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RESPONDING TO COVID-19 IN HIGHER EDUCATION: LESSONS LEARNED FROM THE 2008 FINANCIAL CRISIS

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Abstract

In light of the COVID-19 pandemic, leaders in higher education are busy developing strategic plans to guide their institutions through economic turmoil. One approach to finding a blueprint for success is through analysis of university advancement in the decade following the 2008 financial crisis. This project seeks to learn which of the largest public American universities saw the greatest growth and prosperity from 2008-2018 and what factors fostered this success. Using six metrics to measure objective advancement, 12 universities separated themselves as achieving the greatest progress during this period. Among the most important factors that correlated with success were population growth in surrounding areas, increases in state funding, stable institutional leadership, and absolute cost of tuition.

Introduction

The global financial crisis occurring from 2007-2008 characterized by high unemployment rates, devastating stock market drops, and severe economic downturn affected American industries and organizations in unprecedented ways. Higher education was no exception, and administrators of colleges and university needed to strategically plan for growth amidst a recession. Although with added complications, the COVID-19 pandemic has caused similar financial burden to the United States economy and again requires responses from leaders in higher education to guide their institutions to prosperity. American universities experienced varying levels of success and growth in the decade following the 2008 financial crisis. Analysis of two different types of determinants may yield insight into how universities performed from 2008-2018: environmental factors influenced my geographic proximity and institutional leadership providing stability and enacting strategic policy.

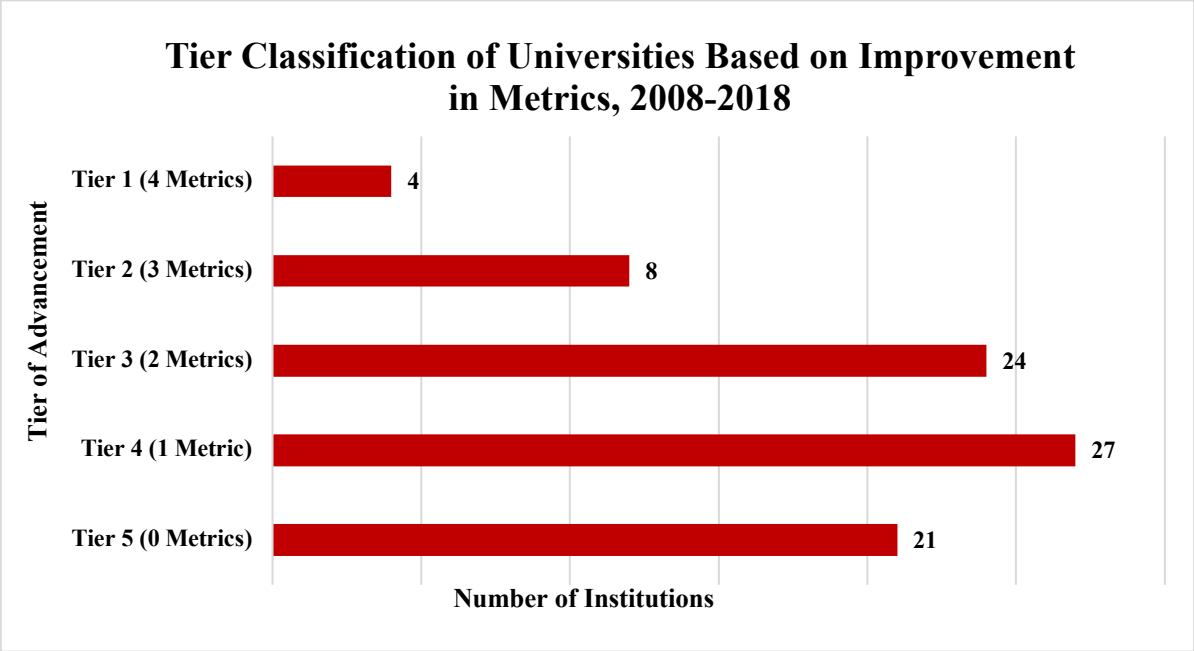
Methods

In order to eliminate potential confounding factors, the population of universities for this study consisted of public, R1 research universities offering both undergraduate and graduate degrees (n=84), peer institutions to the University of Utah. To objectively measure growth and success from 2008-2018, six metrics were considered for each institution based on data available from The Integrated Postsecondary Education Data System (IPEDS) and Center for Measuring University Performance (MUP): doctoral degrees granted, annual giving by donors, faculty awards, six-year graduation rate, faculty membership in the National Academy of the Sciences, and grants awarded. Each university was evaluated on its improvement from 2008-2018, with recognition being awarded to universities who were among the top 20 movers in any of the six metrics measured. Using this evaluation, all 84 schools were able to be assorted into different tiers of advancement from 2008-2018 based on the number of metrics in which they were a top 20 mover. This assessment naturally created 5 different tiers of advancement based on the

number of metrics improved. Through this evaluation, 12 universities separated themselves as seeing the greatest advancement by improving in either 3 or 4 metrics of success.

