



## The State of Leadership: Public School Principals in Illinois

Kathleen Sullivan Brown and Bradford R. White

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### Executive Summary

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With an increasing focus on school accountability and instructional leadership, the principal currently resides at the focal point of multiple reform efforts. At the national level, “Great Teachers and Leaders” is one of the major components of Race to the Top, and principal leadership features prominently in the turnaround strategies for school improvement grants. In Illinois, a five-year effort to improve school leadership recently culminated with a new law which redesigns the state’s principal preparation programs. These efforts, along with a brief overview of the changing role of the principal, recent criticisms of educational administration programs, and responses from the field are described in the first section of this paper.

Despite this recent attention, research on principals has typically lagged behind the literature on teachers. To that end, we use state administrative records and other associated data to assemble a large database of principals in Illinois public schools from 2001 through 2008. By linking these data to school records and tracking the placement and movement of building administrators over time, we analyze whether any patterns in the distribution of principals can be observed. Our findings are divided into three major sections focused on different groupings of principal characteristics—demographics, experience, and academic background.

**Principal Demographics.** Between 2001 and 2008, Illinois’ principal corps became slightly more racially diverse, mostly through increases in the proportion of Hispanic principals, and minorities now make up a larger proportion of principals than of teachers. The proportion of female principals doubled between 1990 and 2008, and the principalship in Illinois has been a predominantly female profession since 2005. There are larger proportions of both female principals and minority principals in elementary and middle schools than in high schools, and principals in Chicago Public Schools are much more likely to be minorities and to be women than principals in other regions of the state.

**Principal Experience.** The typical Illinois principal in 2008 was younger and less experienced than the typical Illinois principal eight years prior. Principals in disadvantaged schools—particularly those in Chicago—tended to be older and considerably more experienced working in Illinois public schools, but they were not any more likely than principals in other schools to have any more experience working as principals. More than 90% of Illinois principals have prior experience as teachers in Illinois public schools, and the vast majority of those taught in the core academic areas. The proportion of principals with experience as assistant principals at their current school has increased considerably, which is important because recent research suggests that principals with such experience tend to be more effective. During the same time, the proportion of principals with previous experience teaching academic core subjects also inched up. So while overall experience is declining, it may be that the types of experience that matter the most are increasing, and principals in Chicago are most likely to have such experience.

**Principal Academic Background.** Overall, there was little change in the academic qualifications of Illinois principals from 2001 through 2008, and the distribution of principal academic characteristics tends to mirror that of teachers in Illinois. That is, high school principals tend to have stronger academic backgrounds than principals at elementary and middle schools, and principals in the state's most disadvantaged schools typically have weaker academic backgrounds than those in schools with lower concentrations of poor and minority students.

Because not enough is known about the relationship between principal quality and the observable characteristics of principals used in this report, this analysis is intended to be descriptive rather than prescriptive. Our findings may also serve as a baseline measure of Illinois school leaders prior to the implementation of the state's new principal endorsement guidelines. This report is the first of a planned multi-stage study, and in subsequent analyses we intend to investigate principal effectiveness and labor markets in more depth.

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## Introduction

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This report provides a detailed descriptive analysis of the principals who led Illinois public schools from 2001 through 2008. We begin with a brief historical review of the research literature on educational administration to provide a foundation for understanding the broader context for this study. Using state administrative records and other associated data, we assembled a large database of approximately 3,900 schools and their principals for each academic year. By linking numerous school and individual characteristics and tracking the placement and movement of building administrators, we used these data to analyze whether any patterns in the distribution of principals could be observed. This report is the first of a planned multi-stage study, and with subsequent analyses we intend to investigate the characteristics associated with principal effectiveness and to examine the principal labor market in more depth.

## Context

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First, we look at the various roles principals have undertaken historically in the U.S. education system because, in order to judge the current state of the profession, it is important to understand the functions that principals are generally expected to perform in a school. Briefly (because they have already been widely publicized), we review the criticisms that have been made by prominent scholars, foundations, and think tanks, as well as the response to such criticisms from within the profession and within the education community. Finally, having explicated the current and historical context, we focus specifically on the policy response from the state of Illinois as its policymakers have reacted to these developments with significant changes in principal preparation programs.

### A Brief History of the Public School Principal

Judith Kafka (2009) provides a brief and useful historiography of the school principal. She notes that historians of education have not focused on the building leader *per se*, but rather on the school itself and its students, as the institution has served changing needs throughout American history. However, as she observes, there is a slim historical record that exists. The principal, according to these historical records, originated as the lead, master, or “principal teacher” where the term principal was used as an adjective rather than a noun. Early school principals took attendance and basically handled administrative trivia in small rural schools (Tyack & Hansot, 1982). As educational systems grew, so too did the principal’s role. Along with increasing urbanization, immigration, and industrialization, communities demanded additional schools along with the personnel to teach and lead them, and the bureaucracy expanded apace. A science of educational administration was established in the progressive era and the role of principal quickly expanded and took on more authority and responsibility.

According to Kafka (2009), the role of the modern public school principal was well established by the 1920’s. “Principals had bureaucratic, managerial, instructional, and community responsibilities” (p. 324). This description, however, is based

on limited research that relies heavily on surveys and self-report studies. Only recently have historians and educational researchers begun to document the lives of principals and what they actually do in their daily work (Theoharris, 2009; Horng, Klasnik, & Loeb, 2009). These newer forms of research (most prominently the Wallace Foundation's SAM project, 2009) focus on how the principal spends time during the school day and work week, reminiscent perhaps of the time and control efficiency studies of an earlier era (see, e.g., Callahan, 1962). Similar to the studies of teacher characteristics and teaching practice dating back to the 1960's (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld & York, 1966), the study of the principal often swings from "what they do" to "who they are." As in the research on teacher quality where it is often asked whether good teachers are "born" or "made," researchers studying the principalship often ask "are the good principals born leaders, or is leadership something that can be taught and developed?"

### **Recent Criticisms of Principal Preparation**

In recent years, significant criticisms of educational leadership preparation and the performance of school leaders in the field have emerged and received significant media attention. Many of these commentaries gave university-based programs a "dismal evaluation" according to Shakeshaft (1999), citing the universities as guilty of making these programs "cash cows" by admitting anyone who applied and that, in general, the programs lacked academic rigor (p. 237).

The Levine Report was the most widely circulated account that severely criticized preparation programs in higher education settings (Levine, 2005). This was the final report in a series of research projects that began in 1990 with the National Commission on the Principalship. Levine's conclusions and recommendations, drawn and synthesized from surveys of deans, faculty, alumni, and principals, called for dramatic changes in how America prepares school leaders, claiming that the vast majority of university-based preparation programs were "overwhelmingly disappointing." (Goldring & Schuermann, 2009, p. 17). No programs were found to satisfy all Levine's criteria for quality, and his report highlighted six particular problems plaguing principal preparation: "irrelevant curriculum, low admission and graduation standards, weak faculty, inadequate clinical instruction, inappropriate degrees, and poor research" (Goldring & Schuermann, 2009, p. 17).

Another widely read and broadly reported criticism was the Broad Foundation's *Manifesto*. Like the Levine report, the *Manifesto* (2003) disparaged school leadership preparation and called for dramatic change in the way principals are recruited, trained, and placed in schools. The Broad Foundation report recommended more market-based efforts, and suggested moving away from the traditional university-based approaches.

