Urban Institute

Colorado At-Risk Study Final Report

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Introduction

- The Urban Institute is a non-partisan non-profit research organization based in Washington D.C.

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- The Urban Institute's work is designed to connect strong research with actionable policies that can help improve quality of life in communities throughout the United States.

- This presentation should not be construed as representing the views of the Urban Institute as a whole, which does not take positions on issues.

Colorado At-Risk Study

- Motivation for a new at-risk measure

- Research process & data collection

- Three at-risk measure recommendations

  - Identified Student Percentage (ISP)

  - ISP supplemented with a link to Medicaid   + Neighborhood SES measure

  - Family income tax data

- Implementation and next steps
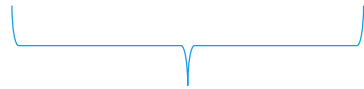
Motivation

Current At-Risk Measure

- Colorado defines at-risk students as those who are eligible for free and reduced-price lunch (FRPL) and allocates additional dollars for their education.

    - FRPL = Direct Certification + Categorically Eligible + Family Applications

    Identified Student Percentage (ISP)

- Many states still use FRPL to allocate additional funding, but some states are moving to new measures of student socioeconomic status (SES).

Issues With Current At-Risk Measure

- Adoption of universal free meal programs weakens FRPL as an accurate count of low-income students.

  - Families are less likely to return application forms when their students already receive free meals

  - Continued FRPL form collection with universal free school meals results in administrative burden for families and district personnel

New At-Risk Measure

- The development of a new at-risk measure yields new opportunities:

  - Allow more districts to take up universal free meals (CEP), even after the pandemic.

  - Reduce the paperwork burden, particularly for those that participate in CEP.

  - Render a more accurate and robust count of at-risk students.

  - Capture aspects of socioeconomic status beyond household income, such as parent/guardian education level and/or broader household resources.

Research & Data Collection

Research Methods

- We interviewed more than 30 stakeholders/organizations and received more than 100 survey responses.

- Participants included Colorado organizations with interest in the at-risk measure and organizations outside Colorado with key knowledge about potential alternative measures.

- We used 2019-20 (pre-pandemic) data to assess the distributional impact of changes to the at-risk measure.

Measure Criteria

Stakeholders helped us define five key criteria:

- Improve free meal access

- Capture all eligible students

- Align with FRPL in scale

- Reflect actual student enrollment in districts

- Minimize school burden and cost

Comparisons of Measures By Equity

- Although our base measure is socioeconomic status, we also assess how much funding is allocated, on average, to certain population subgroups.

- We look at equity for:

  - students of color

  - rural students

  - families headed by those with less than a four-year degree

  - families who speak a language other than English

Alternative at-risk measures

ISP & Medicaid/CHP+	Census Poverty Estimates	Neighborhood SES Estimates
School Neighborhood Poverty	Household Tax Data	Alternative Income Forms

Alternative at-risk measures

ISP & Medicaid/CHP+	Census Poverty Estimates	Neighborhood SES Estimates
School Neighborhood Poverty	Household Tax Data	Alternative Income Forms

Measures Choices

Combinations of Measures

Three at-risk measure recommendations

- Identified Student Percentage (ISP)

- ISP supplemented with a link to Medicaid   + Neighborhood SES measure

- Family income tax data

- We will walk through each aspect separately, and then illustrate the power of combining these measures.

Census-Based SES Neighborhood Data

- Students are linked through their address to a census block group

  - Neighborhood Index using American Community Survey data:

    - Non-English language spoken at home

    - Foster/raised by relative

    - Median HH income

    - Home ownership

    - Bachelor's degree attainment

  - This process would require districts to ID census block groups for each student

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Census-Based SES Neighborhood Data

SES Neighborhood Index Raw Scores by Block Group

Index of five SES criteria from the 2015–19 American Community Survey

Low SES index   High SES index

Source: Urban Institute analysis of 2015–19 American Community Survey data.

