

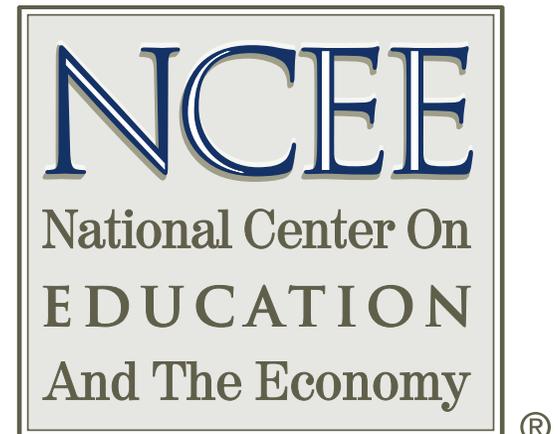
# The How and Why of International Education Benchmarking

International Education  
Study Group Kickoff

Anthony Mackay, President & CEO

Nathan Driskell, Associate Director,  
Policy Analysis and Development

National Center on Education and the  
Economy



# In This Session We Will...

01

Discuss U.S.'s education outcomes and the need for systemic redesign

02

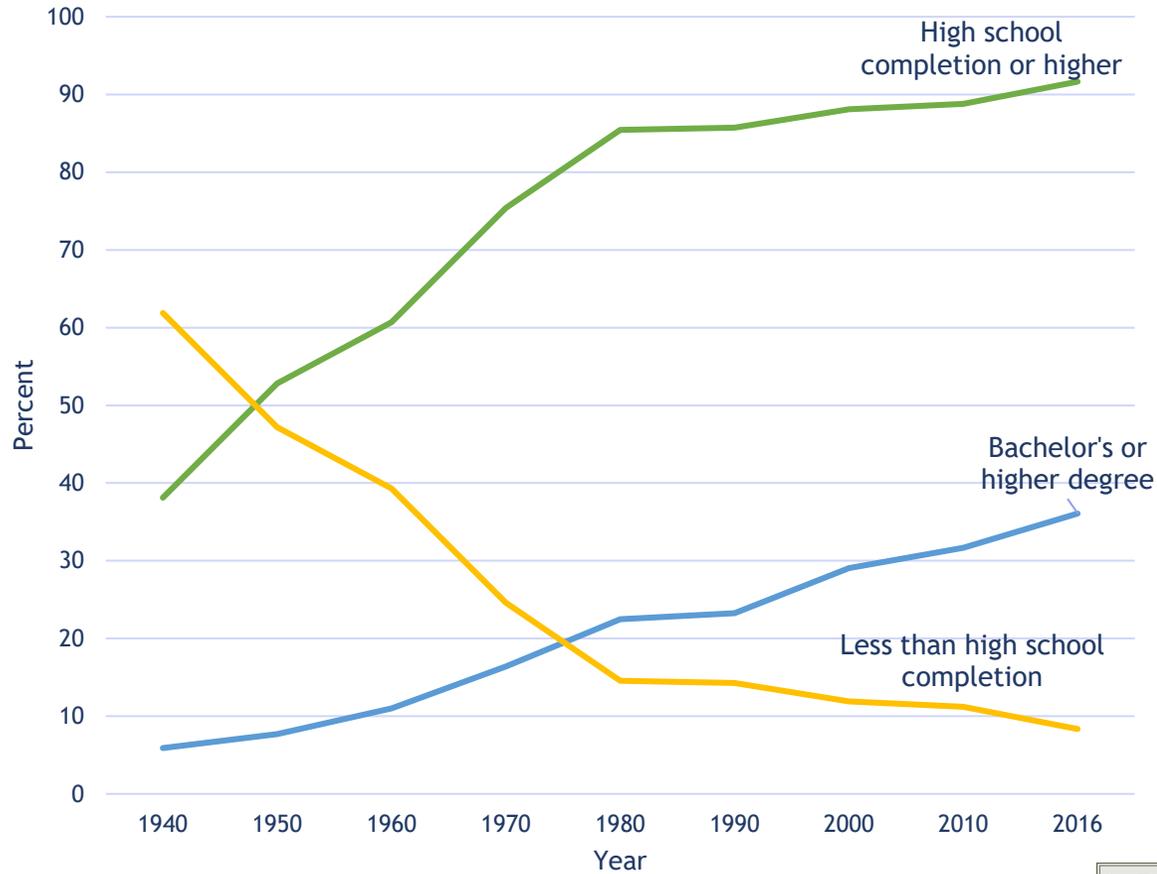
Describe NCEE's methodology for identifying high performing systems to study

