



Human Capital Development in Education: Challenges and Policy Options

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Increasing student achievement and narrowing the achievement gap are challenges that states and districts continue to confront as they strive to develop talent that will contribute to our nation's economy. Some strategies to produce authentic improvement in student learning are not entirely a mystery. A preponderance of research in recent years has given us strong evidence that the best way to improve achievement is having an effective teacher in every classroom and an effective leader in every school (Leithwood, Louis, Anderson, & Wahlstrom, 2004). Therefore, the development of human capital—the talents, competencies, and knowledge of teachers and school leaders—has drawn increasing attention in the education community. As researchers and policymakers strive to better understand how to attract and retain highly skilled teachers and leaders and bridge the gap between the under-performing American school system and the more effective systems of our global competitors, investing in a thoughtful human capital strategy is critical.

To provide guidance to states and districts as they develop such strategies, this brief highlights three main dimensions of the human capital “pipeline”—the **preparation**, **recruitment**, and **retention** of highly talented and effective school teachers and leaders—and policy options to consider for each. Policy options are presented in question form in tables in each section, followed by examples of exemplary efforts some states have made. Recommendations appear at the end of the document.

Below are definitions of the three dimensions of human capital development.

- **Preparation** refers to how teachers and school leaders are prepared through training, certification, and licensure. This includes oversight of traditional programs in schools of education and alternative certification.
- **Recruitment** addresses how teachers and school leaders are recruited into the profession, including mentoring and induction programs for novice educators and mobility policies for all educators.
- **Retention** focuses on what is done to support educators once they are in the workforce, including professional development, compensation and incentives, and working conditions, as well as mechanisms for exiting ineffective educators.

I. Preparation

The majority of aspiring teachers and school leaders come from traditional university training programs. Many institutions of higher education have drawn criticism for lack of rigor on admission and content standards as well as for lack of support for non-traditional training. However, as states examine the requirements for preparation and accreditation in an effort to expand the pool of skilled educators, alternative paths to preparation have piqued the interest of many state and district leaders.

Training

Research suggests that few states are doing enough to make sure that prospective educators have the content, pedagogy, and leadership skills necessary to effectively teach our nation's children (National Council on

Teaching Quality, 2009). Universities are facing increased pressure to adhere to high admission, program, and graduation standards. At the same time, states have begun to look more closely at the knowledge and skills teacher applicants ultimately bring to the job. Furthermore, states are exploring opportunities to train school teachers and leaders outside traditional institutions of higher education.

Training and Preparation Programs

Policy Options	Questions to Consider
Accreditation process and standards	<ol style="list-style-type: none"> 1. What institutions are responsible for the oversight and accreditation of teacher and principal preparation programs? 2. Who administrates the institutional review? How often? What is the process for the review? What data is gathered from programs under review? 3. Are there schools or programs that have not met standards? If so, what happens to these schools and programs?
Program interventions	<ol style="list-style-type: none"> 1. What is the state’s history in enforcing standards in teacher and principal preparation programs? 2. Have any programs been discontinued? By whom, what was the reason, and how long was the process? 3. How does the intervention process ensure programs are altered to meet standards?
Program standards	<ol style="list-style-type: none"> 1. What are the characteristics of the preparation program? How many candidates are trained in each program? What are the graduation rates? Are there minimal qualifications for entering the program? What are they? 2. How many programs does the state have? How many approved state programs are there? Are there alternative programs? 3. Are all of these programs aligned with state standards? 4. What courses are required? Are these courses consistent with current research and practice on educator effectiveness? 5. Do preparation programs in the state work with districts to track entry and success of graduates? 6. Do these programs prepare educators to work in different settings with students from diverse backgrounds, cultures, and experiences?
Program components	<ol style="list-style-type: none"> 1. How are the clinical components of teaching and principal training integrated? 2. How are the clinical components of teacher principal training structured? 3. What is the nature of internships? How many hours are required? What supports are offered? Is the clinical experience evaluated? What feedback is provided to participants?

