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Prepared By: Joseph W. Simon
Purpose: Review alternative data points for identifying students for the at-risk index.
Witness: Joseph Simon, Principal Analyst, LESC, Ryan Stewart, Ed.L.D., Secretary, Public Education Department; Raphael Martinez, Executive Director, Albuquerque Sign Language Academy; Charlotte Trujillo, Executive Director, South Valley Preparatory Academy; M. Kim Johnson, consultant
Expected Outcome: Better understanding of how at-risk funding

is allocated through the public school funding formula.

Alternative Methods for Including At-Risk Students in the At-Risk Index

Background

Since 1997, the public school funding formula has provided school districts and charter schools with additional funding based on the number of "at-risk" students located in a school district's attendance area. Under current law, this amount is calculated for each school district using three data points:

- the percentage of students used to calculate the school district's Title I allocation;
- the percentage of students that are English learners; and
- the percentage of student mobility.

However, some stakeholders have argued the current system underidentifies low-income students. In addition, some charter schools have argued at-risk funding is insufficient because a charter school's at-risk index is based upon the at-risk index of the school district in which they are geographically located, meaning a charter school serving few at-risk students receives the same at-risk index as a charter school serving many at-risk students if they are located in the same school district.

The Funding Formula's At-Risk Index

Development of the Current At-Risk Index

The at-risk component of the funding formula was added following a 1996 independent evaluation of the formula's equity. Previously, the state had provided additional funding to school districts with more than 10 thousand students through a density factor, which proponents argued was necessary to compensate districts for higher costs associated with the education of at-risk students. Critics argued the density factor was not research-based and had the effect of pitting urban and rural school districts against each other. In 1995, 10 medium-sized school districts filed a lawsuit against the state, arguing, among other things, that the density factor violated the New Mexico Constitution. They argued that although the state had a compelling interest in ensuring that small school districts were not disadvantaged by their inability to take advantage of economies of scale, large school districts

Title I eligibility is determined by the U.S. Department of Education using data from the U.S. Census Bureau. Eligible students are those between 5 and 17 years old that are:

- From families below the federal poverty line;
- From families that are above the poverty line but are receiving benefits from the Temporary Assistance for Needy Families program (TANF);
- In foster homes; and
- In homes for neglected children.

To calculate the at-risk index, PED divides the number of students identified by the census bureau by the school district's total membership.

Student mobility is calculated using enrollment codes entered into the state's reporting system. Students that frequently enroll in different schools, likely due to an unstable family situation, will have a higher number of enrollment codes assigned to them. PED adds the number enrollment codes and divides by the number of students.



had no such difficulty and arguably benefited more than medium-sized school districts. In February 1996, the judge granted the defense's motion to dismiss the case.

Despite the ruling, the independent consultant hired to evaluate the formula recommended eliminating the density factor and adding an "index of need" to direct more funding to "at-risk" students. The consulting team's review of the research showed that poverty, English language proficiency, mobility, and low Developers of the at-risk index standardized test scores were associated with an increased number of "atconsidered using a student's eligibility risk" students. The team considered 20 different indicators that could be for free or reduced-fee lunch for at-risk funding, but this data source was used to stand-in for these socioeconomic factors and evaluated them "excessive based on the availability of the data, level of manipulability, and incentives to improve.

> The team accepted four variables that would be used to calculate the at-risk index: Title I eligibility, percentage of limited English proficient students, dropout rates, and student mobility. The consultants proposed that these factors be analyzed using a computerized neural network to group school districts based on their relative need. In their report, the consultant argued for this more complex methodology because the variables chosen were meant to identify the conditions that existed in a particular school district rather than the students that receive services.

FY21 Highest and Lowest At-Risk Indexes

rejected

manipulability."

due

to

Cuba	0.447
Wagon Mound	0.432
Jemez Mountain	0.375

Los Alamos	0.036
Grady	0.055
Des Moines	0.069

In 1997, the Legislature adopted the at-risk index as proposed by the consultants, although the at-risk index has been amended to update the factors used to determine at-risk students and to provide additional funding for at-risk services.

Amendments to At-Risk Index

Following the first recalculation of the at-risk index in 1999, there was concern from some school districts that they would lose at-risk funding and have to reduce programs for at-risk students. To provide more stability to the formula, LESC recommended the index be calculated using

three-year average rates of low-income students, English learners, and mobile students. The bill passed the Legislature but was twice vetoed by the governor, who suggested removing the complex, neural network methodology. In 2002, the Legislature passed similar legislation that included the elimination of the neural network methodology and removed the dropout rate variable. That bill was signed by the governor.

Martinez-Yazzie Lawsuit

In the consolidated Martinez-Yazzie lawsuit ruling, the 1st Judicial District Court found there was inadequate funding for at-risk students, defined by the court as students

Although the 1st Judicial District Court included students with disabilities in the definition of "at-risk," state law funds students with disabilities separately from the at-risk index. Staff estimate in FY20, \$475 million was allocated through the public school funding formula for students with disabilities.

who come from economically disadvantaged homes, children who are English learners, Native American children, and children with disabilities. Taken together, these groups represent the vast majority of children enrolled in New Mexico public schools. According to the Public Education Department (PED), 73 percent of students are economically disadvantaged, based on eligibility for free or reduced-fee lunches



through the National School Lunch Program, 16 percent are English learners, 10 percent are Native American, and 15 percent are students with disabilities.

In response to the court's decision, the Legislature increased funding for the at-risk index and provided additional guidance to school districts and charter schools on how these funds should be used. Following the trial but shortly before the court's decision, the Legislature increased at-risk funding by \$22.5 million for FY19, with additional increases phased in over time. Following the court's decision, the Legislature increased at-risk index funding by \$113.2 million for FY20 and \$50.2 million for FY21, for a total of \$185.9 million over three years, more than doubling at-risk index funding from the time of trial.

Impacts on Charter Schools

When the at-risk index was developed, state law allowed for only five charter schools, all of which were locally-chartered and were converted from existing traditional public schools. The index, however, was designed to address socioeconomic conditions that were present in a given geographic area rather than to consider the unique populations of public schools. The system leaves it up to individual school districts to direct at-risk funding to individual schools.

Because current law assigns charter schools the at-risk index of the school district in which it is geographically located, schools that serve fundamentally different populations receive the same amount of per-student at risk funding. The table below illustrates some of these differences.

Economically Disadvantaged (ED)	English Learners	At-Risk Index
6%	< 1%	0.210
9%	< 1%	0.210
26%	12%	0.210
68%	18%	0.210
> 99%	17%	0.210
> 98%	18%	0.210
> 99%	43%	0.210
	Disadvantaged (ED) 6% 9% 26% 68% >99%	Disadvantaged (ED) English Learners 6% <1%

Demographic Information and the At-Risk Index for Select Charter Schools

Source: PED, New Mexico Vistas

To calculate each charter school's at-risk funding, the school district's at-risk index is multiplied by the total number of students enrolled in the charter school, which is then multiplied by the program unit value, currently \$4,351.74. As a result, for FY21 every school within the borders of Albuquerque Public Schools receives 0.210 program units, or \$951.67, for each student. But because the at-risk populations are different, a school with a smaller at-risk population effectively receives more funding per at-risk student than a school with a higher at-risk population.



Since 2002, the Legislature has amended the at-risk index four times to provide additional funding for at-risk students.

Multiplier
0.092
0.106
0.150
0.250
0.300

Source: LESC Files

Impacts on Financial Transparency and Accountability

As initially designed, the at-risk index was meant to identify the school districts that had the conditions that suggested their schools would need additional funds to provide students with an equitable education. The data points identified by the team designing the index were selected as proxies to identify areas where there were likely to be a high percentage of students requiring additional services to receive an equitable education. Other factors in the public school funding formula take student enrollment and multiply that number by a cost differential set in statute. But for atrisk funding, state law includes a more complicated mathematical formula to calculate an index, which is then multiplied by total student enrollment to calculate funding. As designed, the at-risk index would fund school districts based on their demographics and local school boards would decide how to allocate their resources to effectively educate their student populations.

As time went on, stakeholders became increasingly interested in ensuring funding generated by the at-risk index was being used for services to improve outcomes for at-risk students. In 2014, the Legislature amended the at-risk statute to require reporting on the services offered and intended outcomes for at-risk students. But the index calculation makes it difficult for schools to disaggregate the amount of funding it receives for different student populations. A more straightforward calculation, where the number of students in a given population is multiplied by a formula weight set by statute, could increase the transparency of at-risk funds.

Alternative Indicators for Low Income Students

Because state law requires the at-risk index to be calculated based in on Title I data, which is only available by school district level, some stakeholders have argued for an alternative method that would allow PED to identify at-risk populations at the individual or school site level. Such a system would allow for the funding of at-risk programs at charter schools to be based on their unique populations and increase the transparency of at-risk funding for local budget development purposes.

