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# Assessing Teacher Turnover: Distribution of Inexperienced Teachers and Emergency- Certified Teachers in Maine Schools

by Flynn Ross

## INTRODUCTION

Maine, like the rest of the nation, is in a teacher shortage crisis (Edsall 2022; Fairman et al. 2019). It is estimated that certified teachers will make up only one-third of the nationwide demand for new teachers by 2024 (Garcia and Weiss 2019). In 1987–1988, most teachers across the United States had 15 years of experience. In 2015–2016, that average had dropped to one to three years of experience as identified on the National Schools and Staffing Survey and its supplement, the Teacher Follow-up Survey (Ingersoll et al. 2018). In Maine, we have benefited from a relatively stable teacher workforce, with 87% of our teachers having over three years of experience (ESSA Data Dashboard for 2020-2021).<sup>1</sup> However, the inequitable distribution of these inexperienced teachers across school districts in Maine mirrors the national trend (Behrstock and Clifford 2019). *Inexperienced teacher* is defined in the Maine Department of Education’s ESSA data as “a teacher with less than three years of teaching experience in public and private schools in or out of the State of Maine.”

In the executive summary of their report, *Challenges with Teacher Retention and Staffing and Shortages in Maine School Districts*, Fairman and colleagues (2019: ii) state:

The consequences for high teacher turnover or difficulty filling positions have negative implications for schools,

teachers and other staff, and especially students. Staffing shortages or turnover may result in unfilled positions or hiring educators out of field or who are not highly qualified.... The quality and breadth of the academic program available to students may also be diminished when schools cannot find teachers to offer certain courses or curricula. Larger class sizes or a lack of high-quality teachers may make it more difficult for students to achieve proficiency on state learning standards.

This article extends the research of Fairman and her colleagues by looking at the distribution of teacher turnover among school districts in Maine by rates of students who qualify for free and reduced lunch.

There are two prominent policy paths to respond to the crisis of teacher shortages: (1) promote policies to attract people to teaching or (2) lower the requirements for becoming a teacher. Both policy directions are currently being pursued; however, research shows that they have different long-term consequences (Carver-Thomas and Darling-Hammond 2019; Darling-Hammond 2004; Espinoza et al. 2018).

## MAINE CONTEXT

Maine has seen a 53% decline in the number of university students pursuing teacher certification between 2010 and 2018 (Partelow 2019: 11), which is the third highest drop in the nation. In 2020–2021, the 14 teacher

preparation programs in Maine reported 404 program completers on the federal Title II Higher Education Act annual report (USDOE).<sup>2</sup> The Maine Department of Education reports that fewer than 10 percent of the applications they review for certification are from people who have completed educator preparation programs (EPP) in Maine; the remaining 90 percent of applications come from transcript analysis, alternative certification, or out-of-state applications (Stephanie Fyfe, Maine Department of Education, personal communication).

One option to address this shortage is to make teaching a more attractive career by increasing pay, providing student loan forgiveness and housing and tax incentives, and improving working conditions (Verma et al. 2016). The Maine Department of Education is pursuing this pathway with the #TeachMaine initiative,<sup>3</sup> based on recommendations from Stanford University’s Learning Policy Institute (Espinoza et al. 2018). The #TeachMaine website describes successful Maine based initiatives, aligned with research based best practices, that could be expanded across the state.

A second way to address the teacher shortage is to lower the requirements for entering teaching through emergency certification. In Maine, this pathway was codified into law in June 2021 with LD 1189 and took effect in June 2022. This law allows anyone who can pass the criminal history records check (CHRC) to teach for up to three years if the person

A. Holds a 4-year postsecondary degree or the equivalent in work or academic experience; B. Is enrolled in an approved educator preparation program; or C. Holds a certification as an education technician III issued according to rules of the department pursuant to section 13019-H.

There is no definition of what is determined to be equivalent (to a four-year degree) in work or academic experience.