03

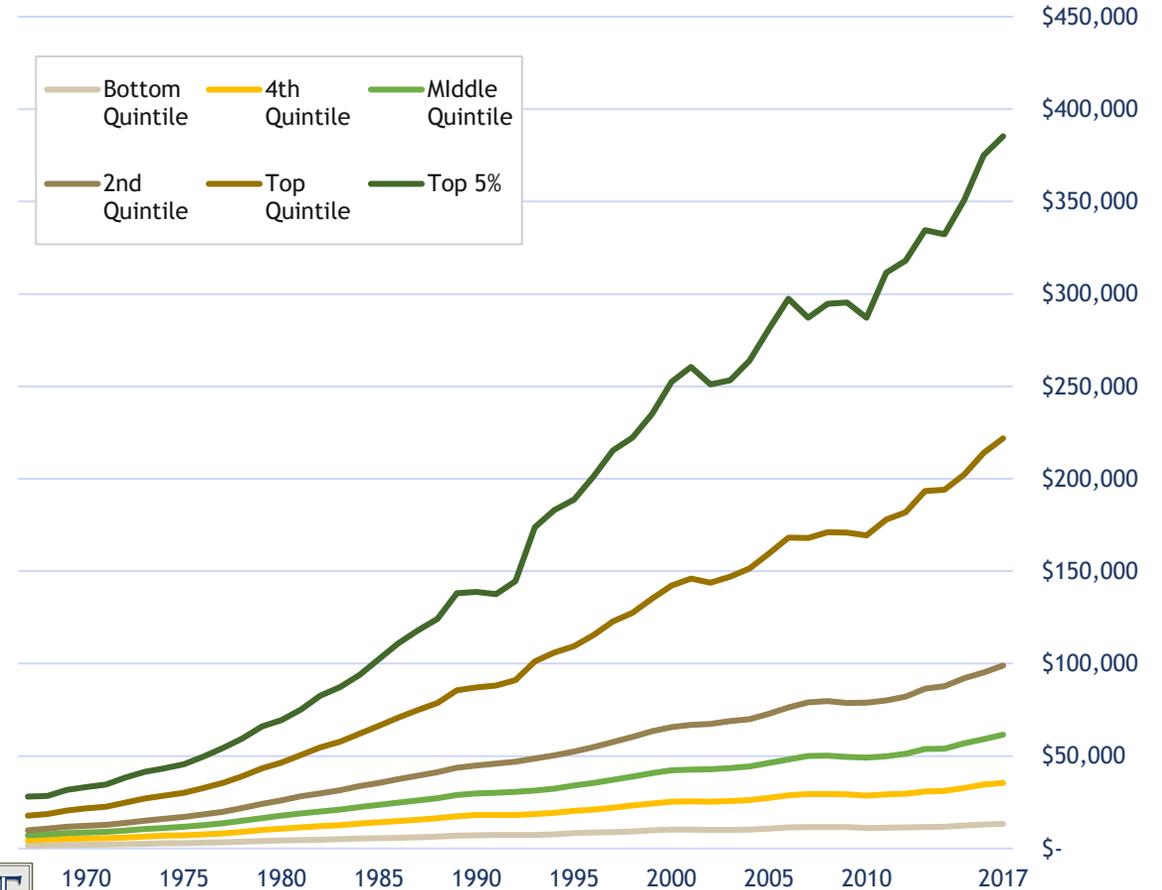
Define high performance and explore what excellence, equity, and efficiency mean for education systems

