White Paper

University of NORTH ALABAMA 1830

Performance-Based Ratios at UNA - Fall 2012

Office of Institutional Research, Planning, and Assessment

HISTORY in the MAKING

About the Author

Dr. Andrew L. Luna is Director of Institutional Research, Planning, and Assessment. He has served over 26 years in higher education, with 15 of those years in institutional research. He has published research studies on many topics including salary studies, assessment, market research, and quality improvement. Dr. Luna received his Ph.D and M.A. degrees in Higher Education Administration and his M.A. and B.A. degrees in Journalism, all from The University of Alabama.

Table of Contents

EXECUTIVE SUMMARY

The use of ratio analysis has been around for many years, primarily within the area of finance. However, this powerful tool has been effectively shown to transcend beyond accounting evaluation to the overall management and contol of both the private and public sector, including higher education. While conducting an introductory ratio analysis over the past five years using key primary data, the following were observed:

- UNA's freshman-to-sophomore retention averages 70% and is higher than the Alabama Peer average of 62%.
- Both the four-year and six-year graduation rates are lower than the CSRDE average, but higher than the Alabama Peer average. Furthermore, UNA is showing a healthy number of non-traditional and transfer students receiving degrees.
- On a per-student basis, UNA's staff and faculty serve significantly more students than the average for Alabama public 4-year institutions.
- Over 80% of all credit hours produced by UNA are taught by full-time permanent faculty.
- Although tuition and fees have increased, they were clearly needed to off-set significantly decreasing state revenue and an increasing, but parsimonious, budget.
- New freshmen and transfer students as well as out-of-state and international students show slight declines, indicating a greater need to buttress retention and improve graduation rates.

INTRODUCTION

Ratio analysis is one of the most powerful tools that can be used in higher education. It is used as a device to analyze and interpret the health of an institution and assist in determining the direction in which it should move. Ratio analysis can help administrators check whether the institution is doing better this year than it was last year; and, it can indicate if the institution is doing better or worse than other institutions within the same geographic location or with similar role, scope, and mission.

While the use of ratio analysis is mainly found in finance, it should not be confined to that area. Different types of managers and administrators should be interested in ratios so that they can better understand the institution as a whole, the division and/or department in which they reside, or to understand how various components within an institution relate to each other (KPMG, 2010). Therefore, ratios have wide applications and are of vital importance in the overall management of higher education. For instance, ratio analysis may be used for the following:

- **Decision Making** – ratio analysis helps in making decisions from the information provided in financial, enrollment, and resource situations. It can be used by an individual academic department to determine if a new program should be established, or it can be used institutionally as part of its strategic initiatives regarding enrollment management, pricing, outreach, etc.

"While the use of ratio analysis is mainly found in finance, it should not be confined to that area."

- **Forecasting and Planning** – ratios calculated for a number of years can serve as a guide for the future. Meaningful conclusions can be drawn as to the overall positioning of an institution in relation to where it wants to go.
- **Communication** – The strengths and weaknesses of an institution can be communicated to both internal and external constituents in an easier and more understandable manner by the use of ratios. The information obtained through ratio analysis is also conveyed in a meaningful manner to the individuals for whom it is meant, allowing for quicker response or action.
- **Coordination** – Oftentimes, higher education tends to work in silos where one department or division seems to work independently of another department or division. The use of ratio analysis can help tie these silos together by easily conveying the connections of the various components within higher education.
- **Control** – Ratio analysis helps to create effective controls throughout the institution. Standard ratios can be used to take a corrective action at the right time or to prevent a situation from ever happening. Furthermore, by controlling various elements within the institution, it may more effectively reach its strategic objectives (Minter, 1982).

"Ratio analysis helps to create effective controls throughout the institution. Standard ratios can be used to take a corrective action at the right time or to prevent a situation from ever happening."

The basis for the effective application of ratio analysis is a clear understanding of the institutional mission as well as those strategic steps to take it into the future. Every institution should have a mission that is tied to both financial and non-financial measurement to help the institution understand the extent to which it is achieving its mission. These measures help guide the institution in determining what resources are available and how those valuable resources will be used.

This is all part of the strategic measurement model discussed by Brown (1986). This model allows an institution to develop how it will move forward based upon an established mission as well as measurable indicators. The model referred to by Brown is in **Figure 1** below:

Figure 1: Strategic Measurement Model*

* Brown, M.G. (1986). Keeping score: Using the right metrics to drive world class performance. AMACOM, New York, NY.

"Every institution should have a mission that is tied to both financial and non-financial measurement to help the institution understand the extent to which it is achieving its mission."

The institution defines its mission, determines its success factors, establishes goals and objectives, and then forms strategies in order to realize its desired outcomes. Clearly, ratios can serve as a major component to this process.

So, why is it important to use ratios over primary data? The use of primary data may be fallacious and could have a negative impact on the institution. For instance, an institution may believe itself to be in good shape when it sees increases in new freshmen enrollment from year to year. However, this trend may be misleading if the yield rate of high school students from traditionally top feeder schools is actually decreasing.

In other words, while new freshmen numbers are increasing, the institution may actually see a decrease in the total number of high school graduates who could actually enroll. For example, say an institution enrolls 500 students from a high school graduating class of 1,000. The yield rate in this example would be 50%. The following year, the institution enrolls 550 students from a graduating class of 1,500. While there is an increase in the number of students enrolled from 500 to 550, the yield rate of students who could enroll dropped from 50% to 37%. This yield gives a better picture of enrollment than the primary data alone.

Primary data in themselves are a report of an event which has no economic meaning. These numbers stand alone, being unrelated to anything else that they affect or that affect them. To make events meaningful, they must be compared with

"Primary data in themselves are a report of an event which has no economic meaning... they must be compared with data that relate to them."

data that relate to them (Tucker, 1961). For example, if an automobile is driven 300 miles in one day, this has no relationship to the vehicle's economy. However, if it ran that same distance on 20 gallons of gasoline, the economy evaluated can be said to be 15 miles driven for every gallon of gas consumed. This is considered an elementary ratio. However, distance traveled is not the only factor in the economy of the vehicle. Other factors may include the speed at which the vehicle traveled, the terrain on which it traveled, and the size of the vehicle itself. When these factors are combined, the result is an advanced or tertiary ratio that gives a better picture as to the vehicle's economy.

While primary data have absolute values, ratios have only relative values in that they have no real meaning unless they are observed longitudinally. Only then can the true value of a ratio be appreciated. Preparing ratios can be a daunting task, however. Higher education institutions have so much primary data it can be difficult to decide which data to use and how to relate it with other data.

The researcher begins by asking the question, "What does the institution want the ratio analysis to tell it?" Later, the researcher must ask "What can the institution do with the information?" This White Paper is designed to give examples of various types of ratios that can be used by the University of North Alabama to help further define its mission, establish goals and objectives, and to form strategies in order to move forward. A total of 18 ratios are presented and are divided into the categories of Student/Enrollment and Financial.

"While primary data have absolute values, ratios have only relative values in that they have no real meaning unless they are observed longitudinally."

The purpose of this paper is to define the ratios used, demonstrate the formula used to compute the ratio, offer some implications for the use of each ratio, and then present the findings of each ratio with actual UNA data over a five-year period. As this paper is reviewed and the ratios digested, it is hoped that further discussion will follow as to whether adjustments should be made to the existing ratios presented here or if new, more powerful ratios can be created to give UNA administrators the best possible financial and academic picture.

Consortium for Retention

The first four rates used in this report are compared to the Consortium for Student Retention Data Exchange. The CSRDE is a consortium of colleges and universities dedicated to the cooperative exchange of student retention and graduation data for the purpose of benchmarking (The University of Oklahoma Outreach, 2012). The Consortium is housed at the University of Oklahoma and has been in existence since 1994. In their most recent report, over 400 institutions participated in the study.

The report is divided between public and private institutions. Furthermore, depending on the average entering ACT or SAT score of the entering freshman class during the year of evaluation, an institution is categorized as either highly-selective, selective, moderately-selective, or less-than-selective. Based on this criteria, the University of North Alabama is categorized as a public, moderately-selective institution. A listing of the 79 public, moderately-selective institutions that participated in the 2012 report are included in the **Appendix**.

"The CSRDE is a consortium of colleges and universities dedicated to the cooperative exchange of student retention and graduation data for the purpose of benchmarking."

Ratios, Percentages, and Proportions

Throughout this paper, ratios and percentages are used interchangeably in order to give the reader a greater ease in understanding the actual relationships between the variables used. However, it should be noted that ratios, percentages, and proportions are essentially measuring the same thing.

