

UNINTENDED OUTCOMES OF  
PERFORMANCE FUNDING

# INTRODUCTION

- Performance-Based Funding models typically rely on:
  - Principal-Agent Theory: States enter into agreement with public institutions to provide economic output
  - Resource-Dependency Theory: Level of incentive for action increases as the resources tied to successful output increase

## **In Theory:**

**Higher level of institutional dependence on the resources tied to performance → Higher level of institutional performance**

## UNINTENDED OUTCOMES

Concerns most commonly cited:

- Restricted Admissions
- Shift in institutional priority (from instruction to student support)
- Weakened Academic Standards

(Dougherty & Reddy, 2013; Dougherty, Jones, Lahr, Natow, Pheatt & Reddy, 2014; Ness, Deupree & Gandara, 2015)

## RESEARCH QUESTIONS

### ADMISSIONS RESTRICTIONS

Does data indicate restricted admissions in performance funded institutions?

### COST OF COMPLIANCE

Does data indicate a shift in spending for performance funded institutions that indicative of changing institutional priorities?

# CONCEPTUAL FRAMEWORK

- Input Output model:



- Input (admissions decisions):
- Institutional Effort (instruction, academic support, student services)
- Output: progress and completion (exit standards)

Performance funding - institutions can be incentivized to increase output through institutional effort.

(Rothschild & White, 1995; Choi, 2015; Cantillon et al., 2011)

## DATA & METHODS

- Institutional data from IPEDS for public 4-year institutions for academic years 2010-2015 (descriptive analysis):
  - Performance funded institutions compared to national averages for:
    - Restrictions in admissions:
      - Percent of applicants admitted
      - ACT Composite 25<sup>th</sup> and 75<sup>th</sup> percentile scores
      - First Time Full Time students awarded Pell
    - Cost of Compliance:
      - Institutional spending for academic support, instruction, and student services

# FUNDING FORMULA COMPONENTS

## OHIO

- Course completion - 30% of funding
- Degree completion - 30% of funding (includes Associates Degrees by 4-year institutions)
- Separate formulas in place for regional campuses through FY2015.
- 16 priority categories for at-risk students added in FY2015

## TENNESSEE

- Progress – 24, 48, 72 SCH completed
- Degrees Awarded (including Associates)
- Student Transfer
- Degrees per 100 FT students
- Graduation rate (6-year)
- **Premium for adult learners and low-income (Pell-eligible) students completing**
- Weighted for institutional mission (Carnegie classification)
- 85% of funding based on outcomes

## RESEARCH QUESTION #1

Does data indicate restricted admissions in performance funded institutions?

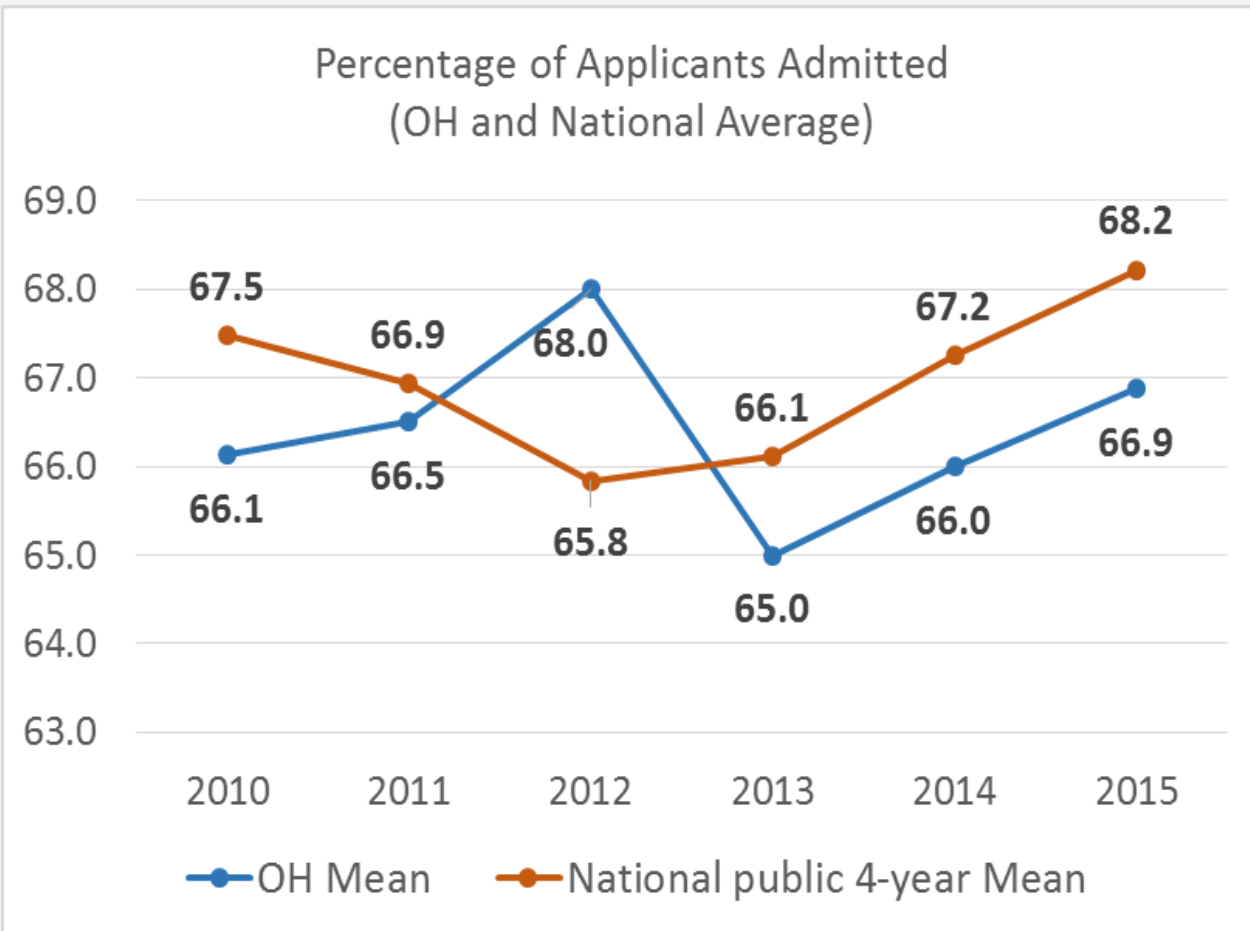
### Possible indicators:

