Redesigning University Principal Preparation Programs

A Systemic Approach for Change and Sustainability

REPORT IN BRIEF

Rebecca Herman, Elaine Lin Wang, Ashley Woo, Susan M. Gates, Tiffany Berglund, Jonathan Schweig, Megan Andrew, Ivy Todd



Redesigning University Principal Preparation Programs

A Systemic Approach for Change and Sustainability

REPORT IN BRIEF

Rebecca Herman, Elaine Lin Wang, Ashley Woo, Susan M. Gates, Tiffany Berglund, Jonathan Schweig, Megan Andrew, Ivy Todd



Wallace

For more information on this publication, visit www.rand.org/t/RRA413-4.

About RAND

The RAND Corporation is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest. To learn more about RAND, visit www.rand.org.

Research Integrity

Our mission to help improve policy and decisionmaking through research and analysis is enabled through our core values of quality and objectivity and our unwavering commitment to the highest level of integrity and ethical behavior. To help ensure our research and analysis are rigorous, objective, and nonpartisan, we subject our research publications to a robust and exacting quality-assurance process; avoid both the appearance and reality of financial and other conflicts of interest through staff training, project screening, and a policy of mandatory disclosure; and pursue transparency in our research engagements through our commitment to the open publication of our research findings and recommendations, disclosure of the source of funding of published research, and policies to ensure intellectual independence. For more information, visit www.rand.org/about/principles.

RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.

Published by the RAND Corporation, Santa Monica, Calif. © 2022 RAND Corporation RAND[®] is a registered trademark.

Library of Congress Cataloging-in-Publication Data is available for this publication.

ISBN: 978-1-9774-0934-8

Cover images: Suwannar Kawila/EyeEm/GettyImages and jweise/GettyImages

Limited Print and Electronic Distribution Rights

This publication and trademark(s) contained herein are protected by law. This representation of RAND intellectual property is provided for noncommercial use only. Unauthorized posting of this publication online is prohibited; linking directly to its webpage on rand.org is encouraged. Permission is required from RAND to reproduce, or reuse in another form, any of its research products for commercial purposes. For information on reprint and reuse permissions, please visit www.rand.org/pubs/permissions.

About This Report

This report in brief summarizes key lessons from The Wallace Foundation's University Principal Preparation Initiative (UPPI). From 2016 to 2021, seven university principal preparation programs, with their district and state partners, fundamentally reshaped their principal preparation programs under UPPI.

The RAND Corporation conducted a study of the effort. Initial implementation findings are reported in *Launching a Principal Preparation Program: Partners Collaborate for Change* (Wang et al., 2018; www.rand.org/t/RR2612), and findings on the state role in supporting change are reported in *Using State-Level Policy Levers to Promote Principal Quality: Lessons from Seven States Partnering with Principal Preparation Programs and Districts* (Gates, Woo, et al., 2020; www.rand.org/t/RRA413-1). Final findings are reported in a series of five reports:

- three reports targeting specific audiences:
 - principal preparation programs: Collaborating on University Principal Preparation Program Redesign: A Summary of Findings for University Principal Preparation Program Providers (Herman, Wang, and Gates, forthcoming)
 - school districts: District Partnerships with University Principal Preparation Programs: A Summary of Findings for School District Leaders (Wang, Gates, and Herman, forthcoming)
 - state education organizations: State Partnerships with University Principal Preparation Programs: A Summary of Findings for State Policymakers (Gates, Herman, and Wang, forthcoming)
- a report in brief reporting findings for a range of readers (this report)
- and a full report: *Redesigning University Principal Preparation Programs: A Systemic Approach for Change and Sustainability—Full Report* (Herman, Woo, et al., 2022; www.rand.org/t/RRA413-3). The full report is primarily intended as a secondary resource for readers who would like more detail about the study's findings and methods.

This study was undertaken by RAND Education and Labor, a division of the RAND Corporation that conducts research on early childhood through postsecondary education programs, workforce development, and programs and policies affecting workers, entrepreneurship, and financial literacy and decisionmaking. The study was commissioned by The Wallace Foundation, which seeks to foster equity and improvements in learning and enrichment for young people and in the arts for everyone.

More information about RAND can be found at www.rand.org. Questions about this report should be directed to bherman@rand.org, and questions about RAND Education and Labor should be directed to educationandlabor@rand.org.

Acknowledgments

We are grateful to the university-based leads at each of the seven participating universities, as well as their partner organizations—districts, state agencies, and mentor programs—for coordinating and participating in multiple rounds of site visit data collection throughout the five years of the research study. The entire series of reports depended on their willingness to share details of their experience with the University Principal Preparation Initiative; the report would not have been possible without their input.

We are grateful for feedback we received on this report and the associated reports. In particular, we thank MaryAnn Gray (who was Assistant Provost at the University of California, Los Angeles, when this work was done) and RAND colleague Christopher Nelson for formally reviewing the full report and providing feedback that helped to improve it. We also thank members of our Technical Working Group who provided feedback on a draft of one or more of the targeted audience reports based on the findings in the full report. They are Elaine Allensworth, Barnett Berry, Ann Clark, Ellen Goldring, Erika Hunt, and Paul Manna.

We would like to thank our contacts at The Wallace Foundation, who provided important input on the overall study and this report. We benefited from feedback from Bronwyn Bevan, Jody Spiro, Andrew Cole, Aiesha Eleusizov, Rochelle Herring, Nicholas Pelzer, Brad Portin, Lucas Bernays Held, Pamela Mendels, Will Miller, and Elizabeth Ty Wilde.

Finally, we appreciated the assistance of colleagues at RAND: Kathryn Giglio, who helped develop key graphics and shape the structure of the report; David Adamson, who helped shape the report in brief; Ninna Gudgell and James Torr, who edited the report; Benjamin Master, who managed the peer review process; and Monette Velasco, who oversaw the production and publishing process.

Contents

About This Report	iii
The University Principal Preparation Initiative	1
Background	2
Methodology	4
The University Principal Preparation Initiative: A systems approach	5
How did programs change?	7
What did it take for programs to collaboratively redesign?	16
How did partners extend the strategies developed in the UPPI testbeds?	22
Challenges and mitigating strategies	27
Summary and conclusion	29
Abbreviations	
References	

The University Principal Preparation Initiative

The job of the school principal has become much more complex and demanding over the past several decades. Many university-based principal preparation programs (PPPs)—which prepare the majority of school principals—have struggled with how to make the fundamental changes needed to prepare principals for today's schools. To test a path forward, The Wallace Foundation provided grants to seven universities and their partners to redesign their PPPs in line with research-supported practices. This report shares findings from the RAND Corporation's five-year study of The Wallace Foundation's University Principal Preparation Initiative (UPPI). Key findings, which suggest that **significant change around research-based practices is possible**, are presented in the box.

Key Findings

UPPI teams improved the coherence of the programs.

- Programs engaged with districts to make recruiting more collaborative and targeted.
- Universities improved program coherence by aligning curricula to frameworks and standards, sequencing the learning, and increasing practical learning experiences.
- Clinical experience became more authentic, intentional, and personalized.
- UPPI programs strengthened the use of cohorts.

The universities used partnerships and supports to conceptualize and carry out changes to the programs.

- Collaborative partners played an active role at all stages of the redesign process.
- Program self-assessments and the development of logic models or frameworks helped the team work together and kept the redesign process on track.
- There was no single way to sequence the redesign work.
- The partnerships evolved to support continued implementation.
- Continuous improvement was built into the redesign and implementation processes.
- Teams took steps to institutionalize the redesign features as well as the partnership and process of continuous improvement.

Partners took the UPPI testbed strategies beyond the UPPI program.

- Universities expanded the redesigned programs to include partnerships with additional districts.
- UPPI program redesigns extended changes along the pathway to the principalship.
- UPPI approaches informed programs across the state preparation system.

Background

Principals' roles as instructional leaders have grown more important over time. Principals must know how to meet the needs of learners in an increasingly diverse population and address technology in schools (Farley, Childs, and Johnson, 2019; Richardson et al., 2016; Riehl, 2000). Driven in part by the publication of A Nation at Risk and the site-based management movement in the 1980s, principals have become more than just managers; they are change agents (Fullan, 2004; Goodwin, Cunningham, and Eagle, 2005; Tintoré et al., 2020). Federal policy under the two most recent reauthorizations of the Elementary and Secondary Education Act (No Child Left Behind in 2001 and the Every Student Succeeds Act in 2015) has held districts—and, by extension, principals—accountable for improved student academic outcomes (Farley, Childs, and Johnson, 2019). Principals' responsibilities now extend beyond academics. Social and policy changes, such as developing equitable conditions for learning and fostering social and emotional skills, are playing out in schools under the direction of school leaders. Despite the additional responsibilities, principals still spend much of their time on management (McBrayer et al., 2018), and additional responsibilities are layered on. Goodwin, Cunningham, and Eagle (2005) frames the change in the principal's role as "an accumulation of expectations that have increased the complexity of the position" (pp. 1–2).

The lion's share of preparing principals for these responsibilities falls on university-based PPPs (Briggs et al., 2013). Research has coalesced around qualities of "exemplary" PPPs: proactive recruitment of candidates into the programs; authentic learning opportunities for principal candidates; course content that is focused on developing instruction, personnel, and organizational features of the school; a cohort structure to provide collegial support; problem-based pedagogy; authentic clinical experiences; and experienced mentors or coaches (Darling-Hammond et al., forthcoming; Darling Hammond et al., 2007; Davis and Darling-Hammond, 2012; Orr and Pounder, 2010; Perrone and Tucker, 2019).¹

Darling-Hammond et al. (2007) also identified program leadership, university-district partnerships, and financial support as facilitating conditions for exemplary programs. These elements are integrated into a coherent learning experience within and beyond the program itself to build principal candidates' skills and knowledge (Darling-Hammond et al., 2007; Ikemoto, 2021; Larsen et al., 2016a, 2016b).

