

The Economic Impact of Sacred Heart Academy on Greater Louisville

Sacred Heart  Academy



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SACRED HEART ACADEMY ECONOMIC IMPACT EXECUTIVE SUMMARY

- \$16.5 Million – The total Sacred Heart Economic Impact.
- \$9.1 Million - That's the increased earnings that the class of 2003 will contribute to the Kentuckiana region over their working lives.
- \$7.4 Million – That's what Sacred Heart alumnae will contribute in increased earnings during 2003 to the Greater Louisville Area.
- \$304,000 – That's what a 2003 graduate of Sacred Heart Academy can expect to earn in her life beyond the average young woman who graduated from another area high school.

SACRED HEART ACADEMY

Sacred Heart Academy, an Ursuline Campus School, is a Catholic, college preparatory, girls' high school. Faithful to the mission of the Ursuline Sisters, Sacred Heart Academy educates the whole person by fostering Christian values, personal integrity, and responsible leadership in a supportive learning community committed to academic excellence.

SHA was founded in 1877 by the Ursuline Sisters of Louisville, and is located on the beautiful, park-like 48-acre Ursuline Campus. Current enrollment is 805. The 2003 graduation class numbered 177. Ninety nine percent of SHA students go on to higher education, and are accepted annually by scores of colleges and universities.

THE ECONOMIC IMPACT OF SACRED HEART ACADEMY

College pays and so does the right high school. The Sacred Heart Advantage is its' superior education. This is the source of the Sacred Heart economic impact on Kentuckiana -the higher lifetime earnings of its graduates. Because of their superior education Sacred Heart graduates perform better in college, better in professional school and better in their careers. This makes a contribution to earnings in Greater Louisville that you can count on.

Here are the numbers:

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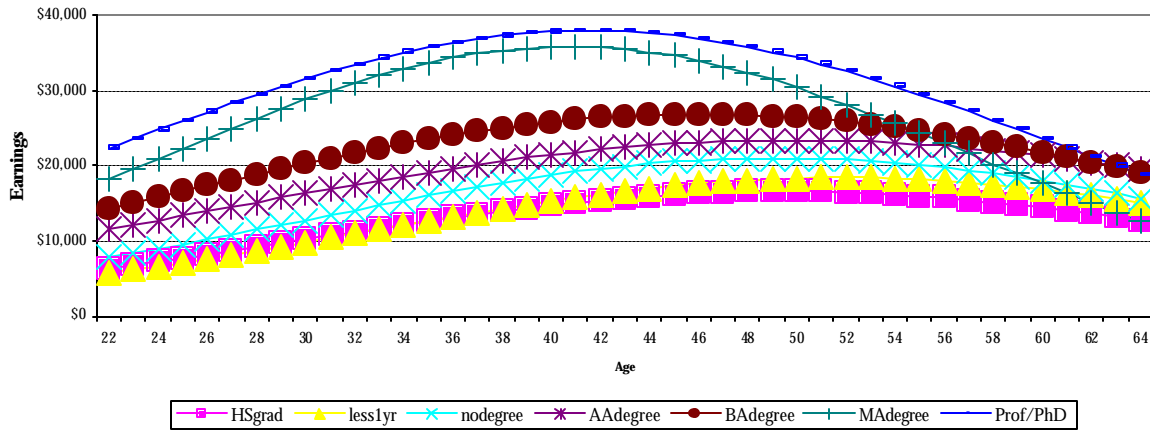
BENEFITS OF A COLLEGE EDUCATION

It is well established that the average college graduate has higher lifetime earnings than does the average high school graduate. The worth of a college education is the difference between these two earnings levels. Average earnings for individuals vary based on age, gender, race, education and experience. Additionally expected lifetime earnings vary by the decision to work at each age, the probability of surviving, the growth in wages and the rate of interest.

Exhibit 1 shows the patterns of earnings for females in the Greater Louisville area by education level and years of experience. The graph shows that average earnings increase with education.

