Chapter 3 Leveraging Existing Policy for a University/K-12 Partnership: Using a Teacher Residency and Induction Model to Address a Teacher Shortage in Virginia, USA



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Introduction

In the fall of 2018, leaders from a large urban—suburban K-12 school division located in the Southwest region of Virginia met with education faculty from the University of Richmond to discuss a teacher shortage which found school administrators scrambling to fill an overwhelming number of vacant positions. The need for teachers had become so acute that the director of human resources asked university faculty to provide a list of teacher candidates who had yet to complete state teacher licensing requirements, so they might immediately recruit these unqualified graduate students into full-time teaching. At this point, university faculty were not surprised by the request, as the practice of hiring unqualified teachers with little classroom experience had steadily increased over the years. Regional school divisions relied on an existing temporary licensing policy to quickly staff classrooms in this way. (Virginia Department of Education [VDOE], n.d.). The potential for the continuation of this hiring practice to negatively impact student achievement, teacher effectiveness, and teacher retention was not lost on those attending the meeting.

It was at this critical intersection of policy and practice where the school-university partners realized the need for an innovative way to mitigate against the impact provisionally licensed teachers might have on students, particularly our most vulnerable

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students. Subsequent meetings led to deeper and more meaningful partnership practices and eventually to the innovation of a new teacher residency and induction model. The model is designed to allow continued use of the existing temporary licensing policy to fill vacant teaching positions, while simultaneously employing it as a mechanism for improving teacher recruitment practices, ensuring quality preservice clinical practice and increasing teacher effectiveness and retention. All of this could now be accomplished while meeting the short-term need to fill vacant positions and maintain cost neutrality.

The work of this school-university partnership suggests an approach to the policy/practice nexus within teacher preparation that moves stakeholders toward collaborative inquiry in order to imaginatively search for novel solutions to problems of practice within existing, and sometimes problematic, policy frameworks.

This chapter begins with a description of the national context in which the teacher shortage in Virginia is situated and summarizes the state and regional landscape of inexperienced and unqualified teachers employed in high-poverty K-12 schools. Next, the school-university partnership is framed as a response to concerns about the use of a temporary licensing policy as a short-term solution to the critical teacher shortage. The resulting School-based Teacher Education program (STEP) model is then described in terms of its novel use of the existing temporary licensure policy to fill vacant positions, provide teacher candidates with a paid residency and offer intensive/prolonged coaching to STEP participants during their first year of fully licensed teaching. Promising preliminary findings from data collected and analyzed during the first two years of implementation are presented as well as considerations and next steps for the partnership and program model moving forward. Practitioners and scholars interested in developing new partnership models or creatively working within existing policy and funding limitations may find this approach and example useful. Teacher educators as well as practitioners might draw on this example to inform and inspire future efforts to improve teacher recruitment and retention through school-university partnerships.

Virginia's Teacher Shortage Within the National Context

A shortage of qualified teachers in the USA has reached a crisis point after years of growing political, economic and social pressures (Cross, 2017; Garcia & Weiss, 2019; Ross, 2018; United States Department of Education, n.d.) that go beyond the scope of this chapter. The shortage is in part a result of a nationwide trend of declining enrolments in formal teacher education programs (Camera, 2019; Partelow, 2019), but as Espinoza et al. (2018) noted, "About 90% of the annual nationwide demand for teachers has been created by teachers leaving the profession. In recent years, annual attrition in the U.S. has averaged about 8% of all teachers" (p. 1). As a response, federal and state departments of education have implemented teacher certification policies aimed at putting teachers in classrooms quickly. This has led to increasing numbers of unqualified teachers in classrooms across the USA (Learning

Policy Institute, n.d.) and certainly the local context in Virginia is facing these issues. Espinoza et al. (2018) argue this quick-fix approach may exacerbate the problem in the long term as "educators with little to no pedagogical preparation are 2—3 times more likely to leave the profession than those with the most comprehensive preparation" (p. 8). Though not new, the use of alternative pathways to teacher licensure has become more commonplace. In some cases, these pathways were originally envisioned as emergency stopgap measures but are now used as key supply lines for new teachers into classrooms (Mastrippolito, 2019). This is increasingly the case for high-poverty schools and communities (Darling-Hammond & Carver-Thomas, 2016; Garcia & Weiss, 2019).