According to recent research, the curricula focus areas of strong preparation programs are now in use in many programs across the county; however, other features, such as authentic clinical experiences, active pedagogy, and mentoring, are less common (Darling-Hammond et al., forthcoming; Grissom, Mitani, and Woo, 2019; Hess and Kelly, 2007; Ni et al., 2016). Districts, programs, and principals themselves suggest that programs have room to grow

¹ A landmark study commissioned by The Wallace Foundation, Darling-Hammond et al. (2007), was particularly instrumental in shaping UPPI. This study looked at four exemplary PPPs and four exemplary professional development (PD) programs for principals using interviews, surveys, document analysis, and observations. Subsequent research, including the update to the 2007 study (Darling-Hammond et al., forthcoming) reiterates the original findings with some expansion.

(Bottoms and O'Neill, 2001, Briggs et al., 2013; Davis, 2016; Fry, Bottoms, and O'Neill, 2005; Hess and Kelly, 2007; Levine, 2005; Manna, 2015; Sherman and Cunningham, 2006).

In 2016, The Wallace Foundation announced a five-year initiative to transform how university programs prepare principals for their jobs. Seven universities and their district, state, and mentor program partners—programs that have been through redesign themselves—received grants through UPPI to take up the challenge of collaboratively redesigning their PPPs by drawing on research-based practices. Table 1 shows these institutions, along with their district or consortium and state partners and mentor programs. For more details about these institutions, including baseline descriptions, please consult Appendix A of Wang et al. (2018).

University	District or Consortium Partners	State Partner	Mentor Program(s)
Albany State University (ASU)	Calhoun CountyDougherty CountyPelham City	 Georgia Professional Standards Commission^a 	 Quality-Plus Leader Academy The Leadership Academy
Florida Atlantic University (FAU)	Broward CountyPalm Beach CountySt. Lucie County	Florida Department of Education	University of Denver
North Carolina State University (NC State)	 Johnston County Northeast Leadership Academy Consortium Wake County 	North Carolina Department of Public Instruction	University of Denver
San Diego State University (SDSU)	Chula Vista ElementarySan Diego City UnifiedSweetwater Union High	 California Commission on Teacher Credentialing 	University of Washington
University of Connecticut (UCONN)	HartfordMeridenNew Haven	Connecticut State Department of Education	 University of Illinois at Chicago The Leadership Academy
Virginia State University (VSU)	Henrico CountyHopewell CitySussex County	Virginia Department of Education	Quality-Plus Leader Academy
Western Kentucky University (WKU)	 Green River Regional Educational Cooperative, with representation from five member districts: Bowling Green Independent Daviess County Owensboro Independent Simpson County Warren County 	 Kentucky Education Professional Standards Board 	University of Illinois at Chicago

TABLE 1 UPPI Universities and Partners

^a The Georgia Department of Education and the University System of Georgia also acted as informal partners by sharing learnings from UPPI across the state.

The RAND Corporation conducted a study of this initiative for The Wallace Foundation. This report summarizes what the seven sites were able to accomplish, their key processes, and their collective lessons learned in redesigning their programs and spreading change throughout their local and state contexts. This was not a study of specific programs; we focused on collective lessons across the seven sites. Neither was this an evaluation; we did not address the impact of the initiative on a set of outcomes (e.g., principal candidate skills, job attainment). Rather, we sought to document how seven universities and their partners redesigned PPPs and engaged in related activities to better prepare principals for today's schools. The primary goal of the study was to provide ideas to other preparation programs, districts, and states that are on their own paths toward improving the preparation and development of principals.

Methodology

For this study, we completed more than 630 interviews, focus groups, and observations across the seven sites (e.g., with participants from the university programs, district partners, state partners, and mentor programs) from 2017 to 2021. We also administered the University Council for Educational Administration's Initiative for Systemic Program Improvement through Research in Educational (INSPIRE) Leadership survey to participating university programs and seven within-state comparison universities not participating in UPPI; the director of the program (or their designee) reported on program features in spring 2019 and spring 2021.² For more information on this research, please see the report on which this brief report is based (Herman, Woo, et al., 2022), three companion reports—for university program leaders, district leaders, and state leaders (Herman, Wang, and Gates, forthcoming; Wang, Gates, and Herman, forthcoming; Gates, Herman, and Wang, forthcoming)—and two prior reports on UPPI (Wang et al., 2018; Gates et al., 2020).

We recognize that our analysis has limitations. Although we note changes and improvements in all of the UPPI programs, not all redesigned programs might be equally effective. Neither the foundational research we drew on that characterized features of high-quality PPPs (e.g., Darling-Hammond et al., 2007) nor our study elicited potential negative effects of applying these design features (for example, districts conceivably can take advantage of their role in selecting candidates to promote candidates who would not challenge their systems). Both the prior research and our study do not track potential unintended consequences of program features. However, we report such findings when they emerge from our analysis of open-ended questions.

Throughout this report, we use quantifiers to indicate the number of sites that engaged in a certain activity, expressed a certain idea, or discussed a certain theme. We use *few* or *some*

² Program graduates reported on their experiences in spring 2019, but follow-up interviews were precluded by the coronavirus disease 2019 (COVID-19) pandemic.

to mean fewer than half (i.e., 1–3 of the sites), *most* to mean more than half (i.e., 4–6 of the sites), and *all* to mean all (i.e., 7 of the 7 sites).

The University Principal Preparation Initiative: A systems approach

The Wallace Foundation's vision for UPPI centers on the idea that principal preparation works in a system: a community of interacting people, institutions, and components that mutually support each other in pursuing the goal of preparing effective leaders for K–12 schools.

The components of a PPP operate within this system (see Figure 1). Program features include the following:

- active recruitment and selection of high-potential principal candidates with successful teaching experience and a focus on instructional improvement
- a coherent curriculum integrating theory and practice through active learning
- supervised clinical experiences using realistic leadership activities that are linked to coursework
- a cohort structure to support principal candidates
- a leader-tracking system providing continuous feedback for program improvement across the trajectory of principals' careers.

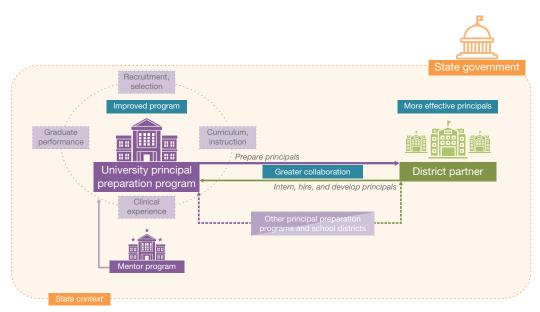


FIGURE 1 The Principal Preparation System

Partnerships are a central feature of this system. Within each of these components, organizations with a stake in developing strong principals collaborate to strengthen programs across all phases: recruitment, instruction, clinical experience, and job performance. Districts help university programs identify and recruit the most promising candidates and offer input on curriculum content and sequencing. Districts also help programs with continuous performance improvement by tracking the performance of program graduates after they become principals. Mentor programs, which previously went through a similar redesign, support the work of the newly redesigned programs. State agency partners work to stimulate state-level policy changes (e.g., on leader standards, program accreditation, principal licensure) that broadly support systemic improvement of PPPs within the state.

The Wallace Foundation awarded grants to seven public universities from seven states to redesign their PPPs from the 2016–2017 school year through the 2020–2021 school year with the help of partner districts and state agencies that are responsible for licensing principal programs. UPPI programs are located in states with policies that support improved principal development and have district partners that serve a high-need population. All seven grantees are public universities, but they vary on other features. Some are located in urban areas, while some are in rural areas. Three are minority-serving institutions. Unlike prior studies, which focused on large universities and large urban school districts, The Wallace Foundation intentionally focused on small and medium-sized universities and school districts. Once selected, UPPI programs were able to select a mentor project from a roster of programs recommended by The Wallace Foundation.

As a group, the selected universities and their partners participated in a common process and had access to supports that defined UPPI. The processes and supports included the following:

- Quality Measures (QM). QM is a research-based program self-assessment tool and process; programs participated in QM multiple times as part of the grant (Education Development Center, 2018).
- Logic model development. Early on, each team developed a logic model that mapped program redesign features to its vision for quality program graduates.
- Alignment to standards. All programs aligned their redesign effort to existing national or state standards, including the Professional Standards for Education Leaders.
- Mentor programs. Each program selected a mentor program that had already gone through the redesign process to support its redesign effort.
- **Technical assistance providers.** UPPI teams had access to technical assistance providers that could help with specific tasks.
- **Professional learning communities (PLCs).** About twice a year throughout the initiative, The Wallace Foundation hosted cross-site, cross-role PLCs and additional role-specific PLCs.

In the sections that follow, we report on how UPPI programs redesigned and improved their PPPs to respond to the challenges that face today's kindergarten through 12th grade (K–12) principals.

How did programs change?

We looked at program changes in four areas: recruitment and selection, curriculum and instruction, clinical experience, and use of cohorts. We also looked at progress on using data to improve programs. Table 2 summarizes the major changes we observed.

Programs engaged with districts to make recruitment more intentional and collaborative

UPPI program redesign resulted in three major shifts in the recruitment and selection processes: district engagement, targeted recruitment, and performance-based tasks.

District involvement in nominating and selecting applicants increased in UPPI programs from 2019 to 2021;³ comparison programs increased involvement only in nomination. On average, on the INSPIRE Leadership survey, UPPI programs rated district engagement in the *selection* process at 45.7 on a scale of 0 to 100 early in UPPI implementation; this number increased to 66.7 (21 points) later. In the same period, comparison programs raised their ratings of district engagement in the selection of applicants by a smaller amount, from 26.5 to 31.75 (about 5 points). Although comparison program engagement in *nomination* rose 26 points, while UPPI programs increased only 12 points, UPPI programs had higher ratings of district engagement in both *nomination* and *selection* both early and later in UPPI implementation.

UPPI district staff reported participating in candidate recruitment and assessment events or serving as selection committee members. Some districts led the first round of recruitment, actively encouraging promising candidates to apply. Some programs obtained district input by requiring that program applicants receive district endorsement. The districts reasoned that, by engaging in recruitment and selection, they improved the chances that the strongest candidates would participate in the program. In addition, districts reported believing that their involvement bolstered the likelihood of program graduates staying in the district and taking on a leadership role. Some program participants indeed believed that district involvement in recruitment and selection meant that they were more likely to secure a position in the district upon graduation.

