

Strategic Economics Group

2007

Economic Impact Study

An Analysis of the Economic Impact of the
Iowa Student Loan Liquidity Corporation

Prepared by
Harvey Siegelman
Daniel Otto

Des Moines, Iowa
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Executive Summary

During the 2005-2006 academic year, the Iowa Student Loan Liquidity Corporation (Iowa Student Loan), with a staff of 323 and vendor expenditures of about \$56.4 million, had a profound economic impact on the State. The research staff examined three components of Iowa Student Loan's activity. Based upon the one-year study that follows, Iowa Student Loan impacted Iowa families by:

- Generating more than 2,400 additional Iowa jobs
- Stimulating an additional \$237 million in annual consumer spending
- Increasing personal income for Iowa residents by about \$72 million
- Boosting Iowa's goods and services production by about \$134 million
- Causing the State's income and sales tax collections to grow by about \$2.3 million

Keep in mind, most of these benefits are additive and that each new class of students will result in an additional set of benefits that are likely to be comparable to or greater than those of the class of 2005-2006.

The research team examined the economic impact of the Iowa Student Loan on the students and parents, the vendors and taxpayers, the job holders and job seekers of the State of Iowa. The authors divided the task into three parts:

- The economic impact of Iowa Student Loan's daily operations include the payrolls, and purchases that affect the most immediate community in which Iowa Student Loan is located and the ripple effects of that spending throughout the entire State.
- The economic benefit of Iowa Student Loan programs to provide lower interest rates and more favorable terms to borrowers by directly or indirectly affecting the competitive lending market.
- The economic benefit of Iowa Student Loan providing or facilitating college loans to thousands of Iowans who, because of their income levels or lack of a credit history, would otherwise not have qualified for traditional student loans and hence would not have attended college. The ultimate benefit of this is measured as higher annual and lifetime earnings for those students who were helped by this program. This portion of the study concentrated on the unique role which the Partnership Loan program plays because it provides student loans to the most financially needy applicants.

This study examines the economic impact using the criteria of increased jobs, personal income, vendor sales, output production and state tax collections.

Overview of the Study

The purpose of this study is to estimate the economic impact which Iowa Student Loan has had on the State of Iowa and its citizens. The non-profit corporation, located in West Des Moines, was chartered by the State in 1979 to facilitate postsecondary educational loans. In that role, Iowa Student Loan serves as a loan servicer for Iowa banks and as a secondary market to its participating lenders. In addition to assisting in the smooth flow of educational lending, Iowa Student Loan also provides college planning services to Iowa students and their families.

These investments in human capital development are a vital part of the State's long term economic development strategy. Although student loans are available from other private institutions, the ISLLC fills a special niche as a non-profit lender offering favorable borrowing terms. The presence of Iowa Student Loan in Iowa, or an institution like it, results in student borrowers paying a lower cost. It is likely that Iowa Student Loan's lending practices also influence the student loan rates that are offered by other lenders.

This study examines how Iowa Student Loan generates positive economic benefit to Iowa on several levels.

- **Operations.** On the first level, Iowa Student Loan provides benefit through the day-to-day operation and delivery of loan services. These benefits are primarily felt by the employees, vendors and the communities where Iowa Student Loan's business activity occurs.
- **Borrower Impact.** On the second level, Iowa Student Loan provides benefits to the student borrowers and their families through lower interest rates and better terms for their college loans. Even if Iowa Student Loan did not provide direct service to those students and their families, it indirectly impacted the student loan market to provide rates more favorable than the borrower families would have had to pay in the absence of Iowa Student Loan.
- **'Educational Access' Lender.** On the third level, Iowa Student Loan provides economic benefits as the 'educational access' lender through its support of the Iowa Partnership Loan program. That program provides college loans to students who would probably not qualify for any other loan. In so doing, Iowa Student Loan helps many individuals earn a college degree that would otherwise not get that chance to attend college. The benefit to those individuals and to the State can be measured by their higher future earning levels.

In this report we will examine each of these three components and estimate the primary and secondary impacts associated with each. Unless indicated otherwise, the data included in this report are for the academic year 2005-2006 and are in current dollars.

Economic Impact of the Operations

This section examines the economic impacts associated with the operations required to manage the multi-billion Iowa Student Loan. The traditional indicators which economists use for measuring the economic importance of an activity include the size of its workforce and payroll, its capital investment and its local purchase of goods and services. Economists call these the 'direct expenditures' or 'direct effects'.

But the workers and the vendors who receive those direct expenditures don't bury them in a mattress. They will spend some of the money, save some of it and thus begins the journey by which the dollars travel through many hands before they finally leave the economic region. Economists call this phenomenon the 'multiplier effect'. The multiplier factor is calculated by dividing the sum of the direct, indirect and induced effects by the direct effect.

The multiplier effect for any economy or industry is examined using an 'input-output analysis'. The tool was devised by the 1973 Nobel Prize winning economist Wassily Leontief. It uses a matrix that measures inter-industry relations in an economy, and shows how the output of one industry becomes the input for another. The most widely used regional input-output economic impact tool is the IMPLAN model developed and distributed by Minnesota IMPLAN Group, Inc. (MIG). According to MIG, the model is currently in use by more than 1,000 public and private institutions.

The research staff for this study has employed the latest version of the IMPLAN model to determine the total impact of the direct expenditures made by Iowa Student Loan in 2005. The total impact includes the direct, indirect, induced economic effects.

Direct effects refer to the operational characteristics (employment, payroll, sales) of the firm that we are studying. Indirect effects measure the value of supplies and services that are purchased by the direct firm from businesses and firms within the region. Induced effects occur when workers in the direct and indirect industries spend their earnings on goods and services from other vendors within the region. Induced effects are also often called 'household effects'. The total economic impact effect is the aggregate of the direct, indirect, and induced effects. It is the total effect on the economy of transactions that are attributable to the direct economic activity of Iowa Student Loan.

The research team started by developing the spending profile of Iowa Student Loan identified in the operating budget. In 2006, Iowa Student Loan had a total workforce of 323 people with an aggregate payroll of \$14.4 million. Based on the Federal Form 990 (Return of Organization Exempt from Income Tax) to be filed for the non-profit portion of Iowa Student Loan for fiscal year 2006 and the 1040 tax forms to be filed by the profit-making portion, the vendor expenditures in the operating budget were about \$56.4 million and includes payroll, vendor purchases and interest expenses. The vendor expenditures data was the direct effect in our analysis.

In addition to the direct employment and payroll effects, the overall operations of Iowa Student Loan generates secondary impacts within the community as services and supplies are purchased and payroll dollars get spent in local businesses. The research staff applied the IMPLAN statewide regional economic input-output model, modified by staff at Iowa State University to determine the magnitude of these secondary impacts.

The results of this Input-Output analysis are presented in Table 1. The overall economic effect generated by the expenditures was an increase of \$81.8 million in overall vendor sales in the State, generating \$25.6 million of additional personal income, adding \$49.7 million to Iowa’s Gross Domestic Product and creating 717 new jobs. The detailed components of these numbers can be found in Tables A1-A4 in the Appendix.

Table 1. Total Economic Value of Iowa Student Loan Operations, 2005-2006

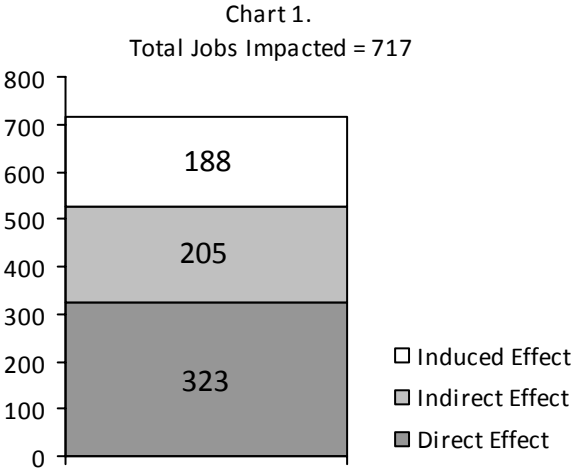
Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$209,880	\$19,699	\$60,759	2
Construction	\$1,037,791	\$425,362	\$477,744	12
Manufacturing	\$2,133,602	\$434,387	\$672,245	9
Transportation and Utilities	\$2,579,481	\$1,002,707	\$1,740,637	24
Wholesale and Retail Trade	\$3,318,741	\$1,501,694	\$2,491,615	60
Finance, Insurance and Real Estate	\$63,629,892	\$16,217,293	\$35,177,052	378
Professional Services	\$10,112,771	\$4,774,978	\$5,802,713	156
Other Services	\$3,138,266	\$1,059,389	\$1,485,631	72
Government	\$2,591,451	\$195,087	\$1,814,329	4
Total	\$88,751,875	\$25,630,596	\$49,722,724	717

Source: Iowa IMPLAN Input-Output Model

The Impact on Jobs

The economic impact on area jobs that were directly identified with the activity and those that were the result of the indirect and induced impact of those direct jobs is displayed in Chart 1. The job multiplier for Iowa Student Loan was computed by summing these three effects (717) and dividing by the number of direct jobs (323).

The resulting multiplier, 2.22 is fairly substantial because the relatively high salary scales in the financial services sector result in high levels of retail and

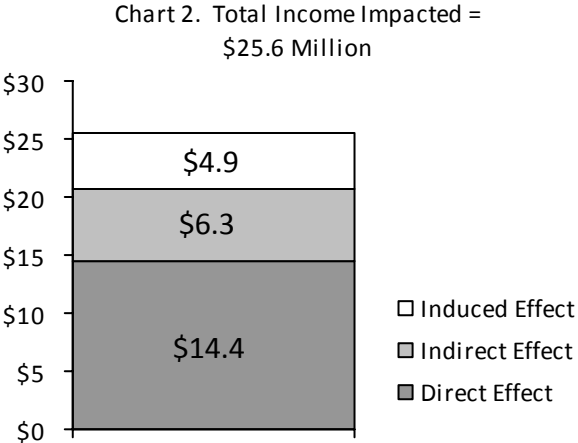


service sector spending and support jobs in those sectors. While many of these jobs are part time, they are nonetheless included in the total job count.

The Impact on Personal income

Chart 2 shows the direct income that Iowa Student Loan pays their employees and the resulting indirect and induced impact of that spending in the economy. The income multiplier is the total income divided by the direct income.

