THE FIRST FRONTIER OF EQUITY

Improving Data Transparency, Availability & Usefulness in **Teacher Preparation** to Support Future Teachers… and Their Students





AUGUST
2019

The Education Trust–New York

For more data, including Equity Snapshots for individual teacher preparation programs, sectors, and regions, please visit **www.edtrustny.org/Snapshots**

The First Frontier of Equity

Improving Data Transparency, Availability & Usefulness in Teacher Preparation to Support Future Teachers… and Their Students

When Adam decided to become a teacher, he thought he would be a good role model for young Black men in the school district he himself had attended.[1]

And he saw what he thought was an opportunity to help prepare his students for successful futures in business.

What he didn't know at the time were the challenges he would face as one of the only — if not the only — Black men in his teacher preparation program. Adam remembers a professor threatening to remove him from her class after Adam suggested his White classmates were being racially insensitive. He recalls facing tougher scrutiny when seeking student-teaching placements: principals interviewed him in person, while his White classmates did not have to interview at all.

Adam also wasn't aware that he had selected a certification area that was not in high demand, including in the school district where he wanted to work. There were only so many business teaching positions, and Adam found that they didn't open up often.

It took Adam two years after completing his teacher preparation program to find a job, and even then he settled for a part-time position teaching in a GED program. It took an additional two years before he found work in his certification area.

"Most of my peers had employment lined up even before graduation," he said. "They knew someone in the education system, or they already substitute taught. Me, from my background, I didn't know anyone, I didn't have that inside connection, and I felt as though I had a limited opportunity."

As someone with a passion for social justice issues, Lisa thought teaching would be the perfect place to pursue her passion for equity.

And she found a path to achieve that goal, attending a teacher preparation program that sends many of its graduates into a large high-need school system.

Only later would Lisa discover that there were gaps in what she learned in her teacher preparation program and what she needed to know to be successful in the classroom.

Now, as a veteran teacher, Lisa reflects back on both the positive and the missed opportunities.

She believes she received a strong academic foundation in a supportive environment. At the same time, she wishes she learned more practical skills and how to apply them in a classroom setting.

"I am a White, middle-class girl who grew up in the suburbs, and I don't think the schools of education prepare students like myself to enter classrooms [that] have a high rate of [diversity], a high rate of students in poverty," Lisa said.

Ensuring access to educators who are well-prepared, supported, and diverse is essential to improving equity and achievement in New York State's public schools. In fact, research shows that access to strong teachers is the single most important in-school determinant of a student's success.[2] Teacher preparation programs play a vital role in the teacher pipeline, graduating more than 10,000 prospective new teachers in Bachelor's and Master's programs in 2015.

As a result, the state's teacher preparation institutions represent the first frontier of equity — playing a significant role in determining who becomes a teacher and offering a foundational opportunity to ensure that future teachers have the knowledge, skills, and practical experience to enter the classroom prepared to help *all* students succeed.

The Education Trust–New York's analysis of data covering tens of thousands of students completing teacher preparation programs over a four-year period spotlights important questions about how school districts and higher education institutions are communicating their needs and priorities to each other — and, perhaps most importantly, to future educators.

Throughout more than two years of interviewing classroom teachers like Adam and Lisa, profiling and engaging with educator preparation programs, and analyzing previously unpublished data, Ed Trust–NY saw a common opportunity highlighted: improving transparency at each step of the teacher preparation pipeline — and intentionally using that data to strengthen teacher preparation — can advance educational equity.

This report is intended to spotlight the importance of greater data transparency, availability, and usefulness. We hope that it advances the urgency of this issue and inspires sustained communication and action.

We also emphasize that teacher preparation programs cannot be expected to do this work alone. For example, together with teacher preparation programs, school districts should adopt more effective teacher pipeline strategies, including "grow your own" programs for future educators and staffing policies and supports for new teachers that provide the best opportunity for success. School districts should also help prepare diverse prospective teachers through paid teacher residencies, as well as housing and summer employment for students in preparation programs. And university leaders should share responsibility for teacher education as an institution-wide endeavor.

We believe that data can advance all of these conversations. Data can be a resource for prospective teachers choosing an institution or certification area; for teacher preparation programs that seek to align their programs with the needs of the state's diverse learners in public school classrooms; for school districts working to recruit and retain excellent teachers; and for state policymakers who are ultimately responsible for making sure that the students with the greatest needs have access to the strongest educators.

This report and our online Equity Snapshots for each teacher preparation program are designed to further these goals by posing five questions:

1. Is New York State preparing a diverse future educator workforce?
2. Are program completers employed in New York State public schools after graduation?
3. Do program completers remain in New York State public schools?
4. Where do program completers teach in New York State public schools?
5. How well do program participants succeed in the classroom?

While New York has several pathways to teacher certification, we have chosen to focus on entry-level educators who pursued an Initial classroom teacher certification by completing a New York State approved teacher preparation program from 2012 through 2015 (see **Teacher Certification in New York**). This group represents approximately 74% of all 2012-2015 Bachelor's and Master's program completers who earned a teaching certificate in the data Ed Trust–NY received. The findings presented in this report may differ for alternative certification programs (see **The Transitional B Certificate: An Alternative Pathway to the Classroom**).

Developing strong and diverse teaching candidates who are well-prepared to meet the challenges of the classroom is imperative for New York's future. The following conclusions from our analysis, questions for leaders, and recommendations are intended to help move this important work forward.

TEACHER CERTIFICATION IN NEW YORK

When it comes to teacher certification in New York State, there are two important and interrelated concepts: certificate types and pathways.

There are a total of 14 types of certificates for classroom teachers, the most common of which are the Initial, Transitional B, and Professional certificates.

Initial certificates are entry-level certificates that are valid for five years. The pathways to an initial certificate can vary, but they all require, at a minimum, the completion of a Bachelor's degree – most commonly at a New York State approved teacher preparation program – along with the completion of certification exams and a background check.

Transitional B certificates are also entry-level certificates, but they are only valid while a student is enrolled in an alternative New York State approved teacher preparation program. These alternative teacher programs are designed for individuals with a Bachelor's degree in a major they plan to teach, but who otherwise lack pedagogical coursework. Like the Initial certificate, Transitional B certificates require the completion of certification exams and a background check. When a student completes the alternative teaching program, they are eligible to apply for an Initial certification.

Professional certificates are advanced-level certificates that are continuously valid with the successful completion of continuing education. The pathways to a professional certificate can also vary, but they all require the completion of a Master's degree and at least three years of paid, full-time classroom teaching experience – along with the completion of certification exams and a background check.

The focus of our analysis is on entry-level educators who have completed a Bachelor's or Master's degree at a New York State approved teacher preparation program. Except where otherwise noted, the analysis includes some educators who were enrolled in alternative programs, but only those that have completed their program and were issued an Initial certification. All of the educators included in our analysis have received their pedagogical training through a New York State approved teacher preparation program.

THE TRANSITIONAL B CERTIFICATE: AN ALTERNATIVE PATHWAY TO THE CLASSROOM

While this report focuses on Bachelor's and Master's program completers with an Initial certification, we also analyzed employment rates for Transitional B (Trans B) certificate holders. In the 2016-17 school year, New York State public school classrooms employed 1,069 new teachers who received a Trans B certificate in 2015 – which is approximately one-fourth the number of entry-level teachers who received an Initial certification through the completion of a Master's-level teacher preparation program in the same year and were employed in New York state public schools.

The Trans B certificate is frequently used to fill shortage areas. For example, educators with Trans B certification in middle/secondary special education, science, math, and ESOL/bilingual represent approximately 58% of all Trans B certificate holders in 2015; by comparison, for 2015 Master's program completers with an Initial certificate, those same certification areas represent close to 30% of all certificate holders.

Overall, in-state public school employment rates for Trans B certificate holders are higher across certification areas, with 83% of Trans B certificate holders employed in New York State public schools in 2016-17 compared to 58% of program completers. These generally higher employment rates are not surprising given that Trans B certificates are linked to school placements through programs such as Teach For America and TNTP.

We also found that Trans B certificate holders were more likely to remain in the classroom across all certification areas. For 2012-2013 Trans B certificate holders who took jobs in New York State public schools, 51% remained for three consecutive years compared to 35% of 2012-2013 Master's program completers. Because Trans B certificate holders are, by nature of the pathway, employed as teachers while they are completing their program, these comparisons offer only a limited window into retention.

Nearly all Trans B certificate holders in New York State were employed in New York City during the 2016-17 school year, with 82% employed in New York City district-run schools and 16% employed in New York City charter schools.

1 Is New York State preparing a diverse future educator workforce?

KEY TAKEAWAYS:

- **In 2015-16, approximately 1 in 4 of all Bachelor's and Master's program completers were American Indian, Asian, Black, Latinx, or Multiracial. By comparison, more than half of students in New York State's public schools are students of color.**
- **While teacher preparation programs in the New York City, Long Island, and Mid-Hudson regions accounted for 74% of Master's program completers overall, they prepared 92% of Master's program completers who were American Indian, Asian, Black, Latinx, or Multiracial.**
- **More than half of American Indian, Asian, Black, Latinx, and Multiracial program completers in New York State were enrolled in just nine Bachelor's programs and seven Master's programs.**

As we described in greater detail in our 2017 report, *See Our Truth*, studies indicate that for students of color, having a teacher of color during their educational experience can have a positive impact on improving student performance in reading and math, increase the likelihood that Black students are identified as gifted, reduce suspension rates, decrease dropout rates, and improve students' hopes of attending college.[3] At the same time, it is important for *all* students to have exposure to educators of different races and ethnicities and to see people of color in positions of authority and leadership in order to prevent and eliminate prejudice.