# Education Attainment: No Longer the Key to Prosperity?

% of 25-29yos by level of attainment:  
1940-2016

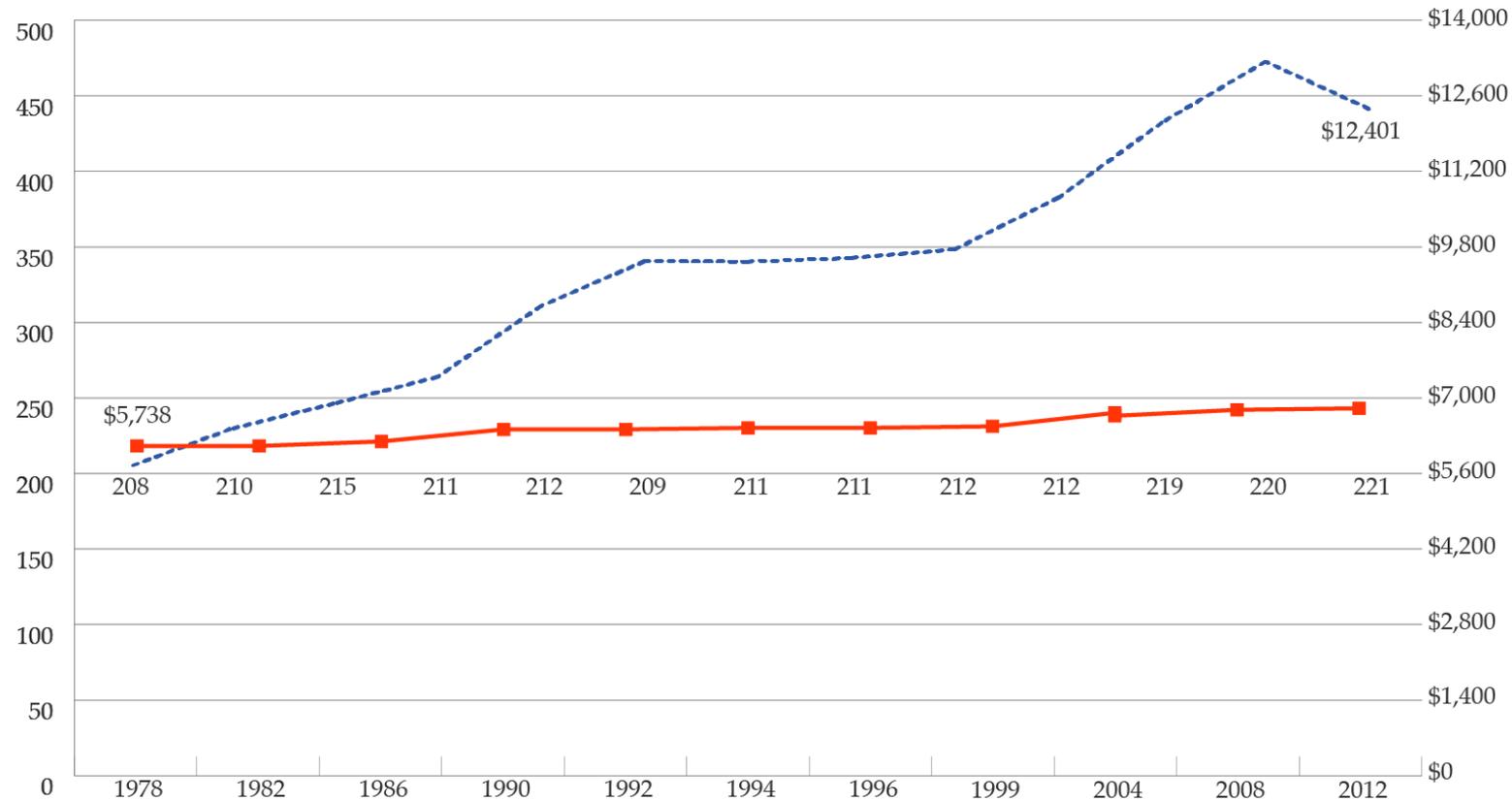


Mean (Average) Household Income by Quintile and  
