


RECRUITING, SELECTING, AND RETAINING TEACHERS

A Review of the Literature

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INTRODUCTION

Over the past five years, Washington has experienced a 250% increase in the demand for new teachers (PESB, 2015). This comes at a time when teachers are retiring in record numbers and fewer people are enrolling in teacher certification programs. The result of these trends has been a shortage of teachers in Washington State. To address these issues it is critical that districts and schools engage in evidence-based practices to recruit, select, and retain new teachers.

In February of 2016 the Professional Educator Standards Board (PESB) engaged in a large-scale project to develop and implement a comprehensive training project for Human Resource (HR) professionals and staff at school districts across the State. The objective of this project is to provide assessment and development opportunities for improving district HR capabilities and practices in three specific areas: teacher recruitment, teacher selection, and teacher retention. In support of this objective, the current report provides a comprehensive review of scientific literature in each area. As such, this report is broken out into three sections. Each section provides a review of current issues and evidence-based best practices for improving teacher recruitment, teacher selection, and teacher retention.

CHAPTERS AND SECTIONS IN THIS REPORT

1. RECRUITMENT

Recruitment practices help schools and districts identify and attract qualified applicants to fill teaching positions. Recruitment is particularly important in Washington now because the demand for new teachers exceeds the supply of teacher candidates. This imbalance results in a teacher shortage. To address this shortage, recruitment activities can provide schools with a wider pool of qualified teachers.

Sections:

The Context of Recruitment. This chapter familiarizes the reader with the fundamental concepts that effective recruitment practices are built upon.

Characteristics of Effective Recruitment Practices. This chapter describes several best practices that have been shown to identify and attract new teachers.

2. SELECTION

Selection practices help schools make hiring decisions by using methods like applications, assessments, and interviews to assess teacher candidates on relevant factors. Valid and reliable selection processes not only ensure that students are receiving high quality educations, they also help districts save money by selecting teachers who will stay.

Sections:

Characteristics of Effective Teacher Hiring Processes. This chapter presents several practices that have been shown to improve the quality of teacher selection.

Validated Teacher Selection Instruments. This chapter identifies various selection tools and assessments that have found support from peer-reviewed research.

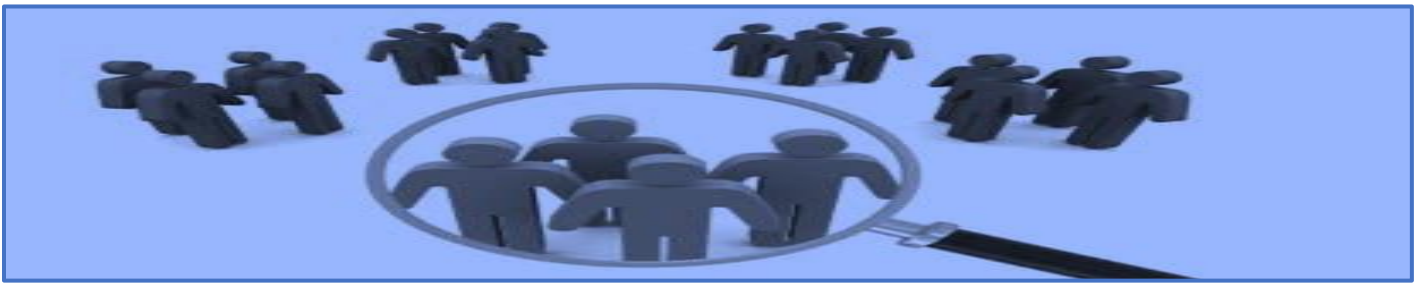
3. ONBOARDING & RETENTION

Turnover is particularly high among teachers, with as many as 50% of new teachers leaving the profession within five years. Replacing teachers who move or leave is costly and time-consuming. To avoid these costs, schools and districts can engage in several activities to improve teacher retention. This section provides a review of the literature on teacher retention.

Sections:

Characteristics of Effective Teacher Onboarding Practices. This chapter describes the induction and orientation activities that have been shown to increase retention rates

Teacher Turnover: Key Drivers and At-Risk Populations. This chapter identifies the key drivers of teacher turnover and provides information to identify at-risk populations.



CHAPTER 1: RECRUITMENT

Recruitment refers to the process of identifying and attracting a pool of qualified candidates for jobs in an organization. Common recruitment practices include: defining the jobs that need to be filled, identifying internal (within the organization) and external (outside of the organization) candidates, marketing open positions through advertisements, and participating in outreach activities to engage qualified candidates.

To achieve the goal of providing every student with a high-quality education, schools need access to a pool of **willing and qualified teacher candidates**. However, in order to create and maintain that pool, schools and districts must either directly engage in recruitment activities themselves or hire recruitment agencies to do that work for them. Many school districts in Washington State have strategies for recruiting new teachers and regularly engage in activities to support their efforts. For example, **Vancouver Public Schools** regularly attends career fairs and partners with over 20 universities (PESB, 2014). These partnerships help Vancouver Public Schools identify high-quality student teachers and connect with student teachers early on. Strategies like these are becoming more and more important right now given recent trends in teacher supply and demand in Washington State.

RECENT TREND: TEACHER SUPPLY, DEMAND, AND TURNOVER IN WA

- 🍏 Over the past five years we have seen a 250% increase in demand for new teachers in Washington
- 🍏 Teacher turnover in Washington is higher now than it has been in the past decade (although our turnover rates are lower than the national average)
- 🍏 Fewer people are entering and completing teacher preparation programs
- 🍏 Qualified candidates are leaving en masse to pursue careers outside of public education

Source: PESB (2015)

With the current teacher shortage and the need to identify and recruit qualified individuals, it is particularly important to turn towards empirical evidence for guidance. Along these lines, this section provides a review of published literature on teacher recruitment strategies and is organized into the following chapters:

SECTION 1. THE CONTEXT OF RECRUITMENT: SUPPLY AND DEMAND

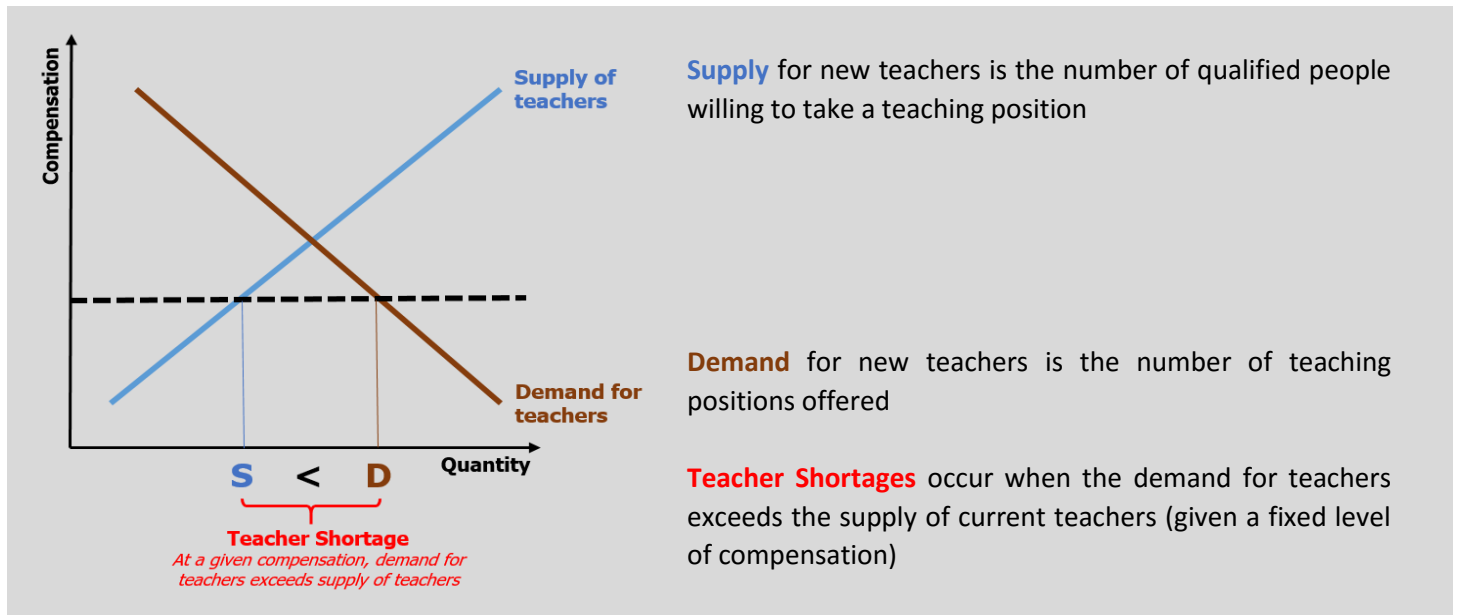
This chapter provides an overview of the theory of recruitment supply and demand in order to familiarize the reader with key concepts.