**Table 1. Major Reform Efforts of Educational Leadership Programs.**

Year	National Initiatives	Leadership	Report(s), Papers, Outcomes
1985	National Commission on Excellence in Educational Administration	Daniel E. Griffiths, UCEA	<i>Leaders for America's Schools</i> , 1987 Griffith address to 1988 AERA Meeting and UCEA paper; UCEA edited book
1988	National Policy Board in Educational Administration	Patrick Forsyth, UCEA	<i>Improving the Preparation of School Administrators: The Reform Agenda</i> (May 1989)
1990	National Commission on Principalship	Scott Thomson, NPBEA	Principals for our Changing Schools: Preparation and Certification. 21 knowledge domains
1992	Danforth Leadership Conferences	Peter Wilson and Danforth Foundation	Brought together UCEA leadership around alternative preparation practices
1996	ISLLC Standards	NPBEA	First standards; adopted by 40 states
1999	[Research synthesis]	Joseph Murphy, UCEA	Invited address to AERA: <i>The Quest for a Center: Notes on the State of the Profession of Education Administration</i>
2000	SAELP	Wallace Foundation	States engaged in innovative leadership practices
2001	National Commission on Advancement of Educational Leadership Preparation	Michelle Young, UCEA	Young & Peterson, EAQ, 2001; Grogan & Andrews, EAQ, 2001
2001	School Leaders Licensure Assessment	ETS, ELCC	Assessment for certification of school principals
2005	Joint Leadership Task Force	Michelle Young, UCEA and AERA	Scholarly research on the existing knowledge base; two leadership handbooks, and the <i>Journal of Research on Leadership Education</i>
2008	Educational Leadership Policy Standards (Revised ISLLC Standards)	ISLLC/CCSSO and NPBEA	Revision of standards after use in the field; adoption by NCATE for review of educational leadership programs

(Adapted from Young, Crow, Murphy & Ogawa, 2009)

### The National and Local Response to Criticisms

Less widely circulated were some of the responses from the field to these criticisms. One was the report from the University Council for Educational Administration (UCEA), a group of doctoral-granting programs. Young, Crow, Orr, Ogawa and Creighton (2005) countered that the Levine Report of 2005 did not take into account a whole series of reform measures and efforts that had already been undertaken throughout the previous 10 years, especially in the stronger programs at the UCEA's research-oriented institutions. Young, Crow, Murphy, and Ogawa (2009) cite a long list of significant national reform initiatives, as summarized in Table 1.

One of these initiatives, the Joint Research Task Force, was an effort to bring together the UCEA and the American Educational Research Association's (AERA) Division on Educational Administration to make a clear statement of what was then known in the field (Leithwood & Riehl, 2004). Thus, the critical reviews of the profession resulted in some pushback, but they were also the catalyst for a more coherent organization of the research literature and attempts to fill the gaps in

the research that then existed. Scholars in the field of educational administration finally were able to point to a comprehensive research agenda connecting theory to practice and an established knowledge base for the profession of educational leadership, and specifically for public school principals.

In Illinois during a similar period of time, the state legislature and the education community also responded to these national critics and defenders of the profession by calling for its own Blue Ribbon Commission to study educational leadership preparation programs within the state. State leaders created opportunities for an active dialogue to take place about what works in the preparation of school leaders. The stakeholders, from small institutions with few faculty members to large research institutions, were able to discuss frankly their strengths and constraints in the work of preparing school principals; and practitioners contributed their lessons from the field on how graduates of university-based preparation were faring. Table 2 presents a timeline showing the major steps in Illinois' long-running process of restructuring.

In 2009, a redesign group consisting of deans and faculty in education leadership programs was convened to put these various recommendations into concrete proposals and help the Illinois State Board of Education (ISBE) write new state regulations. This process culminated in the passage of Public Act 96-0903 in June, 2010, which created a new and more stringent principal endorsement process for Illinois. These efforts were supported by the Obama Administration's Race to the Top program (American Recovery and Reinvestment Act of 2009) which emphasized "Great Teachers and Leaders" as one of its four primary criteria for significant federal funding. Because of these policy shifts, some higher education programs in the field of school principal certification have closed down and every active program must now redesign and submit their program to the State Certification Board for review. Throughout this redesign process, the role of the principal as instructional leader was a constant refrain and, as a result, the amount of teaching experience required for new principal candidates was doubled from two years to four. A sunset provision prevents programs from accepting any new candidates into their "old" programs as of Fall 2010 and new rules and regulations are currently being implemented, with plans to complete the full transition by 2013.

During the redesign process, state policymakers challenged the program providers about the oversupply of individuals holding the current Type 75 certificate. State data showed approximately 4,000 certificants with only about 400 principal vacancies per year. Throughout the redesign process, it was clear that a baseline of information on current principals *in situ* was required. This study responds to that need.

**Table 2. Timeline of Illinois Principal Policy Activity**

Year	Activity
2001	Illinois' State Action for Education Leadership Project (SAELP) was created with a grant from the Wallace Foundation and support from the Council of Chief State School Officers (CCSSO).
2002	The University of Illinois-Chicago (UIC) received a grant of \$100,000 to propose a new leadership program to ISBE.
2003	The Office of Principal Preparation & Development was created in Chicago Public Schools.
2005	The Levine report is published, criticizing education administration programs.
August 2005	The Commission on School Leader Preparation made up of K-12 schools, colleges, universities, and professional associations, plus ISBE and the Illinois Board of Higher Education (IBHE), is established in response to Levine's report and marketed as the "Illinois Levine Commission." The Illinois Commission released <i>Blueprint for Change</i> in August 2006.
2006	The state legislature passed a new "Teacher Leader Endorsement" providing an alternative to professional advancement in addition to the Type 75 general administrative certificate.
2007	The state legislature passed a resolution to convene the Illinois Leadership Development Task Force. ISBE and IBHE collaborated to set up the Task Force, chaired by Professor Steve Tozer of the University of Illinois at Chicago and which consisted of 28 people, including legislators, deans, higher education faculty, practicing principals and superintendents. The Task Force issued an 86-page report, calling for "three primary instruments for improving leadership quality that are most likely to result in real gains in student learning: (1) Illinois must set new "high standards for school leadership certification and align principal preparation, early career development, and distinguished principal recognition with those standards"; (2) formal partnerships between school districts, institutions of higher education and other qualified partners to support principal preparation and development; and (3) refocused principal preparation programs committed to developing and rigorously assessing aspiring principals the capacities that are most likely to improve student learning in preK-12 schools."
2008-2009	The Task Force, plus ISBE and IBHE, invited faculty and deans from thirty-three education administration programs in the state to form a redesign group to discuss the Task Force Report and design next steps (May 29 and September 29, 2008. Two of the programs withdrew; they will no longer offer education administration certification programs.) The redesign group established a web site ( <a href="http://www.illinoisschoolleader.org">www.illinoisschoolleader.org</a> ) and created five subcommittees for implementation: New Structure for Leadership Certification and Endorsements; School/University Partnerships & Candidate Selection Process; School Leadership Standards; Residencies & Internships; and Assessments of Candidates and Graduates. Each subcommittee is led by co-chairs from public and private institutions of higher education, and membership includes stakeholders and one member of the previous Task Force.
2010	The Race to the Top application process makes improvement of principal preparation one of the four primary objectives for all state applications.  Institutions of higher education begin reporting based on new standards.  On June 1, Governor Quinn signs Public Act 96-0903 creating a new principal endorsement.
2013	Institutions of higher education will be required to meet all the new standards.

