

Analysis of Essential Programs and Services Components:
Economically Disadvantaged Student Weight

Report to the
Maine Department of Education

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**EPS Component Review:
Economically Disadvantaged Student Weight**

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Introduction

Maine's Essential Programs and Services (EPS) school funding formula provides additional funds to districts based on the number of low-income students. The weighted counts adjust upward the number of students to be funded and thus the district's EPS allocation. As of FY2019, Maine provides an additional weight of 0.20 for low-income students in each district (i.e., each eligible student is counted as 1.20 students). This is an increase from weight of 0.15 that was applied in the initial model development through FY2018. Effective implementation of the economically disadvantaged component depends on the accurate identification of low-income students.

Like many states, Maine uses eligibility for the free and reduced price meal program (FRPL) to identify economically disadvantaged students. According to the Maine Department of Education¹, a student can be identified as economically disadvantaged using any of the following three methods: (1) inclusion on the Department of Health & Human Services Direct Certification list, which identifies students who are from disadvantaged households participating in other social service programs including SNAP, (2) parent or guardian completion of an application for the Free or Reduced Lunch Program and the family income falls within the program's eligibility guideline, or (3) parent or guardian completion of an alternative economic status information form and the family income falls within the FRPL program's eligibility guideline. Automatic eligibility for free meals is given to students who are certified by a professional liaison or program administrator to be homeless, a migrant or participating in the Head Start program. In addition, if a school knows a child to be poor and is unable to get parents or guardians to complete the FRPLP or economic status form, local school officials can complete the FRPL application for the student; this option is to be used only in limited cases. Children from households with incomes at or below 130 percent of the Federal poverty level are eligible for free school meals. Children from households with incomes no greater than 185 percent of the Federal poverty level are eligible for reduced-price meals.

Schools and districts in Maine are required to annually report information on each enrolled student's economic status by October 1. The DOE offers districts the following guidelines for identifying

¹ <http://www11.maine.gov/doe/schools/nutrition/economicallydisadvantaged>
<http://www11.maine.gov/doe/sites/maine.gov.doe/files/inline-files/DeterminingStudentEligibility.pdf>

whether or not a student has economically disadvantaged status and is therefore eligible to be included in the count for additional funds: A) request information from parents/guardians of all students to determine whether they are eligible for free and/or reduced lunch; or B) use the Department of Health & Human Services Direct Certification Eligibility list to first identify those students from economically disadvantaged households, and then request information from the parents/guardians of the balance of the students to determine eligibility. These different methods for identifying eligible students may vary in their effectiveness.

In this review of the economically disadvantaged component, we: (1) describe the variation in identification rates from the different methods used to count economically disadvantaged students; (2) explore the impact of using direct certification to identify students as economically disadvantaged over time and by student type (EL, race/ethnicity); (3) assess the reliability of the data used to identify and count economically disadvantaged students, including identification of districts with return rates on parent/guardian forms that are higher or lower than expected based on direct certification rates; and (4) identify possible alternatives to the current method of funding economically disadvantaged students using a student weight based on FRPL status.

Background

Historically, schools sent reduced price or free school meal applications home at the beginning of each school year. In order for children to receive free or reduced priced meals, their parents or guardians had to complete and submit the application with proof of income eligibility. Children from households with incomes at or below 130 percent of the Federal poverty level are eligible for free school meals. Children from households with incomes no greater than 185 percent of the Federal poverty level are eligible for reduced-price meals.

Students in families participating in one or more means-tested federal program, including the Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), or the Food Distribution Program on Native American tribal reservations, are deemed categorically eligible for free school meals. This means the parent/guardian can submit their DHHS case number on the FRPL application instead of completing the income section and submitting income documentation. Moreover, eligibility for free meals is extended to all children in the household, meaning parents/guardians have to complete the form one time and not multiple times for children at different schools.

Beginning in 1991, school districts had the option of identifying categorically eligible children based on their family's participation in certain public assistance programs with the same or similar

eligibility criteria as the school meal program. Instead of a parent or guardian submitting a household application, states set up systems to match SNAP (and other allowable programs) records to school enrollment lists to establish free meal eligibility. The process, known as “direct certification”, was established to reduce the administrative paperwork burden on families and schools, improve access to free school meals for needy children, and improve program integrity by reducing errors in eligibility determination.²

Direct certification only identifies children eligible for free meals; applications still need to be completed and processed for students in households with incomes between 130% and 185% of the poverty line who are eligible for reduced-price meals. Parent/guardian applications are also required to identify students from households who are eligible for free lunch but not participating in SNAP or TANF, and for students in households with incomes below 130% of the poverty line who are not eligible to participate in SNAP or TANF.

In 2004, Congress instituted a requirement that all school districts conduct direct certification for children living in households receiving SNAP benefits beginning in SY 2008-09, and it provided funding to states to develop or improve their direct certification systems. Through the Healthy, Hunger-Free Kids Act of 2010, Congress set additional performance benchmarks for states, requiring them to directly certify at least 95 percent of children living in households receiving SNAP benefits by the 2013-2014 school year.

Ongoing analyses by Mathematica for the USDA evaluates the effectiveness of direct certification. Over the years the effectiveness of direct certification, measured as the percent of school-aged SNAP participants who were directly certified for free school meals, has improved. The most recent estimates produced using data for school year 2016-17 indicate that Maine’s direct certification rate is close to 100%.³ Through an arrangement with the Maine Department of Health and Human Services, the MDOE obtains the list of students who are participating in income-tested programs including SNAP or TANF as well as students who are in the state’s foster care system. The Direct Certification list is made

² <https://www.fns.usda.gov/school-meals/fr-022417> <https://www.fns.usda.gov/direct-certification-national-school-lunch-program-state-implementation-progress-school-year-2012> <https://www.fns.usda.gov/school-meals/applying-free-and-reduced-price-school-meals>, <https://www.cbpp.org/research/reducing-paperwork-and-connecting-low-income-children-with-school-meals>

³ <https://www.fns.usda.gov/direct-certification-national-school-lunch-program-report-congress-state-implementation-progress-1> ; <https://fns-prod.azureedge.net/sites/default/files/ops/NSLPDirectCertificationImprovement.pdf> ; <https://www.mathematica-mpr.com/our-publications-and-findings/publications/the-national-school-lunch-program-direct-certification-improvement-study-analysis-of-unmatched>

available to all SAUs via the NEO system and is updated weekly. The MDOE recommends that districts check the list at least three times a year.⁴

Historically Maine has had one of the highest rates of SNAP participation among eligible households; in 2013 it was estimated that 100% of all eligible households were participating in the food stamp program.⁵ With such a high rate of SNAP participation, direct certification has the potential to provide a very reliable count of students in poverty (i.e. those in households earning less than 130% of the poverty line).

However, in 2011, changes were made to the eligibility criteria for SNAP and other welfare programs, and participation rates have declined. Eligibility policy changes made it more difficult for childless adults, asylum seekers, and other immigrants to qualify for benefits. In addition, proposed changes in processes, including an option to add photos to electronic benefits cards and restrictions on the types of products that could be purchased, may have dissuaded some eligible families with children from applying for benefits.⁶ Moreover, in 2015 the U.S. Department of Agriculture's Food and Nutrition Service cited Maine for being slower than any other state in processing SNAP applications.⁷ By 2016 the SNAP participation rate among eligible families in Maine had dropped to 90%.⁸ Therefore, direct certification would produce an approximately 10% undercount because of program non-participation by eligible families. In addition, direct certification does not capture students in households who are poor but who are not eligible for SNAP benefits, including some asylee and other immigrant families (who are no longer eligible for SNAP or TANF benefits once they receive their work permits and become employed). Moreover, students in near-poor families, i.e., in households with incomes between 130% and 185% of the poverty line who are eligible for reduced-price meals, will not appear on direct certification lists.