SECTION 2. CHARACTERISTICS OF EFFECTIVE RECRUITMENT PRACTICES

This chapter outlines the recruitment practices that have been shown to help identify and attract new teachers.

1. THE CONTEXT OF RECRUITMENT: SUPPLY AND DEMAND

Prospective teachers are strongly influenced by two factors when making a decision about entering (or remaining) in the teaching profession. These include recruitment practices and labor market conditions (Guarino, Santibañez, & Daley, 2006). To understand how to improve recruitment practices it is important to consider the context in which recruitment operates. Research on teacher recruitment is often based on the theory of supply and demand. When considering how supply and demand relates to teacher recruitment, the graph and definitions below describe key factors.



People decide to take teaching positions when they see it as the most attractive activity they can pursue. Attractiveness depends on two factors: ease of entry and overall compensation. Ease of entry largely relates to the state policies and licensing requirements, as well as the cost and availability of teaching certification programs. By providing alternative paths to certification or offering student loan forgiveness programs, policymakers can make it easier to enter the profession of teaching. The other factor related to attractiveness is compensation. In this sense, compensation is more than just salary and benefits – it also includes other rewards derived from teaching such as meaningfulness, personal satisfaction, and working conditions. Compensation is a key factor in determining both demand (i.e., the number of teachers a school will be able to employ) and supply (i.e., the number of qualified people who would be willing to teach). By pulling the right policy levers and engaging in proactive recruiting strategies designed to “sell” the positive aspects of teaching, policymakers and school districts can address teacher shortages by increasing the supply of new teachers in relation to the current demand (Guarino et al., 2006). Because policy decisions are beyond the scope of this review, the next section reviews literature and best practices for improving new-teacher recruitment.

RESEARCH TREND: THE STATUS OF TEACHING

Recent studies by Goldhaber and Walch (2013) and Lankford, Loeb, McEachin, Miller, & Wyckoff (2014) provide promising evidence that **perceptions of the teaching profession have been improving recently after a 30-year decline.** Specifically, they report that teaching is attracting applicants from more selective institutions with higher standardized test scores and college GPAs.

2. CHARACTERISTICS OF EFFECTIVE RECRUITMENT PRACTICES

Recruitment strategies are one way that schools have traditionally addressed teacher shortages. The approach is straightforward: recruiting more teachers will balance out shortages by increasing the supply of new teachers. Recruitment strategies such as the ones described below can – and *do* – provide schools with an increased supply of new teachers, thus providing temporary relief for teacher shortages. However, as Ingersoll (2001) and others have stated, “*recruitment programs alone will not solve these or other school staffing problems if they do not also address the problem of teacher retention*” (p. 525). Therefore, while the strategies below can be effective short-term, schools and districts in Washington also need to address selection and onboarding issues to make sure that teacher retention also improves. The practices described below have been shown to improve teacher recruitment by improving the organization of recruitment processes, providing access to a greater number of teacher candidates, and increasing the attractiveness of available positions.

Relationships with Teaching Programs

Forming close relationships with teacher preparation programs in Washington State, and recruiting teachers from those programs on-site, can also provide districts with access to a wider pool of qualified candidates. For example, in the Vancouver Public School district, principals become involved in the recruiting process early on (e.g., they regularly attend career fairs) and are schooled in effective interviewing techniques. By forming close partnerships with teaching programs, recruiters can gain more access to applicants earlier on in the process.

Relationships with Alternative Programs

Teachers recruited from alternative or nontraditional teacher certification programs are more diverse and often stay longer than teachers recruited from traditional programs. For example, the Pathways to Teaching Careers Program attracted a diverse population of new teachers (63% minority) who stayed in the field at higher rates than national averages (Clewell & Villegas, 2001). This program largely targeted minority paraprofessionals in urban districts. In another example, research on extended five-year preparation programs (which included more coursework in liberal arts and more clinical experience) were also associated with higher rates of entry and retention than comparable four-year programs (Andrew & Schwab, 1995). Also, a comprehensive evaluation by the US Department of Education (Constantine et al., 2009) found that teachers from alternative programs performed equally well as those from traditional programs when it came to student

achievement. In general, alternative certification programs do appear to increase the supply of new teachers by reducing the barriers to entry. By forming close relationships with alternative programs and recruiting teachers from those programs, districts can tap into a larger supply of teachers who are equally effective as those from traditional programs.

Centralized Office with Dedicated Staff

Having a centralized office to manage and coordinate recruiting activities can be immensely helpful. By centralizing recruitment activities (e.g., in districts rather than individual schools) and assigning full-time staff to work exclusively on recruitment strategy and activities, districts can devote the time and resources necessary to expand their recruiting efforts.

Multiple Outreach Activities

Effective recruiters “cast a wide net” by employing multiple tactics to gain access to diverse populations. Casting a wider net allows recruiters to gain access to a wider pool of applicants which, in turn, will provide schools with higher quality teachers. Outreach strategies identified by the New Schools Venture Fund (2007) that were associated with effective teacher recruitment include:

- Advertising (e.g., newspaper ads, online postings in teacher organization websites)
- Partnerships with teaching organizations like Teach for America
- Information sessions at universities, graduate schools, and other certification programs

- Dinners and other social events with prospective candidates
- Incentives for staff who recommend successful teacher hires
- Principal/Administrator engagement in recruiting efforts (e.g., showing up for career fairs, championing recruitment efforts)

Research suggests that schools or districts should engage in two or more outreach strategies as a minimum.

Proactive Sourcing

Proactive sourcing (i.e., “headhunting”) activities can help recruit high-quality teachers who stand out in their certification programs or have demonstrated success in the classroom. The DC Public School district has sourced and cultivated over 25,000 prospects over a two-year period by implementing a comprehensive headhunting strategy that includes (Vidyarathi, 2014):

- Identifying desirable candidates from certification programs or out-of-state schools/districts
- Reaching out to candidates and scheduling one-on-one phone calls
- During the phone calls:
 - Inquire about any teaching practices or research that they are engaging in or passionate about
 - “Sell” your district by sharing information about any exciting initiatives and compelling goals that might inspire them to apply

While this process requires time and resources to identify candidates and reach out to them, it can also greatly increase the size and improve the quality of a candidate pool.

Recruitment Messaging

Schools and districts can influence candidate perceptions of attractiveness in several ways during recruitment and hiring. Specifically, experimental research by Young, Rinehart, and Place (1989) found that recruitment messages emphasizing aspects of the work and work environment to be more appealing even than messages that stressed financial incentives. During interviews, candidates were also more attracted to institutions when interviewers exuded warmth during the interview (Young & Heneman, 1986).

Competitive Pay

There is strong evidence suggesting a positive relationship between teacher salary and recruitment (Hanushek & Pace, 1995). With the promise of more pay, teaching becomes more attractive and attracts more candidates. However, it is important to note that, after a teacher is recruited, their salary relative to neighboring districts becomes the important consideration. There is also other evidence that suggests that working conditions may even be more important than salary when it comes to retaining teachers (e.g., Allen, 2005).

