



STATE UNIVERSITY SYSTEM *of* FLORIDA
Board of Governors

A Roadmap for Measuring & Increasing Relevant Outputs for the SUS

Workgroup

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The Perceptions of the Governor & Legislators

PERCEPTIONS

- **Wasteful and not efficient**
- **Obsolete, arcane majors; irrelevant classes**
- **Duplication of programs**
- **Student awareness of employment and salary opportunities post-graduation**
- **Not enough graduates in STEM fields**
- **Graduation rates are not high enough**



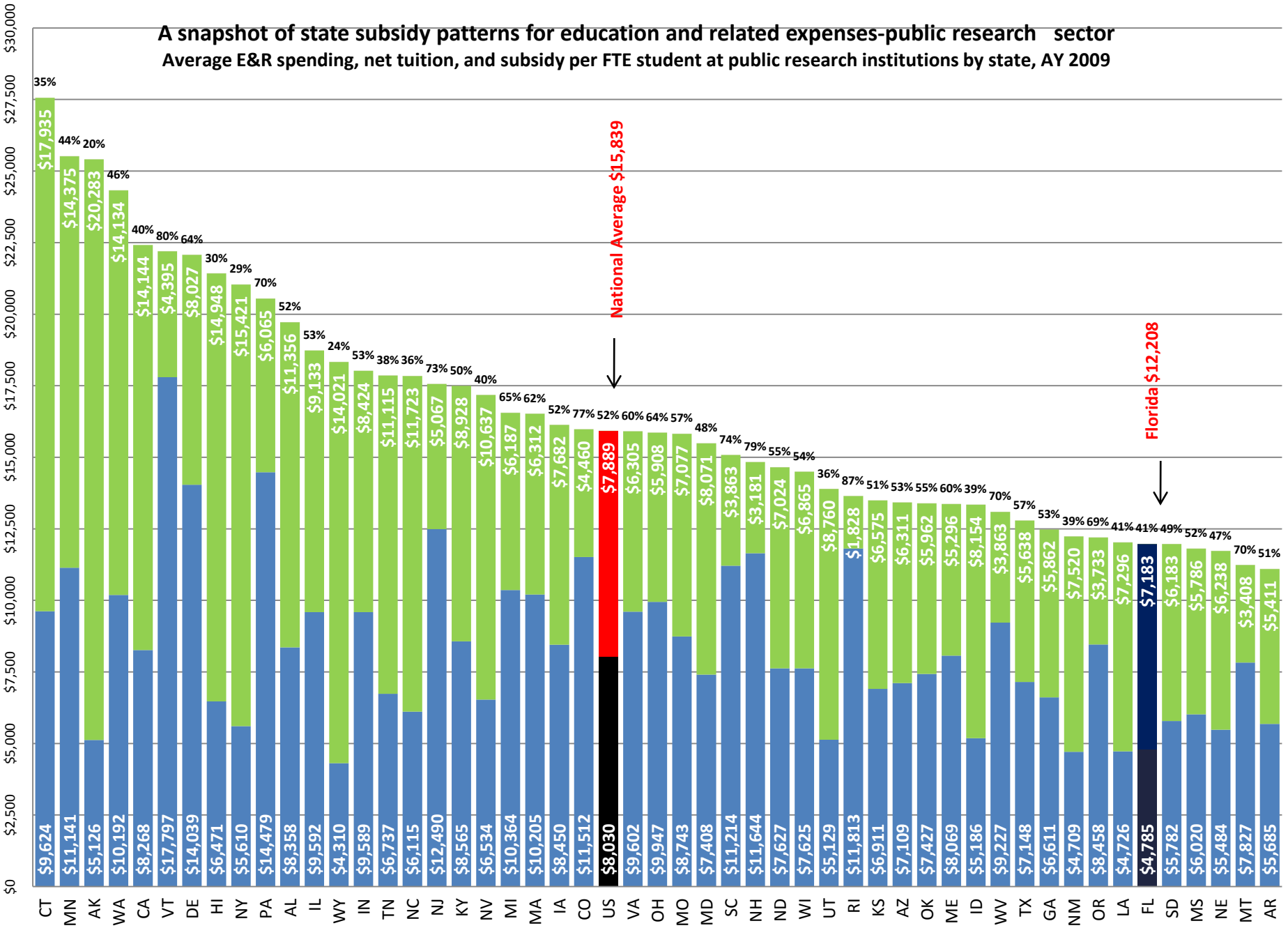
Objectives

- **The Board of Governors should set goals for improvement on specific measures--system wide --as part of its Strategic Plan**
- **Each university assigned its contribution to system measure based on mission**
- **Allow universities wide discretion in how to improve those metrics**
- **Free existing funding to allow universities to improve the key metrics and increase STEM degree production**



