Considering "Grow-Your-Own" (GYO) Models by Examining Existing Teacher Preparation Programs in Maine

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Table of Contents

Policymaker Summary

1. Why was this study conducted?

This study was conducted in order to examine Grow-Your-Own teacher preparation programs in the state. The initial project description was as follows: "Describe K-12 / IHE partnerships to "Grow Your Own" (GYO) teachers. How are the programs designed, what are the partner roles, and what are the perceived outcomes of this approach?" GYO programs are defined as, "a variety of strategies that aim to recruit teachers from local communities in hopes that the pool of candidates…will be more likely to stay teaching in the community" (Valenzeula, 2017). Across the country, Grow-Your-Own teacher preparation programs are gaining popularity as a means to fill teaching positions in high-need schools, in traditionally harder to fill positions, such a STEM or special education, and in order to increase racial, ethic, or linguistic congruence between teachers and student populations.

2. What do you need to know to put this study into context?

For this study, we reviewed five teacher preparation programs throughout the state:

- St. Joseph's College's National Science Foundation grant for development of a STEM-focused GYO program;
- The 2-Year Extended Teacher Education Program (ETEP) Program, University of Southern Maine;
- Teach Portland, Portland Public Schools;
- Integrated General and Special Education program, University of Southern Maine;
- Master of Science in Teaching (MST) degree program at Maine Center for he Research in STEM Education (RiSE), University of Maine.

One of the central underpinnings of this report is that the teacher preparation programs reviewed for this study are not true Grow-Your-Own programs. The MEPRI research team determined that many of the teacher preparation programs had similar characteristics to GYO programs were not clearly definable as such. Many were primarily university-based, rather than clearly district-partnered or led. In addition, some of the state's existing programs train teachers to work throughout Maine, and potentially in other states, rather than seeking to produce for a specific local area. Thus, although we hoped to examine GYO programs, our analysis shows that true GYO programs in Maine are still scarce. As such, the purpose of this study shifted slightly from its original conceptualization, as we compiled the list of program cases, to focus on describing the structures of programs that currently exist, and the properties that make them similar and different from true GYO programs found elsewhere in the country, and in the literature.

3. What did we learn from the study?

This study has several key findings, which are broken into three overarching sections:

- *Structure of the Maine Teacher Preparation Programs:* This findings section begins by describing each of the five programs. We then compare the program structures using a typology. Broadly, we find that the programs have different structures and purposes, but have key differences from true GYO programs, particularly related to funding structures and partnerships.
- *Challenges and Barriers for Maine Programs:* This section found five primary challenges and barriers for teacher preparation programs in Maine.
    - One critical challenge for several of the programs is **establishing and maintaining funding supports.** For a true GYO program to exist, funding is required in order for universities or districts to support candidates so they can take time to engage in either a part-time or full-time in residency. For many school districts in the state, ongoing budget cuts make additional funds scarce. Many of the organizations and universities leading these teacher preparation programs rely on limited base budgets, student scholarships and/ or grant funding to operate their programs and support students. University faculty, and potentially partner organizations, have more time and resources with which to apply for grant support than districts. However, grant funding is relatively scarce, and applications are time-consuming. For example, one of the main challenges for the RiSE Center's MST program is securing the large external grants to fund the students' scholarships and tuition funding which allows them to be in this program full-time, as a "residency" program. While these resources are useful, they are not necessarily permanent, and longer-term solutions need to be established for these types of programs to be sustained.
    - **Establishing and maintaining partnerships** involves many challenges. Partnerships between universities and school districts is generally a key component of GYO programs. Maintaining partnerships with districts and schools takes staff time and effort. Not only do the districts need to be invested in building a GYO program alongside a university-based teacher education program, they need to have capacity to support one. This can prove challenging, partly because of the small size and hiring capacity of most districts in Maine. Forming and maintaining clear partnerships can be challenging, as many of the programs reviewed for this study noted.
    - **Recruiting teachers** can be a barrier to the success of a program. These programs struggle in the same way that teacher preparation programs also struggle generally to encourage people into the teaching field. Factors such as working conditions, changing expectations of teachers, and low salaries can deter people from seeking this career path. There are multiple, complex questions that these programs must grapple with, such as how to recruit, from where, and which populations to target. The ways in which programs recruit candidates and work with districts or universities to identify potential teachers can impact the quality of the programming and its overall success in achieving its goals. Other challenges include finding teacher candidates with the content background needed by STEM teachers or the English proficiency needed by the foreign trained teacher candidates in Portland. Further, in regions with smaller populations from which to

draw, the pool of candidates is necessarily limited. Without financial supports to help individuals make transitions between career paths, that pool narrows further.

  - Although the programs we studied sought to address teacher shortage areas, **none could guarantee employment in a specific school or district** following completion of the program. In rural educational settings, although there are frequently shortages in some teaching areas, these openings are not clustered around one geographic region, never mind in one district.
  - In Maine, there is currently a **lack of statewide policy that would support the implementation of GYO-programs**. Ch. 114 limits alternative pathways. Only institutes of higher education (IHEs) can be approved educator preparation programs, limiting school districts' ability to Grow Their Own new teachers

- *Perceived Outcomes of the Maine Programs:* The perceived outcomes of the teacher preparation programs examined for this study are limited but they generally align with much of the literature reviewed earlier in this report. GYO and hybrid type programs can fill teaching gaps in specific populations: rural schools, STEM fields, specific teacher racial demographics, and in special education. In addition, these programs provide strong, ongoing mentoring systems for teachers through both the university and the district. These programs also have the potential to strengthen partnerships within the broader community around education—between community organizations, districts, post-secondary institutions. The perceived outcomes of the programs reviewed for this study are related to many of the desired outcomes from GYO programs. As noted in their descriptions, many of these five programs have had successes in teacher placement in public schools in Maine, with particular focus on critical gaps in special education and STEM fields. Several of the programs have made strides, and opened important conversations about teacher diversity, and built connections between community organizations and school districts. Some of the programs, such as the MST degree program in the RiSE Center, have worked hard to forge strong professional development networks. These networks provide on-going, high-quality professional development and other support services to teachers around the state and perpetuate partnerships.

2. <u>What did we conclude overall from the study?</u>

There are promising possibilities for GYO programs in Maine. While the teacher preparation programs reviewed for this study draw on some elements of GYO programs, there are places where policy-makers could consider actions to support these hybrid programs and/or the establishment of true GYO programs.