Alternative Certification

Currently, 48 states offer some form of alternative certification for aspiring teachers. However, a recent study done by the National Council on Teacher Quality (2009) revealed that only six states—Rhode Island, Connecticut, New Jersey, Georgia, Florida, Arkansas, and New Jersey—offer comprehensive approaches to alternative licensing that are both content-rich and rigorous.

Certain state policies have demonstrated promise in drawing highly effective teachers and leaders into the profession, including alternative certification for mid-level professionals, programs for career-changers, and support for alternative programs that cast a wider net on the potential educator talent pool (Odden & Kelly, 2008). Many states are consequently working to ensure that alternative routes to preparation are streamlined with the immediate needs of cities and districts.

Certification, Licensure, and Alternative Paths

Policy Options	Questions to Consider
Licensing requirements	<ol style="list-style-type: none"> 1. What are the state requirements for obtaining a provisional license for both teachers and leaders? Does the state have a tiered licensure system? 2. Are these requirements based on state education standards? Are they based on research regarding highly effective teaching and leadership? 3. Are there different licenses in the state for grade and content? 4. Are there performance-based standards or other accountability measures enacted or being considered? 5. Is re-licensure required? If so, what requirements must be met? Is re-licensure tied to professional development in the state?
Assessments for licensing	<ol style="list-style-type: none"> 1. What licensing examination is currently used in the state? What is examined and how are passing scores set? What is the passage rate? 2. Has validity and reliability for the test been demonstrated? How are the results reported, disseminated and used?
Alternative paths to licensure	<ol style="list-style-type: none"> 1. How often are teachers or principals who do not meet state licensing requirements hired? How many waivers are granted yearly? Are there any districts that frequently request waivers? 2. Are there alternative routes to licensure in the state? How often are they used? How do they differ from traditional programs?

State Actions

Indiana: Through a reformative measure called Rules for Educator Preparation and Accountability (REPA), the Indiana Department of Education has revised its preparation and licensure system to require all state preparation programs to emphasize content knowledge and create more rigorous program requirements. This new rule also calls for a beginner teacher residency program and allows for current teachers to receive residency credits toward licensure renewal and credit toward administrator certification.

Connecticut: The Alternative Route to Certification (ARC) is a nine-week process in which prospective teachers are given student teaching assignments that can be completed in both full-time and part-time formats. The coursework is built on the state curriculum goals and standards framework. The program offers ongoing professional development to first- and second-year teachers who participated in ARC.

Arkansas: Arkansas has worked to expand the pool of teachers in the state by enacting new state policies for alternative licensure. The alternative route seeks to align the immediate needs of new teachers to school and district requirements for preparation. The certification requirements support individuals who have a college degree and commendable grade point average in a specific subject area. The state also does not limit who can provide the preparation or require admission that is more rigorous than traditional preparation programs.

II. Recruitment

Identifying and recruiting effective school teachers and leaders has become an increasing concern of states and districts, especially in hard-to-staff areas. Many states are pursuing aggressive strategies to recruit high-quality teachers and leaders to guard against shortages caused by increased enrollment, retirement, and attrition, and ongoing staff and budget changes. These strategies force serious consideration of the supply and demand pipeline, mobility, and mentoring and induction of educators.

Supply and Demand Pipeline

To recruit qualified and capable teachers and school leaders, the system must be able to identify and deliver the right candidates. Empirical data and high-quality information about the supply and demand pipeline of educators are critical in making decisions and targeting district and state investments. Greater attention should be given to areas and causes of shortages and what the future holds in high-need districts.

Supply and Demand Pipeline

Policy Options	Questions to Consider
Supply and demand of teachers and principals	<ol style="list-style-type: none"> 1. How many teachers and principals are prepared, licensed, and hired each year? 2. What are the turnover patterns within schools and districts in the state? 3. What are the current demographics of educators and how do they affect the supply and demand? 4. Is there usable data for assessing teacher and principal supply and demand? Does the data provide accurate projections to assist with recruiting?
Effectiveness of recruitment and hiring procedures	<ol style="list-style-type: none"> 1. Are there any processes in place to identify non-traditional candidates for positions? 2. Are the district selection criteria consistent with state educator standards? 3. Do state policies discourage hiring unqualified personnel for positions?