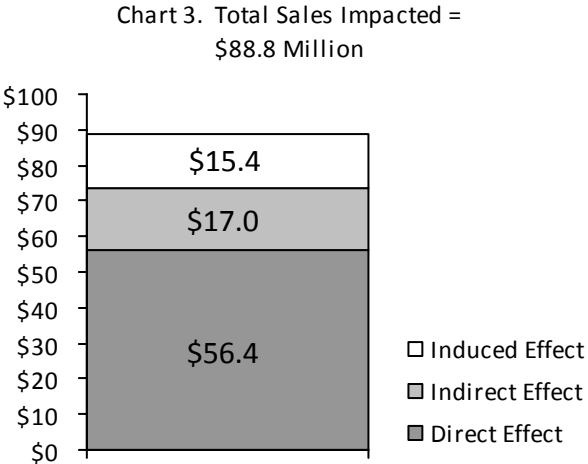
It indicates the number of times a new dollar of income turns over in the economy as a result of it being spent and re-spent within the economy before it 'leaks' out of the market. In this case the income multiplier of 1.90 ($\$25.6 \div \$14.4 = 1.78$) is not as robust as the jobs multiplier because of the relatively higher wages in the financial services sector (in the denominator) and the secondary effect of the relatively lower wages paid in the trade and services sectors (in the numerator).



The Impact of Vendor Sales

Chart 3 displays the impact of total sales in the economy. The \$56.4 million of total vendor spending by Iowa Student Loan supports an additional \$17.0 million indirect sales and \$15.4 million of induced sales in the rest of the economy.

The output multiplier of 1.56 ($88.8 \div 56.4$) reflects additional purchases in the rest of the economy stemming from the initial economic activities by the Iowa Student Loan.

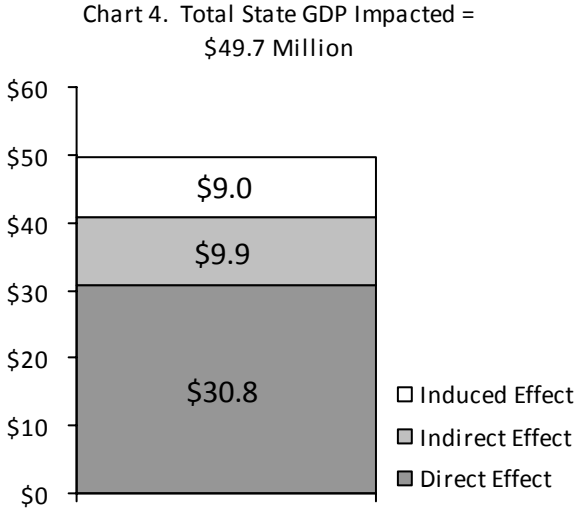


The Impact on the State’s Gross Domestic Product (GDP)

Chart 4 displays the impact of Iowa Student Loan’s operations on the State Gross Domestic

Product – the increase in the value of all goods and services produced in the State. The \$30.8 million value of the direct effect of Iowa Student Loan’s operations causes an additional \$9.9 million in indirect goods and services production and another \$9.0 million of induced production in the economy.

The output multiplier of 1.61 ($49.7 \div 30.8$) reflects ratio of additional production in the rest of the economy stemming from the initial economic activities by the Iowa Student Loan.



Economic Impact on the Student Loan Borrowers

A primary objective of Iowa Student Loan is to facilitate the student loan process and to provide student borrowers with favorable interest rates that are below the prevailing market rates for comparable loans. Over the life of the loan, those more favorable terms create a dollar savings that in the aggregate can amount to substantial overall savings for the borrower and substantial additional spending for the State economy. In this second section of the study we will measure the economic impact that these favorable terms have had for the borrowers and the aggregate impact that they have had on the economy.

Educational loans, unlike car or home equity loans are unsecured and hence are perceived to be of higher risk and requiring higher interest rates. With guarantees from federal and state programs much of the risk of default is underwritten. We have focused this study on the three major loan programs which Iowa Student Loan supports: Stafford loans, Partnership loans and PLUS loans.¹

Stafford Loans

Stafford Loans are low-cost federal loans and are the most widely used program to help students and families finance higher education. These low-cost loans are primarily available through the Federal Family Education Loan Program (FFELP) and the Federal Direct Loan Program where the loans are guaranteed and private lenders are partners in making the loans. Also, there are dollar limits to the amount that students and their families can borrow under this program.

Stafford loans can be either **unsubsidized** or **subsidized** by the federal government. The subsidized Stafford loans are awarded on the basis of financial need whereas the unsubsidized loans are not. The federal government pays the interest on subsidized Stafford Loans while the student is enrolled in school at least half time, and during the six-month grace period. The non-subsidized Stafford loans are readily available to students and interest rates are charged from the time funds are received.

Partnership Loans

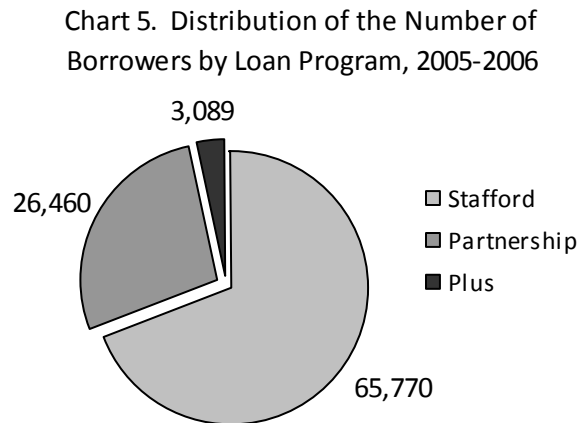
Partnership Loans are another popular source of educational funds for families of students. The loan program was authorized by the Iowa General Assembly in 1992 and it is funded by Iowa Student Loan, a private, non-profit company. A small portion of the loans are funded through the issuance of public-purpose bonds which allows the Partnership Loan to offer low interest rates and competitive credit terms. Iowa residents attending eligible schools on at least a half-time basis may be eligible for a Partnership Loan. Students who are "credit ready" can obtain a Partnership Loan without a co-signer, but must pass prescribed credit tests.

¹ For more details on each type of loan, see the Corporation's website <http://www.studentloan.org/planning-for-college/types-of-financial-aid.asp#one>.

PLUS Loans

PLUS Loans are available to parents to pay for the educational expenses of dependent undergraduate children who are enrolled at least half time. A credit check will be performed on the parent borrowing funds through a PLUS Loan. Repayment obligations for PLUS loans begin as soon as funds are received with a minimum of \$50 per month expected. Current rates are 6.1% with the variable cap at 9%.

Stafford Loans and the Iowa Partnership Loans are the two most significant programs currently administered by Iowa Student Loan. They accounted for about 97% of the borrowers and 96% of the dollars lent during the 2005-2006 academic year. During that period, \$94.2 million was borrowed by out-of-state residents coming to Iowa schools, compared to \$14.7 million by Iowa residents attending schools in other states. The research team calculated aggregate loan values from the data.



The average consolidated loan of \$25,404 (in 2005-2006) is typically amortized monthly over a 20 year period. Interest rates are pegged to prevailing market rates, with the inherent riskiness underwritten by federal guarantees. Currently new Stafford loans are available at 6.8%. The current rates for new Partnership loans with a co-signer range from a low of 7.57% for a variable rate loan with a 5% origination fee to 8.22% with no origination fee. The rate for a loan without a co-signer can be as high as 9.57%. Dollar savings over the life of the loan can be calculated and aggregated for the volume of loans administered.

Economic Impact

Each of these government supported programs generally offer the borrowers lower borrowing costs and benefits not available for private unsecured loans – although access is sometimes limited. The particular benefits of each program can be used to estimate the size of economic benefits available to the borrower in particular and to the State’s economy in general.

The availability of lower interest rates through these programs reduces the out of pocket expenses for borrowers and in effect, generates extra spendable incomes for the families. The cumulative result of these savings is an economic benefit to the state.

The research team developed a detailed analysis of the program benefits for each type of

loan using a hypothetical borrower and comparing the resulting cost difference against a borrower who secured a similar student loan at market rates and terms. From that the team constructed an estimate of the aggregate dollar benefits.

During the 2005-2006 school year, Iowa Student Loan provided Stafford loans averaging \$6,546 to 65,770 borrowers. Typically, a student on a four year college career track would arrange a separate loan for each year of schooling and then consolidate the loan before beginning repayment after graduation. Keep in mind, that the 2005-2006 borrower statistics includes those who will leave school before the end of four years and those who might need more than four years to graduate.

To develop an estimate of the economic benefit, the research team focused on the most current year's loan activity and the net present value of savings that borrowers would achieve by using loan services provided by and through Iowa Student Loan rather than by private lenders without the assistance of Iowa Student Loan. The benefits available to Stafford loan borrowers during the 2005-2006 academic year included:

- No required origination fees--currently a savings of 2% of the principal
- A \$100 credit for using electronic automatic repayment
- A \$100 credit for on-time first payment
- An interest rate reduction of 2.5% for years 5 through 10, if the first 48 months payments are on time.

The benefits of automatic payment credits and reduced interest rates apply to the consolidated loans after repayment begins. To approximate the value of these benefits for the 2005-2006 loan activity, the research team assumed a four-year college track and allocated one-fourth of those benefits to the annual loan. This is a conservative assumption because many students take longer than four years to graduate. Iowa Student Loan staff indicated that about two-thirds of all Stafford loans in Iowa Student Loan's current portfolio are subsidized.

Using these norms, the research team estimates that the economic benefits for Stafford loan borrowers are \$648.60 each year on an average \$6,546 annual student loan. Aggregating this savings for the 65,770 Stafford loan borrowers in 2005-2006 yields a total annual benefit to lowans of over \$42.7 million.

Partnership loans

The main beneficial feature of a Partnership loan is that eligible borrowers can obtain educational loans at rates well below those available from private lenders for an unsecured loan. Currently Iowa Student Loan is offering Partnership loans at 8.07 % with no origination fees. Rates on comparable private loans are currently in the 8.5-12% range. Credit card borrowing for educational purposes would carry even higher rates.

Accordingly, the research team assumed a conservative 4% interest rate differential amortized over a 20 year period to estimate the benefit to the borrower of a Partnership loan. In 2005-2006, Iowa Student Loan assisted 26,460 borrowers with Partnership loans averaging \$7,881. A 4% interest reduction on a loan of this size would provide an annual savings of \$250.30. For those 26,460 borrowers, that amounts to \$6.6 million of additional spendable income.

