#### BOARD OF REGENTS BRIEFING PAPER

#### 1. AGENDA ITEM TITLE: Enrollment Analysis, Financial Model Assessment & Projections

#### MEETING DATE: September 7-8, 2023

#### 2. BACKGROUND & POLICY CONTEXT OF ISSUE:

Enrollment at NSHE institutions has been flat or declining since the beginning of COVID-19 pandemic, and the Board has recently discussed enrollment data and trends. Early this year, the Acting Chancellor contracted with Applied Analysis, an economic, fiscal and policy research and analysis firm to prepare enrollment scenarios to further conversations at the System and Board level. Applied Analysis prepared a report titled *NSHE Financial Model* | *Assessment & Projection*. The firm prepared a set of enrollment projections based on potential scenarios and evaluated the potential financial implications of those scenarios on Nevada's colleges and universities. This summary report outlines the salient findings and conclusions of the review of relative conditions, financial modeling, and analysis. The projections model potential impact on the current State funding formula in anticipation of further discussion of funding at NSHE institutions during the interim's funding formula study. The report also summarizes the findings and conclusions of the consultant's research to understand trends in overall enrollment so the System can begin to establish a reasonable set of expectations of resources to evaluate how, if at all, NSHE institutions may be impacted by different enrollment patterns.

#### 3. SPECIFIC ACTIONS BEING RECOMMENDED OR REQUESTED:

Consider the scenarios and projections and give any direction to staff for further exploration of the topic.

#### 4. IMPETUS (WHY NOW?):

Higher education enrollment is an issue of national concern. Nevada will conduct a study of the funding formula which relies in large part on enrollment data.

#### 5. CHECK THE NSHE STRATEGIC PLAN GOAL THAT IS SUPPORTED BY THIS REQUEST:

- X Access (Increase access to higher education)
- **Given Success (Improve student success)**
- **Close Institutional Performance Gaps**
- □ Workforce (Meet workforce needs in Nevada)
- **Research** (Increase solutions-focused research)
- Coordination, Accountability, and Transparency (Ensure system coordination, accountability, and transparency)
- **Not Applicable to NSHE Strategic Plan Goals**

#### 6. INDICATE HOW THE PROPOSAL SUPPORTS THE SPECIFIC STRATEGIC PLAN GOAL

Understanding the fiscal impact of growth and decline scenarios will inform future decisions about access, funding, and student supports.

#### 7. BULLET POINTS TO SUPPORT REQUEST/RECOMMENDATION:

N/A

#### **8. POTENTIAL ARGUMENTS AGAINST THE REQUEST/RECOMMENDATION:**

N/A

#### 9. ALTERNATIVE(S) TO WHAT IS BEING REQUESTED/RECOMMENDED:

N/A

#### **10. RECOMMENDATION FROM THE CHANCELLOR'S OFFICE:**

#### **11. COMPLIANCE WITH BOARD POLICY:**

|   | Consistent With Current Board Policy: Title # Chapter # Section #                           |
|---|---|
|   | Amends Current Board Policy: Title # Chapter # Section #                                    |
|   | Amends Current Procedures & Guidelines Manual: Chapter # Section #                          |
| Х | Other: Continues a discussion begun by the Acting Chancellor at the April 21, 2023 meeting. |
|   | Fiscal Impact: Yes No_X   |
|   | Explain:  |
|   |   |
|   |   |

### NSHE FINANCIAL MODEL ASSESSMENT & PROJECTION



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July 14, 2023

Mr. Dale A. R. Erquiaga Acting Chancellor Nevada System of Higher Education 4300 South Maryland Parkway Las Vegas, NV 89119

RE: NSHE Financial Model | Assessment & Projection

Dear Chancellor Erquiaga,

In accordance with your request, Applied Analysis ("AA") is pleased submit this report titled NSHE Financial Model | Assessment & Projection. AA was retained by the Nevada System of Higher Education ("NSHE") to prepare a set of enrollment projections based on potential scenarios and to evaluate the potential financial implications of those scenarios on Nevada's colleges. This summary report outlines the salient findings and conclusions of our review of relative conditions, financial modeling and analysis.