Top 5%



# Results of Our Current Approach to Education

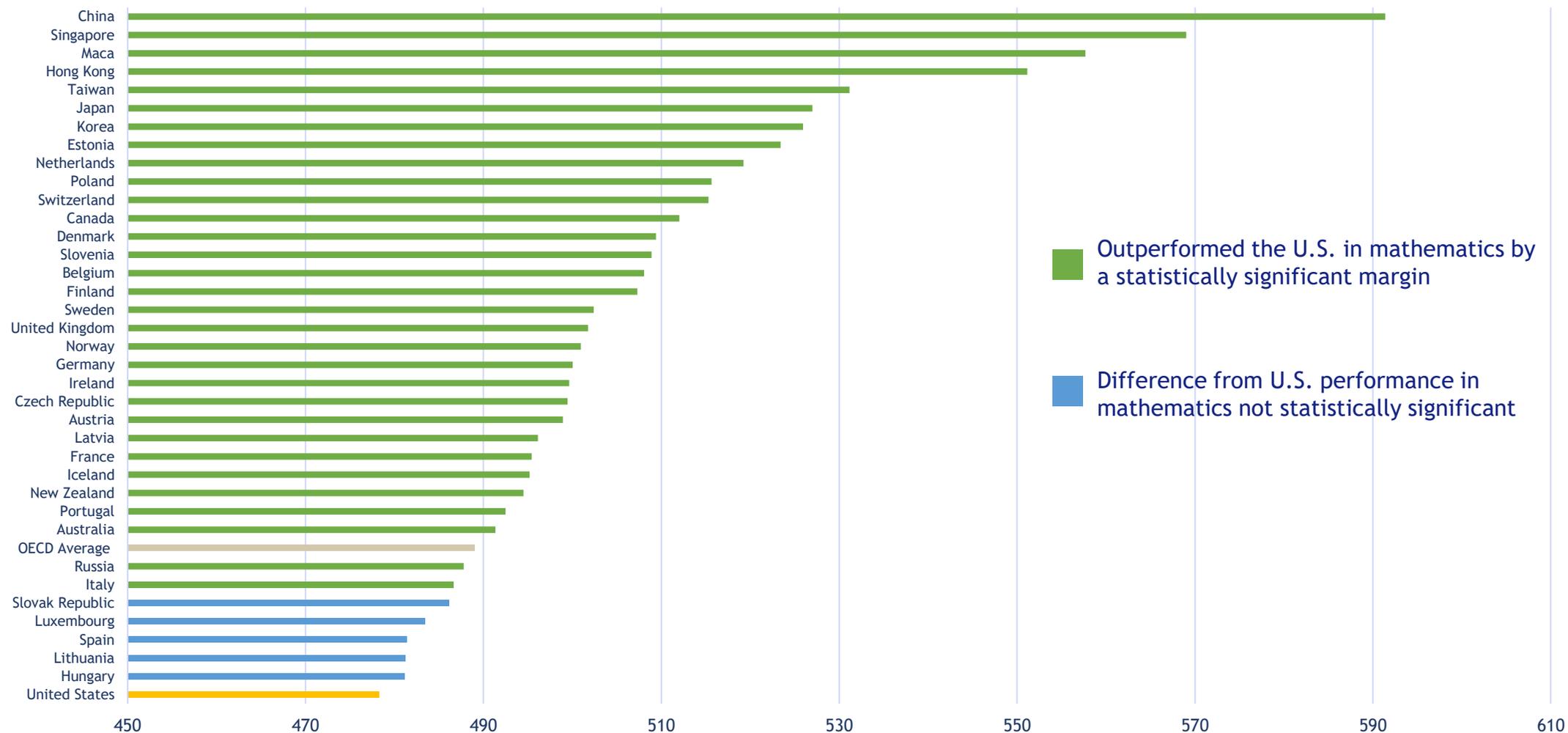
## Per Pupil Spending and NAEP 4th Grade Mathematics Scores, 1978 to 2012



