers and non-completers attending four-year, non-profit colleges and universities.

A discussion is, therefore, warranted relative to two topics relating to student loan debt which may elucidate some of the differences between completers and non-completers in this study; student financial aid award practices and the potential impact of debt aversion. First, while there is great variation in amounts and types of student financial aid awards offered by four-year colleges and universities, students generally receive more non-repayable financial aid (scholarships and grants) during the first year of enrollment than subsequent years throughout their college career. Often, scholarships and grants awarded through various sources (e.g. civic and religiously affiliated organizations, alumni groups, private foundations, etc.) are only available for the first year of post-secondary enrollment. Many colleges and universities also offer scholarships and grants to students as recruitment and admission incentives, which may not
be available after the freshman year. Students who are awarded scholarships are more likely than students who are not awarded scholarships to have higher grade point averages, higher standardized test scores, and greater levels of extra and co-curricular involvement, all of which have been positively correlated with college degree completion (Lotkowski, Robbins, & Noeth, 2004; Tinto, 1987).

In the case of the data for this study, the degree completers may have received more non-repayable scholarship and grant aid during the first year of enrollment than the non-completers, which enabled them to borrow less during their freshman year thus contributing to the significant difference. If the completers received more non-renewable scholarships and grants during the freshman year, this could also partially explain the absence of a significant difference between completers ($M=$6,104, $SD=$1,833) and non-completers ($M=$6,036, $SD=$2,255) in the second year of enrollment when the freshman year non-repayable resources were no longer available. Further exploration of the impact of student financial aid awards on student loan debt should be pursued and future studies could examine and compare actual student financial aid awards for degree completers and non-completers.

Second, despite a plethora of research on college retention (Brunsden, Davies, Shevlin, & Bracken, 2000; Lotkowski, Robbins, & Noeth, 2004; Seidman, 2005; Tinto, 1987), it is challenging to ascertain the specific reason(s) why students do not return to college after the freshman year and this is often related to the self-reported nature of the data and research design (Brunsden, Davies, Shevlin, & Bracken, 2000). However, non-completers may be more debt averse (Burdman, 2005; Dowd, 2008; Dwyer et al., 2012; Price, 2004) and, if so, the significant differences in years three, four, and five could be attributable to debt aversion.
**ANCOVA.** Since a degree completer is more likely to be enrolled more years than a non-completer and thus have more debt, a one-way ANCOVA was conducted to control for the number of years enrolled while examining total federal student loan debt differences between BGSU undergraduate degree completers and non-completers. Results indicated no significant interaction between degree completion and number of years enrolled on total accrued federal student loan debt. The covariate number of years enrolled significantly adjusted group means and accounted for more than 38% of the variance in total dollars borrowed. Main effects revealed that completers borrowed significantly more federal student loan dollars than non-completers when controlling for number of years enrolled. However, degree completion accounted for only 3% of the variance in total federal student loan debt.

When controlling for the number of years enrolled, the significant difference in total federal student loan debt between completers and non-completers could also be attributable to non-completer debt aversion (Burdman, 2005; Dowd, 2008; Dwyer et al., 2012; Price, 2004) as previously described above.

**Conclusions**

Based upon the results of this study, the following conclusions were generated:

1. Family income, parental level of educational attainment, and race are significant determinants of a student’s need to assume student loan debt. These factors need to be considered when determining the allocation of finite institutional non-repayable sources of financial aid (scholarships and grants).

2. Within the current higher education financing model, the length of time needed to complete the undergraduate degree is the most controllable influencer on the accumulation of student loan debt. As such, it provides fertile ground for innovative curricular initiatives targeted at
reducing the time it takes to complete the degree and thus, the accumulation of federal student loan debt.

3. Given the results of this study and known statistics regarding non-completer student loan borrowers, greater emphasis needs to be placed on identifying the reasons students do not complete, including the potential relationship that may exist related to debt aversion. This is critical to the long-term financial well-being of the non-completers and to determining how to make the most effective investment of federal, state, institutional, and private resources allocated to and invested in higher education.

**Recommendations for Practice and Policy**

Increased media attention and the issues of the cost of higher education, the cost/benefit analysis of the value of a college degree, statistics relating to student loan debt and default rates, and the unemployment and underemployment rates of college graduates have converged. This convergence has resulted in a heightened awareness and concern within the U.S. national dialogue among policymakers, college administrators, students and their families, economists, advocacy groups, and the general public about the magnitude of outstanding student loan debt and the challenges associated with financing a college degree. Consequently, from a policy perspective, these topics have garnered importance among the general public, making them highly salient. While disagreement may exist regarding optimal solutions, there is little disagreement regarding the need to focus intellectual capital to seek solutions to the problems of the cost of higher education and student loan debt. Within the context of this environment and in consideration of the findings of this study, several practice and policy recommendations with leadership implications are offered.

The time and financial resources spent pursuing a college degree are an investment in
one’s future. Like all investments, this pursuit comes with a certain amount of risk, especially when the higher education costs are being financed primarily through student loans. In this study, the degree completer’s average total federal student loan debt of $27,115 and the maximum degree completer debt of $57,157 represent substantial monetary investments. The assumption of debt at these monetary levels for any purpose should not be undertaken without a thorough analysis. Therefore, as with any investment decision, students and their parents should engage in thoughtful due diligence in order to make the most informed decisions possible about the selection of a college, course of study, and the possible financing options that may be available. However, informed decisions require appropriate knowledge and accurate information and, for a plethora of reasons, many students and parents lack basic financial and economic knowledge. Additionally, student financial aid and student loan application processes are inherently extremely complex and complicated, which further compounds the process of effective and deliberate analysis and decision-making.

Therefore, institutional policy initiatives should focus on providing prospective and enrolled students and their parents with opportunities for individualized financial aid advising and counseling, both during the admissions process and post-matriculation. A comprehensive understanding of student loans, both federal and private, is one of the most critical topics where individualized financial aid advising and counseling is needed. This is especially true because a lack of focus and emphasis on the details and ramifications of student loans by higher education institutions, the federal government, and private lenders portray student loans casually and does not elevate them to the level of importance and attention that should be afforded this extremely significant investment. For example, in the present system, the federal government requires all federal student loan borrowers to complete an online student loan entrance counseling module.
However, it is easy to simply “click through” the module, thereby “completing it” and there is no follow-up. The same system is also utilized for the required exit-counseling module. Required face-to-face counseling would be a vast improvement in this one area alone. From a leadership perspective, this recommendation would require institutional and governmental leaders to prioritize and allocate sufficient fiscal and human resources to ensure successful implementation because it would necessitate a significant and innovative change from the current system.

Another area where individualized financial aid advising and counseling would be of extreme benefit is in helping prospective students and their parents understand the concept of cost of attendance (COA) as it is calculated and utilized to determine eligibility for financial aid. COA is the total cost (both direct and indirect) to a student to attend a college for one academic year. Direct costs include tuition and fees. Indirect costs include allowances for room and board, books, supplies, transportation, loan fees, dependent care, rental/purchase of a personal computer, eligible study-abroad programs, and costs associated with a disability (Student Aid Glossary, 2015). The COA for a particular educational institution should be a primary consideration in the college selection process because it is inextricably tied to the calculation of financial need and to the types of financial aid resources that may be available to a student (FAFSA, 2015). Rather than simply identifying the COA bottom line amount, financial aid advising would provide an opportunity for a thorough review and discussion of individual line items and would provide insights to prospective students and parents about the questions they should be asking related to the COA (e.g. is there a difference in the price of the on-campus residence hall options?).

Individualized financial aid advising and counseling would also benefit students and their parents by helping them learn to read and interpret a financial aid award letter. Financial aid
award letters include every type of financial resource for which a student may qualify, including loans and employment opportunities. There are no industry standards for financial aid award letters. They lack language uniformity and consistency of presentation across institutions, are difficult to read, and there is confusion over what constitutes federal student loan assistance that must be repaid versus student financial aid that does not need to be repaid (Abernathy, Asher, Cheng, Cochrane, Mais, & Thompson, 2013; Anthens, 2004; Baum & Steele, 2010; Ross, 2013; Wilke, 2013). Therefore, prospective students and parents need to better understand this critical component of the financial aid process. Presently, there are proposals being debated at national and state levels which would require all colleges and universities offering federal student aid to utilize a standardized award letter.

Policies focused on individualized financial aid advising with collective emphasis on understanding student loans, COA, and financial aid award letters would provide much needed information to students and parents. Thus, individualized financial aid advising would help empower students and their parents in making more informed and deliberate decisions regarding post-secondary education and the financial instruments through which that education might be financed.

Policy initiatives are also recommended that would focus on changes to the federal student loan promissory note. Presently, a student is required to sign only one master promissory note which is applicable to all federal student loans borrowed for a period of up to 10 years and all federal student loan funds are automatically and electronically disbursed. Requiring an annual promissory note and providing accompanying information relating to a student’s annual and cumulative student loan debt would create and maintain awareness by providing students with their current loan information, especially as they navigate through their own personal
budget process. Action relating to this recommendation occurred on April 6, 2016 when the governor of Nebraska signed Legislative Bill 726 into law. This bill requires all publicly funded postsecondary educational institutions in Nebraska to annually provide students with information regarding the amount of federal student loans they have received and how long it will take to pay off those loans.

Study results also revealed that degree completers borrowed significantly less than non-completers during the first year of enrollment. As previously noted, degree completers may have received more non-repayable scholarship and grant aid during the first year of enrollment than the non-completers, which enabled them to borrow less during their freshman year and thus contributing to the significant difference. A policy recommendation relating to this finding would be to ensure that all student financial aid sources offered to students are clearly designated as to their terms, that is one-time or multi-year renewable, and clearly identified as scholarships (non-repayable), grants (non-repayable), student loans (repayable and subsidized/unsubsidized), or federal Work-Study (require the student to actively pursue and secure paid on-campus employment).

The results of this study indicated a significant difference in the total amount of federal student loan debt based upon degree completion within a four-year timeframe, with 76% of the variance in total accrued federal student loan debt attributable to completing the degree within four years. Recommended policy relating to this finding is that higher education institutional leadership review and assess majors, areas of specialization, and course requirements to ascertain how requirements might be modified in order to reduce the amount of time needed to complete a degree. As previously discussed, the Ohio College Credit Plus Program represents advancement in this area and additional initiatives should also be pursued.
Finally, study results indicated that the 737 non-completers accrued an average total federal student loan debt of $15,013 with total debt ranging from $1,569 to $57,073. Previous studies have shown that non-completers have higher unemployment rates and make less income than completers and non-completer student loan borrowers are four times more likely to default on their student loans than degree completers (Gladieux & Perna, 2005; Wei & Horn, 2013). It is, therefore, incumbent upon the leaders of higher education institutions to develop policies, programs, and services which help to identify and retain those students at greatest risk for non-completion.

**Recommendations for Future Research**

This study was designed to simultaneously examine multiple demographic variables to determine the best predictors of total accrued federal student loan debt upon graduation among undergraduate students at BGSU. As such, the results have added new data to the research literature that may be useful in policy formulation as indicated above and in the identification and advisement of undergraduate federal student loan borrowers at the outset of and during their federal student loan borrowing cycle and years of college enrollment. The results have also highlighted areas where future research may be warranted as explicated following.

1. The data analyzed in this study was from one Midwestern public regional research university. The study design should, therefore, be replicated utilizing data from several geographically and racially diverse colleges and universities to provide for a larger and more diverse sample. As previously noted, the sample size \( n = 992 \) utilized for the analysis of research question one may have been a factor in the low variance (7%) of the multiple regression model and the high Log Likelihood values in the $10,000, $20,000, and $30,000 logistic regression models.
Additionally, more research is needed on the effects of membership in specified racial
groups on the accrual of federal student loan debt. A larger, more racially diverse sample
would allow for such an examination that was not possible within this study due to the small
number of participants in several race categories.

2. Since independent students borrow federal student loans in greater numbers and accrue
larger totals of federal student loan debt, it is suggested that future research focus on this
specific demographic. Possible segmentation of graduate students should also be considered.

3. The results of this study indicate a significant difference in the total amount of federal
student loan debt based upon degree completion within a four-year timeframe with 76% of
the variance in total accrued federal student loan debt attributable to completing the degree
within four years. Future research could examine degree completers who take longer than
four years to graduate to identify relevant factors, experiences, and circumstances that may
influence the additional time needed to complete the undergraduate bachelor’s degree and the
subsequent increased level of federal student loan debt.

4. In this study, degree completers borrowed significantly less than non-completers during
the first year of enrollment. Therefore, useful insights into student retention and debt
aversion might be garnered from an analysis and comparison of the original student financial
aid packages for degree completers and non-completers to determine the sources of non-
repayable student financial aid (scholarships and grants) and the terms of the non-repayable
student financial aid (one-time or recurring). The addition of a qualitative component
(interviews with completers and non-completers) might also be of benefit in better
understanding and addressing this phenomenon.