3. <u>What are some potential implications for education policy and/ or practice?</u>

- *Bolstering Financial Supports/ Incentives:* Funding for GYO and hybrid programs is a major concern. In general, financial supports are needed to support teaching candidates to engage in teaching programs during the school year. Fallona and Johnson (2019) recommend drawing on funds from Title II, Part A of ESSA to support the development of GYO pathways, in addition to potentially drawing on grants from a variety of sources to support district-university partnerships. In addition, one of the suggestions raised by interviewees was to establish means of incentivizing teachers to pursue, or transition to, teaching as a career— with a particular focus on filling gaps in high-need, rural schools.

- *Organizational Support Structure:* Policy-makers can consider enabling a variety of institutions to be approved to develop teacher preparation programs to support GYO programs in the state. Drawing on local resources from institutions such as educational partner organizations or Local Educational Agencies (LEAs) would allow GYO programs to develop in conjunction with regions. This would allow districts to leverage existing expertise in schools and districts, and build connections and enhance professionalization of teaching. These institutions could partner with universities, but would be eligible to seek approval as an educator preparation program and recommend candidates for teacher certification.

- *Recruitment:* As noted above, recruitment could be advanced by providing financial incentives for teachers to enter the profession. Incentivizing programs could be designed using loan forgiveness for college graduates, for example, or federal or foundation grants. These could be applied to teachers who fill specific gaps in their communities to support GYO programs in the state.

4. <u>What methods were used to conduct this study?</u>

This project used a case study research design to explore teacher preparation programs in the state of Maine. At the outset of this project, researchers at MEPRI developed a list of programs in the state that seek to develop teachers, beyond the traditional programs found in universities. Key informants for each of these programs were identified and then invited to participate in interviews for this study. Interviews were conducted in person or by video-conference with district administrators and university personnel, or other key stakeholders, who are involved in one of the identified partnerships for teacher preparation. Major themes were identified in relation to the broad research questions of the study.

Overview of Study Purpose

The purpose of this study was to investigate and describe local initiatives that might support "Grow Your Own" (GYO) approaches, to preparing PK-12 teachers. GYO programs are defined as, "a variety of strategies that aim to recruit teachers from local communities in hopes that the pool of candidates…will be more likely to stay teaching in the community" (Valenzeula, 2017). These programs often target recruitment in specific areas, such as areas with a shortage of teachers (e.g., STEM or other areas), or to address a particular district goal, such as increasing the diversity of a teaching staff. They are frequently run as partnerships between universities and districts, largely because they are based on district demand and are locally- or community-based.

During this initial review process, the research team determined that many of the teacher preparation programs throughout the state that had similar characteristics to GYO programs were not clearly definable as such. Many were primarily university-based, rather than clearly district-partnered or led. In addition, most of the state's existing programs recruit students from a wide region and prepare teachers to work throughout Maine, and potentially in other states, rather than seeking to produce teachers for a specific local area. Thus, although we hoped to examine GYO programs, our analysis shows that true GYO programs in Maine are still scarce.

For this analysis, we examined a variety of unique teacher preparation programs around the state, most of which were university-led, which seek to develop new teachers and which may include, to some extent, elements of a GYO program. We describe the GYO approach later in this report, as well as the programs we examined in Maine. As such, the purpose of this study shifted slightly from its original conceptualization, as we compiled the list of program cases, to focus on describing the structures of programs that currently exist, and the properties that make them similar and different from true GYO programs found elsewhere in the country, and in the literature. Finally, the study identified some of the policy barriers that impede partnerships and collaboration between K-12 schools and higher education institutions, and the successful strategies that have been used to overcome them, in order to inform future initiatives.

Background

In general, Grow Your Own (GYO) programs recruit teaching candidates from within the community, and support them as they become teachers (Espinoza, Saunders, Kini, & Darling-

Hammond, 2018; Alvarez, 2017). For example, educational technicians or other staff working in schools may continue to work in these roles while also taking education coursework to become classroom teachers. School districts may cover some portion or all of their tuition expenses, and provide additional supports including mentoring and supervision. Ideally, these candidates are supported by a district or school during this process, with the ultimate outcome being that the candidate will be placed in that school for their internship and job. The idea behind this approach is to help local communities improve their recruitment and retention of teachers by developing new teachers who already live or work in their communities, and by helping to develop the supply of teachers generally.

There is a wide variety of GYO programs within this overarching structure. Among other things, GYO programs can vary in terms of recruitment strategies and goals, financial assistance and supports, curricular models, and partnership models. GYO programs recruit from a variety of age groups, including, but not limited to, high schools, colleges, and adults in the community (Martin, 2011). Some GYO programs are university-led, while others are managed at the state, district, or school level, and still others are maintained by community organizations in partnership with educational institutions (Skinner, Garreton, & Schultz, 2011).

In order to better-understand GYO programs, and the research about them, we break this background section into two overarching sections:

1. Reviewing the purposes of GYO programs; and,
2. Overview of GYO programs currently in existence beyond Maine.

Finally, drawing on the research reviewed in these two parts, we close this background section by outlining a typology of teacher preparation programs that draw on structures similar to GYO programs which was developed for this study in order to help examine and classify the programs that currently exist in Maine.

Purposes of GYO Programs

In many areas of the country, school districts are struggling with ongoing teacher shortages. Compounding this problem is a decline in the number of students enrolling in university-based teacher education programs (Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Throughout the country, as evidence by the literature, true GYO programs are designed to address a variety of teacher shortages. The purpose of these GYO programs is to address teacher shortages in three

main categories:

1. Rural school teachers;
2. Content area specialists, such as special education or STEM fields; and,
3. Teachers from diverse racial, ethnic, and linguistic backgrounds.

Addressing Teacher Shortages in Rural Communities

For rural areas, such as in Maine, there is an increasing need for well-trained teachers to fill these classroom positions. For rural communities, teachers with a pre-existing connection between community members and the region would, ostensibly, be more likely to be recruited to teach in local schools (Gagnon & Mattingly, 2015). In addition, GYO programs provide an opportunity to not only fill those gaps, but also can serve an economic benefit by creating new employment opportunities for members within the community.

Although there is less research specific to rural school recruiting, a great deal of research has been conducted on recruiting local community members to serve as school teachers. There is a growing consensus about the significance and success of recruiting and developing teachers from within communities from which they come (Fenwick, 2001; Gist, Bianco, & Lynn, 2019; Skinner, Garreton, & Schultz, 2011). In fact, there already exists a national trend toward teachers working within their own communities. Research shows that, often, teachers work close to where they grew up (Reininger, 2011) and, according to Brown (2016), more than 60 percent of teachers in this country work within 20 miles of where they went to school.