Converting the ratio 1/5 to a percent is the same thing as solving a proportion. Therefore, 1/5=x/100 = 20/100 = .20. In this case, .20 is referred to as the proportion. When this proportion is then multiplied by 100, the answer is 20%.

"...it should be noted that ratios, percentages, and proportions are essentially measuring the same thing."

STUDENT AND ENROLLMENT RATIOS

Freshman to Sophomore Retention

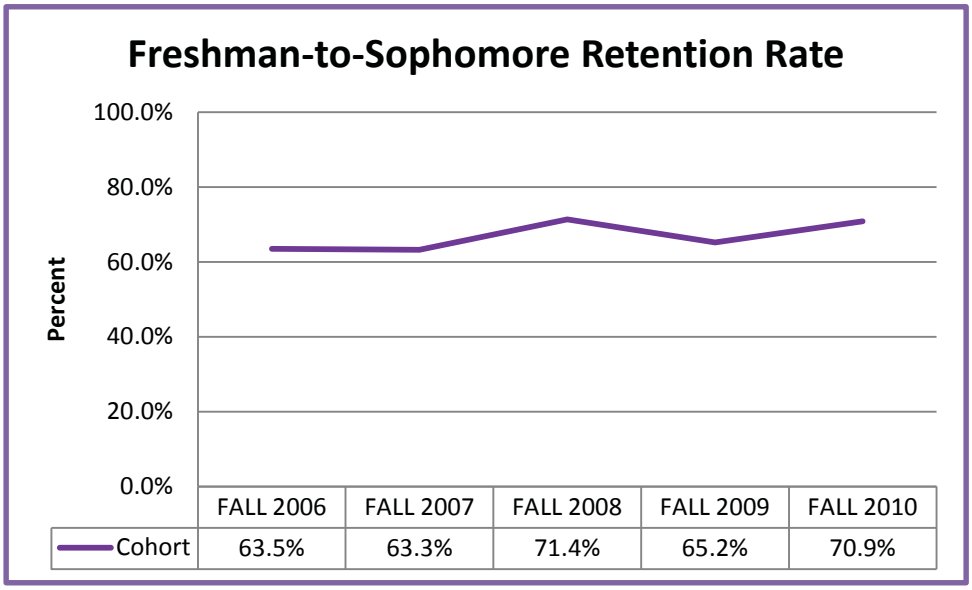
Definition: Defined by the U.S. Department of Education as the total number of first-time full-time freshmen who entered an institution during the fall semester or previous summer semester (after high school graduation) and returned to the institution during the following fall semester. The year at which these freshmen enter is considered the Cohort Year.

Formula:

*(Cohort Year Freshmen Returning Following Fall / Total Cohort Year Freshmen)*100*

Analysis:

- This is an elementary ratio converted to a percentage which is used to determine the number of traditional freshmen who return the following fall semester. Generally speaking, the higher the percentage, the better for the institution because returning students are working on degrees and are generating credit hours.
- One problem with this ratio is that it does not include the number of part-time or transfer students which, depending on the institution, could be a substantial number.



	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010
Cohort	63.5%	63.3%	71.4%	65.2%	70.9%

Findings:

- Freshman-to-Sophomore retention has generally increased during the five-year period with the most notable increases affecting the Fall 2008 Cohort and Fall 2010 Cohort.
- While trending upward, the Freshman-to-Sophomore retention rate is lower than the Consortium for Student Retention Data Exchange (CSRDE) rate of 73.3% for moderately-selective institutions, of which UNA is a part (Luna & Vaughn, 2012), but higher than the Alabama Peer average of 62%.

Sophomore-to-Junior Progression

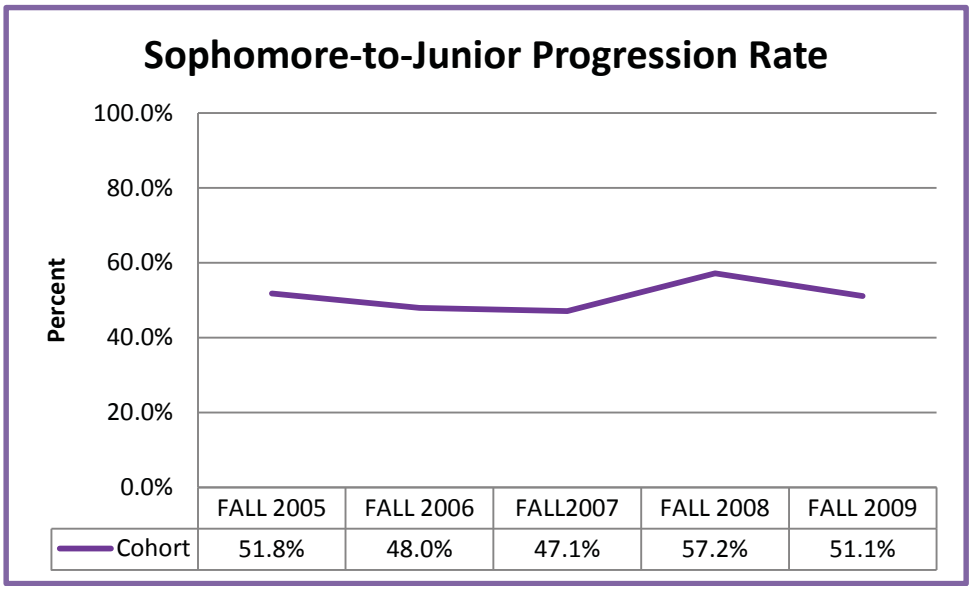
Definition: The logical succession to the Freshman-to-Sophomore retention rate. It consists of students within a freshman cohort who return to their third fall semester and/or their Junior year.

Formula:

*(Cohort Year Freshmen Returning Third Fall or Junior year / Total Cohort Year Freshmen)*100*

Analysis:

- This elementary ratio converted to a percentage is used to determine the number of traditional freshmen who return for their third fall and/or Junior year. Generally speaking, the higher the percentage, the better for the institution because these returning students are more likely to generate credit hours and earn their degrees from the institution.
- One problem with this ratio is that it does not include the number of part-time or transfer students which, depending on the institution, could be a substantial number.
- Students who did not return to the institution either quit school, transferred to a 2-year college, or transferred to another 4-year institution.



Findings:

- In general, this rate is lower than the Freshman-to-Sophomore retention rate (previous page) and, with the exception of Fall 2008, is showing a declining trend.
- This rate is also lower than the CSRDE rate of 61% for moderately-selective institutions (Luna & Vaughn, 2012).

Four-Year Graduation Rate

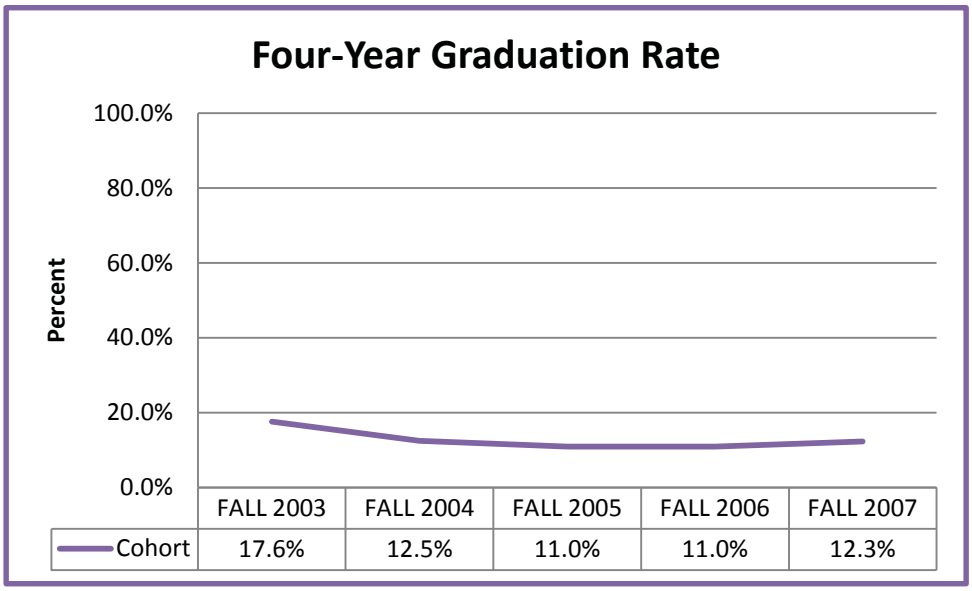
Definition: Defined by the U.S. Department of Education as the number of first-time full-time freshmen who entered an institution during a cohort year and who graduated from that institution in four years.