PLUS loans

The research team used a similar procedure to estimate aggregate economic benefits from the PLUS loan program. Benefits to PLUS borrowers over private unsecured loans include:

- Eight months interest will be prepaid starting after the first disbursement
- A .25% interest rate reduction for using electronic funds transfer

For the average PLUS loan in 2005-2006 of \$7,357, these benefits provided the borrower with an annual savings of \$734.96. For the 3,089 borrowers who participated in this program in 2005-2006, this generated a \$2.2 million increase in spendable income.

The research team estimated the overall borrower benefits which Iowa Student Loan provided by totaling the savings from these three loan programs. We estimate that the beneficial terms available through the three loan programs provided direct savings of about \$51.5 million (\$42.7 + \$6.6 + \$2.2) in 2005-2006 compared with conventional loan rates and terms. Those savings are available annually and represent a yearly increase in discretionary income for the borrowers and their families.

Next, the research team applied the \$51.5 million annual savings as a direct input in the Iowa IMPLAN Input-Output Model in the form of increased household spending to estimate the secondary economic effects of this additional discretionary income on the Iowa economy. Based upon industry norms, the IMPLAN Model estimated that \$16.9 million of those household spending dollars would be 'exported' as a portion of the goods and services are purchased from outside of the state. The remaining \$34.6 million direct effect drove the indirect and induced expansion.

The results of the Input-Output analysis are presented in Table 2. The overall economic effect generated by the impact of this program was an increase of \$53.4 million in overall vendor sales in the State, generating \$16.5 million of additional personal income, adding \$30.2 million to Iowa's Gross Domestic Product and resulting in the creation of 620 new jobs. The detailed components of these totals can be found in Tables A5-A8 in the Appendix.

Table 2. Economic Value of Iowa Student Loan’s Lending, 2005-2006

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$664,111	\$59,292	\$186,934	5
Construction	\$366,446	\$141,439	\$168,034	4
Manufacturing	\$5,260,903	\$914,198	\$1,473,803	19
Transportation and Utilities	\$2,408,900	\$741,389	\$1,483,059	15
Wholesale and Retail Trade	\$9,845,866	\$4,477,217	\$7,383,774	186
Finance, Insurance and Real Estate	\$7,010,859	\$1,691,481	\$4,110,711	54
Professional Services	\$12,449,127	\$5,995,430	\$7,211,209	172
Other Services	\$6,645,834	\$2,230,405	\$3,112,686	161
Government	\$8,771,542	\$232,923	\$5,061,756	4
Total	\$53,423,588	\$16,483,771	\$30,191,967	620

Source: Iowa IMPLAN Input-Output Model

The Impact on Jobs

The total economic impact on state jobs include those that were directly associated with Iowa Student Loan lending activity and the indirect and induced impact of those direct jobs. The total is included in Chart 6.

The resulting multiplier is 1.5 (620 ÷ 412).

The Impact on Personal income

Chart 7 shows the direct income that Iowa Student Loan pays through its payrolls and the resulting indirect and induced impact of that spending in the economy. The income multiplier is 1.56.

Chart 6. Total Jobs Impacted = 620

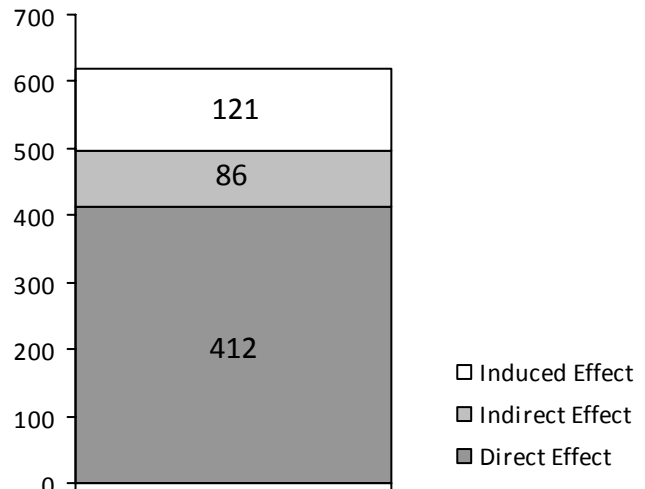


Chart 7. Total Income Impacted = \$16.5 Million

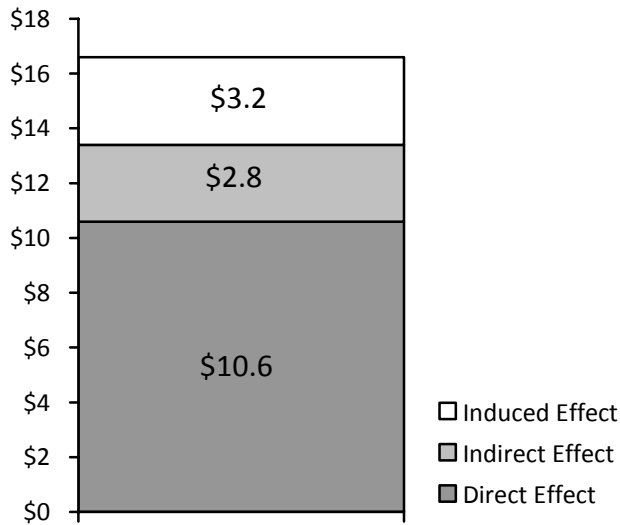
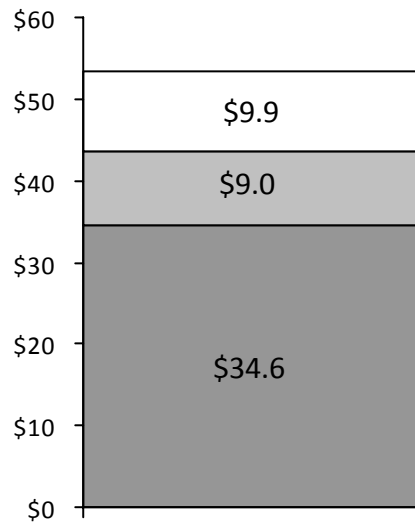


Chart 8. Total Sales Impacted = \$53.4 Million



The Impact of Vendor Sales

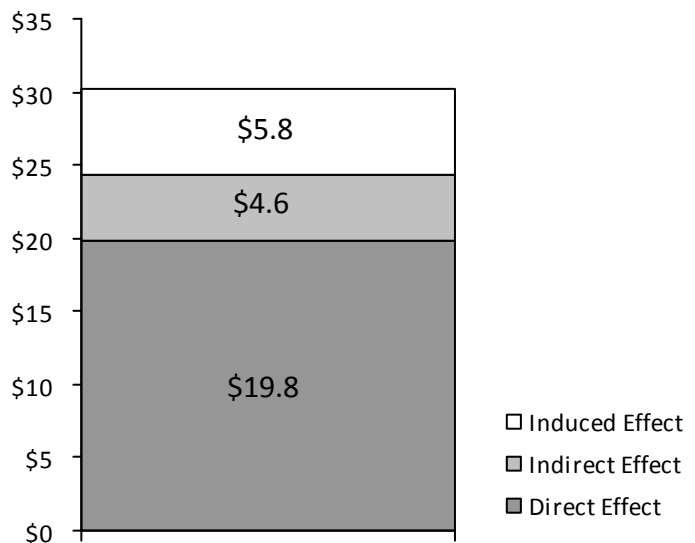
Chart 8 displays the impact of total sales in the state economy. The \$34.6 million of direct vendor sales associated with the higher income of those college graduates generates an additional \$9.0 million indirect sales and \$9.9 million of induced sales in the rest of the economy. The output multiplier of 1.55 reflects additional purchases in the rest of the economy stemming from the higher income levels made possible by the availability of the loan subsidies.

The Impact on the State's Gross Domestic Product

Chart 9 displays the impact on the State's Gross Domestic Product. The \$19.8 million of additional production of goods and services associated with the higher income of those college graduates generates an additional \$4.6 million indirect production and \$5.8 million of induced production in the rest of the economy.

The GDP output multiplier is 1.53.

Chart 9. Total GDP Impacted = \$30.2 Million



Economic Impact of Iowa's 'Educational Access' Lender

In the Iowa Student Loan's 2005-2006 Biennial Report, Iowa Student Loan staff stated that "Last year [2004-2005], we provided more than \$197 million in Partnership Loans to more than 27,000 borrowers for their continuing education." Partnership Loans were created in 1992 by the Iowa Legislature "to provide additional funds to students and parents from Iowa, or students attending college in Iowa, who would not otherwise have access to enough financial aid."

Partially funded through the issuance of tax-exempt bonds, the Partnership Loan offers low interest rates and credit terms not available from any other source. Students who are "credit ready" (they have little or no credit history) can also obtain a Partnership Loan without a co-signer. This is important for students who do not have someone willing or able to co-sign. Iowa Student Loan Liquidity Corporation is able to offer these terms by leveraging the resources generated by its other programs.²

The applications for Partnership loans have increased five-fold since 1998, while the percentage of those who applied without a cosigner has nearly doubled.

Table 3. Applications for Iowa Partnership Loans

Year	All	Number without Cosigner	Percent without Cosigner
1998	6,289	2,971	47.2
1999	10,654	5,226	49.0
2000	14,140	8,036	56.8
2001	18,088	11,268	62.2
2002	21,581	13,733	63.6
2003	25,905	16,758	64.6
2004	28,178	19,317	68.5
2005	30,026	22,960	76.4
2006	30,487	23,648	77.5

Source: Iowa Student Loan

For the 2005-2006 academic year, Iowa Student Loan issued loans to 26,460 Partnership loan borrowers. Those borrowers and others like them each year can expect to see higher lifetime earnings and the rest of us will also benefit from their education. For purposes of our analysis, we assumed that without access to those Partnership loans, a portion of the 26,460 students would not have been able to attend college and would not have earned the higher average incomes. We also assumed that with the Partnership loans, those students who

² Iowa Student Loan Liquidity Corporation. [2005-2006 Biennial Report](#).

graduate would earn salaries comparable to the average graduate with a bachelor’s degree, although many of them are likely to pursue post-graduate education and earn higher salaries.