The result is a growing number of unqualified or underqualified teachers who are provided little training before employment and patchwork professional growth and coursework opportunities during the first few years of teaching (VDOE, n.d.). Teachers with a provisional license have not completed all professional studies coursework to contribute to their understanding of classroom management, pedagogy, assessment practices, educational technology or diversity in classrooms and students with differing academic abilities. Additionally, teachers with provisional licenses do not have the opportunity to engage in supervised practice. Instead, they are solely responsible for their own classroom from day one. The lack of knowledge and supervised practice makes those with provisional licenses both underqualified and inexperienced classroom teachers.

In Virginia (much like the rest of the USA), the teacher shortage has greatly impacted K-12 education where the number of unfilled teaching positions increased an alarming 150% in the past decade (Virginia Board of Education, 2020). Although this sharp increase can be partly attributed to an uptick in public school enrollment over the same period of time, approximately 20% in grades 9-12 and 5% in grades K-8, it is important to note that the overall teacher attrition rate held steady at approximately 10%, and the number of graduates from teacher preparation programs in Virginia increased by 11%, counter to a national decrease over the same period of time (Virginia Board of Education, 2020). Sorensen et al. (2018) took a closer look at where the majority of vacant positions existed in Virginia and found that the shortage existed mainly in regions with the highest concentrations of poverty where student enrollment and teacher attrition are increasing at a rate faster than the state average. In the decade prior to the COVID-19 pandemic, the number of economically disadvantaged students in public schools in Virginia increased by over 100,000 students (Virginia Board of Education, 2020) and may have increased even more due to the effects of the pandemic as this number was reported in early 2020.

To fill vacant teaching positions, many Virginia school divisions increasingly hire unqualified teachers. Currently, over 10% of teachers employed in high-poverty schools across Virginia are unqualified, compared to only 6% in low-poverty schools (VDOE, n.d.). In 2018, the Learning Policy Institute found that Virginia's proportion of uncertified teachers was 3.2%, compared to the national average of 2.6%, with 11% of Virginia's teachers planning to leave the profession (compared to 7.3% nationally). Combine these reports with statistics indicating that turnover rates nationwide in high-poverty schools are almost 50% greater than schools categorized as low

poverty (Carver-Thomas & Darling-Hammond, 2019), and we begin to understand the teacher shortage in Virginia as a problem that is primarily rooted, perpetuated and most critical in schools that serve a large number of students living in poverty. Senechal et al. (2016) offer a possible reason for this in their examination of teacher morale in the Richmond region and its effect on attrition. They found that, "Differences in socioeconomic and racial ethnic diversity of the students served by the school influenced teacher's job role expectations, and the ability to realize job satisfaction and high morale" (65). In high-poverty schools, these differences include less autonomy in curriculum and classroom level decision-making, a perceived inability to meet the needs of students and pressures created by the need to attain or retain school accreditation by meeting minimum standardized test scores.

The K-12 division in the school-university partnership that created and implemented STEP reports numbers of inexperienced and unqualified teachers similar to the state average. The percentage of inexperienced teachers (teachers in their first or second year of teaching) in high-poverty schools within the division averages 7.2%, whereas the percentage of inexperienced teachers in low-poverty schools within the division averages 2.3% (VDOE, n.d.). School-university partnership leaders and faculty acknowledge that hiring uncertified teachers as a short-term solution to fill vacant positions will negatively impact students who are economically disadvantaged the most, thereby increasing existing inequities between high-poverty and low-poverty schools in our region.

