

# **COLLEGE DEBT IS INCREASING AND AFFECTING STUDENTS' CHOICES IN AN ENVIRONMENT WHERE ENROLLMENT IS DECREASING.**

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## **ABSTRACT**

College debt is rising and affecting the ability of students to finance their college education. This is occurring in an environment of decreasing post-secondary FTE enrollment. Post-secondary institutions are struggling to meet their revenue and enrollment goals. This is a result of demographic and population shifts.

This paper examines the significance of average student debt and net price in the enrollment choices students are making. This paper focuses on 10 cross application schools in Iowa and Minnesota coupled with general data on FTE enrollment and student debt in Iowa.

## **INTRODUCTION**

Enrollment, the lifeblood of colleges, has been the subject of a steady stream of research briefs in the last decade. Higher education is facing challenges emanating from the reduced number of students enrolling into post-secondary institutions. New data from the National Student Clearinghouse Research Center provided a final tally of the enrollment decline higher education saw during the spring term of 2021. Total college enrollment fell 3.5 percent from a year earlier, a shortfall of 603,000 students. This is seven times worse than the decline a year earlier. There is a persistent sentiment about the impending collapse of higher education. The presence of Covid-19 has only magnified this sentiment.

Why is there pessimism around higher education? The pandemic is playing a role, but this sentiment has existed for a while, and is centered around the impending demographic change. The current state of market population trends, market variables and financial factors affecting the number of students enrolled in colleges and universities in the Midwest will be discussed in this paper.

## MACRO POPULATION TRENDS

Population and demographic trends are important largely because they determine the potential number of students available in post-secondary enrollment pools as well as each student's propensity to attend a higher education institution.

The US Birthrate is at an all-time low. Headlines on The Chronicle for Higher Education like "A Historic Decline in U.S. Births Signals More Enrollment Troubles" infer that this demographic change is a concern in higher education. A "birth dearth" caused in large part by the 2008 recession is estimated to negatively impact the student enrollment pool by 2026. This is an area of concern for most institutions. A smaller enrollment pool potentially intensifies competition and decreases general enrollment within various higher education markets.

Within this overall birthrate decline are varying birthrates amongst racial/ethnic groups coupled with migration and immigration. These three factors will alter the college-aged population along the dimensions of geography and race/ethnicity. The correlation between race/ethnicity and college attendance is strong. Asian Americans and non-Hispanic whites are substantially more likely than non-Hispanic blacks and Hispanics to acquire some form of college education. Therefore, race/ethnicity becomes significant when analyzing the propensity of a high school graduate to attend college. This correlation is impacted by the strong relationship between race/ethnicity and economic income.

The Midwest and Northeast are projected to experience the largest decline in graduating class sizes. Furthermore, the number of non-Hispanic whites from these aforementioned regions who also possess the highest propensity to attend college will fall significantly.<sup>1</sup>

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<sup>1</sup> Grawe, Nathan D. Demographics and the Demand for Higher Education. Johns Hopkins University Press, 2018. Page 16-20.

## **MARKET VARIABLES**

Market variables consist of factors that affect general enrollment and retention across higher education and attribute to varying enrollment trends across individual institutions. These market variables include:

### **A. PROXIMITY**

Most students buy what they know, and what they know best (or believe they know best) typically is close to home.<sup>2</sup> In “Breakpoint”, Jon McGee discusses how the vast majority of new entering students who enroll at four-year colleges and universities travel fewer than 500 miles to attend school, and more than half travel less than 100 miles from bedroom to dorm room. Proximity is a key factor to where a student decides to enroll at.

### **B. PROGRAMS OF STUDY**

Higher education institutions offer different majors, concentrations, and pre-professional programs. Institutions with the ability to effectively respond to market demand potentially differentiate themselves by offering programs of study in demand and thus, positively affecting enrollment.