In 2015-16 (the most recent final data available for all institutions and regardless of certification status), prospective educators of color represented 25% of Bachelor's program completers and 27% of Master's program completers in New York — compared to 55% of students in the state's K-12 public schools.

Although the importance of improving teacher diversity has started to attract much-needed attention and a number of initiatives have been launched to address the issue, educator diversity remains a statewide challenge — both in teacher preparation and beyond.[4]

Notably, Latino and Black men are especially under-represented in teacher preparation programs: with only 131 Latino men and 49 Black men completing Education Bachelor's programs in 2015-16, and 215 Latino male and 145 Black male completers for Education Master's programs in the same period.

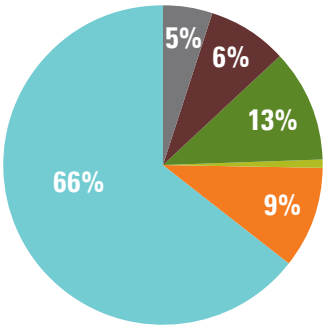
Just a few institutions prepare the majority of future teachers of color in New York State. Fifty percent of Education Bachelor's program completers of color were enrolled in nine institutions. Fifty-two percent of Education Master's program completers of color were enrolled in seven institutions.

Notably, across both Bachelor's and Master's education programs, the share of *enrolled* students of color in any year of their program in fall 2016 was greater than the share of *completers* of color in 2015-16. This divergence could reflect a greater number of students of color enrolling in later cohorts. However, consistent with statewide and national patterns for college students across degree types, it could also reflect an institution getting fewer of its students of color in education programs to persist and graduate compared to White students.

DATA SNAPSHOT:

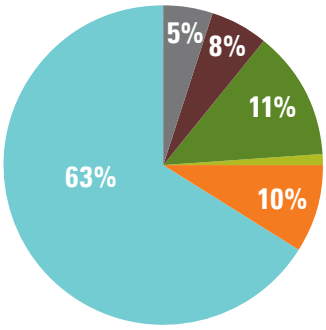
See more data for individual institutions, sectors, and regions of the state at www.edtrustny.org/Snapshots

EDUCATION BACHELOR'S DEGREE RECIPIENTS (2015-16)



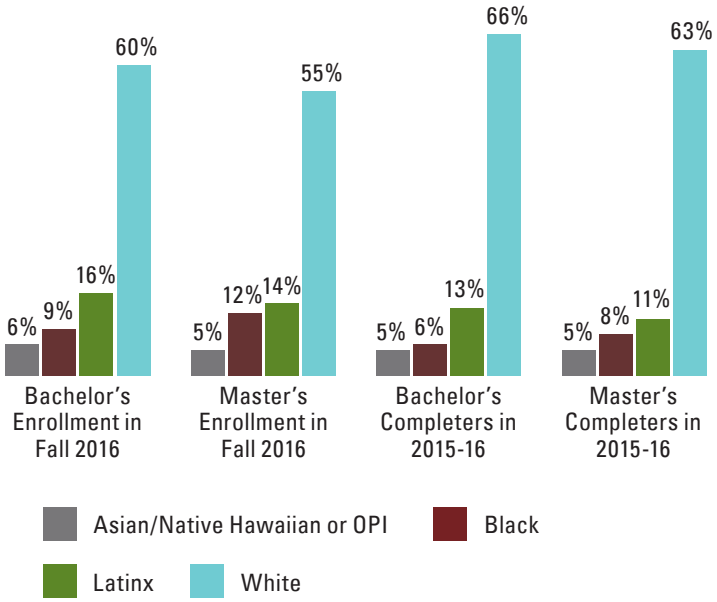
	Women	Men	All
White	2,401	650	3,051
Latinx	464	131	595
International/ Other/ Unknown	-	-	416
Black	217	49	266
Asian/Native Hawaiian or OPI	178	42	220
Multiracial	65	22	87
Amer. Indian	5	4	9

EDUCATION MASTER'S DEGREE RECIPIENTS (2015-16)



	Women	Men	All
White	5,264	1,438	6,702
Latinx	962	215	1,177
International/ Other/ Unknown	-	-	1,052
Black	745	145	890
Asian/Native Hawaiian or OPI	455	110	565
Multiracial	135	27	162
Ameri. Indian	21	3	24

SNAPSHOT OF EDUCATION PROGRAM ENROLLEES AND COMPLETERS



Source: Integrated Postsecondary Education Data System (IPEDS). Analysis conducted by The Education Trust–New York. For more information, see the technical appendix at www.edtrustny.org/SnapshotAppendix.

NEXT STEPS — Equity Questions for State, Higher Education, and School District Leaders:

- **What steps are school districts and the state taking to encourage diverse students to pursue teaching?**
- **How does the state articulate goals for teacher preparation programs to promote diversity?**
- **What steps are teacher preparation programs taking to improve diversity in their student body through intentional recruitment, implementing retention and completion supports throughout the program, and establishing a diverse, equitable, and inclusive learning environment?**
- **How can teacher preparation programs, school districts, and the state work together to address affordability for prospective teachers?**
- **What is the level of diversity among teacher preparation program faculty?**

2 Are program completers employed in New York State public schools after graduation?

KEY TAKEAWAYS:

- **Overall, 38% of Bachelor's program completers and 58% of Master's program completers who graduated in 2015 were employed as teachers in New York State public schools in 2016-17.**
- **For Bachelor's program completers, the in-state public school employment rate ranged from 27% employment for early childhood program completers and 35% employment for elementary education program completers to more than 50% employment for ESOL/bilingual educators, middle/secondary math, middle/secondary special education, and middle/secondary science.**
- **For Master's program completers, the in-state public school employment rate ranged from 27% employment for early childhood program completers and 49% employment for elementary education program completers to more than 75% employment for middle/secondary special education and ESOL/bilingual educators.**

It is clear that New York State is not in the midst of a statewide teacher shortage. Rather, as other studies have found, our analysis indicates that the state faces a mismatch between supply and demand for a specific set of certifications and positions.[5]

Statewide, education program completers who pursued high-demand shortage areas — including ESOL/bilingual, math, science, and special education certifications — are more likely to be employed in New York State public schools. For example, 81% of middle/secondary special education teachers and 76% of ESOL/bilingual teachers who completed their Master's programs in 2015 were employed in New York State public schools during the 2016-17 school year. Not far behind, 67% of middle/secondary science teachers and 66% of middle/secondary math teachers who completed Master's programs in 2015 were employed in New York State public schools during the 2016-17 school year.

Yet despite high employment rates, the number of completers receiving certifications in these high-demand content areas is relatively low. In fact, three higher-demand certification areas — ESOL/bilingual, middle/secondary math, and middle/secondary science — together represented just 10% of Bachelor's program completers and 19% of Master's program completers.

As described in greater detail in the technical appendix accompanying this report, it is important to note that program completers may pursue successful teaching careers without being counted in "in-state public school employment" — which is limited to New York school districts, BOCES, and charter schools. For example, program completers might teach in private schools, community-based early childhood providers, or schools in other states or countries. Our equity-driven focus in this report is on ensuring access to strong educators for historically under-served students in New York State's public schools.

In contrast, elementary and early childhood education program completers together represented 58% of Bachelor's program completers and 33% of Master's program completers — and were among the least likely to be employed as teachers in New York State public schools.

Only 27% of 2015 Bachelor's or Master's program completers in early childhood were employed in New York State public schools during the 2016-17 school year. Since the early childhood certification extends from birth through second grade, we would expect to see a significant share of teachers with this certification working outside of public schools. For elementary education certification, however, which covers first through sixth grades, only 35% of 2015 Bachelor's completers and 49% of Master's completers were employed in New York State public schools during the 2016-17 school year.

