

Principal Concerns in Indiana: Focus on Developing Current Principals

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Overview

Common sense and recent research make it clear that successful schools need strong principals. Strong principals help drive school performance in many ways, from shaping a school's mission and culture to hiring, developing, and retaining good teachers.¹ Even so, principals often get short shrift in today's debates about human capital in public education. Compared to the large body of research and policy attention revolving around teachers, the field knows surprisingly little about the principal workforce.

This knowledge gap means that it often is hard for school districts and states to make strategic decisions to improve their principal workforces. Where do most principals come from? How long do they stay in the job? How well do they perform? How many will need to be hired and developed in the future? Few districts or states know the answers.

States need to build detailed longitudinal data systems to answer these and other important questions about their principals, just like the ones they have to track teachers and students. In the meantime, state and local leaders can examine the administrative data they already have to get a basic picture of their principal workforce, one that can help prompt deeper questions and discussions about the challenges and opportunities they face.

This *Principal Concerns* data brief is an example of this type of analysis for Indiana. We use publicly available state administrative data on principals and schools, as well as data from the U.S. Department of Education, to examine the following questions:²

- How many principals are near retirement eligibility, and how is retirement eligibility distributed across schools and locations?
- How many principals are leading schools with results that seem to beat the odds, and how many principals are struggling?

The answers to these basic questions have the potential to prompt deeper discussion about the principal workforce. Retirement eligibility, for example, can provide a rough measure of Indiana's potential demand for new principals, raising questions about the relative urgency of on-the-job development (are there lots of early-career principals?) versus recruitment and hiring (is there a coming wave of retirements?). Likewise, even simple exploratory analyses of school performance can highlight variation in school performance in ways that prompt questions about the state's highfliers and underperformers.

But why should Indiana be concerned about leveraging principals to improve school performance? By some measures, Indiana's schools are doing well. The state's National Assessment of Educational Progress (NAEP) scores are consistently

1. For example, see Gregory F. Branch, Eric A. Hanushek, and Steven G. Rivkin, *Estimating the Effect of Leaders on Public Sector Productivity: The Case of School Principals*, CALDER Working Paper 66 (Washington: Center for Analysis of Longitudinal Data in Education Research, January 2012), and Kyla L. Wahlstrom et al., *Learning from Leadership: Investigating the Links to Improved Student Learning* (Minneapolis: Center for Applied Research and Educational Improvement and Ontario Institute for Studies in Education at the University of Toronto, July 2010).

2. The analysis uses the all-staff files from the Indiana Department of Education for 2009-2011 and schoolwide ISTEP passing rates and demographics from 2008-2011. Information on the schools' location type comes from the U.S. Department of Education's Common Core of Data, 2009-2010.

higher than the national average.³ There is still, however, room to improve: a recent report suggests that, beneath the surface, Indiana has struggled to make gains in achievement over the last two decades.⁴ Compared to other states, Indiana shows some of the smallest average gains in NAEP scores since 1992. These gains are below average for the United States, and U.S. gains are barely keeping pace internationally. To its credit, Indiana has focused heavily on teacher policy in recent years. As that work continues, the state should be asking how it might also leverage principal policy to support school improvement.

Findings

Over the next five years, only a third of Indiana's principals will be eligible for retirement. For Indiana, the relative stability of the principal workforce suggests that, in the near term, the state should focus significant efforts on supporting and assessing current leaders who will likely be on the job for many years to come. This is not to say that the state should neglect the need to train new principals and build a strong pipeline, but that its biggest leverage may be supporting and developing the principals it already has.

Indiana's least experienced principals do not appear to be clustered in its lowest-performing schools (as often happens with novice teachers). In fact, some early-career principals are leading schools that appear to be beating the odds. This suggests that rather than provide all novice principals with one-size-fits-all supports, state and local leaders might need to do more to differentiate support to meet individual principal and school needs.