Mobility

Conflicting state policies on teacher certification and licensure may present a barrier for educators wanting to cross state borders (National Council on Teacher Quality, 2009). Educators are moving in increasing numbers and often move across state lines only to face a host of additional certification and licensure requirements in the new state, which could precipitate many effective teachers and leaders leaving the profession. Presenting possibilities for certified teachers to move across state lines and obtain certification in a new state is critical in a society of increasing mobility.

Mobility

Policy Options	Questions to Consider
Mobility policy and practice	<ol style="list-style-type: none"> 1. Does the state have reciprocity for licensing agreements with other states? If so, with what states? 2. Can educators maintain pension benefits if they move among districts or from another state? 3. Do recruited educators from other states receive salary credit for education and experience?

Mentoring/Induction

Novice teachers and school leaders who receive robust mentoring and gain experience in their preliminary years are more likely to succeed at juggling the multiple demands of management, teaching, and learning (Odden & Kelly, 2008). Mentoring and induction programs include pairing of experienced mentors with novice educators, classroom observation protocols, school-based professional development opportunities, and coaching based on rigorous teaching standards and models.

Mentoring/Induction

Policy Options	Questions to Consider
Teacher and leader supports	<ol style="list-style-type: none">1. Are there mentoring programs for aspiring and beginning teachers and principals? How are mentors selected and trained? How long do candidates participate in this program?2. Is there a statewide mentoring program? If so, how much does it cost? Do funding and program requirements vary across districts in the state?3. Are teachers evaluated as part of the induction program?4. What percentage of new educators has access to these programs?
Effects of mentoring, induction, and retention programs	<ol style="list-style-type: none">1. Have retention rates increased in districts who offer these programs? Do rates vary based on the characteristics of the program?2. Is there variation among districts in terms of program effectiveness?

State Actions

Illinois: Illinois has focused on the supply and demand of highly qualified educators by enacting state legislation to prepare highly skilled teachers who will teach in hard-to-staff schools and districts as well as hard-to-staff positions through the Illinois Grow Your Own Teacher Education Act. This act has resulted in a coalition of public and private universities, school districts, unions, and community partnerships which has fostered and expanded the pipeline throughout Illinois.

Texas: Texas has indicated its willingness to support the portability of teacher licenses by signing the NASDTEC (National Association of State Directors of Teacher Education and Certification) Interstate Agreement. Signing the agreement does not guarantee reciprocity across states, but it does offer the possibility of licensure portability for teachers who have completed an alternate route to certification. The state will issue a comparable license to out-of-state teachers who were prepared via an alternate route and want to teach in Texas.

Wisconsin: The Wisconsin Quality Educator Initiative requires that school districts provide all beginning educators multiple support opportunities, such as orientation, seminars, mentoring, and on-going professional development. In addition, the Wisconsin Department of Public Instruction has implemented a state-level induction model with examples of best practices to align with the administrative rules put forth by the Quality Educator Initiative.

III. Retention

The best preparation and recruitment in the world doesn't matter if schools are unable to keep effective teachers in the classroom. Research suggests that teachers leave the profession at an annual rate of 17 percent (National Governor's Association, 2009); in hard-to-staff areas, the number is close to 30 percent. States have worked to develop policies and incentives to retain effective educators as well as counsel out those who are ineffective. These policies include professional development opportunities, incentives for compensation, better working conditions, and performance management.

Professional Development

Opportunities to advance one's skills are instrumental to professional growth and satisfaction in all professions. Relying on university or alternative preparation alone is unsatisfactory for the dynamic changes educators face throughout their tenure. To ensure continued skill development and effectiveness throughout teachers' careers, many states are promoting a multi-tiered licensure approach that promotes on-going content and skill building. Furthermore, many states are seeking to tie performance evaluations to an educator's professional development needs.