QUICK LINK:

LEARN MORE
ABOUT RECRUITING

The Art and Science of Recruitment

Short YouTube video describing recent trends in job seekers and recruitment strategies (2 minutes)



Link to video: <https://www.youtube.com/watch?v=zbQfklsvNtU>

SUMMARY

In summary, teacher shortages occur when the demand for teachers exceeds the supply of willing and qualified teachers. Districts can address these shortages by engaging in recruitment activities designed to provide access to a wider pool of qualified teachers and increase the attractiveness of positions by “selling” potential candidates on the tangible and intangible benefits. A review of the literature on teacher recruitment revealed the following characteristics of effective teacher recruitment processes:

- **Establishing close relationships with teacher certification programs can provide greater access to teachers earlier on.**
- **Establishing close relationships with alternative certification programs can provide districts with a new populations of diverse teachers who perform on-par with teachers from traditional programs.**
- **By structuring recruitment in a centralized location and hiring staff that are dedicated only to recruitment activities, districts can better devote the time, energy, and focus needed for effective recruitment processes.**
- **Engaging in multiple outreach activities casts a wider net and attracts more potential teachers.**
- **Proactive sourcing activities cultivate relationships with the highest quality teachers and attract them to the district by selling them on goals and initiatives of interest.**
- **Schools can increase the attractiveness of teaching positions by drawing attention to positive aspects of the work and the work environment.**
- **Offering competitive salaries is a proven way to attract candidates; but once they are hired, good working conditions matter more when it comes to keeping them.**



CHAPTER 2: SELECTION

Selection refers to the process of evaluating candidates and selecting the best candidate for a particular job. Selection consists of all of the hiring activities that occur between the time a candidate submits their application or resume to the point in which a final decision is made. Teacher selection can range from simple processes that include applications and interviews to complex multi-hurdle processes that include online assessments, structured interviews, and teaching auditions. The purpose of selection is to collect valid information on candidates that can predict future performance and behavior, and to apply that information to make sound hiring decisions.

As a process, the importance of personnel selection practices cannot be underrated. Aside from the more direct costs associated with new-hire turnover, schools face the indirect (and some may argue, more severe) costs associated with exposing students to ineffective and unqualified teachers (Staiger & Rockoff, 2010). Effective selection practices allow schools to identify not only high-quality teachers, but also those who are more likely to stay in the workforce longer. However, research on teacher selection has made little progress on identifying a valid set of tools and methods that consistently predict student outcomes and teacher behavior (Jacob, Rockoff, Taylor, Lindy, & Rosen, 2015; Jamil, Sabol, Hamre, & Pianta, 2015). That being said, there have been a number of studies in the area of teacher selection, and that number continues to grow each year as issues of hiring and retention become more prevalent in the field. For example, the call-out box below spans the last fifteen years of research to identify the traits that are common among effective teachers.

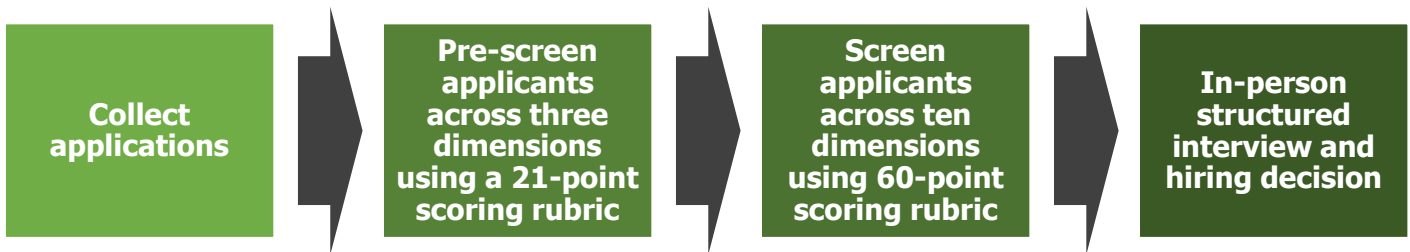
RESEARCH TREND: COMMON TRAITS OF GREAT TEACHERS

When it comes to choosing the right candidate, it is always helpful to know the characteristics that predict future success. Great teachers share a number of characteristics, including:

<p>PERSONALITY TRAITS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Patience and persistence <input type="checkbox"/> Fallibility <input type="checkbox"/> Extraversion <input type="checkbox"/> Conscientiousness <input type="checkbox"/> General self-efficacy <input type="checkbox"/> Teaching self-efficacy <input type="checkbox"/> Positive affectivity <p>DISPOSITIONS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Value students' learning <input type="checkbox"/> Respect and value for diversity <input type="checkbox"/> Open to self-learning <input type="checkbox"/> Caring about students <input type="checkbox"/> Commitment and dedication 	<p>SKILLS & ABILITIES</p> <ul style="list-style-type: none"> <input type="checkbox"/> Organization and planning <input type="checkbox"/> Ability to connect theory to practice <input type="checkbox"/> Ability to survive in a bureaucracy <input type="checkbox"/> Concept development <input type="checkbox"/> Quality of feedback <input type="checkbox"/> Language modeling <input type="checkbox"/> Richness of instructional methods <input type="checkbox"/> Classroom management <input type="checkbox"/> Behavior management <p>COGNITIVE FACTORS</p> <ul style="list-style-type: none"> <input type="checkbox"/> SAT scores (math & verbal) <input type="checkbox"/> Cognitive ability <input type="checkbox"/> Content knowledge and expertise
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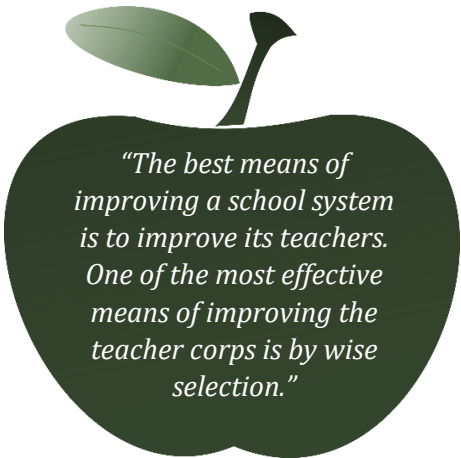
Becker et al. (2003), Hamre et al. (2012), Jamil et al. (2015), Masunaga & Lewis (2011), Metzger & Wu (2008), Mueller & Hindin (2011), Rockoff et al. (2011)

Several studies have found that teacher characteristics (like the traits, dispositions, skills, and cognitive factors listed above) can predict classroom success and teacher retention. Knowing this, the question becomes “How can we accurately assess candidates on these factors to make better hiring decisions?” The answer for this question lies in the specific hiring practices that schools and districts engage in. Selection practices vary considerably from district to district and from position to position. For example, many school districts in the US identify qualified candidates through nothing more than a background check and a cursory scan of transcripts and test scores (Sawchuk, 2011). Other districts employ structured, multi-stage processes like the four-stage one used by Spokane Public Schools:



Structured, multi-stage processes that assess candidates across multiple job-relevant factors like those described above have been shown to help districts hire more effective teachers that stay in their schools (Goldhaber, Grout, & Huntington-Klein, 2015). The emerging literature on teacher selection provides sound guidance on the specific practices and instruments that districts can implement to improve the effectiveness of the teacher hiring process. As such this chapter provides a review of the literature on teacher selection and is organized into two sections:

SECTION 1. CHARACTERISTICS OF EFFECTIVE TEACHER SELECTION PROCESSES	<i>This section describes several rigorous and evidence-based practices that have been shown to improve the quality of teacher selection.</i>
SECTION 2. VALIDATED TEACHER SELECTION INSTRUMENTS	<i>This section identifies various selection tools and assessments that have found support from peer-reviewed research.</i>



-Ervin Eugene Lewis
 Superintendent of Schools,
 Flint Community Schools

1. CHARACTERISTICS OF EFFECTIVE TEACHER HIRING PROCESSES

The hiring process is one of the single most important levers that schools and districts can control to improve the quality and size of their teaching force. Effective hiring processes use rigorous, evidence-based methods to assess candidates on relevant dimensions and select those that have the highest probability of success. A review of the literature reveals several characteristics of effective teacher hiring processes and practices, which are described in detail below.

Multi-Stage Processes

A multi-stage selection process assesses job candidates on multiple dimensions across multiple stages. For example, DC Public Schools uses a three-stage hiring process consisting of (Jacob et al., 2015):

1. Online application that includes an essay test of content knowledge
2. Structured interview
3. Teaching audition

The main benefit of combining multiple selection assessments is that they often result in better selection decisions (e.g., Schmidt & Hunger, 1998), and thus higher quality teachers who stay around. Other benefits of multi-staged processes include (Jacob et al., 2015):

- Combining interviews, assessments, and other screening activities allows districts to evaluate candidates across multiple dimensions relevant for success (see “Assessing Multiple Dimensions” section for more).
- Using early stages (e.g., resume/application checks, online assessments) to screen out unqualified applicants can streamline the process by providing principals/administrators with a short list of the best candidates for more time-intensive activities like interviews or mock lessons.
- Multi-stage processes provide data that can help districts continually assess and refine their own hiring tools and practices.