Figure 1. Evaluation of University Advancement, 2008-2018

A)



B)

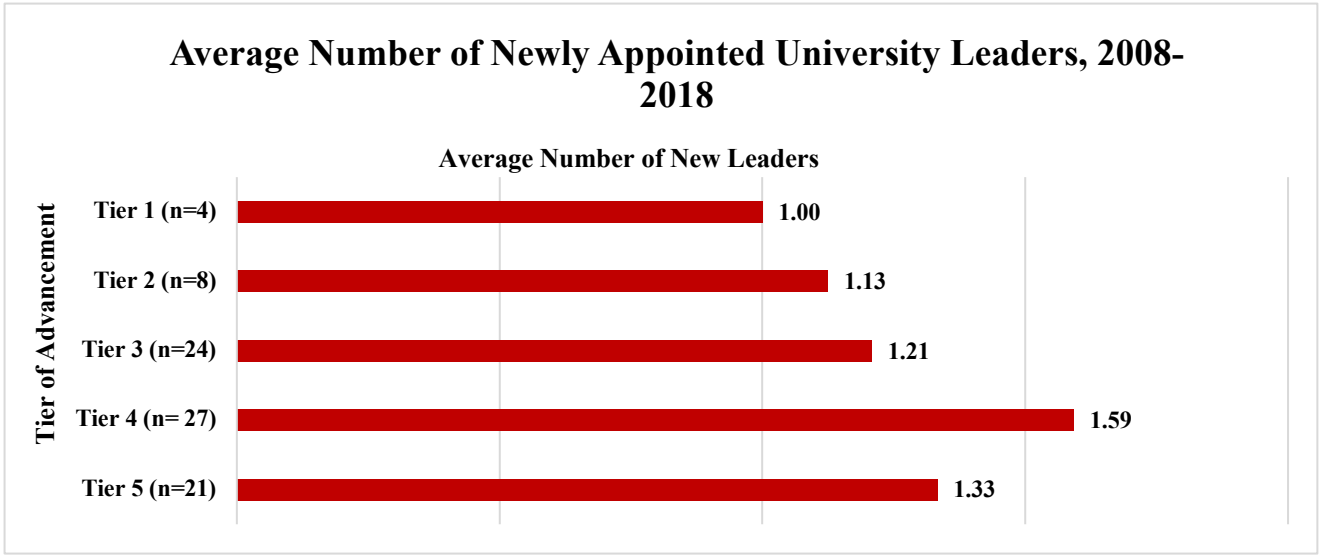
Tier 1 (4 Metrics Improved)	Tier 2 (3 Metrics Improved)	
Florida International University	Georgia Institute of Technology-Main Campus	University of Arkansas
The University of Texas at Arlington	North Carolina State University at Raleigh	University of California-Riverside
The University of Texas at Dallas	Ohio State University-Main Campus	University of Mississippi
University of Utah	Oregon State University	University of South Florida-Main Campus

Figure 1. A) Based on the number of metrics improved, institutions were categorized into 5 tiers with B) 12 universities distinguishing themselves as seeing the greatest improvement from 2008-2018 by advancing in 3 or 4 metrics.

Results

Figure 2. Changes in Institutional Leadership, 2008-2018

A)



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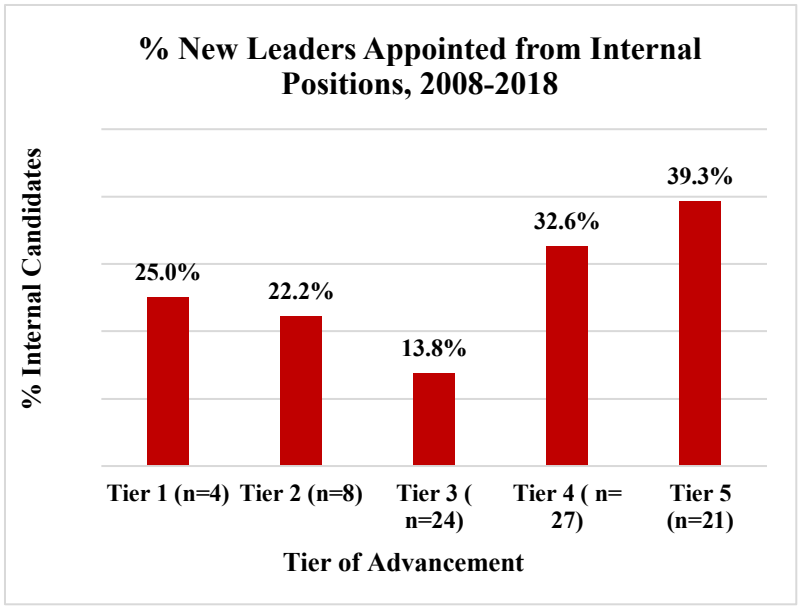