Notes: SES = socioeconomic status. Index criteria are share of households where a non-English language is spoken at home, share of children who are fostered or raised by a nonparental relative, median household income, homeownership rate, and share of adults ages 25 and older with a bachelor's degree or more.

Census-Based SES Neighborhood Data

Distributional Effects of Using Neighborhood SES Index as an At-Risk Measure

The correlation between neighborhood SES index and FRPL is 0.87
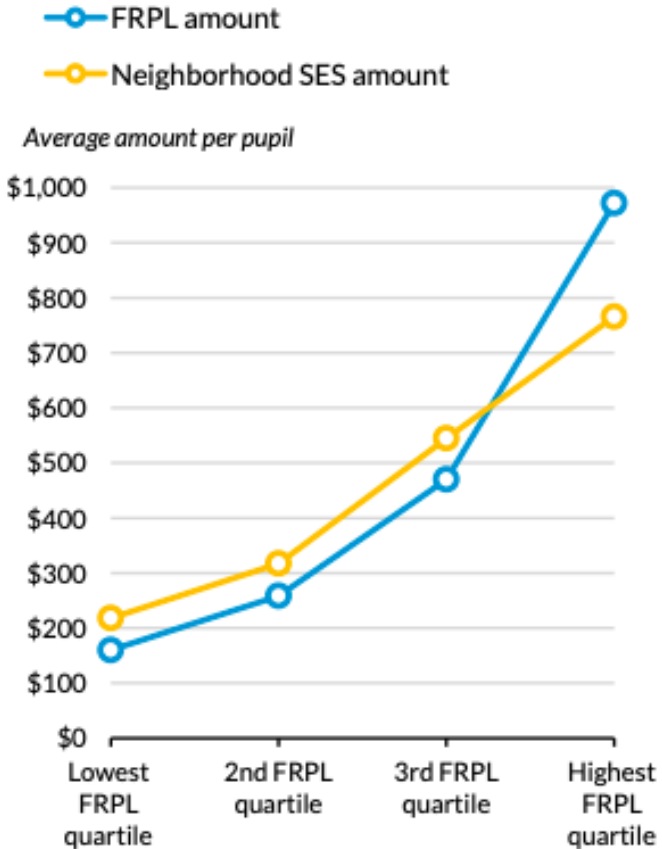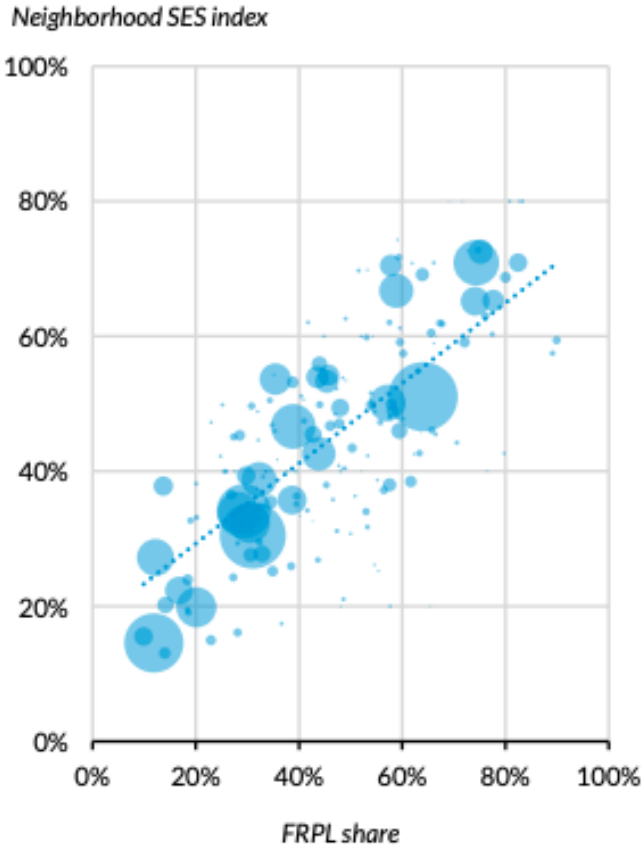
Source: Urban Institute analysis of 2019–20 data from the Common Core of Data and 2015–19 American Community Survey data.