Different GYO programs have set guidelines for recruitment in diverse ways, depending on the program parameters and goals. These include, but are not limited to, demonstrating a prior commitment to children or community work (Lau, Dandy, & Hoffman, 2007), or having a substantial number of years working as a school and/or community leader (Skinner et al., 2011). Other research shows that recruiting from within the community can strengthen connections between community organizations, universities, schools and districts (Domina & Ruzek, 2012).

Filling Specific Curricular Gaps, such as Special Education or STEM Fields

Within the overarching purpose of teacher shortages are specific curricular gaps that some GYO programs seek to fill. These gaps are not specific to rural communities and exist in the literature across districts of all sizes. Although there are myriad types of curricular gaps that could potentially be addressed using GYO programs, several of the most commonly discussed in

the literature or developed in practice address the shortages in STEM fields or special education.

Special education is one area in which there are increasing shortages of teachers, particularly in Maine. In 2019, MEPRI reviewed dual general and special education certification and Grow Your Own pathways to teacher certification (Fallona & Johnson, 2019). While in Maine there are many teacher shortage areas, Fallona and Johnson (2019) highlight that special education "is the only teacher certification area that has been continuously listed as a shortage area since 1990" (p.1). While noting that, due to variance in structure and supports for GYO programs nationwide, the research results on efficacy of GYO are not consistent, Fallona and Johnson (2019) summarize, "the existing research suggests that both Grow Your Own and collaborative teacher education programs show promise for addressing the special education teacher shortage and better preparing teachers to work with students of diverse abilities" (p.12). This report concluded that "education policies that promote the development of dual certification and grow your own programs should include the funding and provisions for assuring that these pathways are producing high quality teachers who are prepared to meet the demands of teaching diverse learners" (Fallona & Johnson, 2019).

In the STEM fields, GYO programs also offer an opportunity to connect teachers to fill local gaps. In addition to reaching out to local parents and community members who may be seeking a career change for recruitment, the National Comprehensive Center for Teacher Quality (2007) contends that GYO recruiting for sciences should start in the K-12 schools:

> These recruitment efforts should begin early: in middle school classrooms and through extracurricular activities that encourage students who excel in mathematics and science, or who have a passion for children with special needs, to pursue a career in teaching. By the time students reach high school, formal recruitment programs should be in place to provide encouragement, mentoring, training, and financial assistance toward certification. (p.4)

Research also shows that teachers in STEM fields, particularly for rural schools, respond to strong personal ties in the community, as well as opportunities to connect their teaching to local, rural contexts (Goodpaster, Adedokum, & Weaver, 2012). GYO programs are often designed in ways that could provide those local connections for STEM teachers in rural contexts.

In both special education and STEM, research shows that recruiting qualified candidates remains a major challenge (Perona et al, 2015), particularly for filling gaps in the STEM fields

that face intense competition for candidates with many other—potentially more lucrative—career options.

Recruiting Teachers from Diverse Racial, Ethnic, and Linguistic Backgrounds

In addition, GYO programs have been reviewed by multiple sources as a means to address racial, ethnic, and linguistic gaps between student and teacher populations (see, for example, Albert Shanker Institute, 2015; Learning Policy Institute, 2016). Research has shown that GYO pathways to teaching increase access to the profession (Tanner & Tanner, 1968). Recruiting and retaining teachers from diverse backgrounds who more clearly reflect shared cultural experiences with their students has been indicated to improve classroom relationships and outcomes (Bartlett & García, 2011). The significant academic impact of racial congruence between students is core to race-conscious GYO reform efforts (Villegas & Irvine, 2010; Ocasio, 2014; Skinner, Garreton, & Schultz, 2011; Wong, et al., 2007).

Overview of GYO Programs Currently in Existence Outside of Maine

There are a wide range of GYO-type programs in existence throughout the country, each with their own structure, policy supports, foci, and institutional supports. In 2019, MEPRI reviewed, in detail, many GYO programs (see Fallona & Johnson, 2019 for full descriptions). The programs detailed in that report include (Table 1):

Table 1. Summaries of GYO Reviewed in Fallona & Johnson (2019)

Name	Partners/ Funders	Summary Description[1]
Teach Western Mass (TWM)	Holyoke Public Schools, the Springfield Empowerment Zone Partnership, and UP Education Network, with support from the Irene E. and George A. Davis Family Foundation and the Massachusetts Department of Elementary and Secondary Education	"Building a pipeline of dedicated and diverse educators who reflect the makeup of the region and who possess the content knowledge and skills to teach subjects where great teachers are in short supply (e.g., math, science, special education, and English as a Second Language)."
Pipeline for Paraprofessionals, Boston, Massachusetts	Boston University and Boston Public Schools (BPS); funded by the Massachusetts Department of Elementary and Secondary Education's Elevate Preparation: Impact Children (EPIC) Partnership Innovation Grant Program	"Recruits paraprofessionals working with students with severe disabilities in Boston Public Schools and supports to special education teacher licensure."

[1] All quotes from Fallona & Johnson, 2019

Table 1. Summaries of GYO Reviewed in Fallona & Johnson (2019) Cont.		
Name	Partners/ Funders	Summary Description[1]
Boston Public Schools Teacher Pipeline Programs, Boston, MA	Boston Public Schools (BPS) Office of Human Capital	"Three GYO pipelines to recruit a racially, ethnically, and linguistically diverse group of highly effective and culturally proficient teachers."
Minneapolis Special Education Teacher Residency, Minnesota	Minneapolis Public Schools	"Its goal is to prepare highly effective and diverse special education teachers who will create increased opportunities for students receiving special education services in Minneapolis Public Schools"
Northwest University, Kirkland, Washington	Northwest University	"Alternative route program offers online academics with field experiences in GYO partner school districts in geographic areas that are thirty or more miles from the nearest on-ground teacher preparation program. The program is aimed at paraeducators or those with conditional certifications employed within the partner districts."
Grow Your Own Teacher (GYOT) program, Wichita, Kansas	Wichita Public Schools	"To combat the chronic teacher shortage by developing a continuous pipeline of quality teachers who share the culture, language, and community of Wichita Public School students."
Teacher Cadet Program, South Carolina	Center for Educator Recruitment, Retention, and Advancement + 22 partner colleges and universities	"Primary goal of the Teacher Cadet Program is to encourage academically talented, high-achieving, high school students with exemplary interpersonal and leadership skills to consider teaching as a career."
Educators Rising	Independent Organization	"Educators Rising offers resources and opportunities that integrate directly into the academic programs of "teacher academy" career and technical education courses at the high school level."