### **C. COST/AFFORDABILITY**

Price is probably one of the most significant factors to where a student decides to enroll at. First and foremost, students consider if post-secondary education even is a viable option based upon their perceptions of the costs and benefits of a post-secondary education. This is impacted by a student’s economic resources, willingness to pay for college or take a student loan. Pricing strategies amongst institutions differ. Private colleges and universities, in particular, publish “sticker” prices. Financial Aid in the form of grants/scholarships is offered to students which lowers this “sticker” price representing the true net cost of attendance. The implementation of financial aid varies across institutions. This results in students having variable options at a different range of prices. Institutions who are effective in offering net prices that students are willing and able to pay can attain a competitive edge against competitors.

Furthermore, net price impacts the amount of debt students will have to take to finance their post-secondary education. A higher net price means a student will possibly have to incur more debt which can result in them opting for an alternative.

### **D. REPUTATION/PRESTIGE**

The reputation of an institution or prestige attained to enrolling at an institution impacts consumer preferences as well as their willingness to pay a higher price or borrow more debt.

### **E. ECONOMIC**

The presence and growth of online education presents a cheaper alternative for consumers. Furthermore, Covid 19 has impacted most families financially resulting in them being less willing to opt for post-secondary education.

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<sup>2</sup> McGee, Jon. Breakpoint: The Changing Marketplace for Higher Education. Johns Hopkins University Press, 2015. Page 30.

## **STUDENT DEBT AND NET PRICE AS PREDICTORS FOR FTE ENROLLMENT**

Upon examining these market variables, I was interested to see if a relationship exists between student debt, net price, and FTE enrollment.

What role is the increasing college debt through higher college prices having on students' enrollment choices? Focus will be given to 10 cross application schools in Iowa and Minnesota coupled with general data on FTE enrollment and student debt in Iowa. The 10 cross application schools are:

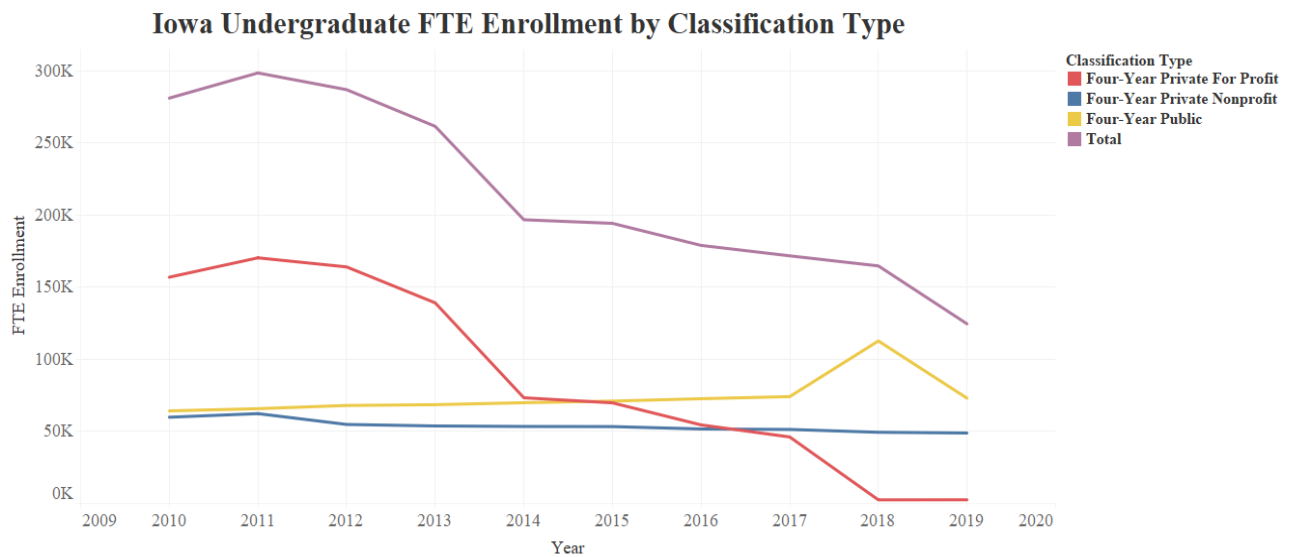
1. Luther College
2. Wartburg College
3. St. Olaf College
4. Drake University
5. Coe College
6. Gustavus Adolphus College
7. Concordia, Moorhead
8. Iowa State University
9. University of Iowa
10. Minnesota State, Mankato

It is clear that population trends signal towards a fall in enrollment particularly in the Midwest. This paper examines the change in FTE enrollment of four-year post-secondary institutions in Iowa from 2010-2019. Comparisons are made between private nonprofit, and public institutions.