Formula:

*(Cohort Year Freshmen Graduating in 4 years / Total Cohort Year Freshmen)*100*

Analysis:

- This elementary ratio converted to a percentage is used to determine the number of traditional freshmen who graduate in four years. Generally speaking, the higher the percentage, the better for the institution because it indicates that more students are able to complete their degrees in the traditional time frame.
- This ratio does not include the number of part-time or transfer students which, depending on the institution, could be a substantial number.
- Students who do not graduate from the institution either quit school, transferred to a 2-year college, or transferred to another 4-year institution.



Findings:

- Over the past five years, this rate has shown a decline from 17% to 12% indicating a downward trend.
- This rate is also lower than the CSRDE four-year graduation rate of 22% for moderately-selective institutions (Luna & Vaughn, 2012), but within the Alabama Peer average of 12.75%.
- An increase in both the Freshman-to-Sophomore retention rate and the Sophomore-to-Junior progression rate could positively impact this rate.

Six-Year Graduation Rate

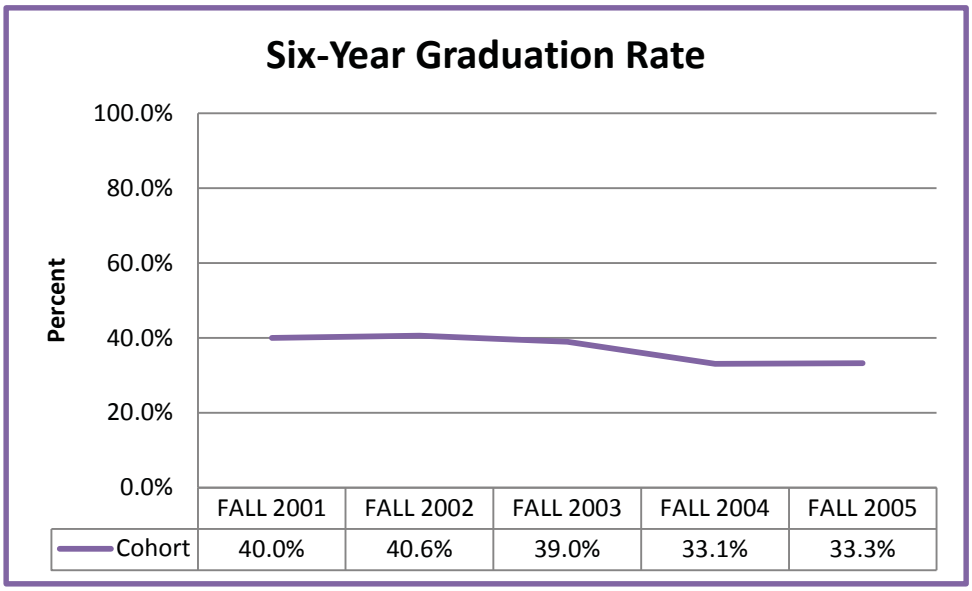
Definition: Defined by the U.S. Department of Education as the total number of first-time full-time freshmen who entered an institution during a cohort year and who graduated from that institution in six years.

Formula:

*(Cohort Year Freshmen Graduating in 6 Years / Total Cohort Year Freshmen)*100*

Analysis:

- This elementary ratio converted to a percentage is used to determine the number of traditional freshmen who graduate in six years. The students counted in this rate also include those who graduated within four or five years, and higher percentages indicate that more students are earning their degrees at the institution.
- One problem with this ratio is that it does not include the number of part-time or transfer students which, depending on the institution, could be a substantial number.
- Students who do not graduate from the institution either quit school, transferred to a 2-year college, or transferred to another 4-year institution.



Findings:

- While this rate was stable during the first part of the five-year period, it is indicating a downward trend.
- This rate is also lower than the CSRDE six-year graduation rate of 46.2% for moderately-selective institutions (Luna & Vaughn, 2012), but higher than the Alabama Peer average of 31.75%.
- An increase in both the Freshman-to-Sophomore retention rate as well as the Sophomore-to-Junior progression rate could positively impact this rate.

Degrees Conferred to Transfer and Non-Traditional Students to Total Degrees Conferred

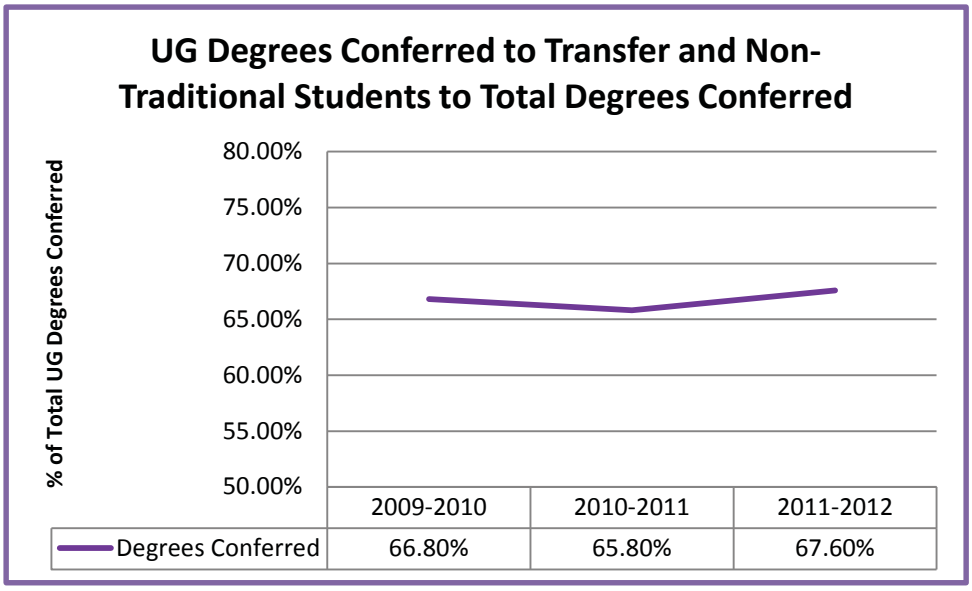
Definition: Indicates how many degrees were conferred to transfer and non-traditional students as compared to the total number of degrees conferred.

Formula:

*(Degrees Conferred to Transfer and Non-Traditional Students / Total Degrees Conferred)*100*

Analysis:

- When calculating the four- and six-year graduation rates, an institution is only allowed by the federal government to include first-time, full-time students in a freshmen cohort. In many cases, non-traditional students (those 25 and older) or those who transfer from another institution will not be included in the cohort.
- Therefore, the four- and six-year graduation rates do not supply an institution with a complete picture of how many students are actually graduating.
- While the four- and six-year graduation rates include students who never intended to graduate from the institution where they started, the number of non-traditional and transfer graduates serves as a more complete picture as to how many students wanted to earn their degrees at the institution.



Findings:

- Only three years of data could be extracted because these data were not available prior to Banner conversion.
- This rate indicates that a high number of transfer and non-traditional students graduate from UNA.
- During this time, the rate has shown a slight increase, indicating that UNA should expect more of these students to graduate in the future.

FTE Students to FTE Faculty

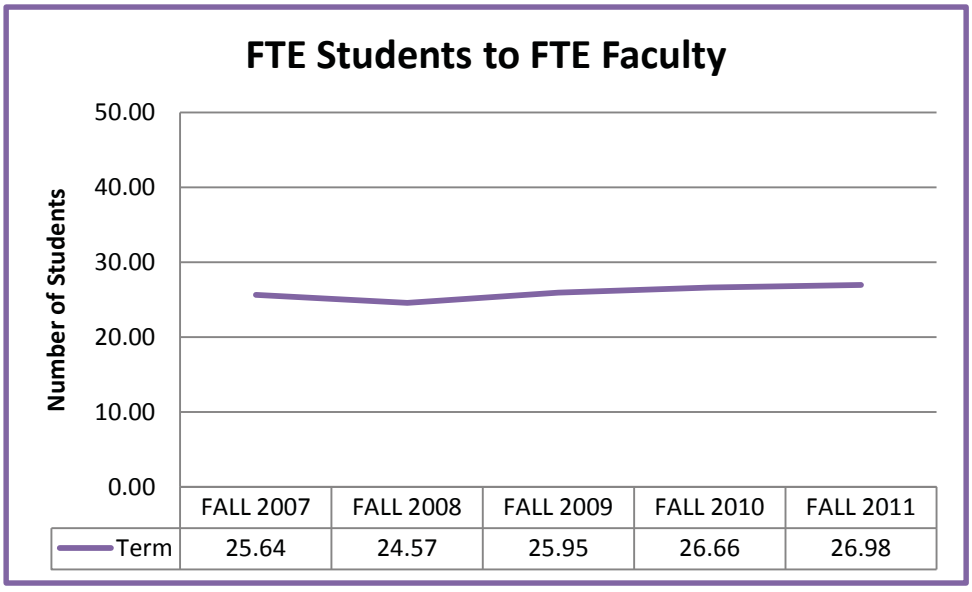
Definition: Indicates how many full-time equivalent students there are to each full-time equivalent faculty.

