

Additional Certification for Teachers in New York State: Teachers' Experience and Employment Location, Certification Pathways, and Certification Areas

New York State is experiencing teacher shortages in specific subject areas. One way to address these shortages is for certified teachers to earn additional certificates qualifying them to fill positions in shortage areas. This study explored patterns in how experienced teachers (those with at least one year of teaching experience in New York State public schools) in 2015/16 earned additional certificates between October 2015 and October 2017. These patterns included which teachers earned additional certificates, their certification pathways, and their additional certification areas. The study found that about 5 percent of teachers in New York State in 2015/16 earned additional certificates during the two-year period. A larger proportion of teachers who earned additional certificates during that period were employed in New York City district schools and charter schools than in other types of districts or schools. Teachers who earned additional certificates were less experienced than those who did not earn additional certificates. More teachers earned additional certificates in shortage areas than in nonshortage areas, except for administration, a nonteaching certification area. Special education was the most common shortage certification area in which experienced teachers earned additional certificates. More than half of teachers who earned additional certificates did so through the traditional in-state certification pathway whereas about a third did so through the individual evaluation pathway.

Why this study?

New York State has faced geographically widespread and persistent teacher shortages in several subject areas. Those subject areas include bilingual education, bilingual special education, career and technical education, English language arts, health education, library media specialist, literacy, mathematics, science, and special education.¹ This study defined these as widespread and persistent shortage areas because they occurred in at least two of the state's three broad geographic reporting locales—New York City Public Schools; the Big Four (Buffalo Public Schools, Rochester City School District, Syracuse City School District, and Yonkers Public Schools); and the rest of the state—in 2015/17, 2016/17, and 2017/18.²

There are several ways to address these shortages, including the certification of new teachers and the additional certification of existing teachers. These approaches are addressed in two companion reports that the Regional Educational Laboratory Northeast & Islands has prepared in collaboration with the New York State Education Department (NYSED). This report covers experienced teachers (those with at least one year of teaching experience in New York State public schools) who pursued additional certificates, and the companion report covers new teachers (those with less than one year of teaching experience in New York State).

¹ U.S. Department of Education. (n.d.). *Teacher shortage areas*. Retrieved October 14, 2020, from <https://tsa.ed.gov/#/reports>.

² The New York State shortage areas that are reported to the U.S. Department of Education for a given school year are typically based on data from two school years earlier. For example, the 2017/18 shortage areas are based on 2015/2016 data. The shortage areas referenced in this study were reported as 2017/18, 2018/19, and 2019/20 shortage areas on the U.S. Department of Education website and represent shortages that occurred in the 2015/16, 2016/17, and 2017/18 school years.

In New York State, certified teachers can earn additional certificates. Although having teachers earn additional certificates does not expand the supply of teachers overall, it increases the supply in particular subjects, provides schools and districts with more teachers ready to teach in areas where there are vacancies, and enhances teachers' skills. NYSED wants to better understand teachers who earn additional certificates (called "additional certificate holders" in the report), including their prior experience, their employment location, and the certification pathways through which they most frequently earn certificates. NYSED would also like to understand the extent to which those teachers earn certificates in shortage subject areas.

The study team examined which teachers pursued additional certificates, through which pathways, and in which certification areas, with a focus on whether they earned certificates related to shortage subject areas. The study examined teachers who had at least one year of teaching experience in New York State in 2015/16 and earned at least one additional certificate by October 2017.

What was studied and how?

The study team used data from NYSED to address the following questions about experienced public school teachers in New York State in 2015/16:

1. What proportion earned additional certificates between October 2015 and October 2017, and what were the characteristics of these teachers (years of experience and baseline certification areas) and the need designations of the districts in which they were employed?
2. Through which certification pathways did they earn additional certificates?
3. In which certification areas did they earn additional certificates?
 - a. By certification area, which certification pathways did they use?

This study used data from the NYSED's TEACH system, which is the platform through which individuals apply for certification and that maintains data on all certificate holders, and Basic Education Data System Personnel Master File, which contains employment records. The sample consisted of 199,853 unique experienced teachers. The teacher role as defined by NYSED included prekindergarten–grade 12 classroom teachers, educational technology specialists, library media specialists, and literacy specialists. Individuals with more than one role were considered a teacher if they had at least one teaching role. The study team conducted descriptive analyses to examine baseline certification areas (certificates earned prior to 2015/16), region and district of employment in 2015/16, additional certificate holders' certification pathways, and additional certificates earned between October 2015 and October 2017. The study team considered differences of more than 5 years or 5 percentage points across study groups (for example, across certification pathways) as substantive.