## FTE ENROLLMENT

Iowa is currently experiencing a decline in FTE enrollment of students. From 2010-2019 the aggregate FTE undergraduate enrollment at all four-year institutions has decreased from 281,185 to 124,649 students. This is a staggering 55.67% decrease. The FTE undergraduate enrollment at Iowa's public universities during this period increased from 64,287 to 73,096 students or 13.70%. In contrast, Iowa's private nonprofit colleges and universities' FTE enrollment decreased from 59,892 to 48,925 students, representing an 18.31% decrease. Within this climate of decreasing aggregate FTE undergraduate enrollment at all four-year institutions, public institutions have continued to increase their enrollment levels, clearly indicating that they are winning the enrollment battle for new students.

Below is a graph showing the change in Iowa Undergraduate FTE enrollment by classification type.



Iowa FTE undergraduate enrollment for four-year public, four-year private nonprofit, and four-year private for-profit institutions. Source: National Center for Educational Statistics

Why are public institutions winning this enrollment battle? What are public institutions doing that private institutions are not?

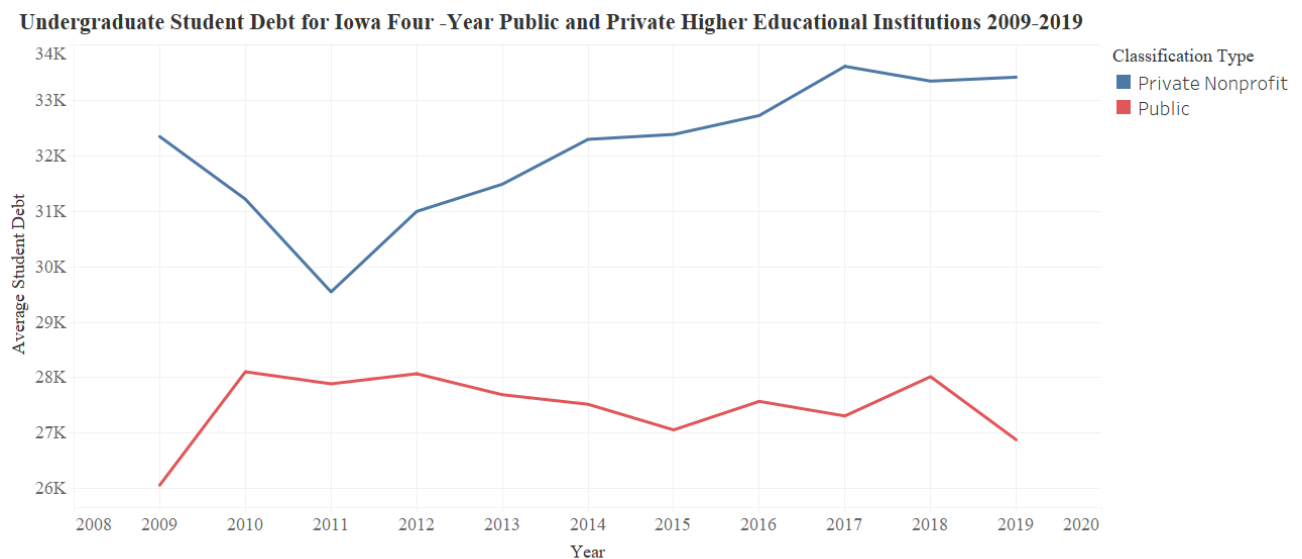
A comparison of the amount of student debt necessary to enroll at public and private institutions can explain why students are choosing to enroll at public institutions.

