

Michigan Teachers Who Are Not Teaching: Who Are They, and What Would Motivate Them to Teach?

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Michigan Teachers Who Are Not Teaching: Who Are They, and What Would Motivate Them to Teach?

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Statewide teacher shortages in Michigan are impeding efforts to ensure all students equitable access to qualified teachers. To alleviate shortages, education leaders have considered recruiting certified teachers who are not currently teaching (both those who have never taught and those who left teaching). This study analyzed teacher certification and employment data and data from a survey of certified teachers who were not teaching in a Michigan public school in 2017/18 to gather information on the viability of this recruitment option. The report describes the characteristics of these nonteaching certified teachers, the three most important reasons why they are not teaching, and the three most important incentives that would motivate them to teach in a public school in the state. The study found that approximately 61,000 teachers certified in Michigan were not teaching in the state's public schools in 2017/18. A survey of nonteaching certified teachers found that they most frequently selected wanting a higher salary as one of the three most important reasons why they were not teaching and that they most frequently selected an increase in salary as one of the three most important incentives that would motivate them to teach. Respondents also frequently selected financial incentives, such as allowing retirees to retain their retirement benefits, improving other benefits, and forgiving student loans, as one of their three most important incentives. Nonteaching certified teachers might consider becoming a public school teacher if it were easier and less costly to earn or renew a teaching certificate, if they could more easily obtain a full-time or part-time position, and if they were assured of school leadership support and smaller class sizes or a lighter student load.

Why this study?

In 2015 the Michigan Department of Education identified income- and race/ethnicity-based gaps in students' access to certified teachers (Michigan Department of Education, 2015; see box 1 for definitions of key terms). The department's efforts to reduce those inequities were often impeded by teacher shortages (Michigan Department of Education, 2017a), especially in the Upper Peninsula and Northwest regions of the state (Wan et al., 2019). In the 2018/19 school year the endorsement areas with the largest shortages were career and technical education (966 vacancies), special education (677 vacancies), elementary education (539 vacancies), science (192 vacancies), and art and music education (174 vacancies; Michigan Department of Education, 2020; U.S. Department of Education, 2020).¹ Shortages will likely continue because of the declining supply of new teachers from Michigan's teacher preparation institutions (Wan et al., 2019) and higher teacher turnover in the state than the national average (Robinson & Lloyd, 2017). Unable to fill teaching positions with qualified teachers, districts might turn to uncertified teachers or teachers who have not yet completed their training, such as long-term substitutes (Clotfelter et al., 2007; Palardy & Rumberger, 2008; Wan et al., 2019).

1. The Michigan Department of Education report determined areas of shortage based on numbers of temporary teaching credentials requested by districts, such as permits, special education approvals, and career and technical education authorizations. These temporary credentials allow school districts to fill vacant teaching positions with teachers who are certified in other areas and teachers who are not certified. The number of temporary credentials does not represent full-time equivalent teachers since the vacancies could involve any number of course sections, and an individual can teach under more than one temporary credential.

For additional information, including technical methods, the Michigan Department of Education's Survey of Teachers Who Do Not Teach, and detailed findings, access the report appendixes at <https://go.usa.gov/xsuNj>.

Box 1. Key terms

Certification activity. Applying for an initial teaching certificate, renewing a current certificate, adding an endorsement to a certificate, or changing to another certificate type. For example, a teacher can advance a standard certificate to a professional certificate based on teaching experience and completion of additional professional development.

Certification characteristics. The study considered the following certification characteristics of the sample of certified teachers: year of initial certification, year of the last certification activity, and grade level of certification (elementary or secondary).

Certified teachers. People who have been issued a teaching certificate by the Michigan Department of Education that allows independent classroom teaching in grades preK–12. This group includes teachers with current or expired certificates but not those with a revoked license. Michigan issues endorsements to teaching certificates to attest to teachers' preparation to provide instruction in particular grade ranges and content areas, such as grade K–8 science, as well as teachers' specialization to work with specific student populations, such as special education students. To become certified and receive endorsements, teaching candidates must meet the requirements of Michigan law and administrative rules, including completing content area coursework for the desired grade band and subject, engaging in student teaching, and passing the appropriate Michigan Test for Teacher Certification content exam. Certified teachers also can hold other school-related credentials, such as for school administrator and school psychologist. Certificates must be renewed periodically. For example, a standard teaching certificate must be renewed every five years after completing the required hours of professional learning or obtaining a higher degree. (More information is available on the Michigan Department of Education website at www.michigan.gov/teachercert.)

Demographic characteristics. The study considered the following demographic characteristics of the sample of certified teachers: gender, age, race/ethnicity, presence of a child age 5 or younger at home, and household income.

Employment characteristics. The study considered the following employment characteristics of the sample of certified teachers: year of employment as a teacher in a public school and employment in a school or district in a nonteaching role.

Initial teaching certificate. The first teaching certificate that the Michigan Department of Education issues to a teacher who completes requirements for the desired content area and grade band.

Member of a racial/ethnic minority group. Following the Michigan Department of Education's current practice, the study team grouped teachers who were American Indian/Alaskan Native, Asian, Black, Hawaiian Native and other Pacific Islander, and multi-racial and teachers of Hispanic ethnicity into a single category, labeled "members of a racial/ethnic minority group."

Previously taught or had never taught. Classification of survey respondents based on their answer to a survey item that asked whether they had ever taught in a Michigan public school (see box 2 for the description of data sources).

Teaching in 2017/18, had taught recently, or had not taught recently. Study classification of the teaching status of certified teachers based on Michigan Department of Education school employment data for 2013/14–2017/18 (earlier data were not available). *Teaching in 2017/18* refers to certified teachers who had a teaching assignment in any Michigan public school during the 2017/18 school year. *Had taught recently* refers to certified teachers who had a teaching assignment in any Michigan public school between 2013/14 and 2016/17 but not in 2017/18. *Had not taught recently* refers to certified teachers who did not have a teaching assignment in a Michigan public school between 2013/14 and 2017/18. This category includes both teachers who had not taught recently in a Michigan public school and those who had never taught in a Michigan public school because the employment records did not provide information to distinguish between these two groups.

Ten most frequently selected reasons for not teaching or ten most frequently selected incentives that would motivate teaching. The study team used frequencies to identify the 10 reasons for not teaching that appeared most frequently among respondents' three most important reasons why they were not teaching and the 10 incentives that appeared most frequently among respondents' three most important incentives that would motivate them to teach.

Three most important reasons for not teaching or three most important incentives that would motivate teaching. The three most important reasons or the three most important incentives selected by survey respondents from among all the reasons or incentives that they had previously identified as important.