In addition, there are other GYO programs throughout the country. These few examples from around the country reflect a range of diversity of purposes and structures for GYO programs. In Illinois, a non-profit organization, GYO Illinois, supports districts that implement GYO programs to increase diversity among their teacher workforce[2]. Also in Illinois, Eastern Illinois University provides scholarship supports to teacher candidates in rural areas who want to

[2] https://growyourownteachers.org/about-us1/mission

become teachers serving high-need, rural schools[3]. In Mississippi, the state board of education created a task force in 2018 to examine GYO teacher preparation models to help address teacher shortages throughout the state, with special attention to special education recruitment[4]. The Minnesota Collaborative Urban Educator Program, in conjunction with the Minnesota State Legislature, and a variety of post-secondary institutions around the state seeks to recruit immigrant community members as teachers[5]. These candidates are often provided with scholarships to complete teacher training.

While each of these programs is focused somewhat differently, there are common themes running throughout them. Each involves collaboration and partnership between districts, schools, and support institutions. Each draws on GYO models to fill significant gaps in their teacher force, and several have financial backing for teacher candidates. Many lead to employment opportunities or even requirements to teach in certain schools or districts (for example, high-need schools).

Building a Typology of Teacher Preparation Programs with GYO-Type Characteristics

A key feature of many of most of the GYO programs that currently exit outside of Maine is that they are teacher residency programs. According to the National Center for Teacher Residencies (NCTR):

> Teacher residency programs are, by definition, district-serving teacher education programs that pair a rigorous full-year classroom apprenticeship with masters-level education content. Building on the medical residency model, teacher preparation programs provide residents with both the underlying theory of effective teaching and a year-long, in-school "residency" in which they practice and hone their skills and knowledge alongside an effective teacher-mentor in a high-need classroom. New teacher residents receive stipends as they learn to teach, and commit to teaching in their districts for three or more years beyond the residency. (NCTR, 2020)

NCTR research related to the impact of teacher residencies has found graduates of teacher residency programs increase student achievement more than traditionally-trained teachers; residency programs provide schools with much needed stability as 86 percent of residency graduates are still teaching in their high-need schools after three years and finally, residency

[3] https://www.eiu.edu/rsi/gyo_scholarship.php)
[4]https://www.mdek12.org/sites/default/files/Offices/MDE/OA/OTL/Teacher%20Center/mde_gyo_report_07.pdf
[5] https://drive.google.com/file/d/0B_bsOb2aZbo8bUkyVVRuNk9CUHc/view

programs attract a larger percentage of people of color to the profession (NCTR, 2019). Further, Guha, Hyler & Linda Darling-Hammond (2016) identified key characteristics of strong residencies. According to their research, strong teacher residencies include strong district/university partnerships, coursework about teaching and learning tightly integrated with clinical practice, full-year residency teaching alongside an expert mentor teacher, high-ability, diverse candidates recruited to meet specific district hiring needs, typically in fields where there are shortages, financial support for residents in exchange for a three- to five-year teaching commitment, cohorts of residents placed in "teaching schools" that model good practices with diverse learners and are designed to help novices learn to teach, expert mentor teachers who co-teach with residents and ongoing mentoring and support for graduates.

In order to help to describe, classify, and evaluate the teacher preparation programs we examined in Maine for this study, our research team developed a typology based on this literature. The typology is shown in Table 2.

Table 2. Typology of Example Characteristics of Programs

Characteristic	Types
Nature of district/ university partnership	Primarily University- Driven
	Primarily District-Driven
Length/Type of Clinical Experience	Part-Year
	Full-Year
	2-Year (or more)
Teaching Model During Clinical Experience	Student Teacher
	Paraprofessional or Co-Teacher
	Teacher of Record (conditional certification)
Feedback/ Assessment Structure for Pre-Service Teacher	Informal Only, No Feedback Captured
	Structured, Formative Feedback
	Evaluate Performance (Summative)
Financial Support During Clinical Experience	None- Intern Pays Tuition
	Scholarship
	Grant
	Employee of the School
Post-Residency Teaching Commitment	None
	Teach in Specific Category of School
	Teach in a Specific School or District
Target Teacher Subject/ Gap	None
	Locality
	High-Need/ Subject Area
	Racial or Ethnic Background
Primary Age Group(s) for Recruitment	High School
	College/ Graduate Students
	Adult/Community Members

This typology is broken into eight sections, each of which has sub-categories. These categories allow for comparison of structures and characteristics of different programs.

The first several categories examine organizational components of the programs. Partnership between universities and districts is often a common feature of GYO programs. For district district/university partnerships, our typology seeks to define the teacher preparation programs we reviewed in Maine as primarily, programmatically driven by either a school district (LEA) or a post-secondary institution. Understanding these relationships is critical for a program examination. In looking at feedback structures for the teacher preparation programs in Maine, we disaggregated types of feedback for teaching interns into three categories: informal only, structured, and evaluative performance.

We also disaggregate the teaching models during clinical into three categories: student teaching, paraprofessional or co-teacher, and teacher of record. Each of these types of clinical experiences, as we will discuss, is related to funding supports as well as the district/university partnership. Relatedly, within the typology, financial structures are disaggregated into types: scholarships, grants, employment, and no financial supports existing for the student-intern. In many cases, as we will see, there are a variety of financial structures in place for the programs in Maine.

The last two categories relate to recruitment strategies. As noted in the literature review, some teacher preparation programs, and GYO programs, recruit teachers in order to fill a specific niche—from general local district supports, to specific subjects, such as STEM or special education, or teachers with particularly racial, ethnic, or linguistic backgrounds. Finally, GYO programs, in particular, as well as some of the programs we examined in Maine, target particular age groups within the community—from high school to adult community members.

Methodology

This project used a case study research design to explore teacher preparation programs in the state of Maine. The research questions framing this study included:

(1) How are "Grow Your Own" or similar types of teacher preparation programs and partnerships in Maine structured?

(2) What are the perceived challenges or barriers for the district and higher education partners?

(3) What are the perceived outcomes from these approaches to teacher preparation?