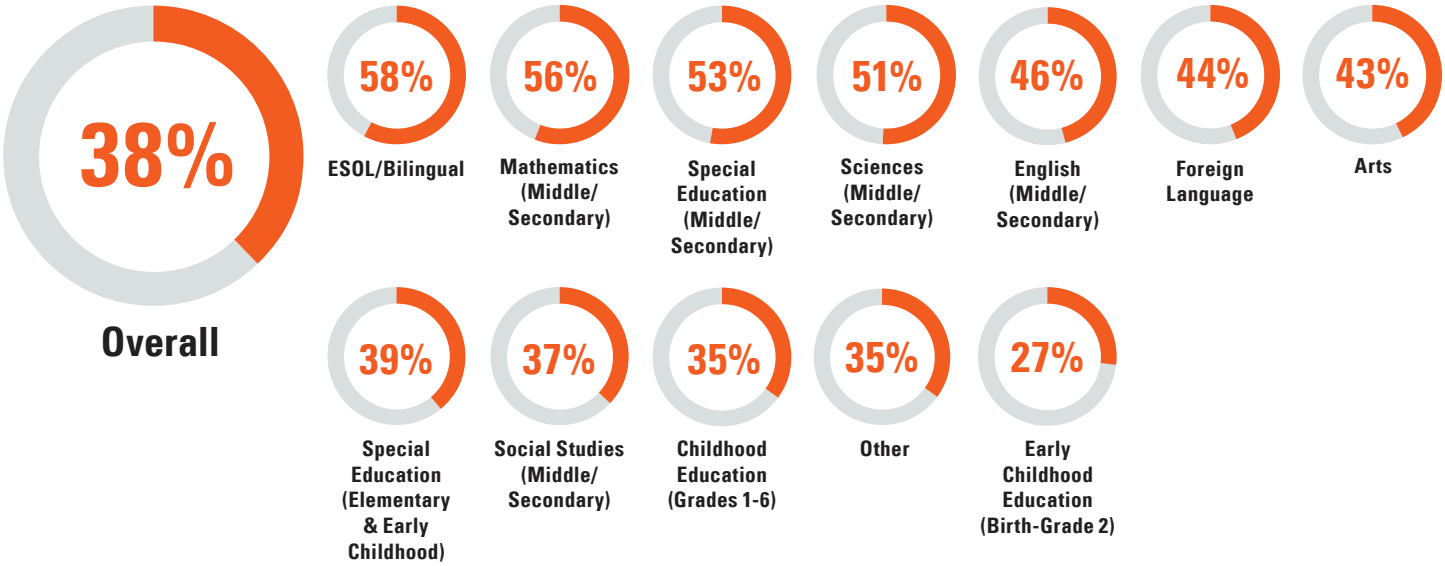
For Bachelor's program completers, the certification area with the greatest number of students — elementary education — has among the lowest in-state public school employment rates. A similar pattern holds true for Master's program completers, where elementary education is the second most common certification area and the one with the lowest in-state public school employment rate after early childhood.

Yet even in the certification areas with lower overall in-state public school employment rates, there is considerable variability across and within geographic regions. While regional supply and demand issues are discussed in greater detail below, the fact that some institutions have high in-state public school employment rates for elementary and early childhood program completers suggests potential best practices (and further points to the value of this type of information for prospective educators).

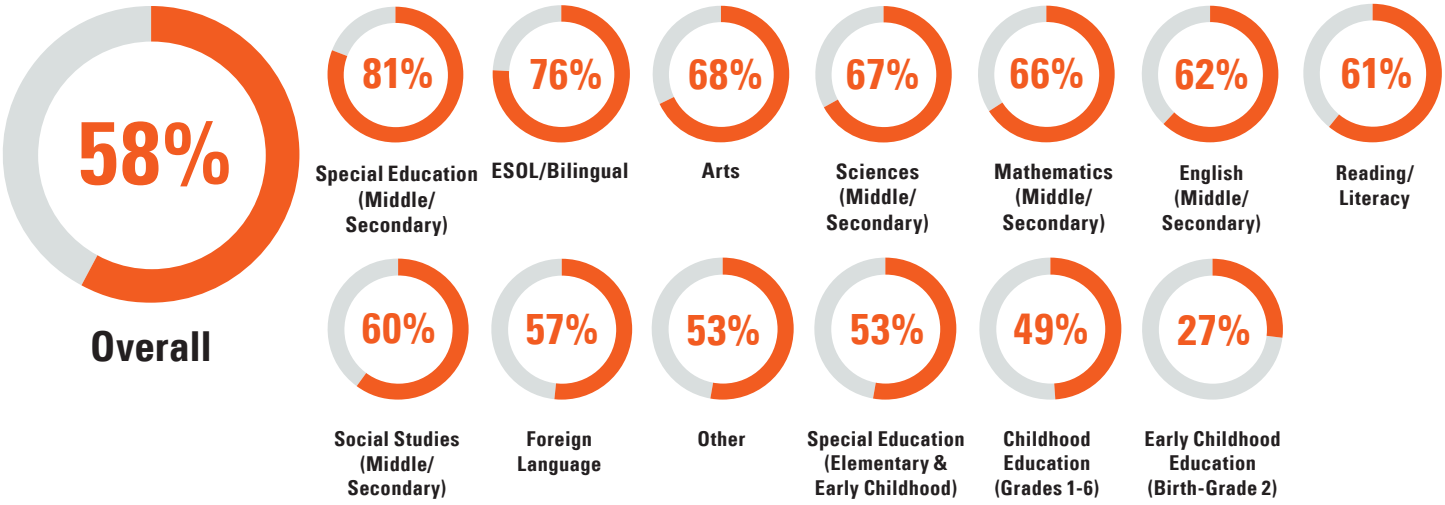
DATA SNAPSHOT:

See more data for individual institutions, sectors, and regions of the state at www.edtrustny.org/Snapshots

PERCENT OF 2015 BACHELOR'S PROGRAM COMPLETERS WITH AN INITIAL CERTIFICATION EMPLOYED IN NYS PUBLIC SCHOOLS IN 2016-17



PERCENT OF 2015 MASTER'S PROGRAM COMPLETERS WITH AN INITIAL CERTIFICATION EMPLOYED IN NYS PUBLIC SCHOOLS IN 2016-17



Source: Unpublished data provided by the New York State Education Department (NYSED). Analysis conducted by The Education Trust–New York. For more information, see the technical appendix at www.edtrustny.org/SnapshotAppendix. Employment data only captures part-time and full-time "teachers of record" employed in a NYS public school (district-run, charter, or BOCES) at any point during the academic year in question.

NEXT STEPS — Equity Questions for State, Higher Education, and School District Leaders:

- **What information do prospective teachers receive about supply and demand in their intended certification area?**
- **What strategies could a teacher preparation program take to increase enrollment in high-demand certification areas? How could university leaders and school district leaders provide support that could increase enrollment in these types of programs?**

3 Do program completers remain in New York State public schools?

KEY TAKEAWAYS:

- **Fewer than 1 in 5 Bachelor's program completers and slightly more than 1 in 3 Master's program completers take jobs in New York State public schools and remain employed for three consecutive years.**
- **ESOL/bilingual educators are most likely to become and remain employed in New York State public schools, with an in-state public school employment and three-year retention rate of 43% for Bachelor's completers and 56% for Master's completers.**
- **Program completers with elementary and/or early childhood certifications are among the least likely to become and remain employed in New York State public schools, with a combined in-state public school employment and three-year retention rate of 15% for Bachelor's completers and 25% for Master's completers.**

Once in the classroom, program completers who are certified in higher demand areas are also more likely to remain for three consecutive years.

For example, 56% of ESOL/bilingual and middle/secondary special education teachers and 45% of middle/secondary math and science teachers who completed Master's programs in 2012-2013 were hired in New York State public schools *and* remained in the classroom for three consecutive years.

In contrast, only 15% of 2012-2013 early childhood Master's program completers and 29% of 2012-2013 elementary education Master's program completers were hired in New York State public schools *and* remained in the classroom for three consecutive years.

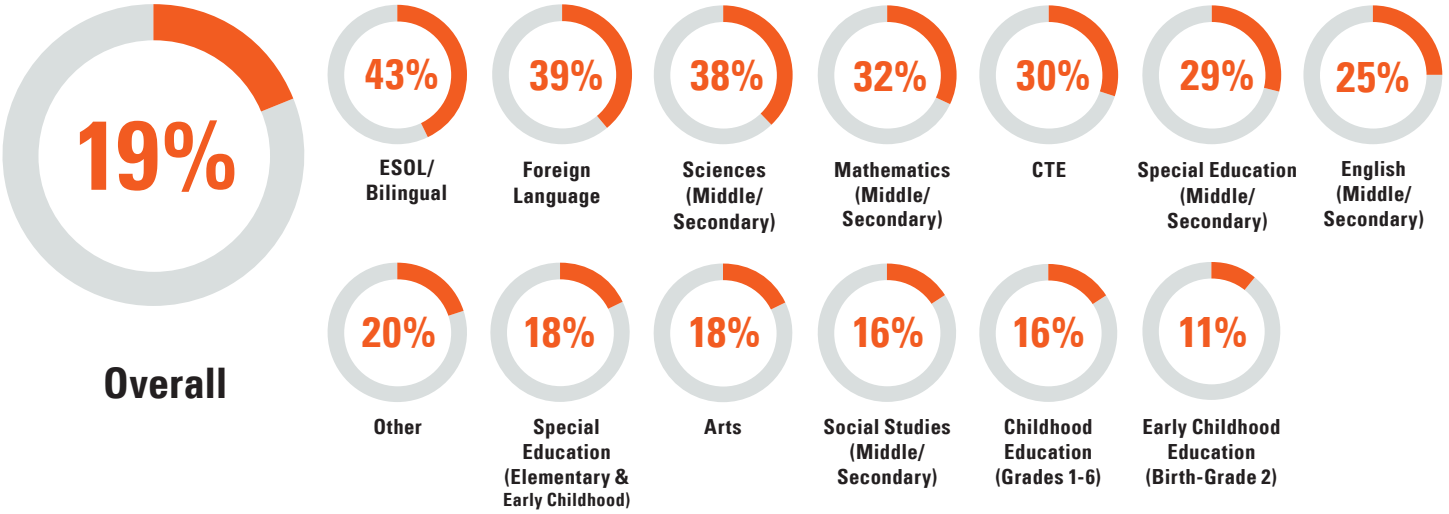
Although the data alone are insufficient to draw conclusions about why teachers certified in certain subject areas are more likely to remain in the classroom compared to other teachers, it does raise important questions for higher education institutions as they prepare students to enter the state's public school classrooms and for district leaders as they hire and support new teachers.