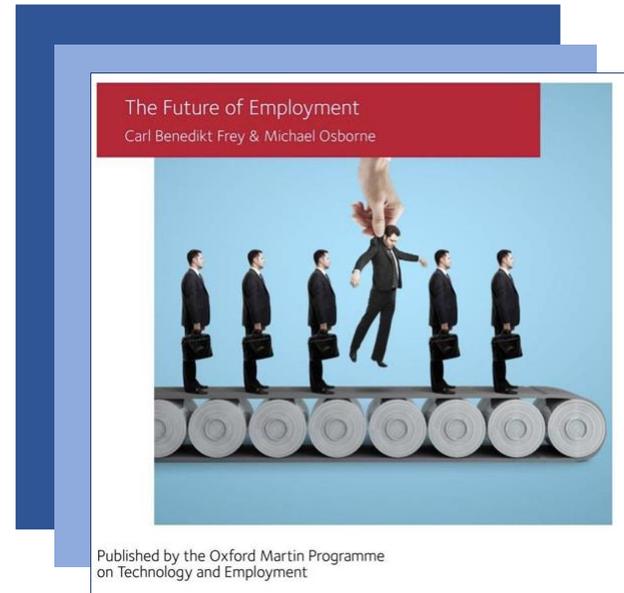
Spending shown in constant 2013-2014 dollars

Sources: The Nation's Report Card "NAEP 2012 Trends in Academic Progress", NCES Digest of Education Statistics 2014

# Similar Results on Global Measures: PISA 2018



# Increasing Urgency: Meeting Economic Challenges in an AI Age



In 2013, Frey and Osborne concluded that 47% of U.S. jobs could be automated with existing equipment



Higher-paying jobs being rapidly automated along with lower-paying ones



Entry level and routine work being eliminated for young people



Firms reducing permanent workforce; growth of gig economy



Global firms can staff low-wage workers from other countries

How do you see the changing nature of work playing out in your state?