A companion report to this brief offers possible responses to these findings, such as seeking policies that give principals regular, useful, and rigorous feedback and supporting growth on the job with targeted training and coaching.⁵

1. At least two-thirds of Indiana principals will likely still be on the job five years from now

Measures of retirement eligibility can provide a rough sense of whether a state faces a looming wave of retirements (creating short-run vacancies but also new opportunities for reshaping the principal workforce) or whether it has a more stable workforce (suggesting the need to focus on development and evaluations of school leaders already on the job).⁶

For our purposes, we considered principals to be eligible for retirement if they had 30 or more years of experience.⁷ Using Indiana's all-staff file for the 2010-2011 school year, under this criteria about 23 percent of Indiana's principals are eligible for retirement now; that share increases to 34 percent if we look at eligibility in the next five years. (In Figure 1, the green bars represent principals eligible to retire in the next five years.)

3. NAEP scores were accessed on October 15, 2012, from <http://nces.ed.gov/nationsreportcard/states/>.

4. Eric A. Hanushek, Paul E. Peterson, and Ludger Woessmann, *Achievement Growth: International and U.S. State Trends in Student Performance* (Cambridge, Mass.: Harvard University Program on Education Policy and Governance, July 13, 2012).

5. Christine Campbell and Betheny Gross, *Principal Concerns: Addressing Statewide Principal Pipelines with Data and Strategy* (Seattle: Center on Reinventing Public Education, September 2012).

6. The distribution of retirement eligibility among principals in a state is not a precise measure of its potential demand for principals; better measures would require data on actual retirement behavior, enrollment trends, and advancement opportunities for principals, such as superintendent vacancies.

7. Retirement rules are often complex and offer various routes to retirement eligibility. We used 30 years of experience as the average retirement measure because the Indiana Teacher Retirement Fund has three options for retirement with full benefits: 1) An employee must be 65 and have 10 years of service, 2) an employee must be 60 and have 15 years of service, or 3) under the "Rule of 85," the sum of an employee's age (55 is the minimum age) and years of experience must be greater than or equal to 85. In 2009-2010, 97.5 percent of Indiana principals became principals after being employed in another position in an Indiana public school. This high percentage led us to believe that most principals in the state are career educators. We assumed that many of these principals began working for an Indiana school district as teachers around the age of 25. If these principals were to work for 30 years in the state, no matter the school district, they would be eligible for retirement with full benefits at age 55 under the Rule of 85.

