TAKING STOCK OF CALIFORNIA’S MARCH TO EQUITY

The Local Control Funding Formula at 10

LEARNING POLICY INSTITUTE

Wednesday, December 6
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Please find your seats

Wi-fi network: Kimptonguest
Password: fast

Join the conversation

• Submit questions using the QR code or by visiting bit.ly/lcff-questions
• On Twitter
  • #LCFF10Years
  • @LPI_Learning
TAKING STOCK OF CALIFORNIA’S MARCH TO EQUITY

The Local Control Funding Formula at 10

LEARNING POLICY INSTITUTE

Wednesday, December 6
Welcome & Agenda

Patrick Shields
Executive Director,
Learning Policy Institute
Agenda

- **Panel Discussion**: The Origin of the Local Control Funding Formula
- **Research Presentation**: School Funding Effectiveness
- **Video Interview**: California’s Progress Toward Equity
- **Panel Discussion**: Looking Ahead to the Next Decade of LCFF
- Closing Remarks
- Event Reception
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Linda Darling-Hammond
President and CEO, Learning Policy Institute; President, California State Board of Education
LCFF At Ten

Where Have We Been? Where Are We Now? And Where Should We Go?
By 2010, California was...

• One of the lowest-spending states overall and relative to GDP and cost of living
• One of the most unequally resourced and segregated states for students
• 50th in ratios of pupils to teachers, administrators and counselors
• In the bottom 5 states in student achievement on every measure
From 1980s to early 2000s

- Prison population quadrupled
- Corrections costs increased by 900% and outstripped spending on public higher education
- School expenditures stalled and then declined
- The state paid $50,000 a year to incarcerate young men it would not spend $10,000 a year to educate a few years earlier
Test-Based Accountability Did Not Improve Outcomes: Why?

<table>
<thead>
<tr>
<th>State Tests Focused on Low – Level Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Incentives for Enriching Curriculum</td>
</tr>
<tr>
<td>Drivers of Achievement Were Invisible</td>
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<tr>
<td>Mandated Solutions Were Often Unhelpful</td>
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</tbody>
</table>

Focus on Rating Schools & Teachers Ignored:

- Growing Poverty, Homelessness
- Inadequacy and Inequality in School Resources
- The role of State and District policies
And then, it all changed....
California Launched an Entirely Different Path

- New funding plan - LCFF
- New accountability strategy:
  - 8 State Priorities + Dashboard
  - LCAP to guide investments
  - Support rather than sanctions
- New approach to governance
  - More coherent state direction
  - Local decisionmaking
- New standards, curriculum frameworks, and assessments aimed at higher order skills
### Multiple Measures: Opportunity to Learn + Outcomes

<table>
<thead>
<tr>
<th>Student Achievement</th>
<th>Other Outcomes</th>
<th>Student Engagement</th>
<th>School Climate</th>
<th>Curriculum Access</th>
<th>Basic Services</th>
<th>Implementation of Common Core</th>
<th>Parent Involvement</th>
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<tr>
<td>-- SBAC Test Scores / Gains</td>
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<td>-- Evidence of College &amp; Career Readiness</td>
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<td>-- Completion of a college or career ready pathway</td>
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<td>-- Completion of a workplace learning or community service experience</td>
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<td>-- Evidence from student surveys</td>
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<td>-- Access to curriculum in the core academic subjects, STEM, the arts, and physical education</td>
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Since 2010, California Graduation Rate Has Risen
California had among the Largest Gains in 4th Grade Reading from 2011 to 2019
California has had the largest reading gains of any state in the last decade and did not lose ground on national tests during the pandemic, even as students became lower income and more linguistically diverse.
California Also Climbed in Math, but Fell Back, Like Other States, During the Pandemic.
Progress on State Tests Is Just Beginning to Rebound

ENGLISH LANGUAGE ARTS RESULTS

MATH RESULTS
Large Achievement Gaps Remain

**ACHIEVEMENT GAP RESULTS: RACIAL/DEMOGRAPHIC BREAKDOWN**

- **English**
  - Asian: 72, 61, 75
  - White: 61, 65, 61
  - Hispanic: 32, 33, 36
  - African American: 28, 30, 30