Exhibit 1

Earnings Profiles for Females



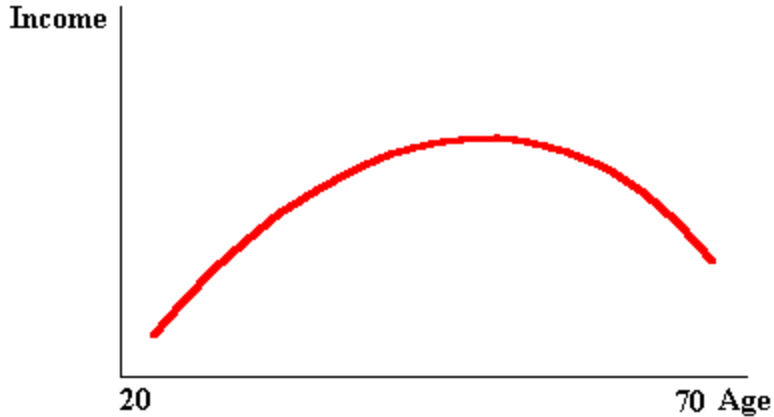
Source: Barry Kornstein. “The Impact of Higher Education on the Expected Work-Life Earnings of Louisville Area Workers.” July 8, 2003. A research report for Kentuckiana Works.

PREDICTING THE FUTURE FROM THE PRESENT

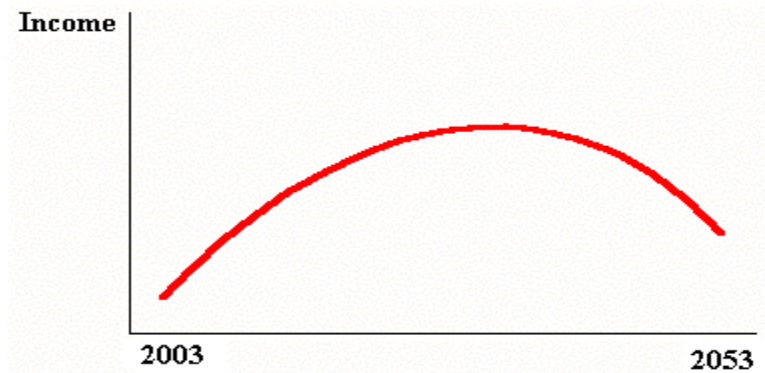
The relationships between age and income, which were true for 2003, were used to estimate expected income for the future. People who were twenty years old in 2003 received incomes, which were at the lower range of the distribution. They can, of course, expect their future income to follow the general pattern shown in the age-income curves above. Thus, the age-income relationships, which were true in 2003, can be used, with adjustments for changing conditions, to project their future earnings. These conditions, which include productivity growth, inflation, mortality, Greater Louisville residence, labor force participation, and present value, are explained below. Exhibit 2 illustrates how current age-income relationships are used to project future earnings.

Exhibit 2
Projecting Future Earnings from Current Patterns

Women's Income in 2003 Distributed by Age



Projected Life Income for a Woman who is 22 Years Old in 2003



Future income is adjusted for projected changes in productivity growth, mortality, inflation, participation in labor force, Greater Louisville residence, and present value.

Adjustment of Current Data for Changing Future Conditions

Growth in Wages. Average earnings increase as technological improvements make it possible for workers to accomplish more. Internet banking, for example, allows bank employees to process more transactions than was previously possible. To determine the growth in wages, the average growth in wages per full-time equivalent employee from 1965 to 2002 was used. This data comes from the U.S. Bureau of Labor Statistics. The average wage growth rate for this period was 4.97 % per year.

Interest Rate. Money that people expect to earn thirty years from now is not as valuable to them as money earned now. To make incomes from different periods of life more equivalent, interest rates are used to discount future earnings. The interest rate chosen is the average rate on a 3-month U.S. Treasury bill for the years 1965 to 2002. That rate is 6.25 %.

Survival Rates. The longer that individuals live, the greater will be their returns from education. Survival rates were estimated from U.S. National Center for Health Statistics 2002 data.

Work Probabilities. Not all adults are working for pay at any particular time. The income figures were derived from the 1999 Current Population Survey of the U.S. Bureau of the Census. These incomes are an average of individuals who worked full time, who worked part time, and who did not work at all.

Greater Louisville Residence. The benefits of a Sacred Heart education will accrue to Greater Louisville from those students who remain in the region. Not all current students will continue to live and work in the area. Current surveys of Sacred Heart alumnae were used to estimate that 25% of the 2003 Sacred Heart graduates will leave Greater Louisville and take the benefits of their education to other regions. This percent has been subtracted from the total long-term impact of Sacred Heart.

Present Values. The value in current dollars of a bachelor’s degree is the total of the increased earnings for each year of work thereafter. These earnings are adjusted for the probability of working, the probability of surviving, probability of Greater Louisville residence, and the growth of wages due to productivity increases and discounted by the interest rate. This sum is the present value of a bachelor’s degree.

THE IMPACT OF THE CLASS OF 2003

The Class of 2003 can be expected to make a \$9.1 Million lifetime contribution to earnings in the Louisville Region. This is because they will go to college and enter the professions at a higher rate than the average high school graduate. Exhibit 3 explains how the lifetime contribution was estimated.