Common activities in multi-stage processes are listed below. Districts and schools that want to improve their selection practices should use at least three stages from beginning to end.

- ✓ Application or resume screen
- ✓ Online assessment
- ✓ Phone interview

- ✓ Essay or content knowledge test
- ✓ Mock lesson
- ✓ In-person structured interview
- ✓ Job previews
- ✓ Teaching audition

Centralized Hiring

Centralized hiring occurs when school districts (rather than individual schools or principals) are responsible for carrying out hiring activities. According to a recent review of HR best practices, centralized hiring is a common practice among school districts in Washington State that were identified as being effective in early hiring practices (PESB, 2014). In these districts, centralized hiring provides the following benefits:

- It allows districts to establish standardized methods for selecting teachers, allowing for consistent interview protocols, common frames of reference for interviewers, and practices that are repeatable and not dependent upon the biases of specific individuals
- Standardized hiring practices collect a greater amount of data (due to the increased sample size when taking a centralized approach) which in-turn makes it easier for districts to assess their hiring practices and make data-driven improvements on a continuous basis
- It improves the organization of hiring and contributes to greater consistency among newly hired teachers
- It allows districts to collect and process larger batches of applicants than would be possible in individual schools

Effective Pre-Screening Methods

Effective management of applicant pools can save decision-makers valuable time and energy by allowing them to focus on a smaller pool of the most qualified teacher candidates. Pre-screening methods are used to identify and remove unqualified applicants. District HR staff can accomplish this in several ways (Hindman, 2014):

- Writing job descriptions with clear knowledge, skill, and ability (KSA) requirements, then recording and sorting applications/resumes based on the degree of overlap in candidate KSAs and job requirements
- Removing candidates who do not meet minimum qualifications
- Removing incomplete applications
- Using validated online teacher selection assessments (see *Section 2: Validated Teacher Selection Instruments* for more information on these assessments).

Screening applicant pools using methods like these allows districts to provide decision-makers with a more manageable pool of applicants to choose from for subsequent hiring activities like interviews. More rigorous screening rubrics, such as the one used by Spokane Public Schools (see *Section 2* for a detailed description) can even predict future performance.

Structured Interviews

Interview practices can range from unstructured to highly structured. Unstructured interviews do not include set questions or follow a consistent format whereas structured interviews follow a consistent protocol where interviewees are given the same set of questions. Structured interviews consistently outperform unstructured interviews in that they are better at identifying high performers, they reduce subjectivity, and they are also more legally defensible (Campion, Palmer, & Campion, 1997; Williamson, Campion, Malos, Roehling, & Campion, 1997). In the context of education, principals and administrators also report that they make more effective hiring decisions when using structured interviews (Bourke & Brown, 2014; PESB, 2014). Specific aspects of structured interviews that aid in better hiring include (Hindman, 2014):

- A common list of interview questions which are asked consistently by interviewers
- Questions targeted at assessing specific dimensions of “fit” and other job-relevant characteristics
- Assessing the quality of each response using quantitative rating scales that consist of four or more levels of rating (e.g., *very unsatisfactory, somewhat unsatisfactory, satisfactory, exceeds expectations*)
- A scoring guide or rubric to help interviewers interpret the quality of each response (e.g., “A *satisfactory* response to question X includes...”)

MISSING PIECES?

Recent research shows that principals often take a narrow view when interviewing candidates by focusing on only one or two areas of fit (e.g., Engel, 2013). This can result in an incomplete understanding of candidate fit ... like a puzzle with missing pieces. Instead, principals should use interviews as an opportunity to examine *multiple* factors, such as teaching skills and abilities, fit with the job and organization, and level of experience and expertise. Structured interview processes, with predetermined questions and scoring guides, allow principals to get a more comprehensive understanding of the candidate and ultimately make less biased decisions. In short, decision-makers need to see the entire puzzle.

Frame-of-Reference Training

Interviews are among the most common tools used to make final selection decisions about new teachers. However, the effectiveness of this tool can easily derail in the absence of a common frame-of-reference. In this context, a common frame-of-reference is defined as a shared understanding of *what effective candidate performance looks like* when conducting interviews. In the absence of formal training, administrators are more likely to be guided by personal perceptions and value judgments during interview processes, thus resulting in poorer hiring decisions (Cranston, 2012). If interviews are leveraged as key hiring tools, then the interview process needs to be both structured and well-understood to ensure that it results in selecting the best possible teachers (Maynes & Hatt, 2015).

Using structured interview processes with common standards for evaluating candidate performance is the first important step for establishing a common frame-of-reference. However, to ensure that interviewers actually *share* a common understanding, frame-of-reference training is the next step. Frame-of-reference training is the most effective approach for increasing interviewer accuracy and reliability (Roch, Woehr, Mishra, & Kieszczynska, 2012). This type of training often includes the following aspects:

- Identifying multiple dimensions of performance on which to assess interviewees
- Developing concrete definitions for each dimension
- Developing standards and examples of good and bad responses along each dimension
- Practice applying standards and receiving feedback

Assessing Multiple Dimensions

Assessing candidates across one or two dimensions rarely provides enough information to successfully predict their performance (Rockoff et al., 2011). However, recent studies by Jacob and colleagues (2015) and Rockoff and colleagues (2011) found empirical support for assessing teachers across multiple dimensions that include both cognitive abilities and individual traits. This multi-faceted assessment showed strong and significant relationships with student test scores, retention, and teacher evaluations. For example, the Washington DC school district assesses content knowledge, fit, classroom management skills, and cognitive ability in their selection process. By assessing candidates across multiple dimensions, they are able to select teachers who perform better during their first year than other applicants would perform by their second or third year of teaching (Jacob, 2009). Thus, hiring processes that use multiple sources of information to assess multiple dimensions (e.g., cognitive ability, personality, self-efficacy) can help districts select more effective teachers. The table on the following page provides an overview of the dimensions that have been shown to predict teacher effectiveness, and the selection methods that can be used to assess them.

Job Previews

Hiring processes are two-way roads, with both applicants and hiring schools or districts collecting and analyzing information about each other. Many selection practices focus solely on the institution's side, but research also shows that providing applicants with accurate previews of their jobs can also influence outcomes important for schools. New teachers who are provided with more information about their potential work and workplace during the selection process also report greater job satisfaction and stronger person-organization fit than those who did not (Liu, 2005). This information can be provided in several ways:

- Providing a realistic job preview that presents candidates with accurate descriptions of both positive and negative aspects of the job
- Exposing applicants to a cross-section of school community members during the selection process
- Including teaching demonstrations as part of the hiring process
- Allowing applicants to observe classes or staff meetings during the selection process

WHAT ABOUT EXPERIENCE?

Teaching experience may not be as big of a factor as was once thought. Studies have shown that, while experience may predict teacher effectiveness early on in teachers' careers, these effects level out after the first few years (Rivkin, Hanushek, & Kain, 2005; Chingos & Peterson, 2011). This means that, holding all else equal, a candidate with ten years of experience may not necessarily be a better choice than a candidate with five years of experience. Thus, focusing on other factors such as intelligence and disposition may be a better way to distinguish between candidates than experience.

**RESEARCH
TREND:
COMMON
METHODS USED
TO ASSESS
TEACHER
CANDIDATES
ON VARIOUS
DIMENSIONS**

DIMENSION	ASSESSMENT STRATEGIES
Experience and Past Success	-Resume or application -Reference checks -Structured interview
Disposition and Personality	-Online assessment -Structured interview -Teaching audition
Instructional and Classroom Management Skills	-Teaching audition or mock lesson -Video sample -Structured interview
Cognitive Ability	-Online assessment -SAT scores -College GPA
Pedagogical and Content Knowledge Teacher "Fit"	-Teaching audition or mock lesson -Essay test -Online assessment -Structured interview

Sources: Becker et al. (2003), Hamre et al. (2012), Jacob et al. (2015), Jamil et al. (2015), Masunaga & Lewis (2011), Mueller & Hindin (2011), Rockoff et al. (2011)

2. VALIDATED TEACHER SELECTION INSTRUMENTS

As with any industry, there are a myriad of off-the-shelf instruments available to aid in the selection of teachers. However, many such instruments are based on loose science and lack rigorous evidence that supports their ability to select high-quality teachers. To help sort the wheat from the chaff, we reviewed several instruments and report on three of them here. These three instruments were chosen because they are backed by solid evidence of their reliability and validity, which was supported by peer-reviewed publications.