Programs targeted recruitment to attract candidates with specific qualifications. Instead of generally recruiting applicants who met program prerequisites, programs

³ The INSPIRE Leadership survey was administered in 2019, several years after UPPI programs began the redesign work, so programs already might have made changes that are included in this "baseline."

TABLE 2 Major Program Redesign Changes

	Before UPPI	After UPPI
Recruitment and selection	 University-driven General recruitment of applicants meeting prerequisites Less involved selection process 	 Active district engagement Targeted recruitment More rigorous and evidence-based selection process, involving performance-based tasks
Curriculum and instruction	 Stand-alone courses Aligned to former standards Courses delivered in any sequence Stand-alone, based on distinct topics, with some redundancies Greater focus on theory in instruction Little to no input from districts Lectures and discussions Instructors were assigned to or assumed sole ownership of particular courses Courses tended to be taught by university faculty, some without school or district administration experience 	 More coherent curriculum Aligned to current national or state standards Intentionally sequenced courses that scaffold and build on each other Courses are connected by topics and themes and sometimes by key assessments spanning courses Greater focus on practice in instruction Oriented toward practical application of concepts Informed by district input and needs to ensure relevance Used more-interactive, experiential learning strategies (e.g., role-play, simulations) and application of adult learning principles Instructors collaborated on course development and course delivery Greater use of adjuncts—retired or practicing school or district administrators
Clinical experience	 "Checklist approach" to completing required experiences Passive, often "one-shot" experiences (e.g., shadowing, observing) Disconnected from coursework Supervision model Limited supports 	 Deliberate experiences to support growth in leadership competencies, personalized to meet candidate needs Authentic experiences reflecting real work of principals on the ground Aligned with course learning, applying theories and concepts in context Leadership coaching model with greater opportunities for feedback and reflection Additional supports (e.g., university-based clinical director, district-based coordinator)
Cohort	 Some full, closed cohort, some noncohort enrollment 	 All programs had at least one full, closed cohort; no noncohort
Data use	 Lack of robust data on inputs and principal candidate outcomes 	 Intention to systematically collect and use data to assess candidate progress and program quality

recruited in more-targeted ways. As noted earlier, one primary way in which they did this was by involving districts. Programs asked districts to identify educators in good standing who would be excellent candidates and could benefit from a rigorous preparation program. Programs also purposefully recruited candidates whose career goals aligned with the district's mission—for example, applicants seeking to be equity-driven leaders and applicants whose goal was to become a principal rather than to use the credential to get a salary bump in

their current position. One district leader remarked, "If you do a better job of recruiting those kinds of candidates, then as [they] move through the program, they come out with not only the knowledge, but they already have the fit." Multiple programs also considered the diversity of their applicant pool, seeking to encourage educators from historically underrepresented populations to pursue jobs in school administration. For example, one program identified communities in which the leadership did not represent the diverse student and teacher population and aimed to market the preparation program especially in those communities.

Between 2019 and 2021, both UPPI programs and comparison programs increased the percentage of African American graduates (see Table 3). Because the recruitment and selection changes reported by UPPI programs may take several years to be visible in the graduating class, it is not clear yet whether efforts to improve the diversity of candidates is resulting in changes to the pool of graduates.

Programs reported a shift toward more performance-based tasks in the application and selection processes. These tasks were intended to assess applicants' skills and readiness for a rigorous program, mirroring those that practicing principals require. In interviews, some UPPI programs described greater use of performance-based tasks in the application and selection processes. One program moved from only conducting interviews to asking applicants to perform tasks that reflect the real work of principals. Meanwhile, one program with many applicants pointed to a key challenge in managing the scope of a rigorous, per-

	2019		2021	
Demographics	UPPI	Comparison	UPPI	Comparison
Graduated (number)	32.3	40.1	29.6	32.3
Gender (percentage)				
Female	64.4%	60.6%	53.0%	58.5%
Male	35.6%	39.4%	47.0%	41.5%
Race/ethnicity (percentage)				
African American	29.4%	10.3%	33.2%	19.0%
American Indian	0.0%	0.0%	0.7%	0.0%
Asian	2.1%	3.7%	4.3%	3.2%
Latino/a	7.4%	9.6%	10.1%	16.0%
Pacific Islander	0.4%	0.3%	0.4%	0.0%
White	60.7%	75.3%	50.8%	42.7%
Other race/ethnicity ^a	-	—	-	-

TABLE 3

Average Number of Graduates and Average Percentage of Graduates by Gender and Race/Ethnicity

^a Numbers are not reported because of small sample size.

formance task-based selection process: "You want to make sure you get the information you need [to make the decisions] with the fewest questions or scenarios as possible. . . . But you want it to be rich data." The program reported continuously revising and adjusting its application and selection process.

Altogether, the changes that UPPI sites made in their **recruitment and selection processes** appeared to align with the evidence base, which suggests treating the recruitment and selection processes as "essential qualities of program design, not incidental activities" (Darling-Hammond et al., 2007).

Universities improved program coherence by aligning curricula to frameworks and standards, sequencing the learning, and increasing practical learning experiences

At each UPPI site, the redesigned curriculum is grounded in an overarching program framework. All redesigned curricula are characterized by some combination of a more deliberate sequencing of courses to better scaffold learning, an intentional connection to clinical experiences, and greater alignment across the faculty teaching the courses. Altogether, these changes resulted in greater program coherence.

As part of the redesign, each site developed an overarching framework and used it to guide the redesign of the curriculum. The frameworks named the broad themes that recur throughout courses and experiences and provided sites with a set of beliefs and values around which to build their programs. Although each site developed its framework independently of other teams, there are notable similarities across the frameworks. Most UPPI programs centered equity within the framework. The notions of collaboration, relationship-building, and developing others were also featured in nearly all of the UPPI programs' frameworks. Notably, the redesign seemed not to have changed the topics addressed in the curriculum. Rather, the major shift appeared to be in how UPPI programs called out the themes and organized or structured concepts and topics to engender greater program coherence.

All redesigned programs used a set course sequence to better support principal candidates' learning. Programs also attended to course sequencing. Prior to UPPI, principal candidates in most programs could take the courses in any order, and course offerings might be driven by the needs and schedules of the faculty. By the end of the redesign process, all programs were using a curriculum with a deliberate course sequence. A curriculum with a set course sequence allowed programs to scaffold the content, which, in the words of one program, rendered the program "both additive and iterative." Courses built on each other by requiring principal candidates to naturally progress in their understanding of concepts (e.g., introduction, development, mastery) or having candidates use the knowledge and skills they acquired in other courses or tasks throughout the program.

Universities aligned their instructional programs to national standards and state requirements. According to the 2021 INSPIRE Leadership survey, six of the seven redesigned UPPI programs were aligned to the current national leader standards, the Professional Stan-

dards for Education Leaders (National Policy Board for Educational Administration, 2015). The seventh UPPI program instead aligned to its state's standards, because the state's standards governed the accreditation process and the state had not adopted the national standards. Previously, programs had been aligned to an older set of leader standards. Moreover, programs in general and on the whole tended to align to the set of standards, but as part of UPPI, programs worked to ensure alignment to standards down to the level of course syllabi modules and assignments and assessments within courses. Programs also redesigned their curricula to better align with state requirements. For example, two universities aligned their programs to their state licensure assessments.

Most of the redesigned UPPI programs increased their use of interactive and experiential forms of pedagogy. Program leaders at most sites reported more frequently using experiential pedagogical strategies, including role-play, simulations, and case studies, to make learning more performance-based and therefore more rigorous and meaningful, compared with more-traditional activities, such as "sit and get lectures" or a "presentation on a reading" (see the box on NC State's projects). This finding from interview data is confirmed by the results of the INSPIRE Leadership surveys, which show that UPPI programs appeared to emphasize experiential learning more in 2021 than in 2019. Over the same period, UPPI programs appeared to decrease their emphasis on lectures, unlike comparison programs. Although many of these changes were small and comparison programs appeared to move in the same direction for some types of instructional strategies, the consistency of the survey findings lends support to the interview findings.

Interview data also suggested a shift in program assessments toward experienced-based and cumulative assessments. This shift resulted in a process that program leaders described as more authentic, rigorous, and integrated because the assessments connected more deeply

NC State's Developmental Projects Provide an Example of Collaborative, Action-Based Research

Working together in groups, NC State's principal candidates must complete a set of developmental projects, requiring students to learn more about the developmentally appropriate practices necessary to lead schools at various levels, including the early childhood, elementary, middle school, and high school contexts. Principal residents investigate numerous aspects of their district's programming for each developmental age group, including the supports available for parents, the involvement of community agencies, the curriculum scope and sequence, and academic programs used for the age group. After developing more knowledge about the physical, cognitive, and social and emotional development of the target age group, in an example of action research, principal residents conduct visits to schools. These visits involve classroom observations and interviews with a variety of stakeholders, including teachers, students, leaders, and community stakeholders. Finally, using all the information gathered, principal candidates reflect on the implications for their leadership practice. to principal candidates' courses and required the application of knowledge accumulated across courses. As a result, assessments in the redesigned programs connected more clearly to what principals actually do. Most UPPI programs also used cumulative assessments, spanning multiple courses and requiring candidates to demonstrate knowledge and skills developed across courses. INSPIRE Leadership survey data do not show a clear trend in the nature of assessments, with increases in some, but not all, types of experiential assessments.

UPPI sites emphasized practical experience by changing the types of instructors they used in the program. UPPI sites as a whole moved toward greater involvement of faculty who were experienced in K–12 education and moved away from the use of tenured or tenure-track faculty as instructors (see Table 4). Although comparison programs also moved in that direction, they did not do so as dramatically. According to UPPI leads' reports on the INSPIRE Leadership survey, three of the UPPI sites reduced their use of tenure-track faculty, while four programs increased their use of adjunct faculty, and three programs increased their use of clinical faculty.