Figure 1. Most Indiana principals are not near retirement

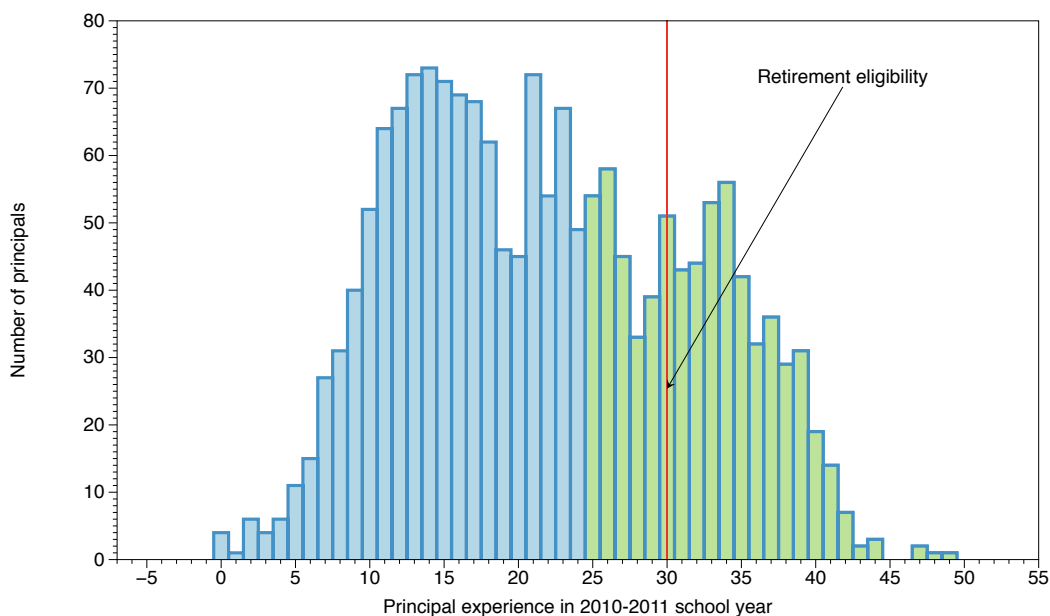


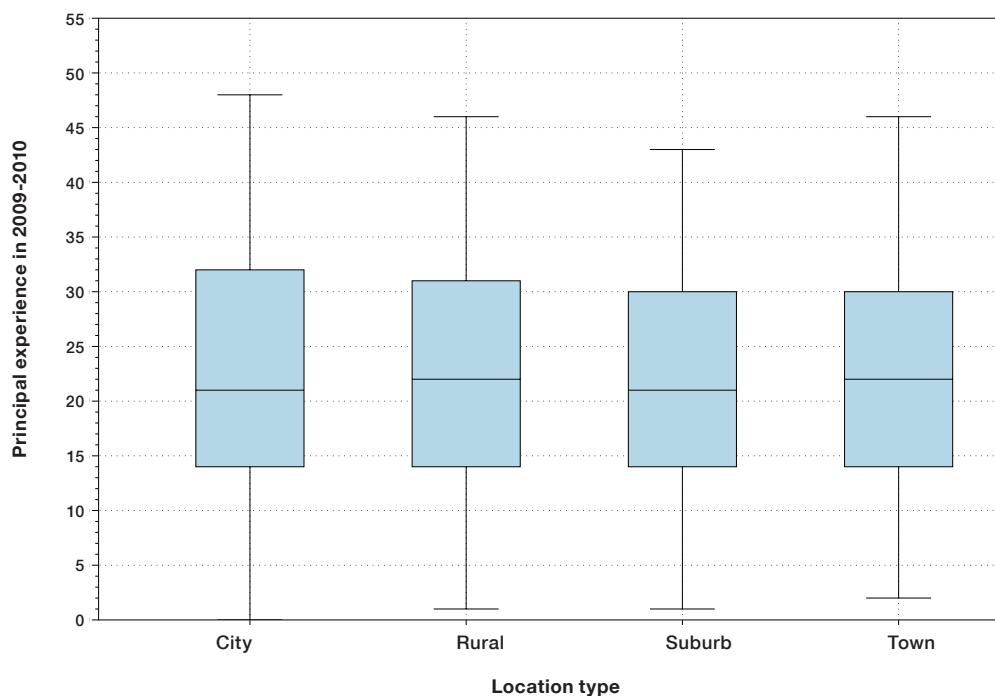
Figure 1 also shows that many principals in Indiana have more than 30 years of experience, suggesting that people do not necessarily retire when they are eligible. To determine whether extended careers (those to the right of the red line) benefit Indiana's schools requires deeper analysis of how these late-career principals are performing and how much they cost to employ.

The broader picture in Figure 1 suggests that Indiana's principals are not immediately aging out of the workforce and may be on the job for many years to come. As a result, Indiana might prioritize investing in its current corps of principals and identifying where new talent is needed, rather than heavily investing resources and attention in preparing new principals.

To examine how the broad pattern of retirement eligibility from Figure 1 is distributed across Indiana schools, we compared principal experience across different types of communities using location codes from the 2009-2010 U.S. Department of Education's Common Core of Data (CCD).⁸ The box-and-whiskers plots in Figure 2 show the distribution of experience across four location categories.⁹

8. Schools were not categorized by population density in the state's public online data system, and so we used the Common Core of Data. The CCD identifies schools by several location types, ranging from "large city" to "rural remote." We collapsed the CCD's eight categories into four. For example, we combined "suburb: large," "suburb: midsize," and "suburb: small" into one "suburb" category.

9. The "whiskers" at the top and bottom of the plots show the age ranges. The lines between these top and bottom whiskers and the blue boxes show age range for the top and bottom 25 percent of principals; the boxes show the range for the middle 50 percent, with a line at the median.

Figure 2. Near-retirement principals lead schools in all location types (SY 2009-2010)

On balance, these plots show a remarkably uniform distribution of experience across the different location types, suggesting that the broad pattern in Figure 1 is evenly spread across different types of school communities in Indiana, rather than concentrated in particular types of communities.