Research has shown that inexperienced teachers have the highest rates of leaving the profession within three years, creating a revolving door of new teachers to replace those who leave (Carver-Thomas and Darling-Hammond 2019) and thereby increasing the rates of teacher turnover. The costs of recruiting, preparing, and mentoring new teachers is estimated to range from \$9,000 per teacher in rural areas to \$21,000 in urban areas.<sup>4</sup> These financial, human capital, and student learning loss costs are often concentrated in districts with high rates of poverty (Espinoza et al. 2018). As a result, smaller, poorer districts bear the costs of recruiting and preparing new teachers who then often leave for wealthier, higher-paying districts (Fairman et al. 2019; Morris and Johnson 2018). Similar inequities were litigated in the 2004 Supreme Court case *Leandro v The State of North Carolina (Leandro)*, which found that all children have the right to qualified teachers. Darling-Hammond and her colleagues (2022) laid out strategies for closing the teacher quality gap required by the courts that were reiterated in a follow up report in 2022. These strategies are aligned with the Learning Policy Institute report (Espinoza et al. 2018) upon which the #TeachMaine plan was developed.

## METHODOLOGY

This study is based on a framework of structural equity and equity audits (Gorski 2014; Ladson-Billings 2021; Skrla et al. 2009). Equity audits look for discrepancies among subgroups within populations to reveal structural inequities. This study looked at the distribution of inexperienced teachers as an indicator of teacher turnover in relation to rates of poverty as measured by the percentage of a school district's students who qualify for free and reduced lunch. Descriptive statistics were used, including comparisons that identified the districts with the highest rates of inexperienced teachers that were then correlated with the districts' rates of students who qualify for free and reduced lunch.

The data for the study come from the Maine Department of Education ESSA Dashboard and Data Warehouse with the most recent data available from 2019 to 2020. Three years of data (2017–2018 to 2019–2020) were used to strengthen the findings and help control for single-year variations. It is critical to note that this is prepandemic data.

In small school districts such as those commonly found in Maine, the percentage of teachers with fewer than four years of experience varies greatly with just one additionally hired teacher. To help control for this, this study only looked at school districts with over 100 teachers. The 20 largest districts, defined by those employing over 100 total teachers, were identified and organized into two categories using the state average as a benchmark: the ten districts with the highest rates of free and reduced lunch and the ten

TABLE 1: Three-Year Average of Percentage of Inexperienced Teachers and Percentage of Students Qualifying for Free and Reduced Lunch

District	% students	% teachers
Lewiston Public Schools	70	26
RSU 54/MSAD 54 Skowhegan	65	11
Westbrook Public Schools	61	23
Augusta Public Schools	58	16
RSU 49/MSAD49 Fairfield	58	11
RSU 17/MSAD 17 Oxford Hills	57	18
Biddeford Public Schools	53	16
Auburn Public Schools	53	18
Sanford Public Schools	52	12
Portland Public Schools	51	17
State average	40	12
RSU 05 Freeport	23	20
RSU 21 Kennebunk	19	10
Gorham Public Schools	19	6
RSU 35/MSAD 35 South Berwick	17	4
Scarborough Public Schools	13	4
York Public Schools	13	10
Yarmouth Schools	10	7
RSU 51/MSAD 51 Cumberland North Yarmouth	7	4
Cape Elizabeth Public Schools	6	2
Falmouth Public Schools	5	1

districts with the lowest rates of free and reduced lunch. Additional data for emergency-certified teachers was provided via written responses delivered by Maine Deputy Commissioner of Education to legislators' questions in an Education and Cultural Affairs Committee work session on February 8, 2022.<sup>5</sup>

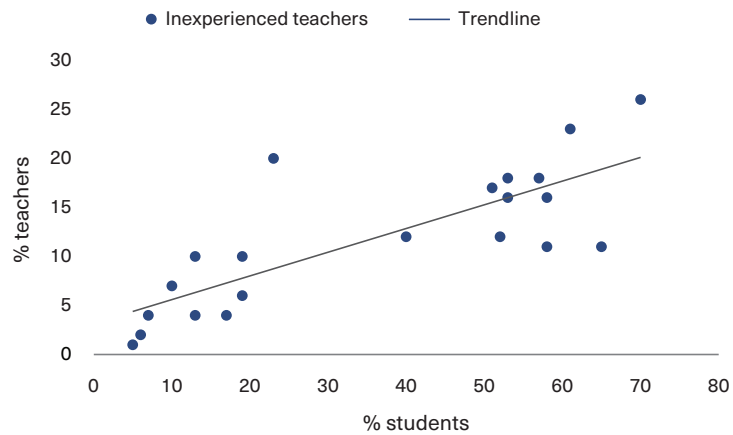
## FINDINGS

This study found that there was a correlation<sup>6</sup> between the percentage of inexperienced teachers and the percentage of students qualifying for free and reduced lunch in Maine schools (Table 1, Figure 1). This finding for the state of Maine follows national trends of high-poverty districts having higher rates of inexperienced teachers (Carver-Thomas and Darling-Hammond 2019).