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## The IERC Illinois Principals Study

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In this study we provide an in-depth description of the demographic characteristics, employment experiences, and academic backgrounds of Illinois principals from 2001 through 2008 via archival administrative data from the Illinois State Board of Education (ISBE), and is similar to work the IERC has already undertaken with regard to teachers in Illinois public schools (DeAngelis, Presley, & White, 2005; Presley, White, & Gong, 2005; White, Presley, & DeAngelis, 2008). The project builds upon the study undertaken by Ringel, Gates, Chung, Brown, and Ghosh-Dastidar (2004) for RAND Corporation using data on Illinois principals from 1987 through 2001 in that it focuses on principal characteristics (including age, gender, and race), certification histories, and undergraduate and graduate college preparation. We expand this research by using the most recent eight years of available data to describe how principal qualifications have changed over time in Illinois public schools and how they differ based on school characteristics such as student demographics, achievement, school level (elementary/middle or high school), geographic region, and locale. As with our Illinois teacher studies, we pay special attention to the distribution of principal characteristics across different school types, especially disadvantaged schools and schools in Chicago.

An additional purpose of the current study of Illinois principals is to assemble empirical baseline evidence about the observable characteristics of existing school leaders, looking for emergent patterns of quality and effectiveness, at this critical juncture when all new Illinois public school principals will begin receiving academic preparation under these new guidelines described in the previous section. Further, in conducting this analysis, we recognize that state and local context matters in the successful operation of public schools, including local funding and the ability to attract and retain highly effective principals. We are also keenly aware that labor markets for school leaders and classroom teachers are essentially local and regional, far more so than other professions. Thus, we attempt to provide as much local context as possible within the bounds of a quantitative study by conducting analyses relating similar schools, districts, and geographical settings whenever possible.

Another final caveat is in order: this study began during the economic recession of 2008–2009, which may also have intangible effects on the movement of school principals and teachers during this period of generally high unemployment rates and severe school budget shortfalls. Until we have baseline longitudinal data on the movement of principals, we will not be able to determine whether current conditions are actually more or less pronounced.

The most challenging aspect of this study remains the data limitations that we have encountered regarding appropriate measures to judge quality and effectiveness of the work of the school principal. Nationwide, educational researchers are only now beginning to get access to aggregate, standardized data on students, teachers, and school outcomes by which to judge the overall effectiveness of the educational enterprise, including the impact of principals within a school system. Still, it is our hope that this study is helpful in identifying where those data gaps still exist as the state of Illinois and nation move forward in creating longitudinal data systems for exactly these purposes.

## Methodology

We intend for this report to be descriptive rather than prescriptive. The study uses a cohort analysis to assemble a longitudinal database linking annual populations of Illinois public school principals to extensive school data and information about principal backgrounds. We use this large dataset to discern patterns using descriptive statistics and graphical representations to illustrate the data. By examining these patterns and interpreting their historical trends, we are able to make comparisons across various cohorts and school categories and to draw conclusions about the distribution of principals and the types of principals assigned to schools in different contexts.

This study builds on similar work by other researchers as well as previous Illinois Education Research Council (IERC) reports on the distribution of teachers (DeAngelis et al., 2005; Presley et al., 2005; White et al., 2008). Numerous other researchers have utilized similar longitudinal datasets to investigate the change in and distribution of principal characteristics, and this study aims to build on their approach and update this work using the most recent data available from Illinois. The most relevant among these with regard to this report is the work of Ringel et al. (2004) who also used Illinois administrative data to describe and track the state's principals from 1987 through 2001. Her work was part of a larger effort by RAND researchers (Gates, Ringel, Santibañez, Ross, & Chung, 2003) to use large scale survey data for an in-depth examination of principals' careers. Other similar and highly informative statewide reports on principal characteristics and experiences were published by Clotfelter, Ladd, Vigdor, & Wheeler (2006) and Wheeler (2006) using administrative data from North Carolina from the mid-1990's through 2004, and Papa, Lankford, and Wyckoff, (2002) using New York state administrative data from 1971 through 2000.

Our work is also informed by an excellent set of papers on the characteristics and distribution of principal quality recently published by the National Center for Analysis of Longitudinal Data in Research (CALDER), and summarized in Rice (2010). Branch, Hanushek, and Rivkin (2009) use 1995-2001 data from Texas to describe the distribution of principals; and Clark, Martorell, and Rockoff (2009) use New York City data to provide guidance as to the characteristics that seem to matter in terms of principal quality. The findings from Horng et al. 2009, focus on a single large urban district and their work could prove useful in efforts to further understand the dynamics of the principal workforce in Chicago.

We have tried to learn from these earlier efforts and will draw on and update them where applicable in order to lend further understanding to our results. In addition, the IERC has worked with numerous organizations, including SAELP, the School Leader Redesign Committee, ISBE, and others to ensure input from multiple perspectives in creating a research design for this study so that it would be useful to the field of education administration and to state policymakers. Our intent is that the database and the resulting analysis will constitute an enormous step forward in understanding public school principals in Illinois and their contributions to student success, which is the ultimate research and policy goal. With access to a database of thousands of school leaders in such a large geographical area in a state as economically and socially diverse as the state of Illinois, we also believe that this study may go a long way toward generalizing about the national profession of public school administration.

This report's findings are divided into three major sections focused on different categories of principal characteristics—population and demographics, age and experience, and academic background. For each of these sections, we first investigate the status of various measures in these categories, how they have changed over time, and how these data compare to students and teachers where appropriate, as well as to principals from other states and to previous cohorts of Illinois principals. We then investigate the distribution of these characteristics across various school types and how those distributions have changed over time. For each category of variables, we organize our findings by school level (elementary/middle or high school), geography (region and locale), and school demographics (student race and poverty). While there is not enough space in this report to discuss all of the potential combinations of variables, we strive to highlight those that are the most illuminating and relevant for Illinois educators and policymakers.

## **Data**

The primary sources of data used in this study are the Illinois state report card, the teacher service record (TSR), and the teacher certifications information system (TCIS), all maintained by the Illinois State Board of Education and made available to the IERC through a data-sharing agreement. We used the TSR and TCIS to obtain information about educators in Illinois public schools for each year from 2001 through 2008. These data include identifiers such as name and date of birth, as well as gender, race, undergraduate and graduate institutions, and degree levels, and employment information such as school identifiers, positions, assignments, salaries, months employed, and employment type. We linked each principal's degree information to a database containing the Barron's (2003) rankings for each institution to determine college competitiveness.<sup>1</sup> We linked educator identifiers with data from ACT, Inc. to determine each individual's ACT English, Math, and Composite test scores. We then linked educators' school identifiers to the Illinois state report card data available from the ISBE website ([http://www.isbe.net/research/htmls/report\\_card.htm](http://www.isbe.net/research/htmls/report_card.htm)) and the Common Core of Data (CCD) available from the National Center for Education Statistics (NCES) website (<http://nces.ed.gov/ccd/>). We used these resources for data regarding school characteristics such as location, urbanicity (or locale), and grade levels served, as well as school-level measures of student enrollment, race, gender, achievement, and poverty. For our school poverty measure we use the proportion of students in each school eligible for the federal free or reduced-price lunch program (FRL). The Illinois Education Research Council follows strict protocols to protect individually identifiable information.