## STUDENT DEBT

“The basic facts about student borrowing seem straightforward and clear. Annual student borrowing has increased more or less consistently over the last decade, essentially doubling in total in real terms since the 2001-02 academic year”<sup>3</sup>

The average student debt of all institutions in Iowa increased from \$28,883 in 2008-09 to \$30,259 in 2018-19, representing a 4.76% increase. However, the average student debt of public institutions during this period is \$27,473 compared to \$32,124 at private, nonprofit institutions. In 2008-09, the average debt of students who graduated with debt at public and private institutions was \$26,006 and \$32,345, respectively. Through 2018-19, the gap slightly increased with average student debt increasing to \$26,883 and \$33,415, respectively. This represents a 3.37% debt increase for public institution graduates and a 3.31% debt increase for private institution graduates. Meaning in the last decade students have generally incurred more debt at private institutions compared to public institutions.

Below is a graph showing the comparison of total undergraduate student debt for Iowa public and private higher education institutions from 2009-2019.



Average debt of graduates who graduate with Federal reported debt as reported by The Institute for College Access and Success.

The broad result is that in Iowa the public universities generally have less student debt than private nonprofit institutions. However, when examining debt within private nonprofit institutions schools, there is a disparity in the average student debt.

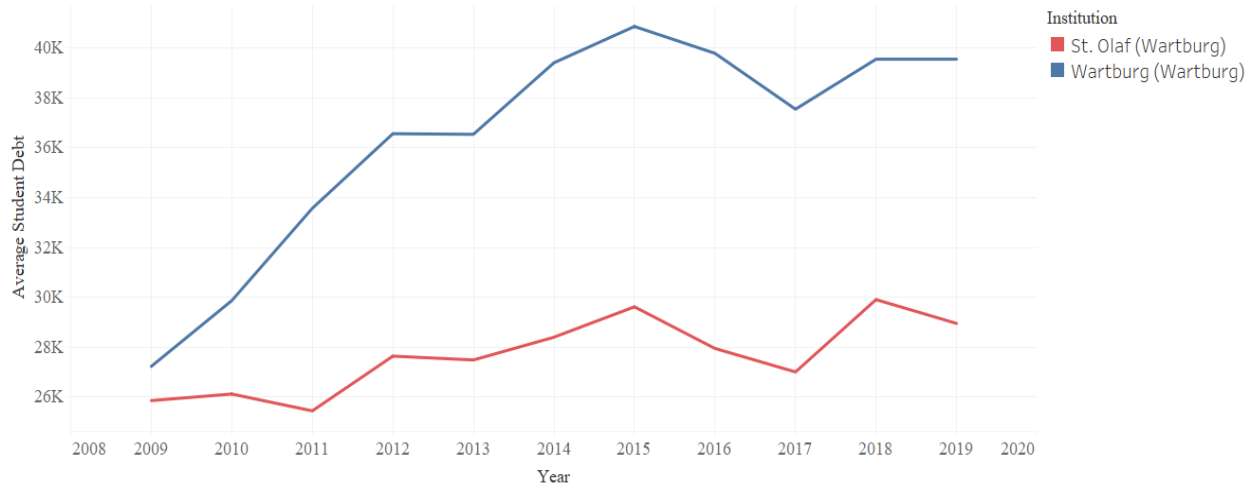
A comparison between St. Olaf College and Wartburg shows that average student debt from 2008-09-2018-19 at these institutions is \$36,411 and \$27,668, respectively. Overall, conveying St. Olaf as a more economic academic option for undergraduate students.

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<sup>3</sup> McGee, Jon. Breakpoint: The Changing Marketplace for Higher Education. Johns Hopkins University Press, 2015 Page 57.

Below is a graph showing the comparison of total undergraduate student debt for St. Olaf College and Wartburg College from 2009-2019.