Note: FRPL = free and reduced-price lunch; SES = socioeconomic status.
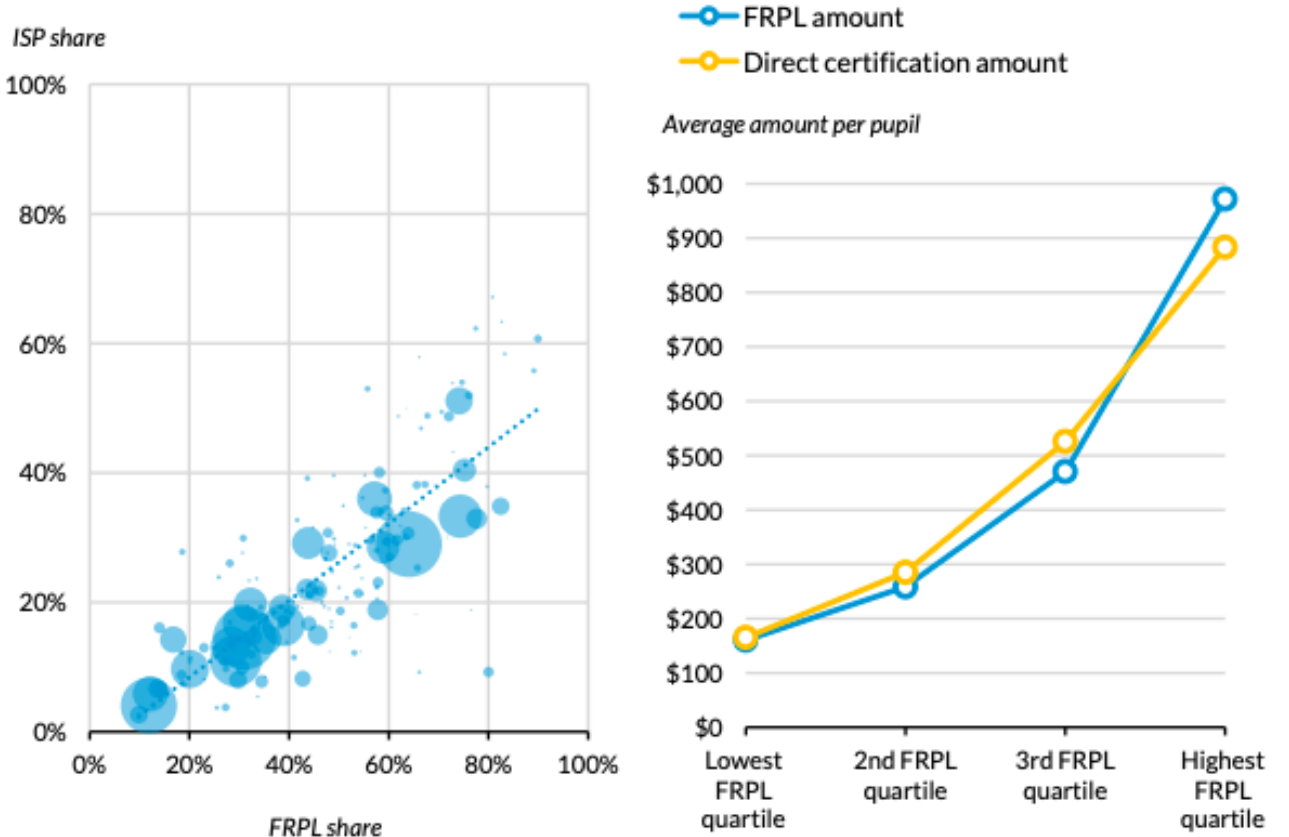
Identified Student Percentage (ISP)

- ISP = Directly Certified Students + Categorically Eligible Students

  - **Directly Certified Students**: Students who are administratively linked to their household's participation in SNAP or TANF (typically, 130% federal poverty level or less) or Migrant Education Program.