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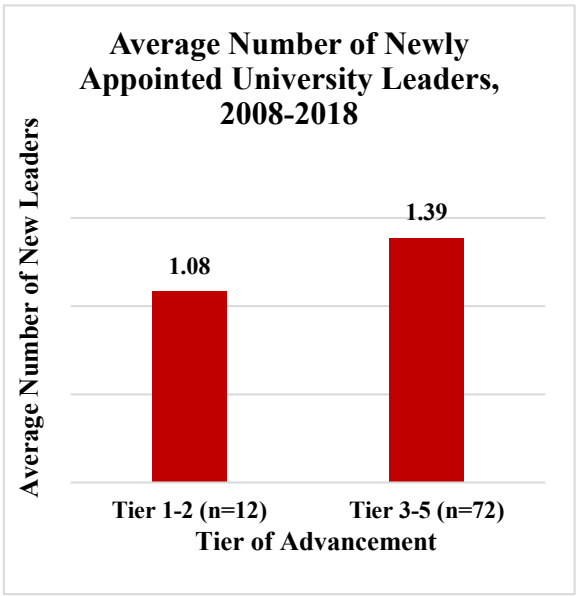
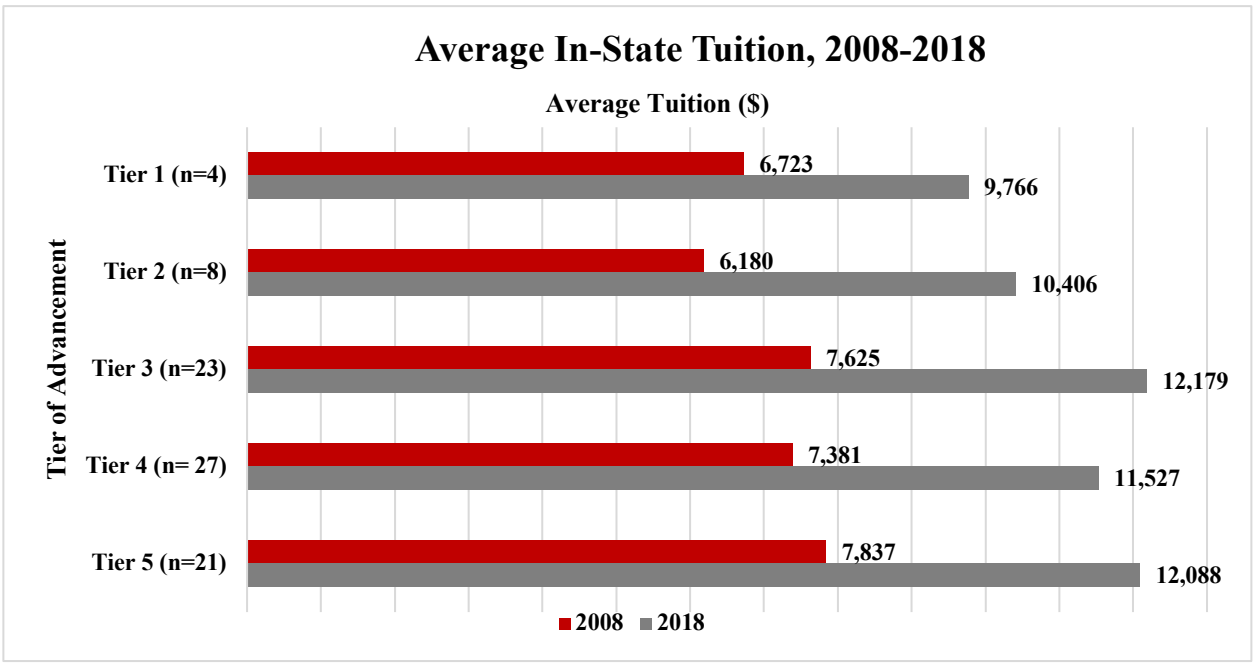


Figure 2. A) A trend shows that institutions in higher tiers of advancement generally had fewer leadership changes, with presidents or chancellors typically serving longer terms. B) However, there was no correlation with tier advancement and whether or not new leaders who were appointed came from an existing role in the university. C) Overall, the top 12 institutions showed fewer leadership changes on average compared to the remaining 72 universities, although not quite reaching statistical significance. Data represents the number of new presidents or chancellors appointed from 2008-2018. All information pulled from institutional public records.

Figure 3. Tuition and Tuition Increases, 2008-2018

A)



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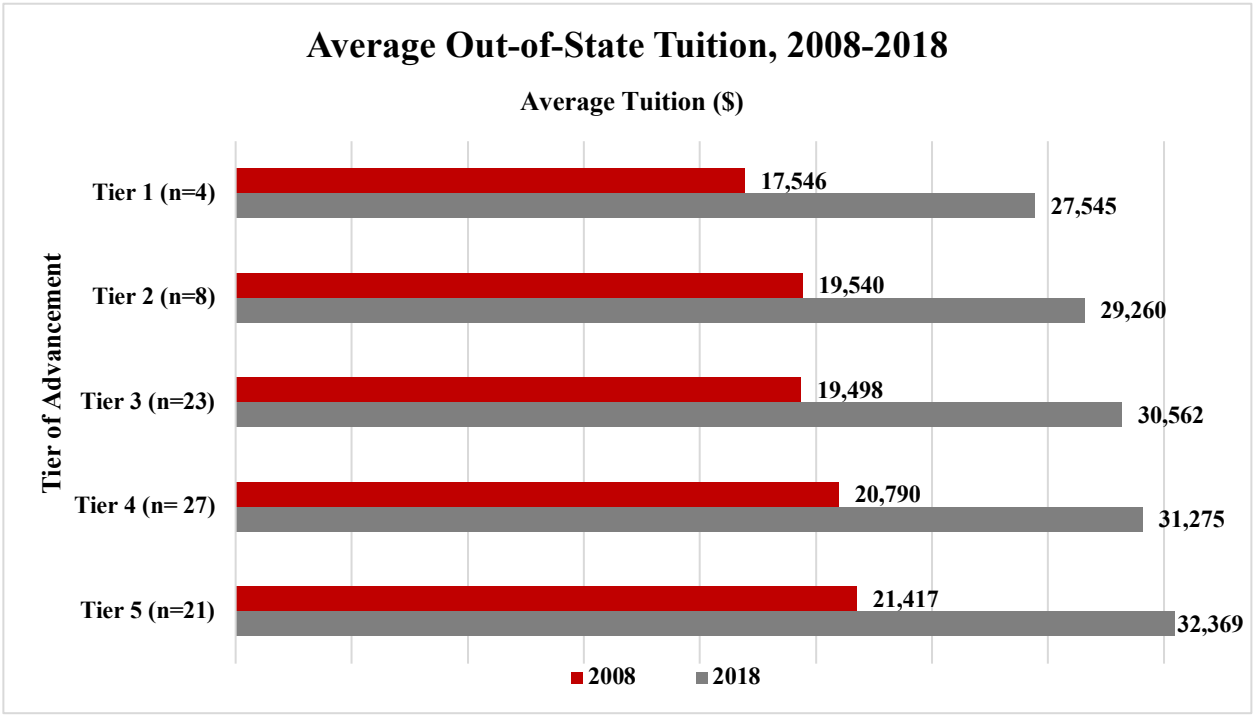