At the outset of this project, researchers at MEPRI developed a list of programs in the state that seek to develop teachers in ways that may support districts to grow their own. As noted earlier, there are few programs that utilize true, complete GYO strategies for teacher preparation in Maine. However, the programs selected for this study reflect some key characteristics of true GYO programs, as will be discussed in detail later. Amongst the ones that exist, five programs were included in this study:

1) St. Joseph's College's National Science Foundation grant for development of a STEM-focused GYO program;
2) The 2-Year Extended Teacher Education Program (ETEP) Program, University of Southern Maine;
3) Teach Portland, Portland Public Schools;
4) Integrated General and Special Education program, University of Southern Maine;
5) Master of Science in Teaching (MST) degree program at Maine Center for Research in STEM Education (RiSE), University of Maine.

Key informants for each of these programs were identified and then invited to participate in interviews for this study. Two other GYO-hybrid programs were invited to participate, but declined. These five programs represent a variety of institutions, purposes, and organizational approaches to GYO-type strategies. They are also in varying stages of development.

The data collection component of this study used qualitative research methods—primarily interviews and document analysis—to profile key aspects of program design and implementation challenges. Interviews were conducted in person or by video-conference in November and December, 2019, with district administrators and university personnel, or other key stakeholders, who are involved in one of the identified partnerships for teacher preparation. Semi-structured interview protocols were used for the interviews. Interviews generally lasted about 45-60 minutes. The three research questions listed above formed the foundation for the interview questions. Interviews were either recorded and transcribed or detailed notes were taken. Written summaries were developed from the transcripts and notes. Major themes were identified in relation to the broad research questions. Drawing on the literature base, a typology was developed to facilitate cross-case comparisons among the five different programs.

Findings

Our findings for this report are broken into three main sections, following the overarching research questions for this study. We begin by examining the structure of each of the above mentioned teacher preparation programs in Maine. We then examine the challenges and barriers for these programs. The second section focuses on the disparity between the teacher preparation programs in Maine that were examined for this study, and the structure of true GYO programs. Finally, we examine the perceived outcomes of these programs for the state.

Structure of the Maine Teacher Preparation Programs

We first present a brief description of each of the five programs, followed by a cross-program analysis of the findings related to each of the three research questions. In the first section, using the typology developed from a review of the national literature on GYO programs, we present a description of the cases in this study.

Description of Programs

As noted above, five programs were reviewed for this study: the St. Joseph's College National Science Foundation GYO development grant, the 2-Year Extended Teacher Education Program (ETEP) Program, Teach Portland, the Integrated General and Special Education program at the University of Southern Maine, and the Master of Science in Teaching (MST) degree program at Maine Center for Research in STEM Education (RiSE) at the University of Maine. This section provides a brief descriptive background for each program.

St. Joseph's College

In 2018, St. Joseph's College, in partnership with Southern Maine Community College, won a Robert Noyce Teacher Scholarship Program Capacity Building grant from the National Science Foundation to fund a "project [that would] address a severe shortage of science teachers in Maine."[6] Long term, the project hopes to enable schools and districts to "grow their own" science teachers—particularly at the high school level. The project outlines three primary objectives for developing GYO models for science teachers in the state:

1. "Develop new ways to increase student awareness of science teaching careers";

[6] https://nsf.gov/awardsearch/showAward?AWD_ID=1758369&HistoricalAwards=false

2. “Create smoother pathways to enter the science and secondary education programs at Saint Joseph's College (SJC)”; and,
3. “Establish connections between SJC and high-needs Local Education Agencies (LEAs) to enable recruitment of potential teachers, placement of apprentice teachers, and support of new teachers in those schools.” The proposal states that the project will specifically target Bonny Eagle, Caribou, Fort Kent, Gray-New Gloucester, Lewiston, Westbrook, and Windham school districts.

At the time of this study, this project was only in the capacity-building stages, and beginning to develop structures to support GYO programs in science.

Teach Portland

Teach Portland[7] is a district driven “Grow Your Own” program aimed at increasing the diversity of the teaching population in Portland Public Schools in order to better match the student demographic in the district. Currently, the program does not lead to teacher certification. Presently it offers a summer program where enrolled students take an introductory course on teaching as a profession or teaching exceptional students and participate in a paid internship at one of the summer programs offered through Portland Public Schools. This program is open to (1) high schoolers, (2) college students, and, (3) adults in the community interested in teaching.

As a part of the Teach Portland initiative, the New Mainers Resource Center (NMRC) developed the Education Academy for foreign trained teachers. The program is designed to build on the skills and experience that these teachers bring with them from their home countries. The Education Academy combines coursework with intensive English and a practicum classroom experience. Students in the program are trained to work as Educational Technician III’s and substitute teachers. The program also provides the guidance and support students need to ultimately apply for and pursue teacher certification in Maine. Some scholarships are available for those who are eligible. In the last cohort, all who participated were hired by district as Ed Techs.

[7] https://www.portlandschools.org/cms/one.aspx?portalId=1094237&pageId=32031250

2-Year ETEP Program at the University of Southern Maine

The University of Southern Maine's Extended Teacher Education Program (ETEP)[8] was established in 1990 in collaboration with several school districts in southern Maine. The ETEP program draws on extensive urban and suburban teaching partnerships for placement. Each student is placed with a mentor teacher who "oversees the classroom where your student teaching also serves as your day-to-day contact and mentor," and has support from USM faculty as well as an advisor that provides in-school support and feedback.

The program offers graduates two pathways for initial teacher certification in the state of Maine, leading to a Master of Science in Education (MEd). The first pathway is a full-time, nine-month program for teachers. The second pathway is relevant to this study, as it offers flexible scheduling to allow students to work while taking courses and completing practicum work part-time for the first three-quarters of the program. With the exception of the final semester in which interns must complete a full-time classroom practicum, this structure enables Ed Techs or co-teachers to be supported by their district as they complete a large portion of their teacher certification. Although this program is not designed as a GYO program, it can partially serve as one, allowing districts to cultivate promising Ed Techs, while supporting them for the majority of the teacher certification program.

The Maine Center for Research in STEM Education (RiSE) at the University of Maine

The Master of Science in Teacher (MST) degree was launched in 2003 through the RiSE Center at the University of Maine[9] to prepare individuals to teach math or science in grades 7-12. One goal of the program was to deepen the content knowledge of teachers in math and science through their coursework and engagement with higher education faculty in STEM disciplines, with the ultimate goal of improving the quality of teaching and student learning outcomes. A second goal of the program was to increase teachers' understanding and use of research and inquiry to address practical problems of instructional practice in their content areas. A third goal was to address the shortage of math and science teachers at the secondary level in Maine, particularly in rural districts.