Working in a public or private school or district in a nonteaching capacity. Classification of survey respondents based on their answer to a survey item that asked about their current occupational status. This includes those working in a Michigan public or private school or district, but not as a teacher.

Data collected from national, state, and local samples of former teachers suggest that teachers leave the profession for a range of reasons. Former teachers who responded to the U.S. Department of Education’s Teacher Follow-Up Surveys (an extension of Schools and Staffing Surveys) between 1987/88 and 2012/13 indicated that they left their position to attend to personal issues (for example, because of health concerns or to care for a young child), to pursue employment in other fields, to earn a higher salary, or to pursue other plans (Bowsher et al., 2018; Gray & Taie, 2015; National Center for Education Statistics, 2013a). More recent state and local data reveal similar reasons for teachers leaving their district or the profession. Former teachers often cite low salaries, challenging working conditions, and lack of collegiality among staff and school leaders as important factors that influenced their decision to leave their teaching position (Carver-Thomas & Darling-Hammond, 2019; Ni, 2017; Podolsky et al., 2019).

Although findings from the Teacher Follow-Up Survey provide insight into the attractiveness of various incentives (factors that districts or schools can control) that might motivate former teachers to return to teaching, studies that have examined the impacts of those incentives on recruitment and retention show mixed results. The most recent administration of the Teacher Follow-Up Survey revealed that approximately half of those who left their teaching position would consider returning to preK–12 teaching. Of those teachers, 23 percent reported that housing incentives (such as subsidies, low-interest loans, or relocation assistance) might influence their decision to return. Although the survey asked former teachers about other factors that might influence their decision to return to teaching, such as higher salaries or the availability of full-time and part-time positions, former teachers’ perceptions about those other factors have not been reported (National Center for Education Statistics, 2013b).

Studies of teacher mobility and turnover recommend higher salaries, usually alongside improvements in working conditions, as incentives for recruiting and retaining teachers (Ingersoll et al., 2018; Ni, 2017; Podolsky et al., 2019). Research has also found that financial incentives such as student loan forgiveness could be an effective tool for attracting and retaining teachers in hard-to-staff schools or subject areas, but their effectiveness can diminish over time (Cowan & Goldhaber, 2018; Feng & Sass, 2018; Hough & Loeb, 2013). Districts with teacher shortages also have offered housing and childcare assistance to attract and retain teachers (Brundin, 2018; Viadero, 2018), but there is little evidence about the effectiveness of these incentives.

Members of the Regional Educational Laboratory Midwest Alliance to Improve Teacher Preparation, which includes staff from the Michigan Department of Education, teachers, district administrators, and representatives of teacher preparation institutions and a teacher union in Michigan, requested a comprehensive study of certified teachers who reside in Michigan but are not teaching in public schools. Members of the alliance wanted information to help them assess the viability of recruiting those teachers to fill teaching vacancies throughout the state. Knowing how those teachers differ from current teachers could help state, district, and school leaders tailor their recruitment efforts. Comprehensive information about why some certified teachers are not teaching in public schools could also provide the Michigan Department of Education and other state, district, and school leaders an opportunity to address the factors affecting teachers’ decisions not to teach, which could prevent additional loss of certified teachers.

Research questions

This study addressed three research questions:

1. How many of Michigan’s certified teachers were not teaching in Michigan preK–12 public schools during the 2017/18 school year? What were their demographic, employment, and certification characteristics, and which demographic and employment characteristics distinguish them from teachers who were teaching?
2. What reasons did certified teachers who were not teaching in 2017/18 give for leaving or choosing not to teach in preK–12 public schools? Did these reasons vary by demographic and employment characteristics?

3. What incentives did certified teachers who were not teaching in 2017/18 indicate would motivate them to return to or enter teaching in preK–12 public schools? Did the attractiveness of the incentives vary by teachers' demographic and employment characteristics? Were some incentives more persuasive than others in influencing teachers to consider teaching?

The data sources, sample, and methods for the study are summarized in box 2 and detailed in appendix A.

Box 2. Data sources, sample, and methods

Data sources. The study used data supplied by the Michigan Department of Education from a combination of sources:

- Teacher certification and demographic data from the Michigan Online Educator Certification System, including records of all certificates issued between 1943 and 2019, with the exception of certificates that were revoked.
- Public school employment records between 2013/14 and 2017/18, such as school and district assignment, from the Michigan Registry of Educational Personnel.
- Survey data from the sample of certified teachers who did not have a teaching assignment in a Michigan public school during the 2017/18 school year. Survey responses provided information on teachers' reasons for not teaching and on incentives that could motivate them to teach in a public school. The Michigan Department of Education administered the survey between December 5, 2019, and January 10, 2020 (see appendix B).

Sample. Research question 1 focused on the demographic, employment, and certification characteristics of Michigan's certified teachers. The sample for research question 1 focused on certified teachers whom the Michigan Department of Education and the study team considered to be viable candidates for recruitment to teaching positions in Michigan's public schools. The sample included 141,810 teachers initially certified between 1961 and 2018 whose certificate had not been revoked. The sample included teachers ages 18–60 and those older than 60 who had recent certification activity.¹ Of the 141,810 teachers included in the sample, 80,558 were teaching in 2017/18, 18,367 had taught recently (2013/14–2016/17) but were not teaching in 2017/18, and 42,885 had not taught recently (2013/14–2017/18; see figure A1 in appendix A). The sample does not include 3,476 certified teachers who received an initial certificate after 2018 because their employment records were unavailable.

Research questions 2 and 3 asked about reasons for not teaching and whether various incentives would motivate certified teachers to teach in Michigan's public schools. The sample for research questions 2 and 3 focused on respondents to the Michigan Department of Education survey of teachers who were certified in the state in 1961 or later, who did not have a teaching assignment in a preK–12 public school during the 2017/18 school year, and for whom a valid email address was available—a total of 59,433 teachers. The survey received 17,551 responses (a 30 percent response rate).² Of the respondents, 7,709 were excluded based on their responses to screening questions: 838 were certified after 2018 and might not have had enough time to obtain a teaching position or enough experience to offer insights on teaching in public schools, 5,379 indicated that they were currently teaching in public or private schools,³ 1,180 reported residing 20 or more miles outside of Michigan, and 312 failed to complete the screening questions or provided data inconsistent with the Michigan Department of Education's records. Thus, the analytic sample for research questions 2 and 3 consisted of 9,842 nonteaching teachers, 9,089 of whom had taught previously and 753 of whom had never taught (see figure A2 in appendix A).