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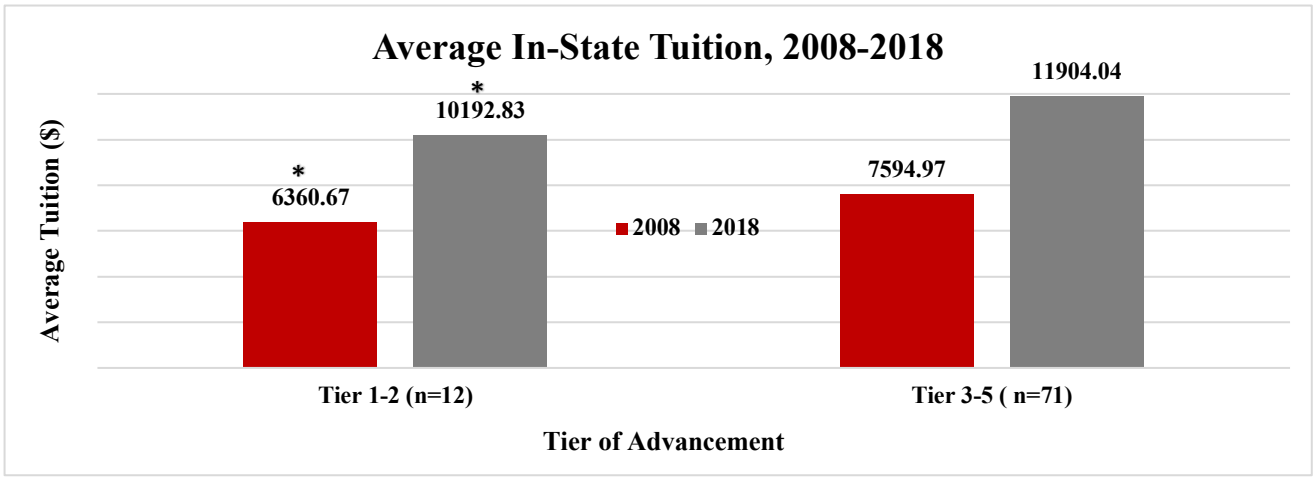
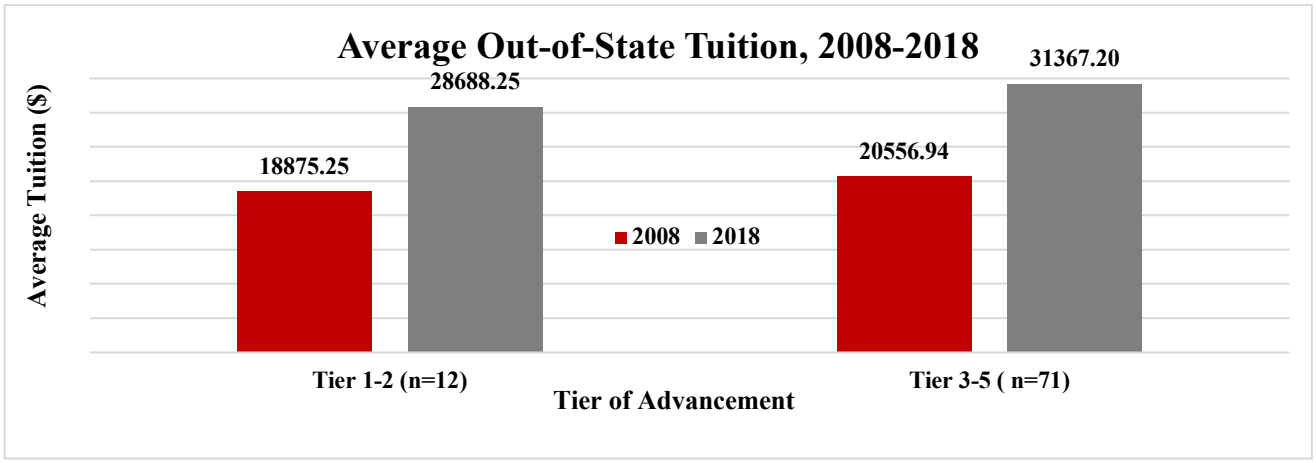


D)



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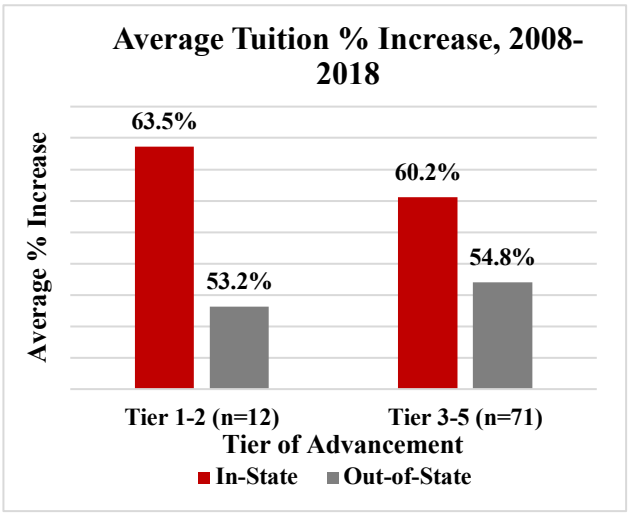