This report was designed by AA in response to your request. However, we make no representations as to the adequacy of these procedures for all your purposes. Generally speaking, our findings and estimates are as of the date of this report and utilize the most recent data available. The information in this report was collected from our internal databases, NSHE and various third parties and other public data providers. The data were assembled by AA. While we have no reason to doubt its accuracy, the information collected was not subjected to any auditing or review procedures by AA; therefore, we can offer no representations or assurances as to its completeness. This report is an executive summary. It is intended to provide an overview of the analyses conducted and a summary of our salient findings. AA will retain additional working papers relevant to this study. If you reproduce this report, it must be done so in its entirety.

Thank you again for allowing us to assist you with this important project. We welcome the opportunity to discuss this report with you at any time. Should you have any questions, please contact Jeremy Aguero or Brian Gordon at (702) 967-3333.

Sincerely,

Applied Analysis

Applied Analysis

## **Executive Summary**

Higher education is at an inflection point as enrollments decline nationwide and college-age demographics are set to shift. To estimate the potential fiscal effects of enrollment declines, Applied Analysis created a financial model to project enrollment and the resulting effects on the bottom line for the Nevada System of Higher Education ("NSHE"). A summary is shown in the table below.

| NSHE Financial Model Summary |                 |   |                                     |                                  |                             |  |  |  |
|------------------------------|-----------------|---|-------------------------------------|----------------------------------|-----------------------------|--|--|--|
|                              | Fall Enrollment | Weighted Student<br>Credit Hour Funding | Student Tuition and<br>Fees Revenue | Annual Change<br>In Net Position | Net Position<br>End of Year |  |  |  |
| Base Scenario                |                 |   |                                     | -                                |                             |  |  |  |
| FY2022                       | 105,300         | \$513.4 M                               | \$489.8 M                           | \$3.2 M                          | \$2,037.5 M                 |  |  |  |
| FY2030                       | 115,800         | \$641.1 M                               | \$646.4 M                           | (\$134.6 M)                      | \$1,263.9 M                 |  |  |  |
| FY2040                       | 107,800         | \$742.0 M                               | \$779.7 M                           | (\$785.2 M)                      | (\$3,449.1 M)               |  |  |  |
| High Scenario                |                 |   |                                     |                                  |                             |  |  |  |
| FY2022                       | 105,300         | \$513.4 M                               | \$489.8 M                           | \$3.2 M                          | \$2,037.5 M                 |  |  |  |
| FY2030                       | 126,600         | \$674.4 M                               | \$686.5 M                           | (\$1.61 M)                       | \$1,709.2 M                 |  |  |  |
| FY2040                       | 122,600         | \$824.8 M                               | \$859.3 M                           | (\$499.0 M)                      | (\$567.2 M)                 |  |  |  |
| Low Scenario                 | Low Scenario    |   |                                     |                                  |                             |  |  |  |
| FY2022                       | 105,300         | \$513.4 M                               | \$489.8 M                           | \$3.2 M                          | \$2,037.5 M                 |  |  |  |
| FY2030                       | 107,600         | \$607.5 M                               | \$600.5 M                           | (\$297.6 M)                      | \$632.5 M                   |  |  |  |
| FY2040                       | 97,000          | \$667.6 M                               | \$701.7 M                           | (\$1,067.2 M)                    | (\$6,570.9 M)               |  |  |  |



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#### **ENROLLMENT IN DECLINE**

#### DEMOGRAPHIC REALITIES

### ENROLLMENT OUTLOOK

### **REVENUE PROJECTIONS**

#### FINANCIAL PROJECTIONS

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#### **ENROLLMENT IN DECLINE**



### ENROLLMENT OUTLOOK



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### **REVENUE PROJECTIONS**

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## College Enrollment is Falling Across the United States

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# FORTUNE

### The labor shortage is pushing American colleges into crisis, with the plunge in enrollment the worst ever recorded

"Nationwide, undergraduate **college enrollment dropped 8 percent from 2019 to 2022**, with declines even after returning to in-person classes, according to data from the National Student Clearinghouse. The slide in the college-going rate since 2018 is the steepest on record, according to the U.S. Bureau of Labor Statistics."



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# BROOKINGS

**Overall enrollment is down**, especially at community colleges. Undergraduate completion fell for the first time in ten years. There are more "stopped out" students — students who left college with some credits but no degree. Even prior to the pandemic, enrollment was declining.