  - **Categorically Eligible Students:** Students who experience homelessness (lack a fixed, regular, or adequate nighttime residence), participate in the Head Start program, or are determined to be a runaway, in foster care, or a migrant student.

  - ISP is already collected to help establish eligibility for free school meals.

Identified Student Percentage (ISP)

Distributional Effects of Using ISP as an At-Risk Measure

The correlation between ISP and FRPL is 0.84

Source: Urban Institute analysis of 2019–20 data from the Common Core of Data.
Note: FRPL = free and reduced-price lunch; ISP = identified student percentage.

ISP With Medicaid/CHP+ Link

- Eligible children can be certified for free meals through their household's participation in Medicaid/CHP+

- These data could be added under a Direct Certification Demonstration project

- Children may be eligible for Medicaid if from households with incomes at 142 percent federal poverty level or less, and for CHP+ at 260 percent federal poverty level or less.

Direct Certification With Medicaid/CHP+

Distributional Effects of Using Medicaid as an At-Risk Measure

The correlation between Medicaid and FRPL is 0.89
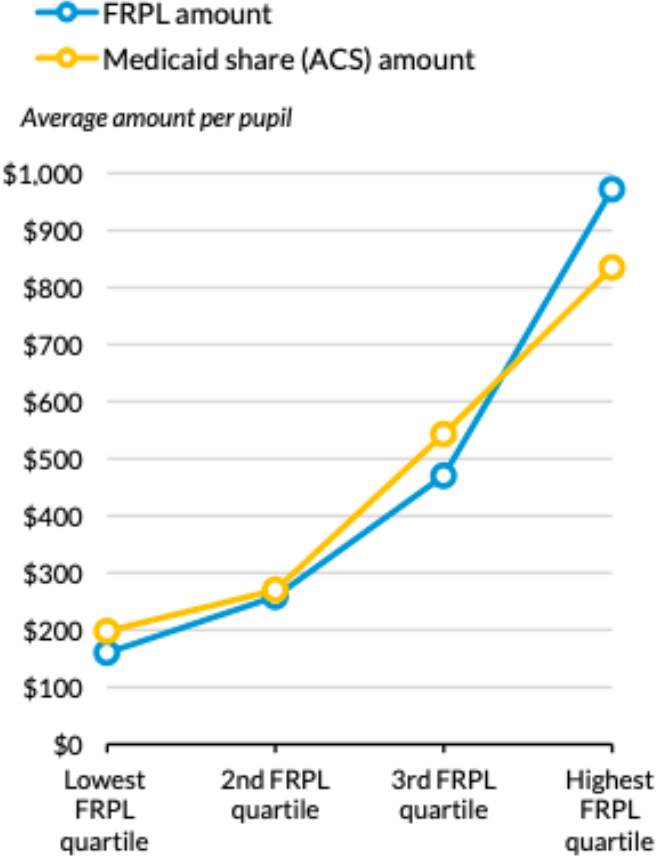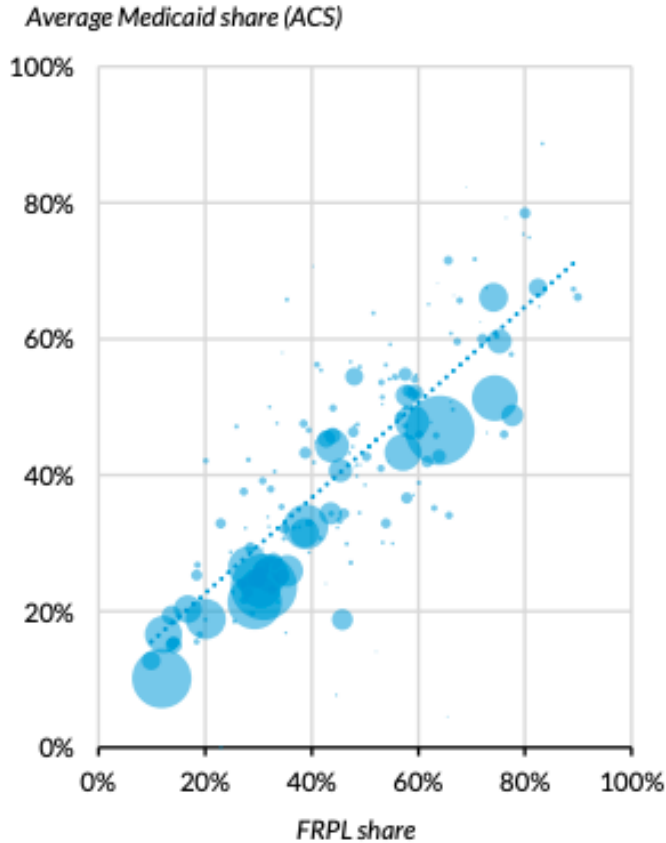
Source: Urban Institute analysis of 2019–20 data from the Common Core of Data and 2015–19 ACS data.