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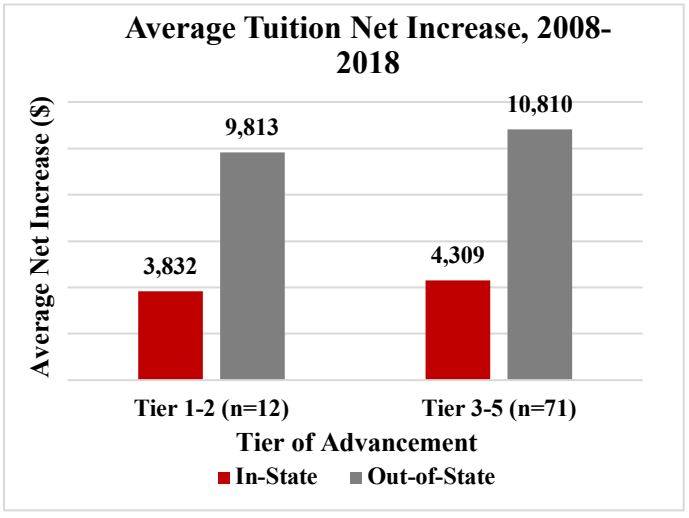
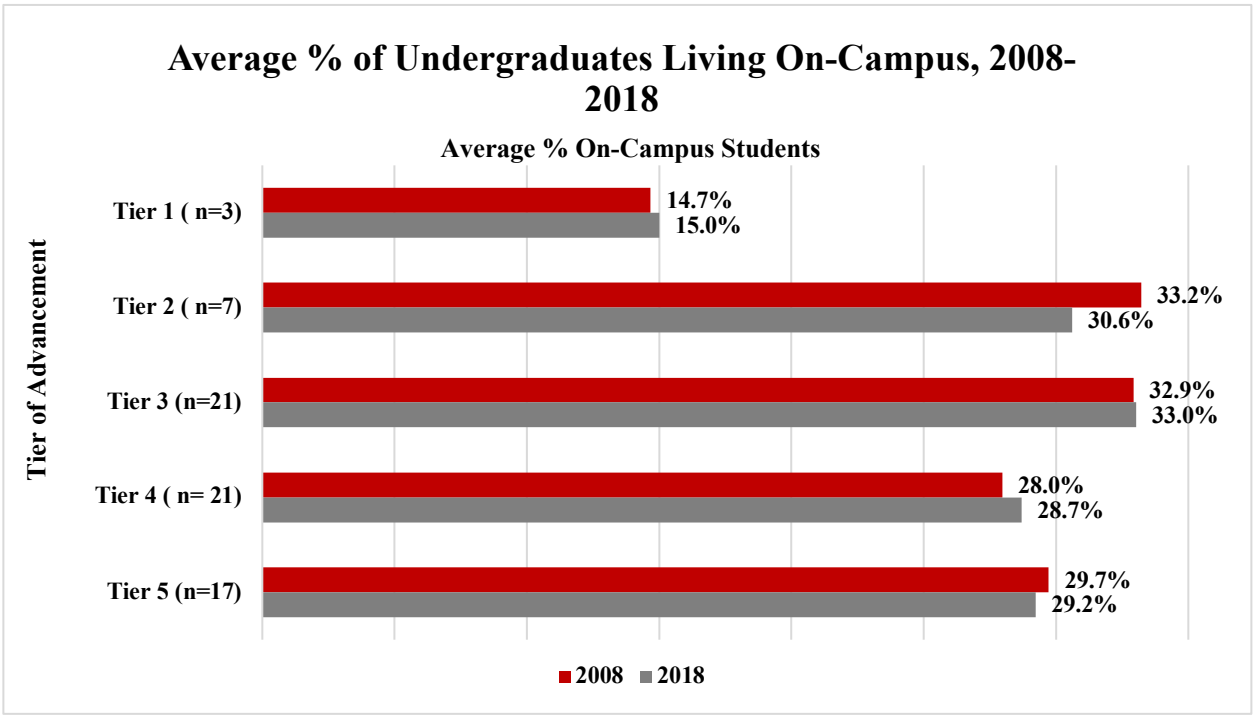


Figure 3. In both 2008 and 2018, institutions in higher tiers of advancement generally had lower absolute tuition costs in both A) In-state and B) Out-of-State Tuition. By comparison, the top 12 institutions had significantly lower ($p<.05$) absolute tuition costs for C) In-State Tuition in both 2008 and 2018, but not D) Out-of-State tuition compared to the remaining universities. However, the rate at which universities increased tuition from 2008 to 2018 had no correlation with tier of advancement for both E) percentage increase and F) total net increase. All data are means compiled from publicly available data from the Chronicle of Higher Education.