> **"I would want all of the schools to be transparent about the data they do collect. How many graduates are still teaching? Where are they teaching?"**
>
> *– Haley, teacher*

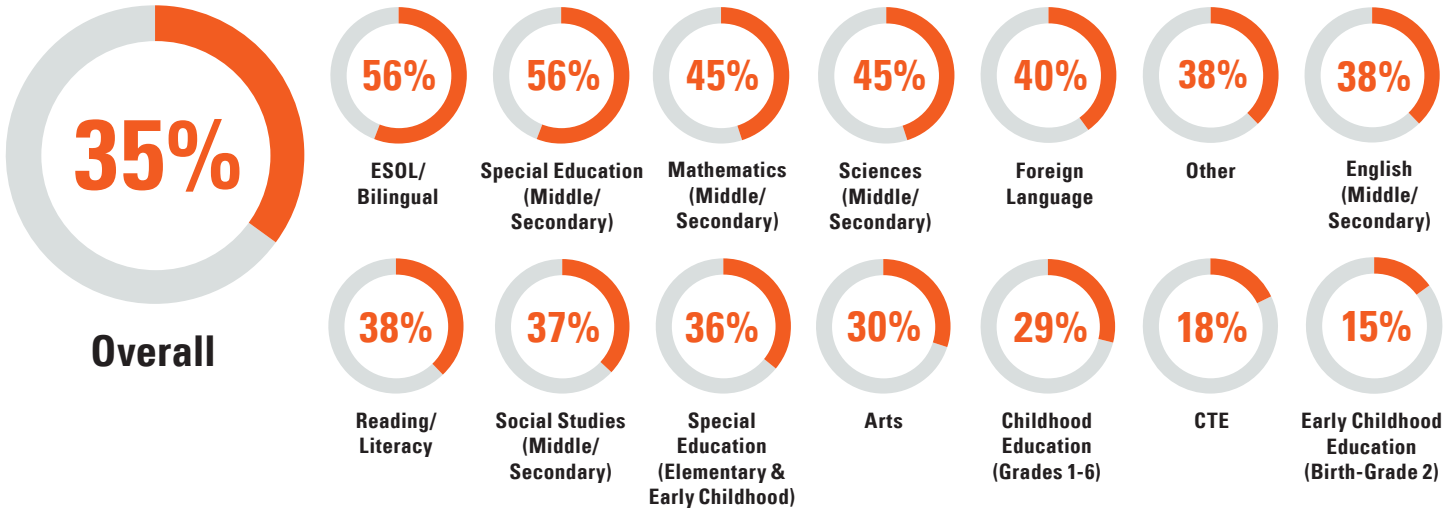
DATA SNAPSHOT:

See more data for individual institutions, sectors, and regions of the state at www.edtrustny.org/Snapshots

FOR 2012 AND 2013 BACHELOR'S PROGRAM COMPLETERS WITH AN INITIAL CERTIFICATION, THE PERCENT WHO TOOK JOBS IN NY PUBLIC SCHOOLS AND THEN REMAINED IN THE CLASSROOM FOR THREE CONSECUTIVE YEARS



FOR 2012 AND 2013 MASTER'S PROGRAM COMPLETERS WITH AN INITIAL CERTIFICATION, THE PERCENT WHO TOOK JOBS IN NY PUBLIC SCHOOLS AND THEN REMAINED IN THE CLASSROOM FOR THREE CONSECUTIVE YEARS



Source: Unpublished data provided by the New York State Education Department (NYSED). Analysis conducted by The Education Trust–New York. For more information, see the technical appendix at www.edtrustny.org/SnapshotAppendix. Employment data only captures part-time and full-time "teachers of record" employed in a NYS public school (district-run, charter, or BOCES) at any point during the academic years in question.

NEXT STEPS — Equity Questions for State, Higher Education, and School District Leaders:

- **What information do prospective teachers receive about the odds of long-term employment in their intended field of study?**
- **What steps can school districts take to improve how new teachers are assigned to schools and receive support in order to improve retention?**
- **What existing partnerships — including high-quality clinical placements and hiring practices — can serve as models?**
- **What supports do school districts and teacher preparation programs provide to program completers to prepare them for success in New York State public schools?**

4 Where do program completers teach in New York State public schools?

KEY TAKEAWAYS:

- **55% of 2012-2015 Bachelor's program completers who took teaching jobs in New York State public schools were employed in the same region as their teacher preparation program.**
- **75% of 2012-2015 Master's program completers who took teaching jobs in New York State public schools were employed in the same region as their teacher preparation program.**

New York State's teacher preparation programs are generally part of *regional* teacher pipeline supply and demand ecosystems. Most teachers end up teaching close to where they received their training, and school districts and teacher preparation programs within a given region therefore have common cause to collaborate on teacher preparation.

Based on our analysis of 2012-2015 teacher preparation program completers who proceeded to work in New York State public schools, the majority of Bachelor's program completers and three-fourths of all Master's program completers took teaching jobs in public schools located in the same region as their teacher preparation program.

This pattern is consistent across regions and institutional sectors, although teacher preparation programs in the Long Island and Mid-Hudson regions are also vital to the New York City supply pipeline.

Not surprisingly given its large size, New York City district-run public schools were the largest statewide employer of both Bachelor's and Master's program completers with an Initial certification in 2016-17. The majority of Master's program completers from 2012-2015 attended institutions in New York City. In addition, close to two-thirds of all program completers from this period who were employed in public schools during the 2016-17 school year were employed in New York City.

Because of our focus on ensuring that the students with the greatest needs receive access to the strongest educators, our analysis also examined hiring in large city, urban-suburban, and rural high-need school districts outside of New York City. Teacher preparation is likewise highly concentrated for these school districts. Eight teacher preparation programs prepared 52% of all 2012-2015 Bachelor's program completers and 12 teacher preparation programs prepared 50% of all 2012-2015 Master's program completers who were employed in high-need school districts outside of New York City in 2016-17.

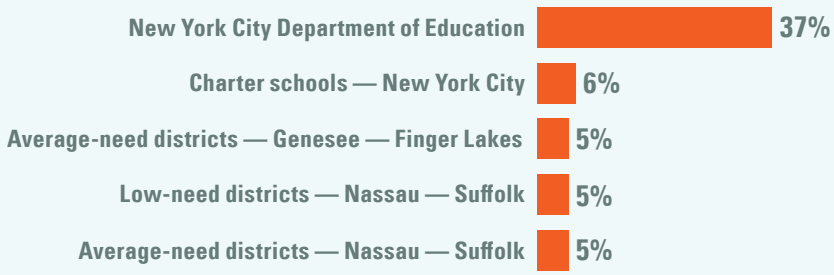
DATA SNAPSHOT:

See more data for individual institutions, sectors, and regions of the state at www.edtrustny.org/Snapshots