Although free and reduced-fee lunch eligibility is a commonly used proxy for the number of low-income students in a school, changes to the program at the federal level have limited the usefulness of this data point as a proxy for identifying low

Previous New Mexico funding formula studies from the American Institutes for Research, LESC, and the Legislative Finance Committee proposed simplifying the public school funding formula and using free and reduced-fee lunch data for at-risk funding. However, these studies were based on information prior to the implementation of community eligibility. income students. As part of the federal Healthy, Hunger-Free Kids Act of 2010, the federal government created the "community eligibility provision," to ease the administrative burden on school districts while expanding access to school meal programs. A recent report from the Urban Institute, a nonprofit social and economic policy research organization, outlines the difficulty of measuring student poverty since the passage of community eligibility. This report is included as **Attachment A.**



Free and Reduced-Fee Lunch Eligibility

According to the Education Commission of the States, 32 states use free or reducedfee lunch information to determine at-risk funding, although the exact form varies by state. Some states provide additional funding based on the percentage of students eligible for free lunches, while other states designate additional funds if the school district reaches a specific threshold. For example, in California, school districts with more than 55 percent of students eligible for free or reduced-fee lunchs are eligible for a concentration grant, while Colorado increases per-student funding as the percent of total at-risk students increase. Additionally, the introduction of the community eligibility provision has made it difficult for some states to use school lunch data when school districts decide to make all of their students eligible for free lunches. For example, the Arkansas Legislature amended state law to provide that at-risk funds would be based on school lunch data from the year before community eligibility was adopted by the school district. For more information of the data sources used by New Mexico and other states when directing at-risk funding, see Attachment B: At-Risk values. Funding for Low Income Students by State, District, and Territory, August 2019.

In its findings of fact in the *Martinez-Yazzie* lawsuit, the court noted that states more commonly use free and reduced-fee lunch participation as indicators of economic disadvantage when allocating formula funding for at-risk students, but this limits the percentage of students identified for the purposes of at-risk funding. The findings note that while Title I eligibility identifies students up to 100 percent of the federal poverty level, student are eligible for reduced price lunches¹ in households that earn up to 185 percent of the federal poverty level. The court said it would be reasonable to increase the at-risk factor to between .25 and .5 and expand identification to those eligible for free or reduced-fee lunches. However, it is not clear if the court considered the impact of changes to the program at the federal level.

Direct Certification Process

Since the adoption of the community eligibility provision, PED has worked with other agencies to identify students eligible for public assistance programs to allow schools to offer free lunches to all students without the need to collect paper forms. This process, known as "direct certification," matches school enrollment data with information from the Supplemental Nutrition Assistance Program (SNAP), the Temporary Assistance for Needy Families program, the Food Distribution Program on Indian Reservation, foster child data from the Children, Youth and Families Department, and school district data on the number of homeless or migrant students. PED is able to produce this information for all school districts and charter schools, regardless of school district or charter school participating in the community eligibility program.

It is important to remember that many other states fund schools with property taxes. As a result many state finance systems are designed to mitigate the impact disparities in property wealth because low income students may be concentrated in areas with low property values.

In addition to the impacts of community eligibility, free and reduced-fee lunch status may not be a reliable indicator of income. According to <u>a report from the</u> <u>Brookings Institution</u>, a nonpartisan think tank, there are substantially more students eligible for free or reduced-fee lunch than there are students below 200 percent of the poverty level, even though eligibility for free and reduced lunch is generally limited to those below 185 percent of the poverty level.



¹Legislation adopted during the 2020 legislative session effectively ends reduced-fee meals in New Mexico by prohibiting school districts and charter schools from charging for reduced-fee meals. The costs of the reduced-price copayment are to be reimbursed by the state.

Under federal rules, a school with at least 40 percent of student enrollment identified through the direct certification process is eligible to participate in the community eligibility provision, which allows them to stop collecting paper forms and receive reimbursement at the free school meal rate for 1.6 times the percent of identified students. A school district with 45 percent of students identified is reimbursed for free meals for 72 percent of students and at the lower "paid" rate for other meals. However, because the school cannot collect lunch fees from students the program is less financially viable for schools with lower identification of directly certified students.

Because this data is available for all school districts and charter schools at the school level and has standard data collection practices, it could be used as a proxy for the number of low-income students within a school district or particular school. However, there are drawbacks to the use of this data. According to the Urban Institute, many states that used free or reduced-fee lunch data are transitioning away and using direct certification, although some are concerned fewer students will be identified. Because undocumented immigrants are not eligible for SNAP or TANF benefits, these students could be excluded from the percentage calculations. To account for this, some data administrators are including the 1.6 multiplier when calculating the number of at-risk students. Others are hoping to include additional data sources in the direct certification process to improve identification. Some are proposing to use Medicaid eligibility; however, this requires federal approval. Currently a number of states are piloting the use of Medicaid for direct certification; although New Mexico applied to be a pilot state, it was not selected.

Economically Disadvantaged Students

States are required to identify students as "economically disadvantaged" for federal accountability reporting; however, most states, including New Mexico, use free or reduced-fee lunch program data to identify this group. As a result, the number of students identified as economically disadvantaged has increased as more students become eligible through the community eligibility provision. According to PED's 2009 report cards, 60 percent of students were economically disadvantaged in that year. The New Mexico Vistas dashboard, released in 2020, shows 73 percent of students are identified as economically disadvantaged, an increase of 21.7 percent.

Currently, 43 of New Mexico's 89 school districts participate in the community eligibility provision and consequently are 100 percent free or reduced-fee lunch eligible. Although the exact percentage on the school dashboards is "blurred" to protect student privacy, each of these school districts is listed as having more than 95 percent of students economically disadvantaged.

This means school districts serving a higher number of low-income students can appear to have the same number of economically disadvantaged students as more affluent schools. For example, Dexter Consolidated Schools has the same percentage of students listed as economically disadvantaged as Zuni Public Schools, but 20 percent more of its students are identified through the direct certification process and the Title I eligibility rate is more than double.



Because of community eligibility, allocating at-risk funds through the current at-risk index may better align school district allocations to the relative need of a school district in cases where there are no charter schools. When increasing funding for the atrisk index following the decision in the *Martinez-Yazzie* lawsuit, the Legislature chose to increase the at-risk index's multiplier, allocating more at-risk funds to all school districts and charter schools, while concentrating the increases in areas with the highest poverty levels.

Low Income Student Indicators in Select School Districts

	Direct		Title I	
School	Certification	Economically	Component of At-	
District	Percentage	Disadvantaged	Risk Index	
40%-50%	Direct Certificatio	n		
Dexter	40.3%	> 99%	0.223	
Carrizozo	41.7%	> 98%	0.437	
Pecos	46.2%	> 99%	0.312	
50%-60% I	Direct Certificatio	n		
Raton	50.5%	>99%	0.317	
Espanola	53.8%	>99%	0.420	
Gallup	57.9%	>99%	0.563	
Over 60% Direct Certification				
Zuni	61.6%	>99%	0.598	
Vaughn	69.6%	>95%	0.486	
Cuba	71.4%	>99%	0.814	

Source: PED, New Mexico Vistas, and LESC Files



CENTER ON EDUCATION DATA AND POLICY

ATTACHMENT A



RESEARCH REPORT

Measuring Student Poverty

Developing Accurate Counts for School Funding, Accountability, and Research

Erica Greenberg December 2019 Kristin Blagg

Macy Rainer





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Executive Summary

Since 2010, the Community Eligibility Provision (CEP) has expanded access to free school meals while jeopardizing a key measure of student poverty used across the field of education: free and reduced-price lunch (FRPL) status. States and school districts are pioneering alternative measures of student poverty, which vary in their composition and policy contexts. This framing paper identifies key issues surrounding the use of alternative measures of student poverty. We divide stakeholders into two groups: administrators and data users.

Administrators collect and report data on students' socioeconomic status. They are tasked with

- identifying and implementing measures of student poverty;
- communicating changes to measures; and
- improving existing measures.

Data users rely on student poverty data for research, programmatic, and related purposes. Their challenges include

- interpreting communications from administrators;
- making adjustments to align longitudinal or multisite data; and
- specifying and testing alternative measures of student poverty.

We expand on these issues before looking at developments in the field and new questions emerging in the post-CEP era.

Measuring Student Poverty

How we count matters. Measures of student poverty illuminate the demographic composition of schools, define school finance allocations, underpin accountability systems, support the estimation of opportunity and achievement gaps, and allow low-income students to receive targeted services and discounts on educational goods.