- Increase in general selectivity
- Increase in ACT scores for admitted students
- Decrease in incoming Pell eligible students

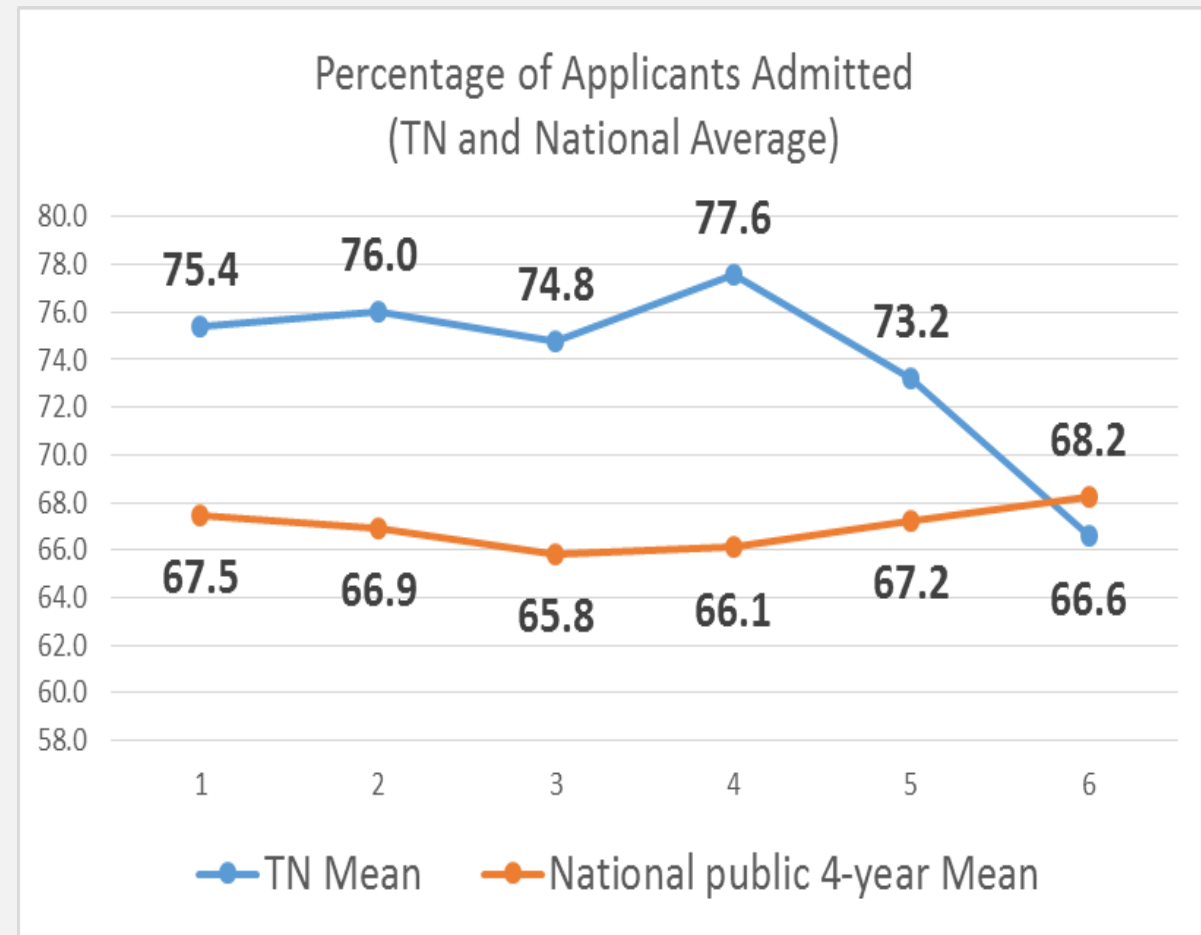