Note: ACS = American Community Survey; FRPL = free and reduced-price lunch.

Use of Income Tax Data

- Link to household state tax data to identify the share of students at or below a given poverty threshold (or combination of thresholds)

- Build a connection to tax data, return data in aggregate to CDE, and would need to supplement with Census block data for non-filers

Use of Income Tax Data
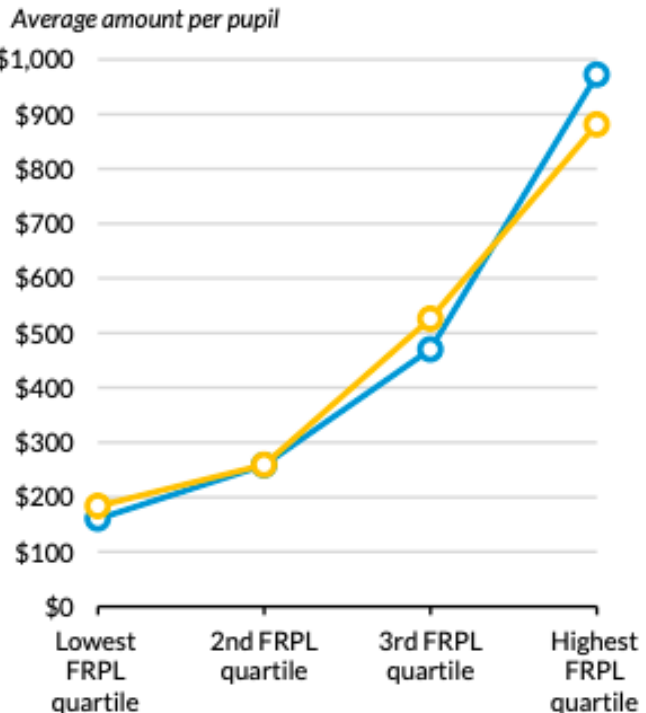

Distributional Effects of Using 130 Percent of the Federal Poverty Level as an At-Risk Measure