From 2010 to 2021, undergraduate enrollment dropped by 15 percent, translating into about 2.6 million fewer students. About 58 percent of that decline occurred over the decade prior to the pandemic, with about 42 percent of the total enrollment decline occurring between fall 2019 and fall 2021.

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## **NSHE Enrollment**

Enrollment at NSHE institutions has fluctuated over the past two decades. The 2000s experienced steady growth leading into and through the aftermath of the Great Recession. More recently, the pandemic led to a sharp enrollment decline.



**NSHE Enrollment** 

## **NSHE Enrollment by Age Group**

NSHE institutions serve students of all ages. However, students aged between 18 to 29 years old account for the largest proportion of enrollment at roughly 75 percent of the student body.



ANALYSI

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## Age 18-29 Enrollment by Institution

NSHE institutions serve students of varied backgrounds and educational goals, which are reflected in the age of their student populations. Among four-year institutions, students aged 18 to 29 account for a larger portion of enrollment.



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ANALYSIS

## Full-Time Enrollment by Age

About half of NSHE students are enrolled full time, with younger age groups more likely to be full-time students and account for larger shares of student credit hours.

Full-Time Student Status 2018-2022 Average



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ANALYSIS

ANALYSIS

## **Full-Time Enrollment by Institution**

NSHE institutions that serve larger shares of younger students have higher levels of full-time enrollment, particularly at the University of Nevada-Reno and the University of Nevada-Las Vegas.

> Full-Time Student Status 2018-2022 Average



### **NSHE Enrollment Rate**

Among Nevada residents aged 18 to 29, the proportion of the population enrolled at an NSHE institution has steadily fallen since 2011, with a noticeable acceleration during the pandemic as young people have increasingly forgone higher education.



### **NSHE Enrollment Rate**

College enrollment rates have dropped across all subgroups within the 18-to-29 age group. The most precipitous recent decline was among 18- and 19-year-olds, who peaked at a 34 percent enrollment rate in the 2019 academic year before a rapid 7-point drop.



**Enrollment Rate by Age** 

## **Barriers to Higher Education**

Although the decline in college enrollment during the pandemic is apparent, the trend began well before the pandemic did. To understand attitudes about higher education, the Gates Foundation supported a survey of people aged 18 to 30 that covered a variety of education-related questions, including why someone didn't go to college or left before finishing their degree.

#### Why have you not gone to college or failed to complete your degree?



Source: EDGE Research, The Chronicle of Higher Education

A P P L I E D A N A L Y S I S

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#### **ENROLLMENT IN DECLINE**







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### **REVENUE PROJECTIONS**



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### The population of college-age Americans is about to crash. It will change higher education forever.

In four years, the number of students graduating from high schools across the country will begin a sudden and precipitous decline, due to a rolling demographic aftershock of the Great Recession. Classes will shrink, year after year, for most of the next two decades. People in the higher education industry call it "the enrollment cliff.



NSHE FINANCIAL MODEL ASSESSMENT & PROJECTION



## **High School Graduate Projection**

A national demographic cliff is projected within the next decade that will see the college-age population decline. The U.S. Department of Education projects high school graduates will peak within three years and tumble throughout the following decade.

U.S. High School Graduates



## **Nevada College-Age Population Projection**

Mirroring national demographic trends, the core group of college-age residents in Nevada is projected to peak in 2029 before entering a decade of decline. By 2040, the total population of residents aged 18 to 29 will be roughly equal to today.



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Nevada Population Aged 18 to 29

APPLIED ANALYSIS

### **Enrollment-Related Revenue**

The projected decline in college-age population carries the potential to significantly affect revenues across all NSHE institutions. While NSHE revenue comes from a wide variety of sources, nearly half of all revenues are closely tied to student enrollment.

A quarter of system funding is sourced to a formula based on weighted student credit hours (WSCH). This funding, which accounts for the majority of state-supported higher education appropriations, is calculated and distributed based on the total number of student credit hours completed at each institution.

The other major enrollment-related revenue source, student tuition and fees, is based on student credit hour registrations and per-student fees.



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## **Model Overview**

To estimate the potential effects of future enrollment declines on NSHE enrollment-related funding, Applied Analysis developed a model to evaluate various enrollment and funding scenarios.