# PERCENT OF APPLICANTS ADMITTED

## OHIO



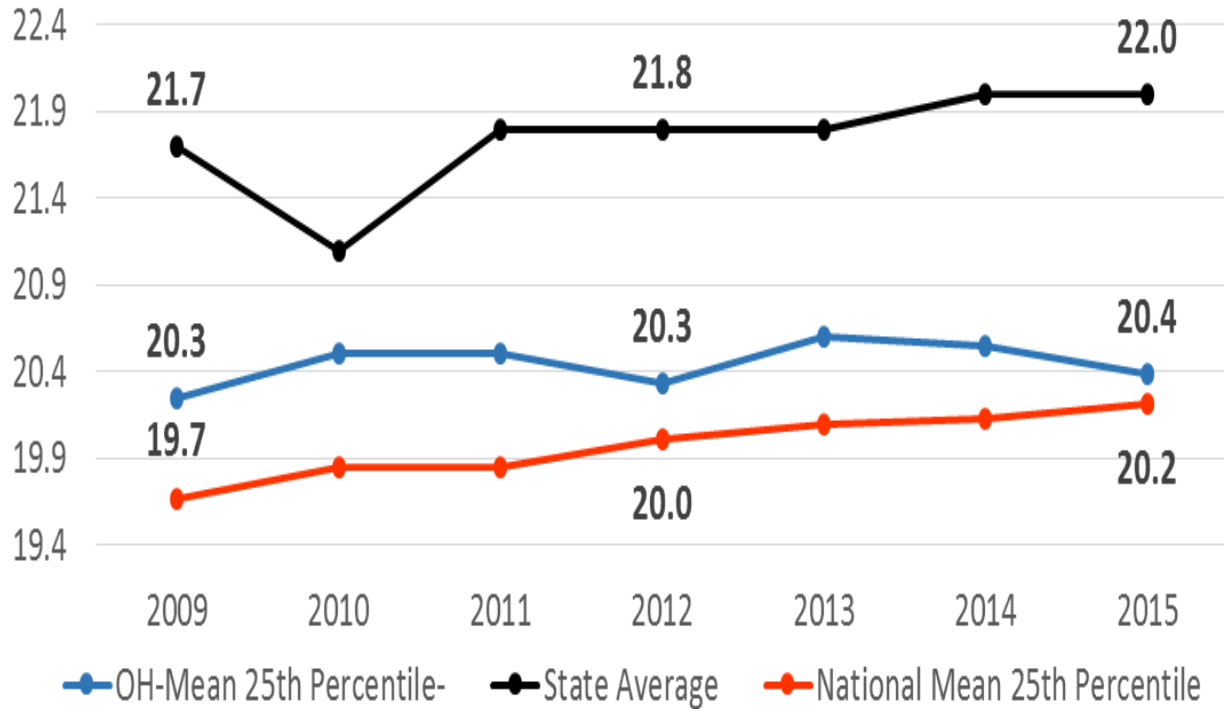
## TENNESSEE



# ADMITTED STUDENT ACT DATA - OH

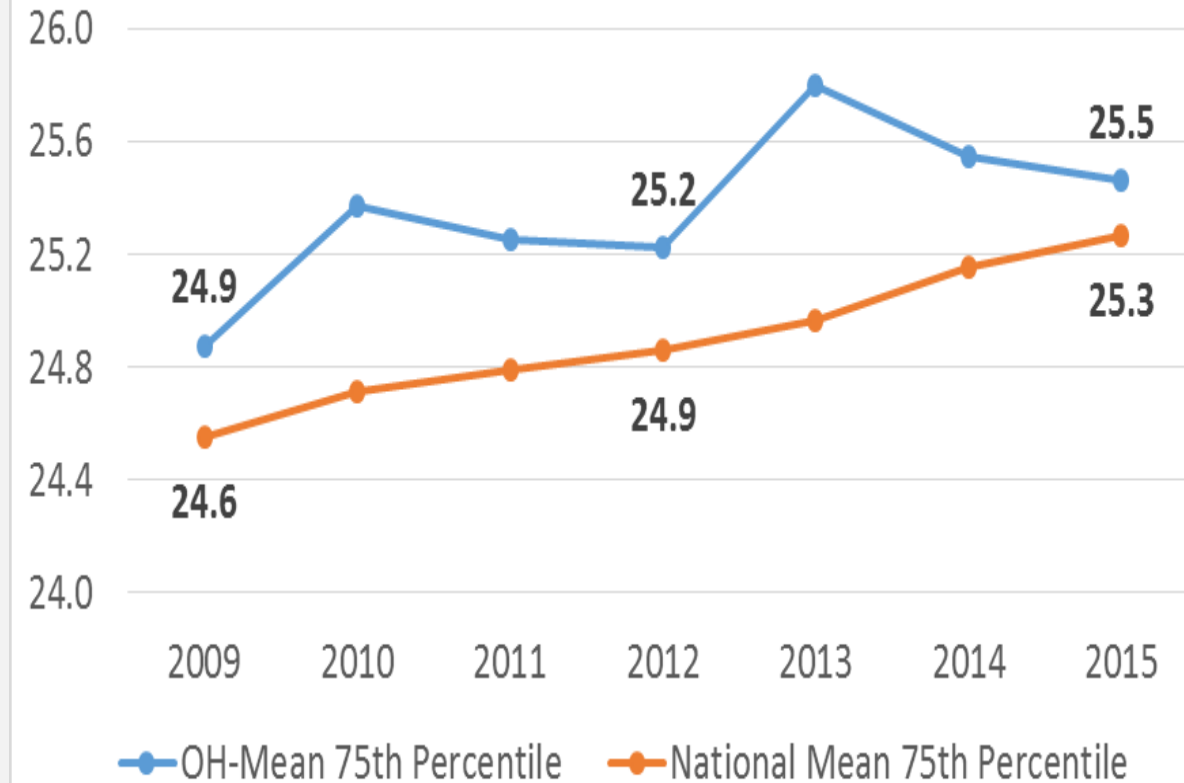
## 25<sup>TH</sup> PERCENTILE

Composite ACT - 25th