According to a 2005 study by the Institute for Higher Education Policy, the benefits to society can easily match individual benefits. The study illustrated the array of benefits in the following grid:³

Table 4. The Array of Higher Education Benefits

	Public	Private
Economic	Increased Tax Revenues	Higher Salaries and Benefits
	Greater Productivity	Employment
	Increased Consumption	Higher Savings Levels
	Increased Workforce Flexibility	Improved Working Conditions
	Decreased Reliance on Government Financial Support	Personal/Professional Mobility
Social	Reduced Crime Rates	Improved Health/Life Expectancy
	Increased Charitable Giving/Community Service	Improved Quality of Life for Offspring
	Increased Quality of Civic Life	Better Consumer Decision Making
	Social Cohesion/Appreciation of Diversity	Increased Personal Status
	Improved Ability to Adapt to and Use Technology	More Hobbies, Leisure Activities

SOURCE: Institute for Higher Education Policy. 1998. *Reaping the Benefits: Defining the Public and Private Value of Going to College*. Washington, DC: Institute for Higher Education Policy.

The social benefit theme is repeated in the education literature. In a study titled The Broader Societal Benefits of Higher Education, author Alisa Cunningham concluded that,

“The most widely recognized gains from postsecondary education are the economic benefits that individual graduates receive in terms of greater lifetime income. But it isn’t just the individuals who have gone to college who benefit; the larger society also gains. Not only do graduates pay more taxes on their typically higher incomes, but they also tend to have better health, rely less on government social programs, are less likely to be incarcerated, and are more likely to engage in civic activities. In fact, each type of benefit leads to others, producing a cascade of benefits from postsecondary education.”⁴

³ Institute for Higher Education Policy, The Investment Payoff: A 50-State Analysis of the Public and Private Benefits of Higher Education. February 2005.

⁴ The Broader Societal Benefits of Higher Education, Authored for the *Solutions for Our Future* Project by Alisa Cunningham, Director of Research for the Institute for Higher Education Policy, Washington, D.C., 2005.

What are the benefits to the individual of attending and graduating from college? One report generated by the U.S. Census Bureau in 2002 estimated the work-life earnings to be 177% greater for an individual with a bachelor's degree than one with a high school diploma, 387% higher with a professional degree. Table 5 shows the differences for individuals by age groups:⁵

Table 5. Estimates of Work-Life Earnings by Educational Attainment and Age, Based on 1997-1999 Work Experience (Numbers in 1999 dollars)

Age	High school grad	Some college	Associate's degree	Bachelor's degree	Master's degree	Professional degree	Doctoral degree
Work-life estimate							
All	\$1,037,759	\$1,267,803	\$1,331,201	\$1,838,432	\$2,127,947	\$4,015,613	\$3,105,793
Average earnings							
All	\$25,909	\$31,192	\$33,020	\$45,394	\$54,537	\$99,253	\$81,430
25 to 29	\$20,975	\$22,871	\$25,403	\$33,031	\$37,211	\$42,662	\$47,457
30 to 34	\$24,282	\$28,164	\$29,642	\$41,417	\$47,080	\$65,355	\$61,159
35 to 39	\$25,633	\$30,747	\$32,347	\$46,532	\$58,179	\$104,366	\$79,221
40 to 44	\$27,696	\$33,663	\$36,143	\$49,724	\$55,577	\$102,191	\$82,947
45 to 49	\$27,936	\$34,457	\$35,784	\$50,322	\$59,379	\$109,435	\$87,146
50 to 54	\$27,942	\$36,725	\$37,671	\$54,419	\$58,897	\$98,787	\$88,590
55 to 59	\$27,643	\$35,838	\$37,827	\$50,981	\$58,848	\$127,745	\$89,769
60 to 64	\$25,446	\$31,096	\$31,423	\$41,259	\$50,423	\$152,581	\$84,870

Source: U.S. Census Bureau, Current Population Surveys, March 1998, 1999, and 2000.

Over time the earnings gap has continued to expand. In the second update to the College Board's benchmark 2004 report, Education Pays, authors Sandy Baum, Kathleen Payea and Patricia Steele described the patterns:⁶

- Among men, median earnings of four-year college graduates were 19 percent higher than median earnings of high school graduates in 1975. The gap grew to 37 percent in 1985, 56 percent in 1995, and 63 percent in 2005.
- Among women, median earnings of four-year college graduates were 37 percent higher than median earnings of high school graduates in 1975. The gap grew to 47 percent in 1985, and 71 percent in 1995. It was 70 percent in 2005.

⁵ Jennifer Cheeseman Day and Eric C. Newburger. The Big Payoff: Educational Attainment and Synthetic Estimates of Work-life Earnings. U.S. Census Bureau, Current Population Reports, July 2002.

⁶ Education Pays, Second Update. A Supplement to Education Pays 2004: The Benefits of Higher Education for Individuals and Society. Sandy Baum, Kathleen Payea and Patricia Steele, The College Board, 2006.

- Among men, the earnings premium for those with some college education relative to those with a high school diploma has also increased over time and, at 20 percent in 2005, has caught up to the gap for women, which has fluctuated between 14 and 23 percent since 1981.
- The difference in earnings between those with some college education but no bachelor's degree and those who have completed a four-year degree has increased over time and is now about 37 percent for men and 41 percent for women.

In another study for The College Board, authors Sandy Baum and Kathleen Payea wrote⁷,

- In 2003, the average full-time year-round worker in the United States with a four-year college degree earned \$49,900, 62 percent more than the \$30,800 earned by the average full-time year-round worker with only a high school diploma.
- Those with master's degrees earned almost twice as much, and those with professional degrees earned over three times as much per year as high school graduates.
- The average college graduate working full-time year round pays over 100 percent more in federal income taxes and about 78 percent more in total federal, state, and local taxes than the average high school graduate. Those who earned professional degrees pay almost \$20,000 a year more in total taxes than high school graduates.
- By the age of 33, the typical college graduate who enrolled at age 18 has earned enough to compensate for both tuition and fees at the average public four-year institution and earnings forgone during the college years.

Programs that assist low income students to complete a college education not only prepare a student for higher earnings, they have broader social benefits as well. According to a 2006 report by the Advisory Committee on Student Financial Assistance, an advisory body established by Congress⁸

“...the earning power and income taxes paid by bachelor's degree recipients are significantly higher than those who earn an associate's degree or no degree at all. Accordingly, the National Center for Public Policy and Higher Education and the National Center for Higher Education Management Systems predict a decline in

⁷ Sandy Baum and Kathleen Payea, The Benefits of Higher Education for Individuals and Society, The College Board, Revised edition 2005.

⁸ Mortgaging Our Future: How Financial Barriers to College Undercut America's Global Competitiveness, A Report on Advisory Committee on Student Financial Assistance. 2006.

personal income levels in the United States between 2000 and 2020 and a subsequent decline in the nation’s tax base if bachelor’s degree attainment rates do not increase.”

“These organizations predict a decline in the share of the population age 25 to 64 with a bachelor’s degree, and a decline in personal income per capita by \$325, or 2 percent. In comparison, personal income per capita grew by 41 percent nationally between 1980 and 2000. The College Board also estimates that the typical full-time, year-round worker with a bachelor’s degree earned \$49,900 per year in 2003 and paid \$11,800 in taxes, compared to a similar worker with an associate’s degree who earned \$37,600 and paid \$8,400 in taxes. Workers with only a high school diploma earned \$30,800 per year and paid \$6,500 in taxes.”

Bringing the focus to Iowa, in 2005 a man with a bachelor’s degree earned 52% more than a man with only a high school diploma. A college-educated woman earned 68% more than her high school counterpart. But in both cases, their earnings lagged their respective national averages. Table 6 shows the numbers.

Table 6. Iowa 2005 Median Earnings for Population 25 Years and Over

Educational Attainment	2005 Earnings		Compared to high school grad	
	Iowa	U.S.	Iowa	U.S.
Total:	\$29,869	\$31,788		
High school graduate (includes equivalency)	\$25,449	\$25,829		
Some college or associate's degree	\$29,033	\$31,566	114%	122%
Bachelor's degree	\$38,430	\$43,954	151%	170%
Graduate or professional degree	\$50,938	\$57,585	200%	223%
Male:	\$35,982	\$38,514		
High school graduate (includes equivalency)	\$31,434	\$31,683		
Some college or associate's degree	\$35,810	\$39,601	114%	125%
Bachelor's degree	\$47,673	\$53,693	152%	169%
Graduate or professional degree	\$61,782	\$71,918	197%	227%
Female:	\$23,206	\$25,736		
High school graduate (includes equivalency)	\$18,676	\$20,179		
Some college or associate's degree	\$23,296	\$25,736	125%	128%
Bachelor's degree	\$31,313	\$36,250	168%	180%
Graduate or professional degree	\$43,090	\$47,319	231%	234%

Source: U.S. Census Bureau, 2005 American Community Survey

The 26,460 special financial need students who qualified for the Partnership Loans program last year were able to finance their college education through Iowa Student Loan. Because of the purpose and design of that program, many of those individuals, in the absence of that program, would most likely have entered the workforce with only a high school diploma. They would have earned an average salary of \$25,449 instead of \$38,430 or higher. Thus, the

incremental value of a bachelor's degree to an Iowa resident was worth an average of nearly \$13,000 in 2005. For that reason the research team has chosen to call this the 'educational access' lender function. That term was selected because it recognized that Iowa Student Loan provides access to borrowers who have exhausted all other sources of educational funding.

However, it is a statistical unlikelihood that all 26,460 student borrowers who qualified for a Partnership loan will finish college and will receive at least a bachelor's degree. A 2005 study funded by the National Center for Public Policy and Higher Education⁹ tracked students who enrolled in college in 1995-96 for the next six years. The authors found that:

- Half of all entering freshmen borrow. Considering the entire population of students who started postsecondary education in 1995-96 (more than three million), half had borrowed to help pay for their undergraduate studies within the next six years.
- Freshmen who start at four-year colleges and expect to attain a bachelor's degree are even more likely to borrow. Of all students who first enrolled in a four-year institution in 1995-96 and who reported that they aspired to earn at least a bachelor's degree, two-thirds (67%) had borrowed by 2001.
- Those who start at two-year colleges are less likely to borrow. Of those students who first enrolled in a public two-year college in 1995-96, a third (33%) had borrowed by 2001.
- More than 20% of all borrowers drop out. Considering all students who started postsecondary education in 1995-96, more than one-fifth (23%) of those who borrowed did not complete their programs and were not enrolled in 2001.
- For freshmen who start at four-year colleges and expect to receive a bachelor's degree, borrowers and nonborrowers have similar completion rates.

Based on the norms identified in this study, of the 26,460 borrowers who qualified for the Iowa Partnership Loan program, about 21,168 (80%) are likely to graduate with a bachelor's degree within six years. However, according to Iowa Student Loan staff about one-third of those students were identified as "credit worthy" and thus capable of obtaining some other form of college financing in the absence of this program.