- The model projects NSHE fall enrollment, weighted student credit hours, weighted student credit hour funding, student tuition and fees and other revenues and operational expenses though 2040.
- Enrollment projections are based on the latest long-term population projections from the Nevada State Demographer.
- Three projection scenarios were modeled, with enrollment rates for residents aged 18 to 29 serving as the primary variable. The three scenarios are:
  - Base Scenario Enrollment rates stabilize at post-pandemic levels, and any changes in future enrollment will be driven by the rise and fall of the college-age population.
  - High Scenario Enrollment rates rebound to the 10-year average set prior to the pandemic.

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• Low Scenario – Enrollment rates continue to decline from current levels.



#### **ENROLLMENT IN DECLINE**

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## **Enrollment – Model Projections**

In each scenario, enrollment would recover in the immediate years ahead as the 18-to-29-year-old population group expands. Over the long term, growth trends would recede to varying degrees as underlying demographics take hold.



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### **Enrollment – Base Scenario**

Under the base scenario, NSHE enrollment would grow over the next five years before leveling off into the early 2030s. In the second half of the next decade, enrollment would steadily decline consistent with the college-age population.



### Enrollment – Base Scenario

On an institutional basis, each school is projected to follow the broader rise and fall in enrollment over the next two decades. In general, institutions with lower proportions of 18- to 29-year-olds would be less affected by the demographic shift in later years.



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Enrollment – Base Scenario

'02 '04 '06 '08 '10 '12 '14 '16 '18 '20 '22 '24 '26 '28 '30 '32 '34 '36 '38 '40

Source: Applied Analysis

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ANALYSIS

## **Enrollment – High Scenario**

Under the high scenario, enrollment across NSHE institutions would rapidly increase over the next decade due to a combination of expanding population and recovering enrollment rates.



## **Enrollment – High Scenario**

NSHE's two-year institutions are projected to gain larger shares of enrollment compared to their four-year counterparts. This trend reflects the larger projected recovery in enrollment rates among two-year institutions after significant declines in recent years.



| Enrollment – High Scenario |         |         |         |         |         |  |
|----------------------------|---------|---------|---------|---------|---------|--|
|                            |         |         | CAGR    |         | CAGR    |  |
|                            | 2023    | 2030    | vs. '23 | 2040    | vs. '23 |  |
| UNLV                       | 30,700  | 34,200  | 1.6%    | 31,800  | 0.2%    |  |
| UNR                        | 20,800  | 24,300  | 2.2%    | 23,200  | 0.6%    |  |
| NSU                        | 7,200   | 8,900   | 3.1%    | 8,800   | 1.2%    |  |
| CSN                        | 29,000  | 37,600  | 3.8%    | 37,300  | 1.5%    |  |
| GBC                        | 3,200   | 4,300   | 4.3%    | 4,400   | 1.9%    |  |
| ТМСС                       | 9,600   | 12,800  | 4.2%    | 12,800  | 1.7%    |  |
| WNC                        | 3,500   | 4,500   | 3.7%    | 4,400   | 1.4%    |  |
| NSHE                       | 104,000 | 126,600 | 2.8%    | 122,600 | 1.0%    |  |

#### **Enrollment – High Scenario**

'02 '04 '06 '08 '10 '12 '14 '16 '18 '20 '22 '24 '26 '28 '30 '32 '34 '36 '38 '40

Source: Applied Analysis

APPLIED ANALYSI



### **Enrollment – Low Scenario**

Under the low scenario, enrollments are projected for minimal recovery in the near term due to college-age population growth outpacing the continued erosion of enrollment rates.



### **Enrollment – Low Scenario**

Under the low scenario, enrollment at two-year institutions would rise but not reach pre-pandemic levels before declining over the long term. Four-year institution enrollment would briefly exceed pre-pandemic levels before its decline.



| Enrollment – L | ow Scenario |         |         |        |         |
|----------------|-------------|---------|---------|--------|---------|
|                |             |         | CAGR    |        | CAGR    |
|                | 2023        | 2030    | vs. '23 | 2040   | vs. '23 |
| JNLV           | 30,700      | 31,400  | 0.3%    | 28,200 | -0.5%   |
| JNR            | 20,800      | 21,200  | 0.3%    | 19,000 | -0.5%   |
| ISU            | 7,200       | 7,900   | 1.3%    | 7,400  | 0.2%    |
| CSN            | 29,000      | 30,100  | 0.5%    | 27,100 | -0.4%   |
| BBC            | 3,200       | 3,500   | 1.3%    | 3,200  | 0.0%    |
| МСС            | 9,600       | 10,000  | 0.6%    | 9,000  | -0.4%   |
| VNC            | 3,500       | 3,500   | 0.0%    | 3,200  | -0.5%   |
| ISHE           | 104,000     | 107,600 | 0.5%    | 97,000 | -0.4%   |