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[8] https://usm.maine.edu/extended-teacher-education-program-etep/overview
[9] https://umaine.edu/risecenter/

The MST degree program involves both collaboration across content areas and colleges within the University of Maine, but also utilizes and develops strong partnerships with school districts and teachers. Districts agree to take student teachers and hire teachers upon graduation. Individual teachers engage with both preservice teachers and beginning teachers in this program through regular, regional professional learning events, mentoring and inquiry projects. The RiSE Center fostered the development of the Maine STEM Partnership at the RiSE Center, a statewide STEM education improvement community, which includes a network of math and science teachers statewide, and the MST program purposefully makes use of this resource for the preparation of new teachers.

Most of the students (over 90%) in the MST program have never taught in the classroom. These students may have recently finished a bachelor's degree in education or in a math, science, or engineering discipline, or they may be older adults pursuing teaching as a second career. Some students (less than 10%) have been teaching for a few years but want to strengthen their knowledge in their content areas. Students can choose to be part-time or full-time students. Most students choose the full-time residency program which offers a graduate assistantship, tuition and reduced rate for health insurance for the two years of study, supported through external federal grants or on-campus teaching assistantships. Students may also apply and be selected for the NSF Teaching Fellowship program, started in 2016, which provides an additional annual stipend for students who commit to teach in a high-needs rural district in Maine for four years after they graduate. About half of all MST students choose this path and 13 Fellows have been placed in rural schools in Maine to date, with 8 more student teaching in spring of 2020 in preparation for teaching in a high-needs district in fall of 2020. All students complete a semester of student teaching and are mentored throughout their preservice and beginning in-service by experienced math or science teachers from across Maine. Roughly 75% of the students in the MST program are from Maine, while 25% come from other states to attend this program. To date, 88 students have graduated from the MST program. Most take teaching jobs in Maine, while others choose to pursue other types of STEM education work or teaching jobs out of state. Some students pursue a doctoral degree in their STEM discipline or in STEM Education, often at the University of Maine.

The Integrated General and Special Education program at the University of Southern Maine

The Integrated General and Special Education program[10] at the University of Southern Maine is a concentration within the Master of Science in Special Education program for teachers seeking dual general and special education certification. According to the program description, "USM works in partnership with school districts, special purpose schools, and state approved agencies to make the program available to paraeducators and others employed in education."

Once enrolled, students follow a two-year course sequence, and all courses are available online. The internship for the program is based upon hours required for student teaching. Because candidates are employed, primarily as Ed Techs or conditionally certified teachers, the internship is part-time throughout the two years. Thus, although interns pay tuition, the schedule and structure of the program means that they can also be employed as a paraprofessional. Interns keep a log of internship hours and activities for each certification area. Internship assessments are key to the program.

According to Fallona and Johnson (2019) this program "can also be considered a "Grow Your Own" approach as it is designed for those working as Ed Techs, and is online so that it can accommodate the teacher candidate's employment and other responsibilities" (p.21). Interviews for this study echoed this intentional structuring as a GYO: "We…just we came to grow your own. What's likely to have them stay. And the Ed Tech piece, that was a part of it. That was sort of the next step. So how do you grow your own? Well, there's a teacher assistant position, there's some kind of staffing position that gets people started, allows a district to see the person, and see if this is a person we want."

Cross-Program Typology Analysis of Structure

In order to frame our cross-program descriptive analysis the programs in Maine and comparisons among them, we use a typology we developed (Table 3 on the next page).

[10] https://usm.maine.edu/special-education/integrated-general-and-special-education-teacher-certification

Table 3. The Characteristics/ Structures of Five GYO-Type Programs in Maine						
Characteristics		**Programs in Maine**				
		St. Joseph's College	**Teach Portland**	**USM's 2-Year (ETEP)**	**UMaine's MST program**	**USM's Integrated Program**
Nature of district / university partnership	Primariy University-Driven	X		X	X	X
	Primarily District-Driven		X			
Length/type of clinical Experience	Pre-Student Teaching Practicum		X	X		
	Part-Year			X	X	
	Full-Year					
	2-Year (or more)					X
	N/A	X				
Teaching model during clinical experience	Student teacher		X	X	X	X
	Paraprofessional or co-teacher			X		X
	Teacher of record (conditional certification)					X
	N/A	X				
Mentor role feedback and assessment structure for pre-service teacher	Informal only, no feedback captured		X			
	Provide structured formative feedback			X	X	X
	Evaluate performance (summative)			X		X
	N/A	X				
Financial support during clinical experience	None - intern pays tuition			X		X
	Scholarship		X		X	
	Grant					
	Employee (paraprofessional or teacher)			X		X
	N/A	X				
Post- residency teaching commitment	None		X	X	X	X
	Teach in a specified category of school	X			X	
	Teach in a specific school or district					
	N/A					
Target Teaching Subject/ Gap	None			X		
	Locality		X			
	High Need/Teacher Shortage Subject area	X			X	X
	Racial or ethnic background		X			
	N/A					
Primary Age Group(s) for Recruitment	High School		X			
	College/ Graduate Students	X	X	X	X	X
	Adult/ Community Members		X		X	

The table above shows that each of the programs examined for this study has different characteristics. There are some notable cross-program findings however.

Two components—the nature of partnerships and the post-residency teaching requirement— stand out. With respect to the nature of the partnerships, most of the programs that were reviewed were classified as "primarily University-driven." This means that, although there are K-12 districts that partner with these programs, generally, the management and direction of the program is spearheaded by the university. The exception to this pattern is Teach Portland which initially partnered with the University of Southern Maine, but has since shifted to district ownership of the program along with the New Mainers Resource Center (NMRC). Also, significantly, only two of the programs examined for this study (St. Joseph's[11] and UMaine's MST degree program) have a post-residency teaching requirement. Part of the reason for this pattern is that these two programs are NSF/Noyce funded. For those grants, students are fully supported in the program in exchange for teaching. In contrast, the other programs are traditional university programs. Thus, ultimately, the patterns that emerge in the post residency teaching requirement are directly related to financial support structures— another characteristic in the typology. These two components are at the core of why this study refers to these programs as GYO-type or hybrid, rather than being true "grow-your-own" models: there is not a clear and direct relationship with local districts either in terms of management, leadership, or eventual placement of teachers.