A snapshot of state subsidy patterns for education and related expenses-public research sector

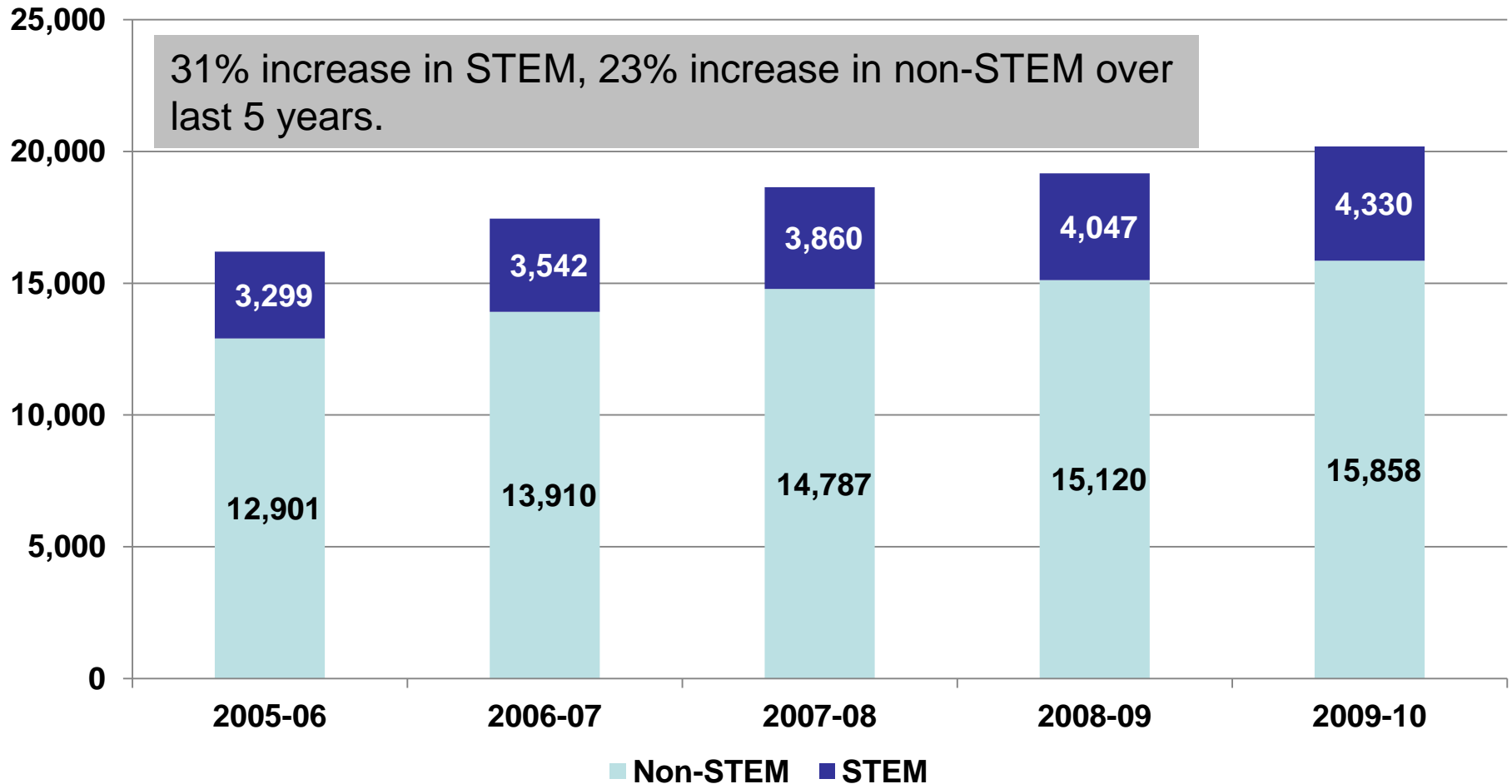
Average E&R spending, net tuition, and subsidy per FTE student at public research institutions by state, AY 2009