#### Enrollment – Low Scenario

#### Source: Applied Analysis

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#### **ENROLLMENT IN DECLINE**

### DEMOGRAPHIC REALITIES



#### **REVENUE PROJECTIONS**

#### FINANCIAL PROJECTIONS

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## **WSCH Funding Formula**

For the past decade, the state has relied upon the weighted school credit hour (WSCH) funding formula to distribute state funding among NSHE's institutions fairly and equitably. A simplified summary is provided below.









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## Weighted Student Credit Hours – Model Projection

After the projected rise and fall over the long-term horizon, the number of weighted student credit hours in the base scenario ends about 4 percent above current levels, while the high scenario increases by 16 percent and the low scenario falls by 6 percent.



## **WSCH Funding Rate – Model Projection**

Since 2014, the WSCH funding rate has increased by 2.1 percent on an annual compounding basis. Over the past five years, that growth rate has fallen by half to 1.1 percent. The projection assumes 2.0 percent annual growth.

WSCH Funding Rate



## Weighted Student Credit Hours – Base Scenario

Under the base scenario, total weighted student credit hours will climb with enrollment in the near term. However, at the total number of weighted student credit hours as in the 2019-2020 academic year.

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### WSCH Funding – Base Scenario

Total WSCH funding is projected to rise steadily over the next two decades due to funding rate increases, however, the rate of growth will slow in the later half of the projection period as enrollment declines outpace those rate increases.



| WSCH Funding – Base Scenario |           |           |         |           |         |  |
|------------------------------|-----------|-----------|---------|-----------|---------|--|
|                              |           |           | CAGR    |           | CAGR    |  |
|                              | 2023      | 2030      | vs. '23 | 2040      | vs. '23 |  |
| UNLV                         | \$189.0 M | \$239.5 M | 3.4%    | \$273.1 M | 2.2%    |  |
| UNR                          | \$129.1 M | \$163.0 M | 3.4%    | \$188.4 M | 2.2%    |  |
| NSU                          | \$27.9 M  | \$41.9 M  | 6.0%    | \$50.6 M  | 3.6%    |  |
| CSN                          | \$102.5 M | \$119.0 M | 2.2%    | \$139.5 M | 1.8%    |  |
| GBC                          | \$14.1 M  | \$16.2 M  | 1.9%    | \$19.2 M  | 1.8%    |  |
| TMCC                         | \$36.0 M  | \$43.1 M  | 2.6%    | \$50.0 M  | 1.9%    |  |
| WNC                          | \$14.7 M  | \$18.4 M  | 3.2%    | \$21.2 M  | 2.2%    |  |
| NSHE                         | \$513.4 M | \$641.1 M | 3.2%    | \$742.0 M | 2.2%    |  |

#### WSCH Funding

Source: Applied Analysis

APPLIED ANALYSIS

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## Weighted Student Credit Hours – High Scenario

Under the high scenario, total weighted student credit hours will continue to climb over the next 10 years, peaking at 3.7 million before the decline brings that total down to 3.5 million by 2040.



## WSCH Funding – High Scenario

On an institutional basis, total funding from the weighted student credit hour formula will increase by healthy levels through 2030. In the decade that follows, growth will slow along with enrollment growth.



| WSCH Funding – High Scenario |           |           |         |           |         |  |  |
|------------------------------|-----------|-----------|---------|-----------|---------|--|--|
|                              |           |           | CAGR    |           | CAGR    |  |  |
|                              | 2023      | 2030      | vs. '23 | 2040      | vs. '23 |  |  |
| UNLV                         | \$189.0 M | \$239.6 M | 3.4%    | \$276.4 M | 2.3%    |  |  |
| UNR                          | \$129.1 M | \$171.2 M | 4.1%    | \$206.8 M | 2.8%    |  |  |
| NSU                          | \$27.9 M  | \$43.0 M  | 6.4%    | \$54.1 M  | 4.0%    |  |  |
| CSN                          | \$102.5 M | \$133.4 M | 3.8%    | \$173.1 M | 3.1%    |  |  |
| GBC                          | \$14.1 M  | \$17.7 M  | 3.2%    | \$23.6 M  | 3.1%    |  |  |
| ТМСС                         | \$36.0 M  | \$48.9 M  | 4.5%    | \$63.9 M  | 3.4%    |  |  |
| WNC                          | \$14.7 M  | \$20.7 M  | 5.0%    | \$26.9 M  | 3.6%    |  |  |
| NSHE                         | \$513.4 M | \$674.4 M | 4.0%    | \$824.8 M | 2.8%    |  |  |