There are several other cross-programmatic trends. For several of the programs, the clinical experience is generally part-year, and and participants are frequently student teachers. This finding is likely linked to financial supports. In two of the programs (USM's Integrated and USM's ETEP programs), candidates are employees of school districts and pay tuition to the college or university, which requires them to follow a part-time course schedule. Other programs (Teach Portland and UMaine's MST degree program) have scholarship supports. This pattern additionally arises because many of the programs are characterized primarily university-driven,

[11] At the time of this research, St. Joseph's does not yet have in place partnerships with districts or post-residency teachers. However, the program's eventual plan is to have a post-residency requirement of teaching in high-need schools in Maine.

and, thus, teachers are obligated to complete the requirement of student teaching as outlined in Chapter 115.

Most of the recruits are college- or graduate-student age. Some programs also target high school students or adults/ community members. The majority of the programs reviewed are targeting high-need schools or subject-specific gaps, such as STEM. Teach Portland is the only program reviewed for this study that target recruits a racial group, non-White teachers, in order to increase student-teacher racial congruence in the Portland district.

Challenges and Barriers for Maine Programs

Based on our analysis across the programs examined for this study, we found five primary barriers/ challenges. These include:

- Establishing and maintaining funding support structures for the program and the teacher candidates;
- Establishing and maintaining partnerships between higher education programs and districts;
- Teacher recruitment into the programs;
- Lack of post-program employment opportunities; and,
- Lack of state policy that supports GYO programs.

Establishing and Maintaining Funding Supports

One critical challenge for several of the programs is securing funding. For many school districts in the state, ongoing budget cuts make additional funds scarce. Many of the organizations and universities leading these teacher preparation programs rely on limited base budgets, student scholarships and/ or grant funding to operate their programs and support students. University faculty, and potentially partner organizations, have more time and resources with which to apply for grant support than districts. However, grant funding is relatively scarce, and applications are time-consuming. For example, one of the main challenges for the RiSE Center's MST program is securing the large external grants to fund the students' scholarships and tuition funding which allows them to be in this program full-time, as a "residency" program. While these resources are useful, they are not necessarily permanent, and longer-term solutions need to be established for these types of programs to be sustained.

For a GYO program to exist, funding is required in order for universities or districts to support candidates so they can take time to engage in either a part-time or full-time in residency. Generally, GYO teacher candidates need support in either the form of scholarships and/ or employment. When relying on employment to support teacher candidates, balancing work time and program requirements can be a challenge. For example, teaching candidates in the 2-Year ETEP program are initially able to maintain their jobs, as the coursework and internships follow a part-time schedule. A challenge for this program is that in the final semester, students cannot maintain a full-time position at their school. The ETEP website notes, "Those employed as education technicians in their area of certification may be able to maintain full-time employment for the first three semesters" (ETEP website). Without some negotiation with their school and district, this results in the teacher candidate breaking their employment in the school. According to interviews, "districts are aware that they can use" the 2-Year ETEP program as a GYO-like program. The interviewee stated that they would "like to be able to market the program" as GYO, however, the funding structures do not currently exist to support extending this program as a true GYO program through the final, full-time internship semester.

Funding in the form of stipends can also support and engage a strong pool of experienced mentor teachers who work with teacher candidates. In addition, funding helps partner organizations and universities to maintain courses and a network of practicum supervisors.

Partnerships

Establishing and maintaining partnerships also involves many challenges. Partnerships between universities and school districts is generally a key component of GYO programs. Maintaining partnerships with districts and schools takes staff time and effort. Not only do the districts need to be invested in building a GYO program alongside a university-based teacher education program, they need to have capacity to support one. This can prove challenging, partly because of the small size and hiring capacity of most districts in Maine.

Forming and maintaining clear partnerships can be challenging, as many of the programs reviewed for this study noted. St. Joseph's discussed the challenges they faced in trying to establish permanent relationships with new districts for their GYO program. In other cases, there are university-district partnerships, but they are not required as part of a strategy. In each of the University of Southern Maine programs, 2-Year ETEP and Integrated General and Special

Education programs, the district may decide to use a program as a GYO-type model to promote the growth of one of their Ed Techs, for example, but there is no guarantee of employment in that district. Resolving questions about the roles and degrees of "partnerships" is important.

For the RiSE Center, partnerships between districts and the university have been less of a challenge. Buoyed by grant funding, teachers are able to access on-going high quality professional development through the RiSE Center's activities and professional networks of STEM teachers.

In addition, there are multiple universities and colleges working with a small number of districts throughout the state. For colleges and universities that are interested in partnering with districts, there may be a certain amount of competition for mentor teachers as well as other support systems.

Finally, establishing partnerships is more complex than simply providing spaces and support for teacher candidates. In addition, strong teacher preparation programs have cultural and philosophical alignment between the classrooms and schools in which student-teachers are placed and the institutions at which they are receiving their coursework training (Urban Teacher Residency United, 2014; Guha, Hyler & Linda Darling-Hammond, 2016). This type of partnership alignment is greatly aided by building up teacher networks in schools that can provide mentorship for subsequent teacher candidates. The RiSE Center has worked particularly hard on building these networks, which support their mission.

Recruitment

Recruiting teachers for these programs can be a barrier to the success of a program. These programs struggle in the same way that teacher preparation programs also struggle generally to encourage people into the teaching field. Factors such as working conditions, changing expectations of teachers, and low salaries can deter people from seeking this career path. There are multiple, complex questions that these programs must grapple with, such as how to recruit, from where, and which populations to target. The ways in which programs recruit candidates and work with districts or universities to identify potential teachers can impact the quality of the programming and its overall success in achieving its goals. The goal is ultimately to fill needs in teaching while not sacrificing the quality of the teaching pool or training.

Several of the programs addressed strategies and challenges related to recruiting teachers. For example, as a recruitment tool, St. Joseph's developed a free, college credit-bearing, online introductory course--"Introduction to Education"— for potential teacher recruits in order to "build SJC's capacity to attract students to their science teacher training programs." Describing it as primarily a "recruitment tool," they noted that tuition was covered by their NSF grant, which supported equity and access goals, but also raised questions about the sustainability of this recruitment model. Interviewees noted that they also had challenges with sustaining commitment from students, noting that they had many students begin the course, but not complete it. They raised questions about the efficacy of using the online course as a recruitment tool.