Teacher Qualifications, Experience, and Skills: Spokane Public Schools Screening Rubrics

It is also prudent to include validated pre-screening tools in this section as well. A screening rubric is a structured rating system that provides clear guidelines and scoring rules for the purpose of evaluating the information contained in job applications. As a selection tool, there are several benefits associated with pre-screening rubrics. The rubrics themselves are often free, they are administered internally by HR staff or school hiring-level administrators, and they are effective at filtering a large pool of applicants down to a qualified few (who can then be called on during hiring phases for more traditional selection activities such as in-person interviews).

We are including these particular rubrics for two reasons. First, they have received strong empirical support and second, they are publically available at no cost. At Spokane Public Schools (SPS), two rubrics are used to screen applicants, a pre-screening rubric and a screening rubric. In a recent study, Goldhaber and colleagues (2015) assessed the validity of the SPS rubrics and found significant relationships between scores on both rubrics and teacher outcomes. Specifically, they found that the rubrics were able to predict future teacher effectiveness and teacher attrition, such that teachers with higher scores on the rubrics performed better in the classroom and stayed longer. The SPS rubrics are described in more detail below.

SCREENING RUBRICS USED AT SPOKANE PUBLIC SCHOOLS

RUBRIC	WHAT IS ASSESSED?	HOW IS IT ASSESSED?		
Pre-Screening Rubric	Online application that asks candidates to submit information related to: <ul style="list-style-type: none"> • Education • Qualifications • Experience • Letters of Recommendation • Narrative statements* • Supporting documentation 	Applications are scored by HR staff on a 21-point rubric consisting of three criteria: <ul style="list-style-type: none"> • Experience • Depth of skills • Quality of recommendations Guidelines describe what the screener should be looking for in each criterion.		
Screening Rubric	Candidates that pass the pre-screening cutoff (e.g., 17 points or higher) are assessed again on the same application using a more detailed rubric.	Applications are scored by school-level hiring officials on a 60-point rubric consisting of 10 criteria: <table style="width: 100%; border: none;"> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Certificate and education • Training • Experience • Classroom management • Flexibility </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Instructional skills • Interpersonal skills • Cultural competency • Preferred qualifications • Letters of recommendation </td> </tr> </table> Guidelines describe what the screener should be looking for in each criterion. This stage determines who goes on to receive in-person interviews.	<ul style="list-style-type: none"> • Certificate and education • Training • Experience • Classroom management • Flexibility 	<ul style="list-style-type: none"> • Instructional skills • Interpersonal skills • Cultural competency • Preferred qualifications • Letters of recommendation
<ul style="list-style-type: none"> • Certificate and education • Training • Experience • Classroom management • Flexibility 	<ul style="list-style-type: none"> • Instructional skills • Interpersonal skills • Cultural competency • Preferred qualifications • Letters of recommendation 			

** Narrative statements are essays in response to particular prompts, such as "Describe how you will support a safe and rigorous learning environment for a variety of diverse student populations." (Goldhaber et al., 2015, p. 49)*

Teacher Knowledge and Skills:

Haberman PreScreener

The Haberman PreScreener is an online selection tool that uses fifty multiple-choice items to measure applicants on ten dimensions related to success in the classroom, including beliefs regarding the value of learning, approach to students, approach to at-risk students, persistence, fallibility, organization and planning, ability to connect theory to practice, tolerance for bureaucracy, explaining students' success, and explaining teacher success. There is also evidence suggesting that performance on the Haberman PreScreener relates to teacher effectiveness. Rockoff and colleagues (2011) found significant relationships between Haberman scores and both student achievement and teacher evaluations, while Jacob and colleagues (2015) found that Haberman scores predicted teacher effectiveness even after controlling for the effects of other characteristics.

Teacher Cognitive Ability:

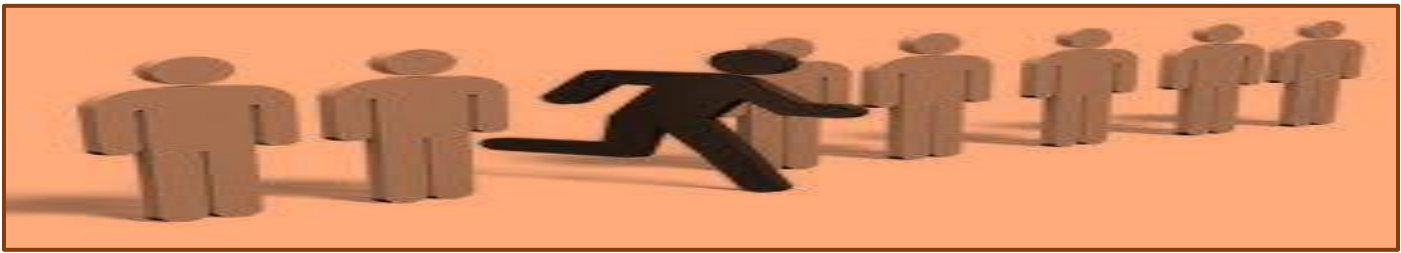
Raven's Progressive Matrices

Raven's test evaluates cognitive ability by asking participants to identify visual patterns among symbols presented in a matrix and has been found to be a strong indicator of cognitive ability (Raven & Summers, 1986). As a selection factor, cognitive ability is one of the most widely used and proven predictors of new-hire performance across all fields and industries (Schmidt & Hunter, 1998). In the field of teaching, Raven's scores have been found to predict teacher effectiveness when combined with other indicators of cognitive ability such as SAT math and verbal scores and college ranking (Rockoff et al., 2011). Raven's test also has the added benefit of not requiring linguistic or mathematic skills and is thus much less likely to lead to adverse impact in the selection process (Raven, 2000).

SUMMARY

While recruitment efforts allow schools to identify potential teachers, it is the selection process that allows them to choose the right ones. By using valid and rigorous methods to screen and select their teachers, schools and districts receive a number of benefits: hiring high-quality teachers, improving student learning and engagement, and reducing turnover. A review of the literature on teacher selection revealed the following characteristics of effective teacher selection processes:

- **Robust selection processes where applicants go through multiple stages (e.g., application, online assessment, in-person interview) result in better hiring decisions.**
- **Centralized hiring (i.e., hiring of teachers is done at the district level, not the school level) adds structure, standardization, and organization to the teacher hiring process.**
- **Prescreening tools can save districts time by removing unqualified applicants who don't match job criteria – also, by combining screening rubrics (e.g., Spokane Public Schools) with online applications, these tools can even become valid selection assessments in and of themselves.**
- **Structured interviews far outperform unstructured interviews. Structured interviews use a consistent set of job-relevant questions and quantitative scoring guide to evaluate applicant responses.**
- **Frame-of-reference training can greatly improve interview processes by providing decision-makers with a shared understanding of what an effective performance looks like and practice applying clear standards.**
- **Assessing candidates across multiple dimensions related to job performance (e.g., experience, knowledge, classroom management skills, attitudes and values, intelligence) paints a more complete picture, resulting in better hiring decisions.**
- **Providing applicants with realistic previews of their work helps improve new-hire satisfaction and fit.**