At the extremes, in 2019–2020 Cape Elizabeth had 5.9 percent of students qualifying for free and reduced lunch and 2 percent of teachers with fewer than three years of teaching experience; whereas Lewiston had 66.3% of students qualifying for free and reduced lunch, and 34% of teachers with one to three years of experience. Any single year can have variations for a variety of reasons, so this study averaged three years of data (2017–2020) to try to control for single-year variations.

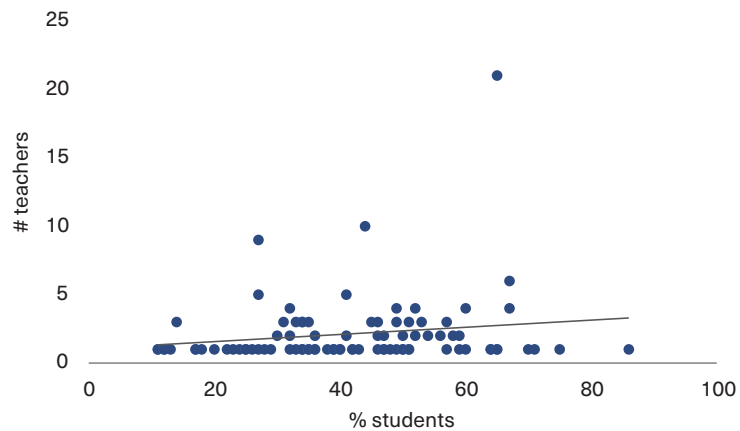
In Maine, the data is complicated further by the urban/rural divide. Half of Maine students were educated in only 30 of the 206 school districts. Additionally, 117 districts have fewer than 500 students and educate only 12 percent of the student population (Fairman et al. 2019). These rural districts tend to have higher proportions of poverty and challenges hiring qualified teachers. These districts were not included in the data on inexperienced teachers because their small numbers of

FIGURE 1: Three-Year Average of Percentage of Inexperienced Teachers and Percentage of Students Qualifying for Free and Reduced Lunch, 2017–2020



Source: Maine Department of Education ESSA Dashboard for 2017–2020

FIGURE 2: Distribution Emergency-Certified Teachers by Percentage of Students Qualifying for Free and Reduced Lunch



Source: Written responses delivered by Maine Deputy Commissioner of Education Dan Chuhta to legislators' questions in an Education and Cultural Affairs Committee work session on February 8, 2022.

teachers mean that the percentage of inexperienced teachers fluctuate greatly with single-year variations.

As described earlier, emergency teacher certification was only recently approved by the legislature in 2021. The findings for the 195 emergency-certified

teachers who are employed is more widely spread across districts of various socioeconomic strata and location (see Figure 2).

Of the 93 districts that employed a teacher on an emergency certification in 2021–2022, 57 employed only one such teacher (61 percent). The districts with the

TABLE 2: Districts with Highest Number of Emergency-Certified Teachers and Percentage of Students Qualifying for Free and Reduced Lunch

District	# emergency-certified teachers	% students qualifying for free/reduced lunch
Lewiston	21	65.49
Portland	10	44.13
MSAD 60, North Berwick	9	26.78

Source: Written responses delivered by Maine Deputy Commissioner of Education to legislators' questions in an Education and Cultural Affairs Committee work session on February 8, 2022.