5. In order to glean additional data regarding the relationships between income and parental
educational attainment (individually – mother and father) with student loan debt, future research should explore the findings of this study relating to the differences in the $10,000, $20,000, and $30,000 logistic regression models with regard to Father’s Level of Educational Attainment and Mother’s Level of Educational Attainment and the possible correlations with Family Income and total accrued student loan debt.

**Final Observation**

The student loan debt problem is a complicated amalgamation of numerous societal, political, and economic factors, including the demographic variables examined in this study. As such, solutions need to be developed that embrace and encompass a comprehensive approach. Such solutions should include college and university accountability for cost containment and reduction, as well as greater accountability for student outcomes relating to retention and well prepared graduates with requisite skill sets. Realignment of institutional incentives that are linked to both federal and state budget appropriations and federal and state grants for students and the reallocation of federal fiscal resources to non-repayable grants for low-income and middle-income students (e.g. shift resources from tax credits to Pell Grants) should also be considered.
REFERENCES


Baum, S. & Steele, P. (2010). Who borrows the most? Bachelor’s degree recipients with high
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*lifetime earnings*. Georgetown University Center on Education and the Workforce. Retrieved from


doi: 10.1111/fcsr.12099


http://www.trends.collegeboard.org


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doi:10.1016/j.jpubeco.2010.09.015


Retrieved from National Center for Education Statistics website:


APPENDIX A. REGISTRAR MEMORANDUM/DE-IDENTIFIED DATA

MEMORANDUM

TO: Bowling Green State University Human Subjects Review Board

FROM: Christopher Cox, University Registrar

RE: Project Title 853680-1
Demographic Predictors of Accrued Undergraduate Federal Student Loan Debt
Researcher: Theresa Popp Braun

DATE: 01/27/2016

This memorandum shall serve as confirmation that all data will be de-identified that will be released to and utilized by researcher, Theresa Popp Braun for her dissertation study, *Demographic Predictors of Accrued Undergraduate Federal Student Loan Debt* (#853680-1).

Thank you.
APPENDIX B. FREE APPLICATION FOR FEDERAL STUDENT AID (FAFSA)

Sample - Do not submit

FREE APPLICATION FOR FEDERAL STUDENT AID
July 1, 2009 – June 30, 2010

Use this form to apply free for federal and state student grants, work-study and loans.
Or apply free online at www.fafsa.ed.gov.

Applying by the Deadlines
For federal aid, submit your application as early as possible, but no earlier than January 1, 2009. We must receive your application no later than June 30, 2010. Your college must have your correct, complete information by your last day of enrollment in the 2009-2010 school year.

For state or college aid, the deadline may be as early as January 2009. See the table to the right for state deadlines. You may also need to complete additional forms. Check with your high school guidance counselor or a financial aid administrator at your college about state and college sources of student aid and deadlines.

If you are filing close to one of these deadlines, we recommend you file online at www.fafsa.ed.gov. This is the fastest and easiest way to apply for aid.

Using Your Tax Return
If you are supposed to file a 2008 federal income tax return, we recommend that you complete it before filling out this form. If you have not yet filed your return, you can still submit your FAFSA, but you must provide income and tax information. Once you file your tax return, correct any income or tax information that is different from what you initially submitted on your FAFSA.

Filling Out the FAFSA
Your answers on this form will be read electronically. Therefore:

- use black ink and fill in circles completely:
- print clearly in CAPITAL letters and skip a box between words:
- report dollar amounts (such as $12,356.41)

Correct    Incorrect

\[15\]    ELM    ST
\[1\] 2 3 5 6
no cents

Green is for student information and purple is for parent information.

If you or your family has unusual circumstances (such as loss of employment), complete this form to the extent you can, then submit it as instructed and consult with the financial aid office at the college you plan to attend.

For more information or help in filling out the FAFSA, call 1-800-4-FED-AID (1-800-433-3243). TTY users (for the hearing impaired) may call 1-800-730-8913.

Mailing Your FAFSA
After you complete this application, make a copy of pages 3 through 8 for your records. Then mail the original of pages 3 through 8 in the attached envelope or send it to: Federal Student Aid Programs, P.O. Box 7001, Mt. Vernon, IL 62864-0071.

After your application is processed, you will receive a summary of your information in your Student Aid Report (SAR). If you provide an e-mail address, your SAR will be sent by e-mail within 3-5 days. If you do not provide an e-mail address, your SAR will be mailed to you within three weeks. If you would like to check the status of your FAFSA, go to www.fafsa.ed.gov or call 1-800-4-FED-AID.

Let’s Get Started!
Now go to page 3 of the application form and begin filling it out. Refer to the notes as instructed.

STATE AID DEADLINES

Check with your financial aid administrator for these states and territories:

<table>
<thead>
<tr>
<th>State</th>
<th>Date Received</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL, AS, CO, DE, FL, GA, HI, IA, ME, MI, MN, MO, MT, NE, NH, NJ, NM, NV, OH, OR, PA, RI, SC, SD, TN, TX, UT, VT, WA, WY</td>
<td>Date received by state</td>
<td></td>
</tr>
<tr>
<td>Ak</td>
<td>April 15, 2009</td>
<td></td>
</tr>
<tr>
<td>AR</td>
<td>Academic Challenge - June 1, 2009</td>
<td></td>
</tr>
<tr>
<td>AZ</td>
<td>Workforce Grant - Contact your financial aid administrator. Higher Education Opportunity Grant - June 1, 2009 (fall term) - November 1, 2009 (spring term)</td>
<td></td>
</tr>
<tr>
<td>CA</td>
<td>Initial awards - March 2, 2009</td>
<td></td>
</tr>
<tr>
<td>CT</td>
<td>Additional community college awards - September 2, 2009 (date postmarked)</td>
<td></td>
</tr>
<tr>
<td>DC</td>
<td>June 30, 2009 (date received by state)</td>
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</tr>
<tr>
<td>DE</td>
<td>April 15, 2009 (date received)</td>
<td></td>
</tr>
<tr>
<td>FL</td>
<td>May 15, 2009 (date received)</td>
<td></td>
</tr>
<tr>
<td>IA</td>
<td>July 1, 2009 (date received)</td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>Opportunity Grant - March 1, 2009</td>
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</tr>
<tr>
<td>IL</td>
<td>First-time applicants - September 30, 2009 Continuing applicants - August 15, 2009</td>
<td></td>
</tr>
<tr>
<td>IN</td>
<td>March 10, 2009 (date received)</td>
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<tr>
<td>KS</td>
<td>April 1, 2009 (date received)</td>
<td></td>
</tr>
<tr>
<td>KY</td>
<td>March 15, 2009 (date received)</td>
<td></td>
</tr>
<tr>
<td>LA</td>
<td>July 1, 2009 (date received)</td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>May 1, 2009 (date received)</td>
<td></td>
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<tr>
<td>MI</td>
<td>March 1, 2009 (date received)</td>
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<td>MN</td>
<td>May 1, 2009 (date received)</td>
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<tr>
<td>MO</td>
<td>April 1, 2009 (date received)</td>
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</tr>
<tr>
<td>MS</td>
<td>MTAG and MESG Grants - September 15, 2009</td>
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<tr>
<td>MT</td>
<td>HELP Scholarship - March 31, 2009</td>
<td></td>
</tr>
<tr>
<td>NE</td>
<td>All 2008-2009 State Grant recipients &amp; all non-2008-2009 State Grant recipients in degree programs - May 1, 2009</td>
<td></td>
</tr>
<tr>
<td>NH</td>
<td>May 1, 2009 (date received)</td>
<td></td>
</tr>
<tr>
<td>NJ</td>
<td>June 1, 2009, if you received a Tuition Aid Grant in 2008-2009</td>
<td></td>
</tr>
<tr>
<td>NM</td>
<td>All other applicants - October 1, 2009, fall &amp; spring terms - March 1, 2010, spring term only (date received)</td>
<td></td>
</tr>
<tr>
<td>NV</td>
<td>May 1, 2010 (date received)</td>
<td></td>
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<tr>
<td>NY</td>
<td>October 1, 2009 (date received)</td>
<td></td>
</tr>
<tr>
<td>OH</td>
<td>April 15, 2009 (date received)</td>
<td></td>
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<tr>
<td>OK</td>
<td>April 15, 2009 (date received) for best consideration</td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>All 2008-2009 State Grant recipients &amp; all non-2008-2009 State Grant recipients in degree programs - May 1, 2009</td>
<td></td>
</tr>
<tr>
<td>RI</td>
<td>All other applicants - August 15, 2009 (date received)</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>Tuition Grants - June 30, 2009 (date received)</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>State Grant - March 1, 2009 State Lottery - September 1, 2009 (date received)</td>
<td></td>
</tr>
<tr>
<td>VT</td>
<td>March 1, 2009 (date received)</td>
<td></td>
</tr>
<tr>
<td>WA</td>
<td>For priority consideration, submit application by date specified.</td>
<td></td>
</tr>
<tr>
<td>WI</td>
<td>Applicants encouraged to obtain proof of mailing.</td>
<td></td>
</tr>
<tr>
<td>WY</td>
<td>Additional form may be required.</td>
<td></td>
</tr>
</tbody>
</table>

* For priority consideration, submit application by date specified.
* Applicants encouraged to obtain proof of mailing.
* Additional form may be required.
Notes for questions 14 and 15 (page 3)
If you are an eligible noncitizen, write in your eight- or nine-digit Alien Registration Number. Generally, you are an eligible noncitizen if you are (1) a permanent U.S. resident with a Permanent Resident Card (I-551); (2) a conditional permanent resident (I-551C); or (3) the holder of an Arrival-Departure Record (I-94) from the Department of Homeland Security showing any one of the following designations: “Refugee,” “Asylum Granted,” “Parolee” (I-94 confirms that you were paroled for a minimum of one year and status has not expired), “Victim of human trafficking,” T-Visa holder (T-1, T-2, T-3, etc.) or “Cuban-Haitian Entrant.”

If you are in the U.S. on an F1 or F2 student visa, a J1 or J2 exchange visitor visa, or a G series visa (pertaining to international organizations), select “No, I am not a citizen or eligible noncitizen.” You will not be eligible for federal student aid; however, you should still complete the application because you may be eligible for state or college aid.

Notes for question 30 (page 4)
For undergraduates, select the enrollment status for the college you will most likely attend.
- “Full-time” generally means taking at least 12 credit hours in a term or 24 clock hours per week.
- “3/4-time” generally means taking at least 9 credit hours in a term or 18 clock hours per week.
- “Half-time” generally means taking at least 6 credit hours in a term or 12 clock hours per week.

Notes for question 32 (page 4)
The Teacher Education Assistance for College and Higher Education (TEACH) Grant Program provides grants to students enrolled in a participating college who intend to teach in a public or private elementary or secondary school that serves students from low-income families. Answer “Yes” to learn more about the TEACH Grant. Answer “No” if you are not interested in the TEACH Grant. Answer “Don’t know” if you are not sure but would like more information about the TEACH Grant. Additional information about the TEACH Grant Program is available at www.teachgrant.ed.gov.

Notes for questions 34 (page 4) and 83 (page 6)
If you filed or will file a foreign tax return, a tax return with Puerto Rico, another U.S. territory (e.g., Guam, American Samoa, the U.S. Virgin Islands, Swain’s Island or the Northern Mariana Islands) or one of the freely associated states (i.e., the Republic of Palau, the Republic of the Marshall Islands or the Federated States of Micronesia), use the information from that return to fill out this form. If you filed a foreign tax return, convert all monetary units to U.S. dollars, using the exchange rate that is in effect today. To view the daily exchange rate, go to www.federalreserve.gov/releases/h10/update.

Notes for questions 35 (page 4) and 84 (page 6)
In general, a person is eligible to file a 1040A or 1040EZ if he or she makes less than $100,000, does not itemize deductions, does not receive income from his or her own business or farm and does not receive alimony. A person is not eligible to file a 1040A or 1040EZ if he or she makes $100,000 or more, itemizes deductions, receives income from his or her own business or farm, is self-employed, receives alimony or is required to file Schedule D for capital gains. If you filed a 1040 only to claim Hope or Lifetime Learning credits, and you would have otherwise been eligible for a 1040A or 1040EZ, you should answer “Yes” to this question. If you filed a 1040 and were not required to file a tax return, you should answer “Yes” to this question.

Notes for questions 38 (page 4) and 88 (page 7) — Notes for those who filed a 1040EZ
On the 1040EZ, if a person checked either the “you” or “spouse” box on line 5, use 1040EZ worksheet line F to determine the number of exemptions ($3,500 equals one exemption). If a person didn’t check either box on line 5, enter 01 if he or she is single, or 02 if he or she is married.