Formula:

((Total UG Credit Hrs./12) + (Total GR Credit Hrs./9)) /
((Total Full-time Faculty) + (Total Part-time Faculty/3))

Analysis:

- This is an advanced or tertiary ratio which is used to determine the actual student-to-faculty mix. Depending on the role, scope, and mission of the institution, this ratio could vary significantly.
- In determining the appropriate rate, the institution must weigh an increased payroll for additional faculty to ensure smaller class sizes against the diminished return on the value of education due to escalations in large class sizes.



Findings:

- In general, this rate has remained stable over the five-year period indicating a slight increase.
- Compared to the most recent edition of the *Digest of Education Statistics (2011)*, the reported 2009 ratio of 26:1 is significantly higher than the 2009 average ratio of 15:1 for public four-year colleges in Alabama. This clearly indicates that UNA has fewer faculty for its students than its sister institutions.

FTE Students to FTE Staff

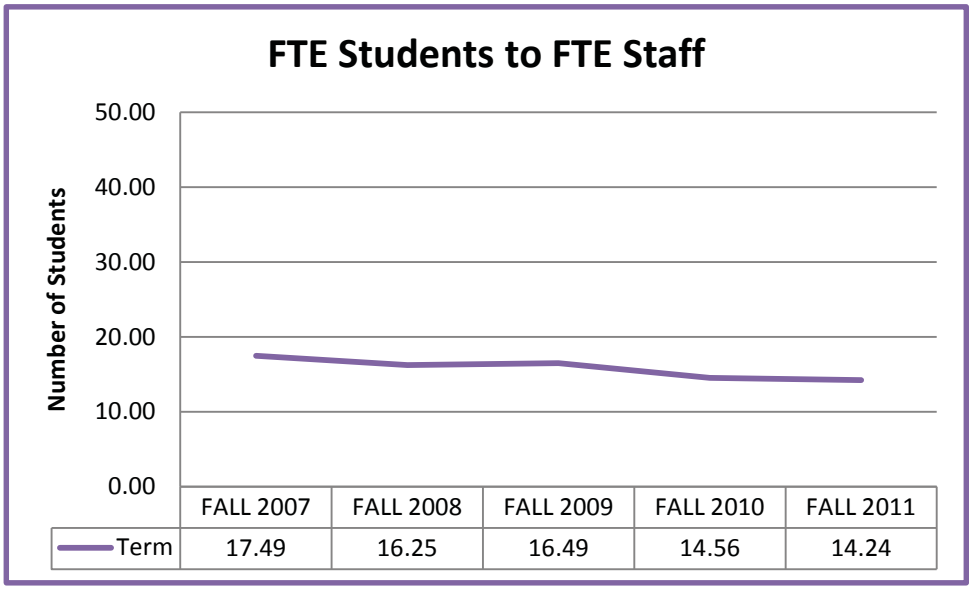
Definition: Indicates how many full-time equivalent students there are to each full-time equivalent staff.

Formula:

((Total UG Credit hrs./12) + (Total GR Credit hrs./9)) /
((Total Full-time Staff) + (Total Part-time Staff/3))

Analysis:

- This advanced or tertiary ratio is used to determine the actual student-to-staff mix. Depending on the role, scope, and mission of the institution, this ratio could vary significantly.
- In determining the appropriate rate, the institution must weigh an increased payroll for additional staff to support fully the administrative and educational support areas against decreased satisfaction and retention of students who have trouble accessing services.



Findings:

- In general, this rate has remained stable over the five-year period but indicates a slight downward trend.
- Compared to the most recent edition of the *Digest of Education Statistics* (2011), the reported 2009 ratio of 16:1 is significantly higher than the 2009 average ratio of 5:1 for public four-year colleges in Alabama. This clearly indicates that UNA has significantly fewer staff for its students than its sister institutions.

FTE Faculty as a Percent of FTE Staff

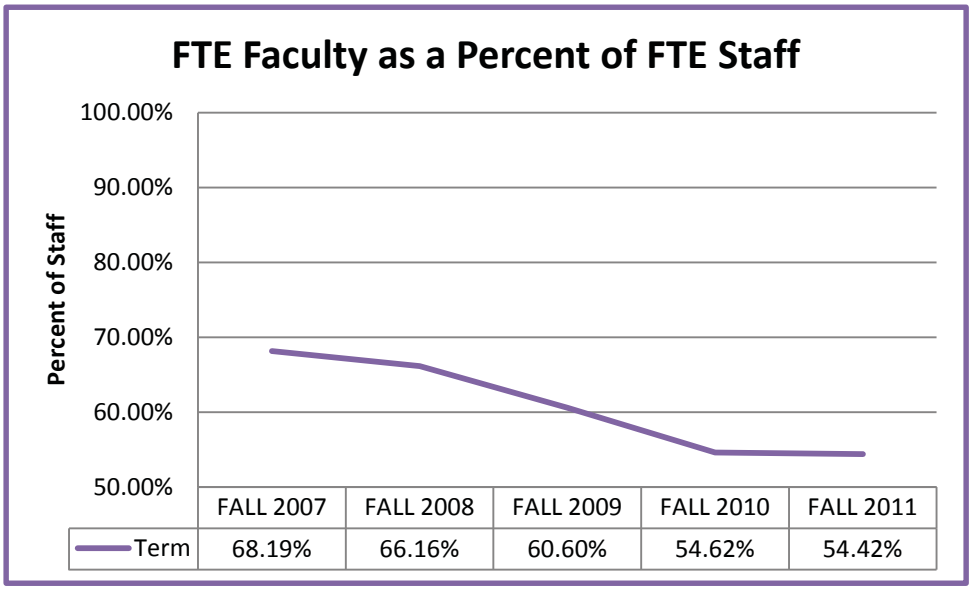
Definition: Indicates how many full-time equivalent faculty there are to each full-time equivalent staff.

Formula:

((Total Full-time Faculty) + (Total part-time Faculty/3)) /
*((Total Full-time Staff) + (Total Part-time Staff/3)) * 100*

Analysis:

- This advanced or tertiary ratio converted to a percentage is used to determine the actual faculty-to-staff mix. Depending on the role, scope, and mission of the institution, this ratio could vary significantly.
- In determining the appropriate rate, the institution must weigh its demand for faculty against its demand to sustain the increased responsibilities of administrative and educational support areas.



Findings:

- In general, this rate has declined steadily over the past five years indicating a decrease in the number of faculty and/or an increase in the number of staff.
- Compared to the most recent edition of the *Digest of Education Statistics* (2001), the reported 2009 rate of 61% is significantly higher than the 2009 average rate of 29% for public four-year colleges in Alabama. This indicates that while UNA staff size has increased relative to faculty, there are still significantly fewer staff to faculty as compared to its sister institutions.

