The IERC Principal Studies:
Changing Demographics, Turnover Trends, Preferences & Practices, and Research on the Effects of Illinois Public School Principals

Brad White, Senior Researcher
Illinois Education Research Council

The Associated Colleges of Illinois
Chicago, IL
October 21, 2011
Context

• Recent research finding principals have a significant (though largely indirect) impact on student outcomes and that tenure in school (among other things) is associated with student achievement gains

• New policies in Illinois (new principal certification and evaluation programs) and nationally (school-based accountability, RttT, School Improvement grants) placing principal at center of school reform efforts

• Series of IERC studies on public school principals in Illinois:
  1. Distribution of Principal Characteristics
  2. Principal Turnover
  3. Survey on principal practices and preferences
  4. Principal effects
Data

- Principal Data
  - Principal service and certifications information from state administrative data (Illinois State Board of Education)
    - employment information (e.g. school, position, assignment)
    - identifying data (e.g. name and date of birth, gender, race)
    - undergraduate and graduate institutions and degree levels
  - ACT, Inc. English, Math, and Composite test scores.
  - Barrons’ (2003) rankings for each institution

- School Data
  - ISBE School report card
    - School level, enrollment, race, gender, poverty, and achievement
  - Common Core of Data (CCD)
    - location, urbanicity

- 3500+ principals/schools per year over 8 years (2001-2008)
  - Approx 28,000 records for approx 7,000 individuals
  - Employment history dating back to 1971
The Changing Distribution of Principal Characteristics
Summary

• Proportion of women increased to more than 50% and proportion of minorities *slightly* increased
  – Principals in more populous areas (Chicago/ Northeast/ urban/suburban) are more likely to be minorities and more likely to be women

• Today’s principals are younger and less experienced than those eight years ago
  – But assistant principal and academic core teacher experience have increased, and principals in the state’s most urban areas are more likely to have such experience

• Principals’ academic characteristics haven’t changed much
  – And they are distributed in much the same manner as teacher academic backgrounds – schools with low proportions of poor and minority students tend to have principals with the strongest academic backgrounds
Minorities make up a much larger proportion of principals in Chicago…and so do women.
Principal Age Distribution (2001 vs. 2008)
Chicago principals have more overall experience, but there’s not much difference between regions in terms of experience as a principal.
More than 80% of principals have regular classroom teaching experience in Illinois public schools, and the proportion with experience as an AP is increasing.
The proportion of CPS principals who were APs at the same school has increased substantially
The principals in the most disadvantaged schools tend to have the weakest academic backgrounds.
Principal Turnover
For the population of Illinois principals in each year, we identify each principal’s status in the subsequent year as follows:

1. **Stayer**: stayed in the same school as principal
2. **Within District Mover**: remained a principal but moved to another school within the same district
3. **Out-of-District Mover**: remained a principal but moved to another school in a different district
4. **Changer**: changed to a non-principal position within IPS
5. **Leaver**: left the IPS system altogether
Overall Principal Turnover, 2001-08

**Decline in principal stability**

(79% stay rate now vs. 86% in the 1990s)
First-Time Principal Turnover: 2001 & 2002 cohorts after six years

Decline in stability for first-time principals too
(State: 28% now vs. 38% in 1990s
Chicago: 39% now vs. 53% in 1990s)
# Average Turnover Rates by Principal Characteristics

<table>
<thead>
<tr>
<th>Overall</th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
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<td>Race</td>
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<td>African American</td>
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<td>Latino</td>
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<td>White</td>
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<td>Age</td>
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<td>≤ 40 yrs old</td>
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<td>41-54 yrs old</td>
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<td>≥ 55 yrs old</td>
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<tr>
<td>Experience as Principal (in any school)</td>
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<td>1st year</td>
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<td>Inexperienced (2-3 years)</td>
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<td>Experienced (4+ years)</td>
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<tr>
<td>Experience as Principal (in current school)</td>
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<td>1st year</td>
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<td>Inexperienced (2-3 years)</td>
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<td>Experienced (4+ years)</td>
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<td>BA College Competitiveness</td>
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<td>More Competitive</td>
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<td>Less Competitive</td>
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<td>Highest Degree Level</td>
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<td>Bachelor's</td>
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<td>CAS/6-year certificate</td>
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<tr>
<td>Doctorate</td>
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</tr>
</tbody>
</table>