Professional Development

Policy Options	Questions to Consider
Professional development priorities and plans	<ol style="list-style-type: none"> 1. Are there professional development plans at both the district and state levels? How are they designed? Who is involved? 2. To what extent are professional development priorities aligned with the state and district education goals? 3. Is there consistency across schools within individual districts?
Professional development content, delivery, and evaluation	<ol style="list-style-type: none"> 1. What is the content of the professional development being offered? How is it determined and by whom? 2. Does professional development accurately reflect the changing needs of the role of school leaders? 3. How is professional development administered? Is time allocated during the work week to participate in such activities? 4. What evaluation is done on the effectiveness and timeliness of professional development offerings? Is there a mechanism for measuring the program's effectiveness?
Professional development funding	<ol style="list-style-type: none"> 1. How does the state fund professional development? 2. What do districts spend on professional development relative to state expenditure? 3. How do expenditures for principal professional development compare to teacher professional development? 4. Are there any inequities or inadequacies in access to professional development opportunities?

Incentives

Some states have begun to incentivize teachers by offering compensation for their contributions. These incentives may take the form of performance pay, compensation for hard-to-staff areas, pay tied to content or skill expertise, pay for performing advanced or supplemental roles, incentives for advanced degree holders,

or retention pay (Learning Point Associates, 2010). Though these incentives have been heavily scrutinized, states and districts are increasingly examining whether incentives are instrumental or mildly important in closing the achievement gap and increasing student achievement.

Incentives and Compensation

Policy Options	Questions to Consider
Effectiveness of incentives	<ol style="list-style-type: none"> 1. Are there districts in the state that do not attract qualified candidates? What are the characteristics of that district? 2. Are there programs to recruit teachers and principals? What do these programs offer? Scholarships? Loans? 3. Are these incentives aligned within the state and district to ensure that all areas of your state attract qualified educators? 4. Is the state working with schools and colleges to expand the pool of potential applicants?
Adequate compensation	<ol style="list-style-type: none"> 1. How do salaries compare across districts in the state? Does it vary based on district characteristics such as size, setting, etc.? 2. How do salaries compare among career classroom teachers in the state? 3. How do salaries compare with occupations that require similar education, experience, and skills?

Working Conditions

Working conditions influence retention of effective educators in schools and classrooms. Therefore, many states are using surveys to get critical feedback from their teachers on their perceptions of their working environment (National Governor’s Association, 2009). Data collected can be used to alter and improve conditions in order to attract and retain talented school teachers and leaders. Working conditions include not just the physical environment but also scheduling, technological concerns, and student behavior.

Working Conditions

Policy Options	Questions to Consider
Methods for surveying educator satisfaction with working conditions	<ol style="list-style-type: none"> 1. Is there a formal survey to collect feedback? 2. When and how often is it administered? 3. How is this information used? 4. Do the data provide accurate projections to assist you with making changes to working conditions for educators?

Performance Management

The education field has been reticent to use data to inform performance management decisions. However, many states are now experimenting with performance-based evaluation systems to collect data in order to improve teaching and learning (National Governor’s Association, 2009). Effective evaluation systems include a multi-tiered licensure system; they measure both practice and effectiveness and inform multiple decisions—from understanding supply and demand in high-need districts to guiding professional development and human resources interventions. Performance management also informs decisions and provides evidence for promotion, rewards, and sanctions for effective and ineffective educators.

Performance Management and Accountability

Policy Options	Questions to Consider
Evaluation practices	<ol style="list-style-type: none">1. What is the nature of evaluation and accountability standards for teachers? For principals?2. Who evaluates? Do they use professional standards? How are the evaluators trained?3. Are there data on the impact of evaluation and practice? On school performance? On student performance?
Methods of removing ineffective teachers and principals	<ol style="list-style-type: none">1. Does the state have established and effective procedures for identifying, assisting, and removing ineffective teachers or principals? Are these procedures tied to an evaluation process?2. What kinds of assistance are available to underperforming principals? How frequently are they used?