Percentile (OH and National Average)  
with average scores for state



## 75<sup>TH</sup> PERCENTILE

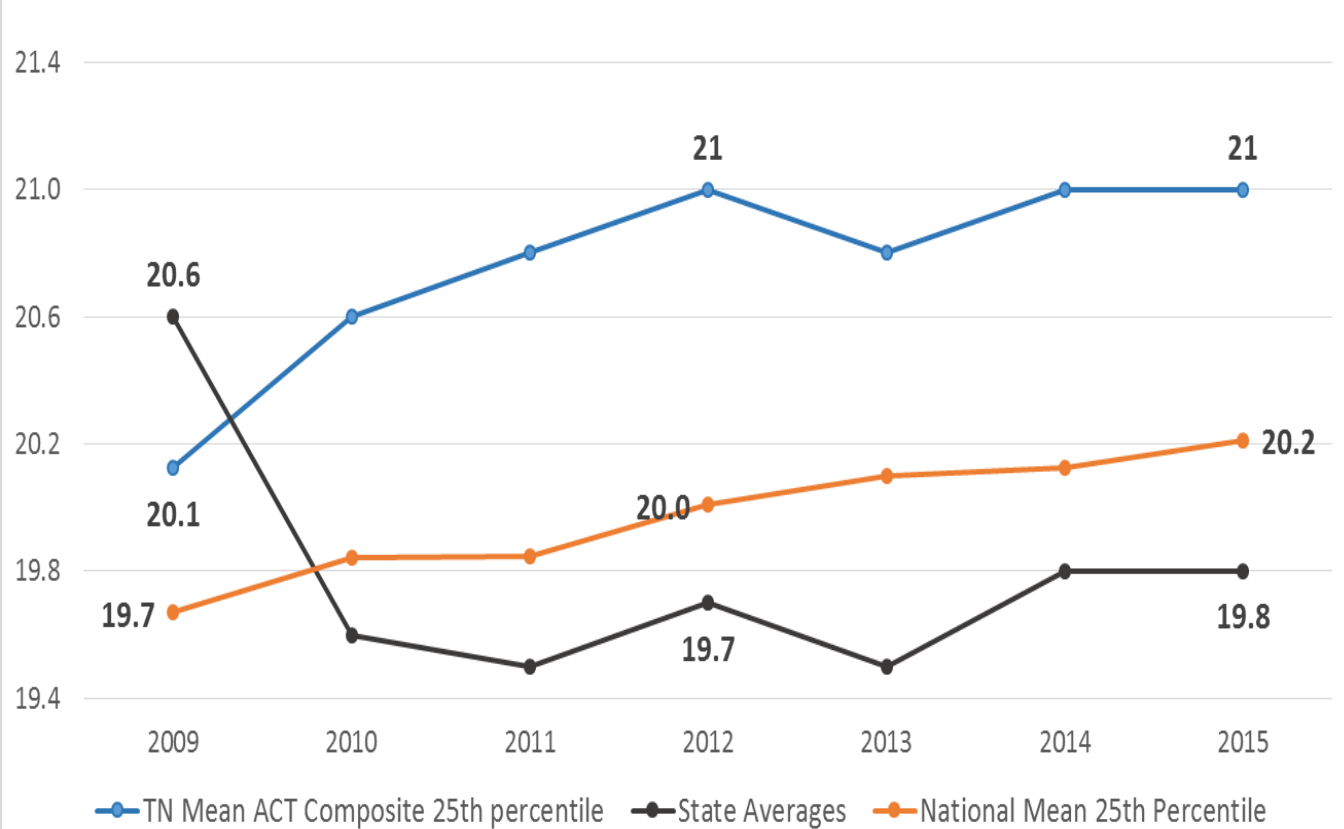
Composite ACT - 75th Percentile OH and National Average