#### WSCH Funding

Source: Applied Analysis

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## Weighted Student Credit Hours – Low Scenario

Under the low scenario, weighted student credit hours in 2040 would total 2.8 million, less than current levels and in line with the 2016 total as enrollment shrinks.



## WSCH Funding – Low Scenario

As total weighted student credit hours declines under the low scenario, funding totals will slow but still rise gradually due to annual increases in the WSCH funding rate.



| WSCH Funding – Low Scenario |           |           |         |           |         |  |
|-----------------------------|-----------|-----------|---------|-----------|---------|--|
|                             |           |           | CAGR    |           | CAGR    |  |
|                             | 2023      | 2030      | vs. '23 | 2040      | vs. '23 |  |
| UNLV                        | \$189.0 M | \$225.7 M | 2.6%    | \$245.3 M | 1.5%    |  |
| UNR                         | \$129.1 M | \$155.0 M | 2.6%    | \$169.6 M | 1.6%    |  |
| NSU                         | \$27.9 M  | \$39.4 M  | 5.1%    | \$45.5 M  | 2.9%    |  |
| CSN                         | \$102.5 M | \$113.7 M | 1.5%    | \$125.8 M | 1.2%    |  |
| GBC                         | \$14.1 M  | \$15.1 M  | 1.0%    | \$17.2 M  | 1.2%    |  |
| ТМСС                        | \$36.0 M  | \$41.1 M  | 1.9%    | \$45.0 M  | 1.3%    |  |
| WNC                         | \$14.7 M  | \$17.4 M  | 2.4%    | \$19.1 M  | 1.5%    |  |
| NSHE                        | \$513.4 M | \$607.5 M | 2.4%    | \$667.6 M | 1.6%    |  |

#### WSCH Funding

Source: Applied Analysis

APPLIED ANALYSIS

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## **Student Tuition & Fees Revenue – Model Projection**

Revenues from student tuition and fees are projected to steadily increase under each of the growth scenarios. The base scenario total is projected to grow about 2.8 percent annually, with the high and low totals ending about 10 percent above and below.



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Student Tuition & Fees Revenue

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## **Student Tuition & Fees Revenue – Base Scenario**

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Increases in student tuition and fees revenue will be experienced across NSHE institutions to varying degrees, with systemwide growth averaging 2.8 percent through 2040 in the base scenario.



| Student Tuition & Fees Revenue – Base Scenario |           |           |         |           |         |  |  |
|--|-----------|-----------|---------|-----------|---------|--|--|
|  |           |           | CAGR    |           | CAGR    |  |  |
|  | 2023      | 2030      | vs. '23 | 2040      | vs. '23 |  |  |
| JNLV   | \$232.3 M | \$287.7 M | 3.1%    | \$313.2 M | 1.8%    |  |  |
| JNR  | \$159.7 M | \$207.4 M | 3.8%    | \$240.9 M | 2.4%    |  |  |
| NSU  | \$11.7 M  | \$17.0 M  | 5.4%    | \$21.5 M  | 3.6%    |  |  |
| CSN  | \$56.2 M  | \$86.7 M  | 6.4%    | \$127.7 M | 4.9%    |  |  |
| GBC  | \$6.8 M   | \$13.1 M  | 9.7%    | \$25.4 M  | 8.0%    |  |  |
| ГМСС   | \$16.7 M  | \$24.8 M  | 5.8%    | \$34.6 M  | 4.4%    |  |  |
| WNC  | \$6.3 M   | \$9.9 M   | 6.6%    | \$16.4 M  | 5.7%    |  |  |
| NSHE   | \$489.8 M | \$646.4 M | 4.0%    | \$779.7 M | 2.8%    |  |  |

#### Student Tuition & Fees Revenue

#### Source: Applied Analysis

APPLIED ANALYSIS

## **Student Tuition & Fees Revenue – High Scenario**

Revenue growth from student tuition and fees is accelerated under the high scenario, with long-term compound annual growth averaging 3.4 percent.