The analytic sample for research questions 2 and 3 is not representative of Michigan certified teachers who do not teach in a Michigan public school. The sample underrepresents teachers who were members of a racial/ethnic minority group and overrepresents teachers who were age 35 or older, were certified in secondary grades, were initially certified before 2010, and whose most recent certification activity, such as renewal, was prior to 2001. These characteristics were included in statistical models to account for the overrepresentation and underrepresentation of these groups (details are in appendix A).

Methodology. For research question 1 the study team compared demographic, employment, and certification characteristics of certified teachers who were teaching in 2017/18, those who had taught recently, and those who had not taught recently. Next, the study team used regression models to test for associations between teacher characteristics and their employment status (that is, had taught recently or had not taught recently). The analyses statistically controlled for demographic characteristics, such as teachers' race/ethnicity and gender.

For research questions 2 and 3 the study team examined survey responses from certified teachers who were not teaching in a Michigan public school in 2017/18. Respondents were asked to select from among a list of possible reasons why they were not currently teaching and also from among a list of incentives that would motivate them to teach in a Michigan public school.

Respondents could also write in their own reasons and incentives. Next, the survey asked respondents to select the three most important reasons and the three most important incentives from among those they had selected. The study team combined reasons and incentives selected as the three most important by respondents. Then the study team calculated the percentages of respondents who selected each reason and incentive among their three most important and ranked the reasons and incentives from most frequently selected to least frequently selected. Regression models examined whether certain respondent characteristics were associated with the 10 reasons selected most frequently as one of the three most important for not teaching and the 10 incentives selected most frequently as one of the three most important for motivating teaching in a Michigan public school. The analysis controlled for other factors, such as respondents' gender and year of initial certification, that could have influenced their reasons and incentives. To address the lack of representativeness in the analytic sample, the analyses also controlled for characteristics that were over- or underrepresented among the survey respondents.

The survey asked respondents whether they would consider returning to teaching in a preK–12 public school classroom or, for those who had never taught, whether they would consider becoming a teacher in a preK–12 classroom. The study team computed percentages of respondents who indicated that they would consider teaching in a preK–12 classroom and the percentage who indicated that they would not consider it. The study team used regression models to examine whether certain characteristics of respondents were associated with whether they would or would not consider teaching. The regression approach was the same as for the analysis of the three most important reasons and incentives.

For all research questions the study team consulted with Michigan Department of Education policymakers on which teacher characteristics to include in the regression models to increase the likelihood that the findings could help the department develop an effective teacher recruitment strategy. Details on the study methodology, including how the lack of representativeness in the survey sample was addressed, are in appendix A.

Notes

1. The sample included 12 certified teachers whose ages were recorded as 18–22 on their initial certificate, which is likely incorrect.
2. The study team could not compute a response rate for respondents who had previously taught in a public school and those who had never taught in a public school because the data for identifying employment status prior to 2013/14 were not available.
3. Because the employment data ended in 2017/18 and the survey was administered in 2019/20, some teachers who received the survey might have been employed in a public school. Thus, the study team screened for employment in a public school at the beginning of the survey.

Findings

This section presents the main findings. More detailed findings are in appendix C.

About 61,000 teachers certified in Michigan were not teaching in the state's public schools in 2017/18, and most had not taught in a Michigan public school since 2013/14

Of the 61,252 teachers certified in Michigan who were not teaching in a Michigan public school in 2017/18,² 70 percent had not taught recently in a public school. About 76 percent of the certified teachers who were not teaching were women, 72 percent were age 35 or older, and 57 percent were certified to teach elementary grades. About 11 percent were members of a racial/ethnic minority group (see table C1 in appendix C for a breakdown by teaching status).³ Most of the nonteaching certified teachers (93 percent) were younger than retirement age (that is, they were age 60 or younger).⁴ The remaining 7 percent who were older than age 60 were included among the 61,252 because they had recent certification activity, such as renewing their certificate or adding endorsements.

2. The number of nonteaching certified teachers is based on the most current certification records. Teachers' place of residence during 2017/18 is unknown. Results from a nonrepresentative survey of these teachers indicate that 16 percent of the 61,252 could be living 20 or more miles outside of Michigan.
3. The study team grouped teachers who were American Indian/Alaskan Native, Asian, Black, Hawaiian Native and other Pacific Islander, multiracial, and of Hispanic ethnicity into a single category, labeled "members of a racial/ethnic minority group." This grouping is aligned with the Michigan Department of Education's current practice.
4. Most public school employees in Michigan with at least 10 years of service qualify for a pension at age 60 (Michigan Office of Retirement Services, 2020).

Compared with teachers who were teaching in a Michigan public school in 2017/18, certified teachers who had not taught since 2013/14 were younger, and a larger percentage of those who had taught at some point since 2013/14 but were not teaching in 2017/18 were from a racial/ethnic minority group

Certified teachers who were not teaching in 2017/18 differed from their peers who were teaching in that year on some characteristics. Certified teachers who had not taught since 2013/14 were more likely to be younger than 35 (31 percent of them) than those who were teaching in 2017/18 (20 percent; table 1). Those who had taught since 2013/14 but not in 2017/18 were more likely to be from a racial/ethnic minority group (14 percent) than those who were teaching in 2017/18 (9 percent). Certified teachers who had taught since 2013/14 but not in 2017/18 and those who had not taught during this timeframe were more likely to have an expired teaching certificate (44 percent and 49 percent, respectively) than teachers who were teaching in 2017/18 (6 percent). There was little variation in gender or grade band of certification across teacher groups. Differences across teacher groups remained after other characteristics were controlled for (see table C2 in appendix C for the associations between teacher characteristics and teaching experience).

Table 1. Characteristics of teachers who were teaching in 2017/18 compared with characteristics of teachers who had not taught at all between 2013/14 and 2017/18 and teachers who were not teaching in 2017/18 but had taught at some point since 2013/14

Characteristic	Teaching in 2017/18 (n = 80,558)	Not teaching in 2017/18	
		Had taught at some point since 2013/14 (n = 18,367)	Had not taught since 2013/14 (n = 42,885)
Gender			
Female	75.8	75.2	76.1
Male	24.2	24.8	23.9
From a racial/ethnic minority group			
Yes	8.5	13.6 ^a	9.6
No	91.5	86.4 ^a	90.3
Age			
Younger than age 35	20.4	23.1	30.7 ^a
Age 35 and older	79.6	76.9	69.3 ^a
Certificate status			
Valid	94.3	55.8 ^a	51.5 ^a
Expired	5.7	44.2 ^a	48.5 ^a
Certification grade band			
Elementary	58.0	55.4	57.1
Secondary	40.9	43.4	42.2
Missing data	1.1	1.2	0.7

Note: N = 141,810 certified teachers in Michigan. Percentages are the unweighted proportion of teachers with a given characteristic within each group.

a. At least a 5 percentage point difference compared with certified teachers who were teaching in 2017/18.