The analytical categories used for schools in this report are mostly self explanatory, but a few do require some explanation. For school level, we use two categories (elementary/middle and high school) because Chicago Public Schools follow a K-8 model whereby all non-high schools are classified as elementary schools. By combining the elementary and middle school levels in our analyses, we are able to

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<sup>1</sup> We use the 2003 Barron's rankings to maintain consistency with our previous work in this field. Though these rankings are fairly consistent from year to year, we acknowledge that changes in the competitiveness of individual institutions over time and anomalous rankings from 2003 are problematic. We compensate for this imprecision through the inclusion of multiple measures of principals' academic backgrounds.

include Chicago schools in all categories and avoid misinterpretation of differences between these groups. For school poverty and minority concentrations, we classify all schools each year by quartile, but we also further dissect the highest quartile by delineating schools that fall in the highest 10% of each of these measures. Thus, our poverty and minority measures are each broken down into five categories: low (bottom quartile), middle-low (25th to 49th percentile), middle-high (50th to 74th percentile), high (75th to 89th percentile), and highest 10%.

## **Findings and Analysis**

The first step of our analysis was to identify one principal for each Illinois public school each year through an examination of ISBE's teacher service record (TSR) database. This was not as simple and straightforward a task as it may seem. Since charter schools are not required to submit information to the TSR, we were forced to exclude their principals from our analyses although we intend to examine data on charter school principals in the future. For schools where no full-time principal could be found using the TSR, we used ISBE's "Directory of Educational Entities" to identify the names of school administrators and matched these names back to employment data from the TSR. However, because of the difficulty of matching on names—such as name changes through marriage or otherwise, missing and non-unique data, and the use of nicknames and initials on some records – not all principals listed in the Directory could be matched back to the TSR. However, even after the charter school omissions and unmatched names from the directory, we were still able to identify principals for 99% of the schools in our population each year (Table 3).

**Table 3. Principal and School Populations**

Category	2001	2002	2003	2004	2005	2006	2007	2008
Number of Schools Matched to Principals	3863	3880	3879	3851	3829	3813	3821	3834
Number of Unique Principals	3638	3649	3636	3636	3599	3604	3611	3629
Proportion of Principals in Multiple Schools	6%	6%	6%	6%	6%	5%	5%	5%

In addition, we found that it was surprisingly common for a single principal to be assigned to multiple schools over the course of a single school year (this occurred for about 6% of our principals each year). There were several explanations for this—many educators in rural areas and small towns serve multiple roles in their district, working simultaneously as a superintendent and a principal, occasionally across multiple campuses. Sometimes, multiple schools are actually housed within the same physical building (schools within schools, combined middle and high schools, etc.) with a single administrator. And in some instances, a principal might switch schools mid-year and be listed as the principal in one school in the TSR and a different school in the Directory. However, this is representative of the complex realities of schooling, and the vast majority of the principals in our analyses study serve in a single school each year. The final population for this study consists of about 31,000 school-year combinations over the course of eight academic years for about 7,100 unique individuals.

*The final population for this study consists of about 31,000 school-year combinations over the course of eight academic years for about 7,100 unique individuals.*

*Over time, Illinois' principal corps has become slightly more racially diverse, with the proportion of minorities increasing from 17.4% to 19.4%.*

## Principal Demographics

After identifying our principals for this study, we investigated this population and their demographic data in more depth. Over time, Illinois' principal corps has become slightly more racially diverse, with the proportion of minorities increasing from 17.4% to 19.2% (Table 4). Most of this change was a result of increasing share of Hispanic principals, who increased by 1.2 percentage points, while the share of African-American principals increased by 0.4 percentage points. Looking over a longer time frame, 12.3% of Illinois principals were nonwhite in 1990, and the proportion of African-American principals was 10.7% in 1990 compared to 14.9% in 2008 (Ringel et al., 2004). However, these demographic shifts seem to have slowed considerably over time, with most of the racial diversification occurring between 1990 and 1995, during which the proportion of white principals fell by 5% (Ringel et al., 2004), and minority principal levels rose only slightly between 1995 and 2008. For the sake of comparison, minorities made up approximately 28% of Texas principals in 2002 and 21% of principals in North Carolina in 2004.

**Table 4. Demographic Characteristics of Illinois Principals (2001-2008)**

Demographic Characteristics		2001	2002	2003	2004	2005	2006	2007	2008
Race	White	82.6	82.7	82.9	82.4	82.0	81.4	81.3	80.8
	Black	14.5	14.5	14.4	14.6	14.7	14.8	14.6	14.8
	Hispanic	2.7	2.7	2.6	2.7	3.0	3.5	3.7	3.9
	Asian	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5
	Native American	<0.0	<0.0	<0.0	<0.0	<0.0	<0.0	<0.0	<0.0
Gender	Female	45.9	47.4	48.6	49.8	50.2	50.9	52.0	52.0
	Male	54.1	52.6	51.4	50.2	49.8	49.1	48.0	48.0

*The proportion of female principals doubled over the course of 18 years.*

In 2005, the gender distribution of Illinois principals shifted from predominantly male to predominantly female. Over this time, the proportion of female principals in Illinois increased by 6 percentage points, from 46% in 2001 to 52% in 2008. While this might not seem like much of a cultural shift, consider that in 1990 only 26% of Illinois principals were women (Ringel et al., 2004). That is, the proportion of female principals doubled over the course of 18 years. Compared to

other states though, females still appear to be somewhat underrepresented in the principalship in Illinois—women made up 62% of Texas principals in 2002 (Branch et al., 2009), 54% of North Carolina principals in 2004 (Wheeler, 2006), and 62% of principals in New York state in 2000 (Papa et al., 2002).

**Figure 1. Population Change since 2001**

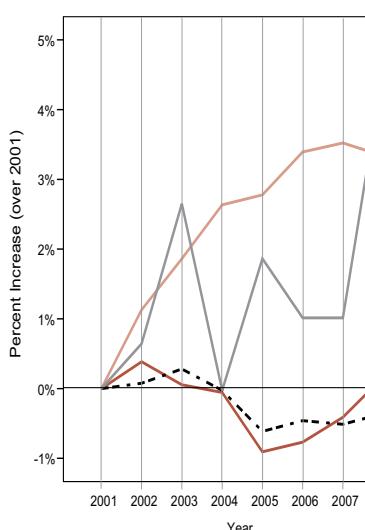


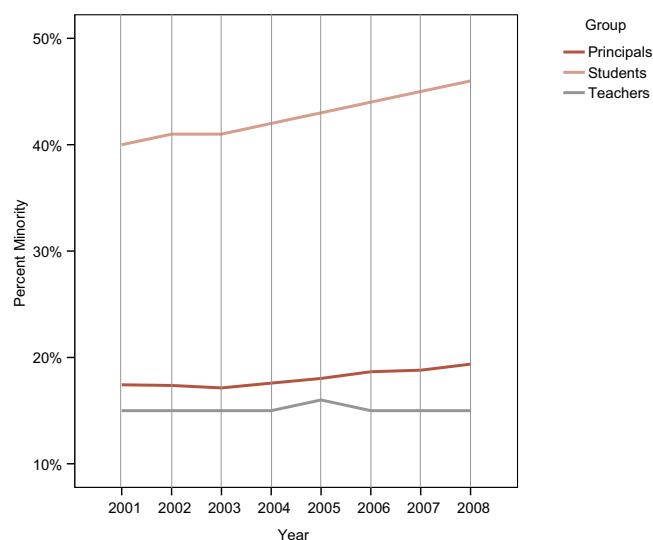
Figure 1 shows the percentage increase in the number of schools, principals, students, and teachers relative to their 2001 populations for each year included in our study. While changes in all of these populations were relatively modest during the time studied, the growth rates for students and teachers outpaced those for schools and principals in Illinois. That is, while the number of principals remained relatively steady, the number of students and teachers increased, and as a result the ratio of teachers to principals increased by 1.5 teachers and the ratio of students to principals increased by 17.5 students.