Figure 4. On-Campus Population Changes, 2008-2018

A)



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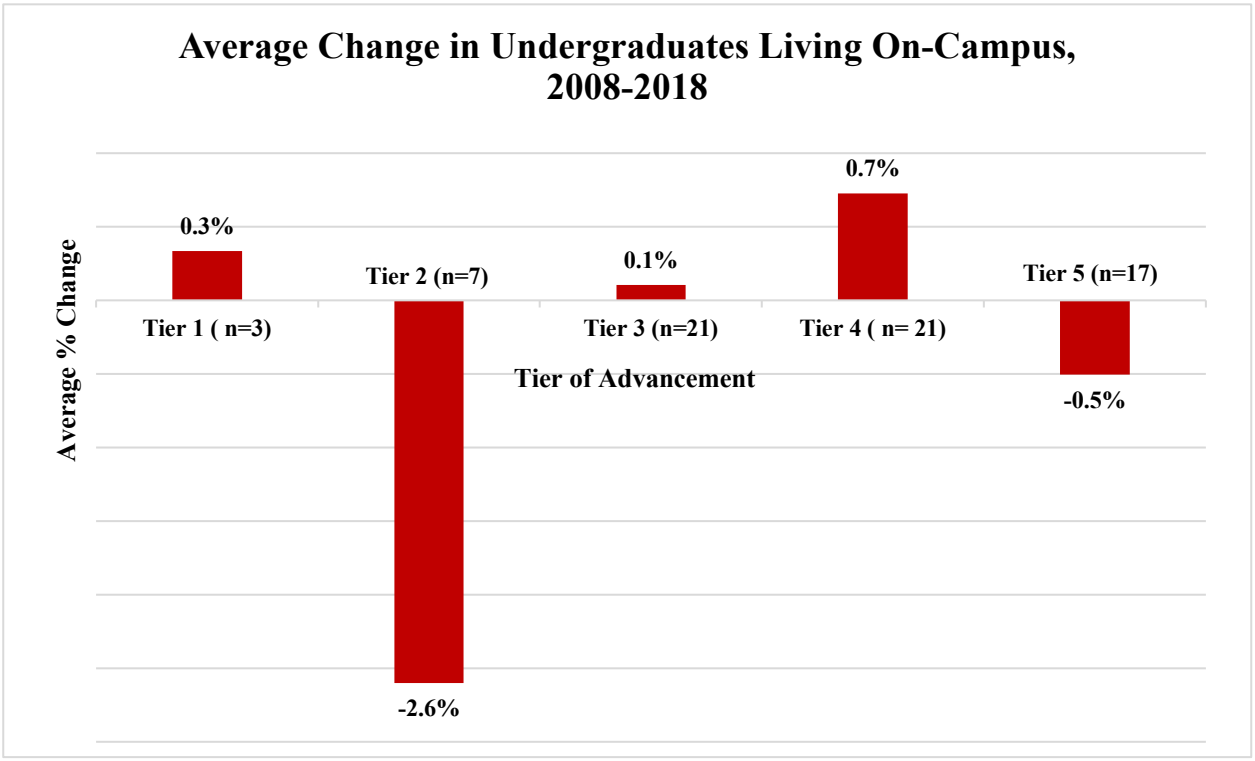
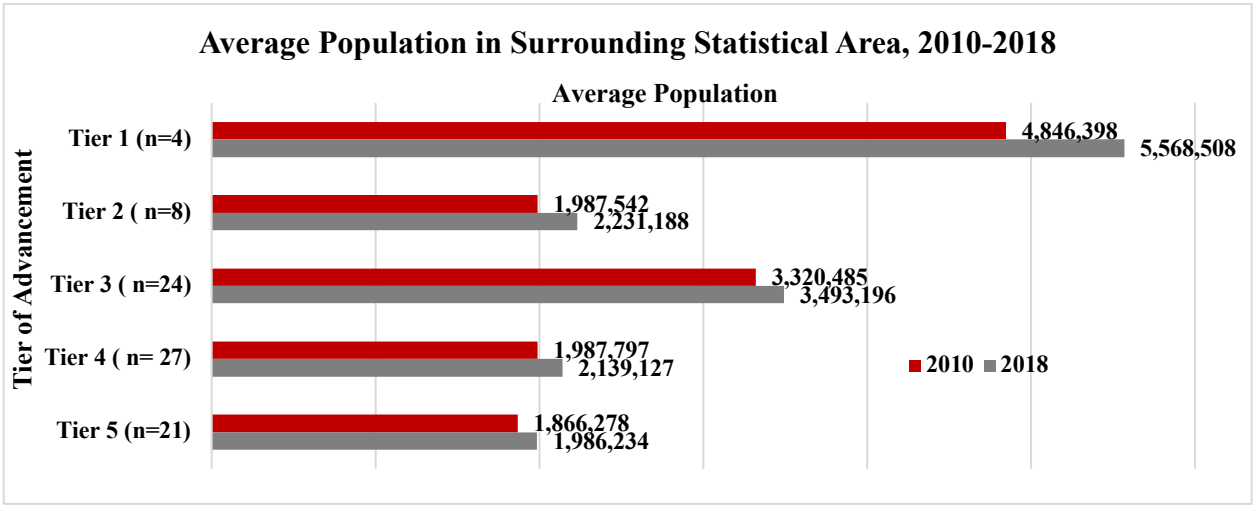


Figure 4. A) Although Tier 1 institutions were characterized by a smaller portion of undergraduate students living on-campus, the sample size was too small to draw any conclusions. Overall, there were no trends in on-campus living or B) changes in on-campus living from 2008-2018. All data are means compiled from reported Common Data Sets.