Source: Authors' calculations based on certification data from the Michigan Department of Education.

Survey respondents most frequently selected wanting a higher salary and pursuing career opportunities outside of teaching as one of the three most important reasons why they were not teaching

About 33 percent of survey respondents selected wanting a higher salary as one of the three most important reasons why they were not teaching.⁵ In addition, 22 percent of respondents indicated that they were not teaching because they had attained a position as an administrator or instructional leader, such as a principal or an instructional coach (figure 1).⁶ Other reasons that were frequently selected as one the three most important reasons for not teaching included wanting more career growth opportunities (selected by 16 percent of respondents) and taking courses to improve career opportunities within education (11 percent). About 10 percent selected the inability to obtain a full-time teaching position as one of the three most important reasons why they were not teaching (see table C3 in appendix C for a detailed breakdown).

Across teachers with different characteristics, wanting a higher salary was most frequently selected as one of the three most important reasons for not teaching, ranging from 29 percent to 40 percent of respondents (figure 2). This was the case regardless of teaching status, racial/ethnic minority group status, the presence of a child age 5 or younger at home, employment in a school or district in a nonteaching capacity, and certification grade span. Respondents who had never taught in a Michigan public school were the only exception: a greater percentage of these respondents (53 percent) than of other respondents selected not being able to obtain a full-time position as one of their three most important reasons why they were not teaching (see table C4 in appendix C for a detailed breakdown).

Figure 1. Survey respondents most frequently selected wanting a higher salary as one of the three most important reasons why they were not teaching, 2019/20

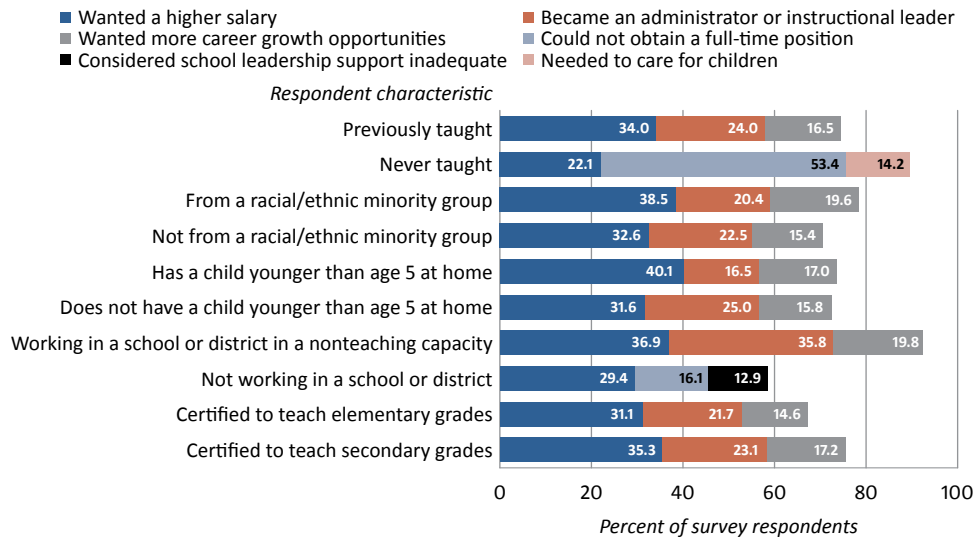


Note: Of the 9,842 nonteaching certified teachers in the analytic sample of survey respondents, 5,294 selected at least one most important reason. Percentages indicate the proportion of nonteaching teachers who selected the reason as one of the three most important reasons for not teaching. Percentages are not weighted and might not represent the reasons among all Michigan certified teachers who are not teaching. The categories are not mutually exclusive.

Source: Authors' calculations based on the Michigan Department of Education's survey of teachers who are not teaching, administered between December 2019 and January 2020 (see appendix B for the survey instrument).

- The descriptive findings based on the survey data have not been weighted and are not representative of Michigan's nonteaching certified teachers (see appendix A for additional information). Therefore, findings should be interpreted with caution.
- Michigan school staffing data indicate that 3.9 percent of nonteaching teachers hold administrative positions in public schools.

Figure 2. Wanting a higher salary was one of the three most important reasons for not teaching across all survey respondent characteristics except certified teachers who had never taught in a Michigan public school, 2019/20



Note: Of the 9,842 nonteaching certified teachers in the analytic sample of survey respondents, 5,294 selected at least one most important reason. Percentages indicate the proportion of nonteaching teachers who selected each reason as one of the three main reason for not teaching. Percentages are not weighted and might not represent the reasons among all Michigan certified teachers who are not teaching. The categories of reasons are not mutually exclusive.

Source: Authors' calculations based on the Michigan Department of Education's survey of teachers who are not teaching, administered between December 2019 and January 2020 (see appendix B for the survey instrument).

After other factors were adjusted for, survey respondents' three most important reasons for not teaching differed by their characteristics

Survey respondents' three most important reasons for not teaching varied by their demographic, employment, and certification characteristics (table 2; see table C5 in appendix C for a detailed breakdown).

After other factors were adjusted for, respondents who previously taught were more likely to indicate that they were not teaching because they wanted more career opportunities, compared with respondents who never taught. Respondents who had taught in a public school after obtaining their certificate were more likely than those who had never taught to select career-related reasons, such as becoming a school administrator or instructional leader or wanting more career growth opportunities, as one of the three most important reasons why they were not teaching. Respondents with teaching experience also were more likely to select wanting a higher salary as one of the three most important reasons why they were not teaching. In contrast, respondents who had never taught were more likely than those who had previously taught to indicate that they were not teaching because they were unable to obtain a full-time position.

After other factors were adjusted for, respondents from a racial/ethnic minority group were more likely than those not from a racial/ethnic minority group to indicate that they were not teaching because they wanted financial growth opportunities or because they wanted to take courses to improve career opportunities within education. Respondents from a racial/ethnic minority group were more likely than those not from a racial/ethnic minority group to select wanting a higher salary or wanting to take courses to improve career opportunities within education as one of the three most important reasons why they were not teaching. Respondents who were not from a racial/ethnic minority group were more likely than those from a racial/ethnic minority group to indicate that they were not teaching because they needed to care for their children.