For nearly three-quarters of a century, one measure has served these purposes: free and reducedprice lunch (FRPL) status. Research shows this measure was always flawed (Domina et al. 2018; Harwell and LeBeau 2010). But its near-universal availability and common usage allowed many stakeholders including policymakers, researchers, journalists, philanthropists, and direct service providers in education and beyond—to share vocabulary central to their work and to communicate clearly about public education's goals and outcomes.

This easy metric, made accessible thanks to the National School Lunch Program (NSLP) administered by the US Department of Agriculture's Food and Nutrition Service (FNS), has become unwieldy because of the Community Eligibility Provision (CEP). The CEP began with state pilots from 2010 through 2013 and rolled out nationally in 2014 through the Healthy, Hunger-Free Kids Act of 2010.¹ It allows schools with high shares of low-income students to provide universal school meals while easing the administrative burden on families and school and school district staff. These are worthy goals. And research shows that universal school meals can improve student outcomes (Gordanier et al. 2019; Gordon and Ruffini 2018; Schwartz and Rothbart 2019). Yet, in addition to existing efforts—notably, provisions 1, 2, and 3 of section 11(a)(1) of the National School Lunch Act²— and common data reporting errors, the CEP has made FRPL status a less valid measure of student poverty because it does away with household forms that have long allowed students and families to report their household incomes with few barriers and little scrutiny.

This report describes recent changes to, and resulting limitations of, FRPL status as a measure of student poverty and socioeconomic background. We outline the decline of FRPL status nationwide and in many states and communities and then describe alternative measures state and school district administrators have pioneered. We summarize the challenges facing administrators responsible for communicating and improving counts of low-income students, as well as those facing researchers and others who use those counts to answer questions about policy and practice. Finally, we highlight emerging issues and next steps for administrators and users of student poverty data.

This report comes during a transition. Many states and school districts have moved away from FRPL status as their singular or primary measure of student poverty and are fine-tuning alternatives. The new landscape of poverty measures is more opaque and varied than the one that preceded it, and current federal guidance from the US Department of Agriculture and US Department of Education allows for this variation.³ Stakeholders seeking a uniform measure of student poverty—or post hoc methods for aligning existing measures—see a need for clear communication and collaboration to solve measurement and data collection problems. This report clarifies this need and advances the conversation so available measures of student poverty can align with pressing policy goals.

2

Background and Literature Review

Since 1946, the National School Lunch Program has provided nutritious school meals to low-income children during the school day. The program has grown to serve about 22 million lunches to low-income students each day.⁴ Subsidized meals have been associated with improved health (Gundersen, Kreider, and Pepper 2012) and educational outcomes (Gordanier et al. 2019; Gordon and Ruffini 2018; Hinrichs 2010; Schwartz and Rothbart 2019). To identify qualifying students, the program provides resources for schools to collect household income information through common eligibility forms. Although the NSLP was designed to address food insecurity and reduce agricultural surplus, it had the unintended benefit of generating a national proxy measure of student poverty.

Today, participation in the program is the most common method states use to determine student socioeconomic status for school funding and accountability. Its biggest strength is its universality. Schools attempt to identify nearly every student as eligible or not eligible, which mitigates nonresponse bias (Harwell and LeBeau 2010). Schools then provide simple, well-populated data that can be obtained at a low cost.

Despite the ubiquity of FRPL status as a measure of socioeconomic background, evidence on its accuracy in capturing student poverty is mixed. A nationally representative study found that FRPL status at the school level is strongly associated with various community-based measures of poverty (Nicholson et al. 2014). Additionally, participation in the NSLP may predict student test scores better than annual household income reported for tax purposes (Domina et al. 2018). A cumulative measure of FRPL participation strongly predicts student achievement (Michelmore and Dynarski 2017). But studies of the NSLP suggest the program is underused, especially among certain groups. Eligible suburban and rural students are less likely to take advantage of the program than their urban-dwelling peers (Carson 2015). Older students are less likely to participate than students ages 8 to 13. In the past, this has been linked to perceived stigma around receiving free meals (Glantz et al. 1994; Newman and Ralston 2006). One study using census poverty estimates found free lunch status was not sufficient to reliably predict school district poverty (Cruse and Powers 2006). Additionally, an internal review by the USDA (2015) found that 20 percent of children who were classified as eligible for free lunch or reduced-price lunch or were denied eligibility were placed in the wrong category.

In 2010, policy changes enacted by Congress established the Community Eligibility Provision. The CEP follows additional provisions in the National School Lunch Act (known as provisions 1, 2, and 3⁵) that seek to reduce paperwork and expand access to school meals. The CEP gives FRPL status to all

students in participating schools and districts with at least 40 percent of students found eligible by virtue of participating in other public benefit programs (i.e., the identified student percentage). The identified student percentage is computed by matching school enrollment data to public benefit databases. For example, a student participating in the Supplemental Nutrition Assistance Program (SNAP, formerly known as Food Stamps, which mirrors the free-lunch eligibility threshold at 130 percent of the federal poverty level) may be directly certified for FRPL without collecting additional data from the student's family.⁶ Direct certification systems were allowed under the Child Nutrition and WIC Reauthorization Act of 1989 and required under its reauthorization in 2004 to verify information collected through free-lunch forms.⁷ States built out these systems under the Healthy, Hunger-Free Kids Act of 2010, which established the CEP and made it available nationwide starting in the 2014–15 school year. As of 2015, 99 percent of students in NSLP-participating schools attend districts that use direct certification to identify students based on their participation in SNAP or other programs (Moore et al. 2016).

In 2017–18, 28,614 schools in 4,698 districts serving more than 13.6 million children participated in the CEP.⁸ As states adopt the CEP, some have shifted the way they report data on FRPL participation. For example, to guide data collection for the Common Core of Data, the US Department of Education's EDFacts Submission System now instructs states to report counts of students eligible for FRPL and counts of directly certified students (ED 2017a). Some states report FRPL eligibility in CEP schools as 100 percent of students receiving free lunch, while others report direct certification counts instead. States are not asked to report on the details of their direct certification systems, which can affect the accuracy of counts of low-income students. The CEP and similar earlier provisions⁹ aim to relieve school administrators and parents and bring needed nutrition to millions of students. But they also herald the end of FRPL status as a uniform, student-level measure of economic disadvantage.

Many states are replacing measures of student poverty in their school district funding formulas and accountability systems, and replacement options vary (CBPP and FRAC 2017). Some states use the most recent available information from paper lunch forms, but this information becomes more outdated each year. Other states collect alternative income forms, annually or less frequently, though they do so at their own expense and without incentives for completion among the growing number of families in CEP districts and schools. States such as Massachusetts use direct certification to create individual-level measures of student poverty based on participation in an approved list of public benefit programs.¹⁰ Some use a multiplier of 1.6 to adjust school-level counts of low-income children,¹¹ but this approach cannot help schools or districts understand which individual students are low income.

Meanwhile, states and districts that still use FRPL status or are in transition are exploring these and other options:

- Georgia is weighing direct certification as the preferred alternative to FRPL as a poverty measure for data analysis but is concerned that many fewer students will be recognized as disadvantaged. The state also notes that differences in Temporary Assistance for Needy Families (TANF) and SNAP standards around the country will render cross-state comparisons difficult.¹²
- Baltimore City Public Schools have transitioned to the CEP, but the prevalence of English language learners and Hispanic and Latinx students, who use public benefits at lower rates, led to significantly lower counts of economically disadvantaged students. City schools have already lost Title I funds and other grants they previously qualified for, and data could fail to fully capture the financial means of a school's students.¹³ As a result, the city is considering advocating for Maryland to build out its system of direct certification to include additional programs, such as Medicaid and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and is seeking alternative forms of poverty data as a supplement to existing sources (Carrico, François, and Wohn 2018).
- Virginia is expanding its direct certification procedures to encompass the entire state in its matching process. Initial testing of the new software has been successful, with equal or greater numbers of students matched compared with previous local methods.¹⁴

Researchers and policymakers must also identify alternative measures of student poverty that capture student socioeconomic status. New measures may or may not leverage NSLP data. For example, as a direct response to changes to FRPL status, New York City's Independent Budget Office developed a measure that quantifies student poverty relative to the median household income in the student's census tract (NYC IBO 2015). Other methods researchers have proposed include parental education levels (Owens, Reardon, and Jencks 2016) or the share of poor or single-parent households with school-age children in the school's neighborhood (Geverdt and Nixon 2018; Kurki, Boyle, and Aladjem 2005).

Issues for Administrators

Administrators who collect and report data on student poverty—and use these data to implement policy—face multiple challenges as schools and districts increasingly adopt the CEP. Administrators must communicate the implications of the CEP policy to district administrators and to parents. If standards for classifying FRPL shares change, they must also help others identify how these changes affect resource distribution and the interpretation of accountability metrics for schools. Finally, administrators may work to improve their identification and measurement of students classified as low income.