While parent/guardian FRPL forms can be used to supplement direct certification to produce more accurate counts economically disadvantaged students, this option also has limitations. In addition to the administrative burden for schools, other limitations include parent/guardian failure to complete

⁴ <https://www11.maine.gov/doe/sites/maine.gov.doe/files/inline-files/DeterminingStudentEligibility.pdf>

⁵ <https://fns-prod.azureedge.net/sites/default/files/ops/Reaching2013.pdf>

⁶ <https://www.pressherald.com/2019/04/12/lawmakers-consider-bills-to-reinstate-asylum-seekers-access-to-welfare-benefits/> ; <https://bangordailynews.com/2018/12/29/politics/how-lepage-undermined-maines-social-safety-net/> ; <https://www.pressherald.com/2019/04/26/gov-mills-ending-program-that-added-photos-on-some-food-stamp-debit-cards/> ; <https://www.pressherald.com/2015/11/23/maine-renews-push-to-prohibit-food-stamp-recipient-from-purchasing-soda-and-candy/?rel=related>

⁷ <https://www.pressherald.com/2015/12/14/feds-maine-dhhs-processes-food-stamp-applications-too-slowly/?rel=related>

⁸ <https://fns-prod.azureedge.net/sites/default/files/resource-files/Reaching2016.pdf>

the application or to complete it accurately. Some parents or guardians do not complete the forms because they do not want to share income information and personal documents like pay stubs with school officials. Others fail to complete forms because they do not receive the form, or they are unable to read or to read in English.⁹

Additionally, a number of schools and districts are opting to participate in the Community Eligibility Provision (CEP).¹⁰ CEP allows high poverty schools and districts to serve breakfast and lunch at no cost to **all** enrolled students without collecting household FRPL applications. Schools and districts with at least 40% FRPL eligible students are eligible to participate in the CEP program. In 2017-18, approximately 70% of regular public schools in Maine had FRPL rates of 40% or higher and therefore would be eligible to participate. Schools and districts participating in the CEP program are still required to collect and report free or reduced eligibility status on all students, because the data are necessary to calculate the student weight in the EPS funding formula. However, there is concern that once a school decides to participate in the CEP program, the incentive for parents/guardians to complete FRPL eligibility forms is reduced because it does not affect their children's ability to receive means. This would lead to undercounts of economically disadvantaged students, which would reduce the district's EPS allocation for economically disadvantaged students.

Finally, recent legislation passed by Maine's Legislature, LD 1684 "An Act Forbidding Food Shaming, Food Denial and the Use of Food as Discipline Involving Any Child in Maine's Public Schools" could reduce parent/guardian incentive to complete and return forms even further. The new legislation requires schools to serve students meals regardless of ability to pay or failure to pay for meals in the past, regardless of household income. While this is good for children, it could further undermine the incentive for parents to complete FRPL applications and complicate the ability of schools to accurately count economically disadvantaged students.

As an alternative to FRPL forms MDOE recommends use of economic status forms.¹¹ Because the alternative form does not ask for specific income information like the FRPL application does¹² - it provides the annual income cut-offs for both free and reduced meal eligibility and directs parents/guardians to indicate only whether each child qualifies or not – parents/guardians may feel more comfortable completing the alternative form than they might the FRPL application. However, the return rate may be even lower for these alternative forms because their child's access to free meals

⁹ <https://www.cbpp.org/research/reducing-paperwork-and-connecting-low-income-children-with-school-meals>

¹⁰ <https://www.fns.usda.gov/school-meals/community-eligibility-provision>

¹¹ <http://www11.maine.gov/doe/schools/nutrition/economicallydisadvantaged>

¹² <http://www11.maine.gov/doe/doe/schools/nutrition/studenteligibility>

does not hang in the balance. Efforts to encourage parents/guardians to complete the form could add administrative burden to schools and districts.

In this review of the economically disadvantaged component we evaluate the data currently used to count economically disadvantaged students and identify possible alternatives to the current method of funding economically disadvantaged students using a student weight based on FRPL status.

Specifically, the initial study design included the following research questions:

- To what extent are students on the direct certification list identified as economically disadvantaged in the data used for EPS allocations? What is the variation across public school districts in the level of match between their lists? Do match rates vary across district size, Community Eligibility Provision (CEP) use, or poverty level?
- How have the proportions of students eligible for direct certification, students benefiting from SNAP, and eligibility for FRPL changed over the most recent three-year period? Are the trends similar?
- What factors were related to the identification rates of economically disadvantaged students over the most recent three-year period?
- Are districts effectively using FRPL and economic status forms to count very poor students that are “missing” from direct certification list?
- Are poverty rates related to student demographic characteristics?
- What are some possible alternatives to the current method of using the number of FRPL-eligible students to estimate districts’ need for supplemental funding to support economically disadvantaged students?

Methodology

The analysis was primarily conducted using student-level data on direct certification and FRPL status for the school years 2014-15 and 2017-18. Additional analyses used public SNAP program data from DHHS and district-level free and reduced price eligibility counts from MDOE public nutrition data.

The student-level direct certification information was obtained by MDOE from DHHS. Through a matching process using student-level identifiers and DHHS electronic caseload data system, students from economically disadvantaged households are identified by their family’s participation in SNAP (food stamps) and TANF, a public assistance program for poor families with children. Students who are in Maine’s foster care system are also directly certified as economically disadvantaged. The data are

updated regularly and identify students using the following codes: NULL=not on list; F=foster care, T=TANF participant family, S=SNAP participant family.

The student-level eligibility status information was compiled by districts and reflects district-level counts of economically disadvantaged students. Note: the student-level data obtained from MDOE does not distinguish between students eligible for free meals and those eligible for reduced price meals.

Without an objective measure of the actual number of children living in poverty in each district in a given year it is not possible to directly calculate the accuracy of district level counts of economically disadvantaged students. We also do not know with certainty whether a given district uses Option A (sending FRPLP or economic status forms home with all students) or Option B (using direct certification lists to identify poor students, and sending forms home only to students not on the direct certification list). However, we can indirectly assess the effectiveness with which districts are identifying and counting economically disadvantaged students by comparing their counts to direct certification counts, to SNAP program data from DHHS, and to district-level free and reduced price eligibility counts from MDOE nutrition reports.

We examined direct certification and FRPL status at both the student and district levels and calculated changes over time. To assess the accuracy of direct certification counts we compared them to DHHS counts of SNAP participation, which should be similar. We also assessed whether match rates – the % of students on the direct certification list from DHHS who are also identified by the district as FRPL eligible – vary by student race and EL status or by district size, Community Eligibility Provision (CEP) participation, area poverty rate, or median income. Finally, we compared counts of direct certification and students eligible for free meals to assess the ability of districts to identify students from households with incomes below 130% of the poverty line who are not participating in SNAP or TANF or who are ineligible for SNAP or TANF.

The sample of students includes all students in Maine schools. Districts used for district-level analyses includes 171 regular public school districts with at least 25 attending students in both 2015 and 2018 (i.e., public charters, Native American tribal schools, CTEs, and small island schools with suppressed data are excluded).

Findings

Question 1. To what extent are students on the direct certification list identified as economically disadvantaged in the data used for EPS allocations? What is the variation across public school districts in the level of match between their lists? Do match rates vary across district size, Community Eligibility Provision (CEP) use, or poverty level?