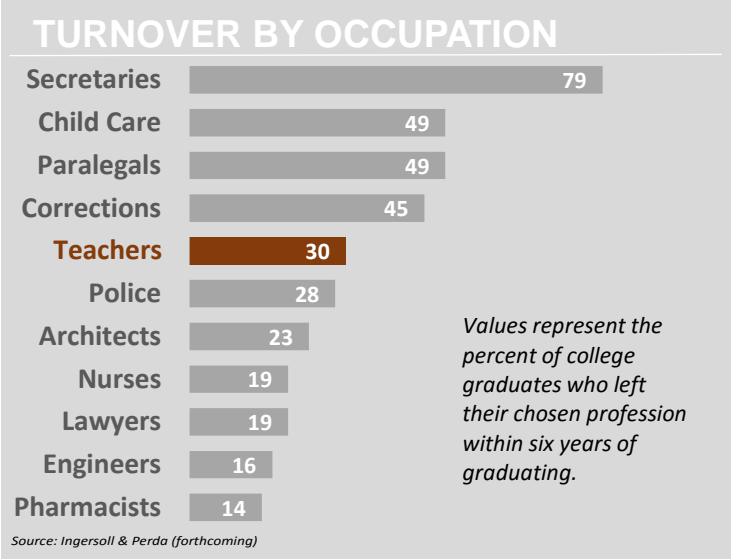


CHAPTER 3: ONBOARDING AND RETENTION

Given the prevalence and cost of attrition, it is important to review research on teacher turnover, retention, and onboarding practices. In this context, **turnover** refers to teachers who leave their jobs. Teacher turnover includes teachers who move to different schools or districts (“movers”) and teachers who leave the profession entirely (“leavers”). Turnover rates are essentially calculated as the percent of teachers who move or leave within a given time period. **Retention** is the inverse of turnover and refers to teachers who stay in their position. Finally, **onboarding** refers to the practices that bring employees into their organization. They include processes of orientation, socialization, and equipping new hires with the knowledge, skills, and behaviors they will need to be successful in their organization. In education literature, onboarding is commonly referred to as “induction.” Onboarding is included in this section because onboarding practices are particularly important for retaining new teachers.

Teaching is plagued by turnover, with some studies citing as many as 50% of new public-school teachers leaving within the first five years of entering the profession (e.g., Ingersoll, 2003). Teacher turnover is associated with a number of costs, including financial costs, difficulty in developing and sustaining instructional programs, and reduced ability to ensure that all students are receiving high-quality educations (Krasnoff, 2015). Teacher turnover is also higher than many other professions, as can be seen below.

It is a widely acknowledged theme that teacher turnover follows a U-shaped distribution, such that new teachers and highly experienced teachers are most at-risk (Grissmer & Kirby, 1997). Turnover for highly-experienced teachers is largely the result of retirement, thus researchers focus less on this population. In the literature, teacher attrition is studied in two contexts: turnover among new teachers and turnover in general. To keep in-step with the research, we break this chapter into two sections. The first describes the factors that promote new-teacher retention, while the second addresses the factors that predict teacher turnover in general.



<p>SECTION 1. RETAINING NEW TEACHERS: CHARACTERISTICS OF EFFECTIVE ONBOARDING PRACTICES</p>	<p><i>This section describes the characteristics of effective onboarding programs that promote new-teacher retention.</i></p>
<p>SECTION 2. KEY DRIVERS AND AT-RISK POPULATIONS</p>	<p><i>This section identifies the organizational and demographic factors associated with teacher turnover.</i></p>

1. RETAINING NEW TEACHERS: CHARACTERISTICS OF EFFECTIVE ONBOARDING PRACTICES

Turnover is particularly high among new teachers. According to a recent nation-wide study, only 74% of new teachers stay in the same school after their first year. Among those who leave, 16% move to a different school and 10% leave the profession entirely (Gray, Taie, & O’Rear, 2015). Here in Washington State, the first-year retention rates are somewhat higher, with 82.6% of new teachers staying in their district after their first year of teaching (PESB, 2016). Even though retention may be higher in Washington, the cost of turnover still presents a huge burden on taxpayers. With the Alliance for Excellent Education’s (2005) estimate that attrition costs 30% of the departing teacher’s salary and 2014 Washington State teacher salary information from OSPI (available at <http://www.k12.wa.us/safs/db.asp>), the average cost of turnover is \$15,976 per teacher. Given the 6,881 teachers that left their district or quit teaching entirely in 2014, this represents an estimated annual cost for turnover in Washington of **\$109 million**.

THE COST OF TEACHER TURNOVER



Cost of teacher turnover in 2014 based on information from the Alliance for Excellent Education (2014) and the Professional Educator Standards Board of Washington.

New teachers are particularly vulnerable to turnover for a few reasons. First, they are more likely to be assigned to difficult, low-performing classrooms. Second, the challenges faced by new teachers are rarely balanced out by professional support and development. These factors can combine into a perfect storm that results in new teachers feeling frustrated and failing to develop a positive sense of teaching self-efficacy. A report on new teacher retention put out by the Alliance for Excellent Education summed up this issue well:



“Placing new teachers in the most challenging classrooms without comprehensive induction . . . is like putting newly licensed drivers in the top heat of a NASCAR race.”



(2005, p. 2)

The literature on new teacher turnover has demonstrated time and again that **onboarding (i.e., induction) activities are the most effective strategies for retaining new teachers and helping them reach their teaching potential sooner** (Smith & Ingersoll, 2004; Villar, 2004). For example, Smith and Ingersoll (2004) reported that, in the absence of any formal onboarding activities, only 59% of new teachers stayed in their school the following year. In contrast, 82% of new teachers stayed in their school when they were provided with comprehensive onboarding. However, the effect that onboarding has on new teacher retention depends largely on the type and quality of onboarding activities that are provided (Ingersoll, 2012). Onboarding activities that have been shown to have significant impacts on new teacher retention include mentoring, new teacher orientations (distinct from returning teacher orientation), common planning time with other teachers, collaboration with other teachers on issues related to instruction, supportive relationships with principals or administrators, and additional resources for easing the transition into teaching (Smith & Ingersoll, 2004; Gray et al., 2015). Each of these is described in more detail below.

Mentoring Programs

In a comprehensive review of induction activities, Ingersoll and Strong (2011) report that mentoring has the strongest positive impact on new teacher effectiveness and retention. Mentoring reduces the risk of first-year attrition by 30% (Smith & Ingersoll, 2004). For example, a recent national longitudinal study (Gray et al., 2015) found that 92% of new teachers stayed the following year when they were assigned a mentor, while only 84% stayed when they did not have a mentor. In fact, retention rates for new teachers with mentors are higher after five years (86%) compared to retention rates after the first year without mentors (84%). When it comes to mentoring, the characteristics of mentors and the structure of the program matter greatly. Characteristics of effective mentoring programs include (Gray et al., 2015; AIR, 2014; AEE, 2014; NTC, 2016):

- Mentors are selected based on specific criteria, such as:
 - Years of teaching experience
 - Communication and interpersonal skills
 - Teaching excellence
- Carefully matching mentors with new teachers based on a number of criteria, such as: same content area, proximity, common planning periods, compatibility, communication style, personalities
- Mentor training programs that focus on developing mentor skills and abilities in areas such as coaching, adult learning theory, feedback and observation, reflective conversations
- Roles and responsibilities for mentors and mentees are clearly outlined and understood, with mentors being held accountable for their coaching and being compensated for their additional role
- Mentor interactions focus on instructional design/delivery and student learning

It should also be noted that mentoring programs are expensive and often difficult to administer. That being said, if it is not possible to develop such a program, schools can take alternative approaches such as promoting informal mentoring by facilitating socialization or collaboration between new teachers and more senior ones.

WHAT MAKES FOR A GREAT MENTOR?

Rowley (1999) outlines a number of traits, skills, and behaviors that are common among effective mentors.

They include:

- Show commitment and enthusiasm for their role as mentor
- Ability to accept new teachers as developing persons without making judgment calls
- Ability to adjust their mentoring practices and behaviors to meet the individual needs of their mentee
- Skilled at providing instructional support to new teachers
- Display a positive and optimistic attitude

Teacher Collaboration

Providing new teachers with opportunities to collaborate with other teachers reduces the risk of first-year teachers leaving by over 25% (Smith & Ingersoll, 2004). This includes providing them with regularly scheduled collaboration with other teachers on issues related to instruction or ensuring common planning time with other teachers in their particular subject area. Specific collaboration and planning activities that help new teachers include:

- Developing lesson plans
- Models and methods for collaborating with and engaging
- Use data from student assessments

School cultures that promote integration between novice and veteran teachers have been shown to go a long way in promoting new teacher satisfaction and retention (Kardos, 2005). In these cultures, veteran teachers provide assistance, encourage new teachers to seek help, and grant new teachers a special status and appropriate roles. New teachers and novice teachers also share a collective responsibility for the success of students.