# Increasing Urgency: Unforeseen Shocks in a VUCA Environment



Unprecedented job losses due to global recession



Deepening divisions based on race, class, region, and political party

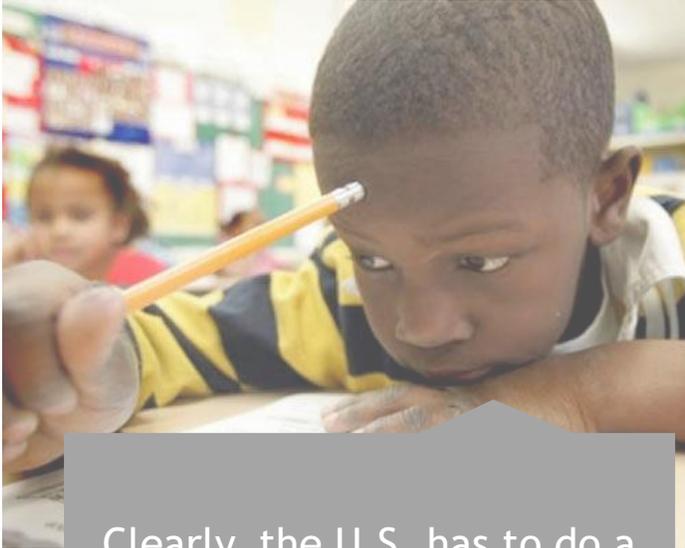


Massive learning losses related to school closures

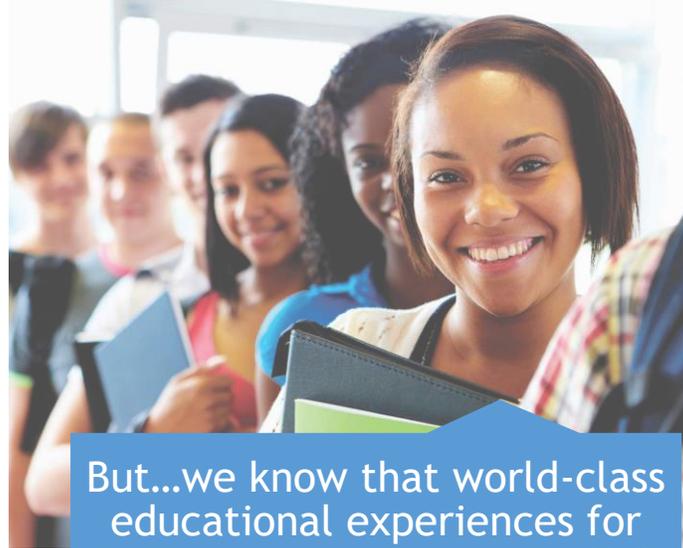


Concerns about civic participation and engagement

# The Million Dollar Question



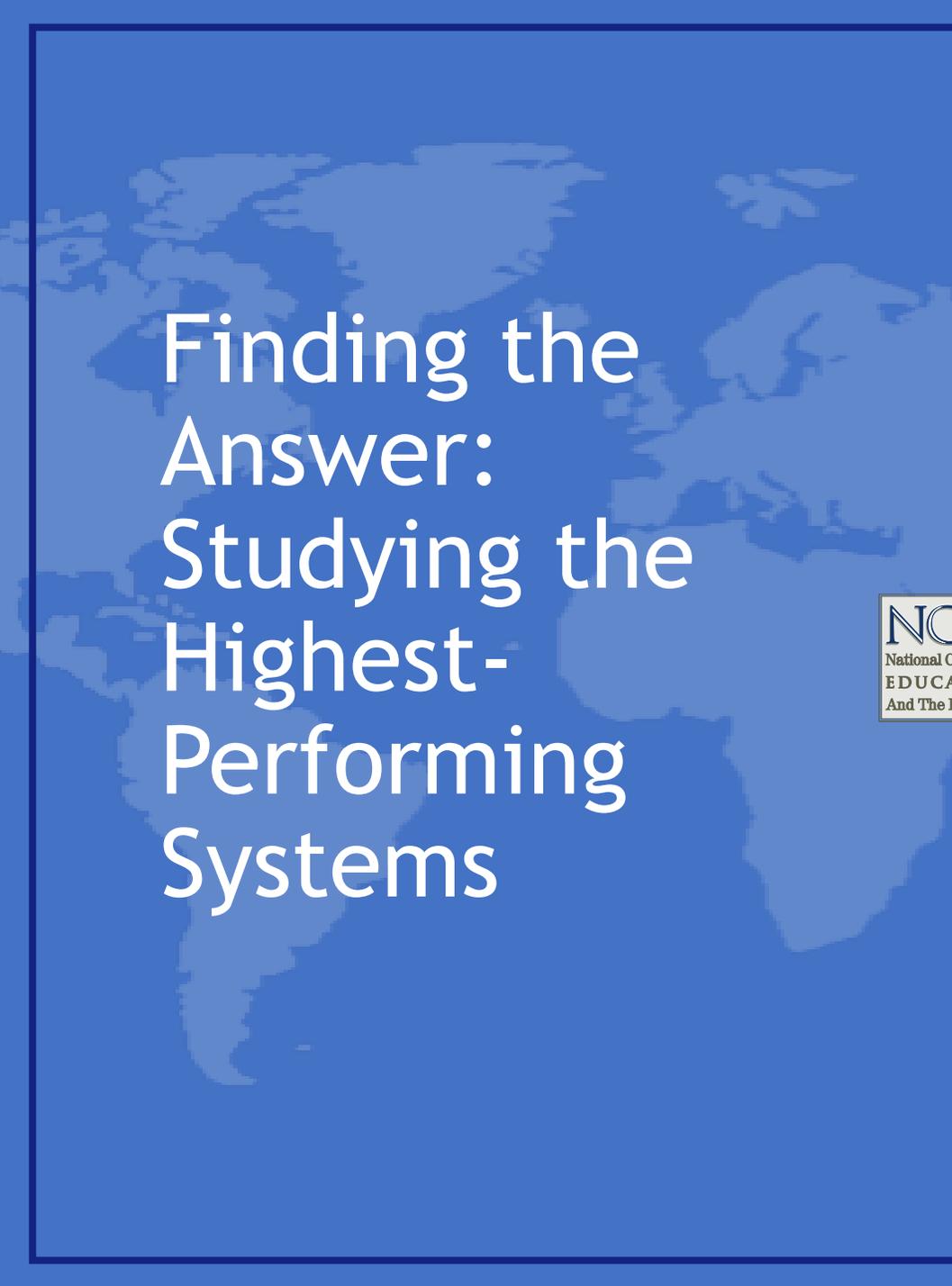
Clearly, the U.S. has to do a better job educating all of its young people.