The correlation between 130 percent of the federal poverty level and FRPL is 0.79
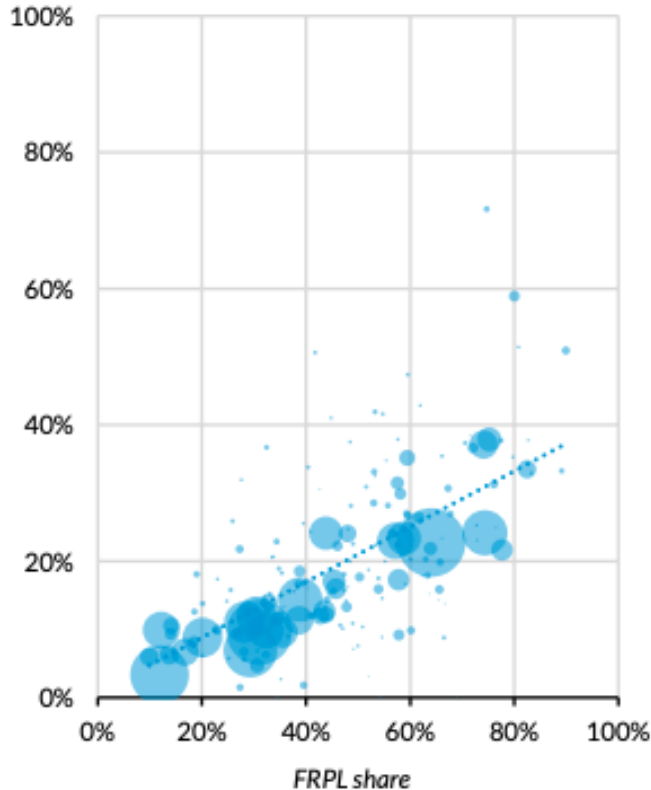
Source: Urban Institute analysis of 2019–20 data from the Common Core of Data and 2015–19 American Community Survey data.

Note: ACS = American Community Survey; FRPL = free and reduced-price lunch.

Comparing At-Risk Options

At-Risk Measure Performance

Some measures excel against one criterion but do poorly against others

	Improve free meal access	Capture all students	Align with FRPL	Reflect actual enrollment	Minimize school and cost burden
FRPL	Poor	Good	Excellent	Excellent	Poor
ISP	Good	Fair	Fair	Excellent	Excellent
ISP with Medicaid link	Excellent	Good	Good	Excellent	Excellent
Tax record link	Good	Good	Excellent	Excellent	Good
Student neighborhood SES index (ACS)	Good	Excellent	Good	Good	Good

Source: Urban Institute analysis of Colorado qualitative and quantitative data.

Note: ACS = American Community Survey; FRPL = free and reduced-price lunch; IPR = income-to-poverty ratio; ISP = identified student percentage; SAIPE = Small Area Income and Poverty Estimates.

Comparing At-Risk Options

At-Risk Equity Analysis

Most proposed at-risk measures preserve similar proportions of at-risk funding for specific groups

	Students in poverty (SAIPE)	Students of color	Students in rural schools	Adults without a four-year degree	Non-English-speaking households
FRPL	Very high	Very high	Modest	Very high	Very high
ISP	Very high	Very high	Equal	Very high	High
ISP with Medicaid link	Very high	Very high	Equal	Very high	High
Tax record link	Very high	Very high	Equal/Negative[a]	Very high	High
Student neighborhood SES index (ACS)	High	Very high	Modest	Very high	High

Source: Urban Institute analysis of at-risk measure data.

Notes: ACS = American Community Survey; FRPL = free and reduced-price lunch; ISP = identified student percentage; IPR = income-to-poverty ratio; SAIPE = Small Area Income and Poverty Estimate. The equity ratios are as follows: negative is < 0.90, equal is 0.90–1.09, modest is 1.10–1.19, high is 1.20–1.39, and very high is ≥ 1.40.

[a] Depending on percentage of the federal poverty level cutoff used.

Combining Measures – ISP and Neighborhood

- To show how a combination of these measures can best capture at-risk students, we built a model based on 2019–20 direct certification data (our best proxy for ISP) and student-centered SES neighborhood quintiles.

- We weight the model so that 75 percent of the measure is informed by the direct certification share and 25 percent is informed by the SES of the student's neighborhood.