Additional Support

A longitudinal study by Johnson and Birkeland (2003) found that new teachers who left within their first three years of teaching were much more likely to report experiencing frustration in their classroom or feeling a sense of failure when teaching. By providing new teachers with certain types of support, schools can reduce the likelihood that new teachers will become overwhelmed and provide them with a more positive, efficacy-building start to their new role (Humphrey et al., 2011). For example, the presence of a teacher's aide reduces the risk that new teachers will move to a different school after their first year by 41% (Smith & Ingersoll, 2004). Specific supports that help new teachers include (AIR, 2014; Lunenburg, 2011; Smith & Ingersoll, 2004):

- Reduced workloads (particularly for teachers involved in mentoring activities)
- Classroom aides
- Avoiding placement in challenging classrooms
- Fewer extra-class duties during the first year
- Additional evaluation and feedback for new teachers
- Additional resources (related to instruction)

Ongoing Development

New teachers should be offered regular and ongoing opportunities to develop their teaching skills and expand their content knowledge (Garet et al., 2001). These should be delivered by experts (including experienced teachers and principals) via multiple activities, including public lessons and seminars, workshops, out-of-school training, classroom visitation, study groups, and meetings. When it comes to content, new teachers benefit most from development that focuses on *what* to teach and *how* to teach it (AEE, 2014). Effective developmental programs provide new teachers with knowledge and practical skills related to:

- Pedagogical content related to their course(s)
- Classroom management
- Managing student behavior

It is also important that developmental programs for teachers go beyond isolated "one-off" workshops or events. Rather, developmental programs targeted at

new teacher induction should be (Breux & Wong, 2003; Garet et al., 2001):

- **Comprehensive**, in that they consist of multiple and varied topics and activities
- **Coherent**, in that they align with teacher developmental needs and school objectives, and their activities fit together logically
- **Sustained**, in that they become a regular part of the school's culture
- **Hands-on**, in that they provide opportunities for active learning, such as observing experts and being observed (with feedback), planning how to apply materials, and engaging in discussions and presentations

Finally, an important distinction should be made about the difference between mentoring and professional development. While mentoring focuses on individual learning and single relationships, developmental programs should facilitate collaboration and networking by involving people from multiple classrooms and roles.



Supportive Leadership

Supportive leadership displayed by principals and administrators also contributes to new teacher satisfaction and retention (Breux & Wong, 2003; Smith & Ingersoll, 2004). This onboarding strategy comes in the form of supportive and reinforcing practices and communications from department chairs, principals, and other administrators. Specific examples of supportive leadership activities include (Lunenburg, 2011; Smith & Ingersoll, 2003; Lunenburg & Irby, 2006):

- Newsletters reporting on accomplishments of all teachers, but particularly among new teachers
- Organizing reinforcing events such as mentor-mentee luncheons or award ceremonies

- Regular and supportive communications with new teachers
- New teacher orientations (separate from annual teacher orientations) to familiarize them with the culture of the organization and onboarding activities

- The vision and objectives of the onboarding program
- Assessment methods for evaluating and refining the program and measuring new teacher effectiveness
- Program leadership and engagement
- Roles and responsibilities for those involved in onboarding activities (e.g., mentors, principals)
- Program requirements describing length of time, level of involvement
- Structural information about specific onboarding activities (e.g., developmental opportunities, networks)
- Funding and resources

Onboarding/Induction Strategy

Schools should establish a clear strategy for their onboarding program. This strategy should outline the purpose and process of onboarding, as well as the standards and expectations for onboarding activities. Program strategies can include the following (AIR, 2014):

RESEARCH TREND:

WHEN IT COMES TO ONBOARDING, HOW MUCH IS ENOUGH?

Regarding length of time, the Alliance for Excellent Education recommends that new teachers be offered at least **two years of comprehensive induction activities**. Regarding the amount of onboarding activities, **more onboarding really is better**. In one study (Smith & Ingersoll, 2004), new-teacher attrition varied greatly depending on the number of onboarding components that were provided to new teachers. Specifically, they found these attrition percentages:

41%	When no onboarding was provided
39%	When 2 components were present
27%	When 4 components were present
18%	When 7 components were present

In short, onboarding programs must include **multiple components** that are provided over the course of **two or more years** if they are to succeed in retaining and developing new teachers.

Sources: AEE (2014), Smith & Ingersoll (2004)

A NOTE ON MILLENNIAL TEACHERS

Teachers from different generations also may have different needs and be motivated by different factors. Younger teachers from the Millennial generation have been shown to differ from previous generations when it comes to their decisions to leave. The table below describes some of the shared and unique needs displayed by Millennial teachers. When the factors on the right-hand column are absent, younger teachers in particular can be expected to leave.

SHARED NEEDS

- Structured onboarding
- Mentoring
- Autonomy
- Support from administration
- Collaboration with peers

EXCEPTIONAL NEEDS

- Sense of purpose and impact
- Receive praise and positive reinforcement
- Help prioritizing
- Job-embedded professional development

Sources: Coggins (2008; 2013), Headden (2014), Richardson (2008)

2. TEACHER TURNOVER: KEY DRIVERS AND AT-RISK POPULATIONS

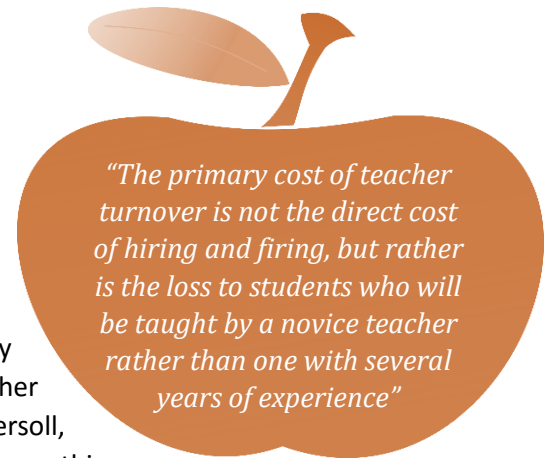
The first section in this chapter focused on the factors that promote new teacher retention. While turnover is most common during the early years of teaching, new teachers are not the only ones who leave. A number of studies have looked at factors that contribute to teacher attrition without specifying whether attrition occurs early or late in a teacher's career. In general, contributing factors cluster around three broad categories: **teacher characteristics** (e.g., teacher demographics, qualifications, attitudes), **school characteristics** (e.g., school demographics, spending, administration and organizational processes, environmental factors), and **student characteristics** (e.g., socioeconomic status, achievement, student demographics). Research on contributing factors can be useful for two reasons:

- A. **First, by identifying the attitudes and organizational characteristics that are associated with turnover, these studies can be used to identify key drivers of turnover that schools can focus improvement efforts towards.**
- B. **Second, by classifying the teacher/school/student characteristics that are associated with high turnover, these studies can be used to identify schools or teacher populations that are at-risk for turnover.**

Therefore, findings on contributing factors for turnover will be organized and communicated in two subsections below. The first section identifies the key drivers of turnover while the second section describes school and teacher profiles that represent particularly high-risk for turnover and low-risk for turnover.

A. Key Drivers of Teacher Turnover

Contemporary education theories posited that staffing problems were simply caused by a dearth of qualified teachers. In 2001, Ingersoll presented a new perspective that took organizational conditions and teacher turnover into account when explaining staffing problems. This perspective has been supported by over a decade of research and has become the standard model of teacher turnover. According to this perspective, staffing problems are mainly the result of teacher turnover, which in turn is influenced by teacher dissatisfaction with various organizational and environmental factors (Ingersoll, 2001; Borman & Dowling, 2008; Boyd, Lankford, Loeb, & Wyckoff, 2005). However, this is good news for schools given that it is much easier to address work conditions and teacher satisfaction (e.g., through policy and organization development) than it is to convince people to go into the field of teaching. Below is a list of the key drivers of teacher turnover indented in the literature. By focusing on these specific factors, schools can have the strongest return on investment when it comes to retaining high quality teachers.