But...we know that world-class educational experiences for children exist all over the U.S. Many of us have been fortunate enough to experience them firsthand.



So, if excellent education programs exist here – why are we not seeing results, domestically or globally?



# Finding the Answer: Studying the Highest-Performing Systems



For more than 30 years, we have studied education systems all over the world to find out what sets them apart. How?

1. **Define** metrics: Excellence; Equity; Efficiency
2. **Select** the strongest jurisdictions on all three metrics
3. **Study** those countries in detail

# Measuring Excellence: PISA

Assessment of how well 15-year-olds in 79 countries can apply what they know in:

## Science

Explain phenomena scientifically, evaluate and design inquiry, interpret data scientifically

## Mathematics

Capacity to reason mathematically, using concepts, procedures, facts and tools to describe, explain and predict phenomena

## Reading

Understand, use, evaluate, reflect on and engage with texts

# Measuring Excellence: PISA in Context



- Students in a group of high-performing systems graduate over **a year ahead** of U.S. students
- Over **80%** of U.S. students can: ID a main idea, recognize cause and effect, say if conclusions are warranted
- ...But only **60%** can compare distances on roads or convert currencies
- ...Only **14%** can distinguish between fact and opinion
- And only **9%** can apply scientific knowledge to unfamiliar situations

# Measuring Equity

All education systems should ensure that all students can succeed at high levels. But what does this *actually mean*?



Gap in performance between highest and lowest achieving students



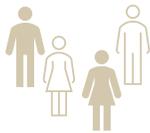
Resilience



% variance in performance explained by socioeconomic status



% of students who are low-performing



Performance of students who are from racial and ethnic minorities relative to the majority