Existing Practices to Address Virginia's Teacher Shortage

The Virginia Career Switcher Alternative Route to Licensure is currently the only statewide alternative pathway that is designed to place teachers in classrooms faster than traditional programs while also requiring prerequisite coursework and built in supports. The Career Switcher program was passed by the state legislature in 1999 in response to a growing teacher shortage in grades 6–12 (VDOE Briefing, 2008). Since 2004, the program has trained approximately 100 teachers per year across the state (EducateVA, n.d.). Not only are the number of teachers trained using this pathway small, but the effectiveness of alternative route programs such as these are mixed as Espinoza et al. (2018) noted: "...teachers who enter the profession through alternative certification pathways are 25% more likely to leave teaching than other teachers, even after all the other factors are taken into account." (p. 8). Yet Wilcox and Samaras (2009) found that participants in the state's Career Switcher program greatly benefitted from strong mentor relationships, support from university as well as school leadership and collaboration with colleagues. These features of the Virginia Career Switcher program noted as valuable by participants have also been identified as indicators of quality first and second year teacher-induction programs which positively affect turnover rates (ACSD, 2004). Although the Virginia Career Switcher Alternative Route to Licensure program has its merits in terms of overall cost and teacher support, it has little promise as a comprehensive solution to the current teacher shortage as it is not designed to immediately fill vacancies (it requires preliminary coursework before an applicant can be hired), small numbers of participants have been trained across almost two decades and the likelihood of program participants ultimately leaving profession.

With no viable alternative licensure pathway on which to rely, school divisions increasingly use the provisional licensing policy, originally enacted in 1982 (Cornett, 1990), as a de facto alternative pathway in order to quickly staff schools (Virginia Board of Education, 2018). This policy allows administrators to hire teachers who hold a bachelor's degree in a related field. No other education coursework or teaching experience is required, and provisionally licensed teachers can remain in the classroom for up to three years before they are required to submit proof of meeting minimum coursework and testing requirements (LIS Virginia Law, 2020). After being hired, provisionally licensed teachers are given little guidance on when, how, or where to complete their requirements within the three-year deadline. These unqualified teachers who have little experience in schools are typically not identified by school leaders as needing more support than fully trained and licensed first-year teachers. They are not given support for managing their new job responsibilities alongside the rigors of coursework and testing requirements, and are often provided with mentors who teach full time while simultaneously supporting all new teachers in their buildings (Virginia Board of Education, 2018). Filling vacant positions by using the existing provisional licensing policy in this way has negative impacts on students and the overall education system (Papay et al., 2017; Ronfeldt et al., 2013; Sorensen & Ladd, 2020). As Ingersoll (1999) noted, the use of unqualified or underqualified teachers is an issue that has been building in the USA for decades and disproportionately impacts high-poverty schools, high minority schools, as well as particular subject areas such as secondary mathematics in those schools. Further, Ingersoll (1999) argued that the teacher shortage and corresponding increase in unqualified or underqualified teachers in public schools were due in part to "the continuing treatment of teaching as semi-skilled work" (p. 34) as evidenced by policies created to circumvent pedagogical training.

It is within this national, state, and local context that faculty working within the university teacher preparation program began to see an increase in school division recruitment and hiring of graduate students enrolled in the university's master degree/teacher licensure program before graduation. These graduate students are understandably tempted by the salary and benefits that accompany a temporary teaching contract through provisional licensure, and once hired they often exit the university program and delay completion of the VDOE minimal requirements for full licensure, including coursework and assessments.

In light of the concerning practice of using the provisional license policy to quickly fill vacancies, one school-university partnership creatively repurposed the policy and efficiently reallocated existing institutional resources to develop a financially sustainable, research-based, paid pre-service teacher residency and first-year induction support model. The model allows the school division to continue immediately filling vacant positions in high-poverty schools, but with pre-service teachers who are assigned a full-time, in-house coach and who remain enrolled in the university

graduate program during their residency year. Upon successful completion of their residency and graduation from the university program, fully qualified and licensed residency graduates are offered a position in one of the high-poverty schools within the partnering division and provided with a non-evaluative, non-reporting university adjunct faculty member to serve as their instructional coach throughout their first year of fully licensed teaching. A more detailed description of the model is presented in the next section.

The STEP Residency and Induction Program

The critical teacher shortage and the use of a provisional licensing policy to quickly fill vacancies in high-poverty schools prompted the university and school division partnership to develop the STEP residency and induction model. The model employs the same provisional licensing policy used as an emergency stopgap measure to recruit students away from the university preparation program. The partners piloted the model starting in the fall of 2019 with the third year of implementation beginning in the fall of 2021.