Notes for questions 42 and 43 (page 4) and 92 and 93 (page 7)
Net worth means current value minus debt. If net worth is one million dollars or more, enter $999,999. If net worth is negative, enter 0.

Investments include real estate (do not include the home you live in), trust funds, UGMA and UTMA accounts, money market funds, mutual funds, certificates of deposit, stocks, stock options, bonds, other securities, installment and land sale contracts (including mortgages held), commodities, etc.

Investments also include qualified educational benefits or education savings accounts such as Coverdell savings accounts, 529 college savings plans and the refund value of 529 prepaid tuition plans. For a student who does not report parental information, the accounts owned by the student (and the student’s spouse) are reported as student investments in question 42. For a student who must report parental information, the accounts are reported as parental investments in question 92, including all accounts owned by the student and all accounts owned by the parents for any member of the household.

Investments do not include the home you live in, the value of life insurance, retirement plans (401(k) plans, pension funds, annuities, non-education IRAs, Keogh plans, etc.) or cash, savings and checking accounts already reported in questions 41 and 91.

Investment value means the current balance or market value of these investments as of today. Investment debt means only those debts that are related to the investments.

Business and/or investment farm value includes the market value of land, buildings, machinery, equipment, inventory, etc. Business and/or investment farm debt means only those debts for which the business or investment farm was used as collateral.

Business value does not include the value of a small business if your family owns and controls more than 50 percent of the business and the business has 100 or fewer full-time or full-time equivalent employees. For small business value, your family includes (1) persons directly related to you, such as a parent, sister or cousin, or (2) persons who are or were related to you by marriage, such as a spouse, stepparent or sister-in-law.

Business value does not include the value of a family farm that you (your spouse and/or your parents) live on and operate.

Notes for question 45 (page 4)
Enter the correct number in the box in question 45 to indicate what type of veterans education benefits you will receive.

Enter 1 for Montgomery GI Bill - Active Duty (Chapter 30)
Enter 2 for Post-9/11 GI Bill (Chapter 33)
Enter 3 for Montgomery GI Bill - Selected Reserve (Chapter 1606)
Enter 4 for Reserve Educational Assistance Program (Chapter 1607)
Enter 5 for Vocational Rehabilitation and Employment (Chapter 31)
Enter 6 for Dependents’ Educational Assistance (Chapter 35)
Enter 7 for any other type of veterans education benefits

Note that the financial aid administrator at your college will need you to provide information about the amount of education benefits you will receive.
23. Do not leave this question blank. Have you been convicted for the possession or sale of illegal drugs for an offense that occurred while you were receiving federal student aid (such as grants, loans or work-study)? Answer “No” if you have never received federal student aid. If you have a drug conviction, answer “Yes,” but complete and submit this application, and we will send you a worksheet in the mail that will help you determine if your conviction affects your eligibility for aid. If you are unsure how to answer this question, call 1-800-433-3243 for help.

10. Your permanent telephone number

11. Your driver’s license number

12. Your driver’s license state

13. Your e-mail address. (If you provide your e-mail address, we will communicate with you electronically. For example, when your FAFSA has been processed, you will be notified by e-mail. Your e-mail address will also be shared with your state and the colleges listed on your FAFSA to allow them to communicate with you. If you prefer to be contacted by postal mail or do not have an e-mail address, please leave this field blank.)


Yes, I am a U.S. citizen (U.S. national). Skip to question 16.

No, but I am an eligible noncitizen. Fill in question 15.

No, I am not a citizen or eligible noncitizen. Skip to question 16.

15. Alien Registration Number

16. What is your marital status as of today? If your marital status changes after you sign your FAFSA, you must not change this information.

17. Month and year you were married, separated, divorced or widowed

18. What is your state of legal residence?

19. Did you become a legal resident of this state before January 1, 2004?

20. If the answer to question 19 is “No,” give month and year you became a legal resident.

21. Are you male or female?

22. Most male students must register with Selective Service to get federal aid. If you are male, age 18-25 and not registered, fill in the circle and we will register you.

23. Do not leave this question blank. Have you been convicted for the possession or sale of illegal drugs for an offense that occurred while you were receiving federal student aid (such as grants, loans or work-study)? Answer “No” if you have never received federal student aid. If you have a drug conviction, answer “Yes,” but complete and submit this application, and we will send you a worksheet in the mail that will help you determine if your conviction affects your eligibility for aid. If you are unsure how to answer this question, call 1-800-433-3243 for help.

Some states and colleges offer aid based on the level of schooling your parents completed.

24. Highest school your father completed

25. Highest school your mother completed

26. When you begin college in the 2009-2010 school year, what will be your high school completion status?

27. Will you have your first bachelor’s degree before July 1, 2009?
28. When you begin the 2009–2010 school year, what will be your grade level?

- Never attended college and 1st year undergraduate
- Attended college before and 1st year undergraduate
- 2nd year undergraduate/sophomore
- 3rd year undergraduate/junior
- 4th year undergraduate/senior
- 5th year/other undergraduate
- 1st year graduate/professional
- Continuing graduate/professional or beyond

29. When you begin the 2009–2010 school year, what degree or certificate will you be working on?

- 1st bachelor’s degree
- 2nd bachelor’s degree
- Associate degree (occupational or technical program)
- Associate degree (general education or transfer program)
- Certificate or diploma (occupational, technical or education program of less than two years)
- Certificate or diploma (occupational, technical or education program of two or more years)
- Teaching credential (nondegree program)
- Graduate or professional degree
- Other/undecided

30. When you begin the 2009–2010 school year, what do you expect your enrollment status to be? See Notes page 2.

- Full-time
- Three-quarter-time
- Half-time
- Less than half-time
- Don’t know

31. In addition to grants, are you interested in being considered for work-study or student loans?

- Work-study (student aid that you earn through work)
- Student loans (which you must pay back)
- Both work-study and student loans
- Neither
- Don’t know

33. For 2008, have you (the student) completed your IRS income tax return or another tax return listed in question 34?

- I have already completed my return.
- I will file, but I have not yet completed my return.
- I’m not going to file. Skip to question 39.

34. What income tax return did you file or will you file for 2008?

- IRS 1040
- IRS 1040A or 1040EZ
- A foreign tax return. See Notes page 2
- A tax return with Puerto Rico, another U.S. territory or Freely Associated State. See Notes page 2

35. If you have filed or will file a 1040, were you eligible to file a 1040A or 1040EZ?

- Yes
- No
- Don’t know

For questions 36–47, if the answer is zero or the question does not apply to you, enter 0. Report whole dollar amounts with no cents.

36. What was your (and spouse’s) adjusted gross income for 2008?

$ Sample

37. Enter your (and spouse’s) income tax for 2008.

$ Sample

38. Enter your (and spouse’s) exemptions for 2008. Exemptions are on IRS Form 1040—line 6d or Form 1040A—line 6d. For Form 1040EZ, see Notes page 2.

$ Sample

39. How much did you earn from working in 2008?

$ Sample

40. How much did your spouse earn from working in 2008?

$ Sample

41. As of today, what is your (and spouse’s) total current balance of cash, savings and checking accounts? Do not include student financial aid.

$ Sample

42. As of today, what is the net worth of your (and spouse’s) investments, including real estate (not your home)? Net worth means current value minus debt. See Notes page 2.

$ Sample

43. As of today, what is the net worth of your (and spouse’s) current businesses and/or investment farms? For a family farm or family business, see Notes page 2.

$ Sample

44. Will you receive veterans education benefits between July 1, 2009 and June 30, 2010?

Yes
No

If no, skip to question 46.

45. What type of veterans education benefits will you receive? See Notes page 2 and enter the correct number in the box.
### Step Two CONTINUED from page 4

**46. Student’s 2008 Additional Financial Information**
(Enter the combined amounts for you and your spouse.)

<table>
<thead>
<tr>
<th></th>
<th>$ S A M P L E</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Education credits (Hope and Lifetime Learning tax credits) from IRS Form 1040—line 50 or 1040A—line 31.</td>
<td>$</td>
</tr>
<tr>
<td>b. Child support paid because of divorce or separation or as a result of a legal requirement. Don’t include support for children in your household, as reported in question 96.</td>
<td>$</td>
</tr>
<tr>
<td>c. Taxable earnings from need-based employment programs, such as Federal Work-Study and need-based employment portions of fellowships and assistantships.</td>
<td>$</td>
</tr>
<tr>
<td>d. Student grant and scholarship aid reported to the IRS in your adjusted gross income. Includes AmeriCorps benefits (awards, living allowances and interest accrual payments), as well as grant and scholarship portions of fellowships and assistantships.</td>
<td>$</td>
</tr>
<tr>
<td>e. Combat pay or special combat pay. Only enter the amount that was taxable and included in your adjusted gross income. Do not enter untaxed combat pay reported on the W-2 (Box 12, Code Q).</td>
<td>$</td>
</tr>
</tbody>
</table>

**47. Student’s 2008 Untaxed Income**
(Enter the combined amounts for you and your spouse.)

<table>
<thead>
<tr>
<th></th>
<th>$ S A M P L E</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. IRA deductions and payments to self-employed SEP, SIMPLE, Keogh and other qualified plans from IRS Form 1040—line 28 + line 32 or 1040A—line 17.</td>
<td>$</td>
</tr>
<tr>
<td>b. Child support received for all children. Don’t include foster care or adoption payments.</td>
<td>$</td>
</tr>
<tr>
<td>c. Tax exempt interest income from IRS Form 1040—line 8b or 1040A—line 8b.</td>
<td>$</td>
</tr>
<tr>
<td>d. Untaxed portions of IRA distributions from IRS Form 1040—lines (15a minus 15b) or 1040A—lines (11a minus 11b). Exclude rollovers. If negative, enter a zero here.</td>
<td>$</td>
</tr>
<tr>
<td>e. Untaxed portions of pensions from IRS Form 1040—lines (16a minus 16b) or 1040A—lines (12a minus 12b). Exclude rollovers. If negative, enter a zero here.</td>
<td>$</td>
</tr>
<tr>
<td>f. Housing, food and other living allowances paid to members of the military, clergy and others (including cash payments and cash value of benefits).</td>
<td>$</td>
</tr>
<tr>
<td>g. Veterans non-education benefits such as Disability, Death Pension, or Dependency &amp; Indemnity Compensation (DIC) and/or VA Educational Work-Study allowances.</td>
<td>$</td>
</tr>
<tr>
<td>h. Other untaxed income not reported, such as workers’ compensation, disability, etc. Don’t include student aid, earned income credit, additional child tax credit, welfare payments, untaxed Social Security benefits, Supplemental Security Income, Workforce Investment Act educational benefits, combat pay, benefits from flexible spending arrangements (e.g., cafeteria plans), foreign income exclusion or credit for federal tax on special fuels.</td>
<td>$</td>
</tr>
<tr>
<td>j. Money received, or paid on your behalf (e.g., bills), not reported elsewhere on this form.</td>
<td>$</td>
</tr>
</tbody>
</table>

**Step Three:** Answer all questions in this step to determine if you will need to provide parental information.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>48. Were you born before January 1, 1986?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49. As of today, are you married? (Also answer “Yes” if you are separated but not divorced.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50. At the beginning of the 2009–2010 school year, will you be working on a master’s or doctorate program (such as an MA, MBA, MD, JD, PhD, EdD, graduate certificate, etc.)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51. Are you currently serving on active duty in the U.S. Armed Forces for purposes other than training?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52. Are you a veteran of the U.S. Armed Forces?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53. Do you have children who will receive more than half of their support from you between July 1, 2009 and June 30, 2010?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54. Do you have dependents (other than your children or spouse) who live with you and who receive more than half of their support from you, now and through June 30, 2010?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55. At any time since you turned age 13, were both your parents deceased, were you in foster care or were you a dependent or ward of the court? See Notes page 9.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>56. Are you or were you an emancipated minor as determined by a court in your state of legal residence? See Notes page 9.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>57. Are you or were you in legal guardianship as determined by a court in your state of legal residence? See Notes page 9.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>58. At any time on or after July 1, 2008, did your high school or school district homeless liaison determine that you were an unaccompanied youth who was homeless? See Notes page 9.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>59. At any time on or after July 1, 2008, did the director of an emergency shelter or transitional housing program funded by the U.S. Department of Housing and Urban Development determine that you were an unaccompanied youth who was homeless? See Notes page 9.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60. At any time on or after July 1, 2008, did the director of a runaway or homeless youth basic center or transitional living program determine that you were an unaccompanied youth who was homeless or were self-supporting and at risk of being homeless? See Notes page 9.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Step Four: Complete this step if you (the student) answered “No” to all questions in Step Three.

Answer all the questions in Step Four about your parents even if you do not live with them. Grandparents, foster parents, legal guardians, aunts and uncles are not considered parents on this form unless they have legally adopted you. If your parents are living and married to each other, answer the questions about them. If your parent is single, widowed, divorced, separated or remarried, see the Notes on page 9 for additional instructions.