- **Math**
  - Asian: 69, 49, 70
  - White: 49, 54, 49
  - Hispanic: 21, 28, 21
  - African American: 16, 21, 17

*Note: The data points are for the years 2015 to 2023.*
There are New and Ongoing Challenges to Be Tackled

• Deepening poverty for children
  • From 60% to 63% between 2022 and 2023
  • Growth in students experiencing homelessness and foster care as well

• Learning recovery needs

• Educator shortages that call for system redesign

• A rapidly changing knowledge economy that demands new skills and deeper learning with implications for curriculum and assessment

• State revenue challenges
How Should We Approach the Next Ten Years?
Panel Discussion: The Origin of LCFF

Linda Darling-Hammond  
President and CEO, Learning Policy Institute; President, California State Board of Education

Edmund G. (Jerry) Brown Jr.  

Ana Matosantos  
Former Cabinet Secretary in the Office of Governor Gavin Newsom; Former Director, California Department of Finance

John Affeldt  
Managing Attorney, Public Advocates

Michael Kirst  
Former President, California State Board of Education

Moderator
Q & A

You can submit questions two ways:

▷ Write your question on an index card, raise your hand, and someone will collect the card

▷ Submit questions using the QR code or by visiting bit.ly/lcff-questions
School Funding Effectiveness: Evidence From California’s Local Control Funding Formula

Rucker Johnson
Chancellor’s Professor of Public Policy, University of California, Berkeley
The Anatomy of School Spending Effectiveness

Taking Stock of California’s March to Equity: The Local Control Funding Formula at 10

Rucker C. Johnson, UC-Berkeley & NBER

December 6th, 2023

Grateful for data partnership with California Dept of Education, and generous support from LPI, PACE, William T. Grant Foundation, UC-Berkeley Population Center/NIH, & California Policy Lab
Bring the impacts of education
Education Spending vs. Achievement

Since the 1970s, the total education spending on a student from kindergarten through high school graduation rose by 192 percent. Meanwhile, math and reading scores have remained nearly unchanged.

NOTES: Spending figures are adjusted for inflation. Test scores are NAEP Urban Trend data for 17 years old through 2010, the most recent year available.
Overview

- **Highlights of LCFF**
- **Key Results**
  - Figures showing evolution of LCFF impacts (staggered rollout)
  - Causal impacts of spending (for each grade & subject)
  - Distribution of School-specific Spending Effects
  - Exploring Mechanisms—which school investments matter most?
- **Discussion**
Positive significant effects of LCFF-induced increases in per-pupil spending for every grade, every subject, & every school that experienced new infusion of state funds

- Impacts on achievement increased with school-age years of exposure & w/amount of increased LCFF funding
- Impacts on college readiness & high school graduation rates
- Significant narrowing of achievement gap
- Significant reductions in student behavior problems, suspensions/expulsions
- Positive effects of funding & K-ELS for EL students
- Synergistic effects of TK & K-4 school spending
  - Large, positive TK impacts for low-income children on 3rd-4th grade reading/math achievement;
  - Smaller TK effects for non-poor children on avg (likely due to greater access to high quality private preK options)
Academic Achievement and Socioeconomic Status
California and Massachusetts School Districts, 2009-2013

Source: Reardon et al (Stanford)
CALIFORNIA’S SCHOOL FINANCE REFORM
THE LOCAL CONTROL FUNDING FORMULA
The Local Control Funding Formula

- **Increased state support: $18B over 8 years**
  - 2013 to 2020
  - Targeted to students: supplemental/concentration

- **Not targeted to district property wealth, but to students**
  - Based on student-level disadvantage
    - Free/Reduced Lunch
    - English Language Learners
    - Homeless
    - Foster
The Local Control Funding Formula

- **Increased state support:** $18B over 8 years
  - 2013 to 2020
  - Targeted to students: supplemental/concentration

**Funding Formula:**
1. base grant: $8,000 per pupil (depending on grade level)
2. supplemental grant: $1,600 for each “high-need” student
3. concentration grant: $5,300 per “high-need” student in districts >55% high-need
The Local Control Funding Formula