BOX 1

Who Are Data Administrators?

Administrators are public officials who collect, report, and synthesize data on K–12 students in public schools. Administrators also need to make decisions using these data. Administrators can include staff in school districts and at the state and federal level.

In general, schools and districts report data to the state, which can use them to develop school and district report cards, to allocate funding, or for other uses. States typically aggregate these data and report up to federal data collections, including the Department of Education's Common Core of Data, EDFacts, and assessments such as the National Assessment of Educational Progress. In turn, these national data collections inform national analyses and policy.

At multiple points in data collection, administrators set the criteria for how data are collected and reported to the public and to researchers. Some states collect data from school districts on student poverty—or broader measures such as community wealth—that other states do not.

Measuring Economic Disadvantage for Accountability and for Funding

Administrators and policymakers must set the measurement criteria for counting low-income students when assessing student performance on state tests. In addition, many states distribute funding to districts using student economic need as a factor for allocating additional funds. In these states, policymakers must develop a robust measure of the number of low-income students.

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The Every Student Succeeds Act (ESSA) requires that states produce report cards to help parents and the public understand student achievement at each public school. These report cards must include student outcomes, such as performance on annual statewide tests, disaggregated for students who are economically disadvantaged (ED 2017b). But, similar to regulations under the previous reauthorization of the Elementary and Secondary Education Act, No Child Left Behind, states can decide how to define economically disadvantaged students.

Under No Child Left Behind, most states used FRPL status as their measure for economically disadvantaged students. But with increased use of the CEP, as well as increased flexibility for state decisionmaking on accountability under ESSA, some states have revised their definition of economically disadvantaged. Delaware, Massachusetts, South Carolina, Tennessee, and Washington, DC, no longer use FRPL status in determining economically disadvantaged status. Instead, they identify these students through direct certification, using household participation in safety net programs as an indicator of low-income status.

States are required to certify students for FRPL using SNAP, and states that no longer rely on FRPL status still rely on SNAP for their economically disadvantaged counts. All 50 states (plus Washington, DC) rely on SNAP rolls to identify economically disadvantaged students for accountability purposes (figure 1). Our original data collection shows that 45 states also use TANF participation, and 15 states use participation in the Food Distribution Program on Indian Reservations. Eighteen states have piloted using Medicaid data—namely, family income—to further identify students eligible for FRPL. Finally, some states include special student statuses. Students experiencing homelessness (15 states), living in foster care (26 states), or having migrant status (14 states) may be identified as economically disadvantaged.

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FIGURE 1 State Combinations of Criteria to Measure Economic Disadvantage



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Source: Urban Institute analysis of state accountability policies.

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Note: FDPIR = Food Distribution Program on Indian Reservations; FRPL = free and reduced-price lunch; SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Assistance for Needy Families.

For accountability purposes, students must be individually identified as economically disadvantaged. But for state funding mechanisms, states do not necessarily have to identify student-level economic disadvantage because state funding is allocated at the school district level.

Most state funding structures (43 states plus Washington, DC) try to send more state aid to districts with higher shares of low-income students (figure 2). But the measures used to assess low-income status are diverse. Nevada, New York, Oregon, Pennsylvania, and Texas include information from large national surveys, such as the American Community Survey, to estimate the share of school-age children living in low-income families in each district. Thirty-one states use information on FRPL status, and 38 states use SNAP, either in support of FRPL data collection or separately to count only those who are directly certified. Other programs, including TANF (in 33 states), the Food Distribution Program on Indian Reservations (8 states), and Medicaid (13 states) supplement counts of low-income students.

FIGURE 2



State Combinations of Criteria to Measure Low-Income Students by District

URBAN INSTITUTE

Source: Urban Institute analysis of state school district funding policies.

Notes: FDPIR = Food Distribution Program on Indian Reservations; FRPL = free and reduced-price lunch; SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Assistance for Needy Families. Census estimate indicates that the state uses data collected by the US Census Bureau, such as from the American Community Survey or the Small Area Income and Poverty Estimates, as part of its calculation. Additional categorical eligibility statuses, such as being incarcerated, are used in a few states and are captured in our original data collection available at "Measuring Student Poverty: Dishing Up Alternatives to Free and Reduced-Price Lunch," Urban Institute, September 20, 2019, http://urbn.is/lunch.

Communicating Changes in Measuring Low-Income Students

One of the biggest challenges state and federal administrators face is how to communicate changes in the FRPL measure to school leaders and to parents. For purposes of accountability or funding, states could count all students in CEP schools as receiving FRPL, which is often interpreted as "low income." Or states can move to a different measure, such as direct certification, which may appear to underestimate of the share of low-income students.

States and districts can take several steps to communicate changes in their definition of low-income status to families and the public. Administrators can provide clear documentation of data sources and procedures for identifying economically disadvantaged students, along with exceptions or instances of

missing information. Administrators can also provide descriptive data on how estimates of other demographic characteristics change when the definition of a low-income student changes. By documenting the increase or decrease in the documented share of different groups—such as students of color, English language learners, or students enrolled in different districts—when the low-income definition changes, administrators can provide context for what the low-income variable captures. Administrators can also clearly delineate changes in the low-income category by using new terminology. A state might transition from describing students as "low income" to describing them as "economically disadvantaged" or "directly certified." Clear and consistent use of revised terms for lowincome status can signal the transition to a new measure.

Changes in Accountability Data

When states or districts transition to a new measure of poverty to report student test results under ESSA, they must be aware of how this shift can affect the public's understanding of changes over time. Changes to the categorization of low-income students can create the impression of changes in other measures, even if the underlying data do not change. To demonstrate this, we model a hypothetical school district with five schools. In this district, students who are directly certified as low income have a lower likelihood of scoring well on a state assessment. Directly certified students have an average score of 38.2, while those not directly certified have an average of 49.5 (table 1).

As the definition of low income is expanded, first to schools who receive FRPL through paper submission in addition to direct certification, and then, in schools 4 and 5, through the CEP, the average score of low-income students rises, even though the underlying score data do not change. In addition, in the aggregate and in three of the five schools, the average score of students who are not low income also increases. Changes in the low-income definition appear to improve test scores for both groups, even though the test score data do not change. This phenomenon, Simpson's Paradox, is likely to occur when an outcome is correlated with a student's economic status.

TABLE 1

Changes in Test Score Averages by Low-Income Categorization

If test scores are correlated with student poverty, average scores in both groups will rise as the low-income definition expands

	_	School		State			
	Identification method	1	2	3	4	5	average ^a
Share of low income	Direct certification	32%	36%	47%	65%	63%	49%
Share of low-income students	FRPL	43%	40%	64%	77%	76%	60%
	FRPL with CEP	43%	40%	64%	100%	100%	69%
Louvincomo studente	Direct certification	39.9	34.1	30.8	36.1	40.2	36.2
Low-income students,	FRPL	43.2	33.9	33.6	37.7	42.5	38.2
average score	FRPL with CEP	43.2	33.9	33.6	40.8	43.4	39.0
Not low income students	Direct certification	48.9	50.0	50.3	49.7	48.9	49.5
Not low-income students, average score	FRPL	48.1	51.2	54.6	51.3	46.3	50.3
	FRPL with CEP	48.1	51.2	54.6	N/A	N/A	51.3

Source: Urban Institute simulation of potential test score changes.

Note: CEP = Community Eligibility Provision; FRPL = free and reduced-price lunch; N/A = not available.

^aUnweighted average for all five schools.

State policymakers must find ways to convey this new information to the public and ensure that incorrect comparisons are not made across years when the data about economic disadvantage are reported differently. States can demark these different results on their school and state report cards using different colors or other distinguishing notation. This process may be similar to the process for switching the scoring or content of a state assessment. Officials can denote the start of a new trend and include language that warns against comparing across years.

Changes in Funding Data

The transition to a different metric for allocating funds to districts with higher shares of economically disadvantaged students brings different challenges. When state legislators transition to a new funding structure for K-12 education, they often include a "hold harmless" provision that attempts to protect districts from losing funding caused by formula changes. In current funding formulas, states often use these provisions to prevent or mitigate the reduction of funding levels for districts with declining enrollment. According to a 2014 survey of hold harmless policies, 12 states had hold harmless provisions that guaranteed, at minimum, level funding, and 22 had policies that mitigated the loss of funds when district enrollment declined (Atherton and Rubado 2014).

States that have amended their characterization of low-income students for funding have worked to ensure the new funding is at least as progressive as the previous allocation, in terms of addressing differing levels of student economic disadvantage. Because the share of students directly certified for free lunch is typically lower than the share identified through paper-based forms, schools could face a funding decline if a change is not made. This change could be an increase in the funding allocated per directly certified student or the development of a ranked economic disadvantage measure. Massachusetts developed a ranked measure such that schools were ranked in deciles by direct certification levels (DESE 2017).