What are the Social Security Numbers, names and dates of birth of the parents reporting information on this form? If your parent does not have a Social Security Number, you must enter 000-00-0000. Enter two digits for each day and month (e.g., for May 31, enter 05 31).

61. What is your parents’ marital status as of today?
   - Married or remarried ........... ○ 1
   - Divorced or separated ........... ○ 2
   - Widowed .......................... ○ 3

62. Month and year they were married, separated, divorced or widowed
   - MONTH YEAR

63. FATHER’S/STEPFATHER’S SOCIAL SECURITY NUMBER
   - XXX XX – XXX XX

64. FATHER’S/STEPFATHER’S LAST NAME, AND 65. FIRST INITIAL
   - SAMPLE

66. FATHER’S/STEPFATHER’S DATE OF BIRTH
   - MM DD YYYY

67. MOTHER’S/STEPMOTHER’S SOCIAL SECURITY NUMBER
   - XXX XX – XXX XX

68. MOTHER’S/STEPMOTHER’S LAST NAME, AND 69. FIRST INITIAL
   - SAMPLE

70. MOTHER’S/STEPMOTHER’S DATE OF BIRTH
   - MM DD YYYY

61. What is your parents’ marital status as of today? (cont.)

71. Your parents’ e-mail address. If you provide your parents’ e-mail address, we will let them know your FAFSA has been processed. This e-mail address will also be shared with your state and the colleges listed on your FAFSA to allow them to communicate with your parents.

72. What is your parents’ state of legal residence?

73. Did your parents become legal residents of this state before January 1, 2004?
   - Yes ○ 1
   - No ○ 2

74. If the answer to question 73 is “No,” give month and year legal residency began for the parent who has lived in the state the longest.
   - MONTH YEAR

75. How many people are in your parents’ household?
   - Include:
     - yourself, even if you don’t live with your parents,
     - your parents,
     - your parents’ other children if [a] your parents will provide more than half of their support between July 1, 2009 and June 30, 2010, or [b] the children could answer “No” to every question in Step Three on page 5 of this form, and
     - other people if they now live with your parents, your parents provide more than half of their support and your parents will continue to provide more than half of their support between July 1, 2009 and June 30, 2010.

76. How many people in your parents’ household will be college students between July 1, 2009 and June 30, 2010?
   - Always count yourself as a college student. Do not include your parents. You may include others only if they will attend, at least half-time in 2009-2010, a program that leads to a college degree or certificate.

77. Supplemental Security Income ○ 78. Food Stamps ○ 79. Free or Reduced Price Lunch ○ 80. TANF ○ 81. WIC ○

82. For 2008, have your parents completed their IRS income tax return or another tax return listed in question 83?
   - My parents have already completed their return. .... ○ 1
   - My parents will file, but they have not yet completed their return. .................................................. ○ 2
   - My parents are not going to file. Skip to question 89. ○ 3

83. What income tax return did your parents file or will they file for 2008?
   - IRS 1040 .......................................................... ○ 1
   - IRS 1040A or 1040EZ ........................................... ○ 2
   - A foreign tax return. See Notes page 2. .............. ○ 3
   - A tax return with Puerto Rico, another U.S. territory or Freely Associated State. See Notes page 2. ......... ○ 4

84. If your parents have filed or will file a 1040, were they eligible to file a 1040A or 1040EZ? See Notes page 2.
   - Yes ○ 1
   - No ○ 2
   - Don’t know ○ 3

85. As of today, is either of your parents a dislocated worker? See Notes page 9.
   - Yes ○ 1
   - No ○ 2
   - Don’t know ○ 3
86. What was your parents' adjusted gross income for 2008? Adjusted gross income is on IRS Form 1040—line 37; 1040A—line 21; or 1040EZ—line 4. **$**

87. Enter your parents' income tax for 2008. Income tax amount is on IRS Form 1040—line 56; 1040A—line 35; or 1040EZ—line 11. **$**

88. Enter your parents' exemptions for 2008. Exemptions are on IRS Form 1040—line 6d or on Form 1040A—line 6d. For Form 1040EZ, see Notes page 2. **$**

<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>89.</td>
<td>How much did your father/stepfather earn from working in 2008? <strong>$</strong></td>
</tr>
<tr>
<td>90.</td>
<td>How much did your mother/stepmother earn from working in 2008? <strong>$</strong></td>
</tr>
<tr>
<td>91.</td>
<td>As of today, what is your parents' total current balance of cash, savings and checking accounts? <strong>$</strong></td>
</tr>
<tr>
<td>92.</td>
<td>As of today, what is the net worth of your parents' investments, including real estate (not your parents' home)? Net worth means current value minus debt. See Notes page 2. <strong>$</strong></td>
</tr>
<tr>
<td>93.</td>
<td>As of today, what is the net worth of your parents' current businesses and/or investment farms? For a family farm or family business, see Notes page 2. <strong>$</strong></td>
</tr>
<tr>
<td>94.</td>
<td>Parents' 2008 Additional Financial Information (Enter the amounts for your parent(s)). <strong>$</strong></td>
</tr>
<tr>
<td>a.</td>
<td>Education credits (Hope and Lifetime Learning tax credits) from IRS Form 1040—line 50 or 1040A—line 31. <strong>$</strong></td>
</tr>
<tr>
<td>b.</td>
<td>Child support paid because of divorce or separation or as a result of a legal requirement. Don't include support for children in your parents' household, as reported in question 75. <strong>$</strong></td>
</tr>
<tr>
<td>c.</td>
<td>Your parents' taxable earnings from need-based employment programs, such as Federal Work-Study and need-based employment portions of fellowships and assistantships. <strong>$</strong></td>
</tr>
<tr>
<td>d.</td>
<td>Student grant and scholarship aid reported to the IRS in your parents' adjusted gross income. Includes AmeriCorps benefits (awards, living allowances and interest accrual payments), as well as grant and scholarship portions of fellowships and assistantships. <strong>$</strong></td>
</tr>
<tr>
<td>e.</td>
<td>Combat pay or special combat pay. Only enter the amount that was taxable and included in your parents' adjusted gross income. Do not enter untaxed combat pay reported on the W-2 (Box 12, Code Q). <strong>$</strong></td>
</tr>
<tr>
<td>95.</td>
<td>Parents' 2008 Untaxed Income (Enter the amounts for your parent(s)). <strong>$</strong></td>
</tr>
<tr>
<td>a.</td>
<td>Payments to tax-deferred pension and savings plans (paid directly or withheld from earnings), including, but not limited to, amounts reported on the W-2 forms in Boxes 12a through 12d, codes D, E, F, G, H, and S. <strong>$</strong></td>
</tr>
<tr>
<td>b.</td>
<td>IRA deductions and payments to self-employed SEP, SIMPLE, Keogh and other qualified plans from IRS Form 1040—line 28a + line 32 or 1040A—line 12a + 12b. <strong>$</strong></td>
</tr>
<tr>
<td>c.</td>
<td>Child support received for all children. Don't include foster care or adoption payments. <strong>$</strong></td>
</tr>
<tr>
<td>d.</td>
<td>Tax exempt interest income from IRS Form 1040—line 8b or 1040A—line 8b. <strong>$</strong></td>
</tr>
<tr>
<td>e.</td>
<td>Untaxed portions of IRA distributions from IRS Form 1040—lines (15a minus 15b) or 1040A—lines (11a minus 11b). Exclude rollovers. If negative, enter a zero here. <strong>$</strong></td>
</tr>
<tr>
<td>f.</td>
<td>Untaxed portions of pensions from IRS Form 1040—lines (16a minus 16b) or 1040A—lines (12a minus 12b). Exclude rollovers. If negative, enter a zero here. <strong>$</strong></td>
</tr>
<tr>
<td>g.</td>
<td>Housing, food and other living allowances paid to members of the military, clergy and others (including cash payments and cash value of benefits). <strong>$</strong></td>
</tr>
<tr>
<td>h.</td>
<td>Veterans noneducation benefits such as Disability, Death Pension, or Dependency &amp; Indemnity Compensation (DIC) and/or VA Educational Work-Study allowances. <strong>$</strong></td>
</tr>
<tr>
<td>i.</td>
<td>Other untaxed income not reported, such as workers' compensation, disability, etc. Don't include student aid, earned income credit, additional child tax credit, welfare payments, untaxed Social Security benefits, Supplemental Security Income, Workforce Investment Act educational benefits, combat pay, benefits from flexible spending arrangements (e.g., cafeteria plans), foreign income exclusion or credit for federal tax on special fuels. <strong>$</strong></td>
</tr>
</tbody>
</table>
96. How many people are in your household? Include:
   • yourself (and your spouse),
   • your children, if you will provide more than half of their support between July 1, 2009 and June 30, 2010, and
   • other people, if they now live with you, you provide more than half of their support and you will continue to provide more than half of their support between July 1, 2009 and June 30, 2010.

97. How many people in your (and your spouse’s) household will be college students between July 1, 2009 and June 30, 2010? Always count yourself as a college student. Include others only if they will attend, at least half-time in 2009-2010, a program that leads to a college degree or certificate.

In 2007 or 2008, did you (or your spouse) or anyone in your household (from question 96) receive benefits from any of the federal benefits programs listed? Mark all the programs that apply. Answering these questions will not reduce your eligibility for student aid or for these other benefits. TANF may have a different name in your state. Call 1-800-4-FED-AID to find out the name of your state’s program.

<table>
<thead>
<tr>
<th>Program</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>TANF</td>
<td>101</td>
</tr>
<tr>
<td>Free or Reduced Price Lunch</td>
<td>102</td>
</tr>
<tr>
<td>Food Stamps</td>
<td>103</td>
</tr>
<tr>
<td>WIC</td>
<td>104</td>
</tr>
<tr>
<td>Supplemental Security Income</td>
<td>105</td>
</tr>
<tr>
<td>Food Stamps</td>
<td>106</td>
</tr>
</tbody>
</table>

Step Six: Indicate which colleges you want to receive your FAFSA information.

Enter the six-digit federal school code and your housing plans. You can find the school codes at www.fafsa.ed.gov or you can call 1-800-4-FED-AID. If you cannot get the code, write in the complete name, address, city and state of the college. For state aid, you may wish to list your preferred college first. To have more colleges receive your FAFSA information, read What is the FAFSA? on page 10.

<table>
<thead>
<tr>
<th>1st Federal School Code</th>
<th>Name of College</th>
<th>Address and City</th>
<th>State</th>
<th>Housing Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>104.a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>104.c</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>104.e</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>104.g</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Step Seven: Read, sign and date.

If you are the student, by signing this application you certify that you (1) will use federal and/or state student financial aid only to pay the cost of attending an institution of higher education, (2) are not in default on a federal student loan or have made satisfactory arrangements to repay it, (3) do not owe money back on a federal student grant or have made satisfactory arrangements to repay it, (4) will notify your college if you default on a federal student loan and (5) will not receive a Federal Pell Grant from more than one college for the same period of time.

If you are the parent or the student, by signing this application you agree, if asked, to provide information that will verify the accuracy of your completed form. This information may include U.S. or state income tax forms that you filed or are required to file. Also, you certify that you understand that the Secretary of Education has the authority to verify information reported on this application with the Internal Revenue Service and other federal agencies. If you sign any document related to the federal student aid programs electronically using a Personal Identification Number (PIN), you certify that you are the person identified by the PIN and have not disclosed that PIN to anyone else. If you purposely give false or misleading information, you may be fined up to $20,000, sent to prison, or both.

<table>
<thead>
<tr>
<th>Date this form was completed</th>
<th>Month</th>
<th>Day</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>2009</td>
<td>2010</td>
</tr>
</tbody>
</table>

107. Preparer’s Social Security Number (or 108)

<table>
<thead>
<tr>
<th>Preparer’s Social Security Number</th>
<th>Preparer’s name, firm and address</th>
</tr>
</thead>
<tbody>
<tr>
<td>X X X X - X X X - X X X X</td>
<td></td>
</tr>
</tbody>
</table>

108. Employer ID number (or 107)

109. Preparer’s signature and date

For Help—1-800-433-3243
Youth means you are not living in the physical custody of an unaccompanied youth or, for question 60, at risk of being homeless.

July 1, 2008, that you were an unaccompanied youth who was homeless if you received a determination at any time on or after Answer “No” if you are not a veteran now but will be one by June 30, 2010.

Answer “No” (you are not a veteran) if you (1) have never engaged in active duty in the U.S. Armed Forces, (2) are currently a ROTC student or a cadet or midshipman at a service academy, (3) are a National Guard or Reserve enlistee activated only for state or training purposes, or (4) were engaged in active duty in the U.S. Armed Forces but released under dishonorable conditions.