We began by analyzing data from the school year 2014-15. In our sample of regular public school districts, statewide 30.2% (n=52,071) of students were on the DHHS direct certification list. Almost all (98%) were in families participating in SNAP and 2% were in families participating in TANF. Note: in 2014-2015, none of the students on the direct certification list were in foster care; it appears that the state was only directly certifying based on SNAP and TANF in 2015.

Table 1. Maine Economically Disadvantaged Students, SY 2014-15

Category	SY 2014-15	
	Number of Students	%
Total Maine Student Enrollment	172,343	--
Direct certified students	52,071	30.2%
• <i>FRPL eligible</i>	50,919	97.8%
• <i>Not FRPL eligible</i>	1,152	2.2%

Sample: 171 regular public school districts with at least 25 attending students.

The 2015 statewide match rate was 97.8%, meaning almost 98% of the students on the direct certification list in 2015 were identified as being eligible for free or reduced price meals (n=50,919) in the data source used to calculate districts' EPS disadvantaged student allocations. Only a handful of students (n=1,152) who appear on the direct certification list were not counted as FRPL eligible by districts. These non-matched students were not from just one or two districts but spread across many districts (i.e., they do not represent a data problem with just one or two districts). This difference is most likely due to the point in time when the data were captured; direct certification lists are updated weekly, where FRPL status is not.

The quality of the direct certification matching to FRPL was equally strong in SY 2018. Of the total of 30,618 students identified by DHHS as receiving assistance, nearly 98% were also identified as eligible for FRPL and thus for the economically disadvantaged student weight (97.9% were SNAP, 1.7% were foster care, and 0.8% were TANF).

Table 2. Maine Economically Disadvantaged Students, SY 2017-18

Category	SY 2017-18	
	Number of Students	%
Total Maine Student Enrollment	166,757	--
Direct certified students	30,618	18.4%
• <i>FRPL eligible</i>	29,986	97.9%
• <i>Not FRPL eligible</i>	632	2.1%

Sample: 171 regular public school districts with at least 25 attending students

While the overall statewide match rates in both years were very high, there was variation across districts. At the district level, match rates in SY 2015 ranged from a low of 75% of students on the direct cert list identified as eligible for FRPL to a high of 100%; 68% of all districts had match rates of 97% or higher. In SY 2018, district level match rates ranged from a low of 80% to a high of 100%, with an average match rate of 97%. The proportion of districts match rates at or above 97% increased from 68% to 77%. In fact, in 2015, 42 districts had perfect match rates (with 100% of students on the direct certification list identified as FRPL eligible by the district), while by 2018 that number had increased to 53 districts.

Figure 1. Direct Cert Match Rates, SY2015

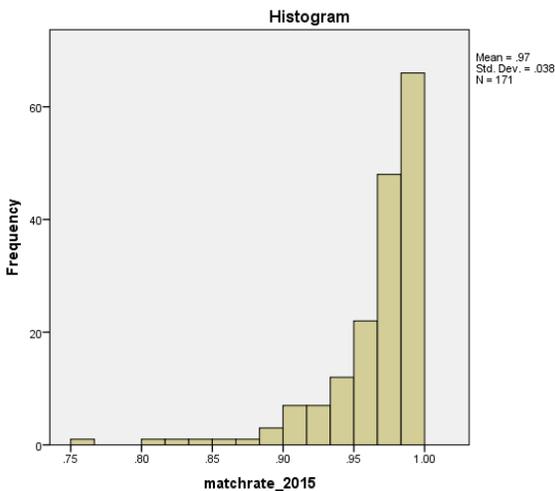
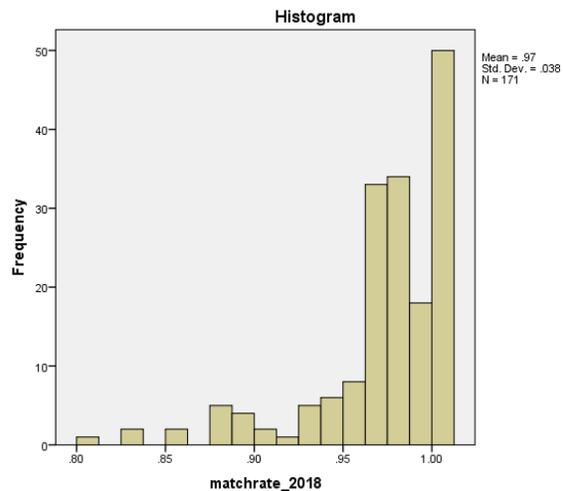


Figure 2. Direct Cert Match Rates, SY2018



Note, however, that a lower match rate may not necessarily be cause for great concern; some of the districts with lower match rates were often missing only a few students. For example, the district with the lowest match rate in 2015 (75%) missed identifying only one direct certified student as economically disadvantaged. The district had 4 students on the direct certification list, three of whom

were identified as FRPL eligible. However, the district with the second to lowest match rate at 80% missed identifying 10 students -- the district had 51 students on the direct cert list, 41 of which were identified in the EPS data as economically disadvantaged. Similar cases of both types were evident in SY2018. Small discrepancies in the number of students counted as economically disadvantaged translate to relatively small differences in total funding since each eligible student represents only a 0.2 student weight.

Importantly, there was no statistical correlation between district match rates between 2015 and 2018. In fact, three of the districts with the lowest match rates in 2015 had perfect match rates in 2018 (i.e., all students on direct certification lists were identified by districts as FRPL eligible). This provides another measure of assurance that districts and/or the MDOE are, overall, including students that are on the direct certification list in the counts used for economically disadvantaged funding allocation determinations. There were no districts that had a consistent mismatch in their data in both years. However, though small, the 2% mismatch is still a matter for further analysis, as it does represent an under-match of students who were not being counted as economically disadvantaged in the FRPL counts used for EPS calculations. Thus the next series of analyses investigates patterns of match rates to determine if this under-matching was systematically occurring in districts with certain characteristics.

To address this question, we examined match rates by SAU poverty level, median income, district size (from enrollment data), and CEP status in both 2015 and 2018. Poverty rate and median income estimates were calculated from the 2013-2017 American Community Survey 5-Year Estimates using the zip codes where the schools are located, weighted by school enrollment in each zip code. To make it easier to present in tabular form, we categorized districts according to the size of their match rate: districts with average match rates were those with match rates within one standard deviation (3.8%) of the mean match rate (97%). Low match rates were those with rates less than one standard deviation from the mean and those with high match rates were greater than one standard deviation above the mean.

Table 3. Match rates and district characteristics, SY2014-15 and SY2017-18

	Low match rate (<93%) N=22 / 22	Average match rate (93%-99%) N=97 / 99	High match rate (>99%) N=52 / 50	Significance
Median income, avg (range)				
SY 2015	\$56,380 (33,266-107,194)	\$51,947 (29,375-106,375)	\$47,714 (30,352-85,536)	p=0.03
SY 2018	\$56,115 (37,083-106,343)	\$51,524 (30,076-106,375)	\$48,499 (29,375-107,194)	p=0.03
Census area poverty rate, avg (range)				
SY 2015	11.3% (2-33%)	13.0% (3-34%)	15.0% (4-34%)	p=0.05*
SY 2018	11.7% (2-34%)	13.7% (3-33%)	13.5% (2-34%)	p=0.07*
Enrollment 2018, avg (range)				
SY 2015	564 (34-2,298)	1,287 (51-5,281)	675 (30-6,984)	Not significant
SY 2018	512 (60-2,307)	1,464 (103-6,756)	211 (26-2,103)	Not Significant
Has CEP school(s), Number (%)				
SY 2015	0	4 (4%)	2 (4%)	Not significant
SY 2018	0	11 (11%)	5 (10%)	Not Significant

Note: Statistical significance is determined using bivariate methods as well as multiple regression. Sample for MDOE data are from n=171 regular public districts with at least 25 attending students and no suppression of data in both 2015 and 2018.