“The primary cost of teacher turnover is not the direct cost of hiring and firing, but rather is the loss to students who will be taught by a novice teacher rather than one with several years of experience”

–Douglas Staiger and Jonah Rockoff
Searching for Effective Teachers with Imperfect Information (2010, p. 98)

KEY DRIVERS OF TEACHER TURNOVER

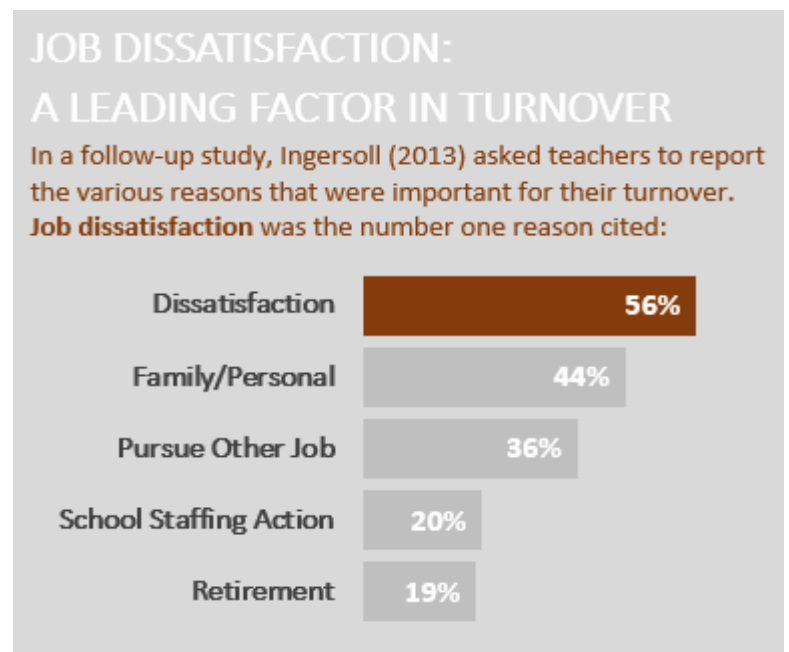
- **Opportunities for school-based collaboration and networking**
- **A network of support in assisting teachers with:**
 - discipline
 - teaching methods and curriculum
 - adjusting to the school environment
- **Regular and supportive communication with administrators**
- **Principals display strong leadership skills**
- **Involvement and influence in decision-making**
- **Opportunities for advancement**
- **Less bureaucracy**
- **Mentoring for beginning teachers**
- **New-teacher onboarding**

Sources: Borman & Dowling, 2008; Eller, Doerfler, & Meier, 2000; Hall, Pearson, & Carroll, 1992; Ingersoll, 2001; 2003; Ladd, 2011; Smith & Ingersoll, 2004

B. At-Risk Populations

This section describes teacher, school, and student profiles that stand out as being “at-risk” for high turnover. While the previous section addressed specific processes and attitudes that predict turnover, this section identifies “at-risk” populations. As such, these findings can help districts focus their attention on particular schools or groups of teachers that have the highest probability of leaving.

The tables below identify three categories of risk factors for teacher attrition: teacher characteristics, school characteristics, and student characteristics. Within each table, the factors are ordered from high to low, such that the first factors result in the greatest odds of attrition. All factors are statistically significant and were identified through meta-analytic research on teachers in the US.



TURNOVER RISK FACTORS

	HIGHER RISK FOR TURNOVER	LOWER RISK FOR TURNOVER
TEACHERS	Teachers with <u>no</u> formal teaching certification	Teachers with a formal teaching certification
	Teacher brought in from out-of-state	In-state teachers
	Holds an undergraduate degree in math or science	Holds an undergraduate degree in fields other than math or science
	White teachers	Minority teachers
	Women teachers	Male teachers
	Holds a graduate degree	Does not hold a graduate degree
SCHOOLS	Teaches any subject besides math or science	Math or science teachers
	Private schools	Public schools
	Secondary schools	Elementary schools
	Urban and Suburban schools	Rural schools
	Smaller schools (<1,000 students)	Larger schools (>1,000 students)
	Lower spending on instructional needs	Higher spending on instruction (\$100 more per-student)
STUDENTS	Low socioeconomic status (>20% qualify for free lunches)	Moderate-High socioeconomic status (<20% of qualify)
	Below-average student achievement	Above-average student achievement
	Higher proportion of minority students	Lower proportion of minority students

Sources: Bastian & Henry, 2015; Borman & Dowling, 2008

The table above can serve as a way for schools and districts to identify specific segments and populations to focus extra resources towards. By paying close attention to at-risk schools and providing them with additional support in terms of onboarding and organizational development, districts can get more return on investment when it comes to reducing turnover.

SUMMARY

With the high turnover rates among new teachers and the current shortage of teachers entering the field, it is particularly important that schools do everything they can to promote retention. A review of the literature on teacher turnover revealed that new teachers are particularly at risk for turnover. Key in retaining new teachers are effective onboarding practices, such as:

- **When designed and implemented correctly, mentoring programs can reduce new teacher turnover more than any other single factor – however it is important that mentors are carefully selected and matched, provided some training and support, and focus on relevant developmental areas.**
- **Providing new teachers with common planning time to collaborate, learn, and network can greatly decrease new teacher turnover – this is further bolstered when schools promote a culture of learning and integration between novice and experienced teachers.**
- **New teachers that receive additional classroom support (e.g., teacher’s aides, reduced schedule) are less likely to feel frustrated and overwhelmed.**
- **All teachers – and particularly new Millennial-aged teachers – benefit from professional developmental opportunities focusing on what to teach and how to teach it.**
- **Supportive leadership behaviors displayed by principals and administrators (e.g., recognition and reinforcement, positive communications, awards ceremonies) help new teachers feel good about their work and contribute to increased retention rates.**
- **Schools should develop a clear strategy for onboarding new teachers – this can include a vision for the induction program, descriptions of onboarding practices, roles and responsibilities, and evaluation metrics.**

CONCLUSION AND RECOMMENDATIONS

This report presents a comprehensive set of findings and practices related to teacher recruitment, selection, onboarding, and retention. It spans decades of research to provide clear strategies and practices for finding, hiring, and keeping teachers. The table below integrates and organizes the specific factors associated with effective practices from each dimension. This can serve as a quick-reference guide for anyone looking to identify a succinct and evidence-based set of recommendations.

RECRUITMENT	SELECTION	ONBOARDING & RETENTION
<i>Characteristics of effective recruitment programs that provide schools with a wider pool of qualified applicants include:</i>	<i>Characteristics of effective selection processes that have been shown to increase the quality and retention of new teachers include:</i>	<i>Characteristics of effective induction programs and practices that promote new-teacher retention include:</i>
<ul style="list-style-type: none"> <input type="checkbox"/> Close Relationships with Teaching Programs <input type="checkbox"/> Relationships with Alternative Programs <input type="checkbox"/> Centralized Recruitment Office with Dedicated Staff <input type="checkbox"/> Use of Multiple Outreach Activities <input type="checkbox"/> Proactive Sourcing (i.e., “Headhunting”) <input type="checkbox"/> Messaging that Focuses on Positive Aspects of the Work <input type="checkbox"/> Competitive Pay 	<ul style="list-style-type: none"> <input type="checkbox"/> Multiple Stages in the Selection Process <input type="checkbox"/> Centralized Hiring at the District Level <input type="checkbox"/> Use of Effective Pre-Screening Methods <input type="checkbox"/> Use of Structured Interview Processes <input type="checkbox"/> Common Frame-of-Reference for Strong Performance <input type="checkbox"/> Applicants Assessed Across Multiple Relevant Dimensions <input type="checkbox"/> Use of Realistic Job Previews to Inform Candidates About Job 	<ul style="list-style-type: none"> <input type="checkbox"/> High-Quality Mentoring Programs <input type="checkbox"/> Structured Teacher Collaboration or Networking <input type="checkbox"/> Additional Support Provided to New Teachers <input type="checkbox"/> Ongoing Opportunities for Professional Development <input type="checkbox"/> Principals and Administrators Display Supportive Leadership <input type="checkbox"/> Presence of Onboarding or Induction Strategy <input type="checkbox"/> Presence of a Positive Work Environment

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