Legend:
- Stayed in Same School
- Moved Out of District
- Moved Within District
- Changed Position
Average Principal Turnover Rates by School Characteristics

- **Overall**
- **Locale**
  - Chicago
  - Non-Chicago Urban
  - Suburban
  - Town
  - Rural
- **Region**
  - Chicago
  - Northeast (less Chicago)
  - Northwest
  - East Central
  - West Central
  - Southeast
  - Southwest
- **School Level**
  - Elementary/Middle
  - High School
- **Percent Minority Students**
  - Low
  - Middle-Low
  - Middle-High
  - High
  - Highest 10%
- **Percent Low-Income Students**
  - Low
  - Middle-Low
  - Middle-High
  - High
  - Highest 10%
- **Minority/Poverty Level**
  - Low Min/Low Pov
  - High Min/High Pov
- **AYP Status**
  - Yes
  - No
- **ISAT Quartile**
  - Lowest
  - Middle-Low
  - Middle-High
  - Highest
- **PSAE Quartile**
  - Lowest
  - Middle-Low
  - Middle-High
  - Highest

Legend:
- Stayed in Same School
- Moved Out of District
- Moved Within District
- Changed Position
Leavers: Average Rates of Return

Most who leave don’t return (though younger leavers more likely to do so)
Leavers: Reasons for Leaving

<table>
<thead>
<tr>
<th>Reason</th>
<th>Overall</th>
<th>≤ 40 years old</th>
<th>41–54 years old</th>
<th>≥ 55 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retirement</td>
<td>65.6%</td>
<td>1.1%</td>
<td>64.6%</td>
<td>72.9%</td>
</tr>
<tr>
<td>Other</td>
<td>23.6%</td>
<td>34.9%</td>
<td>20.4%</td>
<td>24.2%</td>
</tr>
<tr>
<td>Education position in non-public or out-of-state school</td>
<td>3.5%</td>
<td>24.5%</td>
<td>4.2%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Involuntary departure&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2.3%</td>
<td>12.8%</td>
<td>3.2%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Domestic/child care responsibilities</td>
<td>1.4%</td>
<td>12.8%</td>
<td>1.5%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Health issue or death</td>
<td>1.4%</td>
<td>1.1%</td>
<td>2.6%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Non-education vocation</td>
<td>1.2%</td>
<td>4.3%</td>
<td>2.3%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Military service/Other leave of absence</td>
<td>0.5%</td>
<td>3.2%</td>
<td>0.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Sabbatical/Return to school</td>
<td>0.5%</td>
<td>5.3%</td>
<td>0.4%</td>
<td>0.0%</td>
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<tr>
<td><strong>N</strong></td>
<td>1,536</td>
<td>94</td>
<td>528</td>
<td>914</td>
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</tbody>
</table>

<sup>a</sup> Includes reduction in force and forced resignation by the board.

Most leavers cited retirement as their reason for leaving and few left to pursue work outside of education.
### Within District Movers: Characteristics of initial and receiving schools