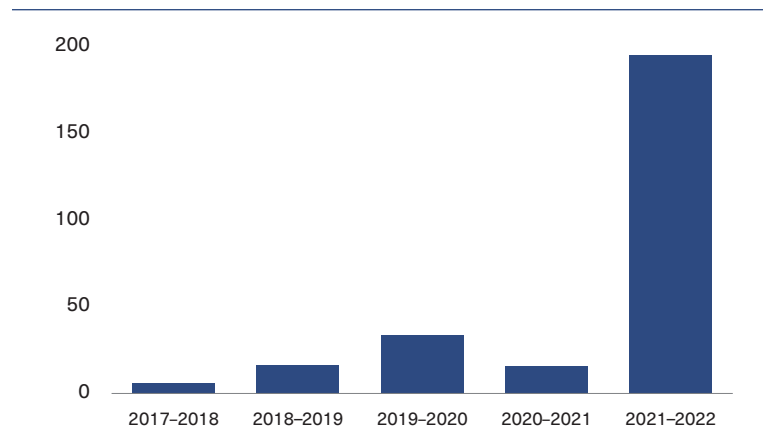
most emergency-certified teachers are listed in Table 2. For comparison, the state average for district rates of students qualifying for free and reduced lunch is 40 percent.

The exponential growth in the number of teachers in Maine teaching with an emergency, targeted need, or transitional credential with the authorization of the emergency certification in July 2021 is especially significant. From a low of six emergency-certified teachers in 2017–2018, the number has increased, albeit with a dip in 2020–2021, to 195 teachers employed on an emergency certification, a more than 1000 percent increase over the average of the four previous years (Figure 3).

## CONCLUSION

It is essential to study the impact of the emergency teacher certification in terms of prevalence, areas of certification, retention, and location. This can be done

FIGURE 3: Number of Teachers Teaching with Emergency, Targeted Need, or Transitional Credentials, 2017–2022



Source: Maine Department of Education ESSA Dashboard for Years 2017–2021 and written responses delivered by Maine Deputy Commissioner of Education to legislators' questions in an Education and Cultural Affairs Committee work session on February 8, 2022.

through state-level certification office data systems on Maine Educator Information System. It will be especially important to monitor the impacts of the pandemic on hiring and retention of teachers by certification type (professional, conditional, or emergency), by location, and by levels of poverty.

This study calls further attention to the need for policies and practices to help redress the inequities and encourage a more equitable distribution of experienced teachers across districts, rather than leaving it to market forces with higher pay in some districts that privilege more resourced communities. Promising practices to address teacher recruitment and retention being used in other states include teacher residencies (currently established in 22 states), grants, student loan forgiveness, and targeting incentives to teach in underserved schools. The Maine Teacher Residency project has been funded for 2022–2024 to serve over 100 residents. The #TeachMaine plan is a

comprehensive overview of policy strategies based on research to address the teacher shortage in the longer term to ensure equitable access to quality teachers.<sup>7</sup> These recommendations for strengthening the teacher pipeline—providing financial access to high-quality teacher preparation with grants and forgivable loans and providing incentives for teaching in high-need schools—align with the strategies laid out in the *Leandro* case in North Carolina to reduce the teacher quality gap (Darling-Hammond et al. 2022).

Maine is at the beginning stages of the teacher shortage and teacher quality gap. The policy decisions made in the next legislative session will either exacerbate the problems and inequities or will help redress them. Maine can learn from the research and experience from other states to make wise choices and monitor the impacts of the policies being implemented.

## NOTES

- 1 Maine Department of Education's ESSA Dashboard is available at <https://www.maine.gov/doe/dashboard>.
- 2 <https://title2.ed.gov/Public/Report/StateHome.aspx?si=23>
- 3 <https://www.maine.gov/doe/exploreeducation/teachmaine>
- 4 The Learning Policy Institute offers an interactive tool to investigate the cost of teacher turnover: <https://learningpolicyinstitute.org/product/the-cost-of-teacher-turnover>.
- 5 These responses are available here: <https://legislature.maine.gov/testimony/resources/EDU20220208@DOE132895828345424153.pdf>.
- 6 R<sup>2</sup> value of 0.627
- 7 More information is available on the following webpages: <https://www.ecs.org/50-state-comparison-teacher-recruitment-and-retention-2022/>; <https://reports.ecs.org/comparisons/teacher-recruitment-and-retention-2022-06>; <https://sites.google.com/maine.edu/maine-teacher-residency>; and <https://www.maine.gov/doe/exploreeducation/teachmaine>.

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