** Significance level drops below significance threshold when median income is controlled*

There is a statistically significant negative correlation of -0.18 between the median income in the district and its match rate in SY2015, even after controlling for area poverty rate, district size, and CEP status (p=.03). In other words, districts in areas with higher median incomes tended to have lower match rates, meaning they are missing counting more direct certified students as FRPL eligible compared to districts with lower median incomes. However, with a correlation coefficient of only -0.18, the strength of the association between median income and match rate is weak. The match rate in SY2018 was again slightly lower among districts with higher median incomes, and the relationship was a similarly weak correlation of -0.17 (p=0.03). Districts with lower match rates also had slightly lower rates of poverty as reported in census data, though the p-value increased to marginal significance in 2018. Neither district enrollment size nor the inclusion of CEP schools in a district did not appear to impact the quality of districts' matching of direct certification students to economically disadvantaged lists.

Discussion:

Overall, in 2015 and in 2018, schools and districts were missing only a small portion of direct certified students when counting economically disadvantaged students at a point in time. Statewide match rates were close to 98% and district-level match rates ranged from 75% to 100%, meaning the vast majority of students on the direct certification list were correctly identified as economically disadvantaged. Students in households receiving SNAP or TANF are adequately represented in the data on economically disadvantaged students that is used by MDOE for EPS allocations.

Districts in census areas with lower rates of poverty and higher median incomes tended to have slightly lower direct certification match rates to FRPL lists. One possible explanation is that lower-poverty districts are not updating their FRPL eligibility lists from direct certification lists as often as higher-poverty districts, so they are more likely to have discrepancies when a data snapshot is pulled. Regardless, the variation in match rates was small, and the districts with low match rates were not consistent across the two years analyzed. This does not point to any substantial or systematic problems in identifying at least very poor students (i.e., those in families receiving SNAP or TANF).

In sum, this suggests that districts and/or the MDOE are effectively using direct certification lists to identify the poorest students (i.e. those in households receiving SNAP or TANF) as economically disadvantaged and thus subject to an additional student weight in the EPS funding formula. Either districts are diligently using direct certification lists posted to NEO to keep their lists updated and accurate, their parent/guardian income eligibility form return rates are consistently high and accurate, or the MDOE's internal data management controls are successful in ensuring that direct cert students are included in economically disadvantaged student counts. The MDOE reportedly does have an administrative process for using direct certification lists to override FRPL data submitted by SAUs and thus to capture any direct cert students who were missed by the SAU, and this is likely the primary factor in the overall 98% match rate. However, the fact that the match was not 100%, and was systematically lower in wealthier districts, suggests that there remains some room for human error. We recommend further discussion of these possible sources of error among Department staff in order to ensure that the counts are as accurate as possible at the time they are compiled for EPS purposes.

Question 2: How have the proportions of students eligible for direct certification, students benefiting from SNAP, and eligibility for FRPL changed over the most recent three-year period? Are the trends similar?

While direct certification *match* rates did not change over the past three years, the direct certification rate itself dropped markedly between 2015 and 2018, from 30.2% of all students down to 18.4%. Despite that large decrease, the overall proportion of students considered economically disadvantaged declined only 5% in the same timeframe.

Table 4. Statewide Match Rates, SY 2015 and 2018

Category	SY 2015-15		SY 2017-18		Change in Number of Students	Change in Proportion
	Number of Students	%	Number of Students	%		
Total Student Enrollment	172,343	--	166,757	--	-3% ↓	--
Direct certified students	52,071	30.2%	30,618	18.4%	-41% ↓	-39% ↓
FRPL eligible	81,586	47.3%	74,761	44.8%	-8% ↓	-5% ↓
• <i>Direct Certified</i>	50,919	62.4%	29,986	40.1%		
• <i>FRPL Only</i>	30,667	37.6%	44,775	59.9%		

Sample: 171 regular public school districts with at least 25 attending students in 2015 and 2018.

As shown above in Table 3, in school year 2014-15, 30.2% (n=52,071) of all students statewide were on the DHHS direct certification list and 47.3% (n=81,586) of all students were identified by districts as FRPL eligible. In 2018, only 18.4% of students (n=30,618) were on the direct certification list, a 39% drop from 2015 in the proportion of students identified.¹³ However, despite the significant drop in the percentage of students on the direct certification list, the proportion of students statewide who were identified as economically disadvantaged declined much more modestly from 47.3% to 44.8% of all students. This means that there was a marked decrease in the proportion of students determined as economically disadvantaged through direct certification. In 2015, 62% of the FRPL students were on the direct certified list from DHHS and 38% were not; by 2018 the proportion flipped to only 40% of FRPL students receiving DHHS supports and 60% identified through means other than direct certification. In a context of declining direct certification counts, districts had to rely on other means to identify economically disadvantaged children.

Students who were identified as economically disadvantaged but who were not on the DHHS direct certification list include: 1) students who are in families with incomes between 130% and 185% of

¹³ *Subsequent analysis was conducted on the pool of individual students who were enrolled in both school years. There were 40,263 students on the direct certification list in SY2015 who were also enrolled in SY2018, and 38.8% of them were no longer listed as direct certification. Of all the students who were eligible for FRPL in SY2015 and still enrolled in SY2018, 18.7% were no longer FRPL-eligible.*

the poverty line and are thus eligible for reduced-price lunch (but not eligible for SNAP or TANF, nor for free lunch); 2) students in families who are very poor (incomes below 130% of the poverty line and thus qualify for nutrition services) but who are ineligible for SNAP or TANF, such as certain categories of non-citizens; 3) students from very poor families that are eligible for SNAP or TANF but do not participate and therefore do not appear on direct certification lists; 4) students who qualify as economically disadvantaged through administrative review (such as homeless or migrant students); and possibly 5) students who were missing from direct certification counts through an administrative error with the data. All of these except category 4 are identified using income eligibility forms completed by parents/guardians. If a district does not receive a form from a student’s parent or guardian, there is no way to know if the student *should* be eligible.

To investigate further we compared the direct certification counts to aggregate public data from Maine DHHS on SNAP participation among school-aged children (5 to 18) for October 2014 and October 2017.¹⁴

Table 5. Comparison of Students in Poverty Using Various Data Sources

	SY 2014-2015	SY 2017-2018	% Change in # of students
# of Students	172,343	166,757	3% ↓
Children receiving SNAP	52,843	45,443	14% ↓
Direct cert students*	52,071	30,618	41% ↓
Estimated number “Missing” from direct cert data	1,504	15,168	908% ↑

**Note: Sample for MDOE data are from n=171 regular public districts with at least 25 attending students and no suppression of data in both 2015 and 2018. DHHS SNAP counts are statewide and include a broader sample of districts, which may inflate the estimate of missing students.*