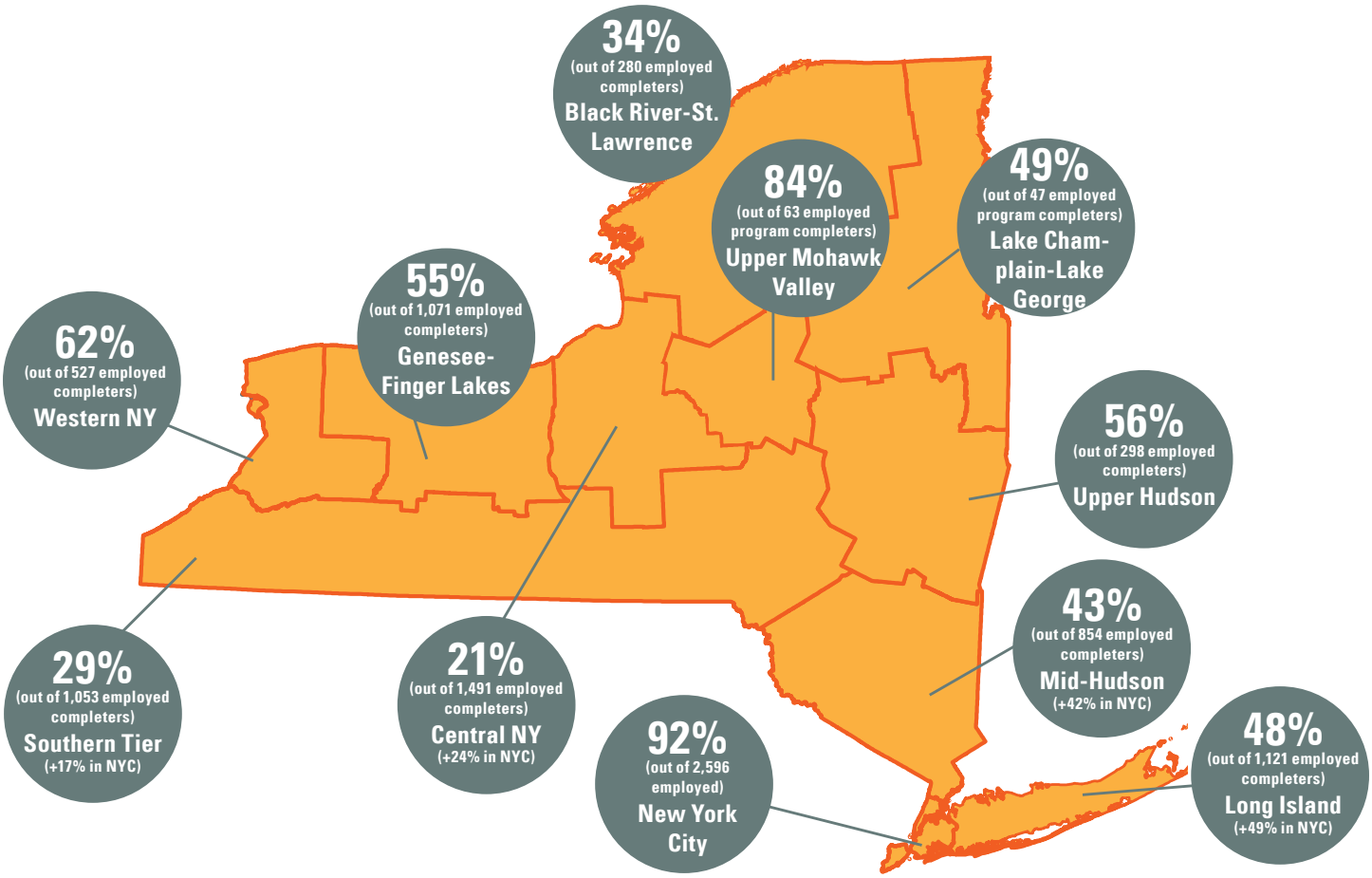
55%

of 2012-2015 program completers who took teaching jobs in NYS public schools were employed in the same region as their teacher preparation program.

TOP 5 LOCATIONS WHERE 2012-2015 BACHELOR'S PROGRAM COMPLETERS WORKED IN NY DURING 2016-17



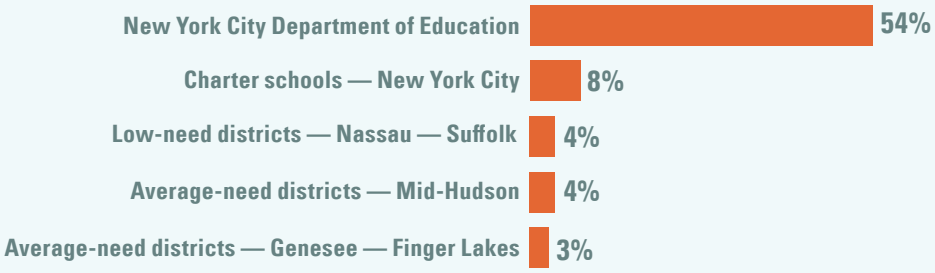
SHARE OF EMPLOYED 2012-2015 BACHELOR'S PROGRAM COMPLETERS WHO WERE WORKING IN 2016-17 IN A SCHOOL IN THE SAME REGION FROM WHICH THEY GRADUATED



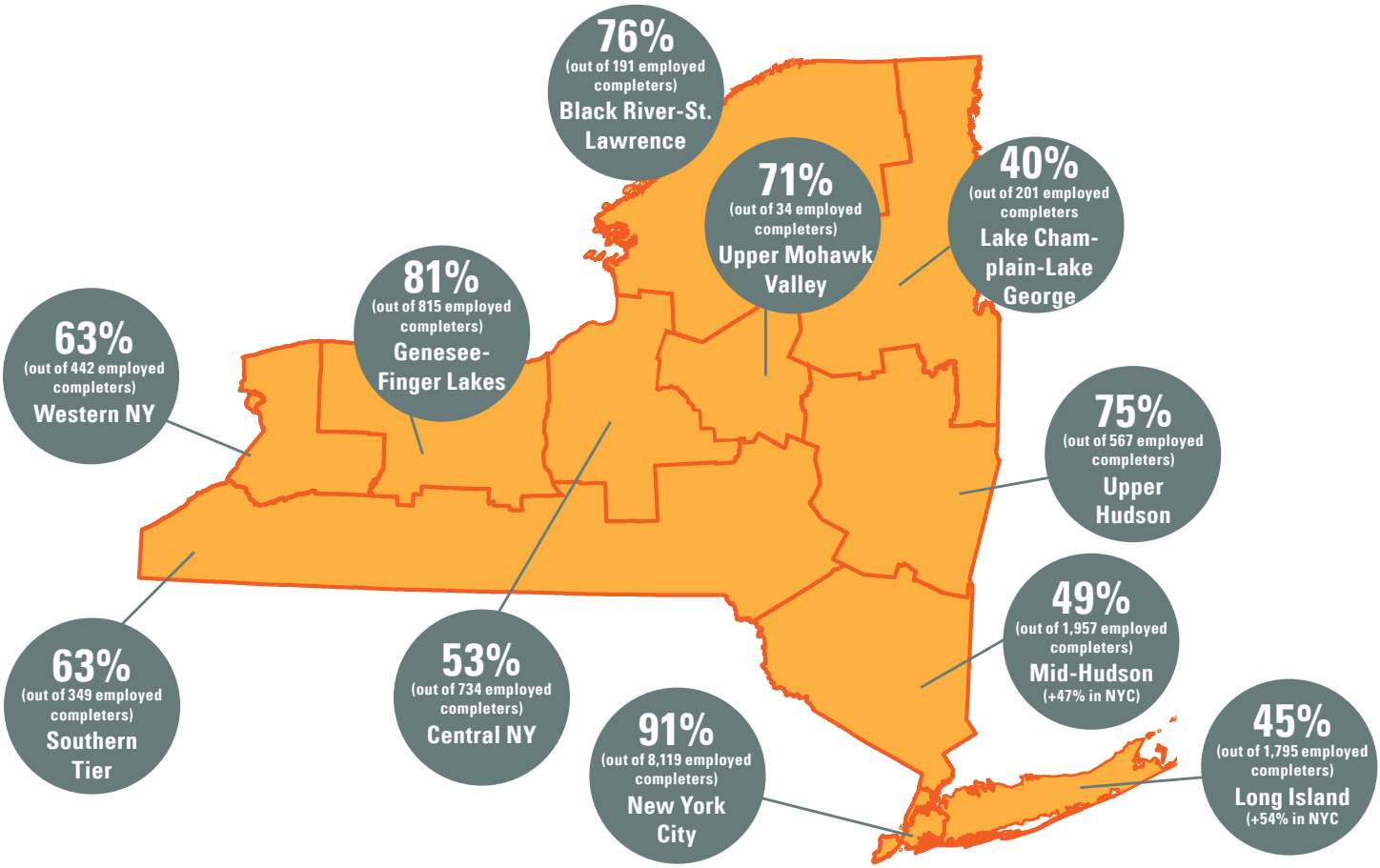
75%

of 2012-2015 program completers who took teaching jobs in NYS public schools were employed in the same region as their teacher preparation program.

TOP 5 LOCATIONS WHERE 2012-2015 MASTER'S PROGRAM COMPLETERS WORKED IN NY DURING 2016-17



SHARE OF EMPLOYED 2012-2015 MASTER'S PROGRAM COMPLETERS WHO WERE WORKING IN 2016-17 IN A SCHOOL IN THE SAME REGION FROM WHICH THEY GRADUATED



Source: Unpublished data provided by the New York State Education Department (NYSED). Analysis conducted by The Education Trust–New York. For more information, see the technical appendix at www.edtrustny.org/SnapshotAppendix. Employment data only captures part-time and full-time "teachers of record" employed in a NYS public school (district-run, charter, or BOCES) at any point during the academic year in question.

NEXT STEPS NEXT STEPS— Equity Questions for State, Higher Education, and School District Leaders:

- How can the state support consistent, ongoing data-informed regional conversations between high-need school districts and teacher preparation programs in order to focus on the knowledge, skills, and experiences that prospective teachers need for success teaching the students in these districts?
- How can school districts and teacher preparation programs develop intensive clinical training experiences, including paid residencies, that better prepare prospective teachers for the school environments where they are likely to work?
- How are teacher preparation programs preparing students to teach in diverse classrooms?
- What are the state's expectations for school districts to partner with teacher preparation programs to identify high-quality clinical experiences in successful schools with diverse student enrollment and teaching faculty?
- How can the state continue to build on its positive expansion of clinical training requirements to ensure that prospective teachers have access to a diverse array of student teaching placements and effective mentor teachers?
- How can the state expand high-quality "grow your own" initiatives that create partnerships between school districts and teacher preparation programs and focus on under-represented students?