On balance, the curriculum and instructional changes aligned with features identified by research as essential to effective PPPs: a coherent course of study aligned to national and/or state professional standards and district needs that integrates theory and practice through active learning and input from faculty with experience in school administration (see Darling-Hammond et al., 2007; González, Glasman, and Glasman, 2002; King, 2018; Murphy and Vriesenga, 2004; Orr, 2003).

Clinical experience became more authentic, intentional, and personalized

During the redesign, all programs increased their focus on the authenticity, intentionality, and personalized nature of the clinical component. These shifts reflected the programs' and

TABLE 4 Personnel

-	2019		2021	
Personnel	UPPI	Comparison	UPPI	Comparison
What proportion of the program cours	ses are taugh	nt by the following p	ersonnel?	
Adjunct, part-time faculty and instructors	34%	24%	51%	31%
Full-time clinical faculty and instructors	18%	41%	36%	21%
Other practitioners	5%	11%	10%	22%
Tenured or tenure-track faculty	59%	67%	44%	56%

NOTE: Because some courses might be taught by teams, percentages might total more than 100 percent.

partner districts' realization that programs must produce graduates who are prepared to "hit the ground running on day one."

UPPI programs increased their focus on "authentic work" in both coursework and their internships. To mirror the work done by principals, programs incorporated problembased, hands-on assignments using actual school data. Stakeholders described the redesigned program experience as more "active," "immersive," "practical," "real-world," and "performance-based." For example, instead of observing meetings, candidates had opportunities to participate on school or district committees, including being involved in teacher hiring and interviewing or instructional coaching. As another example, most programs required that candidates undertake a longer-term project meant to address a genuine need in the school. This typically began with collecting or accessing and analyzing existing data to conduct a needs assessment—a practice that sitting principals engage in. Working with their mentor principals, candidates had to develop a plan for improvement in an area of need, such as students' social and emotional learning and mental health needs or analyzing the equity gap. Before the redesign, the clinical task might have ended there. After the redesign, to practice leading others and executing their vision, principals were to engage a team of school staff or facilitate PLCs to implement their plans.

The clinical component became more intentional and consistent. Some programs intentionally placed candidates in schools that were not their home schools to expose them to different contexts and leadership styles. One program required a full-time, funded internship, making it easy to place the candidate in a different school for the year. For programs that required part-time internships, the candidates typically remained in their home schools and carried out internship activities around their regular teaching requirements. In these cases, some programs provided alternative experiences by placing candidates in nonhome schools for summer internships and for shorter clinical activities that were embedded in courses.

Expectations and support for mentor principals became more intensive at most sites. Programs more explicitly articulated the requirements for being a mentor. For example, programs required mentors to allow candidates time off to engage in clinical experiences and provide access to school data and staff for candidates to perform authentic leadership activities. Mentors also were required to participate actively in regular meetings with the university-based supervisor and the candidate.

To ensure that coaches and mentors are of high quality, well-prepared, and aligned with the redesigned program vision, UPPI teams reported in their interviews that they made attendant changes. One program dissolved a partnership with its previous service provider, which the program regarded as lacking the capacity to shift from a supervisory to a coaching model and lacking rigor in selecting mentors. The program moved the responsibilities inhouse, drawing on its vast network of alumni and district partners to recruit suitable coaches and mentors. Some programs formally trained their coaches and mentor principals to ensure alignment on coaching or mentoring approaches and protocols. Most programs also provided documentation and resources, such as handbooks and rubrics, to guide their work. In all, during redesign, programs strengthened their candidate support systems for the clinical component. Despite this documented increase in mentor training, the INSPIRE Leadership survey data suggest that, on average, both UPPI and comparison programs reported stronger agreement with statements about the availability of mentor training near the beginning of the redesign period than near the end.

To improve consistency in the clinical component, candidates were given similar opportunities to have leadership experiences. Before the UPPI, it was typical for candidates to have different clinical experiences based on the placement context and what mentor principals offered. Redesigned programs typically required a common set of experiences, such as equity or school climate audits, thus ensuring that all candidates had access to critical learning opportunities.

At the same time, UPPI programs found ways to personalize clinical experiences. While redesigned programs required a standard set of experiences, they also personalized some experiences. Clinical instructors, supervisors, and coaches proposed specific experiences for candidates based on data collected during the candidate application and selection process, personalized professional growth plans, and conversation with candidates. For example, one candidate explained,

Instructionally, I am a . . . strong candidate. Behaviorally, social-emotionally, management of people is where I need more growth. And so [for] personalized field experiences, I have gravitated towards experiences [around] building relationships, interacting with teachers, [and] partnering with the community because I need more experience in them. . . . We are assigned an in-school mentor that we can confer with and brainstorm possible options. And then within a couple weeks of the semester, we turn in ideas and ask questions. Our professors give us feedback on things they think . . . we might need more experience with.

Programs also personalized clinical experience by restructuring, strengthening, and expanding the candidate support system. Prior to redesign, candidates in most programs had access to university faculty and a school- or district-based mentor. Two redesigned programs added a formal clinical supervisor or director and/or coordinator, and two programs added a district-based cohort coordinator. All but one program had a university- or district-based clinical coach. The clinical coach's enhanced role shifted from mainly compliance monitoring to supporting candidates' individual development. Some university-based UPPI leads reported that they established a low ratio of candidates to clinical coaches—about one coach for two to six candidates—to ensure frequent touchpoints, enable relationshipbuilding, and facilitate substantive coaching conversations. ASU offers an example of how programs bolstered candidate support at the clinical stage (see the box).

The clinical component of the redesigned programs also aligned with evidence-based features of successful PPPs. The redesigned programs' clinical experience provided opportunities for participants to engage in authentic leadership activities that connected with course content and to obtain constructive feedback from effective principals (see Darling-Hammond et al., 2007; Anderson and Reynolds, 2015; Davis et al., 2005; Fry, Bottoms, and O'Neill, 2005; Kolb and Boyatzis, 2001; and Orr, 2006).

UPPI programs strengthened the use of cohorts

Although UPPI programs had experience with the cohort model prior to the redesign, **they deepened their use of cohorts**. Initially, some programs offered noncohort options, in which candidates entered the program individually at any point in the program cycle. Some programs offered de facto cohorts, in which individual applicants from multiple districts entered the program at the same time and progressed more or less through the same courses. And five programs offered at least one full and closed cohort, in which candidates from partner districts entered the program together and progressed together. By the end of the study period, all UPPI programs were using the full cohort model.

ASU's Redesigned Clinical Component Is Characterized by Increased Candidate Support

Prior to redesign, ASU candidates fulfilling clinical requirements were largely supervised by a university-based research faculty member, who also evaluated candidates' performance, and an on-site mentor principal. Each faculty member supervised up to ten candidates, visiting each candidate on site about three times per year to observe, provide feedback, and touch base.

Post-redesign, each ASU candidate had the support of a full Leadership Candidate Support Team, which is composed of the on-site mentor, ASU leadership coach, and ASU clinical director. According to the Leadership Candidate Support Team Guide, this team

- meets at least two times each semester
- creates performance tasks to ensure that the clinical work is aligned with the Georgia Educational Leadership Standards
- examines the work of the candidate collected in a portfolio to provide feedback to support growth
- evaluates the progress of the candidate and establishes areas that need to be addressed,
- determines whether the candidate has completed the requirements of the clinical work satisfactorily and makes recommendations for additional work, if necessary.

The leadership coach and clinical director roles are new. In its inaugural job posting, ASU described the clinical director as "the direct supervisor of leadership coaches." In addition, "the Director coordinates with faculty, leader coaches, partner school districts, and candidate mentors to assure all components of clinical practice are planned, coordinated, implemented, evaluated, and revised as needed to provide the highest quality clinical experiences for candidates." Meanwhile, leadership coaches "receive training on the use of performance assessment data (qualitative and quantitative) and provide specific feedback that will assist candidates in meeting performance criteria. Leadership coaches aid in the application of theory to practice through leadership work that closely aligns to [state educational leadership standards]." Leadership coaches and on-site mentors directly support candidates' individual growth by developing learning experiences that address their areas of growth as identified by a leadership skills survey. The cohort structure supported the coherence of the program and, in turn, helped candidates succeed on milestone and anchor assessments and possibly will help them in their future roles as school leaders. Instructors noted that, because of the cohort structure and principal candidates' progression through a given sequence of courses, they could be more intentional in their instruction. Specifically, they could draw and build on what candidates had learned in preceding courses, make connections to pressing topics across concurrent courses, and set up lines of inquiry to build toward later courses. One instructor suggested that instructors could engage candidates in richer discussions in the cohort model because candidates could examine, reflect on, and build on shared experiences.

The cohort model also helps candidates develop a peer support network to sustain them beyond the program. In the words of one candidate, the cohort model "created a leadership community from which I draw frequently." Cohort members tended to work with each other, create study groups, and help each other troubleshoot problems they encountered in their (teaching) roles or in their clinical placement.

What did it take for programs to collaboratively redesign?

Prior research highlights features of effective partnerships, such as developing a common vision and a joint agenda and focusing on the client's needs (Anderson and Reynolds, 2015; King, 2018). In this section, we explore the nature of the UPPI partners' collaboration.

Collaborative partners played an active role at all stages of the redesign process

Stakeholder partners actively engaged in the redesign. Table 5 summarizes the primary roles each partner organization played at each site during the redesign process. Across sites, the university led the overall initiative. The university engaged both senior leadership and faculty in the redesign process. Typically, the university-based UPPI lead, who most often was the director of the preparation program, conducted the UPPI leadership group (steering groups). Each program steering group comprised leaders from each partner organization (university, district or consortium, state, and mentor program). These groups typically met for progress updates, developed a larger vision, and worked on the strategy of redesign. The university also led smaller working groups, typically involving faculty and district leadership, on redesign tasks. Regular meetings and communication helped maintain partner engagement and continuity in the redesign process. Partners credited regular meetings as the drivers for their engagement.