# ADMITTED STUDENT ACT DATA - TN

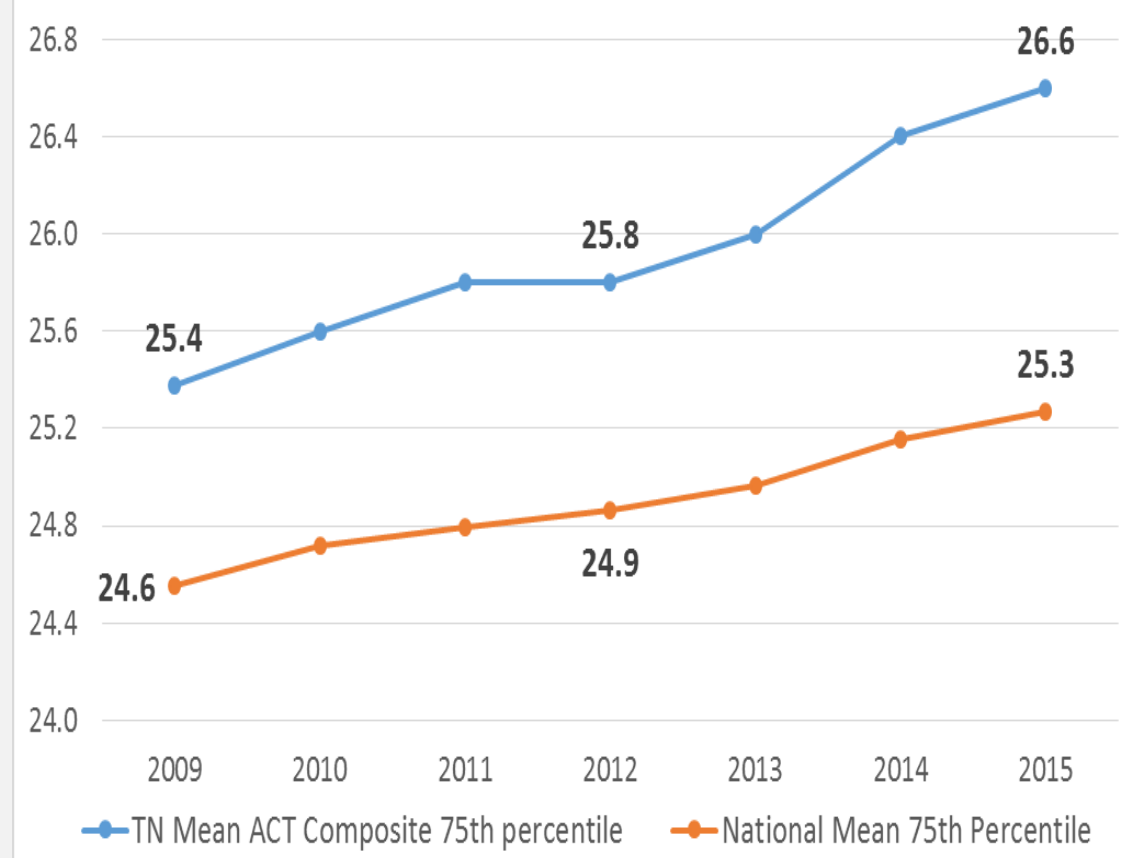
## 25<sup>TH</sup> PERCENTILE

Composite ACT - 25th Percentile TN and National Average  
(with average scores for state)



## 75<sup>TH</sup> PERCENTILE

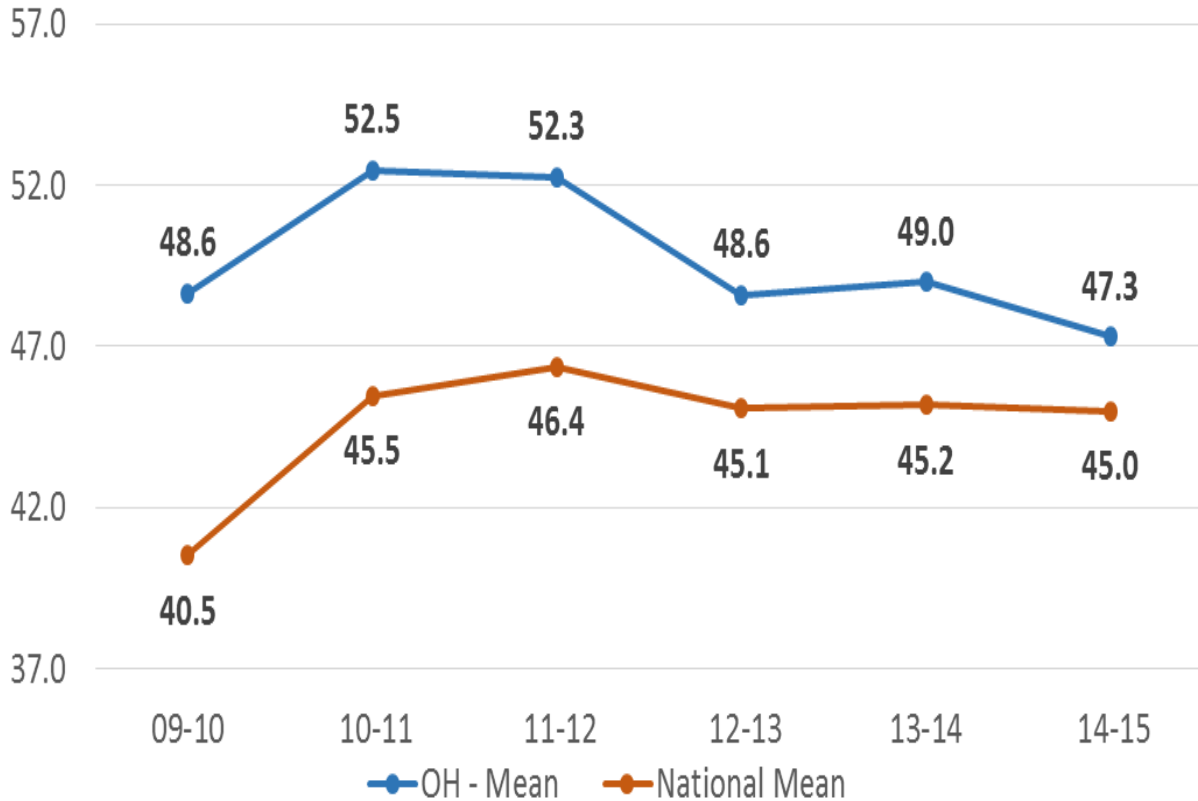
Composite ACT - 75th Percentile TN and National Average