> **"I think that policymakers need to know that the quality of education programs are only as strong as how much time aspiring teachers get to spend in the field in different communities that expose them to a variety of racial, [socio-economic status], and ethnic [student populations] to see how what they are learning in class may or may not apply to real-world scenarios."** *– Jeremy, former teacher*

5 How well do program participants succeed in the classroom?

KEY TAKEAWAYS:

- **For program completers who graduated from Bachelor's and Master's programs in 2011-12 through 2015-16, the percent of an institution's completers who were rated Effective or Highly Effective in public school classrooms ranges among teacher preparation programs from 79% to 100% on overall teacher evaluation ratings and 61% to 96% on the State-provided student achievement growth rating.**
- **There is little variation across regions in the distribution of preparation of teachers who were rated Effective or Highly Effective. The main exception is institutions that predominantly prepare teachers who teach in New York City (including programs in the New York City, Long Island, and Mid-Hudson regions), since New York City's teacher evaluation system has historically been more rigorous than the rest of the state and therefore rated a smaller share of educators overall as Highly Effective.**

The New York State Education Department (NYSED) has reported that 65% of students who scored at the lowest level on the state math assessment improved at least one level if they were assigned to teachers rated Highly Effective for two years in a row.[6] Yet low-income students and students of color are the least likely to have access to the most effective teachers.[7]

Given the critical role of strong educators for equitable student outcomes, our analysis included an examination of how program completers from each teacher preparation program subsequently performed in the classroom. Classroom performance was measured by the teacher's overall evaluation rating — their Annual Professional Performance Review (APPR) rating — and, for the subset of teachers who provide instruction in English language arts and math in grades 4-8, whether their students are making academic progress using the State-provided student achievement growth measure.

At the institution level, the proportion of a Bachelor program's participants who were subsequently rated Effective or Highly Effective ranged from 85% to 100% on the overall evaluation rating and from 61% to 96% on the State-provided student achievement growth measure. For Master's program participants, an institution's percent of participants subsequently rated Effective or Highly Effective ranged from 79% to 100% on the overall rating and from 71% to 93% on the student achievement growth measure.

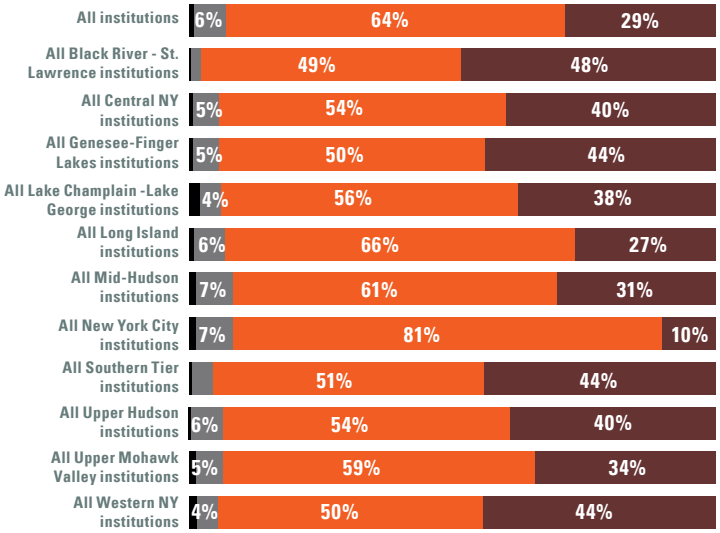
Most institutions by region generally track the statewide average, with the majority of program participants being evaluated as Effective or Highly Effective both overall and on the State-provided student achievement growth rating.

In order to be cautious, this analysis is based on a two-year weighted average of the most recent available teacher evaluation data (for 2014-15 and 2015-16, if eligible) for teachers who participated in preparation programs in 2011-12 through 2015-16. Unlike other analyses in this report, evaluation data includes teachers of all certification types. Still, with generally small group sizes and data limitations, overall conclusions about the impact of an individual teacher preparation program on its students' future performance in the classroom must be made with great care. Multiple student outcomes — including but not limited to student achievement growth data — should be taken into account and this data is just one important element to include in institution-level transparency and in conversations between school districts and teacher preparation programs.

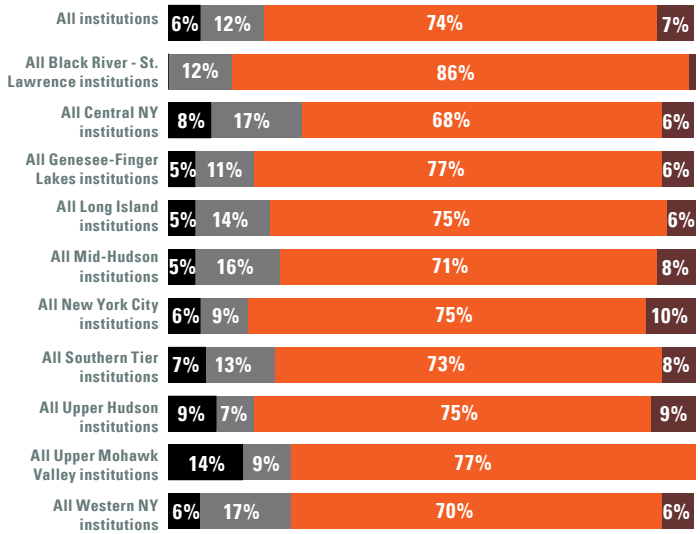
DATA SNAPSHOT:

See more data for individual institutions, sectors, and regions of the state at www.edtrustny.org/Snapshots

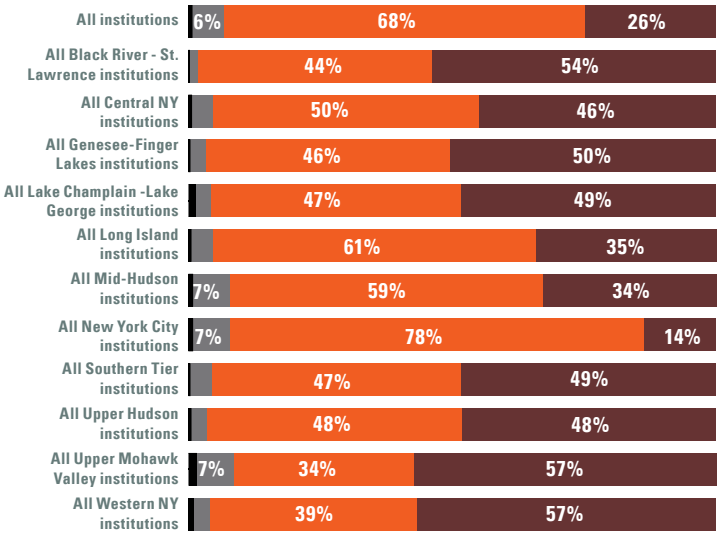
OVERALL TEACHER EFFECTIVENESS RATING (2014-15 AND 2015-16 2-YEAR AVERAGE OF 2011-12 THROUGH 2015-16 BACHELOR'S PROGRAM PARTICIPANTS)



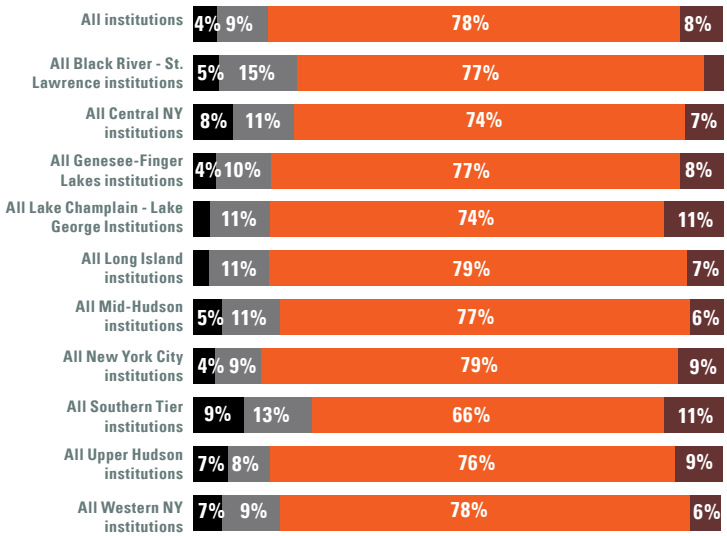
STUDENT ACHIEVEMENT GROWTH RATING (2014-15 AND 2015-16 2-YEAR AVERAGE OF 2011-12 THROUGH 2015-16 BACHELOR'S PROGRAM PARTICIPANTS)



OVERALL TEACHER EFFECTIVENESS RATING (2014-15 AND 2015-16 2-YEAR AVERAGE OF 2011-12 THROUGH 2015-16 MASTER'S PROGRAM PARTICIPANTS)



STUDENT ACHIEVEMENT GROWTH RATING (2014-15 AND 2015-16 2-YEAR AVERAGE OF 2011-12 THROUGH 2015-16 MASTER'S PROGRAM PARTICIPANTS)



Ineffective | Developing | Effective | Highly Effective

Source: Unpublished data provided by the New York State Education Department (NYSED). Analysis conducted by The Education Trust–New York. For more information, see the technical appendix at www.edtrustny.org/SnapshotAppendix.

NEXT STEPS — EQUITY QUESTIONS FOR STATE, HIGHER EDUCATION, AND SCHOOL DISTRICT LEADERS:

- **As New York's teacher evaluation system changes following recent amendments to state law, how should teacher preparation programs annually receive the results for their completers and incorporate them into their own program evaluation and continuous improvement strategies?**
- **How can school districts and teacher preparation programs develop processes for mutual communication and feedback drawing on teacher evaluation and student achievement data?**

Three Steps for Improving Data Transparency, Availability & Usefulness

Data about teacher preparation programs should be transparent, readily available, and actionable. Here are three ways that policymakers and education leaders from both K-12 and higher education can help:

1 Improve data transparency so that teacher preparation programs, school districts, prospective teachers and the public have meaningful data about the teacher pipeline.