Before traditional teacher education students in Virginia can be fully licensed by the state, they must complete a supervised, long-term clinical classroom experience. Students at the researcher's university complete 15 weeks of unpaid student teaching as a guest in a cooperating teacher's classroom to meet this requirement. In contrast, students participating in the STEP program complete a one-year residency and are paid approximately one-half of a new teacher starting salary, including full benefits, by the partner division. Residency programs have been found to have great potential to develop a diverse and effective teacher workforce (Guha et al., 2017) and to positively impact student achievement (Papay et al., 2012). During the student's residency year, a veteran teacher is released from all classroom duties to mentor, coach, model, coteach and generally support two university residents who are placed in the same school. The vacancy created by the veteran teacher is filled with a STEP resident at one-half the cost of a new teacher salary, with a second resident filling an existing vacancy within the school. These released veteran teachers are called STEP resident coaches. Veteran teachers must apply for and be chosen by partnership designees to serve as coaches/mentors to STEP residents. The partnering division must allow the STEP resident coaches to be released from all classroom instructional duties while continuing to pay their regular salary. Partners then share existing resources to provide STEP resident coaches with ongoing professional development to strengthen their work with residents throughout the year.

The second layer of support in the STEP model allows for the university to provide one year of coaching and support to STEP resident graduates who are in their first fully licensed year of teaching, also referred to as the induction phase. This support was designed by partners based on research indicating that new teachers tend to leave the profession primarily due to factors related to negative attitudes and beliefs about their own practice and the profession in general (Darling-Hammond & Podolsky,

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School A has one teacher vacancy for the upcoming academic year:	
School A fills the vacancy traditionally	School A becomes a STEP partner
School A hires a new teacher to fill the original vacancy (Cost = 1.0 teacher salary + benefits)	School A hires STEP Resident #1 on a resident contract to fill the original vacancy. The division pays the resident one-half of a new teacher salary + full benefits (Cost = 0.5 teacher salary + benefits) School A hires STEP Resident #2 on a resident contract to fill the vacancy created by a qualified veteran teacher who is released from classroom duties to mentor/coach both residents. The division pays resident #2 one-half of a new teacher salary + full benefits (Cost = 0.5 teacher salary + benefits)
Total cost to division= 1.0 teacher salary + 1 benefits package	Total cost to division = 1.0 teacher salary + 2 benefits packages

Table 3.1 Traditional student teaching and STEP residency cost structure comparison

2019). Instructional coaching has proven to help teachers develop efficacy in thinking about their own practice and can greatly improve practicing teacher's attitudes about teaching (Aguilar, 2013). University funds and resources allocated for student teacher supervisors were therefore redirected to fund coaches who support graduates during their first year of fully licensed teaching after the residency.

The STEP model is designed to be implemented in a way that is virtually cost neutral for the partnering school division and the university. STEP does not rely on grants or other temporary funding sources to remain sustainable. Essentially, the program costs the K-12 school division one additional benefits package for every two residents. Table 3.1 details the cost structure of the STEP residency.

Benefits of STEP Program and Partnership

Opportunities for Promotion

For experienced teachers, there are financial incentives to accrue years of service. Additionally, work on curriculum projects in the summer or summer school, coaching, and other small-scale financial incentives is often available. However, none of those involve promotion. For promotion, the clearest paths are to be a grade level or team lead, but that often comes with minimal or no financial incentive. The clearest path to promotion is to work toward a leadership certification/endorsement and serve as an assistant principal or principal. For many teachers, their professional trajectory does not include being a school principal. Perhaps their interest is more focused on curriculum and instruction within their content area or grade level. Seminal research

regarding lack of promotional opportunities contributes to teacher attrition (Lowenstein, 1991). Teacher retention can be affected by the opportunity for collaboration and mentoring or coaching (Lambert, 2003). While these collaborative and coaching opportunities contribute toward teacher retention, more opportunities that incorporate collaboration and mentoring are needed (Lumpkin et al., 2014). By focusing on areas that support teacher retention and recognizing the significance of promotion to leadership and coaching roles in retaining teachers, partnership opportunities like STEP might be used to impact teacher retention.