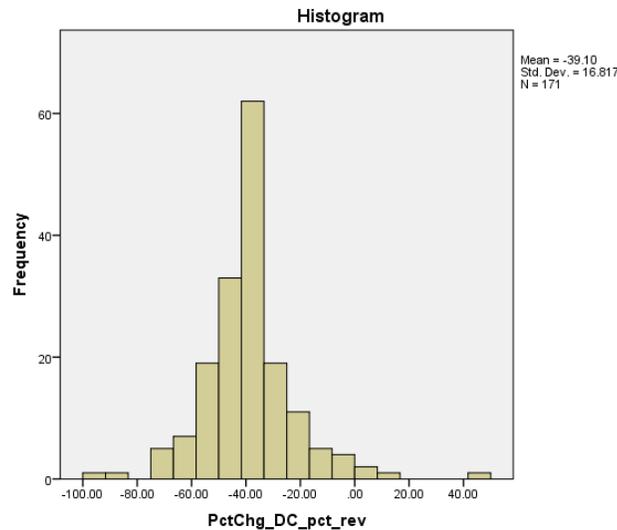
As can be seen from the table above, the decrease in direct certification rates between 2015 and 2018 was much larger than the decline in SNAP participation (41% compared to 14%, respectively). Since most (98%) direct certified students are from families participating in SNAP, the number of students on the direct certification list from DHHS should track closely to the number of children aged 5 to 18 receiving SNAP benefits. Indeed, the number of direct certified students in 2015 is very close to the number of school-aged children participating in SNAP (52,071 and 52,846 respectively). The difference is only 1,504 students and likely reflects the fact that the statewide SNAP counts include students at private schools and very small districts that were excluded from our sample. However, in

¹⁴ <https://www.maine.gov/dhhs/ofi/reports/2017/SummaryCountsByCounty-Oct.pdf>
<https://www.maine.gov/dhhs/ofi/reports/2014/SummaryCountsByCounty-October.pdf>

2018 the difference between direct certification and SNAP counts indicates that as many as 15,000 students in households receiving SNAP benefits were missing from the direct certification list. This gap raises concerns about the integrity of the DHHS direct certification data shared with MDOE for SY2018.

We also examined the change in direct certification rates at the district level. The average percent change in direct certification was 39%, with all but four districts (98%) experiencing a decline.

Figure 3. Changes in Direct Cert Participation Rates



We found **no statistical correlation** between the change in direct certification rates and the districts' poverty rate, median income or size. Once area income or poverty rate is controlled, CEP status is also not significant, due to the correlation between a district's wealth and CEP participation. The lack of a pattern related to poverty level suggests that the marked decline in direct certification rates is due to a random effect (such as a data error) rather than a systematic change. In other words, if the change in direct certification were due to a change in eligibility we would expect it to impact higher-poverty districts more than lower-poverty ones.

Discussion: The almost 40% drop in direct certification cannot be fully explained by the 14% decline in SNAP participation, despite the fact that the direct certification counts are overwhelmingly driven by participation in SNAP rather than other eligibility criteria (TANF, homelessness, or migrant students). The large discrepancy between direct certification data and SNAP participation data in SY 2017-18 gives rise to concerns that there may have been some sort of problem with data provided by DHHS to MDOE. This merits further investigation, as it calls into question the reliability of the direct certification data as a method of identifying students in poverty.

However, the fact that FRPL-eligibility counts produced by districts decreased by only 5% suggests that districts were able to compensate for most of the decline, presumably by sending eligibility forms home to parents of the expanded pool of students not captured by direct certification. This reliance on low-income parents and guardians could present problems with under-identification caused by errors and non-completion. Indeed, this effect may explain some of the 5% decline in FRPL identification rates between SY15 and SY18. However, the decline could also be a true decrease in poverty as a result of improved economic conditions in SY2018. This is further explored in the next research question.

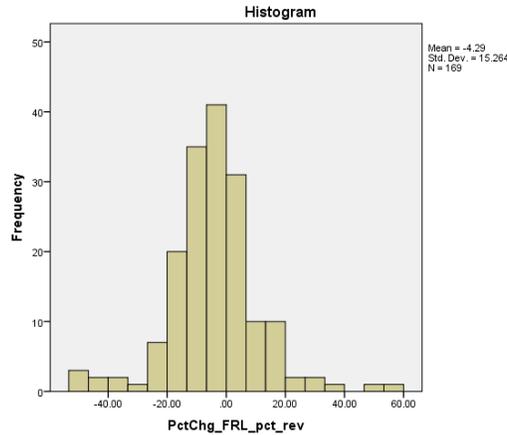
Question 3: What factors were related to the identification rates of economically disadvantaged students over the most recent three-year period?

While direct certification rates dropped substantially between 2015 and 2018, the statewide drop in FRPL eligibility between 2015 and 2018 was only 5%. The decline in FRPL eligibility counts is presumed to reflect some combination of districts' reduced ability to identify students in poverty in the face of shrinking direct certification lists, and/or improving economic conditions and lower actual student poverty.

Variation across districts in terms of the change in the percentage of students identified as FRPL eligible may provide some insight as to how individual districts handled the steep drop in direct certification rates between 2015 and 2018. Districts using direct certification data to identify economically disadvantaged students would begin with a smaller list and thus need to send economic eligibility forms home to a larger group of students not on the direct certification list. Districts with better systems for collecting forms from eligible households would have higher counts than those with less robust processes.

On average, districts reported 4.3% fewer students identified as FRPL eligible in SY2018, but there was much variability across the districts. One district had a 57% increase in students identified as FRPL eligible, and at the other extreme, another district reported a 53% decline. About one third (34%) of districts reported an increase between 2015 and 2018 in the percentage of FRPL eligible students while 66% reported a decrease in FRPL rates.¹⁵

¹⁵ Note: we excluded two districts who were outliers (i.e., more than 3 times the standard deviation from the mean): RSU07 which in 2015 had only 3 out of 67 students as FRPL eligible (4.5%) but in 2018 reported 19 of 67 students as FRPL eligible (28%), an over 500% increase. Blue Hill Public Schools was also an extreme outlier: in 2015 they reported 41 of 255 students as FRPL eligible (16%) but in 2018 they reported 108 out of 270 as FRPL eligible (40%), an almost 150% increase.



We also examined the relationship between the change in the percentage of students identified as economically disadvantaged and SAU characteristics, including size, poverty rate, median income, CEP status, change in CEP status and % change in direct certification rate. To make it easier to present in tabular form, we categorized districts according to the size in their % change in FRPL rates based on the average % change (-4.3%) and the standard deviation (15.3%): districts with % changes in FRPL rates within one standard deviation (15.3%) of the mean change (-4.3%) were categorized as having relatively stable rates, those with % changes below one standard deviation of the mean were categorized as having relatively large decreases, and those with % changes one standard deviation above the mean were categorized as having relatively large increases.

Table 6. Characteristics of School Districts Based on Changes in FRPL Eligibility from SY15 to SY18

	Large increase in FRPL rate (mean: 22%); N=20	Stable FRPL rate (mean: -4.8%) N=132	Large decrease in FRPL rate (mean:-32%); N=17	Significance
Median income, avg (range)	\$47,014 (33,266 to 60,833)	\$51,352 (29,275 to 107,194)	\$54,732 (32,684 to 196,343)	p=0.02
Avg. Poverty rate	12.9%	13.7%	12.5%	NS
Avg. Enrollment 2018	206	1,175	427	NS
Has CEP school(s), Number (%)	2 (10%)	13 (10%)	1 (5%)	NS*
Change to CEP status, Number (%)	1 (5%)	9 (7%)	1 (6%)	NS*
% change in direct certification rate	-25.2% (46 to -72)	-40.8% (16 to -93)	-44.8% (4 to -72)	p=0.002

*Table 6 Notes: *= Not significant once median income is controlled; Statistical significance is determined using bivariate methods as well as multiple regression. Sample for MDOE data are from n=171 regular public districts with at least 25 attending students and no suppression of data in both 2015 and 2018. Also excluded are two districts who were outliers (i.e., their % change in FRPL rate was more than 3 times the standard deviation from the mean).*

Districts with larger increases in FRPL rates between 2015 and 2018 tended to have lower area median incomes compared to districts with larger decreases in FRPL rate. However, there was no correlation between poverty rate and % change in FRPL rate, even when no other variables were controlled. While districts with only small changes (increases or decreases) in their FRPL rate between 2015 and 2018 were on average larger, there was no statistically significant correlation between size and % change in FRPL rate.