<table>
<thead>
<tr>
<th></th>
<th>% Minority Students</th>
<th>% Low-Income Students</th>
<th>Mean Achievement (standardized score)</th>
<th>Mean Teacher ACT Score</th>
<th>% Inexperienced Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initial</td>
<td>Receiving</td>
<td>Initial</td>
<td>Receiving</td>
<td>Initial</td>
</tr>
<tr>
<td>Overall</td>
<td>38.4</td>
<td>39.5*</td>
<td>43.4</td>
<td>42.2†</td>
<td>-0.10</td>
</tr>
<tr>
<td>Chicago</td>
<td>95.1</td>
<td>93.8</td>
<td>87.0</td>
<td>84.4</td>
<td>-1.53</td>
</tr>
<tr>
<td>Non-CPS Urban</td>
<td>52.3</td>
<td>52.4</td>
<td>54.7</td>
<td>47.3**</td>
<td>-0.32</td>
</tr>
<tr>
<td>Suburban</td>
<td>43.5</td>
<td>45.6**</td>
<td>37.9</td>
<td>38.3</td>
<td>0.02</td>
</tr>
<tr>
<td>Town</td>
<td>13.2</td>
<td>12.0</td>
<td>42.6</td>
<td>38.8</td>
<td>0.20</td>
</tr>
<tr>
<td>Rural</td>
<td>5.4</td>
<td>7.1**</td>
<td>26.7</td>
<td>27.5</td>
<td>0.40</td>
</tr>
</tbody>
</table>

**Note:** Significance tests reflect differences between initial and receiving schools.

- * p≤.05
- ** p≤.01
- *** p≤.001
- † p≤.10

**Within district movers experienced very little change in student and teacher characteristics**
Out-of-District Movers: Characteristics of initial and receiving schools

<table>
<thead>
<tr>
<th></th>
<th>% Minority Students</th>
<th>% Low-Income Students</th>
<th>Mean Achievement (standardized score)</th>
<th>Mean Teacher ACT Score</th>
<th>% Inexperienced Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initial</td>
<td>Receiving</td>
<td>Initial</td>
<td>Receiving</td>
<td>Initial</td>
</tr>
<tr>
<td>Overall</td>
<td>24.8</td>
<td>24.9</td>
<td>29.5</td>
<td>27.8 †</td>
<td>0.16</td>
</tr>
<tr>
<td>Chicago</td>
<td>92.7</td>
<td>66.7</td>
<td>87.5</td>
<td>42.9 **</td>
<td>-1.42</td>
</tr>
<tr>
<td>Non-CPS Urban</td>
<td>48.5</td>
<td>33.9 **</td>
<td>40.0</td>
<td>29.8 *</td>
<td>-0.02</td>
</tr>
<tr>
<td>Suburban</td>
<td>37.8</td>
<td>34.7 †</td>
<td>28.0</td>
<td>24.9 *</td>
<td>0.21</td>
</tr>
<tr>
<td>Town</td>
<td>10.8</td>
<td>14.3</td>
<td>36.2</td>
<td>30.0 †</td>
<td>0.12</td>
</tr>
<tr>
<td>Rural</td>
<td>6.1</td>
<td>2.8 **</td>
<td>26.5</td>
<td>30.1 **</td>
<td>0.18</td>
</tr>
</tbody>
</table>

Between district movers tended to move to schools with less poverty and higher achievement.

Note: Significance tests reflect differences between initial and receiving schools.
- * p≤.05
- ** p≤.01
- *** p≤.001
- † p≤.10
Changers: New position in subsequent year

Changers tended to move to other (school- or district-level) administrative positions
Summary: Principal Turnover 2001-08

- Chicago: both greater retention AND greater attrition

- For better or worse, accountability pressures appear to have had a negative impact on principal stability
The 2010 Illinois Principals Survey: Principals’ Teacher Hiring & Evaluation Practices
Methodology

- Survey items – modeled on Stanford’s School Leadership Research project and other recent research – addressed:
  - Job satisfaction & work preferences
  - Professional priorities & practices
  - Teacher hiring & evaluation

- Electronic surveys sent to all Illinois public school principals (+ sample of Illinois private school principals) in November 2010

- Responses from 916 principals
  - 877 from public schools
  - Approx. one in five public school principals participated
  - Not generalizable (not random, Chicago under-represented)
Finding #1:

**Teacher Hiring:** Relationships, soft skills, and first-hand experience are more valued than data from screening instruments or information about prospective teachers’ academic backgrounds or past teaching performance.
Which characteristics are most important in hiring a prospective teacher?