State leaders should make the kind of data analyzed in the Equity Snapshots publicly available on an annual basis: diversity of student enrollment and completions, in-state public school employment and retention rates by certification area, geographic supply and demand patterns, and teacher effectiveness by preparation institution, along with first-time pass rates on licensure exams.[8]

Students interested in pursuing a degree in education can use this information to make informed decisions about which programs to attend and what certification areas to pursue. Just as importantly, the data must also be actionable for teacher preparation programs. Colleges and universities should be able to use the data to inform efforts to improve diversity, program design, and curriculum. The state should work with teacher preparation programs to encourage the use of common instruments, like teacher and administrator perception surveys, that can supplement this data and support program review and improvement.

States like New Jersey, Tennessee, and Delaware are leading the way on transparency with user-friendly and meaningful data reports for teacher preparation programs.[9] Beyond providing public data on factors such as recruitment of diverse candidates, placement rates, and completers' success in the classroom, these states are sending important signals to educator preparation programs, teachers, and the public about what matters. In addition to the publicly available report cards, Tennessee also provides teacher preparation programs with annual reports that offer data disaggregated to the program level and degree type.

Teachers themselves have noted the importance of access to information. In interviews with teachers across New York State, we repeatedly heard from educators that they would have benefited from access to this information while selecting teacher preparation programs. In particular, the educators we interviewed were interested in data on certification pass rates of candidates who attended specific institutions and data on whether graduates remain in the classroom, both of which they view as signals of whether the institutions are preparing candidates for the challenges of the workforce.

Similarly, Educators for Excellence-New York, an organization that amplifies teacher voice in New York City, has noted that public annual reports on teacher preparation program outcomes would "empower[] future educators to make informed decision and gives the public insight into the efficacy of these programs."[10] A number of higher education leaders have also expressed interest in receiving this data to help inform program decision-making.

2 Consistently convene school districts, charter schools, BOCES, and teacher preparation programs to engage in data-informed supply and demand conversations about how to prepare prospective teachers for success in public school classrooms.

State leaders can help facilitate information-sharing between school districts, charter schools, BOCES, and regional teacher preparation programs about public schools' projected hiring needs by content area and grade level, projected retirements, the importance of teacher diversity, and the knowledge, skills, and clinical experiences that new teachers should have.

Our analysis spotlighted the regional nature of New York State's teacher preparation pipeline, with relatively few teacher preparation programs being the primary preparation source for school districts in a particular region and most graduates working in the region where they attended their teacher preparation program. These hiring patterns both reinforce the importance of data-informed collaboration across sectors and suggest that they are logistically feasible.

It is also essential that these conversations extend beyond schools of education to include higher education arts and sciences deans and faculty — emphasizing the importance of the content-area knowledge that prospective teachers bring to the classroom and supporting recruitment of potential teacher preparation candidates.

The partnership between CUNY and the New York City Department of Education provides one example for school districts and higher education institutions to work together on projecting supply and demand needs with an equity lens (see **Teacher Preparation Partnership in New York City**).

TEACHER PREPARATION PARTNERSHIP IN NEW YORK CITY

CUNY and the New York City Department of Education (DOE) — the two largest urban education systems of their kind in the country — are deeply connected by the students they serve. Each year, approximately 75% of first-time freshmen at CUNY are graduates of DOE schools, and almost a third of the DOE's new teachers hired through traditional programs are CUNY-prepared. A strong local P-20 partnership supports these connections, and senior leaders from both institutions meet regularly to review data and develop strategies to increase college readiness and success rates with a focus on equity.

CUNY and DOE report that they engage in deep teacher pipeline work, especially as it relates to teacher diversity, recruitment, and hiring. Leadership teams focus on innovative approaches to increasing pre-service clinical preparation, recruitment supports, joint funding opportunities, new programs to meet hiring needs, state certification, and communication. Exchanges through a data-sharing agreement are integral to this effort and provide a backdrop for the close connections between individual colleges, districts, and schools. Through longstanding collaborations such as NYC Teaching Fellows and NYC Men Teach, the city has seen increases in the number of men of color recruited to the teaching profession and supported in the classroom.

3 Expand programs and strategies that will promote educator diversity, encourage candidates to pursue high-demand certifications, prepare students to meet the needs of diverse learners, and promote teacher longevity and success in the classroom.

Data transparency should be a jumping-off point to focus on ways to strengthen teacher preparation in New York State. Building on a number of efforts that are already underway — including recent positive action by NYSED

and the Board of Regents to expand prospective teachers' clinical experience and better prepare them to support diverse learners — this should include:

- ***Increasing the use of paid clinical residences that provide opportunities for teaching candidates to gain intensive, structured classroom experience.*** In interviews with New York State educators, we repeatedly heard about the need for teacher preparation candidates to have more opportunities to spend meaningful and extended time in the classroom. In a recent Educators for Excellence-New York survey of New York City teachers, "57% of surveyed educators wanted a higher quality field experience in a community that more closely matched the schools they planned to teach in upon graduation."[11] Some New York institutions are already implementing residency models (see **Intensive Classroom Experience for Prospective Teachers**). To advance equity, all residencies should provide a family-sustaining wage to participants so that prospective teachers who are low-income and other first-generation program completers can be fully represented.

"You can teach someone how to swim, but when they jump into the ocean they're not going to know how to swim unless they've experienced it. Having the actual in-classroom residency experience is where most of the learning happened. The residency was the major component and the grad school was the supplement."

– Dana, teacher

- ***Improving recruitment and ongoing support for prospective teachers of color.*** As noted throughout this report, improving diversity, equity, and inclusivity is a vital policy objective for K-12 and requires the active participation of teacher preparation programs,

INTENSIVE CLASSROOM EXPERIENCE FOR PROSPECTIVE TEACHERS

High-quality paid clinical residencies provide teaching candidates with the opportunity to gain intensive, structured classroom experiences that have long-lasting benefits for both students and schools.

As Bank Street College of Education noted in a 2016 report: "In countries where school systems have improved dramatically, such as Finland and Singapore, one of the shifts their nations embraced was to integrate teacher preparation with K-12 school systems. Aspiring teachers are paid to practice under the guidance of an effective classroom teacher for a full year before seeking certification. Increasingly, evidence from the United States also indicates that such a model is an effective way of addressing persistent challenges facing schools and districts."[12]

Prepared to Teach at Bank Street College assists teacher preparation programs across the nation with the development of paid clinical residencies rooted in strong district and higher education collaboration. *The Prepared to Teach–NY* network, which works with several college/school district partnerships across the state, aims to address both diversity and quality issues in the teacher pipeline by finding ways to financially support teacher candidates. With a stronger awareness of district needs and schedules, teacher preparation programs find they are able to reconfigure course requirements and the timing of classes so that students can better meet residency responsibilities and certification requirements.

school districts, and other stakeholders. We reiterate our call in *See Our Truth* for the state to sustain and increase funding for the Teacher Opportunity Corps II grant program, part of New York's landmark My Brother's Keeper initiative. Preparing a diverse future teacher workforce should also be seen as a key measurable objective for higher education. A number of institutions throughout the state are addressing this issue, including through "grow your own" partnerships with school districts (see **Buffalo's "Grow Your Own" Approach to Diversifying the Preparation Pipeline**) and programs that recruit and support teaching assistants and other school employees to become certified teachers (see **Encouraging Mid-Career New Yorkers to Become Certified Teachers**). Preparing a more diverse future teacher workforce cannot end with better recruitment. Teacher preparation programs and their partners in arts and sciences

BUFFALO'S "GROW YOUR OWN" APPROACH TO DIVERSIFYING THE PREPARATION PIPELINE

In partnership with Buffalo Public Schools, SUNY's Buffalo State launched the Urban Teacher Academy during the 2017-18 school year so that Buffalo could "grow its own" diverse teacher workforce.

The goal of the program is to identify Buffalo Public Schools students who are interested in teaching and provide them with exposure to the profession and college curriculum in high school so that they pursue education as a major at Buffalo State and then return to Buffalo Public Schools as teachers. Students apply to the Urban Teacher Academy program, housed at McKinley High School, in the eighth grade, to participate in the program over the course of their four years of high school.

Buffalo State faculty and Buffalo Public Schools staff work together on the design of the program and curriculum. Starting in the ninth grade, students are able to visit elementary schools and shadow public school teachers. The goal by the spring of junior year is for students to be in a position to develop and deliver lesson plans to small groups of students. In their senior year, students take college-level courses that will provide them with six to nine Buffalo State credits. As part of the program, students also attend a summer institute at Buffalo State, which is intended to provide them with exposure to college campus life.

ENCOURAGING MID-CAREER NEW YORKERS TO BECOME CERTIFIED TEACHERS

Robert Wesleyan College has created the Pathway to Teaching program, an accelerated 21-month program targeting non-traditional degree completers, including teaching assistants, career changers, and community college graduates. The program is more diverse than the college's other teacher preparation programs.

Students are expected to enter the program with 60 college credits. Students complete the same field work and student teaching requirements as required by the traditional undergraduate program. Prior to starting their fieldwork, students take one accelerated course in the evenings that allows them to continue working during the day. The courses and assessments are the same as those offered to students in the traditional undergraduate program.