2. How many principals are leading schools with results that seem to beat the odds (or not)?

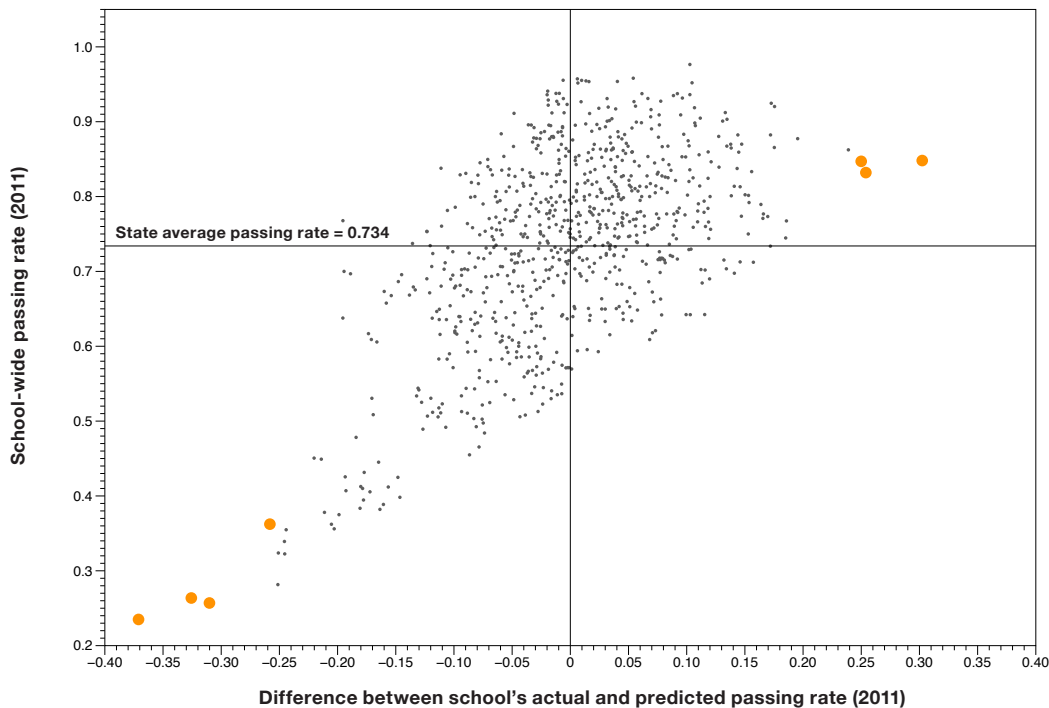
States and districts are understandably interested in gauging how well principals are doing. But measuring school performance, let alone parsing a principal's contribution to school performance, is not easy. Ideally we would estimate schools' impacts on student achievement (so-called "value-added measures"). We do not, however, have access to data for estimating school-level value-added measures or Indiana's growth model. But we can use administrative data to conduct an exploratory analysis of predicted and actual school-level passing rates on the Indiana Statewide Testing for Educational Progress (ISTEP) from 2009 to 2011 to see how, if at all, performance is related to principal experience.

More specifically, we predicted a simple three-year growth model that estimated school passing rates as a function of time and student poverty.¹⁰ (We did this separately for elementary schools, middle schools, and high schools with similar results; here we only show the elementary result.)

10. The regression results for elementary schools suggested that, on average, an Indiana school with no students eligible for free or reduced-price lunch would have a 67 percent ISTEP passing rate in 2009 that was predicted to increase to 71 percent in 2010 and 75 percent in 2011. For a school where 50 percent of students qualify for free or reduced-price lunch, the passing rates were predicted to be 45, 49, and 53 percent, respectively. These estimates are based on looking at the relationship between passing rates, time, and poverty for all schools between 2009 and 2011. The actual results for individual schools are likely to be higher or lower than these predicted rates, allowing us a rough measure of whether a school is performing better than the model predicts or worse (i.e., the residual that captures the difference between the school's observed score and the fitted score).

Figure 3 shows a scatter plot of the actual ISTEP passing rates for elementary schools in 2011 against each school's residuals (that is, the difference between the school's actual passing rates and the model's predictions), controlling for school-level poverty. Schools with rates that are higher than the predicted rate lie to the right of the vertical line; those with rates lower than predicted lie to the left. (The horizontal line marks the state average rate.)