**Average Undergraduate Student Debt For St. Olaf College and Wartburg College  
2009-2019**

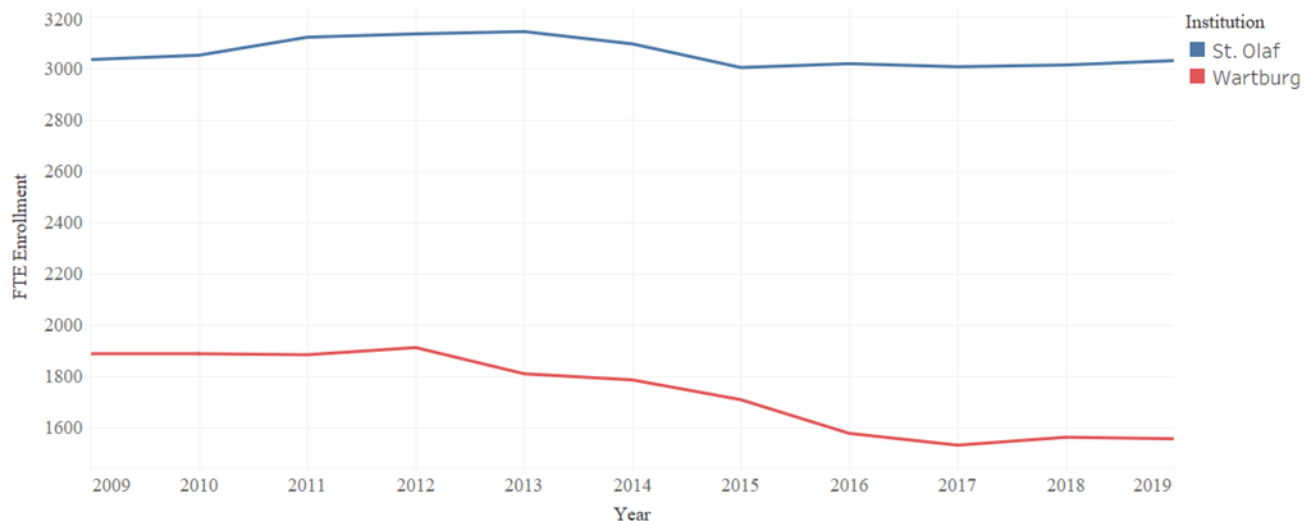


Average debt of graduates who graduate with federal reported debt for graduates in 2009-2019 as reported by The Institute for College Access and Success

St. Olaf on average requires \$8,743 less student debt than Wartburg. This conveys the fact that different private institutions require different levels of financing. To what extent does this impact the FTE enrollment trends at these institutions?

Below is a graph comparing the FTE Enrollment at St. Olaf College and Wartburg College from 2009-2019.

**A Comparison of Undergraduate FTE Enrollment at St. Olaf College and Wartburg College from  
2009-2019**



Source: National Center for Educational Statistics



It is evident FTE enrollment is declining at a faster rate at Wartburg College than it is at St. Olaf College. Student debt is potentially impacting consumers enrollment choices. Colleges like St. Olaf that are mitigating the rate of increasing student debt are putting themselves in a better position to be less susceptible to an enrollment decline.