Table 2. Characteristics of survey respondents that were associated with their three most important reasons for not teaching, 2019/20

Characteristic	Number of respondents ^a	Reasons with statistically significant differences within characteristic groups
Previously taught		
Yes	4,886	Became an administrator or instructional leader*** Wanted more career growth opportunities** Wanted a higher salary***
No	408	Could not find a full-time position***
From a racial/ethnic minority group		
Yes	504	Took courses to improve career opportunities within education** Wanted a higher salary*
No	4,786	Needed to care for children*
Has a child age 5 or younger at home		
Yes	1,097	Needed to care for children*** Wanted a more flexible schedule*** Took courses to improve career opportunities within education*
No	3,502	Could not obtain a full-time position*
Working in a school or district in a nonteaching capacity		
Yes	2,804	Became an administrator or instructional leader*** Took courses to improve career opportunities within education*** Wanted more career growth opportunities*** Wanted a higher salary***
No	2,420	Could not obtain a full-time position*** Considered school leadership support inadequate*** Needed to care for children*** Wanted a more flexible schedule*** Had difficulty managing classroom or discipline*
Certification grade band		
Elementary grades	2,792	Needed to care for children***
Secondary grades	2,502	Considered school leadership support inadequate*

* Difference between groups was significant at $p < .05$; ** significant at $p < .01$; *** significant at $p < .001$.

Note: Of the 9,842 nonteaching teachers in the analytic sample of survey respondents, 5,294 selected at least one most important reason for not teaching. Control variables in logistic regressions included respondents' gender, age, household income, first year in which they were certified to teach, and whether they attempted to become recertified before 2000.

a. The number of respondents in each characteristic group is the number of respondents who provided information on that characteristic. Because of nonresponses for certain characteristics, the sample size for each characteristic may not sum to 5,294.

Source: Authors' calculations based on logistic regression models using the Michigan Department of Education's survey of teachers who are not teaching, administered between December 2019 and January 2020 (see appendix B for the survey instrument).

After other factors were adjusted for, respondents with a young child at home were more likely than those without a young child at home to select childcare-related reasons as one of the three most important reasons why they were not teaching. Respondents with a child age 5 or younger at home were more likely than those without a young child to indicate that they were not teaching because of parenting responsibilities, because they needed a more flexible schedule, or because they were taking courses to improve career opportunities in education. Respondents without a child age 5 or younger at home were more likely than those with a young child to indicate that they could not find a full-time position.

After other factors were adjusted for, respondents who were working in a school or district in a nonteaching capacity were more likely than those who were not to select career-related reasons as one of the three most important reasons why they were not teaching. Respondents who were working in a school or district in a nonteaching capacity (for example, as an administrator or instructional leader) were more likely than those who were not to indicate that they had career-related reasons for not teaching. These respondents also more frequently selected wanting a higher salary as one of the three most important reasons why they were not teaching. Respondents who were not working in a nonteaching capacity in a school or district were more likely than those who were to

select childcare responsibilities, lack of available positions (full-time and with a flexible schedule), and inadequate classroom and leadership support as one of the three most important reasons why they were not teaching.

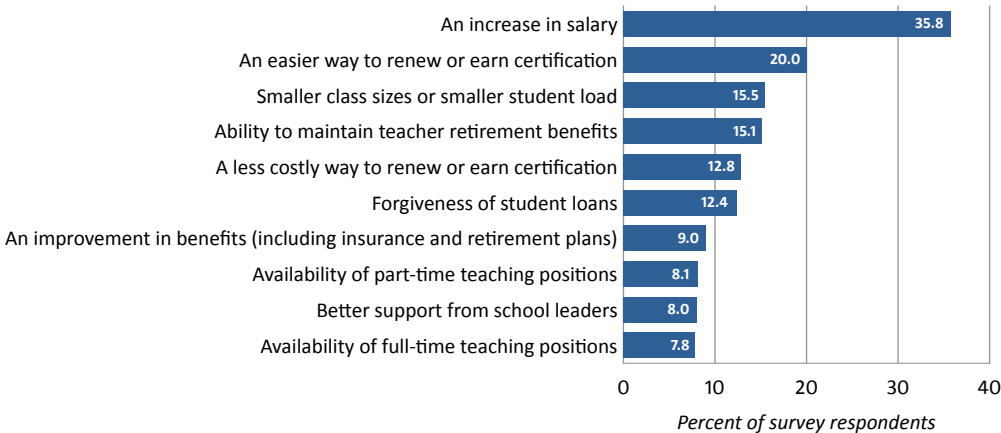
After other factors were adjusted for, respondents who were certified to teach elementary grades were more likely than those who were certified to teach secondary grades to select needing to care for their children as one of the three most important reasons why they were not teaching. In contrast, respondents certified to teach secondary grades were more likely than those certified to teach elementary grades to select inadequate school leadership support as one of the three most important reasons why they were not teaching.

Survey respondents most frequently selected a higher salary and an easier way to renew or earn certification as one of the three most important incentives that would motivate them to teach in a Michigan public school

More certified teachers who were not teaching in 2017/18 indicated that a higher salary was one of their three most important incentives for taking a teacher position in a public school (36 percent of respondents) than any other incentive, followed by an easier way to renew certification or become recertified (20 percent) and smaller class sizes or student load (16 percent; figure 3). Survey respondents also indicated that they would consider teaching in a public school if they could retain teacher retirement benefits (15 percent of respondents),⁷ if the process to renew or become recertified was less costly (13 percent), or if they could have their student loans forgiven (12 percent). Other incentives selected included improved benefits, availability of part-time or full-time teaching positions, and better support from school leaders (see table C6 in appendix C for a detailed breakdown).

Regardless of the characteristics of teachers who responded to the survey, they most frequently selected higher salary as one of their three most important incentives (figure 4). That included respondents who had previously taught and those who had never taught, respondents from a racial/ethnic minority group and those not from a

Figure 3. Survey respondents most frequently selected a higher salary as one of the three most important incentives that would motivate them to teach in a Michigan public school, 2019/20