Exhibit 3
THE CLASS OF 2003 IMPACT

Benefit of a College Education		SHA Graduates in 2003		SHA College Graduation Advantage		Share of Graduates Staying In Area		SHA Share of College Benefit		Total Impact of 2003 Class
\$304,194	x	177	x	45%	x	75%	x	50%	=	\$9,085,895

Explanation of Data

Benefits of a College Education. An 18 year old woman in Louisville who finishes college can expect to earn \$304,000 more over life than if she stopped with high school.

This value is based on the following assumptions about the highest degree earned: 70% of the college graduates will not earn a higher degree. 25% will ultimately earn a master's degree and 5% will attain a PhD or professional degree. Exhibit 4 explains these calculations.

Exhibit 4
THE BENEFIT OF A COLLEGE EDUCATION

THE INCREASED VALUE OF HIGHER EDUCATION TO 18 YEAR OLD FEMALES IN GREATER LOUISVILLE

Highest Degree	Share of College Graduates Earning Degree	Earnings Advantage	Weighted Average D = B x C
A	B	C	D
College	70%	\$ 247,287	\$ 173,101
Masters	25%	\$ 427,222	\$ 106,806
PhD or Professional	5%	\$ 485,755	\$ 24,288
Expected Increased Earnings			\$ 304,194

SHA College Graduation Advantage. Sacred Heart graduates attend college and earn bachelor's degrees at higher rates than do the average women in the Greater Louisville Area. Based on average ACT scores it is estimated that 75% of the Sacred Heart class of 2003 will earn a bachelor's degree within six years. This compares to 30% for the average area young woman who graduated from high school this year. Thus the Sacred Heart College Graduation Advantage is 45%.

Share of Graduates Staying In Area. Current data on Sacred Heart alumnae were used to estimate that 25% of the 2003 Sacred Heart graduates will leave Greater Louisville and take the benefits of their education to other regions.

SHA Share of College Benefit. That SHA graduates perform better than others is indisputable. That SHA itself is solely responsible for their success is doubtful. We assume that the Academy itself is responsible for 50% of the difference between the performance of the average high school graduate and SHA graduates.

THE IMPACT OF PREVIOUS ALUMNAE IN 2003

This year SHA alumnae made a \$7.4 Million contribution to earnings. This is because the SHA graduate earns more than the average woman in the region. Because of their superior SHA education they are receiving higher earnings than the average woman in their age group. Exhibit 5 shows how the economic impact of current alumnae is estimated.

Exhibit 5
THE IMPACT OF SHA ALUMNAE IN 2003

Graduation Year	College Earnings Premium	x	Graduates in Area	x	College Graduation Advantage	x	SHA Share of College Premium	x	Employment Rate	=	Impact
1990-99	\$ 11,850		1,250		38%		50%		92%		\$2,589,225
1980-89	\$ 13,450		1,218		35%		50%		80%		\$2,293,494
1970-79	\$ 12,350		889		35%		50%		81%		\$1,556,295
1960-69	\$ 9,350		831		32%		50%		75%		\$932,382
Total			4,188								\$7,371,396

Explanation of Data

Graduation Year – 1999 is used as the end of the last decade for local alumni. This allows time for the class of 1999 to have graduated from college.

College Graduate Premium. This is the difference between average annual earnings for women in Greater Louisville based on their level of education. The values are taken from the Kornstein report.

Graduates in Area – The number of graduates remaining in the area is based on data from the SHA alumnae office.

College Graduation Advantage – College graduation rates have risen over the last forty years. Different rates are used for each decade of SHA alumnae.

SHA share of College Premium – It is assumed that the Academy itself is responsible for 50% of the difference between the performance of the average high school graduate and SHA graduates.

Employment Rate. The percentages of college-educated women who are working in each age group are based on figures from the US Bureau of Labor Statistics.

CONCLUSION

Stop the nurse in Baptist East, the attorney on Main Street, or the CPA at the accounting firm. Ask them where they went to high school. Sacred Heart, of course. And does that education make a difference? You bet! A \$304,000 difference. That's the difference between a Sacred Heart graduate who finished college and other high school grads that got bachelor's degrees.

\$16.5 Million is the total Economic Impact of Sacred Heart on Greater Louisville. There is \$7.4 Million more that the past alumnae contributed in extra earnings in 2003. There is also \$9.1 million in extra earnings that this years' graduating class can expect to contribute over their lives. We can say with Sacred Heart that "you gotta have heart."

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