# PERCENT FIRST-TIME FULL-TIME PELL ELIGIBLE

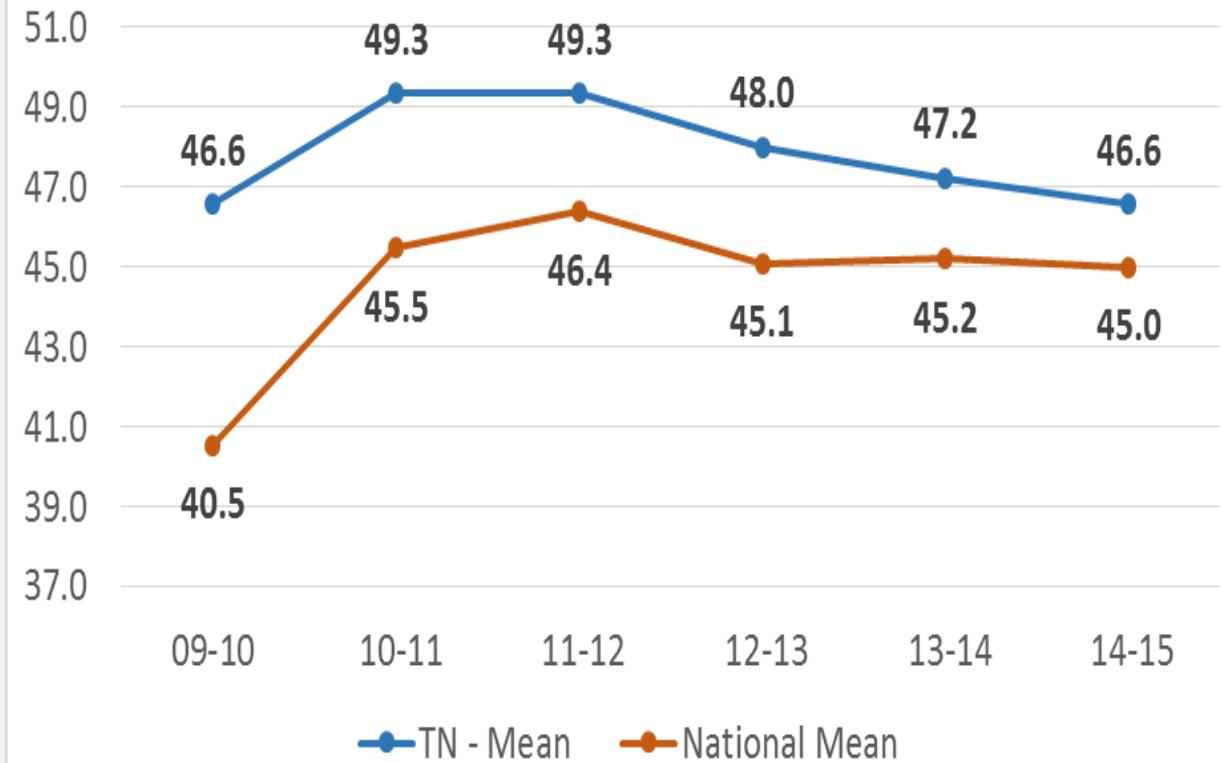
## OHIO

First Time Full Time Students Awarded Pell  
(OH and national average)



## TENNESSEE

First Time Full Time Students Awarded Pell  
(TN and National Average)