There was a weak correlation between a district's CEP status and the percentage change in FRPL rate. Districts that had one or more schools participating in the CEP program in 2018 and districts that had no schools participating in the CEP program in 2015 but at least one school participating in 2018 both tended to have *smaller* changes in their FRPL rates. However, this effect disappeared once area median income is controlled.

Importantly, there is also a statistically significant ($p < .001$) and positive correlation of 0.26 between a district's change in FRPL rate between 2015 and 2018 and its change in the percentage of students on the direct certification list. Districts with larger decreases between 2015 and 2018 in the percentage of students on the direct certification list tended to have larger decreases in the proportion identified as FRPL eligible during the same period.

Discussion: The typical district had moderate changes in FRPL rates between 2015 and 2018, with the average being a 4.3% decline. Most districts (78%, $n=132$) had relatively modest changes ranging from a 19% decline in the proportion of students identified as FRPL eligible to an 11% increase. Only 22% of districts had significant changes (beyond one standard deviation from the mean) in the percentage of students identified as FRPL eligible, with 12% reporting a significantly higher FRPL rate in 2018 compared to 2015 and 10% reporting a significantly lower FRPL rate. Districts with larger declines in FRPL rates between 2015 and 2018 also had on average large declines in direct certification rates.

If economic conditions resulted in fewer students in poverty in 2018 than in 2015, this is the pattern that would be expected. However, these findings also bolster the concern that districts that increasingly have to rely on parent forms to identify economically disadvantaged students may see decreases in the number of students that are verified as eligible for FRPL, even if the underlying level of poverty is unchanged. In other words, the two most likely explanations for the relationship between direct certification rates and FRPL identification rates are 1) a decrease in underlying student poverty that drove reductions in both counts, and/or 2) decreased ability to identify students in poverty due to the steep drop in students included in direct certification lists.

Thus to further interpret this correlation, we would wish to have an external measure of poverty trends between 2015 and 2018 in order to triangulate the data in Table 4. This would help us to infer whether the decline in FRPL rates was more likely to be a result of a decline in actual poverty or merely from districts' diminished ability to *identify* students in poverty.

The US Census bureau has other poverty estimates that can be used for comparison. Between 2014 and 2017, the Annual Social and Economic Supplement data indicated that overall poverty level in the nation declined 2.5 percentage points from 14.8% in 2014 to 12.3% in 2017.¹⁶ The American Community Survey (ACS) annual data for the state of Maine (1-year estimates) reported a 6 percentage-point decline in children under 18 years old in poverty, from a high of 19.1% in 2014 to only 13.1% in 2017, with a margin of error of about 1.8% in each year. The ACS 5-year estimates of Maine children under 18 in poverty depict a more modest 2.1 percentage point decline from 18.8% in 2014 to 16.7% in 2017 with a narrower margin of error of 0.8%.

These other measures are on par with Maine's 2.5% percentage point decline in the FRPL rate (from 47.3% in SY15 to 44.8% in SY18). The decline in Maine's FRPL rate is consistent with a drop in the proportion of students in poverty in other measures, which alleviates the concern that the decline may have been driven by an inability to identify children in need or by inaccurate data. They also corroborate concerns that the precipitous drop in direct certification, from 30.2% of students in SY15 to 18.4% in SY18, is not easily explained as a decline in actual poverty and may indicate inaccurate data.

Also important is the finding that CEP districts tended to have only minor changes in FRPL rates between 2015 and 2018 compared to other districts. This suggests that participation in the CEP program does **not** appear to lead to a greater decline in FRPL form return rates or an undermining of the count of poor students as compared to non-CEP districts, at least in the time interval from SY2015 to SY2018.

Question 4. Are districts effectively using FRPL and economic status forms to count very poor students that are "missing" from direct certification list?

Direct certification identifies children living in families participating in SNAP and TANF. The eligibility rules for these two programs are nearly the same as the eligibility criteria for free meals: families with incomes below 130% of the poverty line. The only difference between eligibility

¹⁶ <https://www.census.gov/library/stories/2018/09/poverty-rate-drops-third-consecutive-year-2017.html>
https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_5YR_S1702&prodType=table
https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_1YR_S1701&prodType=table

requirements is that certain categories of non-citizens are eligible for free lunch at school but not for the federal food stamp program. In practice, the number of students counted as eligible for free meals should be higher than the direct certification counts, both because of the small number of non-citizens who receive free lunch but not SNAP or TANF, and more commonly, because there are eligible families who choose not to apply for SNAP or TANF benefits but whose children do participate in the FRPL program. While the student-level data we obtained from MDOE did not break out FRPL eligibility by free and reduced, district-level counts of students eligible for free and reduced are available through MDOE's nutrition program.¹⁷ We used these aggregate data to compare free lunch eligibility and direct certification counts (see table 6). This table also compares the total counts of students considered economically disadvantaged for EPS determinations to the total reported as eligible for FRPL.

Table 7. Comparison of Student Poverty from Two MDOE Data Sources

	SY2015	SY2018
Total Students		
From Econ. Disadvantaged (EPS data)	170,129	164,739
From Nutrition data	168,947	164,809
Difference	1,182	70
% Overlap	99%	100%
Students at or Below 130% of Poverty Level		
Direct cert (EPS data)	51,328	30,275
Free Lunch Eligible (Nutrition data)	69,226	66,304
Difference	17,898	36,029
% Overlap	74%	46%
Students at or Below 180% of Poverty Level		
Econ. Disadvantaged (EPS Data)	80,591	73,890
Free or Reduced Lunch Eligible	81,402	76,760
Difference	811	2,870
% Overlap	99%	96%

Note: Sample includes n=168 regular public districts with at least 25 attending students and no missing data in either data source.

The two data sources from MDOE (the list of economically disadvantaged students and the public district-level FRPL counts from School Nutrition data on NEO) have slightly different total enrollments and FRPL eligibility counts, possibly reflecting the different times during the school year that the data were compiled or extracted. Therefore, comparisons are necessarily rough and should not be interpreted as precise. The difference in total enrollment between the two reports was 1,182 students in 2015 and 71 in 2018.

¹⁷ <https://neo.maine.gov/DOE/neo/Nutrition/Reports/NutritionReports.aspx?reportPath=ED534byDistrict>

As described above, the two different measures of poverty represented by the direct certification data and free lunch eligibility are not expected to align perfectly. Certain categories of non-citizens are ineligible for SNAP or TANF but would be reflected in free lunch counts. This would be a small and negligible difference in many areas of the state, but may be substantive in districts with sizeable immigrant populations. Moreover, it is known that there are households in poverty that do not apply for welfare benefits due to social stigma or other reasons, but that do choose to take advantage of the free lunch program for their school-aged children. Thus it is expected that the counts would not be identical, and that the FRPL eligibility counts should always be higher than direct certification counts. The marked difference in the degree of overlap between the two data sources – 74% in 2015 compared to 46% in 2018 – are another representation of the findings in question 2 (i.e. direct certification counts fell dramatically while FRPL counts declined modestly). While it is understandable that the counts would not match up, it is less clear why there would be a substantial change in the proportion from one year to another in the absence of any relevant policy changes that might explain the discrepancy.