Improvement of Low-Income Student Reporting and Implementation

State and local administrators have multiple avenues to improve how they measure low-income students going forward. Although most students are accurately identified through direct certification, studies of the processes states use have found room for improvement (Moore et al. 2016; Ranalli et al. 2009). Namely, states can improve direct certification matching by using multiple data points for identification and employing a "fuzzy" or probability-based match, increasing the number of times during the school year that enrollment and safety net program data are updated and rematched, confirming near matches with the local school district, and extending eligibility to students from the same household, even if they are not identified in the matching process. States can also strengthen their programs by using other safety net data to identify students from low-income families. For example, states that have piloted the use of Medicaid data can identify income-eligible households using the income reported when the household applied for Medicaid coverage.

Another avenue for improving low-income student reporting is counting students who are incomeeligible for free lunch but whose families do not participate in safety net programs. States and districts must develop new ways to capture these students, particularly in CEP schools. Some states employ paper forms for families to report their income, but schools must ensure return rates are high (e.g., by providing classroom-based rewards for the highest share of forms returned) because the submission of the form no longer conveys a benefit for the student.¹⁵ Other states have broadened their eligibility categories, incorporating experiencing homelessness, being in foster care, or being incarcerated as statuses that count as low income.

When students remain uncounted (e.g., if children of unauthorized or mixed-status immigrant families are not captured in the direct certification data because their families do not participate in safety net programs), states and districts may need to find other ways to ensure schools with a potential undercount of low-income students have the resources they need. For example, increasing the funding weight for English language learners could address some of the gaps between reported and actual need

within a school. Likewise, a poverty concentration weight (where the per student funding allocation increases as the share of students from low-income families increases) could ensure schools with the highest need get more funding, even if some students are not counted. Finally, states can look to other measures, such as census data or links to administrative data on parent income or student mobility, to build the most accurate measure of student poverty.

Issues for Researchers and Other Data Users

Changes to widely used measures of student poverty can pose challenges for research, policy, and practice. But researchers and other consumers of education data—including advocates, social service organizations, philanthropists, and policymakers—may be particularly disconnected from data generation and documentation. Their resulting inability to fully understand and account for changes in measures of student poverty can undermine research findings and lead public initiatives off target.

Researchers and other data users are likely to encounter three key challenges:

- 1. interpreting communications from administrators and other data generators
- 2. making adjustments to align longitudinal or multisite data
- 3. specifying and testing alternative measures of student poverty

In this section, we discuss each issue and offer strategies to mitigate resulting challenges.

Interpretation of Student Poverty Measures

The primary challenge created by changing measures of student poverty lies in understanding existing data, especially data collected across states or over multiple years. Depending on data source and documentation, users may have a clear picture of their underlying information and how it was generated—or they may have to summarize and visualize available data to detect changes in measures and then retrace steps to understand their findings. In some sources, such as the Common Core of Data, new variables measuring student poverty have been included. Additions such as the Common Core's direct certification variable (collected starting in 2016–17) suggest a need to investigate all available measures and to consider updating longitudinal or replicated cross-sectional studies to ensure they reflect the most current and comprehensive information on student poverty.

In the post-CEP era, measures of student poverty are changing quickly in national, state, and local databases. In some states, adjustments are made annually as administrators review counts of low-income students, investigate alternative approaches to data collection, and tweak direct certification systems or alternative household income forms. In others, shifts to direct certification in CEP schools are leading to inconsistencies with non-CEP schools and pushing administrators to implement new

uniform measures statewide. Among data users, up-to-date public documentation of these changes might not be easy to find or interpret. Some states (e.g., Connecticut) continue to label measures as "FRPL" even as underlying data move to a mix of public benefit receipt indicators and household forms. In addition, it may be difficult (or even counterintuitive) to seek out information on both school funding and accountability metrics and document differences between them. Even data administrators may be unfamiliar with metrics used in offices outside their own or what measurement differences mean for accurate counts of low-income students.

BOX 2

Who Are Data Users?

Student poverty data underlie education research, advocacy, and policymaking. Data users in diverse organizations and agencies access, analyze, and interpret data on students' socioeconomic status. Data can be available at the student level or aggregated by grade, school, district, or state. Data can be reported by a school, a local education agency, a state, or the US Department of Education.

Data users include the following:

- professional researchers in all types of organizations, including colleges and universities, for- and nonprofit research organizations, federal agencies such as the US Department of Education, and other social service organizations that use student data for policy and planning
- advocates working in school finance, accountability, education equity, school choice, and related topics, as well as advocates in other areas of child and family policy
- journalists with beats in education or related topics
- students in secondary and postsecondary education investigating education and poverty
- direct service providers in public, private for- and nonprofit, and blended organizations
- other consumers not involved with data collection

FIGURE 3



Measures of Socioeconomic Status Reported in the 2017-18 Common Core of Data

Source: Urban Institute analysis of the National Center for Education Statistics' Common Core of Data. Note: FRPL = free and reduced-price lunch.

For many education data users, new measures of student poverty bring up questions about policies and programs far beyond their areas of expertise. Direct certification offers an example of resulting challenges. Public benefit programs have multiple and sometimes conflicting eligibility requirements, and they are not generally well aligned with public education goals. Implementation¹⁶ and take-up (FNS 2019) of public benefit programs used for direct certification vary across states and are subject to changing state and federal policies.¹⁷ States that have more expansive safety nets or use more programs for direct certification may identify more students than states with weaker safety nets or limited direct certification procedures. Data users relying on seemingly similar direct certification measures from multiple states must be aware of potential differences in safety net programs that undergird the measurement. Interpreting these and other new measures can mean diving into program guidance and following shifting policy landscapes to make sense of changing counts of low-income students and understand how to use them.

Interpreting new measures also requires understanding errors in reporting. These errors have been well documented for FRPL status before the CEP expansion (Bass 2010; Domina et al. 2018; Harwell

and LeBeau 2010). But new measures vary in their potential to under- and overreport. For example, newly released Common Core data demonstrate that some CEP schools report 100 percent of students as having FRPL status, while others report 0 percent. Schools, districts, and states using multiple measures—such as direct certification paired with alternative household income forms—are likely to see their total counts of low-income students rise as families have multiple opportunities to demonstrate need. Understanding the sources of new poverty measures, and who they are and are not suited to identify, can clarify reporting errors. Once interpretation is clear, data users can consider the value of, and potential approaches to, adjustments that improve data quality and comparability.

Statistical Adjustments to Student Poverty Measures

In many cases, student poverty data can be revised to account for changes in underlying data sources, data collection methods, and program and policy implementation. Adjustments can be universal or targeted to specific states, schools, or student groups; made at the state, school district, school, or student level; and done by incorporating supplemental data or post hoc corrections based on established assumptions. Documentation is critical in clarifying adjustments for all stakeholders. And where data quality is too poor or adjustments are otherwise impracticable, research can motivate future changes to improve the accuracy of student poverty measures.

Before initiating any novel adjustments, data users should consider consulting with administrators to check on work in progress. Users seeking to modify data from one state or school district, or even a handful of municipalities, can benefit from solutions pioneered by state and local agencies. They may consider requesting updated data or data cleaning code. News of upcoming adjustments or even initial agency diagnostics can inform the timing and nature of user-initiated changes. Still, although these consultations may prove fruitful in many cases, they might have limited utility in others. Researchers and other data users seeking to conduct national or longitudinal analyses or draw on data collected during periods of transition between measures may need to make their own adjustments absent guidance from administrators.

Adjustments to student poverty data can occur at several levels. Adjustments at aggregate levels including national, state, school district, and school—can often leverage additional data sources and draw on existing statistical techniques to improve the accuracy or comparability of raw data. Use cases include the following:

1. correcting overall counts and shares of low-income students

2. adjusting counts for school and school district funding, including funding allocated through state funding formulas and Title I

Aggregate adjustments include some margin of error but can be refined using knowledge of limitations in existing data, supplemental datasets, population changes, and other factors. Aggregate adjustment options include the following:

- Multipliers and deflators. Data users know that household income forms, direct certification, or other processes can systematically under- or overcount low-income students. To correct for these biases, companion data sources can inform the creation of simple multipliers or deflators. For example, the Department of Agriculture recommends multiplying counts of directly certified students by 1.6 to account for incomplete take-up of public benefit programs and match totals generated by household lunch forms (FNS 2016). Although the appropriate multiplier can vary by school and district, this kind of approach can provide a quick and easy fix to problems of undercounting.
- Imputation. Instead of adjusting counts of low-income students, imputation allows data users to replace existing counts of low-income students with predicted values based on one or more sources. One form of imputation is a simple average. In a year of transition to a new student poverty measure, where data appear inaccurate and unreliable, data users may decide to replace raw counts with the average of counts from previous and subsequent years. More sophisticated forms of imputation, drawing on multivariate regression methods, are also promising. Multiple imputation by chained equations and related approaches allow modelers to incorporate multiple data sources to estimate counts of low-income students. Past student poverty data, current racial and ethnic composition and counts of English language learners, and community characteristics can inform current estimates. Training models on data from the pre-CEP era or current non-CEP schools can derive counts similar to those from old FRPL forms.
- Bounding exercises. It can be helpful to conceive of what-if scenarios that push the limits of available data. In their simplest form, bounding exercises allow data users to set parameters and play out their implications for counts of low-income students. Data users might lay out assumptions around the share of students who remain low income year over year or who might be low income based on other observable characteristics. Testing high and low assumptions can inform a sense of the range of possible counts and comparisons with those derived from existing measures.