Findings

Additional certificate holders had fewer years of teaching experience on average than teachers who did not earn additional certificates

About 5 percent of experienced teachers earned additional certificates between October 2015 and October 2017. Additional certificate holders had an average of 7 years of teaching experience in New York State compared with an average of 15 years for teachers who did not earn additional certificates, a substantive difference. Additional certificate holders did not differ from teachers who did not earn additional certificates in the average number of baseline certificates they held (two certificates).

The proportion of experienced teachers who earned additional certificates was higher in charter schools than in other need designations

Additional certificate holders accounted for 14 percent of teachers in charter schools. In districts with other need designations, including New York City district schools and other types of high-need districts, including large city—not New York City, other urban/suburban, and rural, a substantively lower proportion of additional certificate holders earned additional certificates. But 83 percent of charter schools are in New York City. So the combined percentages of teachers earning additional certificates in charter schools (14 percent) and New York City district schools (8 percent) indicates that a much higher proportion (22 percent) of teachers in New York City than elsewhere in the state earned additional certificates.

More than half of additional certificate holders earned certificates through the traditional in-state pathway, while about a third did so through the individual evaluation pathway

Teachers can earn multiple additional certificates, either through the same certification pathway or through different pathways. A substantively higher proportion of additional certificate holders earned certificates through the traditional in-state pathway (58 percent) than through the individual evaluation pathway (34 percent) or other pathways. In the traditional pathway candidates complete a New York State-registered teacher preparation program that includes college-supervised clinical experience(s). Only New York State institutions of higher education are authorized to offer registered teacher preparation programs.

A substantively higher percentage of additional certificate holders in career and technical education (73 percent) than in other shortage areas used the individual evaluation pathway. In the individual evaluation pathway candidates apply for certification by providing transcripts or, in the case of career and technical education certificates, evidence of prior education, credentials, and/or work experience. About 61 percent of additional certificate holders in early childhood education, a nonshortage area, used the individual evaluation pathway.

More experienced teachers earned additional certificates in shortage areas than in nonshortage areas, except for administration, which is a nonteaching certification area

A higher percentage of additional certificate holders earned additional certificates in shortage areas (47 percent) than in nonshortage areas (25 percent). However, the nonshortage area of administration, which is a nonteaching certification area, was the certification area with the highest percentage of teachers earning additional certificates (36 percent). The sum of these percentages exceeds 100 because some teachers earned additional certificates in multiple certification areas. Teachers who held baseline certificates in the shortage areas of career and technical education (44 percent), special education (44 percent), and science (35 percent) most frequently earned additional certificates in the same shortage certification area.

Special education was the most common shortage certification area in which experienced teachers earned additional certificates

About 27 percent of additional certificate holders earned additional certificates in special education, a substantively higher proportion than in any other shortage certification area (fewer than 6 percent in any other area). Higher proportions of additional certificate holders in special education held baseline certificates in early childhood education (70 percent), special education (44 percent), and childhood education (39 percent) than in other areas.

Implications

A limitation of the study is that it did not investigate teachers' placement at the subject or classroom level and thus could not shed light on the extent to which additional certificate holders filled positions in the shortages in which they earned certificates. Even so, the study has three main implications for how to communicate with experienced teachers, school districts, and teacher preparation programs regarding pathways for additional certification, particularly in shortage areas. First, NYSED could explore whether additional certificate holders use their new credentials to fill shortage area vacancies. That special education remains a shortage subject area in New York State in 2021/22 despite a higher percentage of experienced teachers earning additional certificates in special education suggests that further research is needed on the subject area assignments of additional certificate holders and whether encouraging additional certificates is a viable approach to reducing shortages. Because a large percentage of teachers with baseline certificates in some shortage areas go on to receive additional certificates in the same general shortage area or another shortage area, there might be a need to explicitly target and incentivize teachers who are not baseline certified in shortage areas to earn additional certificates in shortage areas.

Second, NYSED or districts might want to consider incentives for teaching in shortage areas, including incentives that offer the kinds of advantages sought by experienced teachers who pursue administration certificates. Further research is needed to investigate why many additional certificate holders earn an additional certificate in the nonteaching certification area of administration. It is possible that teachers with certificates in administration use their administrative college credits earned as a means to increase their compensation as teachers (due to compensation being based on the number of graduate hours of study).

Third, NYSED and teacher preparation programs might want to emphasize to prospective teachers the benefit of becoming certified in shortage areas when they earn their first certificate. Earning additional certificates is a time- and resource-consuming process, so NYSED and preparation programs might want to communicate with prospective teachers about typical career trajectories for teachers and encourage them to apply for related available certificates at the time of their first certification rather than seeking additional certificates only after a few years in the classroom. One potentially useful strategy is to ensure that teacher recruitment materials provide the certification titles that align with shortage areas.

This descriptive study is based on three years of data and cannot support causal inferences about the relationships among certification pathways, certification areas, and employment location.

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