Figure 5. Growth in Micro/Metropolitan Statistical Areas, 2008-2018

A)



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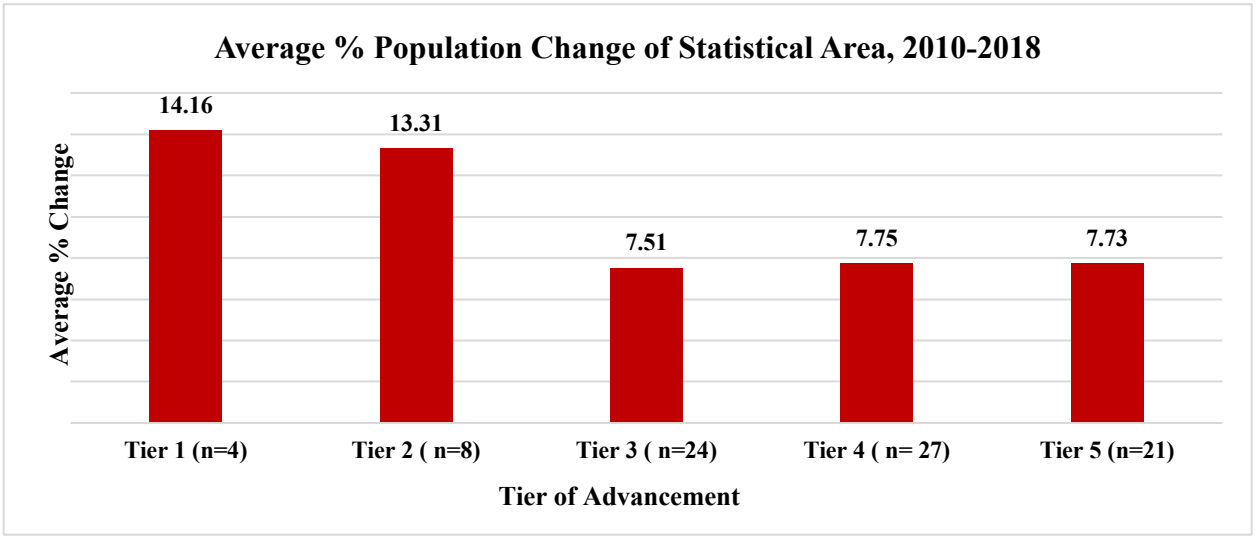

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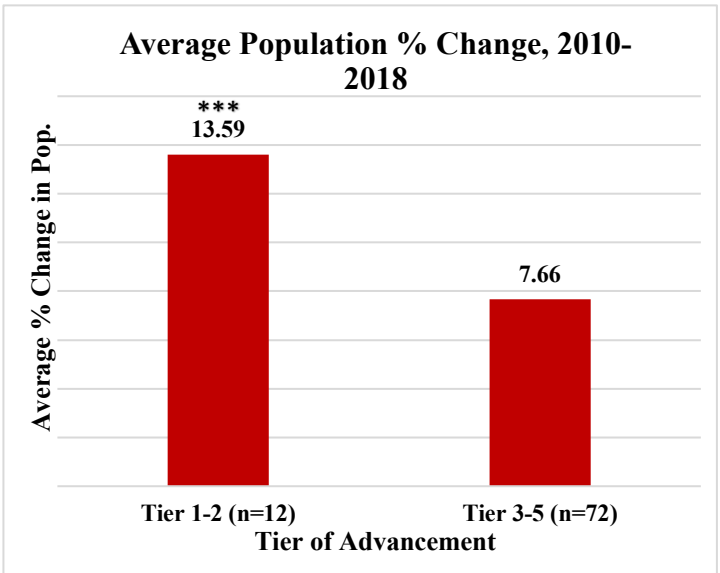
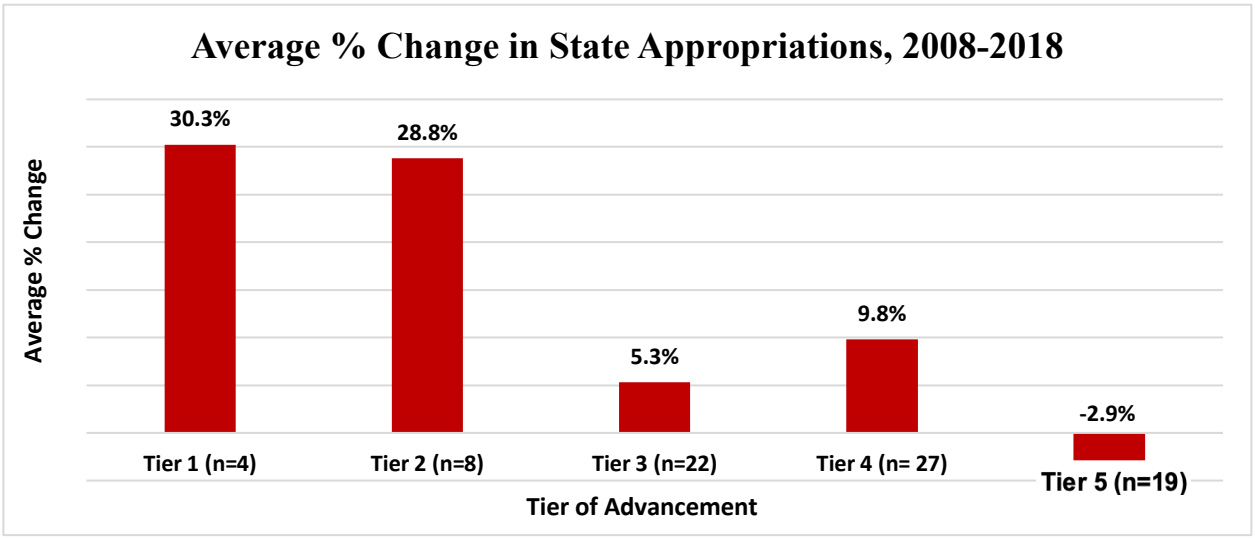


Figure 5. A) There was no general trend between population size of surrounding statistical area and tier of advancement. B) However, there is a clear distinction between population growth between 2010-2018 in areas around universities in the top 2 tiers compared to the remaining institutions and in fact C) there was significantly greater population growth ($p<.001$) in these areas around the top 12 universities. All data are means compiled from the United State Census Bureau.