Also answer “No” if you are currently serving in the U.S. Armed Forces and will continue to serve through June 30, 2010.

Answer “Yes” if you had no living parent (biological or adoptive) at any time since you turned age 13, even if you are now adopted.

Answer “Yes” if you were in foster care at any time since you turned age 13, even if you are no longer in foster care as of today.

Answer “Yes” if you were a dependent or ward of the court at any time since you turned age 13, even if you are no longer a dependent or ward of the court as of today.

Note that the financial aid administrator at your school may require you to provide proof that you were in foster care or a dependent or ward of the court.

Answer “Yes” if you can provide a copy of a court’s decision that as of today you are an emancipated minor or are in legal guardianship. Also answer “Yes” if you can provide a copy of a court’s decision that you were an emancipated minor or were in legal guardianship immediately before you reached the age of being an adult in your state. The court must be located in your state of legal residence at the time the court’s decision was issued.

Answer “No” if you are still a minor and the court decision is no longer in effect or the court decision was not in effect at the time you become an adult.

Note that the financial aid administrator at your college may require you to provide proof that you were an emancipated minor or in legal guardianship.

Answer “Yes” if you received a determination at any time on or after July 1, 2008, that you were an unaccompanied youth who was homeless or, for question 60, at risk of being homeless.

• “Homeless” means lacking fixed, regular and adequate housing, which includes living in shelters, motels or cars, or temporarily living with other people because you had nowhere else to go.

• “Unaccompanied” means you are not living in the physical custody of your parent or guardian.

• “Youth” means you are 21 years of age or younger or you are still enrolled in high school as of the day you sign this application.

Notes for questions 58–60 continued in next column.

Answer “No” if you are not homeless, at risk of being homeless or if you do not have a determination. You should contact your financial aid office for assistance if you do not have a determination but believe you are an unaccompanied youth who is homeless or are an unaccompanied youth providing for your own living expenses who is at risk of being homeless.

Note that the financial aid administrator at your college may require you to provide a copy of the determination if you answered “Yes” to one of these questions.

Additional instructions about who is considered a parent on this form:

• If your parent is widowed or single, answer the questions about that parent.

• If your widowed parent is remarried as of today, answer the questions about that parent and your stepparent.

• If your parents are divorced or separated, answer the questions about the parent you lived with more during the past 12 months. (If you did not live with one parent more than the other, give answers about the parent who provided more financial support during the past 12 months, or during the most recent year that you actually received support from a parent.) If this parent is remarried as of today, answer the questions about that parent and your stepparent.

In general, a person may be considered a dislocated worker if he or she:

• is receiving unemployment benefits due to being laid off or losing a job and is unlikely to return to a previous occupation;

• has been laid off or received a lay-off notice from a job;

• was self-employed but is now unemployed due to economic conditions or natural disaster; or

• is a displaced homemaker. A displaced homemaker is generally a person who previously provided unpaid services to the family (e.g., a stay-at-home mom or dad), is no longer supported by the husband or wife, is unemployed or underemployed, and is having trouble finding or upgrading employment.

If a person quits work, generally he or she is not considered a dislocated worker even if, for example, the person is receiving unemployment benefits.

Answer “Yes” to question 85 if your parent is a dislocated worker. Answer “No” to question 103 if neither you nor your spouse is a dislocated worker.

Answer “No” to question 85 if your parent is not a dislocated worker. Answer “No” to question 103 if neither you nor your spouse is a dislocated worker.

Answer “Don’t know” to question 85 if you are not sure whether your parent is a dislocated worker. Answer “Don’t know” to question 103 if you are not sure whether you or your spouse is a dislocated worker. You can contact your financial aid office for assistance in answering these questions.

Note that the financial aid administrator at your school may require you to provide proof that your parent is a dislocated worker, if you answered “Yes” to question 85, or that you or your spouse is a dislocated worker, if you answered “Yes” to question 103.
What is the FAFSA?

Why fill out a FAFSA?
The Free Application for Federal Student Aid (FAFSA) is the first step in the financial aid process. You use the FAFSA to apply for federal student aid, such as grants, loans and work-study. In addition, most states and colleges use information from the FAFSA to award nonfederal aid.

Why all the questions?
The questions on the FAFSA are required to calculate your Expected Family Contribution (EFC). The EFC measures your family’s financial strength and determines your eligibility for federal student aid. Your state and the colleges you list may also use some of your responses. They will determine if you may be eligible for school or state aid, in addition to federal aid.

How do I find out what my Expected Family Contribution (EFC) is?
Your EFC will be listed on your Student Aid Report (SAR). Your SAR summarizes the information you submitted on your FAFSA. It is important to review your SAR to make sure all of your information is correct and complete. Make corrections or provide additional information, as necessary.

How much aid do I get?
Using the information on your FAFSA and your EFC, the financial aid office at your college will determine the amount of aid you will receive. The colleges use your EFC to prepare a financial aid package to help you meet your financial need. Financial need is the difference between your EFC and your college’s cost of attendance (which can include living expenses), as determined by the college. If you or your family have unusual circumstances that should be taken into account, contact your college’s financial aid office. Some examples of unusual circumstances are: unusual medical or dental expenses or a large change in income from last year to this year.

When do I get the aid?
Any financial aid you are eligible to receive will be paid to you through your college. Typically, your college will first use the aid to pay tuition, fees and room and board (if provided by the college). Any remaining aid is paid to you for your other educational expenses. If you are eligible for a Federal Pell Grant, you may receive it from only one college for the same period of enrollment.

How can I have more colleges receive my FAFSA information?
If you are completing a paper FAFSA, you can only list four colleges in the school code step. You may add more colleges by doing one of the following:

1. Use the Federal Student Aid PIN you will receive after your FAFSA has been processed and go to FAFSA on the Web at www.fafsa.ed.gov. Select the “Add or Delete a School Code” link.
2. Use the Student Aid Report (SAR) which you will receive after your FAFSA is processed. Your Data Release Number (DRN) verifies your identity and will be listed on the first page of your SAR. You can call 1-800-4-FED-AID and provide your DRN to a customer service representative, who will add more school codes for you.
3. Provide your DRN to the financial aid administrator at the college you want added, and he or she can add their school code to your FAFSA.

Where can I get more information on student aid?
The best place for information about student financial aid is the financial aid office at the college you plan to attend. The financial aid administrator can tell you about student aid available from your state, the college itself and other sources.

- You can also visit our web sites www.FederalStudentAid.ed.gov or www.studentaid.gov.
- For information by phone you can call our Federal Student Aid Information Center at 1-800-4-FED-AID (1-800-433-3243). TTY users (for the hearing impaired) may call 1-800-730-8913.
- You can also check with your high school counselor, your state aid agency or your local library’s reference section.

Information on the Privacy Act and use of your Social Security Number

We use the information that you provide on this form to determine if you are eligible to receive federal student financial aid and the amount that you are eligible to receive. Sections 483 and 484 of the Higher Education Act of 1965, as amended, give the authorities to ask you and your parents these questions, and to collect the Social Security Numbers of you and your parents. We use your Social Security Number to verify your identity and retrieve your records, and we may request your Social Security Number again for those purposes.

State and institutional student financial aid programs may also use the information that you provide on this form to determine if you are eligible to receive state and institutional aid and the need that you have for such aid. Therefore, we will disclose the information that you provide on this form to each institution you list in questions 104a - 104h, state agencies in your state of legal residence and the state agencies of the states where the colleges that you list in questions 104a - 104h are located.

If you are applying solely for federal aid, you must answer all of the following questions that apply to you: 1-9, 14-16, 18, 21-23, 26-28, 33-37, 39-61, 63-70, 72, 75-87, 89-103, 105-106. If you do not answer these questions, you will not receive federal aid.

Without your consent, we may disclose information that you provide to entities under a published “routine use.” Under such a routine use, we may disclose information to third parties that we have authorized to assist us in administering the above programs; to other federal agencies under computer matching programs, such as those with the Internal Revenue Service, Social Security Administration, Selective Service System, Department of Homeland Security, Department of Justice and Veterans Affairs; to your parents or spouse; and to members of Congress if you ask them to help you with student aid questions.

If the federal government, the U.S. Department of Education, or an employee of the U.S. Department of Education is involved in litigation, we may send information to the Department of Justice, or a court or adjudicative body, if the disclosure is related to financial aid and certain conditions are met. In addition, we may send your information to a foreign, federal, state, or local law enforcement agency if the information that you submitted indicates a violation or potential violation of law, for which that agency has jurisdiction for investigation or prosecution. Finally, we may send information regarding a claim that is determined to be valid and overdue to a consumer reporting agency. This information includes identifiers from the record; the amount, status and history of the claim; and the program under which the claim arose.

State Certification
By submitting this application, you are giving your state financial aid agency permission to verify any statement on this form and to obtain income tax information for all persons required to report income on this form.

The Paperwork Reduction Act of 1995
The Paperwork Reduction Act of 1995 says that no one is required to respond to a collection of information unless it displays a valid OMB control number, which for this form is 1440-0030. The time required to complete this form is estimated to be one hour, including time to review instructions, search data resources, gather the data needed, and complete and review the information collection. If you have comments about this estimate or suggestions for improving this form, please write to: U.S. Department of Education, Washington, DC 20202-4700.

We may request additional information from you to process your application more efficiently. We will collect this additional information only as needed and on a voluntary basis.
Application for

Undergraduate Admission

Bowling Green State University
Office of Admissions
110 McFall Center
Bowling Green, Ohio 43403-0085

419-372-BGSU
Toll free: 1-866-CHOOSE BGSU (246-6732)
Fax: 419-372-6955
Email: choosebgsu@bgsu.edu
Web site: www.bgsu.edu
Undergraduate Admission to BGSU

Applying for Admission to BGSU

Applicants: To complete the Bowling Green State University admissions process you must submit:

- Application for Undergraduate Admission
- Official high school transcript
- Official ACT or SAT test results
- $40 application fee

Carefully read the following instructions and retain this portion for future reference.

Freshmen

Freshmen are defined as those who have graduated from a secondary school. Candidates who earned college credit before high school graduation are considered freshmen with advanced standing and should have their college transcripts sent to the Office of Admissions.

High school students are encouraged to apply for admission beginning Aug. 1 between their junior and senior years. Prospective students who wish to enroll fall semester are encouraged to apply and have all admissions credentials completed by Feb. 1 to assure consideration. The application deadline for main campus for spring semester is Dec. 1 and for summer term May 15, although earlier closings may occur. All admission credentials must be received 14 days before the spring semester or the summer session to allow sufficient time for processing. An admissions application is renewable for one year from the term for which a student initially applies.

1. Students are encouraged to apply online at www.bgsu.edu.
2. OR complete the Application for Undergraduate Admission (pages 7 and 8).
3. Take the application, along with a check or money order made payable to BGSU for $40 (no cash, please) for the nonrefundable application fee, to your high school counselor. Your canceled check will be your application fee receipt. Your counselor must forward an official high school transcript including sixth semester GPA on a 4.0 scale, your courses in progress and class rank to the BGSU Office of Admissions. Official ACT or SAT results must be sent to BGSU. All academic credentials must be mailed by the school or testing agency to be accepted as official. All admission credentials submitted to the Office of Admissions become the property of Bowling Green State University and cannot be returned.
4. Take the ACT or SAT. The University prefers students take the ACT. The ACT writing test is recommended but NOT required. The results of one of these tests are required for all freshmen except those who have been out of high school for three or more years. International students are not required to submit ACT or SAT results.
5. A final high school transcript is required prior to enrolling at BGSU. A letter will be mailed to your high school requesting confirmation of your graduation as well as your final grade point average and class rank.
6. Entrance into the College of Business Administration is selective. Students who have been admitted to the University will be notified in writing of admission status into the College of Business Administration. For more information, call the college office at 419-372-2747.
7. Students who intend to pursue a major or minor in music must contact the College of Musical Arts for enrollment and audition information, 419-372-2181.
8. Students who intend to pursue a BFA in art must visit the School of Art Web site for portfolio review information and to schedule a portfolio review; www.bgsu.edu/art.
9. Students who intend to pursue a major in theatre and a specialization in musical theatre must contact the Department of Theatre and Film for enrollment and audition information, 419-372-2222.
10. Students whose native language is not English must take the TOEFL test or the Michigan Test. This is required of international students issued immigrant visas, international students transferring from another American college or university, those (with English as a foreign language) from U.S. territories such as Puerto Rico, and any other U.S. citizen or non-citizen whose native language is not English.
11. Students who earned Advanced Placement before enrolling at BGSU should have their scores sent to BGSU's Office of Registration and Records, 110 Administration Bldg., Bowling Green, OH 43403-0130. Credit for the College Level Examination Program (CLEP) will be granted through the Office of Continuing & Extended Education, 40 College Park, Bowling Green, OH 43403-0200.
12. Students who earn college credit through enrollment in postsecondary courses should have an official college transcript sent from the institution attended to the Office of Admissions when courses are completed. A credit evaluation will be completed by the Office of Registration and Records.