Figure 3. Some Indiana elementary schools are beating the odds; some are not

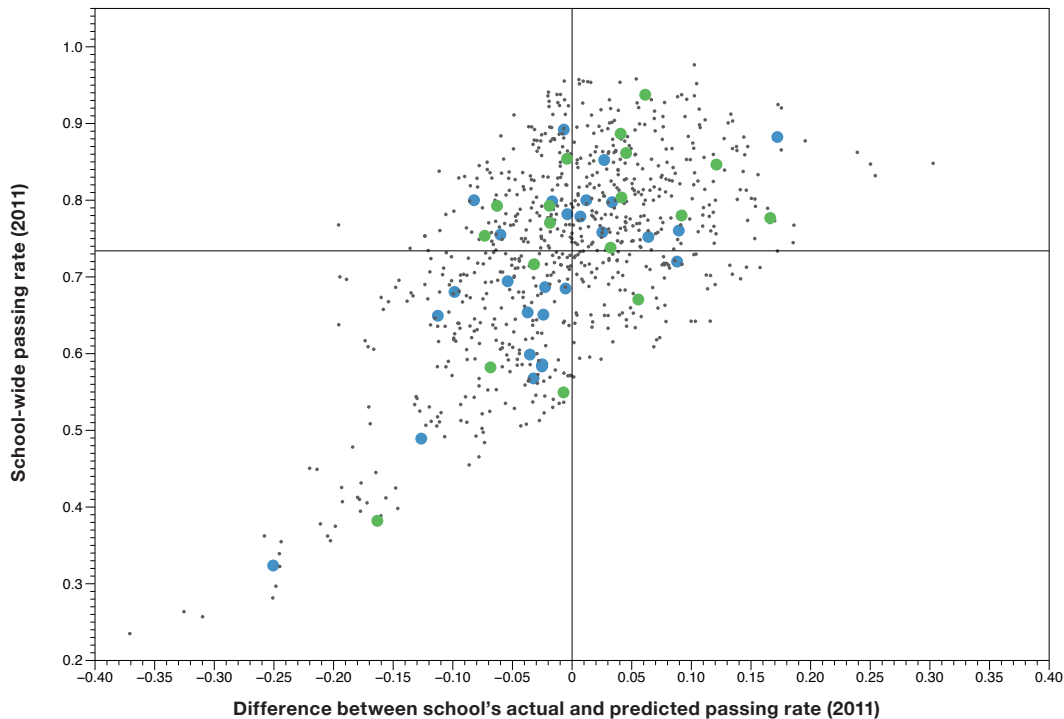


The scatter plot in Figure 3 shows a range of performance. Schools in the upper-right quadrant have passing rates that are better than the state average and better than the model predicts, controlling for student poverty. Schools in the lower-left quadrant have passing rates below the state average and below what the model predicts.

These results should not be taken as a summary judgment about school or leadership performance, but rather they should raise questions for further investigation. For example, the orange dots in the lower-left quadrant are schools that are three standard deviations below the average residual. Something is going on with these schools that should be cause for concern and possibly trigger a second look: do these schools serve an especially challenged population, such as incarcerated youth? Are they severely under-resourced? Are their leaders constrained and unable to make important staffing or resource decisions? Is the right school leader in place?

By contrast, the orange dots in the upper-right quadrant are three standard deviations above the average residual score. What are these schools and their leaders doing that is producing high scores, both absolutely (they are above the average score) and relative to what the model predicts for similar schools?

Figure 4. Principal performance is not strongly related to years of experience



The scatter plot in Figure 4 suggests that where a school falls in Figure 3 is not strongly related to its principal's level of experience. The plot in Figure 4 is the same as the plot in Figure 3, with one difference: schools with principals that have eight or fewer years of experience are marked by blue dots. Principals with 40 or more years of experience are represented by green dots. Both sets of principals are found across the distribution. This suggests that rather than provide all novice or all experienced principals with one-size-fits-all supports, state and local leaders might have to do more to differentiate support to meet individual principal and school needs.

Indiana Should Pay Special Attention to Boosting Its Current Principal Corps

With so many of Indiana's principals likely to be on the job for years to come, and with evidence suggesting that experience is not closely tied to performance, state policy and resources should be concentrated on identifying the areas that challenge current school leaders and finding ways to develop the principals on the job. Equally important will be developing and employing a fair and rigorous evaluation system to assess principal performance to help identify and grow good principals into great principals, and to support or, if needed, remove principals who consistently underperform.

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