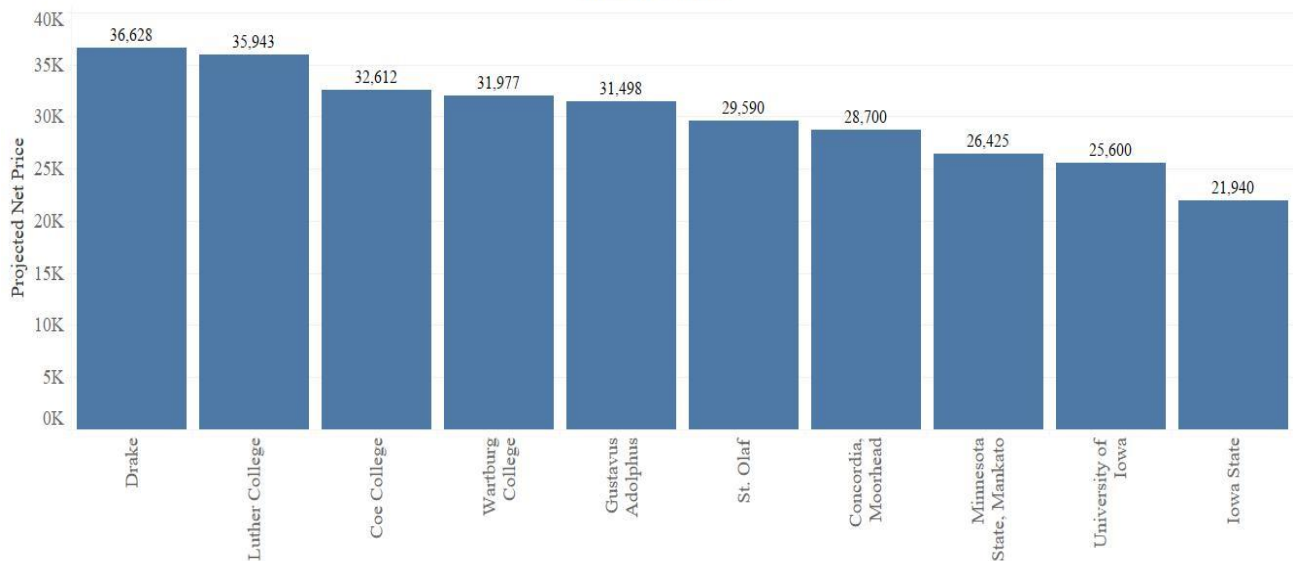
## STUDENT COST AND AFFORDABILITY

This study also considered net price after grant aid paid by students upon enrollment at a higher education institution. Net price contingent on family contribution becomes significant to the amount of debt a student has to take to enroll at a post-secondary institution. Net price data from the 10 colleges and universities aforementioned was gathered using the net price calculators on the schools' respective websites. Consistent assumptions for gender, income, family size, assets and other inputs were used to obtain these values. For each school, 12 scenarios were projected using four different academic profiles and three different family adjusted gross income levels.

Chiefly, the results show for Iowa residents, public institutions offer an apparent lower net price than most private institutions in each of the 12 scenarios. There are some limited exceptions, at St. Olaf for example, where private institutions are less costly due to net price being adjusted to cater for students with limited family economic resources. However, for Minnesota residents there is a considerable number of times when private institutions offer a lower net price. This is largely a result of two of the three schools considered in this study being Iowan, thus, Minnesota residents not benefiting from in-state grants.

Below is an example showing a scenario of an Iowa resident with an ACT score of 24 and an estimated family contribution of \$25,000.

**Net Price Attendance Calculation For a Student with a 24 ACT score and \$25,000 Estimated Expected Family Contribution, Iowa Resident**