Freshman Admission Standards

For admission to Bowling Green State University a freshman applicant must:

1. Be a graduate of a senior high school approved or accredited by the department of education of the state in which it is located; OR
2. Have earned high school equivalency through the General Educational Development (GED) testing program (issued by the state department of education); OR
3. Present GED test results and ACT or SAT test results, if the student completed secondary education through an alternative program such as home schooling; OR
4. Present an international baccalaureate diploma or certificate.

Admission is selective. In general, we require a high school record that includes four units of English; three units each of mathematics, science and social studies; two units of a foreign language; and one unit of visual or performing arts. Freshman applicants who do not meet the academic standards for admission may be offered admission to the University Program for Academic Success. Admission to the University Program for Academic Success is also selective, but not as competitive as regular admission. Space is limited.

An applicant is considered for admission on the basis of four criteria:

- High school coursework/curriculum
- Cumulative grade point average
- Official ACT or SAT results
- Class rank

The University also considers the diversity of the student body and applicants' special abilities, talents and achievements in making admission decisions. Diversity may include socioeconomic factors, underrepresented minorities, artistic and/or athletic ability and other special characteristics of the population.

Transfer Students

Students who have attempted 12 or more hours, excluding remedial or developmental courses, since high school at a college or university other than Bowling Green are considered transfer applicants. If you have questions regarding transfer admission, please contact the Office of Admissions at 419-372-BGSU. Students who have participated in Post Secondary Enrollment Option Programs are not considered transfer students.
BGSU Firelands
Huron, Ohio
419-433-5560 or 1-800-322-4787
BGSU Firelands is the regional campus of BGSU and is located in Huron, Ohio. BGSU Firelands requires the same application materials included in this packet, although admissions requirements vary from main campus. Please call BGSU Firelands with any questions. Applications for admission are accepted up to two weeks before the beginning of classes. Students intending to pursue a two-year associate degree are not expected to have completed the same high school coursework as those applying to a four-year bachelor’s degree program. The application for admission and all credentials should be submitted directly to BGSU Firelands, One University Dr., Huron, OH 44839-9719.

High School Graduates
If you have already graduated from high school, send the documents in step 2 above directly to the BGSU Office of Admissions. An official high school transcript is also required. If you graduated from high school more than three years ago, you do not need to submit ACT or SAT test scores.

High School Equivalency
If you earned high school equivalency through the General Educational Development (GED) testing program, send the documents in step 2 above directly to the BGSU Office of Admissions. You should then have both an official copy of the GED results and an official high school transcript sent to the Office of Admissions.

Five-Year Admission Policy
If you have not taken coursework anywhere (high school or college) during the past five years, you are eligible for admission to the University. Students admitted under this five-year admission policy are required to take courses under the close supervision of a college academic advisor.

Special Admissions Categories
International students should contact the International Programs Office at BGSU, 419-372-2247, for information on requirements and application procedures. The Office of Continuing & Extended Education serves adult learners and students who take classes only through the Evening Credit Program.

Students who wish to take classes at Bowling Green but do not plan to seek a BGSU degree can attend as “guest” students. Registration for “guest” students does not require application to BGSU and is arranged by the Office of Registration and Records.

Ohio Residency
419-372-8408
It is the student’s responsibility to indicate the proper state of residence at the time of registration. Students with questions should contact the Office of Registration and Records, 110 Administration Building, 419-372-8408. In some cases, questions may be presented to the Residence Status Review Committee for official action.

Bowling Green State University is committed to equal opportunity for all and does not discriminate in admission or access to, or treatment or employment in, its programs and activities on the basis of race, sex, sexual orientation, color, national origin, religion, creed, age, marital status, mental or physical disability, or veteran status. The Office of Equity and Diversity, 705 Administration Building, BGSU, is responsible for University compliance with Title IX, Section 504. Disability Services, 413 South Hall, is responsible for compliance with the Americans with Disabilities Act.

BGSU 2008-2009
Annual Cost Summary
Fall and Spring Semesters, First-Year Students
Tuition and fees $9,140
Room* $4,520
Meal Plan (Bronze)** $2,800
Total for Ohio resident $16,460
Nonresident fee $7,308
Total for out-of-state student $23,768

* Standard occupancy rooms in the halls where most freshmen live and residential technology/laundry fee. Charges are higher for Offenhauer Towers, Founders, special interest housing, houses and single rooms.
** This plan allows for an expenditure of $12.38 per day for 113 days of each semester. Other plans are priced at annual rates of $3,340 and $3,640.

Fees are subject to change at any time with Board of Trustees’ approval.
Below is a listing of areas of study available at BGSU. Please find your intended major, then write the name and the code on the application (item 22). This information will be used for academic advising and class selection. If you are undecided, you may choose a college but remain undecided about a major. Each of BGSU’s seven undergraduate colleges allows students to enter as undecided majors; those codes are also listed below.

If you are undecided about your college and your area of study, select Pre-Major Advising (PM 98). Pre-Major Advising staff in the Office of Academic Enhancement will assist you in defining your goals and in planning your first semester or first year academic program. Please note: you may change your major at any time. If you need to make a change prior to registration, contact the Office of Admissions. If you plan to enroll in a pre-BFA art program, music or musical theatre, an art portfolio review or entrance audition is required.

**COLLEGE OF ARTS AND SCIENCES**

African Studies (A201)
American Culture Studies (A202)
Asian Studies (A211)
Biology (A213)
Chemistry (A214)
Computer Science (A217)
Economics (A221)
English (A222)
Ethnic Studies (A226)
Film
Film Production (A227)
Film Studies (A228)
Foreign Language
French (A229)
German (A235)
Latin (A242)
Russian (A265)
Spanish (A268)
Latin American Culture Studies (A269)
History (A237)
Individualized Planned Program (A238)
International Studies (A239)
Liberal Studies (A243)*
Mathematics (A246)
Actuarial Science (A220)
Applied Mathematics (A223)
Microbiology (A247)
Music (See also College of Musical Arts) (A248) 1
Neuroscience (A249)
Philosophy (A250)
Physics (A251)
Applied Physics (A204)
Political Science (A252)
Popular Culture (A253)
Pre-Professional Programs**
Pre-Biology (A234)
Pre-Engineering (A255)
Pre-Law (A256)
Pre-Medicine (A257)
Pre-Mortuary Science (A258)
Pre-Occupational Therapy (A259)
Pre-Optometry (A260)
Pre-Osteopathy (A261)
Pre-Pharmacy (A262)
Pre-Veterinary Medicine (A263)
Psychology (A264)
Scientific and Technical Communication (A266)
Sociology (A267)
Statistics (A270)
Theatre (A272)
Acting/Directing (A273)
Design/Technical Theatre (A274)
Musical Theatre (A275) 1
Performance Studies (A276)
Youth Theater/Puppetry (A277)
Women’s Studies (A278)

**COLLEGE OF BUSINESS**

Administration

Specializations

Accounting (B200)**
Applied Economics (B201)**
Business Pre-Law (B203)**
Economics (B204)**
Finance (B206)***
Individualized Business (B202)**
Information Systems Auditing and Control (B207)**
International Business (B208)***
Management Information Systems (B209)***
Marketing (B210)***
Supply Chain Management (B211)***
Economics (B205) (B.S. in Econ.)

**COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT**

School of Teaching and Learning

Teacher Preparation

Adolescent/Young Adult/Secondary Education

Earth Sciences (E210)
Earth Sciences and Chemistry (E211)
Earth Sciences and Physics (E212)
Integrated Language Arts (E217)
Integrated Mathematics (E218)
Integrated Social Studies (E219)
Life Sciences (E222)
Life Sciences and Chemistry (E223)
Life Sciences and Earth Sciences (E224)
Life Sciences and Physics (E225)
Physical Sciences: Chemistry (E203)
Physical Sciences: Chemistry and Physics (E204)
Physical Sciences: Physics (E232)
Business Education (E202)

Early Childhood Education (E209)*
Pre-K through 3rd
Foreign Language Education
French (E214)
German (E215)

Latin (E221)
Russian (E234)
Spanish (E235)
Marketing Education (E226)

Middle Childhood Education (E227)*
4th through 9th

School of Intervention Services

Teacher Preparation

Deaf/Hard of Hearing (E206)*
Mild-Moderate (E228)*
Moderate-Intensive (E229)*
Non-teacher preparation
Developmental Disabilities and Habilitation (E207)
**BGSU Firelands** Huron, Ohio
(These codes ARE NOT for main campus applicants)

### Baccalaureate Degree Programs

**Bachelor of Liberal Studies (F200)**
- Bachelor of Science in: [Applied Health Science, Allied Health Specialization (F201)]
- [Applied Health Science, Respiratory Care Specialization (F206)]
- Business Administration, General Business (F202)*
- [Criminal Justice (F203)]*
- Education, Early Childhood Education (F204)*
- Nursing (RN-BSN) Completion Program in conjunction with University of Toledo Health Science Campus (F205)
- Technology, Advanced Technological Education (F207)
- Technology, Visual Communication Technology (F208)*

### Associate Degree Programs

**Transfer Programs**
- Associate of Arts (F231) - 1st two years of a Bachelor’s degree
- Associate of Science (F232) - 1st two years of a Bachelor’s degree

### Career and Technical Majors

**Associate of Business in:** Business Management Technology, with majors in:
- Accounting (F209)
- General Business Management (F210)
- Industrial Management (F211)
- Computer Science Technology, with majors in:
  - Computer Networking Specialist (F212)
  - Computer Support Specialist (F213)
- Visual Media Technology, with majors in:
  - Interactive Media (F214)
  - Print Media (F215)

### Aviation Technical Management (T204)*
- Flight Technology and Operations (T205)*
- Construction Management and Technology (T206)*
- Electromechanical Systems Technology (T207)*
- Electronics and Computer Technology (T208)*
- Engineering Technology (T209)*
- (Mechanical Design, Quality Systems) Technology Education (T210)
- Visual Communication Technology (T211)*

### UNDECIDED

- Pre-Major Advising (U100)
- Undecided in Arts and Sciences (A100)
- Undecided in Business (B100)*
- Undecided in Education and Human Development (E100)
- Undecided in Health and Human Services (H100)
- Undecided in Musical Arts (M100)*
- Undecided in Technology (T100)

### Associate of Applied Science in:
- Criminal Justice (F216)
- Early Childhood Education (F217)
- Electrical/Electronic Engineering Technology, with majors in:
- Electromechanical Technology (F218)
- Electronics and Computer Technology (F219)
- Health Information Technology (F220)
- Human Services (F221)
- Industrial Technology, with majors in:
  - Manufacturing (F222)
  - Mechanical Design (F223)
- Health and Social Services (F224)
  - (Courses offered at BGSU Firelands with degrees awarded by Lorain County Community College)
- RN program (F224)
- LPN to RN program (ACCESS program) (F224)
- Respiratory Care Technology (F226)*
- Associate of Technical Study in:**
  - Respiratory Care Technology (F226)**
  - Associate of Technical Study in:**
  - Respiratory Care Technology (F226)**
  - Associate of Technical Study in:**
  - Respiratory Care Technology (F226)**
  - Associate of Technical Study in:**
  - Respiratory Care Technology (F226)**
  - Associate of Technical Study in:**
  - Respiratory Care Technology (F226)**

### One-Year Certificate Programs

- Administrative Office Systems - Areas of Concentration:
  - Business Application Specialist (F233)
  - Business Management Technology - Areas of concentration:
  - Bookkeeping (F234)
  - Management and Supervision (F235)
  - Small Business Management (F236)

### Undecided (F100)

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**Note:** Programs may be subject to change without notice.

- Programs marked with an asterisk require students to pass a set of coursework, usually within the first two years of study, before they are officially admitted to the major.
- Programs marked with two asterisks are not academic majors. They are pre-professional programs which help to prepare students for professional schools, such as law or medicine. These pre-professional programs require a disciplinary or interdisciplinary major.

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1. These programs are selective admissions. After students are admitted to pre-programs based on admissions requirements, they go through an additional review and/or application process before they are officially admitted to the major.
2. This is a student-developed combination of courses in a specific area of concentration not available in other degree programs. Applicant’s plan of study must be approved prior to admissions to the major.
3. Entrance audition required.
4. Portfolio review required.
Admissions and Financial Aid Schedule

August 1, 2008. Applications may be submitted for admissions consideration for enrollment in fall 2009.

November 1, 2008. Notification begins of admission decisions for fall 2009 for students who have complete credentials.