#### Student Tuition & Fees Revenue

| Student Tuition & Fees Revenue – High Scenario |  |  |  |   |  |  |
|--|--|--|--|---|--|--|
|  |  | CAGR   |  | CAGR  |  |  |
| 2023   | 2030   | vs. '23  | 2040   | vs. '23   |  |  |
| \$232.3 M                                      | \$290.5 M  | 3.2%   | \$317.6 M  | 1.9%  |  |  |
| \$159.7 M                                      | \$221.3 M  | 4.8%   | \$264.3 M  | 3.0%  |  |  |
| \$11.7 M                                       | \$17.8 M   | 6.1%   | \$23.1 M   | 4.1%  |  |  |
| \$56.2 M                                       | \$100.7 M  | 8.7%   | \$158.2 M  | 6.3%  |  |  |
| \$6.8 M  | \$15.1 M   | 12.0%  | \$31.2 M   | 9.4%  |  |  |
| \$16.7 M                                       | \$29.4 M   | 8.4%   | \$44.2 M   | 5.9%  |  |  |
| \$6.3 M  | \$11.7 M   | 9.1%   | \$20.7 M   | 7.2%  |  |  |
| \$489.8 M                                      | \$686.5 M  | 4.9%   | \$859.3 M  | 3.4%  |  |  |
|  | 2023<br>\$232.3 M<br>\$159.7 M<br>\$11.7 M<br>\$56.2 M<br>\$6.8 M<br>\$16.7 M<br>\$6.3 M<br><b>\$489.8 M</b> | 2023   2030     \$232.3 M   \$290.5 M     \$159.7 M   \$221.3 M     \$11.7 M   \$17.8 M     \$56.2 M   \$100.7 M     \$6.8 M   \$15.1 M     \$16.7 M   \$29.4 M     \$6.3 M   \$11.7 M | Zees Revenue – High Scenario   2023 2030 CAGR   \$232.3 M \$290.5 M 3.2%   \$159.7 M \$221.3 M 4.8%   \$11.7 M \$17.8 M 6.1%   \$56.2 M \$100.7 M 8.7%   \$6.8 M \$15.1 M 12.0%   \$16.7 M \$29.4 M 8.4%   \$6.3 M \$11.7 M 9.1% | Zora   CAGR   2040     \$232.3 M   \$290.5 M   3.2%   \$317.6 M     \$159.7 M   \$221.3 M   4.8%   \$264.3 M     \$11.7 M   \$17.8 M   6.1%   \$23.1 M     \$56.2 M   \$100.7 M   8.7%   \$158.2 M     \$6.8 M   \$15.1 M   12.0%   \$31.2 M     \$6.3 M   \$11.7 M   \$29.4 M   8.4%     \$6.3 M   \$11.7 M   \$29.4 M   \$44.2 M     \$6.3 M   \$11.7 M   \$20.7 M     \$489.8 M   \$686.5 M   4.9%   \$859.3 M |  |  |

Source: Applied Analysis

A PPLIED A NALYSIS

## **Student Tuition & Fees Revenue – Low Scenario**

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Under the low scenario, student tuition and fees revenue would lag due to enrollment declines through most of the projection period.



| tudent Tuition & Fees Revenue – Low Scenario |           |           |         |           |         |  |  |
|--|-----------|-----------|---------|-----------|---------|--|--|
|  |           |           | CAGR    |           | CAGR    |  |  |
|  | 2023      | 2030      | vs. '23 | 2040      | vs. '23 |  |  |
| JNLV   | \$232.3 M | \$267.2 M | 2.0%    | \$281.8 M | 1.1%    |  |  |
| JNR  | \$159.7 M | \$192.6 M | 2.7%    | \$216.8 M | 1.8%    |  |  |
| ISU  | \$11.7 M  | \$15.7 M  | 4.3%    | \$19.4 M  | 3.0%    |  |  |
| SN   | \$56.2 M  | \$80.5 M  | 5.3%    | \$115.0 M | 4.3%    |  |  |
| BC   | \$6.8 M   | \$12.1 M  | 8.6%    | \$22.8 M  | 7.4%    |  |  |
| MCC  | \$16.7 M  | \$23.0 M  | 4.7%    | \$31.2 M  | 3.7%    |  |  |
| VNC  | \$6.3 M   | \$9.2 M   | 5.5%    | \$14.7 M  | 5.1%    |  |  |
| ISHE   | \$489.8 M | \$600.5 M | 3.0%    | \$701.7 M | 2.1%    |  |  |