Percent of Total Credit Hours Taught by Full-Time Faculty

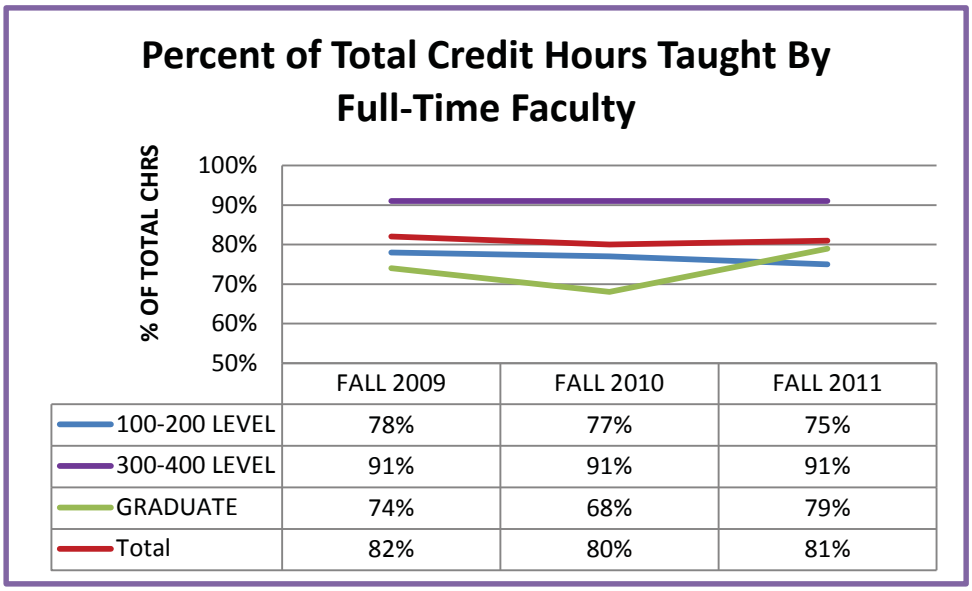
Definition: Indicates how many total credit hours are taught by full-time faculty.

Formula:

*(Total Credit Hours / Total Full-Time Faculty)*100*

Analysis:

- This elementary ratio converted to a percentage is used to determine how many of an institution's credit hours are taught by full-time faculty. Depending on the role, scope, and mission of the institution, this ratio could vary significantly.
- In order to capture potential variability of course level, percentages were disaggregated into lower level, upper level, and graduate level categories.



	FALL 2009	FALL 2010	FALL 2011
100-200 LEVEL	78%	77%	75%
300-400 LEVEL	91%	91%	91%
GRADUATE	74%	68%	79%
Total	82%	80%	81%

Findings:

- Only three years of data could be extracted because these data were not available prior to Banner conversion.
- Based on aggregate data alone, full-time faculty teach 80% or more of all credit hours produced.
- A relatively high percentage of 100 and 200 level course credit hours are taught by full-time faculty, although this percentage is decreasing. The highest percentage of credit hours taught by full-time faculty is within the 300 to 400 level. The lowest percentage of credit hours taught by full-time faculty is within the graduate level. This number has been skewed by the College of Business and is due, in part, to the large number of credit hours produced within the China MBA program.

New Freshmen and Transfer Enrollment to Total Undergraduate Enrollment

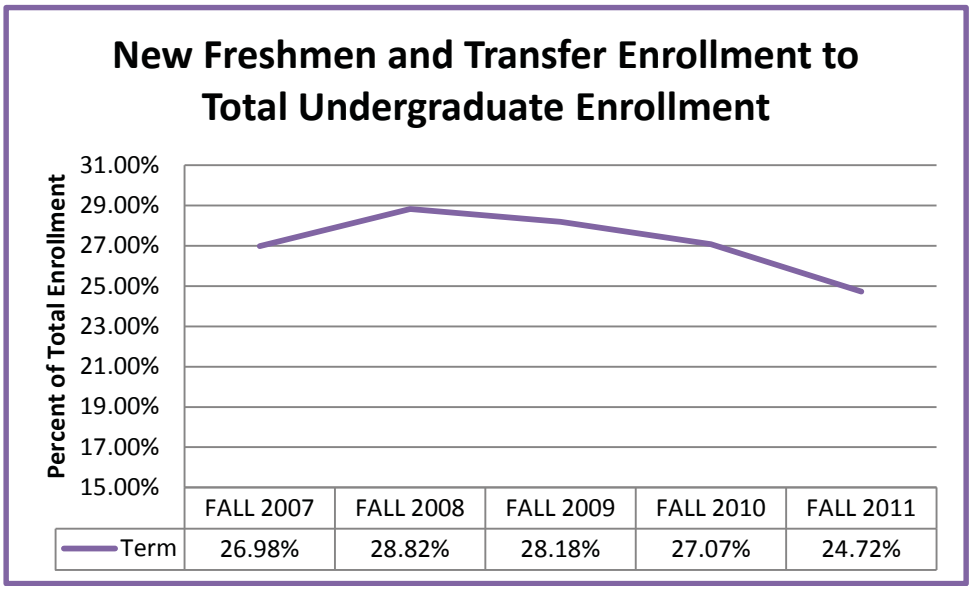
Definition: Indicates the percentage of an institution's total undergraduate enrollment that is comprised of new freshmen and transfer students.

Formula:

*(New Freshmen + Transfer Enrollment / Total Undergraduate Enrollment)*100*

Analysis:

- This elementary ratio converted to a percentage is used to determine how many new freshmen and transfer students make up an institution's total undergraduate enrollment. This ratio can be influenced by the actual decrease in the number of traditional and transfer students who enroll in the institution or by an increase in the retention rate of current students.
- Because this ratio indicates the rate of new students who enroll in the institution, it is sensitive to an institution's admission standards, tuition, and marketing plan; however, it can also be affected by a decrease in high school graduates or an increase in competition.



Findings:

- Overall, this rate has shown a steady decline within the five-year period. During this same period, enrollment data indicate a similar decline while retention, albeit slightly increasing among freshmen who stay for their sophomore year, is steady or declining in other areas of progression. These findings seem to indicate that the declining rate in the ratio is more related to declining enrollment rather than retention.
- When combined with retention and progression rates, this rate may signal declining enrollment health within the institution.

Out-of-State and International Enrollment to Total Enrollment

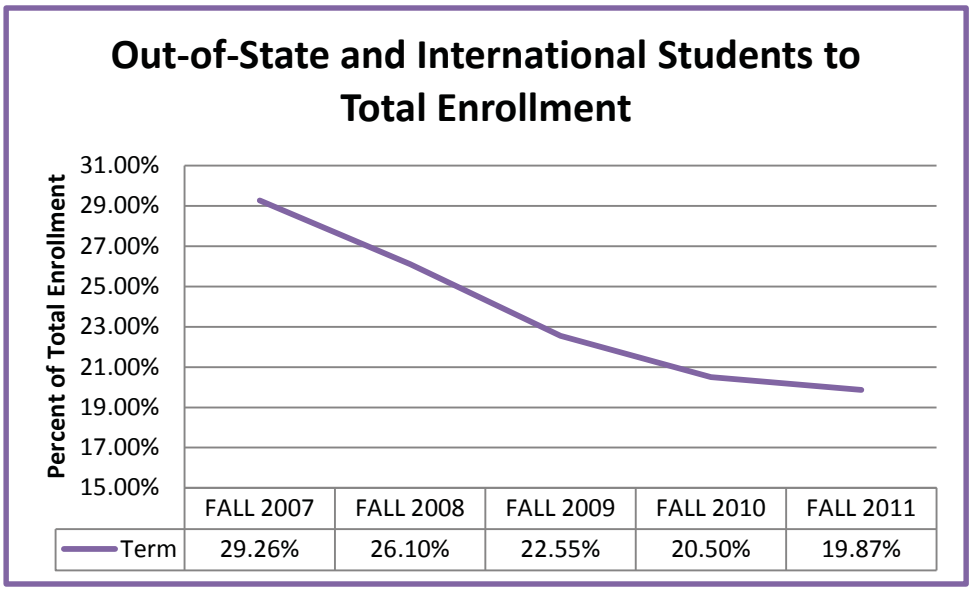
Definition: Indicates the percentage of an institution's total enrollment that is composed of out-of-state and international students.

Formula:

*(Out-of-State + International Enrollment / Total Enrollment)*100*

Analysis:

- This elementary ratio converted to a percentage is used to determine how many out-of-state and international students make up an institution's total enrollment. This ratio can be influenced by the actual decrease in the number of out-of-state and international students who enroll in the institution or by an increase in the retention rate of current in-state students.
- Because this ratio indicates the rate of students outside the state who enroll in the institution, it is mainly sensitive to an institution's tuition and marketing plan. Currently, out-of-state and international students pay significantly more in tuition than do in-state students.



Findings:

- This percentage indicates a significant downward trend. Looking at the primary data during the same period, out-of-state students show a slight decrease in enrollment with the majority of the decrease coming from international students.
- Marketing strategies to address this decline may include efforts to increase enrollment of these students which could give an exponential increase to UNA's revenue or to encourage greater credit hour production by expanding in-state tuition benefits to selected out-of-state areas.