October 18, 2008. Preview Day. Future students and their families may view displays from 9 a.m. to noon in the Bowen-Thompson Student Union (main campus), and take a campus tour. Faculty, staff and students will be available to answer your questions. Register online at www.bgsu.edu

November 6, 2008. Application for admission and credentials deadline (including official SAT or ACT test results) for all applicants who wish to be considered for an Alumni Laureate Scholarship. Alumni Laureate application must be on file in Office of Alumni Affairs by 5 p.m., Nov. 6. Apply online at bgsualumni.com.

December 6, 2008. Preview Day. Events similar to those listed above on October 18 are scheduled. Register online at www.bgsu.edu

January 2009. Complete and file the Free Application for Federal Student Aid (FAFSA) as soon as possible.

January 10, 2009. Student Financial Aid Workshop for Parents. This workshop will help you understand and begin the financial aid application process at BGSU.

January 15, 2009. Deadline for credentials (including official SAT or ACT test results) for all those who wish to be considered for freshman academic scholarships (except BGSU Firelands). Note: The Alumni Laureate Scholarship deadline is Nov. 6, 2008.

BGSU Firelands: For scholarship consideration, applicants must be admitted to BGSU Firelands by May 1.

February 1, 2009. To assure consideration for admission, complete the application for admission and all credentials by this date. Because enrollment is limited by the state of Ohio, the admissions closing date is unpredictable, making early application essential.

February 16, 2009. Presidents' Day Open House. High school students and their families may participate in special presentations sponsored by the Office of Admissions, take a campus tour, preview the residence halls and talk with University representatives. Reservations are required.

February/March 2009. Housing agreements mailed to admitted students; continues as students are admitted (main campus only).

March 1, 2009. To be considered for maximum financial aid for the upcoming school year, submit the Free Application for Federal Student Aid (FAFSA) by this date.

April 2009. Information mailed to entering freshmen about fall Orientation & Registration. Complete details and sign-up information included.

May 1, 2009. Signed residential agreement card, initial payment and completed On-Campus Housing Preference Form due to reserve a space in the housing system. This lets BGSU know of your intention to enroll in fall semester 2009.

May 2009. Request for senior grades and verification of graduation mailed to high school guidance counselors for all admitted entering freshmen.

June 2009. BGSU Firelands: Information mailed to admitted students about summer registration/orientation programs for fall classes.

June/July 2009. Orientation & Registration program for freshmen (main campus; specific dates to be announced).

July 2009. BGSU Firelands: Registration/orientation sessions for new BGSU Firelands students (specific dates to be arranged).


August 24, 2009. Fall semester classes begin (both campuses).

Bowling Green State University subscribes to the Statement of Principles of Good Practice and Statement of Students' Rights and Responsibilities for members of the National Association for College Admission Counseling.

Test Dates

ACT
Registration Deadlines Test Dates
Jan. 6, 2009 Feb. 7, 2009*
Feb. 27, 2009 April 4, 2009
May 8, 2009 June 13, 2009

SAT
Registration Deadlines Test Dates
Sept. 9, 2008 Oct. 4, 2008
Nov. 5, 2008 Dec. 6, 2008
Dec. 6, 2008 Jan. 6, 2009
Feb. 10, 2009 March 14, 2009

March 31, 2009 May 2, 2009
May 5, 2009 June 6, 2009

Have your test scores sent directly to BGSU:
ACT Code for BGSU: 1069
SAT Code for BGSU: 3240

University Calendar 2009-2010

Fall Semester 2009
Aug. 24 Classes begin
Sept. 7 Labor Day, no classes
Oct. 10 Fall break begins
Oct. 14 Classes resume
Nov. 11 Veterans Day observed, no classes
Nov. 25 Thanksgiving recess begins
Nov. 30 Classes resume
Dec. 11 Classes end
Dec. 14 Examinations begin
Dec. 18 Fall semester ends
Dec. 19 Commencement

Spring Semester 2010
Jan. 11 Classes begin
Jan. 18 Martin Luther King Day, no classes
March 8 Spring recess begins
March 15 Classes resume
April 30 Classes end
May 3 Examinations begin
May 7 Spring semester ends
May 8 Commencement

Dates in the above calendar are subject to change. For confirmation of the academic year calendar, please contact the Office of Admissions, toll free at 1-866-CHOOSE BGSU. To confirm dates for the summer session, contact the Office of Continuing & Extended Education, 419-372-8181.
Please TYPE or PRINT all information. Include a check or money order for $40 payable to BGSU.

1. Legal Name_________________________  2. Soc. Sec. No. _______—____—__________
   last first middle preferred first name former name (if any)

3. Permanent address___________________________________________________________
   street city state zip

4. Birthdate ________________________  5.  Female   Male  6. Home telephone ( _____) __________
   mo day yr

7. Cell phone ( _____) ____________ Would you like to receive text messages?  Yes    No
   Cell phone carrier___________________

8. Email address_______________________________________________________________

9. Racial/ethnic background (optional):  American Indian/Alaskan Native
   Asian/  Pacific Islander
   Black   Hispanic/Latino    White
   Other

10. Non-U.S. Citizens Only: Include a photocopy of your Resident Alien Identification Card
    with this application.
    Please check:  Female  Male
    Country of citizenship__________________________

11. Have you been an Ohio resident for at least one year?  Yes  No

12. County of residence__________________________

13. Name of High School______________________________

14. ACT/CEEB high school code number__________________________
    (obtain from your guidance office)

15. High School Graduation Date__________________________ or GED Completion Date
    (if applicable)__________________________
   mo yr  mo yr

16. Have you ever applied to or attended BGSU?  Yes  No

17. Have you attended any post-secondary institutions?  Yes  No

If you have attended any college, university, technical institute or other post-secondary degree-granting institution, you must give the name, address
and dates of attendance in chronological order. Include coursework completed at BGSU and any coursework completed through PSEOP. An official
transcript must be sent from each institution except BGSU.

<table>
<thead>
<tr>
<th>Name of Institution</th>
<th>Dates Attended</th>
<th>Credit Hours Attempted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Location</td>
<td>From (mo/yr)</td>
</tr>
</tbody>
</table>

18. Applicants must account for all time since high school. Unless you are a high school senior, list all work experiences, school or military service
    since graduation if it is not included in the section above.

19. ACT was taken__________________________ will be taken__________________________
    SAT was taken__________________________ will be taken__________________________
    mo yr  mo yr  mo yr  mo yr

20. Term you wish to begin (check one):  1 Fall, August (yr)              2 Spring, January (yr)    3 Summer, June (yr)

21. I am applying for admission to (check one):
    Main Campus
    BGSU Firelands
    Evening Program
    Bowling Green, OH  Huron, OH  Main Campus, Commuters

22. Major________________________________________
    Major Code__________________________
    (Select major and only one major code from list on pages 4 and 5 of this form. LIST ONLY ONE.)

Following admission to BGSU, acceptance into a pre-BFA art program in the School of Art requires a portfolio review; acceptance into the College of Musical Arts
requires an audition; acceptance into the Musical Theatre specialization requires an audition; entrance into the College of Business Administration is selective.

23. Housing request (check one):
    1 I am applying for campus residence hall accommodations (available at main campus only).
    2 I request authorization to attend the University by commuting from my home to campus.
       (commuters must live within 50 miles of Bowling Green and reside with parent, guardian or spouse or be over the age of 23)

Important! Continued on reverse side. Signature required.

7 BGSU
24. High school foreign language courses
Indicate the language and the years completed as well as currently enrolled. Also include foreign language courses taken in 8th grade.

<table>
<thead>
<tr>
<th>Language</th>
<th>Total completed upon graduation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish</td>
<td></td>
</tr>
<tr>
<td>French</td>
<td></td>
</tr>
<tr>
<td>German</td>
<td></td>
</tr>
<tr>
<td>Latin</td>
<td></td>
</tr>
<tr>
<td>American Sign Language</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

25. High school activities (optional)
Check years of involvement

<table>
<thead>
<tr>
<th>Organization</th>
<th>9th</th>
<th>10th</th>
<th>11th</th>
<th>12th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band or orchestra</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choir or vocal ensemble</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership/class officer</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Community service</td>
<td></td>
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<tr>
<td>Athletics</td>
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<tr>
<td>Jazz Ensemble</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

26. Parent/guardian information
☐ Mother ☐ Father ☐ Other ☐ Mother ☐ Father ☐ Other

Name____________________________________________ Name____________________________________________
Address__________________________________________ Address__________________________________________
__________________________________________________ __________________________________________________
city state zip city state zip
Home telephone__________________________________ Home telephone__________________________________
Parent email address__________________________________ Parent email address__________________________________
BGSU Graduate: ☐ Yes ☐ No BGSU Graduate: ☐ Yes ☐ No

27. Is your parent/guardian or spouse a BGSU employee or retiree? ☐ Yes ☐ No

28. Have you been convicted of a felony? ☐ Yes ☐ No (if yes, please attach an explanation)

29. If you would like the Admissions Committee to consider any additional information, please provide that information on a separate piece of paper.

NOTE FOR STUDENT WITH DISABILITIES: For information on access, adaptations or accommodations, you may contact Disability Services at 419-372-8495, or visit the office Web site at www.bgsu.edu/offices/sa/disability

I certify that the information hereon is complete, accurate and true to the best of my knowledge. I understand that my misrepresentation of facts hereon will be cause for refusal of admission, cancellation of admission or expulsion from the University if discovered subsequently. I agree that as a student I am subject to the Code of Student Conduct of Bowling Green State University.

Signature___________________________________________________________________ Date_______________________________________________

Mail completed application and nonrefundable processing fee of $40 to:
Office of Admissions • Bowling Green State University • 110 McFall Center • Bowling Green, Ohio 43403-0085

Make check or money order payable to BGSU. Your canceled check will be your receipt. Please do not send cash. BGSU is an AA/EEO institution.
Financial Aid

Including Grants, Scholarships, Loans and Employment

Financial aid is available to help pay for your instructional and general fees, nonresident fees (if applicable), room, meals, books, transportation and personal expenses. Currently, 69% of all BGSU students receive some type of financial assistance.

In general, there are four types of financial aid: grants, scholarships, loans and employment. Grants and scholarships are considered “gift aid” and generally do not have to be repaid, while loans and employment are considered “self-help aid.”

At Bowling Green, most types of financial aid are coordinated by Student Financial Aid. Although most aid is based on full-time enrollment, part-time students may be eligible for grants, scholarships, employment and low-interest loans (see chart, page 11).

To be considered for need-based financial aid, you must be an admitted student AND file the Free Application for Federal Student Aid (FAFSA). FAFSA forms are available from your high school guidance counselor or online at www.fafsa.ed.gov when completing the FAFSA, be sure to list BGSU's school code: 003018. BGSU's priority deadline is March 1.

To meet eligibility for financial aid at BGSU, you must be an admitted student AND file the Free Application for Federal Student Aid (FAFSA). FAFSA forms are available from your high school guidance counselor or online at www.fafsa.ed.gov. When completing the FAFSA, be sure to list BGSU's school code: 003018. BGSU's priority deadline is March 1.

All prospective students and their parents are encouraged to complete and submit the FAFSA since there is no processing fee. Changes in federal student aid programs have made nearly all families eligible for some type of financial aid.

The FAFSA utilizes a set of federally mandated formulas to determine the minimum amount of money students and their family are expected to contribute towards educational expenses. This amount is called the Expected Family Contribution or EFC. To determine eligibility for financial aid, BGSU's Student Financial Aid subtracts your EFC from the cost of attending BGSU. These costs include instructional and general fees, nonresident fees, where applicable, room, meals, books, transportation and personal expenses. If the cost of attendance is higher than the EFC, a financial aid “package” is put together, based on need, to help meet the difference between the cost and the student's EFC. This package is limited by funding availability and program maximums. Some students are eligible for additional types of aid that are not based on need. For instance, the Unsubsidized Direct Loan and PLUS Loan are not based on need and may be used to help meet the EFC.

Federal regulations require that recipients of federal financial aid must be either citizens of the United States or eligible noncitizens.

Scholarships

BGSU awards an average of 5,800 scholarships totaling approximately $20 million each year to BGSU students. Many of those awards went to freshmen and are renewable (see chart on page 10).

Scholarships are based upon attributes such as outstanding academic achievement, service and talent. Most are not based on financial circumstances. Applications for departmental and college awards can be obtained from the respective department or college. An application for Foundation scholarships awarded through the SFA office can be obtained from the SFA Web site. The "Freshman Scholarship Guide" lists all University-wide and departmental scholarships, as well as application criteria and award amounts for freshmen and transfer students. To view all scholarships, visit the Student Financial Aid Web site, www.bgsu.edu/offices/sfa.

Students who apply and submit all admissions credentials by January 15, 2009 will automatically be considered for a University Freshman Academic Scholarship. Students are considered for merit-based scholarships based on a combination of grade point average and standardized test score (ACT or SAT). Awards typically start at $1000 and can range up to full fees.