## RESEARCH QUESTION #2

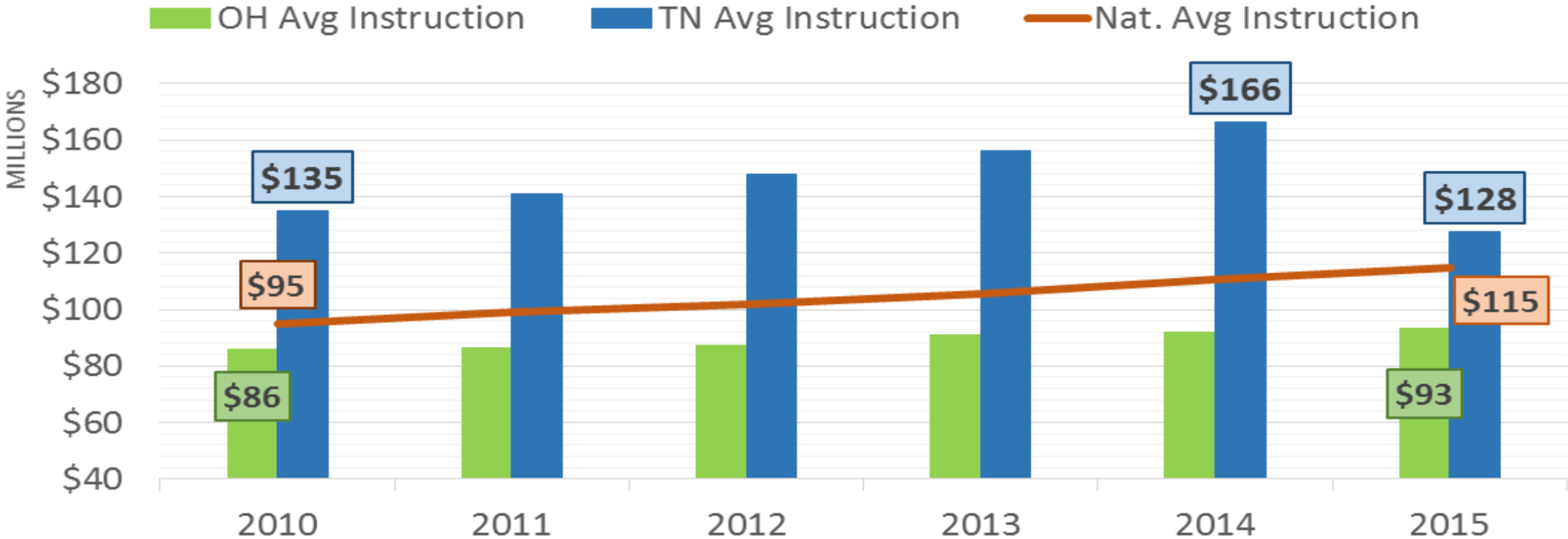
Does data indicate a shift in spending for performance funded institutions that indicative of changing institutional priorities?

### Possible Indicators:

- Institutional spending inconsistent with national averages for:
  - instruction
  - academic support
  - student services