District partner roles varied across sites. Typically, an assistant superintendent or department leader served on steering and working groups. Leader tracking system (LTS) development was the responsibility of the districts according to the initial work scope, and, in most teams, the district partners did lead the LTS development (see the LTS box). District partners did not lead program redesign tasks, but most played an active role in recruitment and selec-

University Roles	District Roles	State Roles	Mentor Program Roles
 Responsible for keeping overall redesign on track (all teams) Led steering groups (all) Led working groups, with the exception of the leader tracking system LTS (all) 	 Served on steering groups (all teams) Served on working groups as an equal contributor (most) Led LTS development (most) Served on multiple working groups (e.g., curriculum, internship, LTS) (some) Served on only LTS working group (some) Served on working groups primarily to provide input and district perspective on the university's work on redesign (some) 	 Served on steering groups (all teams) Convened programs (all) Served on working groups (some) Provided state expertise (some) 	 Served in both strategic and operational roles (most teams) Served as consultants or technical assistance providers (most) Served on working groups as a member of the redesign team (most) Shared tools and strategies on the redesign process (most) Communicated and collaborated with districts directly (most) Served on steering or working groups as facilitators (some) Served on steering or working groups as thought partners (some) Interacted primarily through the university partner (few)

TABLE 5 UPPI Partner Organization Roles During Program Redesign

Leader Tracking Systems

An LTS is "a database with longitudinal information about current and aspiring principals that would potentially support data-driven decisionmaking regarding principal selection, hiring, and support" (Kaufman et al., 2017, p. 5). In UPPI, districts are to lead the development of such a system, which would interface with the data system at the university to provide the preparation program with data on program graduates' performance, including placement rates. Developing an LTS requires districts "to identify all the relevant data sources regarding current and aspiring principals (typically housed in different district offices across the district); address issues with data quality, including critical gaps in the data; compile the data into a usable, longitudinal format; and develop user-friendly systems through which district personnel could access information that would meet their most-pressing needs" (Kaufman et al., 2017, p. 5; for more on LTS, see Anderson, Turnbull, and Arcaira, 2017; and Gill, 2016).

tion, curriculum, and clinical redesign. For some teams, tasks, and phases in the work, district partners had a more receptive role, such as providing feedback on the curricula drafted by the university or attending meetings for the purposes of staying updated with the work the university had done. State partners frequently served on the steering and working groups and strategized about program approval processes and similar questions. They also were responsible for convening programs and sometimes districts to learn from the UPPI experiences. Mentor programs served a variety of roles, depending on the needs of the program. We describe these in the next section.

UPPI team members reported that having a committed team dedicated to the mission was a major driver of the work. The university-based UPPI leads used a combination of pushing and enabling to maximize partners' engagement in the redesign process. For example, the UPPI lead or another program leader pushed for active participation in regular meetings and held partners accountable for timelines and deliverables. UPPI leads also acted as facilitators, creating opportunities for engagement (e.g., inviting faculty to professional learning community convenings) and rallying the team around a common vision. To build commitment, leaders highlighted external recognition of the work and found such opportunities as hearing from renowned educators to pique enthusiasm.

Program self-assessments and the development of logic models or frameworks helped the teams work together and kept the redesign process on track

The QM process helped programs identify gaps and track progress in addressing the gaps. QM is a program self-assessment tool and process, based on Darling-Hammond et al.'s (2007) research on exemplary principal preparation practices (Education Development Center, 2018). QM is designed to help PPP leaders and others assess pre-service PPP quality on six domains: candidate admissions, course content, pedagogy-andragogy, clinical practice, performance assessment, and graduate outcomes.

UPPI programs participated in as many as four iterations of QM: (1) as part of the initial application; (2) in 2016, at the outset of the effort, to identify areas for development and establish a habit of using evidence to shape redesign; (3) in 2018, partly to pilot changes to the instrument; and (4) in 2021, near the end of UPPI, to assess progress. Programs involved their district and state partners and sometimes their mentor programs in the process. Programs struggled with the first iteration or two, in part because they did not typically have the data such as changes in student outcomes associated with the program graduates—to document their progress. By the 2021 iteration, programs were universally enthusiastic about QM. Programs appreciated the encouragement to document their assumptions about the program, the conceptualization of program design features, and the visible progress seen in the 2021 iteration compared with earlier rounds.

A series of activities and tools, including theories of action, leader standards, and logic models for the redesign process, coordinated by The Wallace Foundation in the first few

Building Teamwork by Building Logic Models

The process of developing the logic model supported team-building by helping all partners understand the complete initiative and how their pieces worked together. As one site noted, "It was a very cathartic experience for the team, and I think everybody who was in the room said that. . . . So, everybody had pieces of it that they knew were happening. . . . But the majority of us had never seen the initiative . . . in its largest sense. Multiple people said, 'Oh, I finally get what we are doing.'" According to another site, "It's helped us to refine our thinking, but also to give us a heuristic . . . this is how these are all interconnected and interrelate."

Furthermore, in developing the logic model, the partners had an opportunity to share their thinking and be heard, building both a commitment to engage in the work and a logic model that reflected the perspectives of the stakeholders. As one site noted, "It just became really clear that it's not [the university] that's doing this work but it's [the university] with their partners with the state that's doing this work, and ... I think people got really excited when they saw that."

years of the effort, helped each team build and revise their frameworks. Four years later, the UPPI teams reiterated the importance of having some tool—logic model, theory of action, or conceptual framework—to develop and communicate the essential ideas of the redesigned program (see the box for an example).

Mentor programs supported UPPI redesign, with the specific role shaped by the needs of the university and its stage in the redesign process. Mentor programs played a variety of roles, as peers on the redesign team, facilitators to support the university-based UPPI lead, technical assistance providers, thought partners, or network brokers. Mentor programs' work shifted over time, in terms of both the focus and the scope of the work. For example, a mentor program that had served largely as a thought partner during the redesign for one site took on the consultant or trainer role, leading PD for the instructors, in summer 2018 as the program prepared for implementation. Another natural juncture was after the launch of the redesigned program. At one site, by spring 2020, the mentor program transitioned from supporting program implementation to helping the university support other programs in the state to engage in redesign. At some sites, mentor programs' work decreased over time.

There was no single way to sequence the redesign work

UPPI programs were tasked with redesigning the application and selection process, curriculum and instruction, and clinical experiences, as well as with building LTSs to track results for program improvement. Teams reported that the three program components were interrelated, and they often worked concurrently on redesigning multiple components. For example, ASU worked on all three components and the LTS in 2018. FAU, on the other hand, focused on curriculum and instruction before turning to clinical experiences. University-based UPPI leaders explained these decisions, saying either that components were interrelated (e.g., curriculum and clinical experience) or that they had already begun redesigning some components and wanted to complete the work. Moreover, UPPI design principles—using data and engaging district and state partners in shaping the program—meant that even when a program component was being used with a cohort, the team was continuously improving it.

As reported in Wang et al. (2018), teams began the redesign by focusing on curriculum, either alone or with a second component; however, they might have launched the redesigned components in a different order. Five teams piloted or fully implemented their new curriculum first. Another launched the clinical component first, and another the LTS. Redesigned recruitment and selection processes were implemented alongside curriculum or as the next step for four of the programs. Redesigned clinical practices tended to follow the other components, and the LTSs were launched last for all but one site. By the end of 2018, most programs had at least piloted one component, and three programs had piloted or fully launched all components.

The LTSs were developed separately from the program components. In addition to redesigning the program itself, UPPI sites committed to creating an LTS to support continuous program improvement. UPPI teams designed their LTSs to support district decisions related to PD, evaluation, long-term principal pathway planning, and assistant principal and principal placement (see Table 6). UPPI LTSs incorporated information on school-level achievement, prior training, and preparation program assessments, and on such individuals as sitting and prospective principals. By spring 2021, UPPI partners had begun or completed the development of 14 district-based LTSs, three university-based LTSs, and one state-based LTS. Five of the district-based LTSs were operational.

At least one district, program, or state has used its LTS for each of those functions. For example, some district LTSs had a school profile with data on the districts' schools to guide principal hiring and placement. District leaders felt that their LTSs would help them match leaders' characteristics, skills, and histories to the needs of the schools.

Although each function listed in Table 6 was used by at least one LTS, widespread use of the LTSs was limited as of spring 2021, when we last collected data. Some LTSs had not yet been launched, and, for most LTSs, not enough graduates had been placed in school leader-ship positions for the data to be useful for program planning.

The partnerships evolved to support continued implementation

When the programs shifted to implementation and continuous improvement, **there was less need for working groups.** After the redesigned programs were launched, most teams reduced the number of formal, cross-team meetings to once or twice per month. By the end of the redesign, routines had been established, formal and informal channels of communication were open, and patterns of meetings had been established, so there was little additional effort needed to continue the relationship.

	Use of LTS					
Type of Data	Preparation Program Continuous Improvement	Applicant and Candidate Support	Hiring and Placing School Leaders	Leadership Development	Leadership Pipeline Planning	
School demographics	\checkmark		\checkmark		\checkmark	
School performance	\checkmark		\checkmark		\checkmark	
Educator background			\checkmark		\checkmark	
Graduate placement	\checkmark					
Preparation program assessments	\checkmark					
State licensure assessments	\checkmark					
Preparation program application data		\checkmark	\checkmark			
PD				\checkmark	\checkmark	
Evaluation data	\checkmark			\checkmark		
Leader standards	\checkmark			\checkmark		

TABLE 6 Types of Data for LTS Uses

UPPI teams stressed the importance of having instructors with a deep understanding of and commitment to the program in place prior to implementation. Most universities engaged instructors who had participated in the redesign process to build that commitment. In addition, at least one program engaged in deliberate implementation planning, which included training and acculturating instructors.

The redesigned programs incorporated features to promote strong implementation, such as cohort directors, coordination meetings between instructors, and debriefs of staff and candidates. Across sites, these features varied in formality; some undertook more-formal processes (e.g., training for adjuncts, observing classes, or examining work samples submitted by candidates as part of their coursework), while some opted for more-informal processes (e.g., greater opportunities for collaboration and conversation).