Through partnerships with local districts, students can serve as substitute teachers, which counts towards field work requirements and also provides students with a source of income. Students who serve as substitute teachers have access to full-time teachers in the districts for mentoring, coaching, and feedback. Graduates of the program can receive a Bachelor's degree in adolescent education in a content area and 7-12 special education; grades 7-12 special education generalist; or elementary education and special education.

departments must also improve support for retention and completion (see **Supporting Educators of Color Throughout Teacher Preparation**). In addition, teacher preparation programs should ensure that their own faculty reflects the diversity of the state.

- ***Ensuring that all future teachers are prepared to help diverse learners succeed in school.*** Our interviews with teachers revealed a common thread that they felt unprepared to teach students from different backgrounds than their own. As one former teacher noted: "I think that issues such as race and low socio-economic status are touched upon, but at a very surface level. Not once do I remember learning about poverty and how it affects the brain, or how racial bias in a community could affect a student in the classroom." A current teacher in the Capital Region recounted that, "I left my undergrad program with little knowledge of students with disabilities. I knew nothing about students who were homeless. In my Master's program there were requirements about learning the law. Programs today are better than when I went, but still not enough about how to deal with students who have been abused, who live in a car. We could absolutely do better there." All prospective teachers should receive training on

SUPPORTING EDUCATORS OF COLOR THROUGHOUT TEACHER PREPARATION

Based on a review of their program data, the College of Saint Rose in Albany learned that students of color had lower rates of education program retention. Two reasons identified for the lower retention rates included GPAs that do not meet the state's and accreditor's 3.0 GPA requirement and the lack of educator of color support networks.

In response, the college is launching two programs this fall to focus on increasing the retention rate for students of color.

Using available university data, the college identified students who are otherwise in good standing but have GPAs between 2.0 and 2.75 as at-risk of leaving the education program. In partnership with the first-year campus advising program, the college also found that students who graduated with lower high school GPAs were the most at-risk of having college GPAs in that range. For many of these students, the faculty theorized that the students attended high schools that did not provide them with the supports they needed in order to be successful in the transition from high school to college.

In response, the college began piloting the Academic Coaching for Educator Success (ACES) program, designed to provide students with peer supports to improve their GPAs. The program is available to any student who has declared education as their major and who is otherwise not receiving academic support from other programs on campus. As part of the program, students are matched with peer tutors who work with them over the course of the year on study skills, including note-taking, time management, writing papers, and test-taking. Students meet one hour each week and receive one credit for participating in the program. Based on a review of three semesters of data, the college has seen the GPAs of both the students being tutored and the peer tutors increasing. The program will be rolled out on a broader basis in Fall 2019.

The college is also launching a second initiative this fall, called *Images*, to help first- and second-year students of color in the education program connect with educators of color who are program alumni or educators in the region. The initiative aims to connect students of color with educators of color in the field, recognizing that many students of color did not have access to educators of color during their own K-12 experiences and the importance of building relationships with educators who have shared backgrounds. The college will sponsor formal events to bring mentors and students together and students also will be given the opportunity to visit the classrooms of educators of color who teach in the content areas that students are interested in pursuing. In addition, the program will offer a speaker series and address topics such as: building social capital, institutional racism, interviewing skills, and experiences of being a young teacher.

PREPARING TEACHERS TO TEACH DIVERSE STUDENTS IN ROCHESTER

The University of Rochester offers an accelerated 15-month Master's program that targets those who are passionate about teaching but may not have had previous classroom experience. The program places an emphasis on exposing students to culturally responsive pedagogy and current research on how students learn, working with and meeting the needs of all student populations — including students with disabilities and Multilingual Learners (MLLs) — and preparing students to incorporate contemporary technologies into the classroom.

During their first summer in the program, candidates take core courses designed to help them understand the experiences of learners and teachers in American communities and schools, focusing on the implications of race, class, gender, and disability in American education, youth development, and literacy learning in an increasingly culturally diverse, socially networked world. These courses help to establish foundations for embracing and enacting culturally responsive pedagogy in practice.

During the fall and spring semesters, candidates participate in multiple clinical experiences, one of which must be in Rochester city schools, alongside subject-specific methods courses that are designed to help them succeed in their clinical placements.

While the program is designed to address the needs of MLLs across courses, candidates take specific coursework on teaching MLLs in their subject areas during the second summer, drawing from prior clinical experiences.

For candidates interested in technology integration, the program offers an advanced certificate in digitally rich teaching, and candidates who wish to focus on urban education can pursue an advanced certificate in urban teaching and leadership.

how to support diverse learners and maintain high expectations for all groups of students — including students who are low-income, students of color, Multilingual Learners, and students with disabilities — as well as implicit bias training and preparation to provide instruction using culturally responsive pedagogy (see **Preparing Teachers to Teach Diverse Students in Rochester**).

"I wish the program had emphasized more student teaching, observation, and thinking about why teachers do what they do. I wish there would've been more focus on all of the things that need to happen in order for a lesson to be successful. More watching what teachers do and why and then a discussion afterward."—*Robert, teacher*

- ***Strengthening relationships between schools of education and colleges of arts and science to deepen content-area knowledge and focus recruitment on high-demand certification areas.*** Higher education institutions should ensure that all prospective teachers understand the level of employer demand for the certification area they are considering pursuing, as well as actively increase enrollment in high-demand teaching fields and limit enrollment in fields where teaching candidates are not finding employment.

"Even while studying special education, we didn't go in-depth into the diversity of what students with disabilities need and what their strengths are. It was a big mainstream inclusive push, but not necessarily how to get there for students, especially those with the greatest need." *– Cindy, teacher*

ACKNOWLEDGEMENTS

We wish to express our gratitude to:

- The external advisors who provided feedback during the development of this report: Travis J. Bristol, University of California, Berkeley; Lesley Guggenheim; Sheri Rodman, America Achieves; Elizabeth Ross, National Council on Teacher Quality; Paula L. White and Nathaniel Styer, Educators for Excellence-New York; Amy Wooten and Patrick Steck, Deans for Impact; and Nancy Zimpher, Chancellor Emeritus, SUNY, and Professor, University at Albany. All analysis, conclusions, and recommendations are the sole responsibility of The Education Trust–New York.
- System leaders, college of education deans, faculty, and other teacher preparation program officials who have provided helpful questions and suggestions.
- Abja Midha, Ed Trust–NY's former deputy director.

ENDNOTES

[1]Names of teachers quoted in this report have been changed.

[2]See, among others: (1) The Rand Corporation, "Teachers Matter: Understanding Teachers' Impact on Student Achievement," http://www.rand.org/education/projects/measuring-teacher-effectiveness/teachers-matter.html; (2) Raj Chetty, John N. Friedman, and Jonah E. Rockoff, "The Long-Term Impacts of Teachers: Teacher Value-Added and Student Outcomes in Adulthood," http://rajchetty.com/chettyfiles/value_added.htm.

[3]"See Our Truth," (New York, N.Y.: The Education Trust–New York, 2017), https://newyork.edtrust.org/wp-content/uploads/sites/5/2017/10/See-Our-Truth.pdf.

[4] Ibid.

[5] See, for example, New York State Education Department, "Teacher Supply and Demand Reports," (November 2013), https://www.regents.nysed.gov/common/regents/files/TeacherSupplyDemandReports%5B1%5D.pdf; and Thomas Gais, et al., "The State of the New York Teacher Workforce," (Albany, N.Y.: Rockefeller Institute of Government, March 2018), https://rockinst.org/wp-content/uploads/2018/03/03-22-18-Teacher-Work-Force.pdf.

[6] New York State Education Department, "New York State's Plan to Ensure Equitable Access to the Most Effective Educators, 2014-15," http://p12.nysed.gov/accountability/T2/pdfs/FINALNYSEquityPlan.pdf.

[7] Ibid. See also: New York State Education Department, "Approved New York State ESSA Plan," http://www.nysed.gov/essa/nys-essa-plan.

[8] Although we were not able to include certification pass rates due to the limitations of the data provided to us, this should be included in any public report the state releases.

[9] See: for New Jersey, https://eppdata.doe.state.nj.us; for Tennessee, https://teacherprepreportcard.tn.gov; for Delaware, https://www.doe.k12.de.us/Page/3902.

[10] "Ready for Day One and Beyond," (New York, N.Y.: Educators for Excellence-New York, February 2019), https://e4e.org/file/2430/download?token=60aKVRwk.

[11] Ibid.

[12] Karen DeMoss, "For the Public Good: Quality Preparation for Every Teacher," (New York, N.Y.: Bank Street College of Education, 2016), http://educate.bankstreet.edu/faculty-staff/2.

For data sources and notes, please visit **www.edtrustny.org/SnapshotAppendix**

ABOUT THE EDUCATION TRUST–NEW YORK

The Education Trust–New York promotes high academic achievement for all students at all levels — pre-kindergarten through college. We pursue educational justice by building awareness of equity, achievement and opportunity gaps and marshaling public and political will for solutions that will enable every child in New York State — especially those who are low-income or students of color — to achieve his or her full potential.

The Education Trust–New York

315 WEST 36TH STREET, FLOOR 2, NEW YORK, NY 10018
P 646-844-0228 F 518-252-4154 WWW.EDTRUSTNY.ORG