In Figures 2 and 3, we compared principal race and gender to demographics for students and teachers in Illinois public schools respectively. These data show that minorities make up a growing proportion of the principalship compared to teachers, but that both administrators and teachers are still vastly under-representative of the minority student population in Illinois.

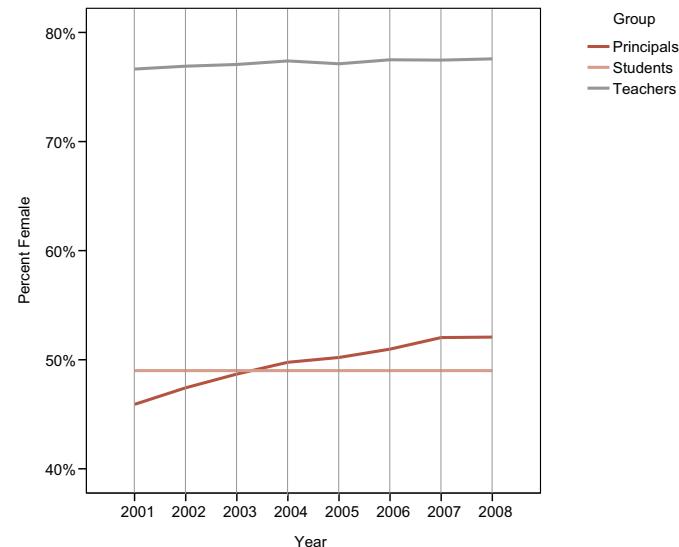
With regard to gender, the teaching corps has remained overwhelmingly female, while the proportion of female principals is increasing rapidly but continues to hover near 50%, similar to the gender proportions in the student population.

*These data show that minorities make up a growing proportion of the principalship compared to teachers, but that both administrators and teachers are still vastly under-representative of the minority student population in Illinois.*

**Figure 2. Principal, Student, and Teacher Race**



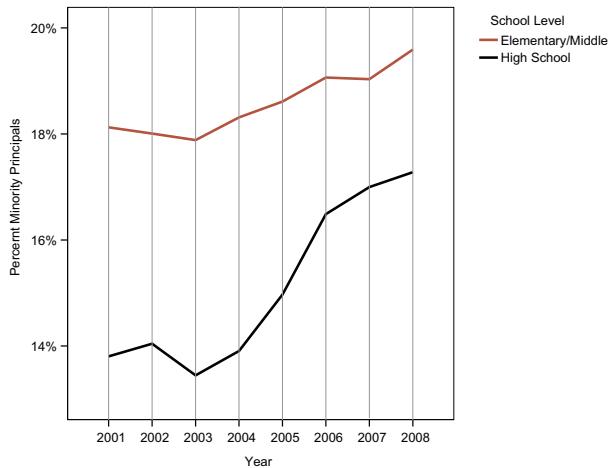
**Figure 3. Principal, Student, and Teacher Gender**



### *The Distribution of Principal Demographics*

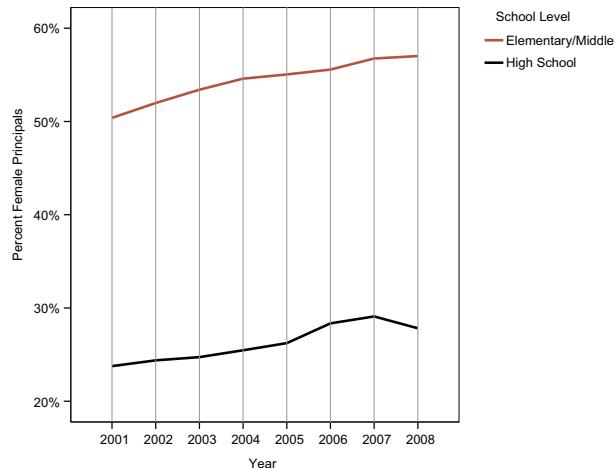
In every year from 2001 through 2008, there were larger proportions of female and minority principals in elementary and middle schools than there were in high schools (see Figures 4 and 5). The most recent data indicate that 20% of elementary/middle school principals are non-white and 57% are female, compared to 17% minority and 28% female for high school principals. While the proportion of minority principals increased at both school levels, most of this increase occurred in high schools.

**Figure 4. Principal Race by School Level**



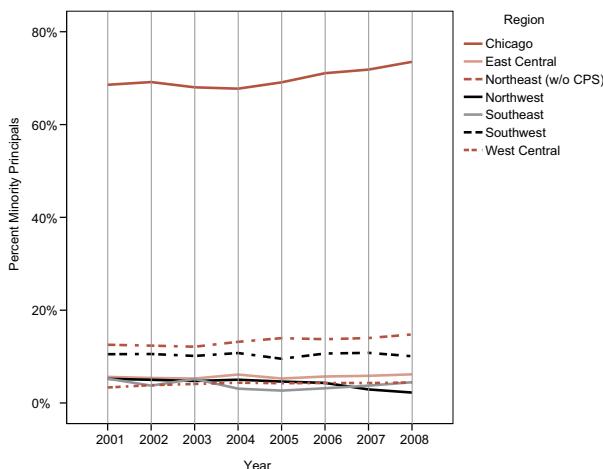
*Principals in Chicago Public Schools are much more likely to be minorities and women than principals in other regions of the state.*

**Figure 5. Principal Gender by School Level**

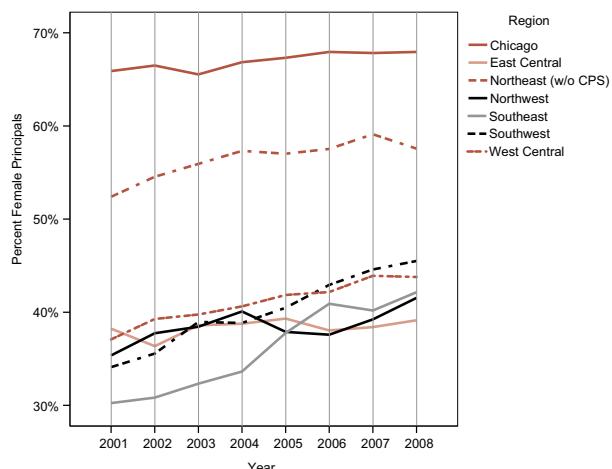


Principals in Chicago Public Schools are much more likely to be minorities and women than principals in other regions of the state (Figures 6 and 7). The racial composition of Chicago's principals reflects the greater representation of minorities in the city relative to other regions. The gender differences between principals in Chicago and, to a lesser extent, its suburbs in the northeast, compared to principals in the rest of the state however, are more noteworthy, and appear to be driven by factors other than the gender composition of the teaching force in these regions (Figure 7). For example, in 2008 68% of principals in Chicago and 58% of principals in the Northeast were women, compared to about 77% of the teachers in these regions. Meanwhile, in all of the other regions of the state, females comprised only 40-45% of the principals, even though they represented roughly 75% of the teachers in these regions. Data from New York (Papa et al., 2002) tell a similar story, with greater proportions of female principals in more urban areas compared to the rest of the state.

**Figure 6. Principal Race by Region**



**Figure 7. Principal Gender by Region**



## Principal Age and Experience

In this section, we group age with experience rather than demographics because, not surprisingly and as the data show, the two are closely related—younger principals tend to have less experience and principals with more experience tend to be older (Table 5). It is important to consider these characteristics for several reasons. The most obvious concern has to do with projecting the need for new principals—if large proportions of principals tend to be near or at retirement age in a specific region or a specific type of school, the state should be aware of this and work to ensure that sufficient numbers of qualified individuals are willing and available to take their place in the near future.