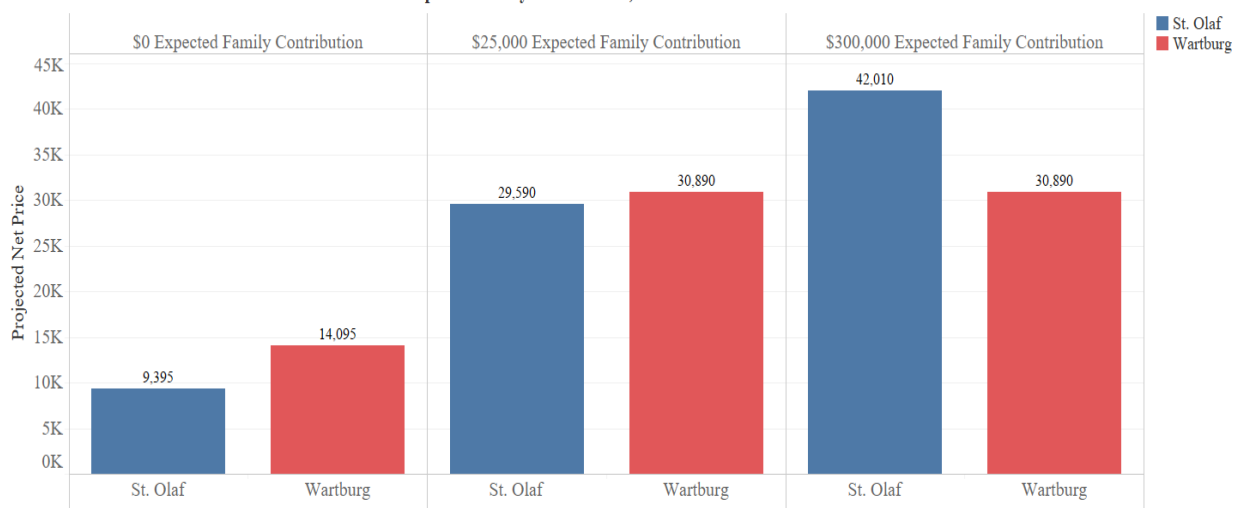


Source: Net Price Calculation using each Institution's Net Price Calculation for enrolling class in Fall 2021

Some institutions seem to be more receptive to varying estimated family contributions than others. A comparison between St. Olaf College and Wartburg College shows St. Olaf's ability to adjust its net price to estimated family contribution relative to Wartburg, where net price is relatively constant.

Below are examples showing a series of scenarios of Iowa residents with an ACT of 27 and an estimated family contribution of \$0, \$25,000, and \$300,000. A comparison of the projected net price of attendance at St. Olaf and Wartburg College at each income level is made.

A Comparison of Net Price of Attendance Calculation at St. Olaf College and Wartburg College for a Student with a 27 ACT score and varying Estimated Expected Family Contribution, Iowa Resident



Source: Net Price Calculation using each institution's Net Price Calculator for enrolling class in Fall 2021

This comparison between St. Olaf and Wartburg shows that St. Olaf has a more flexible net price contingent on estimated family contribution. This is possibly why it has a lower average student debt. A student with a 27 ACT score and \$0 expected family contribution, with the highest propensity to take out a student loan, pays \$9,395 at St. Olaf compared to \$14,095 at Wartburg; this is possibly \$4700 more debt that the student will have to loan to attend Wartburg. This is the subset of students who are more elastic to price thus price plays a more significant role in where they decide to enroll at. This can be a reason why enrollment is decreasing at a faster rate at Wartburg compared to St. Olaf.

In contrast, St. Olaf is more expensive for students with a higher family contribution. A student with a 27 ACT score and \$0 expected family contribution, pays \$42,010 at St. Olaf compared to \$30,890 at Wartburg. However, this subset of students is the least elastic to price and furthermore the least likely to take out a student loan. The market variables that impact these students choices are probably less centered around price.

## **CONCLUSION**

College debt is rising, and therefore affecting the ability of prospective students to finance their college education. Cost is becoming an increasingly important consideration for students and families. In Iowa, it is evident that public institutions are winning the battle for new students. Public institutions require less student debt and are generally less expensive. These economic factors are clearly influencing the enrollment choices students are making.

A comparison between St. Olaf College and Warburg College showed that St. Olaf College has a lower average student debt and a more flexible net price contingent on estimated family contribution. Similar to how public institutions have become favorable to students, these factors could potentially be why St. Olaf College is a more favorable 'choice' for students and thus not experiencing a significant enrollment decline.

Colleges must be careful not to increase their net prices and expect students to pay them through debt. Colleges are already encountering enrollment challenges due to population and demographic shifts. These challenges are only expected to intensify. Cost competition will increase and colleges who do not appropriately react to this will encounter enrollment issues. This is why public institutions are winning the enrollment battle for new students in Iowa.

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## SOURCES FOR DATA

1. Data on higher education enrollment is provided by the National Center for Education Statistics.
2. Data on student debt is from The Institute for College Access and Success. Most college-level data are taken directly from U.S. Department of Education sources and the Common Data Set (CDS).