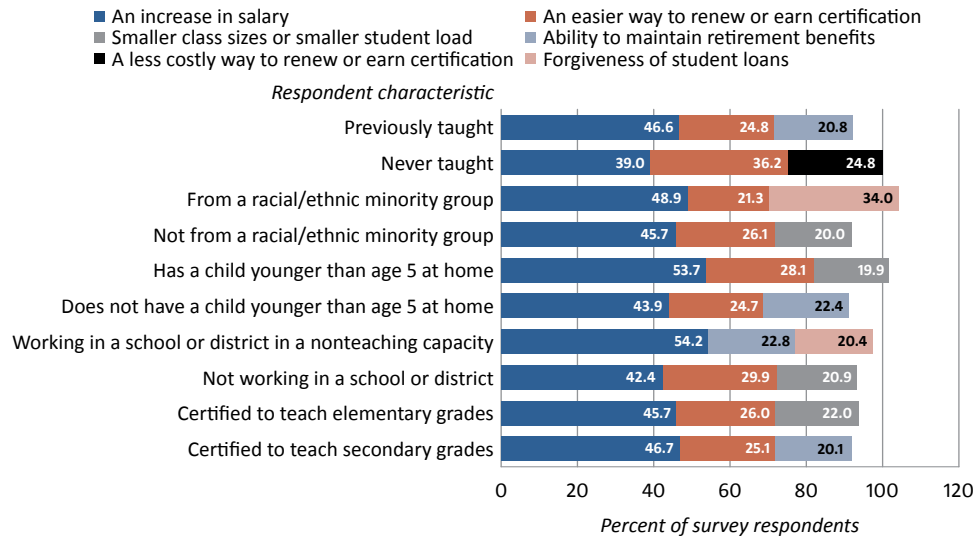


Note: Of the 9,842 nonteaching certified teachers in the analytic sample of survey respondents, 7,563 respondents selected at least one most important incentive. Percentages indicate the proportion of nonteaching certified teachers who selected the incentive as one of the three most important incentives that would motivate them to teach in a Michigan public school. Percentages are not weighted and might not represent the most important incentives among all Michigan certified teachers who are not teaching. The categories are not mutually exclusive.

Source: Authors’ calculations based on the Michigan Department of Education’s survey of teachers who are not teaching, administered between December 2019 and January 2020 (see appendix B for the survey instrument).

7. In Michigan, teachers who are receiving retirement benefits cannot teach full time without losing some benefits, with certain exceptions (The Public School Employees Retirement Act of 1979, 1980).

Figure 4. Across all respondent characteristics, an increase in salary was one of the three most important incentives that would motivate survey respondents to teach in a Michigan public school, 2019/20



Note: Of the 9,842 certified teachers in the analytic sample of survey respondents who were not teaching in 2017/18, 7,563 selected at least one most important incentive. Percentages indicate the proportion of nonteaching certified teachers who selected the incentive as one of the three most important incentives that would motivate them to teach in a Michigan public school. Percentages are not weighted and might not represent the most important incentives among all Michigan certified teachers who are not teaching. The categories of incentives are not mutually exclusive.

Source: Authors' calculations based on the Michigan Department of Education's survey of teachers who are not teaching, administered between December 2019 and January 2020 (see appendix B for the survey instrument).

minority group, respondents with a child age 5 or younger at home and those without young children, respondents working in a school or district in a nonteaching capacity and those not working in a school or district, and those certified to teach elementary grades and those certified to teach secondary grades. Between 39 percent and 54 percent of survey respondents with these characteristics selected a higher salary as one of the three most important incentives that would motivate them to take a teaching position in a Michigan public school (see table C7 in appendix C for a detailed breakdown).

After other factors were adjusted for, the three most important incentives that would motivate survey respondents to teach differed by respondent characteristics

Survey respondents' selection of their three most important incentives varied based on their demographic, employment, and certification characteristics. Statistically significant differences among the groups of respondents are described in the following sections (table 3; see table C8 in appendix C for detailed breakdown).

After other factors were adjusted for, respondents with teaching experience were more likely than those who had never taught to select financial incentives as one of the three most important incentives that would motivate them to teach. Respondents who had previously taught in a public school in Michigan were more likely than those who had never taught to select financial incentives as one of the three most important incentives, including retaining retirement benefits, improving other benefits (such as insurance and retirement plans), and raising salaries. In contrast, respondents who had never taught were more likely than those who had previously taught to select incentives related to certification and job availability, including a less costly or easier way to renew certification (or earn certification if their certificate had expired) and the availability of full-time teaching positions.

After other factors were adjusted for, respondents from a racial/ethnic minority group were more likely than those not from a racial/ethnic minority group to select forgiveness of student loans as one of the three most important incentives. Forgiveness of student loans was among the three most important incentives for respondents from a

racial/ethnic minority group but was selected less frequently by respondents who were not from a racial/ethnic minority group. Respondents not from a racial/ethnic minority group were more likely than those from a racial/ethnic minority group to select improvements in benefits, such as insurance and retirement plans, a less costly way to renew or earn certification, and the availability of part-time positions.

Table 3. Survey respondents’ characteristics associated with incentives that would motivate them to teach in a Michigan public school, 2019/20

Characteristic group	Number of respondents ^a	Incentives with statistically significant differences within characteristic groups
Previously taught		
Yes	7,053	Ability to maintain teacher retirement benefits*** An improvement in benefits (including insurance and retirement plans)** Better support from school leaders** An increase in salary***
No	600	Availability of full-time teaching positions*** A less costly way to renew or earn certification*** An easier way to renew or earn certification***
From a racial/ethnic minority group		
Yes	709	Forgiveness of student loans***
No	6,939	An improvement in benefits (including insurance and retirement plans)* Availability of part-time teaching positions* A less costly way to renew or earn certification*
Has a child age 5 or younger at home		
Yes	1,791	Availability of part-time teaching positions* An increase in salary**
No	5,125	Availability of full-time teaching positions*** Ability to maintain teacher retirement benefits**
Working in nonteaching capacity in a school or district		
Yes	2,361	Forgiveness of student loans*** An increase in salary*** An improvement in benefits (including insurance and retirement plans)***
No	5,292	An easier way to renew or earn certification*** Availability of part-time teaching positions*** Better support from school leaders*** Availability of full-time teaching positions*** A less costly way to renew or earn certification**
Certification grade band		
Elementary grades	4,188	Smaller class sizes or smaller student load*
Secondary grades	3,369	na

* Difference between groups was significant at $p < .05$; ** significant at $p < .01$; *** significant at $p < .001$.

na is not applicable.

Note: Of the 9,842 nonteaching certified teachers in the analytic sample of survey respondents, 7,653 selected at least one most important incentive. Control variables in logistic regressions included respondents’ gender, age, household income, the first year in which they were certified to teach, and whether they attempted to become recertified before 2000.

a. The number of respondents in each characteristic group is the number of respondents who provided information on that characteristic. Because of nonresponse for certain characteristics, the sample size for each characteristic may not sum to 7,653.

Source: Authors’ calculations based on the Michigan Department of Education’s survey of teachers who are not teaching, administered between December 2019 and January 2020 (see appendix B for the survey instrument).