In addition, the large body of research about teacher quality (Wayne & Youngs, 2003; Rice, 2003) as well as several emerging studies of principal quality (Rice, 2010) suggests that a principal's experience can be a good predictor of his or her effectiveness. As Clotfelter et al. (2006) reason, experience effects are likely to operate in mutually reinforcing ways—“[t]he greater familiarity with procedures that comes with more administrative experience might be expected to make a principal more effective, ... [and] if a principal remains in administration over a long period of time that could potentially indicate success in the job” (p.15 ). Two recent studies in particular that utilize large, longitudinal data sets with principals, schools, teachers, and students linked together, support this notion. Clark et al. (2009) found that prior experience as an assistant principal in the school where one is principal has a positive influence on effectiveness, and Branch et al. (2009) found that a principal's tenure at a given school (up to a point) is also a predictor of success in raising achievement. For those reasons, we use two additional measures of experience—years as an assistant principal at the current school and tenure at the current school—as indicators of principal qualifications for this section of the study. In addition, given the rising prominence of principal instructional leadership and increasing emphasis on student achievement, we also focus on principals' teaching experience in core academic content areas.

**Table 5. Principal Age and Experience (2001-2008)**

Principal Age and Experience Characteristics	2001	2002	2003	2004	2005	2006	2007	2008
Age	48.7	48.6	48.7	48.4	48.2	47.6	47.2	46.6
% Age 40 or Younger	14.5	16.5	17.7	19.8	21.7	25.1	27.5	30.0
% Age 55 or Older	17.9	18.8	21.5	23.2	23.5	23.0	23.4	21.9
Mean Years as Principal	7.9	7.7	7.7	7.4	7.2	6.9	6.7	6.4
Mean Tenure as Principal at Current School	4.9	5.0	5.1	5.0	4.8	4.7	4.6	4.4
Mean Total Years (any position) in IPS	24.3	23.9	23.9	23.3	22.9	22.2	21.6	20.7
% First Year Principals	12.4	11.5	9.2	12.2	11.5	12.4	10.9	13.9
% Three Years or Less Experience as Principal	28.6	31.0	31.6	31.9	32.5	36.0	35.3	37.7
% Principals with Assistant Principal experience	35.4	36.2	37.5	39.7	41.4	43.3	44.0	46.1
% Principals with Assistant Principal experience at Current School	7.8	8.7	9.0	10.4	11.5	12.5	12.9	13.9
% Principals with Teaching Experience in Core Academic Subjects	77.7	78.3	78.6	78.5	78.8	78.8	79.0	78.7

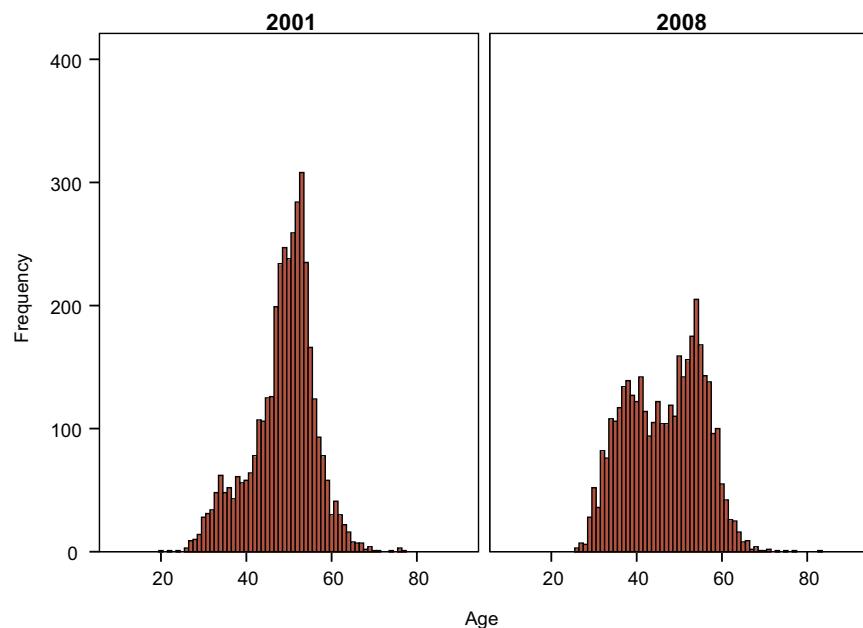
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*So while overall experience is declining, the types of experience that may matter the most—such as assistant principal experience and teaching core subjects—are increasing.*

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Almost any way you look at the data, the average Illinois principal in 2008 was younger and less experienced than the average Illinois principal eight years prior. Between 2001 and 2008, Illinois' principal corps became younger and less experienced overall. The average age decreased from 48.7 to 46.6 years old, their average years of experience as a principal decreased from 7.9 to 6.4, and their average years of experience in any position in Illinois Public Schools decreased from 24.2 to 20.7. The distribution of principals by age (Figure 8) moved from a bell-shaped curve in 2001 to a nearly bimodal ("two-humped") distribution in 2008, with larger concentrations of both younger (age 40 or lower) and older (age 55 or higher) principals. The proportions of principals who were in their first year or first three years (inexperienced) in both the profession and as a principal in their school all increased during this time frame. However, it is also important to note—especially given recent findings about potential links to principal effectiveness—that the proportion of Illinois principals who had ever been an assistant principal (AP), and the proportion with AP experience at their particular school both increased substantially over this time period. Simultaneously, the proportion of principals with previous experience teaching academic core subjects also inched up during this time frame. So while overall experience is declining, the types of experience that may matter the most are increasing.

**Figure 8. Principal Age Distribution (2001 and 2008)**

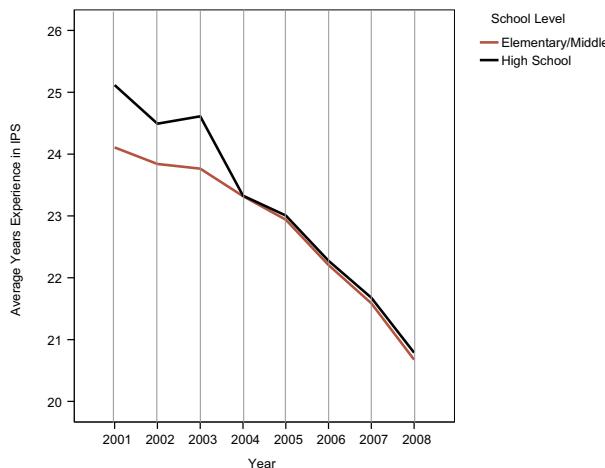


Taken together, these data show a reversal of the trends for Illinois principals noted by Ringel et al. (2004), who observed slight increases in the average principal age and experience from 1995 to 2000. Overall, Illinois principals tend to have a few years more total experience than those in New York (Papa et al., 2002), but a couple of years less principal experience than those in North Carolina (Wheeler, 2006), the only states with comparable published data. The proportions of Illinois principals who were in their first year at their school or in the state were quite similar to those found in New York State.