Combining Measures – ISP and Neighborhood

Distributional Effects of Using ISP Share and Neighborhood SES as an At-Risk Measure

The correlation between ISP share and neighborhood SES and FRPL is 0.91
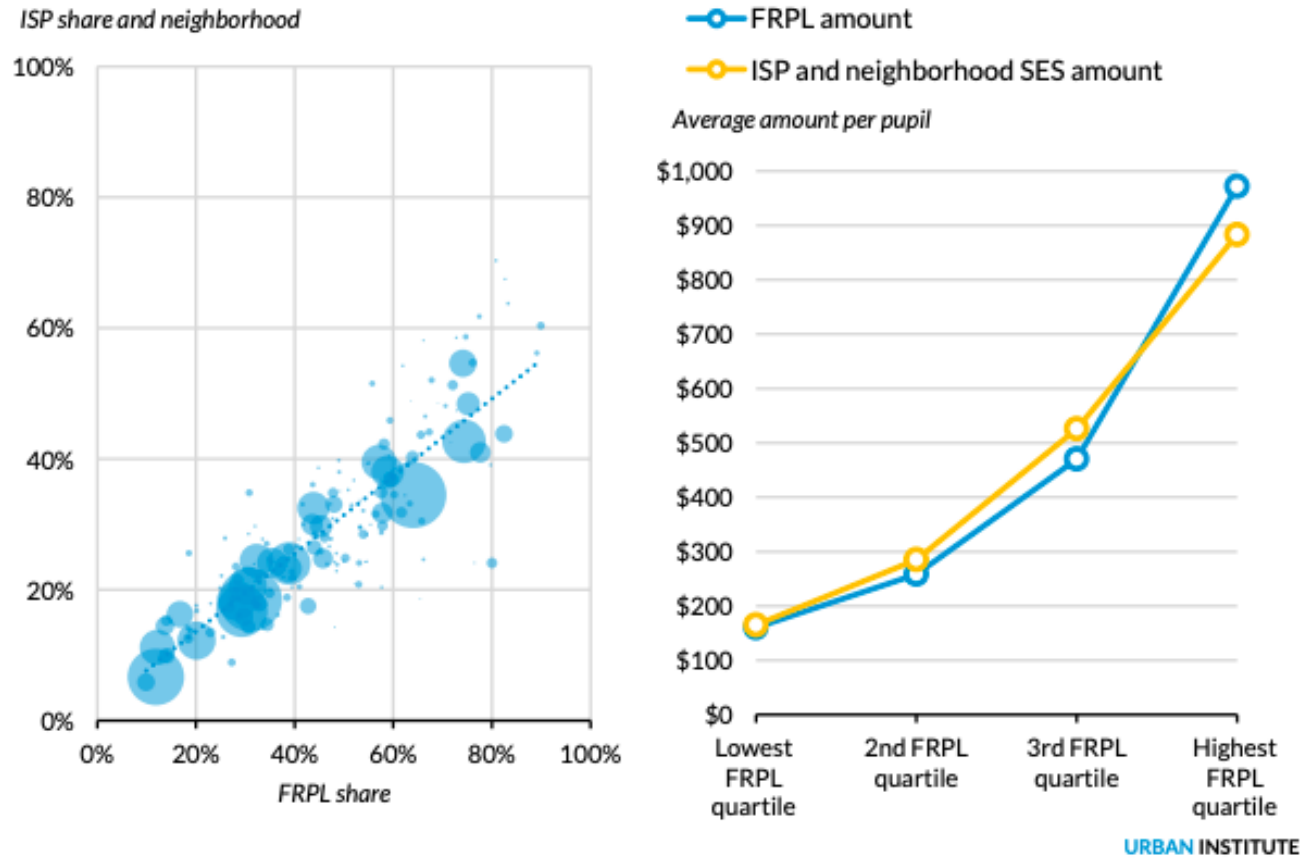
Source: Urban Institute analysis of 2019–20 data from the Common Core of Data and 2015–19 American Community Survey data.