Graduate FTE to Total FTE

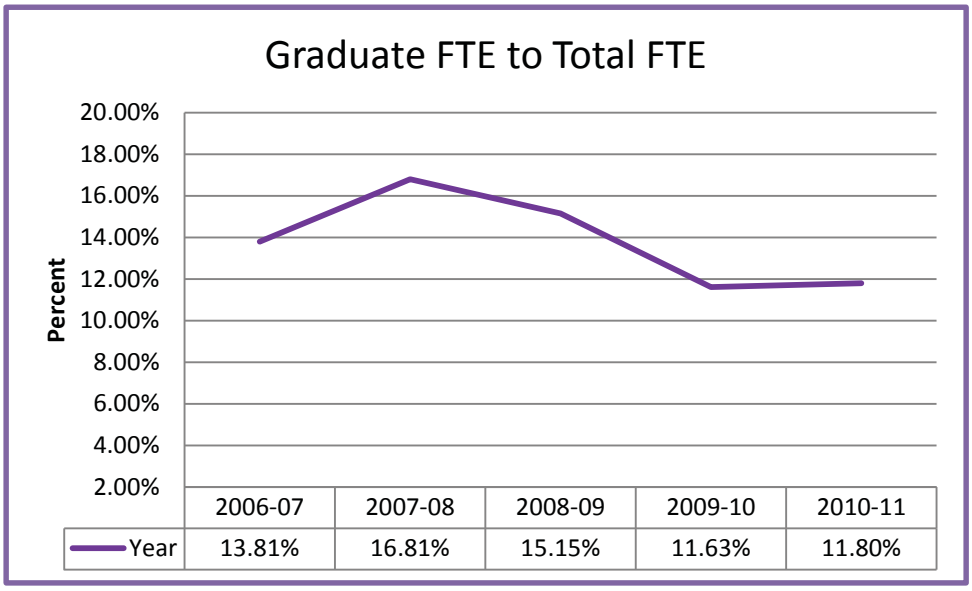
Definition: The percentage of the institution's total full-time equivalent students that is made up of full-time equivalent graduate students.

Formula:

(Graduate Credit Hours / 9) /
*(Undergraduate Credit Hours / 12 + Graduate Credit Hours / 9) * 100*

Analysis:

- This elementary ratio converted to a percentage is used to determine the strength of graduate enrollment. This ratio can be influenced by the actual decrease in the number of graduate students enrolling or by an increase in undergraduate student enrollment.
- Depending on the role, scope, and mission of the institution, this ratio could vary significantly.



Findings:

- Over the five-year period of time, this rate has decreased from about 14% to about 12% with a spike in graduate enrollment occurring in 2007-08.
- While undergraduate credit hour production has increased somewhat over this time period, graduate credit hour production has decreased, causing this rate to show a downward trend.

Degrees Conferred to Declared Majors

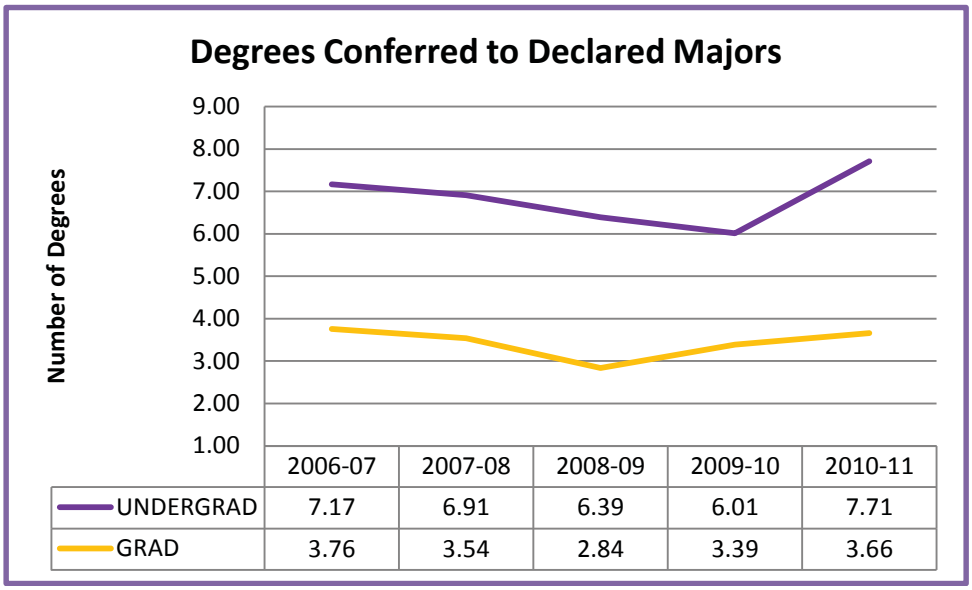
Definition: The number of declared majors in a given academic year to the number of actual conferred degrees for that same year.

Formula:

Declared Majors / Degrees Conferred

Analysis:

- This elementary ratio is used to determine the institution's strength to replace students who graduate with new students.
- It is understood throughout the U.S. that not every student who attends a college or university will graduate from that institution. In some cases, the student will transfer to another institution while, in others, students will drop out of higher education all together. Due to this fact, an institution must ensure that there are enough students enrolled in a given year to replace those students who graduate that same year.
- While this ratio is more effectively used within an individual academic department, it is useful to an institution in the aggregate.



	2006-07	2007-08	2008-09	2009-10	2010-11
UNDERGRAD	7.17	6.91	6.39	6.01	7.71
GRAD	3.76	3.54	2.84	3.39	3.66

Findings:

- It is logical to assume that there should be five to eight declared undergraduate majors for every degree conferred, and between three to five declared graduate majors for every degree conferred. Fewer may suggest the institution may lack enough students to replace its graduates. Significantly more may suggest a greater number of students dropping out or transfering to another institution.
- UNA is reasonably stable and within acceptable logical limits for this ratio.

FINANCIAL RATIOS

Total Revenue per Credit Hour

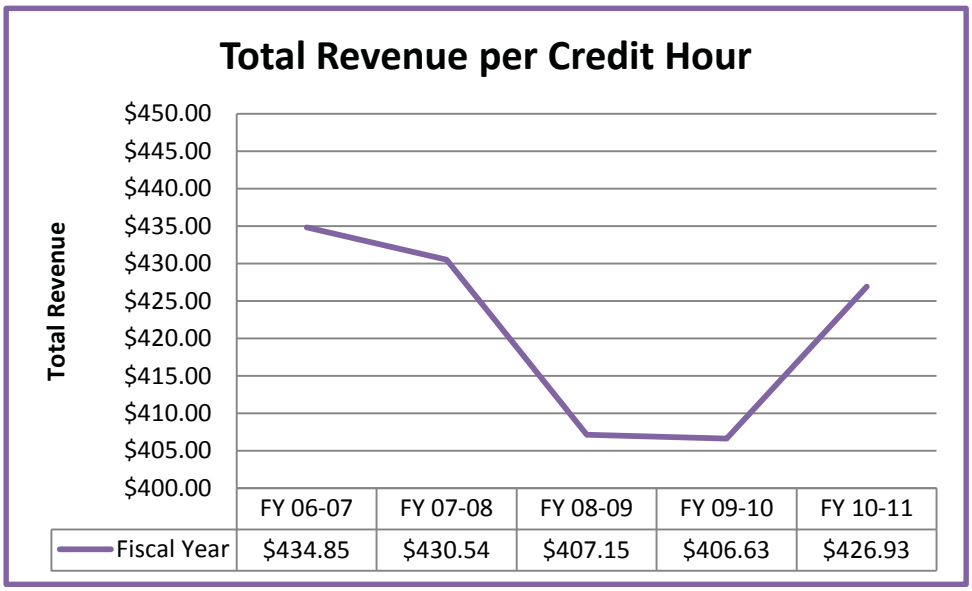
Definition: The amount of dollars in total revenue collected for each credit hour produced.

Formula:

Total Revenue / Total Credit Hour Production

Analysis:

- This elementary ratio is used to determine the institution's overall fiscal strength. The underlying assumption is that the more credit hours an institution generates, the more it will receive through higher tuition revenue and/or state assistance.
- Limitations with this ratio include its inability to differentiate graduate and undergraduate credit hour production and other forms of revenue generated from federal and local governments as well as increases and decreases in advancement revenue.



Findings:

- During the five-year period, UNA took a significant downturn indicating either an increase in credit hour production or decrease in total revenue. A look at total credit hour production indicates a slight declining trend, and total revenue as well as state revenue saw declines during this period. Tuition revenue, however, increased sharply and positively impacted this ratio.
- Given the fact that tuition for U.S. higher education has continued to exceed the rate of inflation, state appropriations will have to increase or other forms of revenue will have to be sought to keep tuition increases at a minimum.