Figure 6. State Funding, 2008-2018

A)



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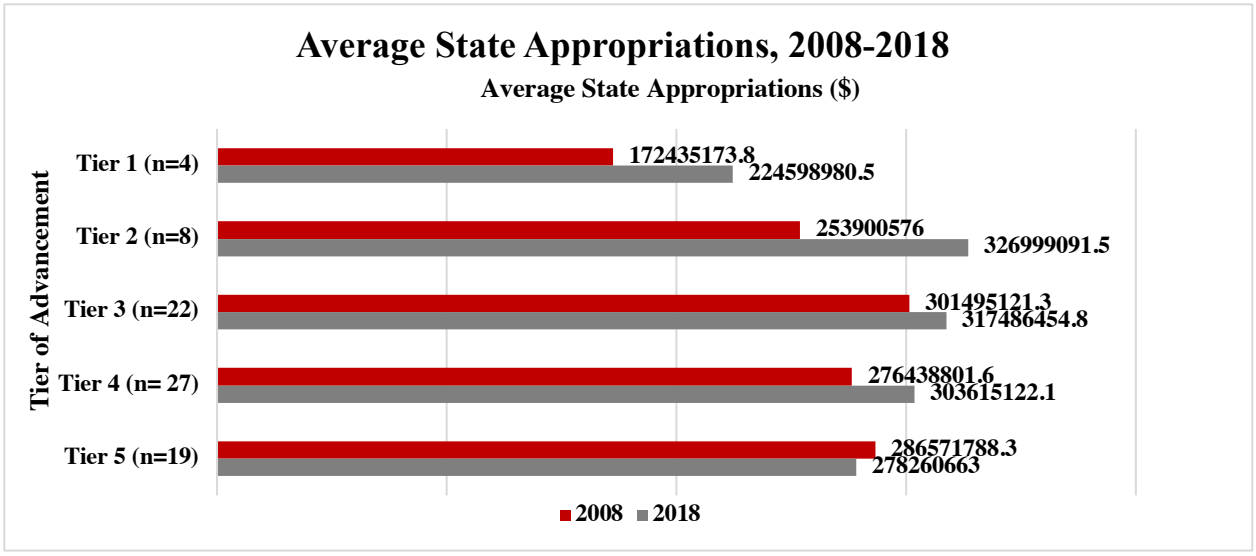

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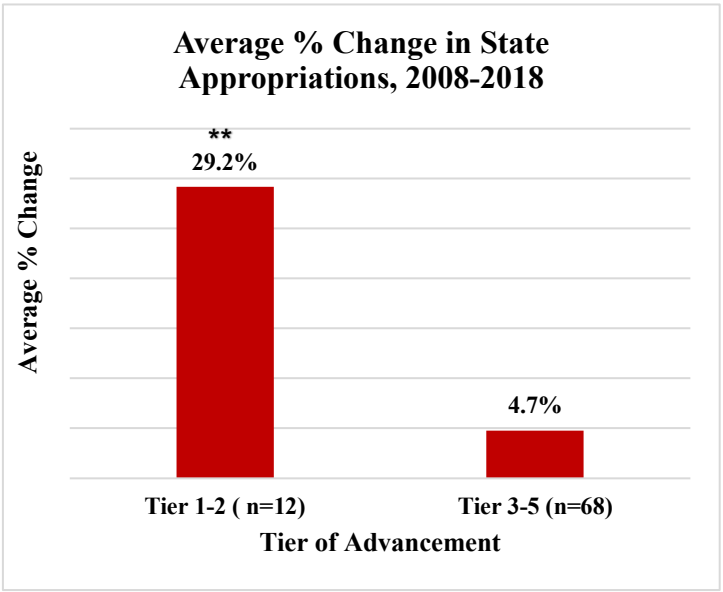

Figure 6. A) While institutions in higher tiers of advancement generally had lower state funding in 2008, there was no correlation for 2018. B) However, there is a clear trend between tier of advancement and percentage increase in state funding between 2008 to 2018 and in fact B) a significant ($p<.01$) increase for the top 12 institutions. All data are means compiled from publicly available IPEDS data sets.

Summary

While it is impossible to pinpoint the exact causes of institutional prosperity from 2008-2018 through a purely quantitative analysis, there are some factors that appear to show relevant correlations. Overall, environmental factors based on geographic location had the most significant impacts on tier of advancement with universities showing greatest advancement when situated in fast-growing cities and states allocating increased appropriations from 2008-2018. Tuitions costs and institutional leadership stability also showed some correlation with success, although to a lesser degree. There are several limitations to this study, and it is important to note that these findings are meant to indicate institutional improvement over one decade, not overall prestige or quality of universities.

Conclusion

While these preliminary findings are useful for guiding a discussion regarding factors that will influence institutional success over the next decade, more research must be conducted. Further analysis of additional quantitative factors, along with qualitative factors are necessary to reach conclusions that should drive decision-making at an administrative level.