- **Increased state support: $18B over 8 years**
  - Targeted to students: supplemental/concentration

- **Increased discretion over expenditures**
  - LCFF $$ is “unrestricted”
  - LCAPs
  - Reduction in remaining categorical programs
Funding Formula Amounts Before (2012) and During (2013–2018) the Rollout of LCFF

The graph above illustrates the changes in district revenue from state funding per pupil for different years and district proportions of students who are disadvantaged. The x-axis represents the district proportion of students who are disadvantaged, ranging from 0.05 to 0.95. The y-axis represents district per-pupil revenue from state, ranging from 5,000 to 12,000.

Key observations from the graph:
- The revenue consistently increases as the proportion of disadvantaged students increases.
- The lines for each year show a trend of increasing revenue, with 2018 having the highest revenue and 2012 having the lowest.
- The revenue for 2018 is significantly higher compared to other years, indicating a substantial increase during the rollout of LCFF.

These trends reflect the impact of the LCFF on funding distribution in districts with varying proportions of disadvantaged students.
Data

• Universe of CA public school students, annual data 2004-2019
  • 6.2 million students each year K-12 (N=6.2millionx13 Student-year obs!)
  • ~10,000 schools and 1,000 districts

• Finance Data, CA Dept of Education, SACS unaudited data (preK-12, adjusted for inflation in real 2015 dollars), 1995-2019

• Test Score data, CA Dept of Education, student-level student achievement (race/ethnicity, poverty, LEP, gender)
  • Separately by Subject (Math & Reading) & Grade (3rd-8th, 11th grades)
  • NAEP-scale normed (following Reardon et al. (2016))

• High School Graduation Rate Data, CA Dept of Education, student-level

• Matched with LCFF school reform vars

• Student-birthcohort panel data spanning school-age years of cohorts born between 1990-2010
Increased Revenues/Discretion
Increased Revenues/Discretion
Increased Revenues/Discretion

- Attributes
  - Formula
  - Reduction of Restrictions

- Outcome
- Revenue
- Discretion
Increased Revenues/Discretion

- Formula
- Attributes
- Reduction of Restrictions
- Revenue
- Outcome
- Discretion
Increase in Math Achievement From 2014 (Before) to 2018 (After) LCFF, Grades 3 Through 5

Districts ineligible for LCFF concentration grant

Districts eligible for LCFF concentration grant
Increase in Math Achievement Before and After LCFF, by Year, Grades 3 Through 5

- Districts ineligible for LCFF concentration grant
- Districts eligible for LCFF concentration grant

**Axes:**
- Y-axis: Change in Math Achievement, 3rd Through 5th Grades (in Grade-Level Equivalence)
- X-axis: District Proportion of Students Disadvantaged

**Years:**
- 2015 (relative to 2014)
- 2016 (relative to 2014)
- 2017 (relative to 2014)
- 2018 (relative to 2014)
Increase in Math Achievement Before and After LCFF, Grades 6 Through 8

Districts ineligible for LCFF concentration grant

Districts eligible for LCFF concentration grant

Change in Math Achievement, 6th Through 8th Grades (in Grade–Level Equivalence)

District Proportion of Students Disadvantaged
Key Findings
Estimated Impacts of $1,000 Increase in Per-Pupil Spending for 3 Years on Math Achievement, All Students

<table>
<thead>
<tr>
<th>Years Since Kindergarten</th>
<th>Change in Test Scores (in Grade-Level Equivalence)</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>0.9843*** (0.1151)</td>
</tr>
<tr>
<td>4</td>
<td>0.9770*** (0.1152)</td>
</tr>
<tr>
<td>5</td>
<td>0.9698*** (0.1152)</td>
</tr>
<tr>
<td>6</td>
<td>0.9639*** (0.1156)</td>
</tr>
<tr>
<td>7</td>
<td>0.9534*** (0.1162)</td>
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<tr>
<td>8</td>
<td>0.9442*** (0.1166)</td>
</tr>
</tbody>
</table>
Estimated Impacts of $1,000 Increase in Per-Pupil Spending for 3 Years on Reading Achievement, All Students