In addition, in areas such as STEM, where there are particularly competitive employment opportunities, recruiting for teaching can be even more challenging. Interviews indicate that research done by St. Joseph's at Southern Maine Community College, for example, pointed to potential STEM candidates' concerns about first-year teaching salaries. Teacher recruitment into the sciences is a major focus for the St. Joseph's project. In order to help facilitate this, St. Joseph's is partnering with Southern Maine Community College to support the teacher training, as well as provide an opportunity to conduct an in-depth study of the barriers to recruiting science teachers among community college students who are studying science. In our interviews with representatives from St. Joseph's and SMCC, participants described the steps they had already undertaken to understand some of science teacher recruitment barriers. For the first year of the grant, St. Joseph's and SMCC had reached out to science students at SMCC—meeting with multiple major areas. Primarily, their research had found that there were significant barriers to recruiting from science majors for teaching. The main challenges, they found, were "misconceptions of teaching" as a career path, as well as salary gaps between science careers and first-year teaching. Interviewees stressed that "teaching salary is a block," which was a particularly "big deal for new teachers," and even more so in high need areas, according to these interviews.

Other challenges include finding teacher candidates with the content background needed by STEM teachers or the English proficiency needed by the foreign trained teacher candidates in Portland. Further, in regions with smaller populations from which to draw, the pool of candidates is necessarily limited. Without financial supports to help individuals make transitions between career paths, that pool narrows further.

Eventual Employment Opportunities

In rural educational settings, although there are frequently shortages in some teaching areas, these openings are not clustered around one geographic region nor in one district. Although the programs we studied sought to address teacher shortage areas, none could guarantee employment following completion of the program. Professor Walter Kimball reported this challenge with respect to USM's Integrated Program's goal to address special education teacher shortages. He said,

> We had this very conversation about more formal grow your own, and do you hire somebody into an ed-tech position with the express intent of moving into a teaching position. And that's where you run into the numbers problem. That will never be big scale in Maine. Ever. So the places we looked at that were doing that really well, they had the scale to be able to implement it and fund it. We don't. We don't have that here, let alone being able to predict your staffing needs.

Rural GYO programs may not have the same consistent opportunities. Along with this issue comes a question of efficiency. It is probably not cost efficient for a district or school in Maine to develop or maintain a district-based GYO program for less frequent teacher openings.

Employment patterns for the 2-Year ETEP program also did not follow what might be considered a GYO structure. Interviews indicate that at the end of their certification program, 2-Year ETEP candidates are not required, nor are they guaranteed, to have a position in the district in which they were originally employed.

The RiSE Center reported success in placements for all of their graduates who seek to teach. With the program's specific focus on recruiting and preparing STEM teachers for middle and secondary schools, the program found employment opportunities for graduates, as noted in their description above.

Lack of State Policy That Support GYO Programs

In Maine, there is currently a lack of statewide policy that would support the implementation of GYO-programs. Ch. 114 limits alternative pathways. Only institutes of higher education (IHEs) can be approved educator preparation programs, limiting school districts' ability to Grow Their Own new teachers. This idea was noted in the interviews: "But could a district be a lead partner with a program that results in a master's degree? Even Teach for America had to go there." Models of alternative pathways are limited to those that support

teacher candidates who are the teacher of record at least half the time. There is no provision to support Ed Techs in completing student teaching. For example, in the 2-Year ETEP, once teachers arrive at their final semester, they must transition from their job to full-time teaching.

Lacking policy support, the pathways for Ed Techs to become teachers are limited. As recommended by the New Mainers Resource Center (2018):

> Educational institutions, school districts and MDOE are encouraged to find ways to utilize someone's existing employment as an Educational Technician or other work within a school system, to meet the student teaching requirement. MDOE could consider alternative ways to give foreign-experienced teachers credit for their past work, or their more recent work as Educational Technicians, if applicable. (p. 18)

Additionally, as note in this recommendation, there are no provisions for foreign-trained teachers to get credit for previous experience in schools when they seek teacher certification.

Perceived Outcomes of the Maine Programs

The perceived outcomes of the teacher preparation programs examined for this study are limited but they generally align with much of the literature reviewed earlier in this report. GYO and hybrid type programs can fill teaching gaps in specific populations: rural schools, STEM fields, specific teacher racial demographics, and in special education. In addition, these programs provide strong, ongoing mentoring systems for teachers through both the university and the district. These programs also have the potential to strengthen partnerships within the broader community around education—between community organizations, districts, post-secondary institutions.

The perceived outcomes of the programs reviewed for this study are related to many of the desired outcomes from GYO programs. As noted in their descriptions, many of these five programs have had successes in teacher placement in public schools in Maine, with particular focus on critical gaps in special education and STEM fields. Several of the programs have made strides, and opened important conversations about teacher diversity, and built connections between community organizations and school districts. Some of the programs, such as the MST degree program in the RiSE Center, have worked hard to forge strong professional development networks. These networks provide on-going, high-quality professional development and other support services to teachers around the state and perpetuate partnerships.

Policy Implications

There are promising possibilities for GYO programs in Maine. While the teacher preparation programs reviewed for this study draw on some elements of GYO programs, there are places where policy-makers could consider actions to support these hybrid programs and/or the establishment of true GYO programs. We offer some thoughts about the policy implications of this study's findings.

- Bolstering Financial Supports/ Incentives: As mentioned above, funding for GYO and hybrid programs is a major concern. In general, financial supports are needed to support teaching candidates to engage in teaching programs during the school year. Fallona and Johnson (2019) recommend drawing on funds from Title II, Part A of ESSA to support the development of GYO pathways, in addition to potentially drawing on grants from a variety of sources to support district-university partnerships. In addition, one of the suggestions raised by interviewees was to establish means of incentivizing teachers to pursue, or transition to, teaching as a career— with a particular focus on filling gaps in high-need, rural schools.
- Organizational Support Structure: Policy-makers can consider enabling a variety of institutions to be approved to develop teacher preparation programs to support GYO programs in the state. Drawing on local resources from institutions such as educational partner organizations or Local Educational Agencies (LEAs) would allow GYO programs to develop in conjunction with regions. This would allow districts to leverage existing expertise in schools and districts, and build connections and enhance professionalization of teaching. These institutions could partner with universities, but would be eligible to seek approval as an educator preparation program and recommend candidates for teacher certification.
- Recruitment: As noted above, recruitment could be advanced by providing financial incentives for teachers to enter the profession. Incentivizing programs could be designed using loan forgiveness for college graduates, for example, or federal or foundation grants. These could be applied to teachers who fill specific gaps in their communities to support GYO programs in the state.

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