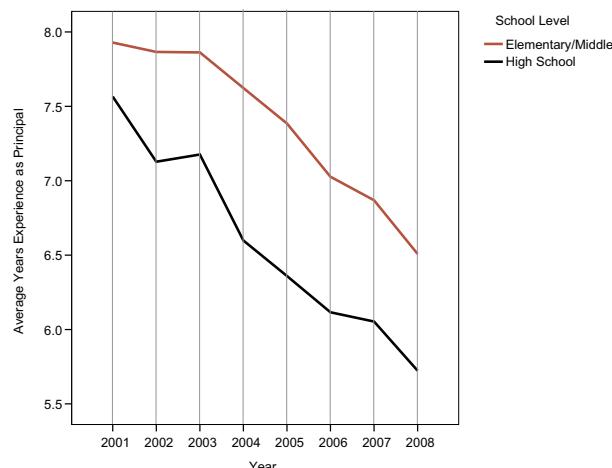
### *The Distribution of Principals' Age and Experience*

Though there are few noteworthy differences by school level in principal age or in total experience in Illinois Public Schools (IPS) (Figure 9), high school principals do tend to have less experience as principals (Figure 10) than their elementary/middle school counterparts.

**Figure 9. Principal Total Experience by School Level**

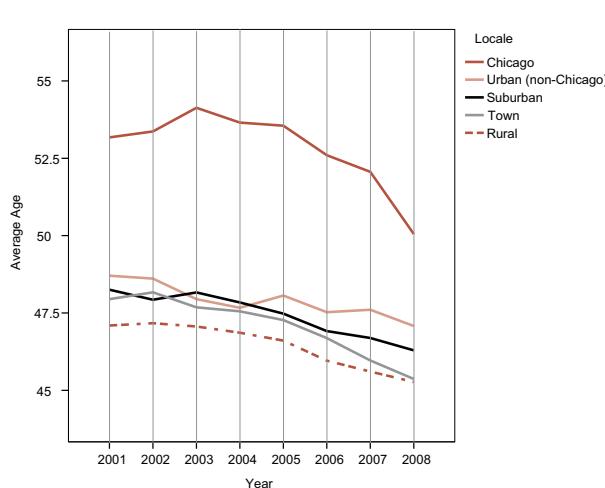


**Figure 10. Principals' Experience as Principal by School Level**

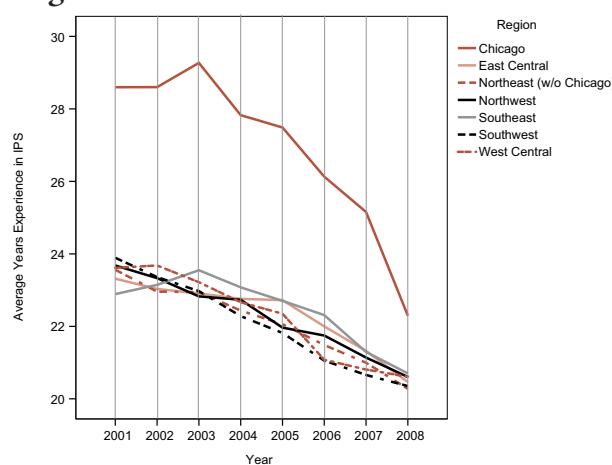


Overall though, the differences by school level are quite small when compared to differences by school geography and student demographic composition. For example, principals in Chicago were substantially older and more experienced than principals elsewhere in the state, whether viewed by locale (Figure 11) or by region (Figure 12), though these differences have decreased in recent years. In 2008 the average CPS principal was 50 years old and had 22.3 total years of experience, while the average principal elsewhere in the state was 46 years old with 20.4 years of experience working in Illinois public schools.

**Figure 11. Principal Age by School Locale**

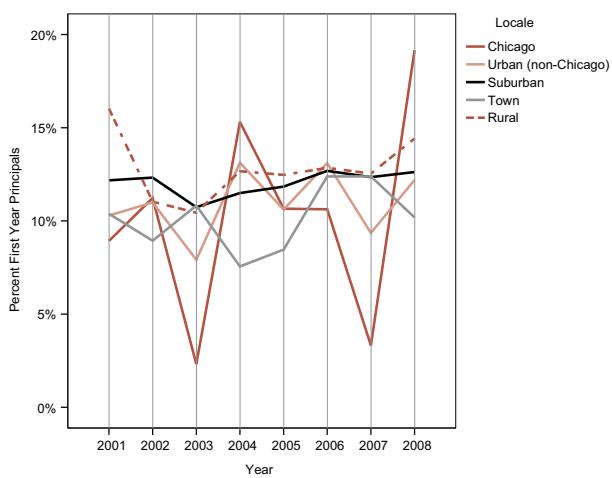


**Figure 12. Principal Total Experience by Region**

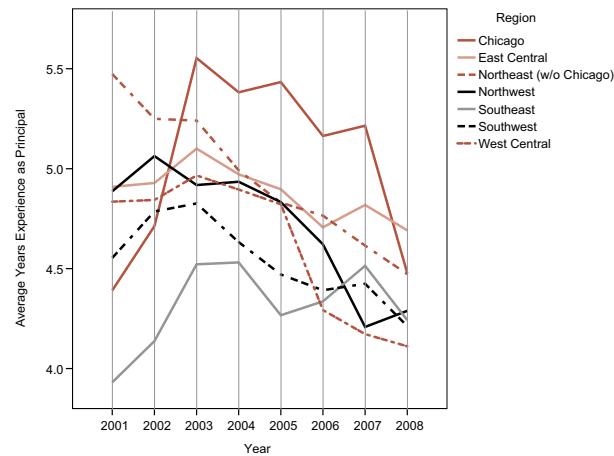


Yet despite this, students in CPS schools were not substantially or consistently less likely than students in non-CPS schools to have a first-year principal (Figure 13) or a principal with more tenure at his or her school (Figure 14). In fact, Figures 13 and 15 show that principal tenure within CPS and the proportion of CPS principals who were new to their school or to the state varied quite widely from one year to the next while other regions and locales in Illinois remained relatively stable. This may reflect a “revolving door” phenomenon in disadvantaged schools with frequent leadership changes, which we will investigate in more detail in a subsequent report..

**Figure 13. First-Year Principals by Locale**

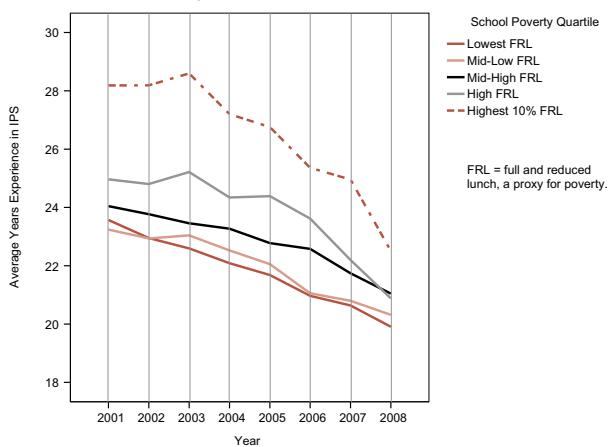


**Figure 14. Principals’ Tenure as Principal at Current School**

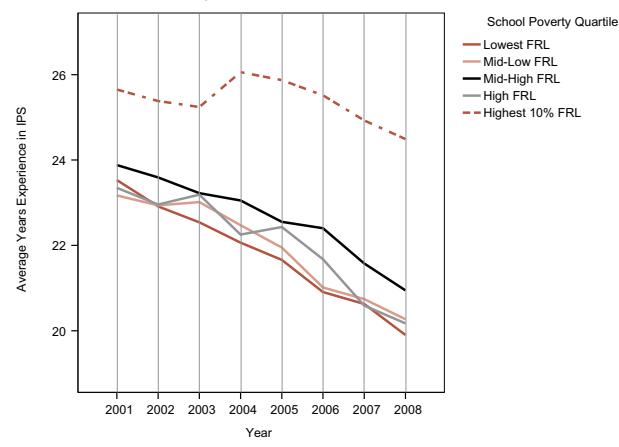


Similarly, high poverty schools tend to have principals with more overall experience working in Illinois public schools (Figure 15)—a trend that holds even in non-Chicago schools (Figure 16)—but there is little evidence of any systematic relationship between average years of experience as a principal (Figure 17) or tenure as a principal at a given school (Figure 18) and student demographics. Though not shown, the trends by school minority levels are quite similar to the results shown for schools by poverty concentration in Figures 15-18.