Tuition Revenue per Credit Hour

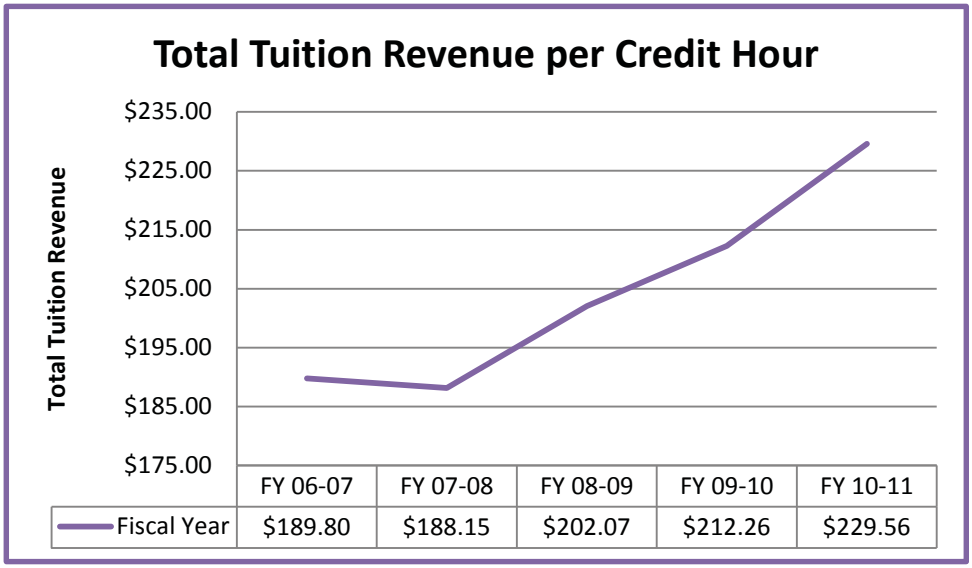
Definition: Indicates the amount of tuition revenue collected for each credit hour produced.

Formula:

Tuition Revenue / Total Credit Hour Production

Analysis:

- This elementary ratio is used to determine the institution's overall fiscal strength as it relates to tuition. The underlying assumption is that the more credit hours an institution generates, the more it will receive through higher tuition revenue.
- Limitations with this ratio include its inability to differentiate graduate and undergraduate credit hour production or tuition. This ratio is also volatile in relation to significant decreases in state revenue.



Findings:

- Over the five-year period, this ratio has increased significantly and indicates an upward trend. This increase is a direct relationship to the decreases in state revenue over the past five years.
- As state revenue continues to decrease, UNA is assuming more of the role of a privately funded institution. While tuition may continue to rise in relation to decreasing state revenue for public universities, additional revenue sources will be needed to minimize tuition increases.

Percent of State Revenue to Total Revenue

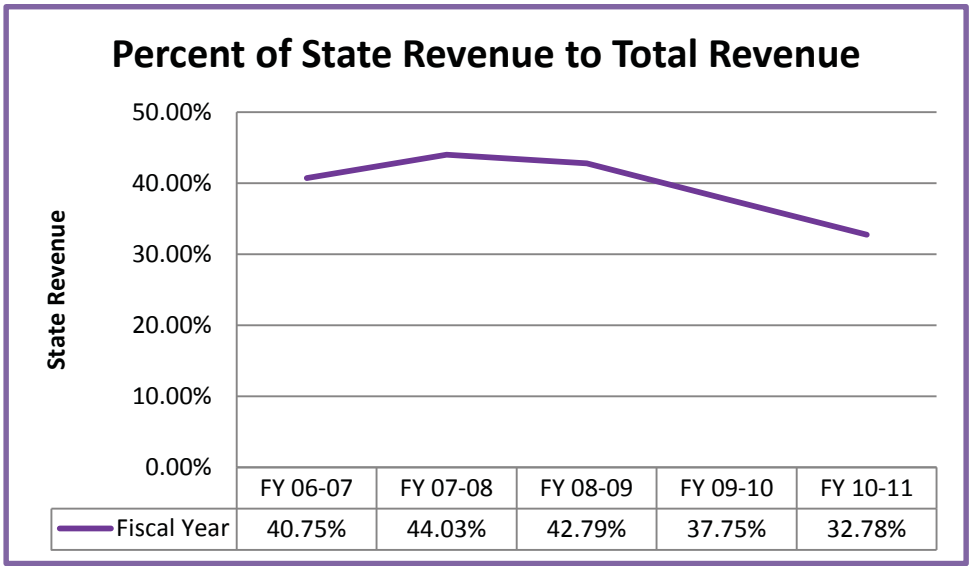
Definition: Indicates the amount of state revenue collected to total revenue.

Formula:

*(State Revenue / Total Revenue) * 100*

Analysis:

- This elementary ratio converted to a percentage is used to determine the strength of state support to the institution.
- State revenue is one portion of total revenue which includes tuition and fees; federal, local, and other state funds; and other funds including endowment earnings and advancement revenue.



Findings:

- Over the five-year period, state revenue has significantly decreased at UNA, and short-term projections indicate even lower percentages.
- Total revenue has increased over the same five-year period which indicates that this difference is being made up through increases in tuition as well as other forms of revenue.

Percent of State Revenue to Total Education and General Expenditures

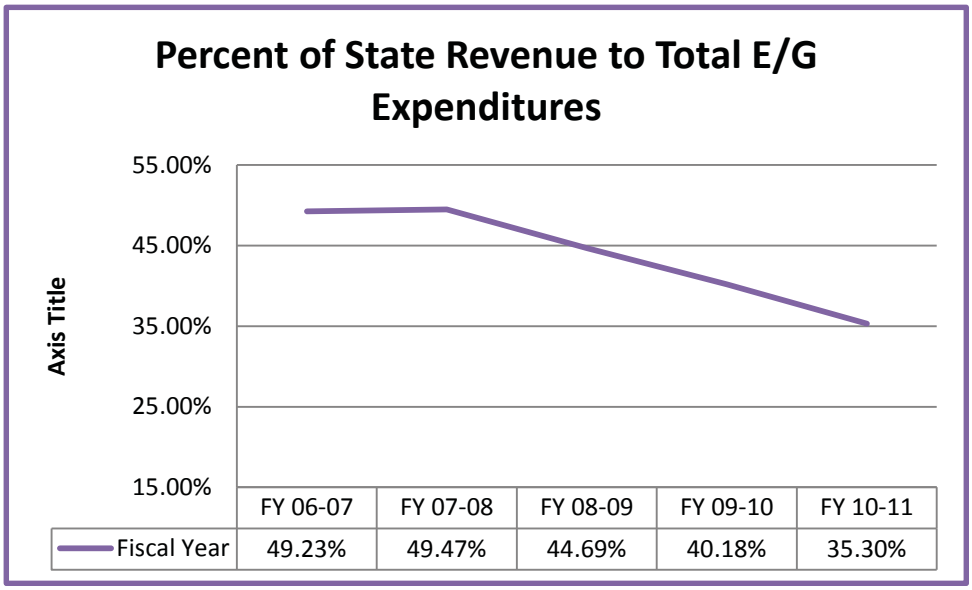
Definition: Indicates the percentage of state revenue collected for each dollar expended of E/G.

Formula:

*(State Revenue / Education and General Expenditures)*100*

Analysis:

- This elementary ratio converted to a percentage is used to determine the strength of state support as it relates to the institution's expenditures.
- State revenue is one portion of total revenue which includes tuition and fees; federal, local, and other state funds; and other funds including endowment earnings and advancement revenue. As this percentage decreases, revenue from other sources have to be used to off-set the lower amounts from the state.
- This ratio is not only related to increases and decreases in state revenue, it may also be directly related to increases and decreases in other forms of revenue as well as increases and decreases of an institution's expenditures.



Findings:

- E/G expenditures at UNA have steadily increased over the past five years while the level of state support has decreased. Both of these conditions have caused this rate to significantly decrease and show a strong downward trend in the short term.