About half of the remaining recipients were "credit ready" and could qualify for a student loan even if they do not meet all of the criteria of credit-worthiness. These students do not have credit histories and are often required to provide a co-signer. Such an applicant might expect to pay a higher risk-based interest rate, were it not for this program.

⁹ Lawrence Gladieux and Laura Perna. Borrowers Who Drop Out: A Neglected Aspect of the College Student Loan Trend. National Center for Public Policy and Higher Education, May 2005.

Of those 21,168 individuals who are projected to graduate out of the 26,460 recipients, 7,056 were identified as credit-worthy and could have found other financial sources. Of the remaining 14,112 credit-ready candidates, the Iowa Student Loan staff estimates that up to half probably could have qualified for another loan source or could have been able to provide a co-signer.

That, conservatively, leaves at least 7,056 individuals who would not become college graduates without this program. The \$12,981 annual earnings differential that those graduates will earn will cumulatively amount to \$91.6 million a year - even more if the students complete a graduate or professional degree.

Why does Iowa need an educational access lender?

Financial barriers are keeping qualified high school graduates from attending college and those barriers are rising annually. According to a 2002 report by the Advisory Committee on Student Financial Assistance:¹⁰

“Families of low-income, college-qualified high school graduates face annual unmet need of \$3,800, college expenses not covered by student aid, including work-study and student loans. And the shortage in grant aid requires these families to cover \$7,500—two-thirds of college expenses at public four-year colleges and one-third of family income—through work and borrowing. Their peers from moderate-income families face similar barriers.”

“These financial barriers prevent 48 percent of college-qualified, low-income high school graduates from attending a four-year college, and 22 percent from attending any college at all, within two years of graduation. Their peers from moderate-income families are hardly better off—43 percent are unable to attend a four year college, and 16 percent attend no college at all.”

Federal grant funding has been declining. Regarding grant aid, Lara K. Couturier and Alisa F. Cunningham wrote in a 2006 report to the Institute for Higher Education Policy that,¹¹

- The maximum Pell Grant, the foundation of federal need-based aid programs, covered only 36 percent of the price of attendance at a public four-year institution in 2004-05, down from 42 percent in 2001-02. Low-income students can no longer rely on Pell Grants to the same extent that they used to, to reduce the gaps between the price of college and their ability to pay.
- Among state grant aid programs, non-need-based aid is growing faster than need-based aid—300 percent and 70 percent, respectively, in constant dollar terms between 1993-94 and 2003-04. A decreasing percentage of state aid is being awarded to students from the bottom half of the income distribution. They are the ones who rely most on financial aid to attend postsecondary institutions.
- At the institutional level, tuition discounting through academically based aid is being used as a tool to compete for students with characteristics such as high test scores that improve an institution’s prestige. This strategy is often detrimental to underserved students.

¹⁰ Empty Promises: The Myth of College Access in America. A Report of the Advisory Committee on Student Financial Assistance, 2002.

¹¹ Convergence: Trends Threatening to Narrow College Opportunity in America. Lara K. Couturier and Alisa F. Cunningham. Institute for Higher Education Policy. April 2006.

- Early intervention and awareness programs that target low-income and first-generation students are serving substantial numbers of students and encouraging access to postsecondary education. However, a number of these programs have been threatened with elimination or budget cuts, and intervention programs may not be able to reach these populations in the future.

How has the rising cost of education contributed to the financial barrier?

According to Bridget Terry Long, Harvard University professor of economics and education, in a 2006 report titled Paying for College: The Rising Cost of Higher Education,¹² the 2005-2006 annual cost was \$5,491 to attend a public four-year college and \$21,235 for a private college. She added that “Prices are high and have risen rapidly over the past decade. It is then no surprise that students and their parents everywhere are worried about paying for college.”

In another report, a U.S. Department of Education study in 2006 indicated higher numbers:¹³

“In 2003–04, the average total price of attendance differed by the type of institution attended, reflecting the variation in average tuition and fees. The price of attendance for full-time undergraduates attending public 2-year institutions averaged \$10,500, compared with \$15,200 for those at public 4-year institutions. The average price of attendance was \$20,300 among those enrolled at private for-profit institutions, and \$28,300 among those at private not-for-profit 4-year institutions.”

“The average out-of-pocket net price of attendance after all financial aid (including loans) for all full-time undergraduates in 2003–04 (whether or not they received any financial aid) was \$7,400 at public 2-year institutions, \$8,500 at public 4-year institutions, \$10,100 at private-for-profit institutions, and \$13,900 at private not-for-profit 4-year institutions. These out-of-pocket net prices only represent the short-term price reductions for enrollment that year, because the loans will need to be repaid with interest later.”

Bringing the analysis back to Iowa, points out an issue that can be illustrated in Table 7. Among ten other Midwest states and the national average, Iowa’s college tuition levels have experienced the highest percentage increase over the past five years.

¹² Bridget Terry Long, with Dana Ansel and Greg Leiserson. Paying for College: The Rising Cost of Higher Education, MassINC. 2006.

¹³ U.S. Department of Education, Student Financing of Undergraduate Education: 2003–04. August 2006.

Table 7. Comprehensive Colleges and Four-Year Universities
Resident undergraduate tuition and fees

	2001- 2002	2002- 2003	2003- 2004	2004- 2005	2005- 2006	Percent Increase Five Yr
Iowa	\$3,440	\$4,118	\$4,916	\$5,387	\$5,602	62.8%
Illinois	\$4,215	\$4,606	\$5,238	\$5,968	\$6,780	60.9%
Indiana	\$3,947	\$4,468	\$4,936	\$5,390	\$6,171	56.4%
North Dakota	\$2,909	\$3,191	\$3,594	\$4,138	\$4,530	55.7%
Wisconsin	\$3,272	\$3,526	\$4,180	\$4,730	\$5,072	55.0%
Ohio	\$5,058	\$5,920	\$6,620	\$7,139	\$7,567	49.6%
Missouri	\$3,436	\$4,127	\$4,562	\$4,941	\$5,112	48.8%
Minnesota	\$3,561	\$3,970	\$4,517	\$5,098	\$5,251	47.5%
Kansas	\$2,424	\$2,593	\$2,946	\$3,285	\$3,538	46.0%
Nebraska	\$2,916	\$3,199	\$3,659	\$3,930	\$4,234	45.2%
Michigan	\$4,501	\$4,943	\$5,423	\$5,584	\$6,268	39.3%
National Average	\$3,379	\$3,735	\$4,169	\$4,545	\$4,862	43.7%

Source: Midwest Higher Education Compact

In addition to rapidly rising tuition rates, Iowa is also experiencing a declining share of public funding for higher education. According to the National Center for Higher Education Management Systems in their 2005 analysis of college funding, Iowa has seen the family share of higher education grow over the past 15 years and grow at a rate much faster than for the nation.¹⁴ Table 8 shows that an Iowa family in 1991, had to cover about 5% more of the cost of higher education through tuition than their national counterparts. By 2005, the 5% differential had grown to nearly 12%.

¹⁴ National Center for Higher Education Management Systems. Family Share of Public Higher Education Operating Revenues, 2005.

Table 8. Family Share of Public Higher Education Operating Revenues, Iowa and U.S.

Fiscal Year	Iowa			U.S.		
	Appropriation for Public Higher Education	Public Higher Ed Net Tuition Revenue	Family Share	Appropriation for Public Higher Education	Public Higher Ed Net Tuition Revenue	Family Share
1991	\$480,200,000	\$214,700,000	30.9%	\$35,018,000,588	\$12,391,629,290	26.1%
1992	465,000,000	227,800,000	32.9%	34,904,360,426	14,132,343,263	28.8%
1993	500,300,000	248,400,000	33.2%	35,186,411,124	15,691,896,456	30.8%
1994	519,200,000	261,100,000	33.5%	36,368,264,138	16,569,034,593	31.3%
1995	533,600,000	270,800,000	33.7%	38,310,847,735	17,343,759,946	31.2%
1996	562,900,000	281,400,000	33.3%	39,795,419,000	18,435,333,271	31.7%
1997	585,200,000	298,700,000	33.8%	42,336,494,917	19,178,141,748	31.2%
1998	615,287,593	323,859,838	34.5%	45,544,378,000	20,110,175,090	30.6%
1999	643,529,829	339,493,408	34.5%	48,781,672,979	21,041,156,801	30.1%
2000	677,617,615	360,867,963	34.7%	51,628,953,150	21,494,593,216	29.4%
2001	706,672,754	383,667,323	35.2%	55,072,080,173	23,037,441,386	29.5%
2002	651,921,501	428,498,278	39.7%	57,238,959,263	24,898,570,417	30.3%
2003	653,708,676	510,572,165	43.9%	56,850,146,723	27,686,667,711	32.8%
2004	618,091,623	552,968,127	47.2%	56,846,345,986	30,981,082,137	35.3%
2005	621,638,579	587,759,920	48.6%	58,819,504,486	34,068,897,088	36.7%

Source: The National Center for Higher Education Management Systems

Economic Impact of the Iowa Partnership Loan Program

Our literature review reaffirms the widely-held notion that a post-secondary degree generally results in higher lifetime earnings for individuals. Our assumption for this stage of the analysis is that, but for the availability of the Iowa Partnership Loan program, these Iowans would be unable to attend college.

Because these loans fill the last portion of need and are available to those who have exhausted all other types of student financial aid, they truly are ‘last chance’ loans. As a result, without those loans the recipients would not attend college and would not experience higher lifetime earnings. The research team estimated this annual earning differential and then used the Iowa IMPLAN Input-Output Model to estimate their secondary impacts on the Iowa economy. The incremental overall earnings increase of \$91.6 million (for all 7,056 borrowers) is treated as additional household income in our I-O model. The IMPLAN model estimated the direct effect at \$61.5 million, assuming \$30.1 of the household spending to be ‘exported’ through the purchase of out-of-state goods and services.

The results of the input-output analysis on the impact of the Iowa Partnership Loan program are presented in Table 9. The overall economic effect generated by the impact of this program was an increase of \$95.1 million in overall vendor sales in the State, generating

\$29.6 million of additional personal income, adding \$54.1 million to Iowa's Gross Domestic Product and resulting in the creation of 1,105 new jobs. The detailed components of these totals can be found in Tables A9-A12 in the Appendix.