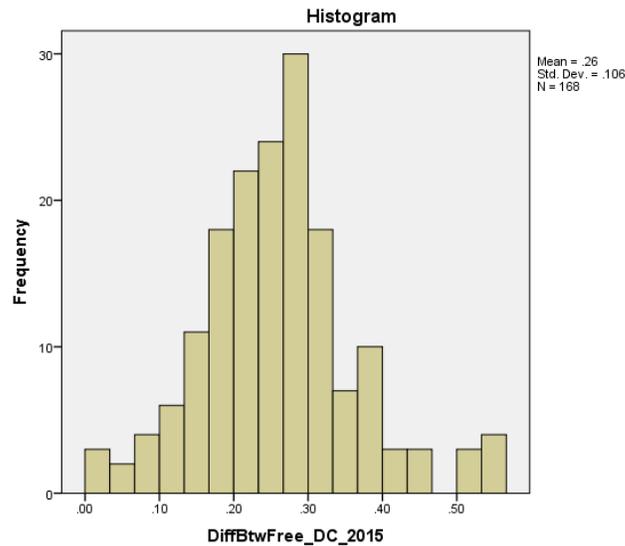
In terms of overall FRPL eligibility counts, the two MDOE data sources are also similar. In 2015 the overall counts for FRPL (free and reduced eligibility) were very similar with a difference of 811 students (about 1%). In 2018, the overall FRPL counts are not quite as close; the discrepancy of 2,870 students is about 4%. In both years, the counts reported through the school nutrition site are higher than those in the student-level counts, which are the data that are used for EPS calculations. This is noteworthy since it points to a possible undercount of poor students in funding allocations.

Based on the assumption that districts with free counts that exceed direct certification counts are effectively using income eligibility forms to identify at least some students in households that are non-participating or ineligible for SNAP, we compared the difference between free lunch and direct certification counts in each district. Those districts with a high ratio of students eligible for free meals compared to students on direct certification lists are presumed to be using parent/guardian income eligibility forms effectively to identify more of their poor students and compensate for the fact that direct certification lists will not capture all eligible students. Because the number of students eligible for free meals above and beyond the number of students on the direct certification list primarily reflects students identified using FRPL or economic status forms, we speculate that the greater the difference between free and direct certification counts, the better their process is capturing eligible students.

In 2015 the number of students statewide identified as eligible for free meals above and beyond the direct certification counts was 17,898, or 26% of the total free lunch count. Presumably, this represents students in families who are eligible for SNAP but not participating, low-income families that

are not eligible for SNAP, and students who are administratively determined to be eligible based on their homeless, foster, or migrant status. In 2018, as a result of the decline in the direct certification rate, there were 36,029 more students counted as eligible for free meals than appeared on the direct certification list; this comprised 54% of the total free count. Because of the questions raised about the alignment of SY2018 data, we used SY2015 counts for further analysis.

At the district level, in 2015 the difference between the free and direct certification counts as a percentage of the total free count ranged from 0% to 76%. In the typical district, the difference between the free and direct certification counts as a percentage of the total free count was 26%.



As in prior comparisons we investigated whether there were patterns of difference based on district characteristics. (We do not include CEP status because all students in CEP schools are eligible for free meals, and thus parent income eligibility forms are not used). There were no districts that had free lunch counts that were less than direct certification counts, which is another verification that the direct certification data processes in use by districts and the MDOE are functioning as intended.

To make it easier to present in tabular form, we categorized districts according to the proportion of their free lunch count that are eligible through parent /guardian forms and **not** determined through direct certification (i.e. the district free lunch count minus the direct certification count, divided by free lunch count). Those with an “average” proportion were within one standard deviation (10%) of the mean of 26% of free lunch students identified through eligibility forms. Those below 16% were considered “small” ratio and had more of their free lunch population overlapping with direct certification, and those with “large” ratios had 36% or more of their free lunch counts determined through paperwork.

Table 8. District characteristics based on the proportion of free lunch eligibility not overlapping with direct certification student counts, SY2015

	Small Ratio (0 to 16%) n=24	Average Ratio (17% to 36%) n=120	Large Ratio (36% to 57%) n=24	Significance
Median income, avg (range)	\$50,177 (30,352-106,375)	\$50,719 (29,375-107,194)	\$53,714 (29,583-106,343)	Marginal (p=0.06)
Poverty rate, avg (range)	14.6% (4-34)	13.5% (2-34)	12.3% (3-30)	Marginal (p=0.09)
Enrollment, avg (range)	801 (30-5,154)	1,125 (33-6,909)	614 (35-3,105)	NS
Direct Cert rate	34% (6-58%)	31% (3-66%)	25% (4-44%)	p=0.004

**Median income and poverty rate are not significant once the direct certification rate is controlled.*

We found no statistical association between the difference in free lunch and direct certification counts as a percentage of the total count of free lunch eligible students and district size, and only marginal correlations to district poverty rate or median income. There does appear to be a slightly larger difference between free and direct certification counts among wealthier districts, although the effect is small and poverty rate is only marginally statistically significant. Districts with higher overall rates of direct certification had smaller differences between their free lunch and direct certification counts.

Discussion/question: Using data from the school year 2014-15, we compared the difference between free and direct certification counts as a percentage of the total number of students eligible for free meals to get a sense - albeit indirectly - of how effectively SAUs might be utilizing parent/guardian forms to compensate for the fact that not all very poor students (i.e., students in households with incomes below 130% of the poverty line) will appear on the direct certification lists. Statewide, 26% of students eligible for free meals are not on the direct certification list, indicating that a significant number of very poor students - a total of 17,898 - are identified using income eligibility forms and not direct certification. While we cannot know for sure what percentage of eligible families choose not to participate in SNAP or the number of very poor families not eligible for SNAP because of citizenship status, this analysis does point out a limitation of direct certification lists to capture students in poverty.

There is substantial variability at the district level, with some districts identifying none or very few additional students as eligible for free meals and other districts identifying 50% more than appear on the direct certification list. Assuming the number of students eligible for free meals above and beyond the number of student on the direct certification list reflects students identified using income eligibility forms, there are several possible factors that may impact the ratio:

- Districts with robust processes for collecting paperwork from parents or guardians that are not on the direct certification list would be expected to have more students identified through that route, and thus have higher proportions of free-to-direct certification, compared to a similar district with inefficient or lackluster form collections.
- Districts where participation in SNAP among eligible households is low (such as due to social stigma) and thus have artificially low direct certification counts may have a higher proportion of students identified through the form process, particularly if they have taken steps to minimize any different treatment of students receiving subsidized meals.
- Districts with very high direct certification rates may experience a “ceiling effect” whereby there is a limited pool of students to be identified through eligibility forms, and the ratio of students identified through forms compared to the large proportion receiving public assistance will be lower.

The findings above related to the links between proportion identified through forms and district wealth (measured by median income, census poverty level, or percent of students on direct certification lists) could support any of these three drivers.

We find small differences based on the district’s wealth level, as measured by area poverty rates and median incomes, with wealthier districts having slightly larger differences between their free and direct certification counts (i.e., proportionally more of their very poor students are identified using FRPL forms instead of direct certification).

We investigated district size under the speculation that large districts might have a harder time managing the administrative load related to delivering, collecting, and tracking completed income eligibility forms (including reminders and follow-up to parents/guardians who do not return accurately completed forms). However, we found no significant differences based on SAU size. While the challenges of the process may be different in small vs. large districts, they are not doing any better or worse with identification based on size alone.

The biggest takeaway from this research question is that there is sizeable variation in the proportion of students in poverty identified through direct certification lists alone. If policymakers were to contemplate using direct certification lists instead of FRPL eligibility as a measure of disadvantaged students, some districts would be better represented than others.

Question 5. Are poverty rates related to student demographic characteristics?