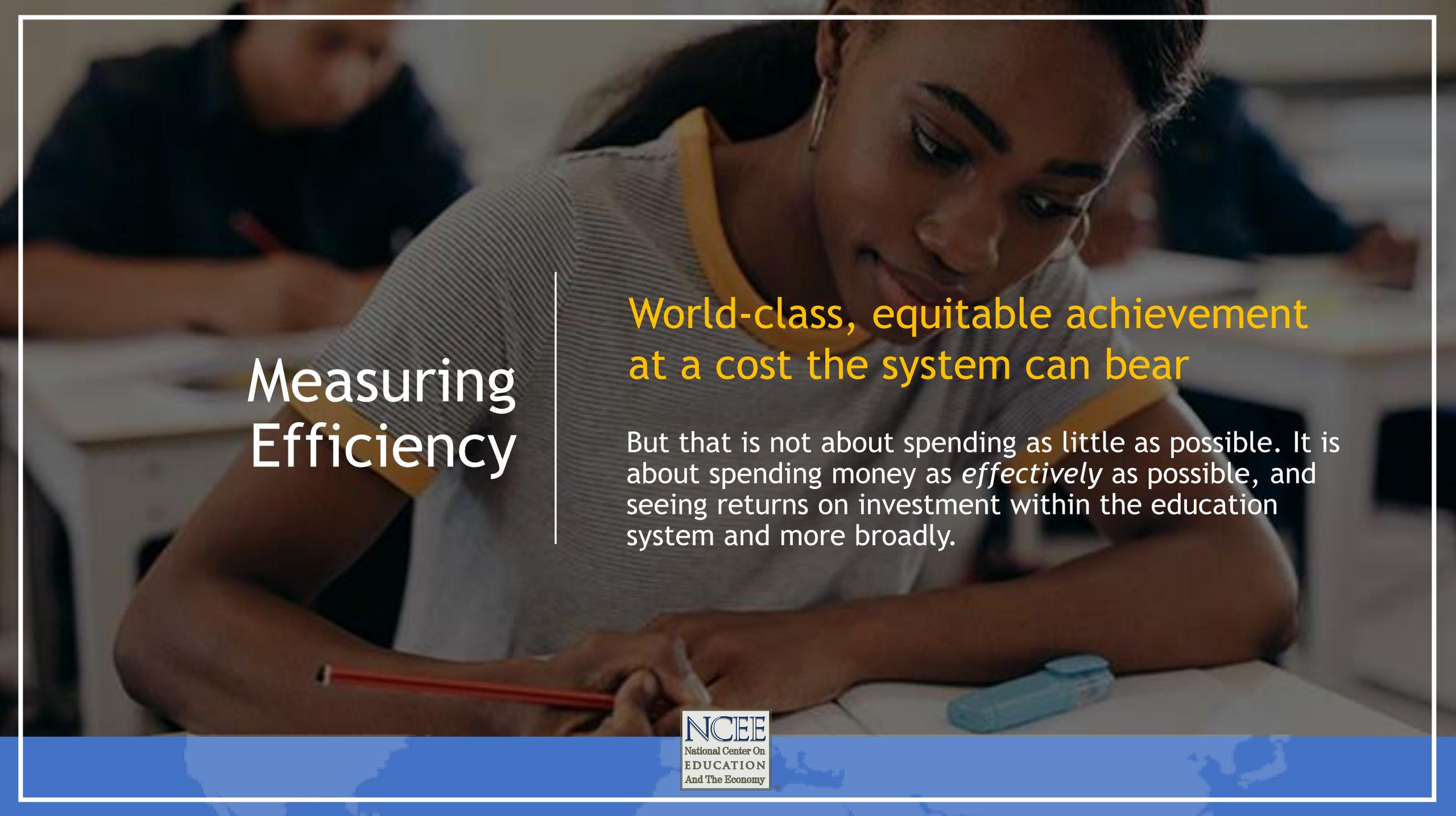
Gap between the performance of girls and boys



Performance of students who are not native speakers of the language of instruction relative to those who are



Variation in performance within schools and between schools

A young woman with dark hair, wearing a grey and yellow striped shirt, is sitting at a desk in a classroom, focused on writing in a notebook with a red pencil. Other students are visible in the background, also working at their desks. The scene is dimly lit, with the primary light source coming from the front, highlighting the student in the foreground.

## Measuring Efficiency

World-class, equitable achievement at a cost the system can bear

But that is not about spending as little as possible. It is about spending money as *effectively* as possible, and seeing returns on investment within the education system and more broadly.

# The High-Performing Systems We Study

NCEE profiles systems that achieve excellent results, equitably and efficiently.



- Canada
- China
  - Beijing
  - Shanghai
  - Jiangsu
  - Zhejiang
- Estonia
- Finland
- Hong Kong
- Japan
- Poland
- Singapore
- South Korea
- Taiwan

# What Do We Study



What are the common policies and practices in these systems?



How and why did these systems develop to get where they are today?



How are they adapting in real time to meet the challenges of the future - the changing nature of work, education, and life?

These questions are at the core of NCEE's work and will guide the work of this study group moving forward.