Note: FRPL = free and reduced-price lunch; ISP = identified student percentage; SES = socioeconomic status.

Combining Measures – ISP and Neighborhood

At-Risk Criteria and Equity Analysis

A combination of ISP and a student-centered neighborhood SES index meets or exceeds FRPL as an at-risk measure on nearly all criteria

	Improve free meal access	Capture all students	Align with FRPL	Reflect actual enrollment	Minimize school and cost burden
FRPL	Poor	Good	Excellent	Excellent	Poor
ISP and student neighborhood SES index	Good	Excellent	Good	Excellent	Good

	Students in poverty (SAIPE)	Students of color	Students in rural schools	Adults without a four-year degree	Non-English-speaking households
FRPL	Very high	Very high	Modest	Very high	Very high
ISP and student neighborhood SES index	Very high	Very high	Modest/ Equal[a]	Very high	Very high

Source:

Notes: FRPL = free and reduced-price lunch; ISP = identified student percentage; SAIPE = Small Area Income and Poverty Estimates; SES = socioeconomic status. The equity ratios are as follows: negative is < 0.90, equal is 0.90−1.09, modest is 1.10−1.19, high is 1.20−1.39, and very high is ≥ 1.40.

[a] Depending on weight for neighborhood SES index. A higher weight on neighborhood SES allocates more funding for rural schools.

Implementation

Combinations of Measures

Three at-risk measure recommendations

- Identified Student Percentage (ISP)

- ISP supplemented with a link to Medicaid   + Neighborhood SES measure

- Family income tax data

- Choice can be determined by timeline and relative cost.

    - All options will involve a transition period

    - Cost is slightly higher for Medicaid link and family income tax data

Combinations of Measures

- Further examine these measures with student-level data to better understand any shifts in funding and to assess implementation challenges (i.e., assess the amount of work needed for districts to geocode student addresses).

- Consider allocating funding for a hold-harmless period of at least five years.

Thank You & Questions

Appendix Slides

Universal free lunch eligibility provides substantial benefits for students

Adopting CEP:

- <u>In</u>creases test score performance (Ruffini 2018, Gordanier et al 2019, Schwartz and Rothbart 2019)

- Reduces suspension rates (Gordon and Ruffini 2018)

- Increases the share of students with a healthy BMI (Davis and Musaddiq 2018)

Increased K12 funding produces short- and long-run gains

Changes in, and increases to, K12 student funding are associated with:

- Increases in standardized test scores (Lafortune, Rothstein and Schanzenbach 2016)

- Increases in high school graduation rates (Candelaria and Shores 2017).

- Increases in post-secondary enrollment (Hyman 2014)

- Higher earnings among children from poor families (Jackson, Johnson, and Persico 2014).

Criteria for all Measures

At-Risk Measure Performance

Some measures excel against one criterion but do poorly against others

	Improve free meal access	Capture all students	Align with FRPL	Reflect actual enrollment	Minimize school and cost burden
FRPL	Poor	Good	Excellent	Excellent	Poor
ISP	Good	Fair	Fair	Excellent	Excellent
ISP with Medicaid link	Excellent	Good	Good	Excellent	Excellent
Tax record link	Good	Good	Excellent	Excellent	Good
Student neighborhood SES index (ACS)	Good	Excellent	Good	Good	Good
SAIPE	Good	Good	Fair	Poor	Excellent
School Neighborhood Poverty (IPR)	Good	Good	Poor	Poor	Excellent
Alternative family information form	Good	Excellent	Good	Excellent	Poor

Source: Urban Institute analysis of Colorado qualitative and quantitative data.

Note: ACS = American Community Survey; FRPL = free and reduced-price lunch; IPR = income-to-poverty ratio; ISP = identified student percentage; SAIPE = Small Area Income and Poverty Estimates.

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