In this section we examine economically disadvantaged status data used for EPS calculations (including both students identified through direct certification and those identified as FRPL eligible through other means) to investigate whether there are differences by race / ethnicity or English Learner (EL) status. In 2015, 90.5% of Maine students were white and non-Hispanic, and 9.5% were non-white or Hispanic. The subgroups of the non-White or Hispanic students were: 34.5% Black, 20.4% Hispanic/Latinx, 19.9% bi- or multi-racial, 15.7% Asian, and 8.3% American Indian. Because of the questions raised in earlier analyses about the reliability of the direct certification list in SY2018, Table 9 uses data for FY2015 to provide summary demographic information.

Table 9: Race and Ethnicity of Maine Economically Disadvantaged Students, SY2015

	White	Non-White
Number of Students	162,550 (90.5%)	17,014 (9.5%)
% Econ. Disadv. by direct certification	27.4%	44.6%
% Econ. Disadv. via income eligibility forms	17.1%	23.3%
Total % Economically Disadvantaged in EPS Counts	44.5%	67.9%

Students of color were over 50% more likely to be direct certified and to be economically disadvantaged (FRPL eligible). Next, we used available data for the students participating in English Learner programs in SY2018 to investigate economic status in that subgroup of students. In 2018, 3.2% of Maine students were EL students. Of these, 81% (4,786) were non-white.

Table 10. English Learner Status of Maine Economically Disadvantaged Students, SY2018

	Non-EL	EL
Number of Students	176,813 (96.8%)	5,895 (3.2%)
% Econ. Disadv. by direct certification	16.1%	46.3%
% Econ. Disadv. via income eligibility forms	26.5%	38.9%
Total % Economically Disadvantaged in EPS Counts	42.6%	85.2%

Note: sample includes all students in Maine. EL status was available for 2017-18 school year only.

EL students were twice as likely as English-proficient students to be direct certified and identified as FRPL eligible. This is perhaps not surprising as students enrolled in EL programs are likely to be living in newly immigrated families, many of whom are initially reliant on public assistance.

Discussion: There is an interaction between Maine students' race/ethnicity, English-language learner status, and economic status. Students of color are more likely to be economically disadvantaged, and English Learners of all races and ethnicities are far more likely to be poor. The fact that most ELs are also students of color raises policy questions about the interaction between race and EL status in other policy considerations, such as student proficiency by race.

Question 6. What are some possible alternatives to the current method of using the number of FRPL-eligible students to estimate districts' need for supplemental funding to support economically disadvantaged students?

The general intent of the Economically Disadvantaged student weight in the EPS funding formula is to provide additional funding to help school districts to close the achievement gap between students in poverty and their non-disadvantaged peers. The component was based on evidence that students in poverty tend to have lower academic achievement, and that districts with high proportions of poor students tend to have less resources (i.e. funding per student) than wealthier districts. Since a fundamental goal of the EPS funding model is to provide adequate funding for equitable learning opportunity across the state, the Economically Disadvantaged student weight is an important component for equalizing resources for students in poverty.

However, unlike other components in the model, the student weight was not based on empirical data. Poverty is a construct, not a cut-and-dry student characteristic. Growing up poor is not, in itself, a *cause* of low academic achievement. Rather, growing up in a low-income household often, but not always, creates conditions that more directly impede student success (e.g. instability, hunger, lack of family engagement, fewer resources for extra-curricular engagement, etc.). Thus the use of student eligibility for free- or reduced-price lunch is an imperfect proxy measure for capturing students who may require additional resources for success. A student in a household earning 190% of the federal poverty rate – and thus ineligible for FRPL – may face more of these obstacles than a student in a stable, two-parent (or multi-generational) household just below the FRPL threshold. The FRPL measure of poverty was selected for the EPS formula because it was existing data that was available for all school districts, and because it has a tangible meaning (i.e. school nutrition) that provides reassurance that the data

point has integrity. School districts place an emphasis on identifying all students who are eligible for FRPL because it maximizes their ability to provide nutrition services to students in need (i.e. facing food insecurity).

The above research findings validate that there is minimal cause for concern about the accuracy of the FRPL measure for identifying students in need, at least in recent years. Despite plausible concerns, districts with one or more schools participating in the Community Eligibility Provision did not have systematic problems with identifying low-income students. The decline in FRPL rates from FY15 to FY18 was more marked in districts with steeper drops in direct certification rates, but overall tracked with other measures of poverty (both nationally and within Maine). This provides reassurance that FRPL rates remained proportional to underlying poverty levels and were not unduly affected by changes in other measures. Moreover, while there was a weak link between the poverty level of a district and its track record of capturing economically disadvantaged students through income eligibility forms, the trend favored *higher*-poverty districts – i.e. poorer districts did better at identifying students in need than wealthier districts. If there is a systematic problem with the measure, it is one that favors high-poverty areas, which is more conducive to achieving equity goals than if the reverse were true.

Direct certification

Statewide, 26% of students eligible for free meals were not on the direct certification list. These students were identified using income eligibility forms completed by parents or guardians, or from administrative processes for certifying homeless students or those in foster care. This is a sizeable undercount of economically disadvantaged students if the EPS formula were to rely on direct certification data as a measure of poverty. This undercount would affect some districts more than others – i.e. those where eligible families are less likely to participate in federally-funded programs, or where there are greater numbers of poor families that are ineligible for SNAP due to citizenship status. Perhaps more importantly, the direct certification data were concerningly unstable between FY15 and FY18, raising significant concerns about the integrity of the DHHS data collection process or the timing of data-sharing between DHHS and MDOE. While direct certification may remain an option for future consideration because of the administrative simplification it would bring, further investigation would be needed to assure that the measure is accurate and predictable.

If direct certification were to become viable in the future, national studies exist that could inform its use in identifying students in need. For example, the direct certification counts could be expanded to include students eligible for MaineCare, or could use modified thresholds for poverty to

maximize accuracy.¹⁸ These recommendations can be considered in more detail in future analyses if deemed appropriate and necessary.

Title I

The federal Title IA funding formula allocations use the estimated number of children in low-income families in each district based on estimates produced annually by the U.S. Census Bureau. The description of this method explains that “the estimates are not direct counts from enumerations or administrative records, nor direct estimates from sample surveys. Instead, for counties and states, we model income and poverty estimates by combining survey data with population estimates and administrative records. For school districts, we use the model-based county estimates and inputs from federal tax information and multi-year survey data to produce estimates of poverty.”¹⁹ The estimates are based on a rolling average, which mutes the impact of sudden changes in community wealth. This creates more stability in the measure, and also means that communities facing hardships will not see dramatic changes in their allocations from one year to the next. This has both positives and negatives. In addition, the Title I allocation method includes a “hold harmless” provision. While the adjustment is based on several factors, it also results in more gradual changes in a district’s Title IA allocations when their underlying student data undergo changes.²⁰ This favors consistency, but results in a method that is less responsive to sudden changes in a district’s economic context.

Next Steps

In summary, this analysis of Maine’s current methods for identifying economically disadvantaged students points to areas for additional consideration. Most importantly, we strongly encourage follow-up investigation into the direct certification data provided by Maine’s Department of Health and Human Services to determine why it changed substantially, and disproportionately to all other available measures of poverty, between SY15 and SY18. There may be opportunities for administrative changes that would improve the quality of data provided to Maine districts, and thus decrease the need for income eligibility forms (and increase the accuracy of their student counts). Other measures of poverty can also continue to be considered to streamline processes.

¹⁸ <https://www.mejp.org/sites/default/files/MaineCare-Eligibility-Guide-June2018.pdf> ;
http://massbudget.org/report_window.php?loc=Direct-Certification.html

¹⁹ <https://www.census.gov/programs-surveys/saipe/about.html>

²⁰ <https://www2.ed.gov/policy/elsec/leg/essa/essaguidance160477.pdf> (page 2)