State Actions

Iowa: Iowa offers a model to provide districts with guidance for designing, implementing, and evaluating professional development. The model is guided by the notion that professional development should be ongoing, job-embedded, and differentiated for educators' unique skills, content, and course-level requirements (Darling-Hammond & Sykes, 2003). The Iowa Department of Education has created professional development models for both teachers and leaders that offer an intensive, collaborative opportunity to develop professionally.

Colorado: ProComp is a compensation system that links teacher pay to the school district's plan for instruction. It was developed as a partnership between the Denver Classroom Teachers Association and Denver Public Schools. ProComp has received much attention from other states in that it was piloted extensively throughout the state before it began operating districtwide. It is one of the first systems that rewards teachers for their professional accomplishments while linking pay to student achievement.

Minnesota: Minnesota QComp is a voluntary compensation system that creates ladders for teachers to allow them to assume more responsibility to enhance their careers. Teachers are compensated based on student achievement at the individual and classroom levels as well as teacher evaluations conducted throughout the year.

North Carolina: North Carolina has conducted working conditions surveys every other year since 2002. As a consequence of survey results, the state has written new standards for principals and teachers, which all preparation programs in the state must meet as part of the accreditation process. Professional development and technical assistance has also been tailored based on survey feedback.

Tennessee: Tennessee is among only 15 states that have longitudinal databases that include the ability to match student achievement from year to year, as well as from teacher to teacher each year. The state has been using this measure to track student progress and teacher effectiveness, and uses this data to inform and improve the supply and demand pipeline.

Recommendations

States should focus attention to developing human capital in three broad areas of the education pipeline: **preparation, recruitment, and retention**. Considering the questions presented in this brief for each area, the following recommendations can be made.

Preparation

1. States should examine their accreditation standards for preparation programs and the content of these programs.
2. States should ensure procedures for intervention are in place for programs that do not meet standards.
3. States should require a basic skills test as part of admission into preparation programs.
4. States should ensure candidates are being prepared with clinical training that addresses content and grade-level expertise.
5. States should consider alternative pathways to certification that ensure rigorous and appropriate preparation for high-need subjects and districts.

Recruitment

1. States should support effective data systems to track the supply and demand pipeline of the number of educators prepared, licensed, retired, and hired each year.
2. States should examine district selection criterion to align with state educator standards.
3. States should examine policies and processes for identifying non-traditional candidates.
4. States should examine policies for licensure mobility to remove barriers for educators in crossing state borders.
5. States should examine mentoring and induction programs and how they are funded, staffed, and administered.

Retention

1. States should examine professional development priorities to align with state and district education goals.
2. States should investigate incentive compensation to ensure a supply of qualified educators across the state.
3. States should ensure that performance compensation and pension systems are fair to all teachers.
4. States should survey educators on satisfaction of working conditions.
5. States should examine performance management and accountability systems to ensure appropriate practices are in place to promote, reward, and sanction effective and ineffective educators.

References

- Darling-Hammond, L., & Sykes, G. (2003). Wanted: A national teacher supply policy for education: The right way to meet the “highly qualified teacher” challenge. *Education Policy Archives, 11*(33). Retrieved from <http://epaa.asu.edu/epaa/v11n33/>
- Learning Point Associates. (2010). *Managing educator talent: Promising practices and lessons from Midwestern states*. Chicago, IL: Author.
- Leithwood, K. A., Louis, K. S., Anderson, S. E., & Wahlstrom, K. L. (2004). *How leadership influences student learning*. New York, NY: The Wallace Foundation.
- National Council on Teacher Quality. (2009). *State teacher policy yearbook: What states can do to retain effective new teachers*. Washington, DC: Author.
- National Governor’s Association. (2009). *Building a high-quality education workforce: A governor’s guide to human capital development*. Washington, DC: Author.
- Odden, A., & Kelly, J. A. (2008). *The strategic management of human capital in public education*. Madison, WI: Consortium for Policy Research in Education.



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