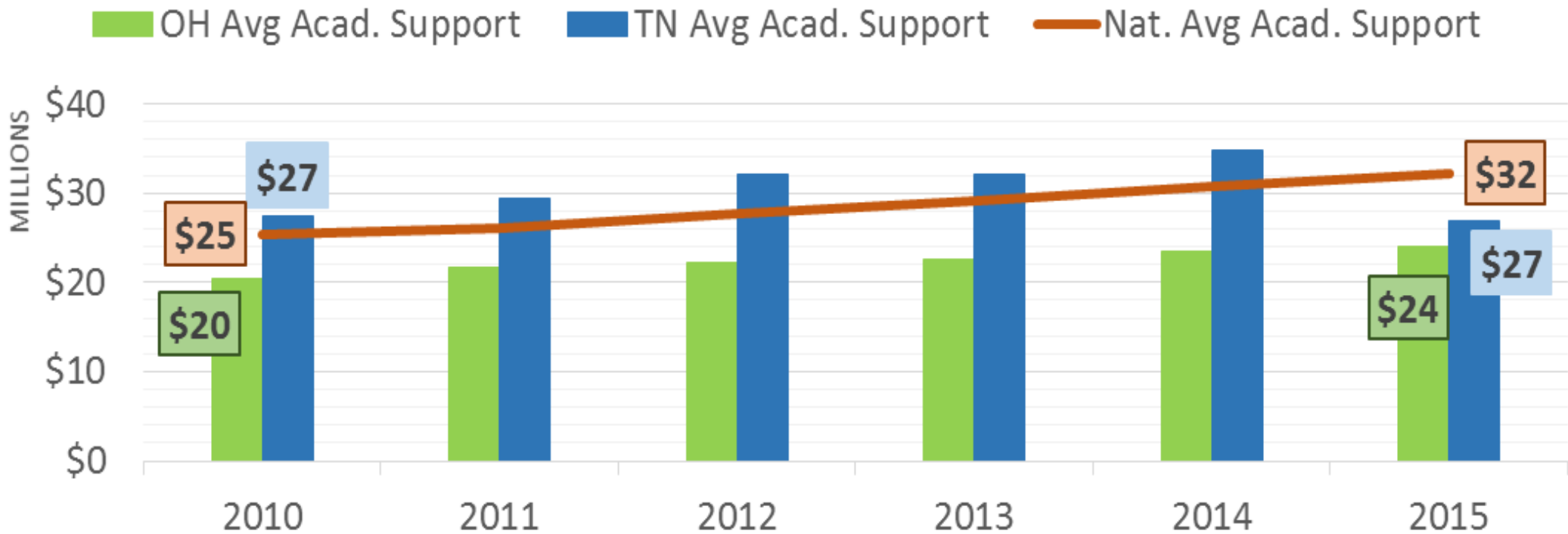
# AVERAGE SPENDING ON INSTRUCTION

Average Spending for Instruction  
(OH & TN Institutions compared to National Average)



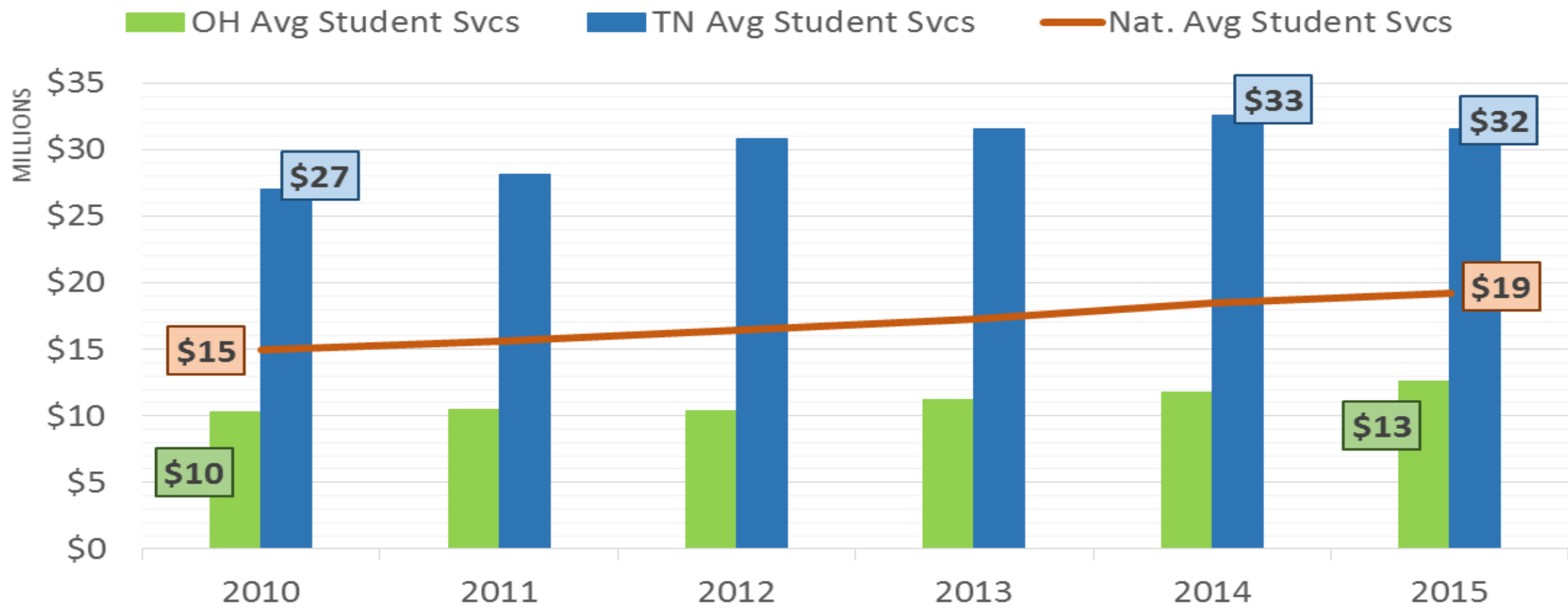
# AVERAGE SPENDING ON ACADEMIC SUPPORT

Average Spending for Academic Support  
(OH & TN compared to national average)



# AVERAGE SPENDING ON STUDENT SERVICES

## Average Spending for Student Services (OH & TN compared to national average)





## DISCUSSION

- Prioritizing institutional output could be associated with unintended outcomes (warrants further study)
- Input decisions:
  - Increases in selectivity – especially in TN
  - Increase in 25<sup>th</sup> percentile ACT scores for Tennessee, disproportionate to state and national average
  - Percentage of incoming Pell eligible students inconsistent with national average.
- Institutional Effort:
  - Spending for instruction and academic support decreased (TN) or increased at rates well below national average (OH)
  - Spending on student services increased faster than national average (OH) or was inconsistent with other spending cuts in the state (TN).

## LIMITATIONS AND FURTHER RESEARCH

- Variations in institution type:
  - Comparison based on institutional size, region, or mission, and student demographics
- Students may be choosing alternative paths
  - Students attending two year, vocational, and certification programs might offset shifts in four-year data
- Not long enough
- Academic standards
  - Degree requirements (institutional level)
  - Emphasis on student experiences

# REFERENCES

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