Percent of Instruction and Academic Support Expenditures to Tuition and Fee Revenue

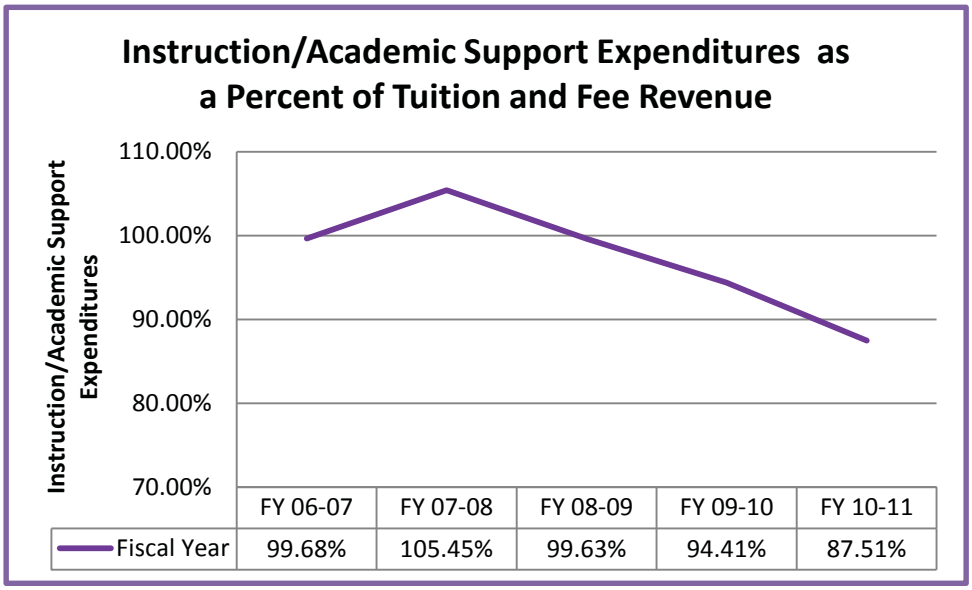
Definition: This ratio indicates how much of an institution's Instruction and Academic Support Expenditures are covered by Tuition and Fee Revenue.

Formula:

*(Instruction/Academic Support Expenditures / Tuition and Fee Revenue) * 100*

Analysis:

- This elementary ratio converted to a percentage is used to determine how much tuition and fee revenue is used to pay for the institution's direct instructional costs such as faculty, classroom/lab materials, and the library.
- Instruction and Academic Expenditures are a portion of an institution's expenditures including Plant Operations and Maintenance, Student Services, and Institutional Support to name a few.
- Depending on the role, scope, and mission of an institution, this ratio can vary significantly.



Findings:

- The amount of Instruction and Academic Support Expenditures was close to or exceeded the amount of Tuition and Fee Revenue collected, although there was a declining trend.
- During this time, Tuition and Fee revenue increased to offset significant decreases in State Revenue. Therefore, this ratio actually decreased indicating that the costs directly associated with instruction (fixed costs, supplies, subscriptions, etc.) have been controlled.

Plant Operation and Maintenance Expenditures Per Net Assignable Square Feet

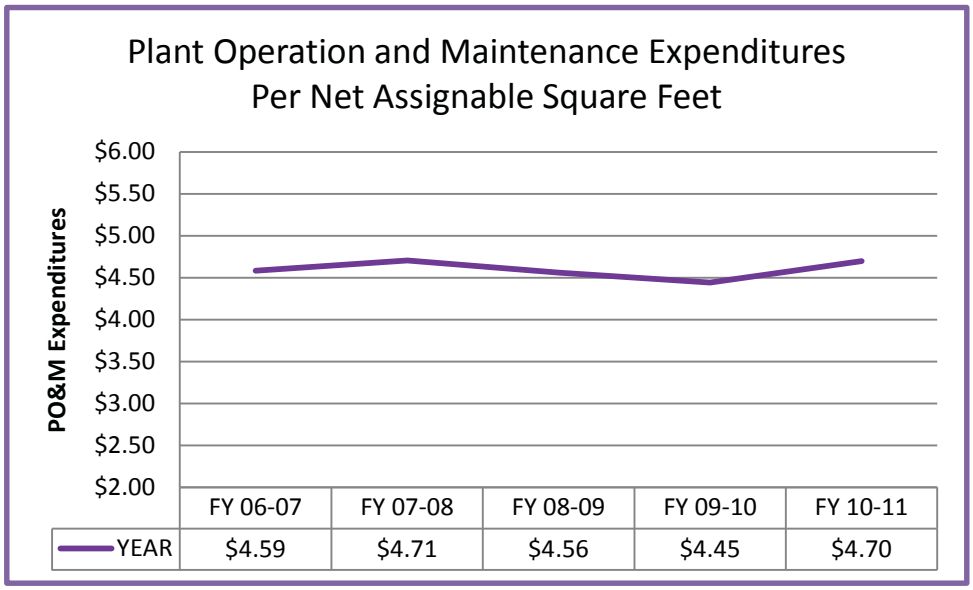
Definition: This ratio indicates the dollar amount expended within PO&M Expenditures and the total amount of assignable square footage.

Formula:

Plant Operation and Maintenance Expenditures / Net Assignable Square Feet

Analysis:

- This elementary ratio is used to determine how much PO&M is expended per square net foot of assignable space.
- Net square footage does not include access areas, hallways, closets, etc.



Findings:

- Looking at the primary data, both net assignable square footage and PO&M expenditures have increased slightly over the five-year time period. However, this ratio indicates that the amount of PO&M expended per square foot is relatively stable.
- It should be noted that, during this period, UNA also took steps to address its deferred maintenance on-campus and has significantly decreased the amount of postponed maintenance projects.

References

Brown, M. G. (1986). Keeping score: Using the right metrics to drive world class performance. AMACOM, New York, NY.

KPMG International; Prager, Sealy & Co., LLC.; & Attain (2010) Strategic financial analysis for higher education: Identifying, measuring, and reporting financial risks. KPMG, Sweden.

Luna, A. L. & Vaughn, M. J. (2012). Regression, Progression, and Graduation at UNA - Spring, 2012. OIRPA White Paper, University of North Alabama.

Minter, J. et al. (1982). Using ratio analysis to evaluate financial performance. New Directions in Higher Education. (38) 24-38.

Tucker, S. A. (1961). Successful managerial control by ratio analysis. McGraw Hill, New York, NY.

United States Department of Education. (2011). Digest of Education Statistics. Department of Education, Washington, D.C.

The University of Oklahoma Outreach. (2012). 2011-12 CSRDE Retention Report. Consortium for Student Retention Data Exchange. University of Oklahoma.

Appendix

CSRDE Participating Institutions

Public, Moderately Selective

Northern Illinois University

Southern Illinois University

University of Memphis (TN)

University of New Mexico

University of Rhode Island

University of Southern Mississippi

Western Michigan University

Bowling Green State University (OH)

Cleveland State University (OH)

East Carolina University (NC)

East Tennessee State University

Indiana University of Pennsylvania

Indiana U-Purdue U-Indianapolis

Middle Tennessee State University

Oakland University (MI)

Portland State University (OR)

University of Akron (OH)

University of Alaska – Fairbanks

University of Arkansas – Little Rock

University of Louisiana – Lafayette

University of Massachusetts – Boston

University of Nevada – Las Vegas

University of North Carolina – Greensboro

University of South Alabama

Wright State University (OH)

Arkansas State University

Armstrong Atlantic State U (GA)

Continued on next page

Bridgewater State University (MA)

California State University – Chico

California State University – Fullerton

California State University – Long Beach

California University of Pennsylvania

Central Connecticut State University

Central Washington University

Eastern Connecticut State University

Eastern Michigan University

Edinboro U of Pennsylvania

Emporia State University (KS)

Florida Gulf Coast University

Georgia Southwestern State U

Henderson State University (AR)

Humboldt State University (CA)

Mansfield University of Pennsylvania

Minnesota State U – Moorhead

Missouri Southern State University

Montclair State University (NJ)

North Georgia College & State U

Northern State University (SD)

San Francisco State U (CA)

San Jose State University (CA)

Shippensburg U of Pennsylvania

Slippery Rock U of Pennsylvania

Sonoma State University (CA)

Southeast Missouri State U

Tennessee Technological U

University of Alaska – Anchorage

University of Alaska – Southeast

Continued on next page

University of Central Missouri

University of Central Oklahoma

U of Massachusetts – Dartmouth

University of Michigan – Flint

University of North Alabama

University of Southern Maine

University of Tennessee – Martin

University of Washington – Bothell

University of Washington – Tacoma

Valdosta State University (GA)

Wayne State College (NE)

West Texas A&M University

Western Illinois University

Westfield State University (MA)

William Patterson University (NJ)

Ferris State University (MI)

Coastal Carolina University (SC)

Black Hills State University (SD)

Dakota State University (SD)

SUNY College – Old Westbury (NY)

University of South Carolina – Aiken

Utah Valley University