The menu of adjustment options is expanding, as is their sophistication. The Stanford Education Data Archive imputes FRPL status from the Common Core of Data using multiple imputation by chained equations.¹⁸ Researchers use decades of data from EDFacts on economically disadvantaged students, information provided directly by state departments of education, and schools' racial and ethnic composition, urbanicity, and grades served to improve counts of low-income students.¹⁹ Figure 4 illustrates how these adjustments produce a distribution of schools that looks more realistic than the one generated by Common Core data alone.

FIGURE 4

Comparing Imputed SEDA Data and Raw Common Core Data on Shares of Free-Lunch-Status Students



Source: Urban Institute calculations from 2015–16 data from SEDA and the Common Core of Data. Notes: SEDA = Stanford Education Data Archive. Histogram includes a matched sample of 87,382 schools with nonmissing data in both sources.

Student-level adjustments are more difficult to make than those at aggregate levels because of limited data availability. Child-, family-, and household-level data are rare, and linking relevant databases to student rosters comes with substantial privacy and confidentiality concerns, as we have outlined in describing systems of direct certification. Alternative household income forms are

promising, but without school meals or other incentives, return rates can be low and collected data can be misleading.

Use cases for student-level data include the following:

- 1. reporting for accountability purposes
- 2. allocating educational and other support services
- 3. providing discounts to students (e.g., SAT fee waivers)

Where additional data are available, student-level adjustments can be made using some of the same approaches as aggregate-level fixes. Imputation is particularly promising. Additional student characteristics in administrative data and community characteristics linked to student addresses can be informative predictors of student poverty. Understanding errors associated with these types of adjustments, and how errors vary across jurisdictions and populations, will be critical moving forward.

Across all adjustments, data users are likely to focus on specific groups for whom new measures of student poverty often fall short. These groups include students from unauthorized and mixed-status immigrant families, students in states with greater barriers to public benefit receipt, and students with varied name spellings and other challenges to matching under direct certification. Researchers are equipped to provide empirical guidance on improving student poverty measures for these groups and harmonizing measures across states and over time. They are also equipped to investigate the next generation of student poverty measures.

Alternative Measures of Student Poverty

In the post-CEP era, states have moved quickly to address changes to FRPL status as a measure of student poverty. Some have found solutions in direct certification systems, alternative income forms, census estimates, and combined metrics drawing on multiple sources. Other states are considering changes to their student poverty measures—both in CEP schools and statewide—and some are iterating as replacement measures generate new questions about who is and who is not counted. New measures are still evolving. For data users, these changes can lead to questions about alternatives that are valid and reliable across jurisdictions and over time.

Data users may be interested in exploring alternative measures of student poverty in place of, or in addition to, changing measures reported in state and school district databases. They may also consider broader measures of student socioeconomic status, need, or educational disadvantage. Existing alternatives depend on the levels (national, state, school district, school, and student) and geographies of interest; they vary in their advantages and limitations. But research and evaluation work suggest several proxies worthy of consideration:

- parent education, included in some state longitudinal K-16 databases (Owens, Reardon, and Jencks 2016)
- household income reported in tax filings to the Internal Revenue Service (Domina et al. 2018) or on novel surveys fielded by researchers or public agencies, possibly adjusted for cost of living
- community socioeconomic characteristics available in census-type sources linked to geocoded student address or school location data (Geverdt and Nixon 2018)
- receipt of additional safety net programs (e.g., Medicaid in most states, state benefit programs)
- student mobility or other indicators of instability (Sandstrom and Huerta 2013)
- early exposure to poverty, captured in longitudinal income data or through WIC receipt (Duncan and Magnuson 2013)
- ever-exposure or cumulative measures of poverty, similar to Michelmore and Dynarski (2017)

Investigations of these alternatives should be fully documented and shared with administrators and data users to facilitate review and proliferation of best practices. Notable models for comparing student poverty measures are already available (Domina et al. 2018; Gindling et al. 2018; Koedel and Parsons 2019). Future explorations can lead to supplemental or even replacement measures. By improving on the validity and reliability of FRPL status, new measures—including categorical and continuous measures with greater predictive power—may ultimately be better suited to measuring the socioeconomic background of all students.

Looking Ahead

Following national implementation and growing participation in the Community Eligibility Provision, we have entered a period of transition in measuring student poverty. Changes will eventually lead to a new normal. In the meantime, administrators and data users must move ahead with their work. They must communicate and understand existing data and, in some cases, make adjustments to improve data quality and comparability. Some will explore novel alternatives, and others will make recommendations for recapturing students left uncounted by existing measures.

This transition provides an opportunity to take stock of past measures of student poverty, assess their limitations, and forge ahead with alternatives. FRPL status was always flawed. The worthy expansion of school meal programs has ushered in the end of an era of "free lunch" for education stakeholders seeking to identify economically disadvantaged students. Now, new questions emerge:

- What do we mean by low income, economically disadvantaged, and at-risk?
- How do we match measures of student poverty with goals for policy, practice, and research?
- To what extent can (and should) we aim for comparability across state and district lines?
- How do we ensure students do not go uncounted?
- What guidance and supporting resources are needed and from what levels of government?
- How do we overcome communications barriers and navigate toward the next generation of measures?

As administrators and data users address these questions, two-way communication is key. Experts on the safety net and other programs outside education are also critical partners in the conversation. Educational efficacy, efficiency, and equity are at stake.

Notes

- ¹ Healthy, Hunger-Free Kids Act of 2010, Pub. L. No. 111-296, 124 Stat. 3183 (2010).
- ² National School Lunch Act, Pub. L. No. 79-396, 60 Stat. 230 (1946).
- ³ For the guidance from the US Department of Agriculture, see National School Lunch Program: Direct Certification Continuous Improvement Plans Required by the Healthy, Hunger-Free Kids Act of 2010, 77 Fed. Reg. 4688 (January 31, 2012); and Child Nutrition Programs: Income Eligibility Guidelines, 84 Fed. Reg. 10295 (March 20, 2019). For the guidance from the US Department of Education, see OESE (2014).
- ⁴ "National School Lunch Program: Participation and Lunches Served," United States Department of Agriculture, March 8, 2019, https://fns-prod.azureedge.net/sites/default/files/pd/slsummar.pdf.
- ⁵ "National School Lunch Program: Provisions 1, 2, and 3," United States Department of Agriculture, November 20, 2019, https://www.fns.usda.gov/school-meals/provisions-1-2-and-3.
- ⁶ Once income and program participation information is provided to state or local education agencies, it becomes part of students' "education records" covered under the Family Educational Rights and Privacy Act of 1974 (FERPA) (42 U.S.C. §1758(b)(3)(F) Direct Verification). FERPA gives parents rights with respect to their children's records and specifies certain conditions under which records can be shared, including through studies on behalf of schools, school districts, or postsecondary institutions (20 U.S.C. §1232g(b)(1)(F) and §99.31(a)(6)).
- ⁷ See the final rule on direct certification for additional history: Direct Certification of Eligibility for Free and Reduced Price Meals and Free Milk in Schools, 64 Fed. Reg. 72466 (December 28, 1999). Direct certification began as self-reported participation in public benefit programs (Food Stamps and Aid to Families with Dependent Children, the precursors to SNAP and Temporary Assistance for Needy Families) through an amendment to the NSLP legislation in 1986.
- ⁸ Food Research and Action Council, "More Low-Income Students Receive Free School Meals in the 2018-2019 School Year through Community Eligibility," news release, June 1, 2019, https://frac.org/news/more-lowincome-students-receive-free-school-meals-in-the-2018-2019-school-year-through-community-eligibility.
- ⁹ "School Meals: Provisions 1, 2, and 3," US Department of Agriculture, Food and Nutrition Service, last updated May 5, 2017, https://www.fns.usda.gov/school-meals/provisions-1-2-and-3.
- ¹⁰ "Redefining Low Income—A New Metric for K-12 Education Data," Massachusetts Department of Elementary and Secondary Education, last updated July 16, 2015, http://www.doe.mass.edu/infoservices/data/ed.html.
- ¹¹ National School Lunch Program and School Breakfast Program: Eliminating Applications through Community Eligibility as Required by the Healthy, Hunger-Free Kids Act of 2010, 81 Fed. Reg. 50194 (July 29, 2016). The USDA initially recommended the 1.6 multiplier to adjust for low-income students not captured by direct certification and to make direct certification counts comparable with NSLP eligibility counts before the expansion of the CEP.
- ¹² Dan Forsberg, "Changes in Free/Reduced-Priced Lunch as a Measure of Student Poverty," Georgia Governor's Office of Student Achievement, October 26, 2015, https://gosa.georgia.gov/changes-freereduced-priced-lunchmeasure-student-poverty.
- ¹³ Talia Richman, "Baltimore School with Large Immigrant Population Loses Vital Funding Source," *Baltimore Sun*, May 6, 2019, https://www.baltimoresun.com/education/bs-md-ci-john-ruhrah-poverty-20190423-story.html; and Talia Richman, "Free Lunch Program Unintentionally Cost Some Baltimore Schools Thousands in Federal Funding," *Baltimore Sun*, March 7, 2018, https://www.baltimoresun.com/education/bs-md-ci-povertyundercount-20180202-story.html.