Financial Incentives

According to Carrig (2018), "The national average public-school starting teacher salary for 2016–17 was \$38,617". Compare this to the \$50,359/year average starting salary for those holding a bachelor's degree in other fields and consider the average \$30,100 of student debt per borrower, and it becomes apparent why teachers experience a significant amount of financial stress. For pre-service teachers who are changing careers, there is concern about leaving their current job and forgoing benefits in order to complete a traditional student teaching experience. Because traditional student teaching is a semester or year-long unpaid internship, candidates who have family or other financial responsibilities may be left without income and health insurance for an extended amount of time, only to face a high student debt to income ratio once hired as a classroom teacher. This alone may push potential teachers away from teacher education programs. Therefore, a paid residency such as the STEP program that also includes full benefits is incentivizing to those who might either choose an alternative pathway to licensure or choose to not enter the teaching profession at all.

Teacher Pipeline and Retention Supports

Recruitment and retention of quality teachers is always a priority for K-12 school divisions, but this priority is made even more important due to the current dearth of available candidates and exodus of practicing teachers. Education researchers have long been searching for the conditions under which an effective teacher will remain in the profession for the arc of their career. Several conditions continue to dominate their findings including: rigorous and relevant preparation programs (Gray & Taie, 2015; Katz, 2018; Quartz et al., 2008), high-quality and intense 1:1 new teacher mentoring/coaching (Gray & Taie, 2015; Ingersoll & Strong, 2011; Knight, 2016), teacher efficacy or confidence in their abilities to perform well in the classroom (Katz, 2018; Tschannen-Moran & Tschannen-Moran, 2010) and the opportunity to grow professionally, diversify instructional and leadership duties and be acknowledged for such efforts. (Ingersoll, 2003; Johnson, 2012). An important benefit of the STEP program for the school division is the direct pipeline of teachers from the university

preparation program to the classroom that is established during the residency and is supported during the teacher's first year. Additionally, the promotion of veteran teachers to STEP coaches supports the current professional education trend to grow leadership from within and supports teacher retention.

Preliminary Findings

Teacher efficacy refers to the beliefs teachers hold about their own ability to affect student learning and achievement, especially with students who are considered difficult to engage and appear unmotivated. Teacher efficacy has been found to be a product of instructional coaching and highly correlated to student motivation, engagement and achievement as well as teacher persistence, resilience and intention to remain in the profession (Ross, 1992; Shidler, 2009; Tschannen-Moran et al., 1998; Zee & Koomen, 2016). Using Tschannen-Moran, Hoy and Hoy's Teacher's Sense of Efficacy Survey (1998), data was collected from STEP residents and STEP graduates in their first year of teaching at the beginning, mid-point and end of the school year. Those who completed the STEP residency and engaged in STEP graduate induction support from 2018 to 2021 were found to have significant increases in efficacy over time, especially in areas related to student engagement and instructional strategies. Evidence of high teacher efficacy in STEP participants is further strengthened by data collected and analyzed from interviews with residents, graduates, coaches and school administrators. The principal of the school in which four STEP residents practiced from 2018 to 2019 hired all four immediately after completion of their residency and indicated that "their resilience, talent, and ability to connect with the students" surpassed other traditionally prepared fully licensed first-year teachers in her school. Analysis of STEP resident interview data indicated that three out of the four residents intend to stay in the teaching profession long term and plan to remain in high-poverty schools. The fourth resident indicated that he plans to become a school administrator and serve teachers and students in high-poverty schools.

Analysis of STEP participant interview data also points to important benefits for veteran teachers. These are the experienced teachers who cycled out of the classroom in order to support residents as STEP coaches. They report that although the pilot of the model felt chaotic initially, overall the STEP coaching experience served to help revitalize their own practice and increase efficacy and improve their attitude about teaching and their worth as experienced educators, all factors that have been shown to increase veteran teacher retention and enhance student experiences (Bressman et al., 2018; Zee & Koomen, 2016).

Initial analysis of data collected thus far, although not conclusive, indicates the STEP model addresses many of the issues contributing to the teacher shortage in high-poverty schools while simultaneously improving upon the quality of teachers in classrooms.

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Considerations and Next Steps

Communication and Shared Responsibility Within the Partnership

The innovative and financially sustainable use of an existing policy to design the STEP program prompted a few high-level partnership leaders to become involved in the development of the model. In the first two years, the both school and university partner leaders have recognized the need for flexibility and responsiveness as important to improvement of the STEP program. Negotiation between partner leaders continues through regular and ongoing biannual meetings.