#### Student Tuition & Fees Revenue

Source: Applied Analysis







#### **ENROLLMENT IN DECLINE**

### DEMOGRAPHIC REALITIES



### **ENROLLMENT OUTLOOK**



### **REVENUE PROJECTIONS**

#### FINANCIAL PROJECTIONS

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### **Revenue Gap – Base Scenario**

Based on the enrollment and revenue scenarios outlined earlier, the finances of NSHE were projected to illustrate the potential revenue gap related to forecasted declines in enrollment.

Operating revenues include student tuition and fees, grants \$3.5 B and contracts, and sales and services. The bulk of nonoperating revenues consists of state appropriations from \$3.0 B the State general fund, including WSCH formula funding.

For all scenarios, projected operating expenses are based on the actual 10-year compound annual average.

Under the base scenario, revenues and expenses grow closely together while enrollment grows through the end of \$1.5 B the decade. However, once enrollment begins to decline, around 2030, revenues begin to tail off and the gap \$1.0 B between expenses widens.



'31

'33

'35

'37

Source: Applied Analysis

#### NSHE Revenues and Expenses – Base Scenario

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'11

'13

'17

'15

'19

'21

'23

'25

'27

'29

\$4.0 B

\$2.5 B

\$2.0 B

\$0.5 B



'39

## **Revenue Gap – High Scenario**

Under the high scenario, higher revenues are generated based on more enrollment-related funding, including WSCH formula funding and student tuition and fees.

Compared to the base scenario, the gap between revenues and expenses is narrower for longer as the two grow in \$3 lockstep into the early 2030s.

However, once enrollment begins to decline about a decade from now, the gap between revenues and expenses begins to grow, expanding annual funding deficits.

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ANALYSI

### **Revenue Gap – Low Scenario**

Under the low scenario, the growth in expenses outpaces the growth in revenues throughout the projection period.

The annual funding deficits this funding gap creates quickly accelerate year after year, topping \$500 million by fiscal year 2033 and exceeding \$1 billion by 2039.

Under this scenario, significant increases in revenue and/or significant decreases in expenses would be necessary to balance the financial picture and avoid depleting the system's net position.

NSHE FINANCIAL



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ANALYSI

### **Revenue Gap – Base Scenario**

As the annual gap between revenues and expenses grow, the net position balance erodes. In reality, changes would be made to avoid hitting a zero balance, but this scenario illustrates the potential path ahead without fiscal adjustments.

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WSCH funding rate yearly increase required to close revenue gap and maintain net position



2.1% historical 10-year average

#### 5.5%

Student tuition and fees yearly increase required to close revenue gap and maintain net position



3.2% historical 10-year average

Source: Applied Analysis

APPLIED

ANALYSIS

## **Revenue Gap – High Scenario**

Increasing revenues under the high scenario slow the decline in the net position, but the steady dip in enrollments and relatedrevenues eventually leads to a zero balance that is delayed by three years compared to the base scenario.

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WSCH funding rate yearly increase required to close revenue gap and maintain net position



2.1% historical 10-year average

4.5%

Student tuition & fees yearly increase required to close revenue gap and maintain net position



3.2% historical 10-year average

Source: Applied Analysis



### **Revenue Gap – Low Scenario**

The pace of erosion to the net position is fastest under the low scenario as falling revenues are outpaced by the growth in expenses. To maintain the net position, significant rate increases would be necessary for enrollment-related revenues.





WSCH funding rate yearly increase required to close revenue gap and maintain net position



2.1% historical 10-year average

6.5%

Student tuition & fees yearly increase required to close revenue gap and maintain net position



3.2% historical 10-year average

Source: Applied Analysis

APPLIED

ANALYSIS

NSHE FINANCIAL MODEL ASSESSMENT & PROJECTION

### NSHE FINANCIAL MODEL ASSESSMENT & PROJECTION



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