Table 9. Economic Value of Iowa Student Loan Partnership Loans, 2005-2006

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$1,183,220	\$105,627	\$332,978	9
Construction	\$641,824	\$247,425	\$294,300	7
Manufacturing	\$9,374,637	\$1,628,072	\$2,624,259	35
Transportation and Utilities	\$4,269,260	\$1,311,127	\$2,626,211	26
Wholesale and Retail Trade	\$17,546,504	\$7,978,982	\$13,158,724	331
Finance, Insurance and Real Estate	\$12,419,721	\$3,220,510	\$7,627,384	97
Professional Services	\$22,157,015	\$10,675,181	\$12,837,786	307
Other Services	\$11,838,324	\$3,973,271	\$5,545,094	286
Government	\$15,632,783	\$415,453	\$9,024,777	8
Total	\$95,063,289	\$29,555,647	\$54,071,514	1,105

Source: Iowa IMPLAN Input-Output Model

The Impact on Jobs

The economic impact on jobs that were directly identified with the Partnership Loans and those that were the result of the indirect and induced impact of those direct jobs is displayed in Chart 10. The resulting multiplier is 1.51 (1,105 ÷ 734).

Chart 10. Total Jobs Impacted = 1,105

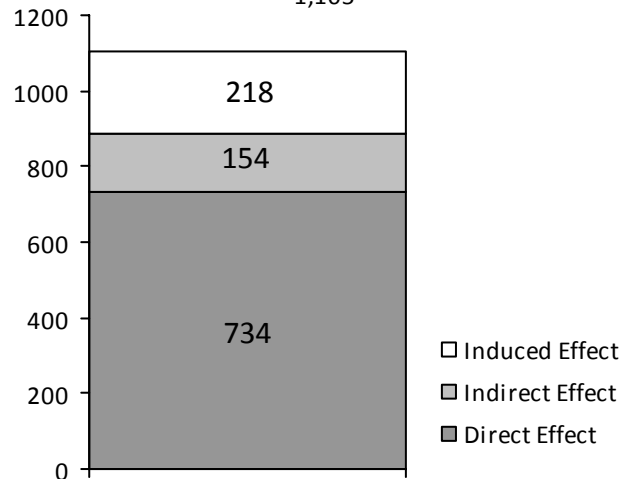
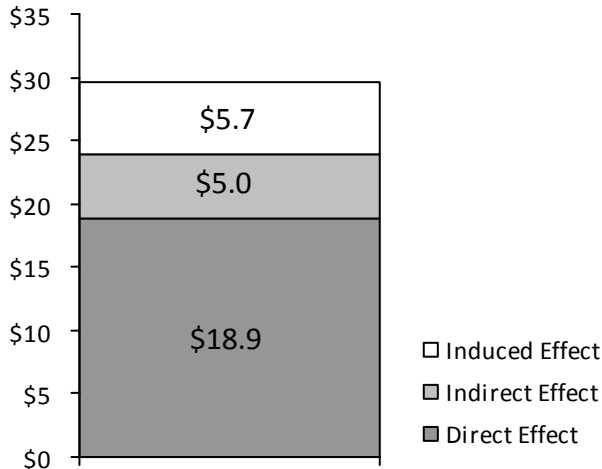


Chart 11. Total Income Impacted = \$29.6 Million



The Impact on Personal Income

Chart 11 shows the direct income that Iowa Student Loan pays through its payrolls and the resulting indirect and induced impact of that spending in the economy as a result of the Partnership Loans.

The income multiplier is 1.56.

The Impact of Vendor Sales

Chart 12 displays the impact of total sales in the Iowa economy. The \$61.5 million of vendor sales associated with the higher income of those college graduates generates an additional \$15.8 million indirect sales and \$17.7 million of induced sales in the rest of the economy. The output multiplier of 1.55 reflects additional purchases in the rest of the economy stemming from the higher income levels made possible by the availability of the Partnership Loans.

Chart 12. Total Sales Impacted = \$95.1 Million

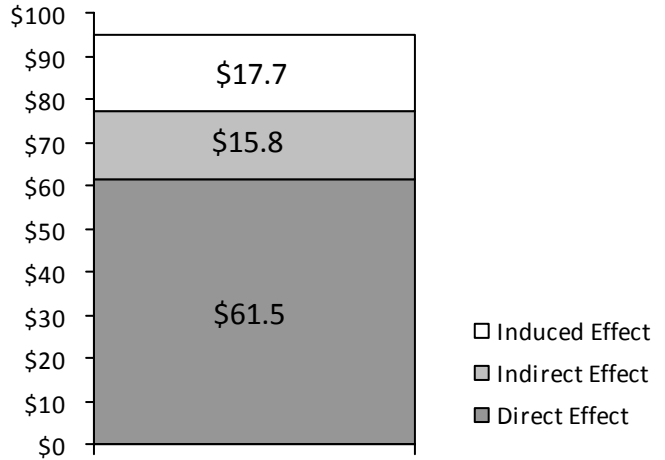
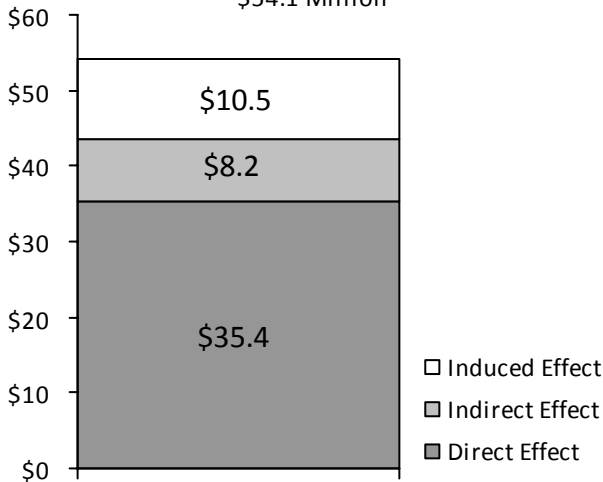


Chart 13. Total GDP Impacted = \$54.1 Million



The Impact on the State’s Gross Domestic Product

Chart 13 displays the impact on the State’s Gross Domestic Product. The \$35.4 million of additional production of goods and services associated with the higher income of those college graduates generates an additional \$8.2 million indirect production and \$10.5 million of induced production in the rest of the economy.

The GDP output multiplier is 1.53.

Aggregate Impact

Table 10 displays the aggregate of the three sets of economic impact analyses developed in this study. It accounts for the direct and the secondary effects of the operations, the lending activities and the role which Iowa Student Loan serves as an educational access lender. The table shows the effect which these activities had on each of the major sectors of the Iowa economy during the 2005-2006 academic year. This study demonstrates the impact for one typical year. By inference, this economic impact will be duplicated each year.

Table 10. Total Economic Impact of Iowa Student Loan, 2005-2006

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$2,057,211	\$184,618	\$580,670	15
Construction	\$2,046,061	\$814,225	\$940,078	22
Manufacturing	\$16,769,142	\$2,976,657	\$4,770,307	64
Transportation and Utilities	\$9,257,641	\$3,055,223	\$5,849,907	65
Wholesale and Retail Trade	\$30,711,112	\$13,957,893	\$23,034,114	577
Finance, Insurance and Real Estate	\$83,060,472	\$21,129,284	\$46,915,147	529
Professional Services	\$44,718,914	\$21,445,588	\$25,851,708	635
Other Services	\$21,622,424	\$7,263,065	\$10,143,410	519
Government	\$26,995,776	\$843,463	\$15,900,863	16
Total	\$237,238,751	\$71,670,014	\$133,986,205	2,442

Source: Iowa IMPLAN Input-Output Model

The Impact on Jobs

The aggregate economic impact on jobs in the State that were directly identified with Iowa Student Loan and its programs, and those that were the result of the indirect and induced impact of those direct jobs is displayed in Chart 14. The aggregate jobs multiplier is 1.66.

Chart 14. Total Jobs Impacted = 2,442

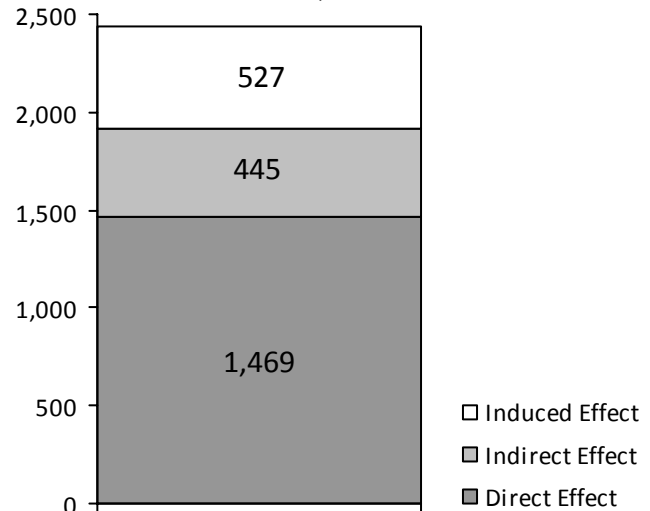
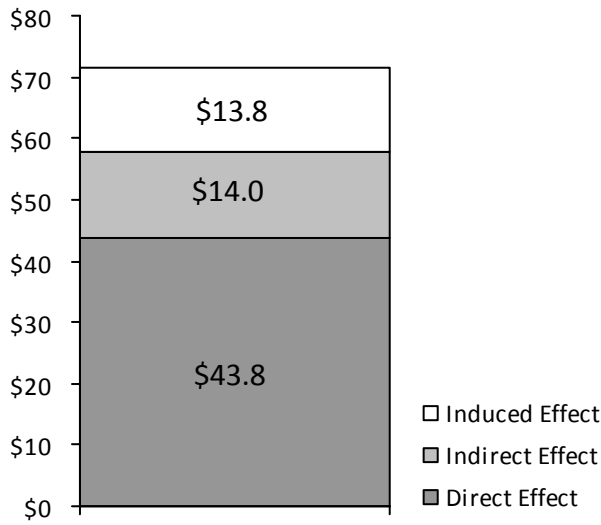


Chart 15. Total Income Impacted = \$71.7 Million



The Impact on Personal Income

Chart 15 shows the direct income that Iowa Student Loan impacts through its payrolls, purchases and lending activities and the resulting indirect and induced impact of that spending in the economy.