**CHANGE IN TEST SCORES**

<table>
<thead>
<tr>
<th>Years Since Kindergarten</th>
<th>Change in Grade Level Equivalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1.0377*** (0.1060)</td>
</tr>
<tr>
<td>4</td>
<td>1.0183*** (0.1063)</td>
</tr>
<tr>
<td>5</td>
<td>0.9996*** (0.1066)</td>
</tr>
<tr>
<td>6</td>
<td>0.9813*** (0.1077)</td>
</tr>
<tr>
<td>7</td>
<td>0.9601*** (0.1085)</td>
</tr>
<tr>
<td>8</td>
<td>0.9405*** (0.1093)</td>
</tr>
</tbody>
</table>
Effects of LCFF on High School Graduation Rate for Children From Low-Income Families

Large (vs. small) SFR-induced spending increase

![Graph showing the effects of LCFF on high school graduation rate for children from low-income families. The x-axis represents years relative to LCFF implementation, and the y-axis represents the change in high school graduation rate (4-yr cohort). The graph compares small and large spending increases, with the large spending increase showing a significant increase starting around year 1 post-implementation.](image-url)
Estimated Impacts of $1,000 Increase in Per-Pupil Spending for 3 Years (9th–11th Grades) on College Readiness, All Students

- **Math (11th grade):** 0.0975*** (0.0065)
- **Reading:** 0.1473*** (0.0119)
EXPLORING PATHWAYS:

WHICH TYPES OF SPENDING ARE MOST EFFECTIVE IN BOOSTING STUDENT ACHIEVEMENT?
Distribution of School-Level Changes in 6th-Grade Math Achievement From $1,000 Increase in Per-Pupil Spending for 3 Years
Explained 84-95% of Variation in School Spending Effectiveness

- Class Size
- Teacher Salaries
- Teacher Turnover
- Guidance Counselors/Health services
- Teacher professional development
Figure 1: Continuum of Development

- Preschool: Foundational Learning Experiences
- Transitional Kindergarten: Exposure to the Common Core and Content Standards
- Kindergarten: Mastery of the Common Core and Content Standards

Individualize and Differentiate
Synergistic Impacts of TK & LCFF

• For low-income children, Transitional Kindergarten magnifies the impacts of LCFF-induced increases in elementary school spending (& vice-versa)
Effect of TK Eligibility on Math Achievement 4 years after K Low-income Kids, By School Spending

Change in 4th grade Math Achievement (in grade-level equivalence)

5th Birthday - TK Eligibility Cutoff (Dec 2) (# of days)

Oct 2-Dec 2: TK Eligible
Dec 3-Jan 31: TK Ineligible

RD TK estimate, at 75th percentile spending
RD TK estimate, at avg spending
RD TK estimate, at 25th percentile spending
Impacts of Attending Transitional Kindergarten on 3rd Grade Achievement, Low-income Kids By Changes in Per-Pupil Spending (1st-3rd grades)

Change in Test Scores (in grade-level equivalence)

Marginal Effects

25th percentile Avg Spending 75th percentile

25th percentile Avg Spending 75th percentile

Math Reading 90%CI
Research to Practice

Evidence-based Policy

Research

Efficacy

What works?

Effectiveness

When does it work?

Implementation

How do we make it work?

Monitoring

Is it working?

Replicability

Sustainability

Practice
Thank you!!!
ruckerj@berkeley.edu
Panel Discussion:
Looking Ahead to the Next Decade of LCFF

Assemblymember
Al Muratsuchi
California 66th Assembly District

Julien Lafortune
Research Fellow, Public Policy Institute of California

Lamont Jackson
Superintendent, San Diego Unified School District

Martha Hernández
Executive Director, Californians Together

Tara Kini
Chief of Policy and Programs, Learning Policy Institute

Moderator
Thank You!

Event Reception
4:30 – 6 p.m.
Please join us for drinks and hors d’oeuvres.

Event Survey
bit.ly/LCFFsurvey

More information
learningpolicyinstitute.org/LCFF10Years