University-based program coordinators or cohort directors facilitated program implementation, especially for clinical elements. However, university staffing policies can make it difficult to establish these nontraditional roles and sometimes require program leaders to negotiate terms of employment with university administrators. Another strategy that helped support strong program implementation and maintain partnerships was hiring a liaison to connect the university and district.

Continuous improvement was built into the redesign and implementation processes

All sites recognized the importance of continuously improving their redesigned program and that redesign was not a "once-and-done" process. UPPI LTSs were being designed to help programs use data for improvement, and some had already begun the practice at the end of the study period. Programs also committed to intentionally collecting multiple forms of data from a variety of stakeholders, including annual principal candidate surveys, end-ofsemester candidate focus groups, candidate work products, faculty focus groups, and district partners' feedback. Information used and collected for continuous improvement has helped improve the sequencing of courses and helped reduce redundancies in the curriculum.

Teams took steps to institutionalize the redesign features and the partnership and process of continuous improvement

UPPI teams used documentation, funding from their universities for additional program positions, and shifts in culture to shared leadership and responsibility for curriculum to sustain the redesigned program. Teams used advisory groups and within-program processes, such as having staff lead regular data analysis and improvement activities, to institutionalize the improvement process.

Program redesign and implementation reflected evidence-based practice

Many elements of the redesign process, such as establishing clear partner roles, bringing decisionmakers to the table, and sharing leadership roles, reflect best practices in management (King, 2018). The communication tools, strategies, and protocols that UPPI teams used, such as having regularly scheduled meetings and documenting and disseminating minutes and decisions, are also consistent with prior research on effective management practices (King, 2018).

How did partners extend the strategies developed in the UPPI testbeds?

Lessons from the program redesign efforts undertaken by the UPPI programs and their partners extended through the respective state principal preparation systems. There were three main ways by which the program redesign efforts were extended: expanding the UPPI partnership to new districts; applying lessons learned to other stages of the pathway to the principalship; and informing the work of other programs and districts in the state principal preparation system.

Universities expanded the redesigned programs to include partnerships with additional districts

Universities scaled their redesigned programs by offering partnership opportunities to districts beyond their original partner districts. Engagement with additional districts allowed universities to expand their reach. For districts, partnership opportunities addressed a need for principal preparation that was not being met by existing interactions with preservice providers. The structure and scope of these expanded partnerships differed across sites. One way in which the UPPI programs engaged with new district partners was to branch out from an initial, discrete initiative. The Long Beach school district initially reached out to SDSU to develop a certificate program for district administrators who supervise principals. The partnership between Long Beach and SDSU evolved into a more formal partnership; as of this writing, SDSU offers a principal preparation credential program cohort for Long Beach candidates modeled on the UPPI redesigned program.

UPPI program redesigns extended changes along the pathway to the principalship

UPPI programs and their partners took lessons from the UPPI program redesign and applied them in other parts of the pathway to the principalship. District leaders, in particular, remarked on the value of improving the full principal pathway for their long-term leadership planning. We observed efforts by most UPPI sites to develop new partnership-oriented learning opportunities targeting the needs of aspiring or practicing leaders. Some programs targeted teachers who wanted to develop leadership skills but did not want to be administrators. Others developed principal supervisor programs and "bridge" programs, which were designed to support the continuous learning of graduates until they obtained an administrative position. These new PD opportunities promoted substantive coherence across the pathway, as universities carried over what they learned from UPPI and/or as districts shared lessons learned with district staff. This work also extended the emphasis on a partnership approach to professional learning as the programs collaborated with district officials on the design and implementation of these programs. In some cases, the effort resulted in a new formal program that had not existed prior to UPPI.

The examples described in Table 7 also highlight ways in which **lessons from UPPI spread within districts.** UPPI district partner leads worked with other district staff to apply lessons learned to other stages of the pathway, including the supports that principals receive once they are on the job. The box describes the example of a Virginia district that leveraged its partnership with VSU to build out formal, district-centered PD courses to support the entire pathway to the principalship from teacher leaders to principal supervisors.

TABLE 7

Examples of How Other Programs and Their Partners Applied Lessons from UPPI to Other Stages of the Pathway to the Principalship

University	Activities Targeting Other Stages of the Pathway to the Principalship
ASU	Program redesigned Tier I program (for aspiring teacher leaders and assistant principals) to align with principles of the Tier II program redesigned under UPPI.
FAU	 Program used UPPI resources to develop an assessment for use in the second phase of school leader preparation, which is provided by districts in the state of Florida. Program developed an executive leadership development series for leaders in one partner district. Program interested in developing Ph.D. program in school leadership.
NC State	 Some partner districts developed district-run assistant principal and principal academies, which shared tenets of the redesigned UPPI program, such as social justice, equity, succession planning, cross-training, and understanding the capacity of staff. Program interested in establishing a version of Northeast Leadership Academy Ed.D. program.
SDSU	 Program, in collaboration with partner and other districts, and with state support, developed a bridge program to support ongoing leadership development for recent program graduates who had not yet secured an administrative position. The program leveraged pedagogical strategies (e.g., learning walks) from the UPPI redesign. Program used the revised curriculum as a base from which to develop a separate, new master's program for teacher leaders, targeting those who wanted to remain in the classroom but serve in leadership roles. Program, working in partnership with a non-UPPI school district, developed a program to train principal supervisors to support principal professional learning and a doctoral program to prepare equity-driven leaders for the district. One partner district made extensive revisions to district leader standards, principal and AP evaluation, and job descriptions to align with the UPPI program's vision of equity-driven leadership.
UCONN	 Program developed training for district administrators who supervise clinical internships and support new administrators. The training is grounded in equity-driven leadership, which was a key tenet in the redesigned curriculum. One partner district is interested in having the UPPI program work with its leadership coaches in the district. One partner district is embedding an equity lens in its approach to teacher preparation.
VSU	 Program collaborated with a partner district to develop an aspiring leader academy and training for principal supervisors. Program shared lessons about the above collaboration at region-wide professional learning community convenings addressing principal pre-service, principal PD, and principal supervisor support, thereby extending lessons across the entire region. Partner district created aspiring principal academy and principal supervisor academy inspired by UPPI efforts.
WKU	 Program coordinated with teacher education program to think about the continuum from initial educator preparation to advanced administration preparation, with a specific focus on equity, diversity, inclusion, and social justice, which are key concepts in redesigned UPPI programs.

Henrico County Public Schools Built Out Professional Development Courses to Support Growth Along Every Step of its Leadership Pathway

Henrico County Public Schools, in Virginia, credits UPPI for improving every step of its principal pathway:

I would say, it's all under one umbrella, but it was the development of a true, sustainable leadership development program in Henrico County. Beginning with teachers who aspire to be leaders, and now culminating [in] actually providing professional learning for our principal supervisors. So we have hit every level in preparation and building a true succession and pipeline in . . . four to five years.

Henrico built year-long PD courses, as follows:

- Aspiring Leader Academy for potential leaders, which was first offered within the district in 2016–2017, and which is anticipated to scale beyond the district through the region
- Assistant Principal Learning Series, first piloted in 2018–2019
- Principal Supervisor Academy, developed by Henrico, The Wallace Foundation, and the Center for Creative Leadership, which was initially offered to districts near Henrico because of the COVID-19 pandemic (2020–2021) and planned to be statewide in 2021–2022.

For sitting principals, Henrico shifted from its traditional PD to a district-wide Learning and Leading Conference for principals and some teachers, first offered in 2018–2019.

According to the district leader, the UPPI work raised the visibility of school leadership in the district and created a window of opportunity where district leadership supported PD. UPPI funding supported the development of the academies, and guidance from a UPPI mentor program informed the design. Some of the topics addressed in the PD—such as leadership dispositions and equity—reflect VSU and partner district priorities discussed during the redesign. And at least one opportunity—the Learning and Leading Conference—paired a district leader with a sitting principal for each learning strand to incorporate both policy and practice.

UPPI approaches informed programs across the state preparation system

Lessons from UPPI also spread as **initiative participants shared their experiences and approaches with other programs and districts.** Some of the sharing was structured and facilitated by a state agency or nonprofit organization within the state. There was also considerable informal, organic sharing among programs, among districts, and between programs and districts. State leaders originally engaged in UPPI to improve principal preparation statewide, and the spread to other programs and state policy might be a step in that direction. State partner leads supported the spread of insights from UPPI program redesign across the state. They actively highlighted the lessons of the UPPI programs in convenings and online forums. They sometimes encouraged and offered tangible supports to other programs. For example, in California, where a major change to the statewide administrator performance assessment was rolled out during the UPPI, SDSU was invited by the state's professional standards board (its state partner) to share insights about program redesign and expertise around specific topics, such as teaching candidates how to reflect on their practice or addressing antiblackness within PPPs. Such sharing occurred during large statewide convenings and regular virtual office hours. In this case, the UPPI redesign was consistent with the direction of the state assessment and could contribute to the spread of their common approach.

The Connecticut State Department of Education (CSDE) was actively involved in disseminating the lessons from UPPI to other programs. For example, the state not only informed PPPs across the state about QM but also encouraged programs to use the tool and offered to facilitate its use. Three programs participated in the state-facilitated QM and are reported to be revising their programs as a result. CSDE has also embedded equity concepts into the resources and PD that it is providing to programs and districts. The UPPI work surfaced these equity concepts, shifting conversations in the state around equity.

UPPI states continued to improve principal preparation policy throughout the UPPI grant period and made notable changes in the last year of the initiative (i.e., 2020–2021). Although changes are concurrent with UPPI, they cannot be attributable to the initiative. Gates et al. (2020) provides an overview of state policy changes that took place in UPPI states between 2016 and 2019. State-level actors promoted improvements in the principalship by using seven common policy levers to influence PPPs and districts: standards, recruitment of aspiring leaders, licensure, program approval and oversight, evaluation, PD, and LTSs. Four of these levers—standards, licensure, program approval and oversight, and PD—were most commonly used by UPPI states. In addition, we found that these policy levers were interconnected, and states can heighten the effectiveness of a proposed policy change by leveraging its connections to other policy levers, such as tying changes in standards to changes in program approval, licensure, or evaluation. State officials recognized that changes in their leadership standards would trigger changes in other policy levers.