- ¹⁴ Sandra Curwood, "Direct Certification Procedures for the 2019-2020 School Year," letter to school nutrition directors, supervisors, and contact persons, July 1, 2019, http://www.doe.virginia.gov/support/nutrition/regulations/director_memos/2019-20/snp-memo-2019-2020-01.docx.
- ¹⁵ "CEP: Best Practices for Alternative Income Form Collection: Call Notes," Food Research and Action Center, May 5, 2017, http://frac.org/wp-content/uploads/alternative-income-form-call-notes.pdf.
- ¹⁶ Heather Hahn, Eleanor Pratt, Eva Allen, Genevieve M. Kenney, Diane K. Levy, Elaine Waxman, and Nathan Joo, "Work Requirements Tracker," Urban Institute, last updated July 30, 2019, https://www.urban.org/features/work-requirements-tracker.
- ¹⁷ "Final Rule on Public Charge Ground of Inadmissibility," US Citizenship and Immigration Services, last updated August 12, 2019, https://www.uscis.gov/legal-resources/final-rule-public-charge-ground-inadmissibility.
- ¹⁸ "Stanford Education Data Archive: Overview," Stanford Center for Education Policy Analysis, accessed September 7, 2019, https://cepa.stanford.edu/seda/overview.
- ¹⁹ "The EDFacts Initiative," US Department of Education, last updated May 24, 2019, https://www2.ed.gov/about/inits/ed/edfacts/index.html.

References

- Atherton, Michelle J., and Meghan E. Rubado. 2014. "Hold Harmless Education Finance Policies in the US: A Survey." Philadelphia: Temple University, Center on Regional Politics.
- Bass, David N. 2010. "Fraud in the Lunchroom?" EducationNext 10 (1): 67-71.
- Batalova, Jeanne, Michael Fix, and Mark Greenberg. 2018. Chilling Effects: The Expected Public Charge Rule and Its Impact on Legal Immigrant Families' Public Benefits Use. Washington, DC: Migration Policy Institute.
- Carrico, Romona, Amir François, and Christopher Wohn. 2018. Problem, Research, Action: Poverty Measurement Transition in Baltimore City Public Schools. Baltimore: Baltimore City Public Schools.
- Carson, Jessica A. 2015. "Many Eligible Children Don't Participate in School Nutrition Programs: Reauthorization Offers Opportunities to Improve." Durham: University of New Hampshire, Carsey School of Public Policy.
- CBPP and FRAC (Center on Budget and Policy Priorities and Food Research and Action Center). 2017. "Alternative Approaches to Using School Meals Data in Community Eligible (CEP) Schools." Washington, DC: CBPP and FRAC.
- Chingos, Matthew M. 2016. "No More Free Lunch for Education Policymakers and Researchers." Washington, DC: Brookings Institution.
- Cruse, Craig, and David Powers. 2006. "Estimating School District Poverty with Free and Reduced-Price Lunch Data." Suitland, MD: US Census Bureau, Small Area Estimates Branch.
- DESE (Massachusetts Department of Elementary and Secondary Education). 2017. "Low-Income Student Calculation Study." Malden: DESE.
- Domina, Thurston, Nikolas Pharris-Ciurej, Andrew M. Penner, Emily K. Penner, Quentin Brummet, Sonya R. Porter, and Tanya Sanabria. 2018. "Is Free and Reduced-Price Lunch a Valid Measure of Educational Disadvantage?" *Educational Researcher* 47 (9): 539–55.
- Duncan, Greg J., and Katherine Magnuson. 2013. "The Long Reach of Early Childhood Poverty." In *Economic Stress*, *Human Capital, and Families in Asia: Research and Policy Changes*, edited by Wei-Jun Jean Yeung and Mui Teng Yap, 57–70. New York: Springer.
- ED (US Department of Education). 2017a. "FS033—Free and Reduced Price Lunch File Specifications." Washington, DC: ED.
- ----. 2017b. Every Student Succeeds Act: State and Local Report Cards, Non-Regulatory Guidance. Washington, DC: ED.
- FNS (Food and Nutrition Service). 2016. Community Eligibility Provision (CEP): Planning and Implementation Guidance. Alexandria, VA: US Department of Agriculture, FNS.
- ---. 2019. "Reaching Those in Need: Estimation of State Supplemental Nutrition Assistance Program Participation Rates in 2016–Summary." Alexandria, VA: US Department of Agriculture, FNS.
- Geverdt, Doug, and Laura Nixon. 2018. Sidestepping the Box: Designing a Supplemental Poverty Indicator for School Neighborhoods. Washington, DC: National Center for Education Statistics.
- Gindling, T. H., Catherine Mata, James Kitchin, and Evan Avila. 2018. Some Causes of the Undercount of Low Income Students under the Community Eligibility Provision in Baltimore City Public Schools. Working Paper 18-01. Baltimore: University of Maryland, Baltimore County.
- Glantz, Frederic B., Regina Berg, Diane Porcari, Ellen Sackoff, and Shelley Pazer. 1994. *School Lunch Eligible Non-Participants: Final Report*. Alexandria, VA: US Department of Agriculture, Food and Nutrition Service, Office of Analysis and Evaluation.

- Gordanier, John, Orgul Ozturk, Breyon Williams, and Crystal Zhan. 2019. Free Lunch for All! The Effect of the Community Eligibility Provision Program on Academic Outcomes. Columbia: University of South Carolina.
- Gordon, Nora E., and Krista J. Ruffini. 2018. School Nutrition and Student Discipline: Effects of Schoolwide Free Meals. Cambridge, MA: National Bureau of Economic Research.
- Gundersen, Craig, Brent Kreider, and John Pepper. 2012. "The Impact of the National School Lunch Program on Child Health: A Nonparametric Bounds Analysis." *Journal of Econometrics* 166 (1): 79–91.
- Harwell, Michael, and Brandon LeBeau. 2010. "Student Eligibility for a Free Lunch as an SES Measure in Education Research." *Education Researcher* 39 (2): 120–31.
- Hewins, Jessie, Randy Rosso, and Alison Maurice. 2017. *Community Eligibility Continues to Grow in the* 2016–2017 *School Year*. Washington, DC: Food Research and Action Center.
- Hinrichs, Peter. 2010. "The Effects of the National School Lunch Program on Education and Health." *Journal of Policy Analysis and Management* 29 (3): 479–505.
- Koedel, Cory, and Eric Parsons. 2019. Using Free Meal and Direct Certification Data to Proxy for Student Disadvantage in the Era of the Community Eligibility Provision. Working Paper 214-0119-1. Washington, DC: American Institutes for Research, National Center for Analysis of Longitudinal Data in Education.
- Kurki, Anja, Andrea Boyle, and Daniel K. Aladjem. 2005. Beyond Free Lunch–Alternative Poverty Measures in Educational Research and Program Evaluation. Washington, DC: American Institutes for Research.
- Michelmore, Katherine, and Susan Dynarski. 2017. "The Gap within the Gap: Using Longitudinal Data to Understand Income Differences in Educational Outcomes." AERA Open 3 (1): 1–18.
- Moore, Quinn, Kevin Conway, Brandon Kyler, and Andrew Gothro. 2016. Direct Certification in the National School Lunch Program: State Implementation Progress, School Year 2014–2015. Alexandria, VA: US Department of Agriculture, Food and Nutrition Service, Office of Policy Support.
- Newman, Constance, and Katherine Ralston. 2006. Profiles of Participants in the National School Lunch Program: Data from Two National Surveys. Washington, DC: US Department of Agriculture, Economic Research Service.
- Nicholson, Lisa M., Sandy J. Slater, Jamie F. Chriqui, and Frank Chaloupka. 2014. "Validating Adolescent Socioeconomic Status: Comparing School Free or Reduced Price Lunch with Community Measures." *Spatial Demography* 2 (1): 55–65.
- NYC IBO (New York City Independent Budget Office). 2015. "Beyond Meal Status: A New Measure for Quantifying Poverty Levels in the City's Schools." New York: NYC IBO.
- OESE (Office of Elementary and Secondary Education). 2014. Guidance: The Community Eligibility Provision and Selected Requirements under Title I, Part A of the Elementary and Secondary Education Act of 1965, as Amended. Washington, DC: US Department of Education, OESE.
- Owens, Ann, Sean F. Reardon, and Christopher Jencks. 2016. "Income Segregation between School and School Districts." *American Educational Research Journal* 53 (4): 1159–97.
- Ranalli, Dennis, Edward Harper, Rosemary O'Connell, Jay Hirschman, Nancy Cole, Quinn Moore, and Brandon Coffee-Borden. 2009. Direct Certification in the National School Lunch Program: State Implementation Progress. Alexandria, VA: US Department of Agriculture, Food and Nutrition Service, Office of Research and Analysis.
- Sandstrom, Heather, and Sandra Huerta. 2013. The Negative Effects of Instability on Child Development: A Research Synthesis. Washington, DC: Urban Institute.
- Schwartz, Amy Ellen, and Michah W. Rothbart. 2019. Let Them Eat Lunch: The Impact of Universal Free Meals on Student Performance. Syracuse, NY: Syracuse University, Maxwell School, Center for Policy Research.
- USDA (United States Department of Agriculture). 2015. "Measuring and Reducing Errors in the School Meal Programs: The APEC II Study and FNS Actions." Washington, DC: US Department of Agriculture.