- Ability to work well with others
- General pedagogical skill
- Work ethic
- Teaching philosophy
- Level of caring and compassion
- Communication skills
- Evidence of student growth (20.3%)
- Leadership traits
- Academic ability (11.9%)
- Flexibility to teach a wide range of grades/subjects
- Creativity
- Ability to teach a specific subject, program, or type of student
- Quality of teacher education program (6.7%)
- Demographic characteristics

Most Important
Which tools are most useful in assessing the quality of a prospective teacher at your school?

- Substance of Responses During the Interview: 80%
- Rapport During the Interview: 60%
- Recommendations or Evaluations: 50%
- Resume (i.e., Degrees, Colleges, Teaching Experience, etc.): 27.9%
- Demonstration Lessons: 23.3%
- Work Experience Outside of Teaching
- Portfolios or Lesson Plans
- Screening Instruments: 7.8%
How useful do you find the following portions of a prospective teacher’s resume?

- Certification Type
- Specific Schools/Districts Where Previously Employed
- Student Teaching Experience at Your School
- College Majors
- College Grades
- Whether The Teacher Has an Advanced Degree or Not
- Certification Pathway (Traditional or Alternative)
- Colleges Attended

Most Useful
Finding #2:

**Teacher Evaluation:** Many systems do not include any measures of student achievement and, where they are included, they don’t count for much. Instead, classroom observations and other measures of teaching practice are viewed as considerably more useful.
Which of the following elements do you include in evaluations of tenured teachers?

- Instructional Quality
- Classroom Management
- Planning and Preparation
- Professional Development and Professionalism
- Student Achievement Gains in Teacher's Class: 48.5%
- Achievement Level in Teacher's Class: 41.5%
- Whole School Achievement: 39.2%
- Other
When you are evaluating tenured teachers in your school, what proportion of the evaluation derives from each of the following elements?

- Whole School Achievement: 3.5%
- Achievement Level in Teacher’s Class: 4.1%
- Student Achievement Gains in Teacher’s Class: 6.6%
- Total: 14.2%
How useful are each of the following tools in evaluating the performance of tenured teachers at your school?

- Classroom Observations
- Teacher Portfolios or Lesson Plans
- Input From Other Administrators/Evaluators
- Teacher Self-Assessment
- Other Assessment Results
- ISAT or PSAE results
- Input from Students
- Input from Other Teachers (Peer Review)
- Input from Parents

![Bar Chart showing the percentage of usefulness for each tool. Classroom Observations is the most useful at 22.2%, followed by ISAT or PSAE results at 15.6%, and Input from Parents at 3.9%. Other tools have much lower scores.]

Most Useful
Finding #3:

Despite frequent criticisms, there are some promising features of the teacher evaluation systems currently used by Illinois principals.
Which of the following describes the classroom observation format that is most important in your evaluation of tenured teachers?

- 48.2% Formal classroom observations using a standardized and shared rubric with specific, behavioral descriptions of multiple performance levels (such as, but not limited to, the Danielson framework or the Teacher Advancement Program)
On average, how often do tenured teachers in your school undergo a full evaluation?

- Once Every Year: 9.7%
- Once Every Two to Three Years: 89.6%
How many performance categories does your teacher evaluation system have?

- Five or More Categories: 11.4%
- Four Categories: 26.3%
On average, what proportion of ALL your teachers’ evaluation fall into each of the following performance categories?

- Highest: 85%
- Middle: 14%
- Lowest: 1%

The Widget Effect

- Middle Category(ies): 41.0%
- Highest Performance Category: 55.3%
In what ways do you use the results of teacher evaluations at your school? (Check all that apply.)