UPPI states used a variety of policy levers to promote principal quality. State policy organizations have an array of levers in their toolboxes to promote principal quality: establishing leadership standards, licensing individuals to be employed as public school principals, approving programs that prepare aspiring principals, supporting the recruitment of high-quality candidates, guiding PD and evaluation of sitting principals, establishing requirements for principal evaluation, and facilitating communication and engagement of players across the system (including through supporting information- or data-sharing) (Augustine et al., 2009; Manna, 2015). Between 2016 and 2021, UPPI states made most active use of four of the policy levers: leadership standards, principal licensure, program approval and oversight, and PD (Gates, Herman, and Wang, forthcoming; Gates et al., 2020). No single model

of policy change dominated; states led in different ways depending on their unique context, needs, and opportunities.

Licensure was an active area for policy change in UPPI states. Some states revised their pathways to the principalship, and most adopted new licensure assessments, particularly toward performance-based assessments. Again, although involvement in UPPI might have elevated principal quality as an agenda item at the state level, these specific changes might not be directly attributable to UPPI. State officials in Kentucky and North Carolina developed tools to help such stakeholders as PPPs and district-based principal supervisors **apply the state's updated standards** for professional learning or evaluation purposes. For example, Kentucky created a guidance document with a rubric for assessing each of the standards.

As described by Gates et al. (2020), **states use mandates or requirements to influence principal quality, but they typically use these with restraint and couple them with supports.** The use of the state policy levers is perceived as most favorable when the requirements are evidence-based, when the state provides support to programs and districts to meet the requirements, and when there is oversight and accountability regarding the requirements. States recognized that they could drive meaningful policy change by supporting districts and programs.

Challenges and mitigating strategies

UPPI teams navigated some challenges that affected or could have affected the program redesign. In the following sections, we highlight some challenges and strategies related to program change, the change process, and sharing strategies.

Some faculty were reluctant to share ownership of their courses or shift courses from a theoretical to a more practical orientation

Most programs reported that some faculty members were reluctant to share ownership of program courses. Faculty were accustomed to developing and teaching their courses based on their individual expertise. In the paradigm of the redesigned program, however, multiple instructors collaboratively designed a course in line with the program vision and candidates' needs. In any given semester, different instructors could teach a given course. Program content and implementation were shared and consistent across course sessions to ensure that all candidates accessed the core curriculum. Some faculty felt that this approach impinged on their intellectual autonomy. Some were hesitant to de-emphasize theory in favor of a more practice-focused approach in the courses. UPPI addressed these concerns with such strategies as engaging faculty in constructing the redesigned curriculum or providing professional learning experiences to help them reorient their thinking around program goals. Some programs instead shifted instruction responsibilities from tenure-track, research-focused faculty to adjuncts with more-recent practical experience and less ownership of course content.

In these cases, tenure-track faculty were reassigned to teach in other master's level or Ph.D. programs.

The most mentioned challenge across teams, roles, and stages of development was time to carry out the redesign work

UPPI partners noted that engaging in substantive continuous improvement takes time—time that was well spent, but hard to find. They often reported time constraints, such as competing priorities and finding common times to meet with partners, that made it difficult to work on redesign. The challenge was especially acute for small organizations, where each person had multiple roles; however, larger organizations also noted this challenge. Universities and school districts operate under different time parameters. One university representative, for example, talked about the difficulty of getting district partners together for meetings because their schedules are dynamic and things often come up at the last minute. Several universities used grant funds to buy out time, giving faculty more opportunities to work on UPPI. This was especially useful early in the redesign to provide time for curriculum development. Other universities met virtually or on evenings and weekends to accommodate scheduling conflicts. Some districts also mentioned the importance of embedding this work in district strategic plans.

Turnover at all levels—university, district, and state—threatened partnerships and support for redesigned programs

Teams experienced turnover at all levels of the partnership, including university project managers and faculty, district leaders, state partner leads, and state policymakers. Because the programs are at the focal point of the initiative, university partner turnover was the most crippling. Teams needed to onboard someone new, build new relationships, and align priorities. Teams developed strategies to ease turnover transitions. Most of these strategies were preemptive, including creating redundant staffing, documentation, and cross-training.

Expanding partnerships can be challenging, which highlights the need to develop relationships between faculty and district staff

Although all universities were able to build one or more new partnerships in addition to their original district partners, not all prospective partnerships took root. Original district partners worked alongside the university in redesigning the program. In most cases, that process built lasting partnerships and contributed to a program design that matched the districts' needs. Districts that joined the program after the redesign—and districts that sent candidates without a partnership in place—had less opportunity to work with the university and shape the program.

One way to ensure good relationships with partners is for the university to select partners with which it already has strong, long-standing relationships. One UPPI lead indicated that

their program provided PD for expansion districts for years and had strong relationships with district leaders there: "That's why we chose those places, because we're credible there." When embarking on new relationships, university-based UPPI leads emphasized the importance of building trust and credibility with district leadership—a process that can take time and patience. UPPI leads also suggested being deliberate about potential partners. Districts dealing with internal crises and turnover might be less able to focus on building and sustaining a long-term partnership.

Summary and conclusion

Our study illustrates that it is feasible for universities—in partnership with high-need districts, state agencies, and with the support of mentor programs that have engaged in successful redesign—to improve PPPs to reflect the best available evidence.

UPPI required collaborative partnerships among multiple organizations, all of which had a stake in developing strong principals. Implicit in this approach was a recognition that the pathway to the principalship is not defined by the PPP alone but rather is part of a system that includes districts and state actors.

Under UPPI, each team developed a clear and ambitious vision for its program. Overall, the changes that the teams enacted ensured that the programs were more rigorous, coherent, and authentically connected to the work of on-the-ground school leaders. Throughout the initiative, the teams balanced common objectives and structure with flexibility for their specific context and changing conditions.

The study also suggests that lessons from UPPI can extend to other districts and states:

- Universities scaled their redesigned programs by offering partnership opportunities to additional districts beyond their original partners.
- State partner leads supported the spread of insights from UPPI program redesign to other districts and across the states. They sometimes encouraged and offered tangible supports to other programs.
- Initiative participants shared their experiences and approaches with other programs and districts. Some of the sharing was structured and facilitated by a state agency or nonprofit organization within the state. There was also considerable informal, organic sharing among programs, among districts, and between programs and districts.

In sum, this analysis provides an example—although not a blueprint—for how to engage in PPP redesign through a collaborative approach.

Abbreviations

ASU	Albany State University
COVID-19	coronavirus disease 2019
FAU	Florida Atlantic University
INSPIRE	Initiative for Systemic Program Improvement through
	Research in Educational (Leadership surveys)
K-12	kindergarten through 12th grade
LTS	Leader Tracking System
NC State	North Carolina State University
PD	professional development
PLC	professional learning community
PPP	principal preparation program
QM	Quality Measures
SDSU	San Diego State University
UCONN	University of Connecticut
UPPI	University Principal Preparation Initiative
VSU	Virginia State University
WKU	Western Kentucky University

References

Anderson, Erin, and Amy L. Reynolds, "The State of State Policies for Principal Preparation Program Approval and Candidate Licensure," *Journal of Research on Leadership Education*, Vol. 10, No. 3, 2015, pp. 193–221.

Anderson, Leslie M., Brenda J. Turnbull, and Erikson R. Arcaira, *Leader Tracking Systems: Turning Data into Information for School Leadership*, Washington, D.C.: Policy Studies Associates, Inc., 2017. As of September 6, 2020:

https://www.wallacefoundation.org/knowledge-center/Documents/Leader-Tracking-Systems-Turning-Data-Into-Information-for-School-Leadership.pdf

Augustine, Catherine H., Gabriella Gonzalez, Gina Schuyler Ikemoto, Jennifer Russell, Gail L. Zellman, Louay Constant, Jane Armstrong, and Jacob W. Dembosky, *Improving School Leadership: The Promise of Cohesive Leadership Systems*, Santa Monica, Calif.: RAND Corporation, MG-885-WF, 2009. As of September 20, 2020: https://www.rand.org/pubs/monographs/MG885.html

Bottoms, G., and K. O'Neill, *Preparing a New Breed of School Principals: It's Time for Action*, Atlanta, Ga.: Southern Regional Education Board, 2001.

Briggs, K., G. Cheney, J. Davis, and K. Moll, *Operating in the Dark: What Outdated State Policies and Data Gaps Mean for Effective School Leadership*, Dallas, Tex.: George W. Bush Institute, 2013.

Darling-Hammond, Linda, Michelle LaPointe, Debra Meyerson, Margaret Terry Orr, and Carol Cohen, *Preparing School Leaders for a Changing World: Lessons from Exemplary Leadership Development Programs*, Stanford, Calif.: Stanford University, Stanford Educational Leadership Institute, 2007.

Darling-Hammond, Linda, Marjorie E. Wechsler, Stephanie Levin, Melanie Leung, and Steve Tozer, *Developing Effective Principals: What Kind of Learning Matters*? New York: The Wallace Foundation, forthcoming.

Davis, Jacquelyn, *Improving University Principal Preparation Programs: Five Themes from the Field*, New York: The Wallace Foundation, 2016. As of September 6, 2020: https://www.wallacefoundation.org/knowledge-center/pages/improving-university-principal-preparation-programs.aspx

Davis, Stephen H., and Linda Darling-Hammond, "Innovative Principal Preparation Programs: What Works and How We Know," *Planning and Changing*, Vol. 43, 2012, pp. 25–45.

Davis, Stephen, Linda Darling-Hammond, Michelle LaPointe, and Debra Meyerson, *School Leadership Study: Developing Successful Principals—Review of Research*, Stanford, Calif.: Stanford University, Stanford Educational Leadership Institute, 2005.