Grants

Most grants do not require repayment and are usually awarded on the basis of financial need. The Federal Pell Grant, the Supplemental Educational Opportunity Grant (FSEOG), Academic Competitive Grants and the SMART Grant are examples of need-based grants. The Ohio College Opportunity Grant is a need-based grant for residents of Ohio.

To be considered for the above grants you must first submit the FAFSA. Federal and state grant eligibility is limited to students who demonstrate high financial need through the FAFSA form. Eligibility for the Ohio College Opportunity Grant is limited to qualifying Ohio residents. Students who have a 3.0 GPA and receive the OCOG may also receive a matching BGSU award. Residents of other states may qualify for state grants to attend BGSU.

The Federal TEACH Grant, which is not based on financial need, is a grant that may need to be repaid. You must still complete the FAFSA form. TEACH Grant recipients must teach specified subjects for four years in schools serving low-income students. If this teaching obligation is not fulfilled, the grant, plus any capitalized interest from the time the grant was awarded, must be repaid. For more information on TEACH, please visit: http://studentaid.ed.gov

Loans

Loans must be repaid, usually after you graduate, withdraw from college or drop below half-time enrollment status (6 credit hours). Student loans provide low interest rates, attractive repayment options and deferment/cancellation opportunities.

Some loans are based on financial need as determined by the FAFSA; others do not require that you demonstrate financial need. The Federal Direct Parent Loan for Undergraduate Students (PLUS) is available to parents of BGSU students to assist in the payment of tuition and eligible expenses.

Visit the Student Financial Aid Process Web site www.bgsu.edu/offices/sfa for details.

Employment

Each year Bowling Green employs about 4,500 students. Positions are available in almost every on-campus administrative office, academic department and service area. A limited number of community service jobs are available both on and off campus.

Most student employees work between 10 and 15 hours per week and are paid at or slightly above minimum wage with regular raises for continued service and good performance. Employment is part of some students’ financial aid package, but not directly deducted from the student’s bursar (billing) account.

BGSU Accounts

Once admitted you will receive information about setting up BGNet and MyBGSU Web portal accounts. You must activate your BGNet/MyBGSU Accounts to receive awards and financial aid application updates.
**Scholarships (Main Campus)**

**Important Message for fall 2009 Applicants**

We are currently evaluating the scholarship program to improve offerings for the entering class of 2009. Keep checking our website at choose.bgsu.edu/scholarships for scholarship updates.

<table>
<thead>
<tr>
<th>Scholarship</th>
<th>Eligibility</th>
<th>Application Process</th>
<th>Value</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Freshman Academic Scholarships</td>
<td>Students are considered for merit-based scholarships based on a combination of grade point average and standardized test score (ACT or SAT).</td>
<td>Have all application credentials on file in Office of Admissions by January 15</td>
<td>Awards typically start at $1000 and can range up to full fees.</td>
<td>No Limit (R)</td>
</tr>
<tr>
<td>University Tuition Scholarship for Underrepresented Students</td>
<td>Demonstrate financial need as established by the FAFSA. Other factors in determining eligibility include academic achievement (minimum 3.0 GPA, 20 or higher ACT or 920 or higher SAT (critical reading plus math), race/ethnicity, location of high school attended, state or Ohio county of residence, commitment and contribution to diversity and/or alternative measures of academic achievement.</td>
<td>Have all application credentials on file in the Office of Admissions by Jan. 15. Complete separate application. File the FAFSA by March 1</td>
<td>Instructional/general fees and nonresident fee (current value $3,654)</td>
<td>Limited number (R)</td>
</tr>
<tr>
<td>BG Success Scholarship</td>
<td>3.0 GPA or 20 or higher ACT or 920 or higher SAT (critical reading plus math); non-Ohio resident</td>
<td>Have all application credentials on file in the Office of Admissions by Jan. 15.</td>
<td>One-half off nonresident fee (current value $3,654)</td>
<td>No Limit (R)</td>
</tr>
<tr>
<td>Falcon Soars Access Scholarship Grant</td>
<td>3.0 GPA and have received an Ohio College Opportunity Grant</td>
<td>Have all application credentials on file in the Office of Admissions by Jan. 15. File the FAFSA by March 1</td>
<td>Matches Ohio College Opportunity Grant ($2,731 proposed maximum)</td>
<td>No Limit (R)</td>
</tr>
<tr>
<td>Department/Major Scholarships</td>
<td>Varies by department/major</td>
<td>Listed in the “BGSU Scholarship Guide”</td>
<td>Varies</td>
<td>More than 900 (Varies)</td>
</tr>
<tr>
<td>Alumni Laureate</td>
<td>3.5 GPA and score at least 27 on the ACT or 1200 on the SAT. Must demonstrate excellence in leadership, scholarship and citizenship.</td>
<td>Students must have all application credentials on file in the Office of Admissions by Nov. 6, 2008. Alumni Laureate application must be on file in Office of Alumni Affairs by 5 p.m., Nov. 6. Apply online at bgsualumni.com</td>
<td>Instructional/general fees plus $1,200 book award</td>
<td>Limited number (R)</td>
</tr>
<tr>
<td>Alumni Chapter Scholarships</td>
<td>Many alumni chapters throughout the nation provide endowed scholarships for residents in their geographic area. Each scholarship has its own criteria. A complete list is available online at <a href="http://www.bgsualumni.com">www.bgsualumni.com</a>.</td>
<td>Students who have all application credentials on file in the Office of Admissions by Jan. 15 will be encouraged to apply. Applications will be available online at <a href="http://www.bgsualumni.com">www.bgsualumni.com</a></td>
<td></td>
<td>Varies</td>
</tr>
<tr>
<td>Academic Investment in Math and Science (AIMS)</td>
<td>Female or member of underrepresented group, with major in natural sciences, computer science or mathematics (and education related to those majors); minimum 3.0 high school GPA, 21 or higher ACT or 1000 or higher SAT (critical reading plus math)</td>
<td>Have all application credentials on file in the Office of Admissions by Jan. 15. All AIMS application credentials must be on file in AIMS office by March 1. Contact 419-372-0471 for AIMS application</td>
<td>$1,500 initial year; up to $3,000 subsequent years</td>
<td>20 (R)</td>
</tr>
<tr>
<td>President’s Leadership Academy</td>
<td>Demonstrated leadership and community involvement and must have regular admission status to Bowling Green State University.</td>
<td>Have completed PLA application on file in the President’s Leadership Academy office by Jan. 2, 2009. Final selection is based on the application, interview (limited number) and references. Contact the President’s Leadership Academy office at 419-372-9623 for application information.</td>
<td>Instructional/general fees and nonresident fee (current value $3,654)</td>
<td>Limited number (R)</td>
</tr>
</tbody>
</table>
### BGSU Financial Aid Programs

**Eligibility** | **Annual Amounts** | **Application/Forms Submissions** | **Deadlines** | **Notification/Comments**
--- | --- | --- | --- | ---
**Federal Pell Grant** | Undergraduates obtaining first baccalaureate degree | $4,731 maximum in 2008-09 | File Free Application for Federal Student Aid (FAFSA) as soon as possible after Jan. 1 for following summer, fall and spring semesters | The result of your FAFSA must be received by BGSU's financial aid office by the last day of your enrollment for the academic year. A Federal Student Aid Report (SAR) is sent to you if the SAR data is correct, keep SAR for your records.

**Ohio College Opportunity Grant (OCOG)** | Ohio residents who have not yet earned a baccalaureate degree | $2,731 proposed maximum in 2008-09 | File FAFSA as soon as possible after Jan. 1 for following summer, fall and spring semesters | FAFSA data must be received by Oct. 1; submit FAFSA as soon as possible after Jan. 1. Upon the Ohio Board of Regents approval, BGSU Student Financial Aid will send you a "Financial Aid Award" notification.

**FSEOG: Federal Supplemental Educational Opportunity Grant** | Highest need; students with lowest ($0) family contributions | $1,000 maximum in 2008-09 | File FAFSA as soon as possible after Jan. 1 for following fall and spring semesters | FAFSA must be received by March 1 each year for consideration. BGSU Student Financial Aid will send you a "Financial Aid Award" notification.

**Federal Perkins Loan** | High need; students with lowest family contributions | $2,000 maximum in 2008-09 | File FAFSA as soon as possible after Jan. 1 for following fall and spring semesters | FAFSA must be received by March 1 each year for consideration. BGSU Student Financial Aid will send you a "Financial Aid Award" notification. You must also sign and return a promissory note.

**Nursing Loan** | High need. Must be admitted to the School of Nursing; Pre-nursing majors are not eligible | $4,000 maximum in 2008-09 | File FAFSA as soon as possible after Jan. 1 for following fall and spring semesters | FAFSA must be received by March 1 each year for consideration. BGSU Student Financial Aid will send you a "Financial Aid Award" notification. You must also sign and return a promissory note.

**William D. Ford Federal Direct Subsidized and Unsubsidized Loan** | Undergraduate and graduate students | $5,500 maximum for freshmen; $6,500 for sophomores; $7,500 for juniors and seniors; $8,500 for graduate students | File FAFSA as soon as possible after Jan. 1 for following summer, fall and spring semesters | FAFSA should be on file at least 8 weeks before the end of the semester you wish to apply. You must complete a master promissory note and entrance counseling. Your loan proceeds will be applied to your bursar account.

**Federal Work-Study (FWS)** | Undergraduate and graduate students | Maximum based on financial need; most students earn $500-$2,000 per academic year | File FAFSA as soon as possible after Jan. 1 for following fall and spring semesters | FAFSA must be received by March 1 each year for consideration. BGSU Student Financial Aid will send you a "Financial Aid Award" notification. You interview for jobs with FWS-eligible employers.

**PLUS: Federal Direct Parent Loan for Undergraduate Students** | PLUS is for parent borrowers of dependent students | Amount is based on cost of attendance minus any estimated or awarded financial aid (including Federal Direct Unsubsidized Loan) | Form available online at www.bgsu.edu/offices/sfa. Submit PLUS pre-application to BGSU Student Financial Aid | PLUS Loan pre-application should be on file at least 8 weeks before the end of the semester you wish to apply. PLUS approval is subject to a credit check. If approved, your parents complete a promissory note, loan proceeds will be applied to your bursar account.

**Academic Competitiveness Grant** | Federal Pell Grant recipient; must have attended a rigorous high school; minimum 3.0 GPA | $750 for freshmen; $1,300 for sophomores | File FAFSA as soon as possible after Jan. 1 for following summer, fall and spring semesters | FAFSA must be received by the last day of your enrollment for the academic year. BGSU Student Financial Aid will send you a "Financial Aid Award" notification.

**TEACH Grant** | Undergraduate and graduate students enrolled in a teaching program with a 3.25 grade point average | $4,000 maximum in 2008-09 | File FAFSA as soon as possible after Jan. 1 for following summer, fall and spring semesters | FAFSA on file at least 8 weeks before the end of the semester you wish to apply. BGSU Student Financial Aid will send you a "Financial Aid Award" notification.

**NOTE:** All programs below except PLUS, Federal Direct Unsubsidized Loans, and the TEACH Grant are based on financial need. For a complete list of all financial aid programs available at BGSU, please refer to the Student Financial Aid home page at http://www.bgsu.edu/offices/sfa.
APPENDIX D. PERMISSION TO REPRINT FIGURES

from: Joel Best <joelbest@udel.edu>
to: Theresa Jean Popp Braun <braunt@bgsu.edu>
date: Mon, Jan 11, 2016 at 11:43 AM
subject: Re: Student loan debt

Of course--go right ahead.

On Mon, Jan 11, 2016 at 11:39 AM, Theresa Jean Popp Braun <braunt@bgsu.edu> wrote:

Good morning Dr. Best,

I am a third year doctoral student in the Leadership Studies program at Bowling Green State University in Bowling Green, Ohio and my research interests are student loans/debt and financial literacy. This past spring, while conducting research for my dissertation proposal development course, I had the very good fortune of locating and purchasing your book, The Student Loan Mess: How Good Intentions Created a Trillion-Dollar Problem. I have found the book to be an invaluable resource and I would like to express my gratitude to you and your son for writing about this topic.

Particularly telling for me were the figures you utilized to illustrate the evolution and iterations of the student loan program from its inception in 1958 to present. I am currently preparing for my dissertation proposal defense and am hoping you will grant me permission to utilize some of the figures from your book in my proposal and dissertation. Specifically, I am interested in Figure 5 on page 28 (Student loans under the National Defense Education Act (NDEA) of 1958) and Figure 12 on page 83 (The market for student loans) as adapted from Edmiston, Brooks, and Shelpelwich (2013).

I appreciate your consideration of this request and look forward to hearing from you at your earliest convenience.

Best regards,
Theresa

Theresa Popp Braun
Cohort 17
BGSU Leadership Studies Program
braunt@bgsu.edu