About the Authors

Erica Greenberg is a senior research associate in the Center on Education Data and Policy at the Urban Institute. Her research spans early childhood and K–12 education, focusing on programs and policies like public prekindergarten, Head Start, child care subsidies, and home visiting. She also investigates the causes, consequences, and measurement of educational inequality. Greenberg holds a BA from Yale University. She received her MA in political science and her PhD in education policy from Stanford University.

Kristin Blagg is a research associate in the Center on Education Data and Policy. Her research focuses on K–12 and postsecondary education. Blagg has conducted studies on student transportation and school choice, student loans, and the role of information in higher education. In addition to her work at Urban, she is pursuing a PhD in public policy and public administration at the George Washington University. Blagg holds a BA in government from Harvard University, an MSEd from Hunter College, and an MPP from Georgetown University.

Macy Rainer is a research assistant in the Center on Education Data and Policy, where she focuses on topics in K–12 and higher education. She works on projects related to measures of student poverty, school quality, and college completion rates.

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Jurisdiction	At-Risk Identifier	At-Risk Citation
Alabama	none	none
Alaska	none	none
Arizona	none	none
Arkansas	National School Lunch Program	Ark. Code Ann. § 6-20-2305
-	National School Lunch Program, English language learner,	
California	foster care	Cal. Educ. Code § 42238.02
	National School Lunch Program, unsatisfactory academic	
Colorado	performance for English language learners	Colo. Rev. Stat. Ann. § 22-54-103
	National School Lunch Program, free milk eligibility,	
Connecticut	English language learners	Conn. Gen. Stat. Ann. § 10-262f
Delaware	none	none
	Supplemental Nutrition Assistance Program (SNAP,)	
District of	Temporary Assistance for Needy Families (TANF,) foster	
Columbia	care, homeless	D.C. Code Ann. § 38-2905
Florida	none	none
Georgia	none	none
		Note: This program is not in statute, but
		the weighted student formula is
		available through the Department of
Hawaii	National School Lunch Program	Education.
Idaho	none	none
	Medicaid, Children's Health Insurance Program (CHIP,)	
	Temporary Assistance for Needy Families (TANF,)	
Illinois	Supplemental Nutrition Assistance Program (SNAP)	105 III. Comp. Stat. Ann. 5/18-8.15
	Supplemental Nutrition Assistance Program (SNAP,)	
	Temporary Assistance for Needy Families (TANF,) foster	
Indiana	care	Ind. Code Ann. § 20-43-13-4
Iowa	National School Lunch Program	Iowa Code Ann. § 257.11
Kansas	National School Lunch Program	Kan. Stat. Ann. § 72-5132 and Kan.
Kentucky	National School Lunch Program	702 Ky. Admin. Regs. 3:270
		2019 Louisiana Senate Concurrent
Louisiana	National School Lunch Program, English language learner	Resolution No. 3, Louisiana 2019
Maine	National School Lunch Program	Me. Rev. Stat. tit. 20-A, § 15675
Maryland	National School Lunch Program	Md. Code Ann., Educ. § 5-207
Massachusetts	National School Lunch Program	Mass. Gen. Laws Ann. ch. 70, § 2
	National School Lunch Program, Supplemental Nutrition	
	Assistance Program (SNAP) or Temporary Assistance for	
	Needy Families (TANF); or who is homeless, migrant, or in	
Michigan	foster care	Mich. Comp. Laws Ann. § 388.1631a
Minnesota	National School Lunch Program	Minn. Stat. Ann. § 126C.05
Mississippi	National School Lunch Program	Miss. Code. Ann. § 37-151-7
Missouri	National School Lunch Program	Mo. Ann. Stat. § 163.011
Montana	none	Mont. Code Ann. § 20-9-328
Nebraska	National School Lunch Program	Neb. Rev. Stat. Ann. § 79-1007.06
Nevada	National School Lunch Program	Nev. Rev. Stat. Ann. § 387.121
New Hampshire	National School Lunch Program	N.H. Rev. Stat. Ann. § 198:40-a
New Jersey	National School Lunch Program	N.J. Stat. Ann. § 18A:7F-45 & 51
New Mexico	Title I, English language learner, student mobility	N.M. Stat. Ann. § 22-8-23.3

At-Risk Funding for Low-Income Students by State,	District, and Territory, August 2019
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Jurisdiction	At-Risk Identifier	At-Risk Citation
New York	National School Lunch Program	Title V, Article 73, § 3602
		Note: This program is not in statute, but
North Carolina	Title I	the formula is available through the
North Dakota	National School Lunch Program	N.D. Cent. Code Ann. § 15.1-27-03.1
	National School Lunch Program, recipient of public	Ohio Rev. Code Ann. § 3317.022 & ODE
Ohio	assistance, Title I	EMIS MANUAL.
		Okla. Stat. Ann. tit. 70, § 18-201.1 &
Oklahoma	National School Lunch Program	Okla. Admin. Code 210:25-3-8
	United States Census Bureau, foster care, placement in	
Oregon	facilities for neglected and delinquent children	Or. Rev. Stat. Ann. § 327.013
Pennsylvania	United States Census Bureau, Federal Poverty Guidelines	24 Pa. Stat. Ann. § 25-2502.53
Puerto Rico	Additional Cost Factors: Poverty Rate	2018 Puerto Rico Laws Act 85
Rhode Island	Federal Poverty Guidelines	16 R.I. Gen. Laws Ann. § 16-7.2-3
	Medicaid, Supplemental Nutrition Assistance Program	Note: This program is not in statute but
	(SNAP,) Temporary Assistance for Needy Families (TANF,)	is found in Department of Education
South Carolina	homeless, transient, or foster care	regulation and manuals. S.C. Code Ann.
South Dakota	none	none
Tennessee	National School Lunch Program	Tenn. Code Ann. § 49-3-307
Texas	National School Lunch Program	Tex. Educ. Code Ann. § 42.152
	Limited English proficiency, National School Lunch	
	Program, low performance on a statewide assessment,	
Utah	student mobility	Utah Admin. Code r. R277-708
Vermont	Nutrition benefits or English is not the primary language	Vt. Stat. Ann. tit. 16, § 4001 & § 4010
Virginia	National School Lunch Program	2019 VA H.B. 1700 Ch. 854
Washington	National School Lunch Program	Wash. Rev. Code Ann. § 28A.150.260 &
West Virginia	Net enrollment	W. Va. Code Ann. § 18-9A-21
Wisconsin	National School Lunch Program	Wis. Stat. Ann. § 121.136
Wyoming	National School Lunch Program	Wyo. Stat. Ann. § 21-13-309 Source: Education Commission of the States

At-Risk Funding for Low-Income Students by State, District, and Territory, August 2019

Source: Education Commission of the States

Note: This table was adapted for publication. The original can be found at: https://www.ecs.org/50-state-comparison-k-12-funding/