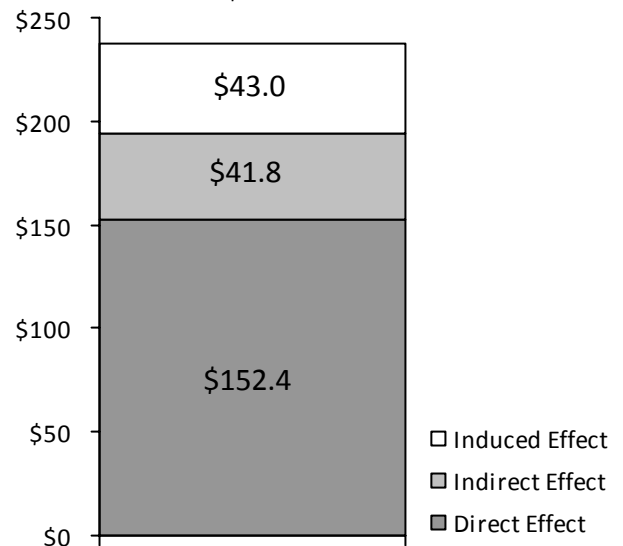
The aggregate income multiplier is 1.64.

The Impact of Vendor Sales

Chart 16 displays the aggregate impact of total sales in the economy. The \$152.4 million of total output by Iowa Student Loan supports additional \$41.8 million indirect sales and \$43.0 million of induced sales in the rest of the economy.

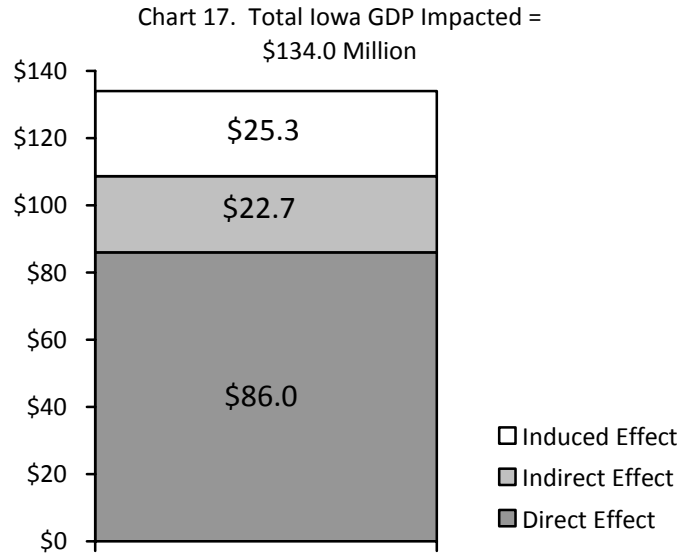
The output multiplier of 1.56 reflects additional purchases in the rest of the economy stemming from the initial economic activities by the Iowa Student Loan.

Chart 16. Total Sales Impacted = \$237.2 Million



The Impact of Gross Domestic Product

Chart 17 displays the aggregate impact on Iowa's Gross Domestic Product. The \$86.0 million of total output by Iowa Student Loan supports additional \$22.7 million indirect production and \$25.3 million of induced production in the rest of the economy. The output multiplier of 1.56 reflects additional production in the rest of the economy stemming from the initial economic activities by the Iowa Student Loan.



The Impact on State Taxes

The economic activity of Iowa Student Loan generates State taxes. The purchase of goods and services generates sales taxes. The payroll generates income taxes. The economic benefit that Iowa Student Loan provides to borrowers indirectly also generates taxes. Perhaps the largest tax impact comes from the income and sales taxes that the State will collect from those graduates who have been benefited by the Partnership Loan program. They will be the recipients of substantially higher income and will therefore be paying higher taxes.

In the process of generating the economic impact, the research staff employed the Iowa IMPLAN Model to estimate the state income tax increases that would result from the increased discretionary income. The research staff also developed a model based on the Census Bureau’s Consumer Expenditure Survey to estimate the incremental increase in State sales taxes that would be associated with the projected increase in income. This model is based on a three-person household and average Iowa household income levels to determine the taxable spending patterns. Table 11 shows the resulting projected tax growth.

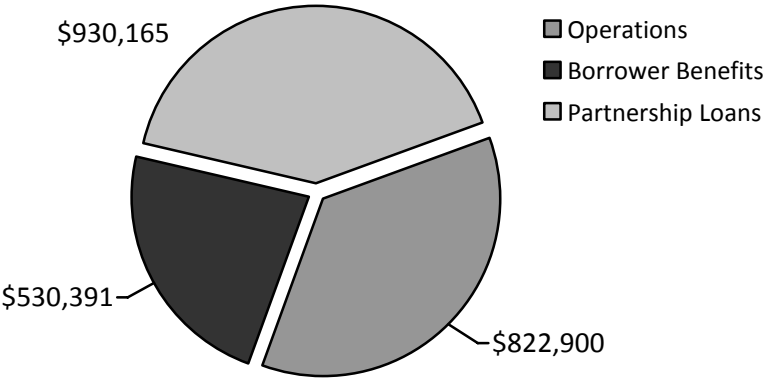
Table 11. Taxes Generated by Iowa Student Loan Activities

Activity	Sales	Personal Income	Total
Operations	\$297,898	\$525,002	\$822,900
Borrower Benefits	\$192,360	\$338,031	\$530,391
Partnership Loans	\$336,201	\$593,963	\$930,165
Total	\$826,459	\$1,456,996	\$2,283,456

Source: Iowa IMPLAN Model and the research team's tax model

Chart 18 displays the aggregate annual impact on taxes in the economy. Iowa Student Loan activities generated \$1.5 million in State income taxes and another \$0.8 million of sales taxes by its direct and secondary impact on the rest of the economy.

Chart 18. Total State Taxes Impacted = \$2.3 Million



Summary

During the 2005-2006 academic year, the Iowa Student Loan, with a staff of 323 and vendor expenditures of about \$195 million, had a profound economic impact on the State. The research staff examined three components of Iowa Student Loan’s activity. Based upon our study, Iowa Student Loan impacted Iowa families for that one year by:

- Generating more than 2,400 additional Iowa jobs
- Stimulating an additional \$237 million in annual consumer spending
- Increasing personal income for Iowa residents by about \$72 million
- Boosting Iowa’s goods and services production by about \$134 million
- Causing the State’s income and sales taxes collections to grow by about \$2.3 million

Keep in mind, most of these benefits are additive and that each new class of students will result in an additional set of benefits that are likely to be comparable to or greater than those of the class of 2005-2006.

Appendix

The Economic Impact of Operations Expenditures

The direct effect is the accounting of the costs of operating Iowa Student Loan and it identifies the key economic indicators that the research team tracked in our analysis, including wages and salaries, jobs, other operating expenses, and total receipts. This information, summarized in Table A1, is drawn from the FY2006 Federal Form 990 for Iowa Student Loan and the Federal 1040 filing prepared for the ISL Corporation. These values represent the conceptual starting point of the analysis and the level of economic stimulus injected into the Iowa economy.

Table A1. Direct Effect of Iowa Student Loan Operations

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Total	\$56,350,016	\$14,372,496	\$30,798,850	323

Source: Federal Form 990, FY2005

The indirect effects measure the value of supplies and services that are purchased by firms from whom Iowa Student Loan makes direct purchases. To the extent that those secondary purchases are within the state or area, the result is an indirect effect.

The initial round of direct expenditures results in purchases of goods and services by Iowa Student Loan in the Iowa economy. The Iowa IMPLAN Input-Output Model takes into account the share of these purchases that are made from vendors and suppliers in the region and reports on only the net within-region impacts. Table A2 summarizes the results of multiple rounds of these indirect purchases from firms in different sectors of the economy. The initial \$56.4 million of purchasing activity leads to an estimated \$17 million of additional input purchases, supporting 205 additional jobs and \$6.3 million of payroll income. These effects are concentrated in the financial and professional services sectors of the economy, but also provide a benefit to a wide range of other businesses in the economy.

Table A2. Indirect Effect of Iowa Student Loan Operations

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$22,483	\$2,528	\$7,241	0
Construction	\$924,765	\$381,972	\$426,073	10
Manufacturing	\$630,226	\$169,841	\$246,836	4
Transportation and Utilities	\$1,871,907	\$783,612	\$1,305,818	20
Wholesale and Retail Trade	\$536,167	\$236,480	\$404,812	8
Finance, Insurance and Real Estate	\$5,303,460	\$1,360,755	\$3,229,672	40
Professional Services	\$6,231,497	\$2,908,503	\$3,574,081	98
Other Services	\$1,109,040	\$365,018	\$519,740	23
Government	\$403,168	\$125,589	\$176,696	3
Total	\$17,032,711	\$6,334,298	\$9,890,970	205

Source: Iowa IMPLAN Input-Output Model

The induced effects, or household effects, occur when workers in the direct and indirect industries spend their earnings on personal goods and services from other businesses within the region. Table A3 summarizes results from successive rounds of these payroll dollars and personal income being spent. The induced vendor spending adds \$15.4 million, which translates into 188 additional jobs and \$4.9 million in additional income.

Table A3. Induced Effect of Iowa Student Loan Operations

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$187,397	\$17,170	\$53,517	1
Construction	\$113,026	\$43,390	\$51,671	1
Manufacturing	\$1,503,376	\$264,546	\$425,408	6
Transportation and Utilities	\$707,575	\$219,095	\$434,819	4
Wholesale and Retail Trade	\$2,782,574	\$1,265,213	\$2,086,803	52
Finance, Insurance and Real Estate	\$1,976,416	\$484,043	\$1,148,530	15
Professional Services	\$3,881,275	\$1,866,475	\$2,228,632	58
Other Services	\$2,029,227	\$694,372	\$965,891	50
Government	\$2,188,283	\$69,498	\$1,637,633	1
Total	\$15,369,148	\$4,923,802	\$9,032,904	188

Source: Iowa IMPLAN Input-Output Model

The Total Impact of Operations

The total economic impact for our indicators is summarized in Table A4. The values in this table are simply the sum of the direct, indirect and induced effects. Overall economic impacts include \$88.8 million of sales, \$25.6 million of labor income, \$49.7 million of contribution to gross state product and 717 jobs. Although most of the effects were concentrated in the financial and professional services, all sectors in the economy received positive economic benefits.