Because residents must be placed on a provisional license, they become not only the responsibility of the university as a student but also of the school division as an employee. The same shared responsibility between partners that led to regular communication and collaboration among higher level leadership created considerable problems as the program was first enacted within schools. For instance, it proved difficult for division staff and school-site leaders to make the shift necessary to think of provisionally licensed STEP residents as pre-service university students instead of school division employed first-year teachers. The attitudes, systems and common practices for shepherding other provisionally licensed teachers through their first and second year were often applied to STEP residents in a way that was counter to the original purpose of the program. Similarly, university leaders experienced difficulty understanding the constraints on resident placements and first-year fully licensed employment for STEP residents and graduates that accompanied the employed status that allowed them to be paid. In order to address these and other issues, we have created an advisory council composed of stakeholder representatives from both the university and school division who operate across various organizational functions and levels of leadership.

Enactment of a New Teacher Preparation and Support Model at the School Site

Regular and meaningful communication and collaboration between school division leadership and university faculty have proven to be fundamental in the development of a shared vision and some program processes and procedures. However, we have found that if there is little understanding, buy-in and collaboration at the school-site level, the enactment of the partnership model may look very different than intended. This is especially true when the partnership requires ways of operating that are new to all involved. If a STEP resident faces a challenging classroom situation, both the STEP resident coach and the school administration should coordinate on appropriate next steps. The university should provide support and training, and the school division should do the same. School administrators do not typically work under these circumstances when hosting more traditional pre-service practicing teachers and

released teachers who are new to STEP resident coach positions are not accustomed to collaborating with administration in a supervisory capacity. The expectation for this type of multileveled and cross-institutional collaboration is atypical, and partnership participants at the school site must intentionally operate in ways that differ from the norm.

Understanding that effective program implementation requires ongoing adaptation, and that flexibility is key, has helped the stakeholders to remain collaborative, communicative and trusting. The STEP program is a project in motion and will continue to take shape over time.

Next Steps

Based on the considerations above, the researchers have established several tangible next steps as we embark on our third year of new program implementation. First, we hope to develop a robust advisory board that can inform our ongoing work. Next, we intend to solidify processes collaboratively in a manner that is mutually beneficial to all stakeholders. Third, we will continue to expand and improve training for field supervisors and onboarding for principals in a sustainable manner, and the school-university partnership team is currently seeking grant funding to further expand the project. Finally, we will continue to collect data from diverse sources and use that data to drive decision-making.

Conclusion

This chapter has explored the STEP program, an ongoing and iterative teacher residency and induction partnership in Virginia within the context of a nationwide teacher shortage. The STEP program is an attempt to bridge a gap created by the current teacher shortage by meeting the university's need to ensure unprepared and unqualified pre-service teachers complete the program and the K-12 school partner's need to fill vacancies and keep teachers in high-poverty schools. University faculty and K-12 school leaders were able to leverage an existing and potentially harmful policy in order to meet the needs of both partners and ultimately benefit students who are economically disadvantaged. The STEP program is a useful and practical model that others may consider employing to think beyond the constraints of current policy. However, like the partners enacting the STEP program, readers should expect barriers and push through them, remembering that an elegant solution to one stakeholder may not appear so to another stakeholder. Finally, readers should bear in mind the challenges to shifting paradigms in current practice, and those tasked with teacher education, recruitment and retention are not immune to the reluctance to make major changes and innovate when policy does not match the need.

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As noted above, building and maintaining partnerships with stakeholders is an ongoing and iterative process and must remain a priority to ensure success of the program in the future. Regular meetings and celebratory events help maintain group cohesion and build a sense of community among stakeholders. The COVID-19 pandemic has given even further evidence of the importance of in-person meetings, and the authors intend to continue planning collaborative events and opportunities for stakeholders to communicate. The authors are continuing to tailor coursework associated with the residency year to address the common issues that residents experience, such as classroom management and time management. Procuring additional funding will remain a priority for the future of the program and in order to continue to expand beyond current program limitations. The authors intend to expand collaboration with the State Department of Education and other higher education institutions with the intention of extending the stakeholder community beyond current partners. Finally, sharing the successes of the program with the public with the hopes of increasing the recruitment of teacher residents is a top priority for the future.

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