	Metric	Amount	Note
↑	Enrollment	321,000	<i>Up 9% since 2005/06</i>
↑	All Baccalaureate Degrees Awarded	55,689	<i>Up 19% since 2005/06</i>
↑	STEM Bacc. Degrees Awarded	9,531	<i>Up 18% since 2005/06</i>
↑	All Graduate Degrees Awarded	21,176	<i>Up 23% since 2005/06</i>
↑	STEM Grad. Degrees Awarded	4,330	<i>Up 31% since 2005/06</i>
↑	6-Year FTIC Graduation Rate (System Average)	63%	<i>Ranked #4 among the nation's largest public university systems; average time to complete is 4.3 years.</i>
↑	FTIC Retention Rate (System Average)	87%	<i>Ranked #2 among the nation's largest university systems</i>
↑	Research and Development	\$1.7 Billion	<i>Nearly doubled since 2005/06; ranked #4 in the nation for public university systems</i>



Graduate Degrees



Metrics: Accountability & Transparency

Considerations

Efficiencies are an executive function

- Cannot legislate

Effect of Recession

- Over 100 Centers & Institutes closed or placed in inactive status
- 218 degree programs terminated; 74 suspended

“One size” does not fit all

BOTs - provide tighter management



Considerations

Universities are aware and responsive to market demand – as are students

Critical Thinking

- Academic Learning Compacts

Liberal Arts Majors are Productive

Importance of Technology

- Declining # of graduates
- Meeting the need of high-tech industry employers
- Can be integrated into all degree programs



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8-10 Understandable Metrics

- 1. Graduation Rates - Currently #4 in Nation**
 - Expected Graduation Rate (EGR)-- Since most students work at least part time, the graduation rate needs to be adjusted to expectancy, and then to rise.**
 - Differentiating rates by FTIC' s, AA Transfers, Other Transfers**



8-10 Understandable Metrics

2. Degree Production: increase in number of graduates
 - STEM degree production: increase in number of STEM graduates
3. Retention rates (freshman to sophomore; sophomore to junior)
4. Professional licensure passage rates



8-10 Understandable Metrics

5. Economic Development Impact

- Number of patents, licenses, royalty income
- Business start-ups spun off of university created enterprises - # of jobs created

6. External research grants and contracts

7. Medical breakthroughs



8-10 Understandable Metrics

- 8. Job placement outcomes for baccalaureate graduates – collect and submit uniform data**
- Within X months**
 - In critical disciplines**
 - In-state**
 - Starting Salaries**



Increasing Employability & Starting Salaries

- **Provide relevant information to students throughout their academic progress**
 - Expand ALC' s
 - Easily searchable website (BOG)
- **Increase opportunities for students and faculty to interact with potential employers**
- **Job placement and salaries as a metric**
 - Recognizes its importance to Legislature



The Case for STEM

Why STEM?

- **Can no longer count on agriculture, tourism and real estate to provide economic foundation for Florida**
 - **Need knowledge- and technology-based economy**
- **9 out of 10 of highest paying fields are STEM**
 - **Workforce shortage for STEM fields**



Challenges for STEM Education

Eroding interest in science and math

- **National Science Board - U.S. now 17th in proportion of college students majoring in science, though in 1970 U.S. ranked 3rd**
- **1970 - U.S. graduated over half of world's science and engineering doctorates, now closer to 15%**



Challenges for STEM Education

Eroding interest in science and math

- **2007 Newsweek article: “Americans don’t do science anymore”**
 - **In 9th grade girls show same interest in science and math as boys, but...**

Women are 46% of workforce, but only 23% of science and technology workforce.
 - **African Americans, Hispanics, and Native Americans are 24% of workforce, but only 7% of science and technology workforce**



Student Preparation in STEM

- More than half of students entering community colleges require remediation
- Students in Florida perform below students in many other states in science and math
- Test scores may be rising, as are the number of hours of advanced credit students enter college with, but basic skills are still lacking



Options to Consider

Potential STEM Initiatives

First – STEM will need a specific definition

- Should STEM incentives include medical and health-related professions?

- consider state's current investment

1. Differentiated/Market-based Tuition Strategies

2. STEM Scholarships

3. Bright Futures



Potential STEM Initiatives

4. Role of FRAG & ABLE?
5. STEM Graduation Grants
6. Loan Forgiveness
7. “Compete *and* Complete” Strategies
e.g. Computing
8. Special Recruiting, Mentoring & Advising Programs
9. Approaches for attracting out-of-state graduate students



FUNDING SOURCES

Potential Funding Sources

- **30% of Differential Tuition**
- **Market Rate Tuition**
- **Revenue Positive Changes to Bright Futures**
- **Eliminate specific restrictions on current funding streams**
- **Eliminate spending authority limitation on student tuition & fees collected**



INCENTIVIZING EXCELLENT TEACHING

- **Reward effective teaching as an incentive for continuous improvement**
- **Create a rewards system that reflects and encourages excellence in research and teaching**



Next: Commission on Outcome-Based Funding