After other factors were adjusted for, respondents with a young child were more likely than those without a young child to select part-time positions and higher salaries as one of their three most important incentives. Respondents with a child age 5 or younger at home were more likely than those without a young child to select the availability of part-time teaching positions and higher salaries as one of their three most important incentives. Respondents without a young child were more likely than those to select the availability of full-time teaching positions and the ability to retain teacher retirement benefits as one of their three most important incentives.

After other factors were adjusted for, respondents working in a school or district in a nonteaching capacity were more likely than those not working in such a capacity to select financial incentives as one of their three most important. Financial incentives, including forgiveness of student loans, a higher salary, and better benefits, were more likely to be selected as one of the three most important incentives by respondents working in a nonteaching capacity in a school or district than by respondents who were not working in such a capacity. Respondents who were not working in a nonteaching capacity in a school or district were more likely to select the availability of full-time and part-time positions as one of their three most important incentives. They also were more likely to select better support from school leaders, a less costly and easier way to renew or earn certification, and smaller class sizes or student load.

After other factors were adjusted for, respondents certified in elementary grades were more likely than those certified in secondary grades to select incentives related to classroom conditions as one of their three most important. Respondents certified in elementary grades were more likely to select smaller class sizes or student load as one of the three most important incentives that would motivate them to teach.

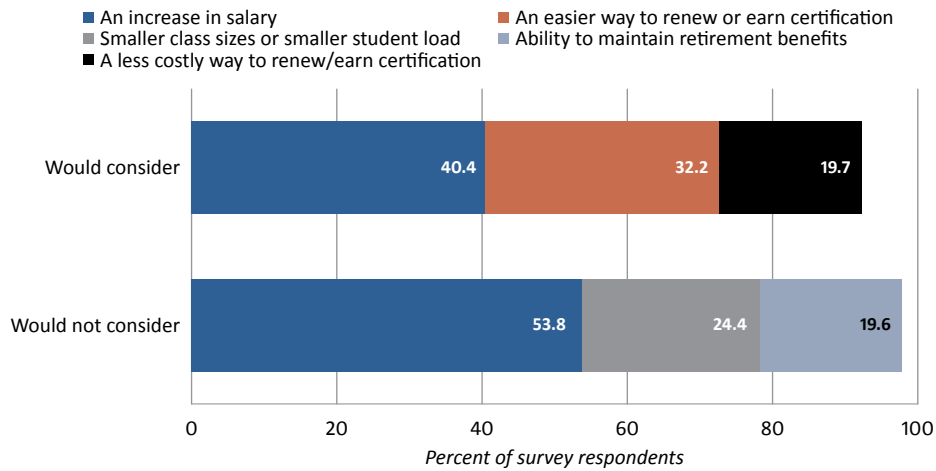
A majority of survey respondents indicated that they would consider becoming a public school teacher; regardless of their openness to teaching, respondents most frequently selected an increase in salary as one of the three most important incentives to teach in a public school

About 58 percent of survey respondents indicated that they would consider taking a preK–12 teaching position in a public school in Michigan.⁸ An increase in salary was the most frequently selected incentive for teaching in a public school, both for respondents who indicated that they would consider teaching in a Michigan public school (40 percent) and for those who indicated that they would not consider it (54 percent; figure 5; see table C7 in appendix C for a detailed breakdown).

The two groups of respondents differed significantly in the percentages who selected some incentives as one of their three most important. Respondents who said that they would consider teaching were more likely to select an easier and less costly way to renew certification and the availability of full- and part-time teaching positions as one of their three most important incentives (table 4). Respondents who said that they would not consider teaching gravitated more toward financial incentives, including an increase in salary, improvement in benefits, and forgiveness of student loans. These respondents also more frequently selected smaller class sizes or student load and better support from school leaders as one of their three most important incentives (see table C8 in appendix C for a detailed breakdown).

8. For respondents who are not currently employed in schools, 53 percent indicated that they would consider becoming a public school teacher. The incentives chosen as most important for this group are similar to those in the overall sample.

Figure 5. Survey respondents who said that they would consider teaching in a Michigan public school most frequently selected an increase in salary as one of the three most important incentives that would motivate them to teach, 2019/20



Note: Of the 9,842 nonteaching certified teachers in the analytic sample of survey respondents, 7,615 indicated whether they would consider teaching students in grades preK–12 in a Michigan public school. Percentages indicate the proportion of nonteaching certified teachers who selected the incentive as one of the three most important incentives that would motivate them to teach in a Michigan public school. Percentages were not weighted and may not represent the most important incentives among all Michigan certified teachers who are not teaching. The categories of incentives are not mutually exclusive.

Source: Authors’ calculations based on the Michigan Department of Education’s survey of teachers who are not teaching, administered between December 2019 and January 2020 (see appendix B for the survey instrument).

Table 4. Associations between respondents’ three most important incentives that would motivate them to teach and whether would consider teaching in a Michigan public school, 2019/20

Characteristic	Number of respondents	Incentives with statistically significant representation
Would consider teaching preK–12 in Michigan	4,391	Availability of full-time teaching positions***
		An easier way to renew or earn certification***
		A less costly way to renew or earn certification***
		Availability of part-time teaching positions**
Would not consider teaching preK–12 in Michigan	3,224	An increase in salary***
		Smaller class sizes or smaller student load***
		Better support from school leaders**
		An improvement in benefits (including insurance and retirement plans)**
		Forgiveness of student loans**

* Difference between groups was significant at $p < .05$; ** $p < .01$; *** $p < .001$.

Note: Of the 9,842 nonteaching certified teachers in the analytic sample of survey respondents, 7,615 indicated whether they would consider teaching students in grades preK–12 in a Michigan public school. Control variables in logistic regressions included respondents’ gender, age, household income, the first year in which they became certified to teach, and whether they attempted to become recertified before 2000.

Source: Authors’ calculations based on the Michigan Department of Education’s survey of teachers who are not teaching, administered between December 2019 and January 2020 (see appendix B for the survey instrument).

Limitations

The study has several limitations related to the use of administrative data. The study team did not have access to employment data collected before 2013/14 or after 2017/18. As a result, the study could not distinguish between teachers who had taught before 2013/14 and those who had not. The study team referred to the group of teachers with no employment records since 2013/14 as teachers who had not taught since 2013/14, although it included teachers who might have taught before 2013/14 and those who had never taught after receiving their initial certificate. In addition, teachers who started teaching, left teaching, or returned to teaching after 2017/18 could not be identified. Another limitation is that the Michigan Department of Education considered teachers' address information to be too unreliable for use in examining regional or local patterns.