- To guide professional development choices, help improve weaknesses, or for other formative purposes
- To make tenure decisions
- To make changes in work responsibilities or job assignments
- For making decisions about layoffs, displacement, or reductions in force
- To counsel teachers out of your school
- To counsel teachers out of the profession
- To determine financial bonuses or salary changes

![Bar Chart]

Non-Charter Public Schools
Charter or Private Schools

% Using for this Purpose
Implications

• Room for improvement in policy and principals’ pre-service and in-service education to help make teacher hiring and evaluation more strategic and more valid
  • use of more research-based criteria
  • alignment between hiring, evaluation, and other systems

• A lot of work to be done (in some areas) to meet PERA requirements
  • especially with regard to the role of student growth
Research on Principal Effects
Literature Review

• Principal effects are measurable and consequential
  • Smaller than teacher effects
  • Substantial variations between principals

• What characteristics differentiate principals who are more effective from those who are less so?
  • Education, training, and PD have no consistent, direct impact on student achievement gains
  • Experience as principal—especially at current school—seems to matter most
  • For new principals, school tenure as assistant principal also seems to matter
• Principal effects are indirect—principals influence student achievement through their influence on a school’s curriculum, culture, and teachers

• A principal’s ability to assess teacher quality is particularly important for improving student achievement. More effective principals:
  • Attract and hire teachers with stronger academics, more teaching experience, and better track records
  • Retain higher-quality teachers, remove less-effective teachers, and develop teachers’ skills more rapidly, compared to less effective principals
Our Study

• We estimate two-level hierarchical linear growth models to measure the impact of principal characteristics on growth in student proficiency and teacher qualifications over time.
  • Level 1: within school change over time
  • Level 2: differences between schools in initial achievement (or teacher qualifications)

• For all Illinois public schools over six academic years (2001-06) separate models by school level and by Chicago/non-Chicago

• Data from ISBE administrative records, student, teacher, and principal variables (aggregated to the school-level):
  • Principal variables: race, academic background, work experience in IPS
  • Teacher variables: teaching experience, academic background
  • Student variables: school enrollment, attendance and mobility rates, and student race and poverty concentrations
### Summary of Findings: Impact of Principal Characteristics on Student Proficiency and Teacher Academic Qualifications

<table>
<thead>
<tr>
<th>Principal Characteristics</th>
<th>Impact on Student Achievement</th>
<th>Impact on Student Achievement Growth</th>
<th>Impact on ITAC (teacher qualifications)</th>
<th>Impact on Growth of ITAC (teacher qualifications)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Principal Experience</strong></td>
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<tr>
<td>First Year at School (vs. 2nd–5th year at school)</td>
<td>No significant effects</td>
<td>Negative effect in non-CPS elem/mid schools</td>
<td>No significant effects</td>
<td>No significant effects</td>
</tr>
<tr>
<td>6+ Years at School (vs. 2nd–5th year at school)</td>
<td>Positive effects in elem/mid schools</td>
<td>Negative effect in non-CPS elem/mid schools</td>
<td>No significant effects</td>
<td>No significant effects</td>
</tr>
<tr>
<td>Years as Assistant Principal at School</td>
<td>No significant effects</td>
<td>Positive effects in elem/mid schools</td>
<td>No significant effects</td>
<td>No significant effects</td>
</tr>
<tr>
<td><strong>Principal Academics</strong></td>
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<tr>
<td>More Competitive Undergrad (vs. competitive)</td>
<td>No significant effects</td>
<td>No significant effects</td>
<td>No significant effects</td>
<td>No significant effects</td>
</tr>
<tr>
<td>Less Competitive Undergrad (vs. competitive)</td>
<td>No significant effects</td>
<td>No significant effects</td>
<td>No significant effects</td>
<td>No significant effects</td>
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<td>Grad Degree from Research Institution (vs. masters-level institution)</td>
<td>Positive effect in non-CPS high schools</td>
<td>No significant effects</td>
<td>Positive effect in non-CPS elem/mid schools</td>
<td>Positive effect in non-CPS elem/mid schools</td>
</tr>
</tbody>
</table>
Questions or comments?

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618-650-2240