Education Development Center, *Quality Measures*[™] *Principal Preparation Program Self-Study Toolkit: For Use in Developing, Assessing, and Improving Principal Preparation Programs,* Waltham, Mass., 2018. As of February 28, 2022:

https://www.wallacefoundation.org/knowledge-center/Documents/Principal-Preparation-Program-Quality-Self-Assessment-Rubrics.pdf

Farley, A. N., J. Childs, and O. A. Johnson, "Preparing School Leaders for America's Wicked Problems? How the Revised PSEL and NELP Standards Address Equity and Justice," *Education Policy Analysis Archives*, Vol. 27, No. 115, 2019. Fry, Betty, Gene Bottoms, and Kathy O'Neill, *The Principal Internship: How Can We Get It Right?* Atlanta, Ga.: Southern Regional Education Board, 2005.

Fullan, Michael, Leading in a Culture of Change, San Francisco, Calif.: Jossey-Bass, 2004.

Gates, Susan M., Rebecca Herman, and Elaine Lin Wang, *State Partnerships with University Principal Preparation Programs: A Summary of Findings for State Policymakers*, Santa Monica, Calif.: RAND Corporation, RR-A413-7, forthcoming.

Gates, Susan M., Ashley Woo, Lea Xenakis, Elaine Lin Wang, Rebecca Herman, Megan Andrew, and Ivy Todd, Using State-Level Policy Levers to Promote Principal Quality: Lessons from Seven States Partnering with Principal Preparation Programs and Districts, Santa Monica, Calif.: RAND Corporation, RR-A413-1, 2020. As of February 28, 2022: https://www.rand.org/pubs/research_reports/RRA413-1.html

Gill, Jennifer, Chock Full of Data: How School Districts Are Building Leader Tracking Systems to Support Principal Pipelines, New York: The Wallace Foundation, 2016. As of February 28, 2022: https://www.wallacefoundation.org/knowledge-center/pages/chock-full-of-data-how-schooldistricts-are-building-leader-tracking-systems-to-support-principal-pipelines.aspx

González, M., N. S. Glasman, and L. D. Glasman, "Daring to Link Principal Preparation Programs to Student Achievement in Schools," *Leadership and Policy in Schools*, Vol. 1, No. 3, 2002, pp. 265–283.

Goodwin, R. H., M. L. Cunningham, and T. Eagle, "The Changing Role of the Secondary Principal in the United States: An Historical Perspective," *Journal of Educational Administration and History*, Vol. 37, No. 1, 2005, pp. 1–17.

Grissom, Jason A., Hajime Mitani, and David S. Woo, "Principal Preparation Programs and Principal Outcomes," *Educational Administration Quarterly*, Vol. 55, No. 1, 2019, pp. 73–115.

Herman, Rebecca, Elaine Lin Wang, and Susan M. Gates, *Collaborating on University Principal Preparation Program Redesign: A Summary of Findings for University Principal Preparation Program Providers*, Santa Monica, Calif.: RAND Corporation, RR-A413-5, forthcoming.

Herman, Rebecca, Ashley Woo, Elaine Lin Wang, Susan M. Gates, Tiffany Berglund, Jonathan Schweig, Megan Andrew, and Ivy Todd, *Redesigning University Principal Preparation Programs: A Systemic Approach for Change and Sustainability—Full Report*, Santa Monica, Calif.: RAND Corporation, RR-A413-3, 2022. As of May 10, 2022: https://www.rand.org/pubs/research_reports/RRA413-3

Hess, F. M., and A. P. Kelly, "Learning to Lead? What Gets Taught in Principal Preparation Programs," *Teachers College Record*, Vol. 109, No. 1, 2007, pp. 244–274.

Ikemoto, G., *Prioritizing Principals Guidebook: Central Office Practices That Support School Leaders*, Dallas, Tex.: George W. Bush Institute, 2021.

Kaufman, Julia H., Susan M. Gates, Melody Harvey, Yan Wang, and Mark Barrett, *What It Takes to Operate and Maintain Principal Pipelines: Costs and Other Resources*, Santa Monica, Calif.: RAND Corporation, RR-2078-WF, 2017. As of February 28, 2022: http://www.rand.org/pubs/research_reports/RR2078.html

King, Cheryl L., *Quality Measures[™] Principal Preparation Program Self-Study Toolkit: For Use in Developing, Assessing, and Improving Principal Preparation Programs,* 10th ed., Waltham, Mass.: Education Development Center, Inc., 2018.

Kolb, D. A., and R. E. Boyatzis, "Experiential Learning Theory: Previous Research and New Directions," in R. J. Sternberg and L.-f. Zhang, eds., *Perspectives on Thinking, Learning, and Cognitive Styles*, Lawrence Erlbaum Associates Publishers, 2001, pp. 227–247.

Larsen, E., M. Clifford, M. Lemke, D. Chambers, and A. Swanlund, *Developing Leaders: The Importance—and the Challenges—of Evaluating Principal Preparation Programs*, Dallas, Tex.: George W. Bush Center, 2016a.

Larsen, E., M. M. Clifford, M. Lemke, D. Chambers, and A. Swanlund, *Following the Leaders: An Analysis of Graduate Effectiveness from Five Principal Preparation Programs*, Dallas, Tex.: George W. Bush Institute, 2016b.

Levine, Arthur, *Educating School Leaders*, Princeton, N.J.: Educating Schools Project, 2005.

Manna, Paul, *Developing Excellent School Principals to Advance Teaching and Learning: Considerations for State Policy*, New York: The Wallace Foundation, 2015. As of September 6, 2020:

https://www.wallacefoundation.org/knowledge-center/pages/developing-excellent-school-principals.aspx

McBrayer, J. S., T. Jackson, S. S. Pannell, C. H. Sorgen, A. P. G. De Blume, and T. D. Melton, "Balance of Instructional and Managerial Tasks as It Relates to School Leaders' Self-Efficacy," *Journal of School Leadership*, Vol. 28, No. 5, 2018, pp. 596–617.

Murphy, J., and M. Vriesenga, *Research on Preparation Programs in Educational Administration: An Analysis*, Columbia, Mo.: University Council for Educational Administration, 2004.

National Policy Board for Educational Administration, *Professional Standards for Educational Leaders*, Reston, Va., 2015. As of September 6, 2020: http://www.npbea.org/wp-content/uploads/2017/06/Professional-Standards-for-Educational-Leaders_2015.pdf

Ni, Y., L. Hollingworth, A. K. Rorrer, and D. Pounder, "The Evaluation of Educational Leadership Preparation Programs," in M. D. Young and G. M. Crow, eds., *Handbook of Research on the Education of School Leaders*, 2nd ed., New York: Routledge, 2016, pp. 285–307.

Orr, Margaret Terry, "Evaluating Educational Leadership Preparation: A Review of Empirical, Conceptual and Methodological Literature," paper presented at the annual meeting of the American Educational Research Association, Chicago, Ill., April 2003.

Orr, Margaret Terry, "Mapping Innovation in Leadership Preparation in Our Nation's Schools of Education," *Phi Delta Kappan*, Vol. 87, No. 7, 2006, pp. 492–499.

Orr, Margaret Terry, and D. G. Pounder, "Teaching and Preparing School Leaders," in S. Conley and B. S. Cooper, eds., *Finding, Preparing, and Supporting School Leaders: Critical Issues, Useful Solutions*, Lanham, Md.: Rowman and Littlefield, 2010, pp. 11–40.

Perrone, F., and P. D. Tucker, "Shifting Profile of Leadership Preparation Programs in the 21st Century," *Educational Administration Quarterly*, Vol. 55, No. 2, 2019, pp. 253–295.

Richardson, J. W., D. S. Watts, E. Hollis, and S. McLeod, "Are Changing School Needs Reflected in Principal Job Ads?" *NASSP Bulletin*, Vol. 100, No. 1, 2016, pp. 71–92.

Riehl, C. J., "The Principal's Role in Creating Inclusive Schools for Diverse Students: A Review of Normative, Empirical, and Critical Literature on the Practice of Educational Administration," *Review of Educational Research*, Vol. 70, No. 1, 2000, pp. 55–81.

Sherman, Whitney H., and B. Cunningham, "Improving Administrator Preparation and Practice Through Well-Designed Internships," paper presented at the annual convention for the University Council of Educational Administration, San Antonio, Tex., November 2006.

Tintoré, Mireia, R. S. Cunha, I. Cabral, and J. J. M. Alves, "A Scoping Review of Problems and Challenges Faced by School Leaders (2003–2019)," *Educational Management Administration and Leadership*, 2020.

Wang, Elaine Lin, Susan M. Gates, and Rebecca Herman, *District Partnerships with University Principal Preparation Programs: A Summary of Findings for School District Leaders*, Santa Monica, Calif.: RAND Corporation, RR-A413-6, forthcoming.

Wang, Elaine Lin, Susan M. Gates, Rebecca Herman, Monica Mean, Rachel Perera, Tiffany Berglund, Katie Whipkey, and Megan Andrew, *Launching a Redesign of University Principal Preparation Programs: Partners Collaborate for Change*, Santa Monica, Calif.: RAND Corporation, RR-2612-WF, 2018. As of September 6, 2020: https://www.rand.org/pubs/research_reports/RR2612



he job of the school principal has become much more complex and demanding over the past several decades. Many university-based principal preparation programs—which prepare the majority of school principals—have struggled with how to make the fundamental changes needed to prepare principals for today's schools. To test a path forward, The Wallace Foundation provided grants to seven universities and their partners to redesign their principal preparation programs in line with research-supported practices. This report shares findings from the RAND Corporation's five-year study of The Wallace Foundation's University Principal Preparation Initiative (UPPI).

Under UPPI, each team developed a clear and ambitious vision for its program. Overall, the changes the teams enacted ensured that the programs were more rigorous, coherent, and authentically connected to the work of on-the-ground school leaders. Throughout the initiative, the teams balanced common objectives and structure with flexibility for their specific context and changing conditions.

This report illustrates that it is feasible for universities—in partnership with high-need districts, state agencies, and with the support of mentor programs that have engaged in successful redesign—to improve principal preparation programs to reflect the best available evidence.