The survey data also present limitations. The survey respondents are not representative of all certified nonteaching teachers in Michigan, so the results should be interpreted with caution. In addition, certified teachers in Michigan can hold endorsements to teach multiple subjects, thus making it impossible to link survey responses (or administrative records) from nonteaching teachers to subject areas with teacher shortages. For this reason districts and schools cannot use the survey responses to target incentives to teachers with endorsements in areas for which demand is highest. Furthermore, survey data include responses from individuals who might be less likely than most to return to teaching, such as school administrators, and whose responses therefore might be less useful than others'. Survey responses are self-reported, and thus the data might be subject to both recall and desirability biases. Also, the survey was administered before the COVID-19 pandemic, and teachers' perceptions of desirable incentives for teaching in public schools might have shifted since then.

Finally, this study provides state-level insights on Michigan's certified teachers who are not teaching. Certified teachers' reasons for not teaching, their perceptions of incentives, and their interest in teaching at the state level might not be consistent with the realities experienced by teachers at a more local level.

Implications

The study findings have several implications for recruiting certified teachers to teach in Michigan's public schools.

Consider focusing teacher recruitment efforts on the approximately 50,000 certified teachers in Michigan who are not teaching and who are not in administrative or instructional leadership positions

This study estimated that Michigan had 61,252 certified teachers who were not teaching in a state public school in 2017/18 and that about 50,000 of them could be interested in becoming teachers. Recruiting certified teachers who are not teaching to fill public school teacher vacancies could be an effective strategy for alleviating teacher shortages in Michigan. Most of the 61,252 certified teachers who were not teaching in 2017/18 were younger than retirement age. According to the survey, approximately 22 percent of certified teachers who were not teaching in 2017/18 left the profession to become an administrator or instructional leader, such as a principal or coach. These individuals might best serve Michigan students by remaining in those roles and, in any case, might not be interested in becoming teachers. By excluding them from consideration, the Michigan Department of Education could focus its recruitment efforts on about 50,000 nonteaching certified teachers who might be better prospects for becoming a public school teacher in Michigan.

Consider financial incentives, including higher salaries, to recruit teachers

Schools and school districts might consider increasing teacher salaries to attract certified teachers to fill vacant positions. For most groups of nonteaching teachers, salary was most frequently selected as one of the three most important reasons why they were not teaching and as one of the three most important incentives that

would motivate them to become a public school teacher. In responses to open-ended survey questions, certified teachers who were not teaching indicated that teacher salaries were too low to support the middle-class lifestyle enjoyed by their college-educated contemporaries employed in other fields. A salary increase of nearly 30 percent would be needed to bring the pay levels of public school teachers in Michigan to parity with those of residents with similar education who work in other fields (Allegretto & Mishel, 2018). So large an increase might not be feasible for school districts and public school academies in Michigan without changes in school funding by the state legislature. Survey findings suggest that nonteaching teachers also might find student loan forgiveness, right to retain retirement benefits, and improvements in other types of benefits as persuasive incentives for becoming a public school teacher in Michigan.

Consider improving communication about changes in certification requirements

Publicizing recent changes in certification requirements more widely than Michigan has done already might influence certified teachers' decision to teach in a public school in Michigan. Many survey respondents selected easier and less costly certification and certificate renewal as one of the three most important incentives that would motivate them to teach in a Michigan public school. These respondents might be unaware of the changes that Michigan initiated in 2017 to make earning and renewing certificates easier and less costly (Michigan Department of Education, 2017b). Administrators at the Michigan Department of Education and in Michigan public schools and school districts might attract nonteaching certified teachers by communicating these changes through email or direct mail or by prominently displaying the changes on agency websites. The communication might be especially persuasive to certified teachers who have never taught, those not employed in a school or district in a nonteaching capacity, and those who indicated that they would consider teaching in a Michigan public school.

Consider improving visibility for available teaching positions

Publicizing open teaching positions throughout the state might encourage certified teachers to teach in public schools. Survey respondents frequently selected not being able to obtain a full-time teaching position as one of the three most important reasons why they were not teaching. The availability of full-time and part-time teaching positions was also frequently selected as one of the three most important incentives that would motivate respondents to teach. The impression that teaching positions are scarce in Michigan might be strongest among certified teachers who tried to find a teaching job before 2004, when the supply of newly certified teachers in Michigan was at its peak and teaching jobs were harder to find (McKee, 2011; Shawgo, 2010; Stackhouse, 2017). That impression could be reinforced by differences in the need for teachers at the state and local levels.

Developing a centralized state job bank could make it easier for certified teachers to locate teaching positions in their region, instead of having to check job postings on the websites of individual schools or districts. Districts could expand the reach of their recruitment efforts by posting to popular job search engines, such as CareerBuilder, Indeed.com, LinkedIn, and ZipRecruiter.⁹ These measures could also help districts and schools that need to recruit certified teachers from other areas of the state. Survey responses suggest that improving communication about available positions across the state could be an effective strategy for reaching certified teachers who have never taught, are not working in a nonteaching capacity in a school or district, do not have young children at home, or have indicated that they would consider teaching in a public school in Michigan. Districts and schools might also want to offer relocation assistance as an incentive.

9. Websites are included as examples and should not be viewed as endorsed by either the Institute of Education Sciences or the contracting organizations that operate the Regional Educational Laboratories.

Consider providing flexible employment options and childcare support to attract teachers with young children

Providing flexible employment options and childcare subsidies could encourage certified teachers who have young children to apply for teaching positions. A quarter of survey respondents reported having a child age 5 or younger at home, and these respondents frequently selected having parental responsibilities and wanting a flexible schedule as one of the three most important reasons why they were not teaching and selected availability of part-time positions as one of the three most important incentives that would motivate them to teach. Allowing part-time employment or job-sharing options could help fill teaching positions with qualified teachers when full-time teachers are unavailable. Childcare subsidies could also be attractive to certified teachers with young children by addressing both their childcare and their financial needs. The average annual cost of childcare for an infant in Michigan is \$10,861 (Economic Policy Institute, 2019), and the salary of an average new teacher is \$39,840 (National Center for Education Statistics, 2019). Childcare support could thus provide substantial financial relief to teachers with young children, many of whom are likely new teachers.

Consider strengthening classroom support and leadership support

Offering more classroom support and school leadership support to certified teachers—and communicating that support during recruitment—might alleviate concerns about teaching in public schools. For example, school leaders could provide mentors to assist teachers with classroom management and enlist instructional coaches to work with teachers who struggle with classroom management. Likewise, survey results suggest that restricting class sizes or student load also could attract more applicants for teaching positions.

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