Table A4. Economic Value of Iowa Student Loan Operations

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$209,880	\$19,699	\$60,759	2
Construction	\$1,037,791	\$425,362	\$477,744	12
Manufacturing	\$2,133,602	\$434,387	\$672,245	9
Transportation and Utilities	\$2,579,481	\$1,002,707	\$1,740,637	24
Wholesale and Retail Trade	\$3,318,741	\$1,501,694	\$2,491,615	60
Finance, Insurance and Real Estate	\$63,629,892	\$16,217,293	\$35,177,052	378
Professional Services	\$10,112,771	\$4,774,978	\$5,802,713	156
Other Services	\$3,138,266	\$1,059,389	\$1,485,631	72
Government	\$2,591,451	\$195,087	\$1,814,329	4
Total	\$88,751,875	\$25,630,596	\$49,722,724	717

Source: Iowa IMPLAN Input-Output Model

The Economic Impact of the Subsidized Lending Programs

Table A5. Direct Effect of Iowa Student Loan Subsidized Lending

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Total	\$34,565,832	\$10,564,663	\$19,794,586	412

Source: Iowa IMPLAN Input-Output Model

Table A6. Indirect Effect of Iowa Student Loan Subsidized Lending

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	467,219	38,074	120,934	3
Construction	293,623	113,483	134,742	3
Manufacturing	1,716,749	333,166	504,597	7
Transportation and Utilities	832,046	319,504	524,108	7
Wholesale and Retail Trade	697,657	304,718	527,851	9
Finance, Insurance and Real Estate	2,118,441	529,699	1,340,646	17
Professional Services	2,152,909	889,452	1,135,908	28
Other Services	536,123	180,937	248,525	11
Government	144,947	41,481	47,913	1
Total	8,959,711	2,750,511	4,585,227	86

Source: Iowa IMPLAN Input-Output Model

Table A7. Induced Effect of Iowa Student Loan Subsidized Lending

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$120,687	\$11,057	\$34,466	1
Construction	\$72,823	\$27,957	\$33,291	1
Manufacturing	\$968,152	\$170,367	\$273,968	4
Transportation and Utilities	\$455,956	\$141,225	\$280,231	3
Wholesale and Retail Trade	\$1,791,881	\$814,757	\$1,343,830	34
Finance, Insurance and Real Estate	\$1,273,314	\$309,556	\$734,770	10
Professional Services	\$2,499,296	\$1,201,797	\$1,435,004	37
Other Services	\$1,306,791	\$447,161	\$621,997	32
Government	\$1,409,143	\$44,719	\$1,054,598	1
Total	\$9,898,045	\$3,168,597	\$5,812,154	121

Source: Iowa IMPLAN Input-Output Model

Table A8. Economic Value of Iowa Student Loan Subsidized Lending

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$664,111	\$59,292	\$186,934	5
Construction	\$366,446	\$141,439	\$168,034	4
Manufacturing	\$5,260,903	\$914,198	\$1,473,803	19
Transportation and Utilities	\$2,408,900	\$741,389	\$1,483,059	15
Wholesale and Retail Trade	\$9,845,866	\$4,477,217	\$7,383,774	186
Finance, Insurance and Real Estate	\$7,010,859	\$1,691,481	\$4,110,711	54
Professional Services	\$12,449,127	\$5,995,430	\$7,211,209	172
Other Services	\$6,645,834	\$2,230,405	\$3,112,686	161
Government	\$8,771,542	\$232,923	\$5,061,756	4
Total	\$53,423,588	\$16,483,771	\$30,191,967	620

Source: Iowa IMPLAN Input-Output Model

The Economic Impact of the Iowa Partnership Loans Program

Table A9. Direct Effect of Iowa Student Loan Partnership Loans

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Total	\$61,525,803	\$18,888,500	\$35,360,154	734

Source: Iowa IMPLAN Input-Output Model

Table A10. Indirect Effect of Iowa Student Loan Partnership Loans

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$831,192	\$67,716	\$215,067	6
Construction	\$513,408	\$198,187	\$235,595	5
Manufacturing	\$3,053,251	\$591,808	\$895,917	13
Transportation and Utilities	\$1,460,820	\$560,209	\$918,709	12
Wholesale and Retail Trade	\$1,238,599	\$540,988	\$937,126	16
Finance, Insurance and Real Estate	\$3,714,073	\$1,026,433	\$2,504,654	31
Professional Services	\$3,801,540	\$1,572,030	\$2,006,790	50
Other Services	\$946,212	\$319,404	\$438,683	20
Government	\$257,619	\$73,846	\$85,495	1
Total	\$15,816,715	\$4,950,621	\$8,238,035	154

Source: Iowa IMPLAN Input-Output Model

Table A11. Induced Effect of Iowa Student Loan Partnership Loans

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$216,385	\$19,824	\$61,783	2
Construction	\$128,416	\$49,238	\$58,705	1
Manufacturing	\$1,736,202	\$305,323	\$490,911	7
Transportation and Utilities	\$813,287	\$251,353	\$499,410	5
Wholesale and Retail Trade	\$3,213,936	\$1,461,347	\$2,410,291	61
Finance, Insurance and Real Estate	\$2,263,788	\$593,305	\$1,373,343	17
Professional Services	\$4,477,265	\$2,153,867	\$2,571,451	66
Other Services	\$2,343,106	\$801,824	\$1,115,450	57
Government	\$2,528,387	\$80,444	\$1,891,982	2
Total	\$17,720,771	\$5,716,526	\$10,473,324	218

Source: Iowa IMPLAN Input-Output Model

Table A12. Economic Value of Iowa Student Loan Partnership Loans

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$1,183,220	\$105,627	\$332,978	9
Construction	\$641,824	\$247,425	\$294,300	7
Manufacturing	\$9,374,637	\$1,628,072	\$2,624,259	35
Transportation and Utilities	\$4,269,260	\$1,311,127	\$2,626,211	26
Wholesale and Retail Trade	\$17,546,504	\$7,978,982	\$13,158,724	331
Finance, Insurance and Real Estate	\$12,419,721	\$3,220,510	\$7,627,384	97
Professional Services	\$22,157,015	\$10,675,181	\$12,837,786	307
Other Services	\$11,838,324	\$3,973,271	\$5,545,094	286
Government	\$15,632,783	\$415,453	\$9,024,777	8
Total	\$95,063,289	\$29,555,647	\$54,071,514	1,105

Source: Iowa IMPLAN Input-Output Model

The Aggregate Economic Impact

Table A13. Direct Effect of Iowa Student Loan

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Total	\$152,441,652	\$43,825,659	\$85,953,590	1,469

Source: Iowa IMPLAN Input-Output Model

Table A14. Indirect Effect of Iowa Student Loan

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$1,320,894	\$108,318	\$343,242	9
Construction	\$1,731,796	\$693,641	\$796,410	19
Manufacturing	\$5,400,226	\$1,094,815	\$1,647,350	23
Transportation and Utilities	\$4,164,773	\$1,663,325	\$2,748,635	38
Wholesale and Retail Trade	\$2,472,424	\$1,082,186	\$1,869,789	32
Finance, Insurance and Real Estate	\$11,135,973	\$2,916,887	\$7,074,972	89
Professional Services	\$12,185,946	\$5,369,986	\$6,716,779	176
Other Services	\$2,591,375	\$865,358	\$1,206,948	55
Government	\$805,734	\$240,916	\$310,104	5
Total	\$41,809,136	\$14,035,430	\$22,714,232	445

Source: Iowa IMPLAN Input-Output Model

Table A15. Induced Effect of Iowa Student Loan

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$524,469	\$48,052	\$149,766	4
Construction	\$314,265	\$120,586	\$143,667	3
Manufacturing	\$4,207,731	\$740,236	\$1,190,286	16
Transportation and Utilities	\$1,976,817	\$611,673	\$1,214,459	12
Wholesale and Retail Trade	\$7,788,390	\$3,541,317	\$5,840,924	147
Finance, Insurance and Real Estate	\$5,513,518	\$1,386,905	\$3,256,643	42
Professional Services	\$10,857,836	\$5,222,140	\$6,235,087	161
Other Services	\$5,679,124	\$1,943,356	\$2,703,338	138
Government	\$6,125,813	\$194,661	\$4,584,213	4
Total	\$42,987,963	\$13,808,925	\$25,318,382	527

Source: Iowa IMPLAN Input-Output Model

Table A16. Economic Value of Iowa Student Loan

Sectors	Total Sales	Labor Income	Value Added to GDP	Jobs
Agriculture	\$2,057,211	\$184,618	\$580,670	15
Construction	\$2,046,061	\$814,225	\$940,078	22
Manufacturing	\$16,769,142	\$2,976,657	\$4,770,307	64
Transportation and Utilities	\$9,257,641	\$3,055,223	\$5,849,907	65
Wholesale and Retail Trade	\$30,711,112	\$13,957,893	\$23,034,114	577
Finance, Insurance and Real Estate	\$83,060,472	\$21,129,284	\$46,915,147	529
Professional Services	\$44,718,914	\$21,445,588	\$25,851,708	635
Other Services	\$21,622,424	\$7,263,065	\$10,143,410	519
Government	\$26,995,776	\$843,463	\$15,900,863	16
Total	\$237,238,751	\$71,670,014	\$133,986,205	2,442

Source: Iowa IMPLAN Input-Output Model

About the Research Team

Strategic Economics Group has been serving businesses and government in Iowa and the Midwest since 2001 as the region's only locally owned economic research consulting firm. In addition to both state and local governmental entities, our clients have included American Home Mortgage Corporation, Catholic Health Initiative, Chamber Alliance, Des Moines Area Community College, Federal Reserve Bank of Chicago, Greater Des Moines Partnership, Hubbell Realty, Iowa Area Development Group, Iowa Association for Business and Industry, Iowa Association of Electric Cooperatives, Iowa Farm Bureau Federation, Iowa Utility Association, Mediacom Communications, Mid-American Energy, OpportunityIowa, Principal Financial, Project Destiny, U.S. Small Business Administration, West Metro Regional Airport Authority.

Harvey Siegelman is the President and Senior Economic Analyst with Strategic Economics Group. Prior to forming this research-based consulting firm, Siegelman had served for twenty years as the State Economist of Iowa and an Adjunct professor of Economics at Drake University in Des Moines, Iowa. Harvey's specialty areas have included project management, development and strategic planning, state and local government finance and macroeconomic analysis.

Prior to his appointment as State Economist, he was a health planner/cost containment specialist, a labor market economist and an economics professor.

Daniel Otto is a Senior Economic Analyst with Strategic Economic Group and Professor of Economics at Iowa State University in Ames, Iowa. Otto's specialty areas have included community and rural economic development, economic impact analysis, and government finance economics.

His recent activities have included economic development workshops, analysis of community facilities and services, income and employment, economic impact studies, and workshops on public policy issues for rural areas. He has also worked with developing data bases, economic forecasting, and input-output modeling activity.