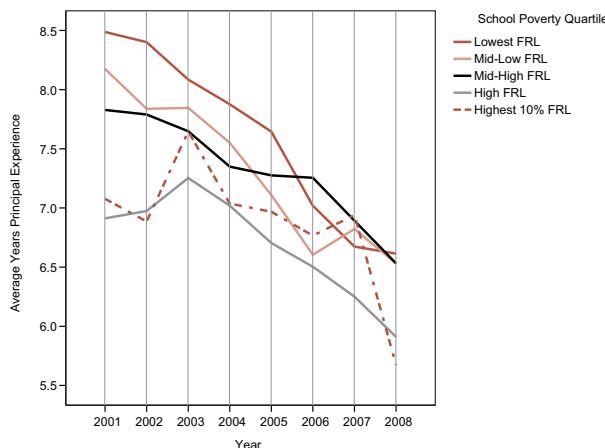
**Figure 15. Principal Total Experience by School Poverty (All Schools)**



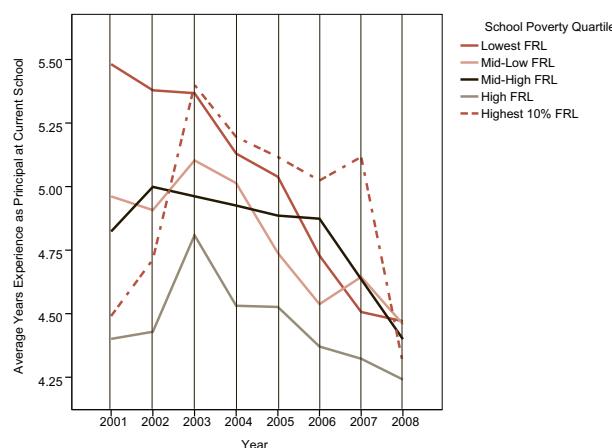
**Figure 16. Principal Total Experience by School Poverty (Non-CPS Schools)**



**Figure 17. Principals' Experience as Principal by School Poverty**



**Figure 18. Principal Tenure as Principal at Current School by School Poverty**

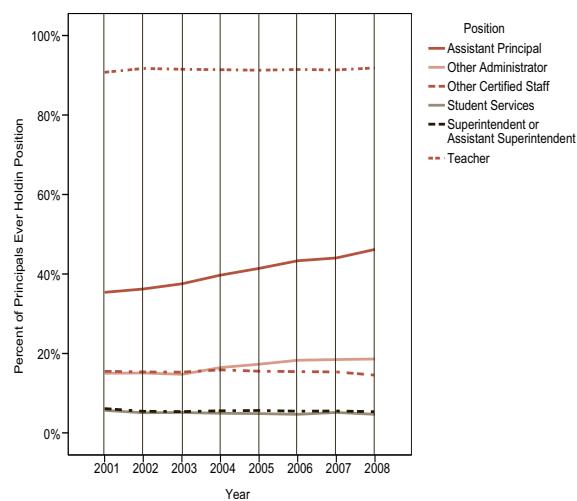


Taken together, these data present a portrait of principals in disadvantaged schools in Illinois as being older and having considerably more experience working in Illinois public schools, while principals in more advantaged schools tend to be younger and less experienced overall, but with comparable (or more) experience as principals. While seemingly unusual, these results are actually quite similar to those observed in New York (Papa et al., 2002), where principals in urban areas also tended to be older and more experienced overall, while still having less experience as principals.

### *Principal Experiences in More Depth*

In this section, we take a more detailed look at principals' prior experiences working in Illinois public schools, and how those experiences differ across school types. For these analyses, we classified educators' positions from the teacher service record into eight different job categories: principals; superintendents and assistant superintendents; other administrators (such as deans, business officers, and program directors); assistant principals; regular (non-special education) classroom teachers; special education teachers; student services staff (such as guidance counselors and speech/language pathologists); and other certified staff (such as librarians and reading specialists). Since these categories are not mutually exclusive—i.e. an individual can have prior experience as both an assistant principal and a teacher—the totals shown in the Figures that follow are not expected to add to 100%. Figure 19 shows that more than 90% of principals each year had experience as a teacher, which was by far the most common prior job

**Figure 19. Principals' Prior Experiences in Illinois Public Schools**

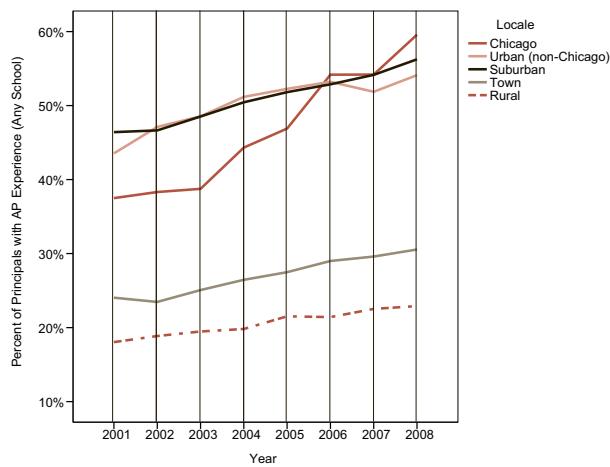


*The proportion of Chicago principals who also served as APs at their current school has increased dramatically since 2001.*

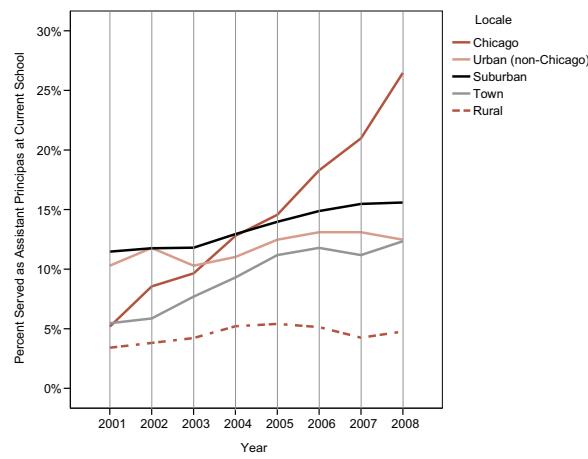
held in Illinois public schools. The proportion of principals who had served as assistant principals was the second largest group with between 35% and 46% each year, and AP is the only position where experience has become more common amongst principals in recent years. Other administrators and other certified staff clustered as the third most common prior experiences with around 15%, and superintendent or assistant superintendent, and student services experiences were the least common at around 5%.

As we have mentioned, another potentially important aspect of the distribution of principal experience may be found by examining the years spent as an Assistant Principal (AP). Recent research (Clark et al., 2009) indicates that principals who have prior experience as an assistant principal in their current school are more effective in terms of improving student achievement than principals without such experience. Our findings also appear to indicate that AP experience is, at least in part, a function of locale type. That is, many schools and districts in less populous locales simply do not appear to have the capacity or student population to justify employing any or many APs. As a result, principals serving outside of Chicago and its suburbs, especially those in towns and rural areas, are much less likely to

**Figure 20. Principals' AP Experience (Any School) by Locale**



**Figure 21. Principals' AP Experience at Current School by Locale**

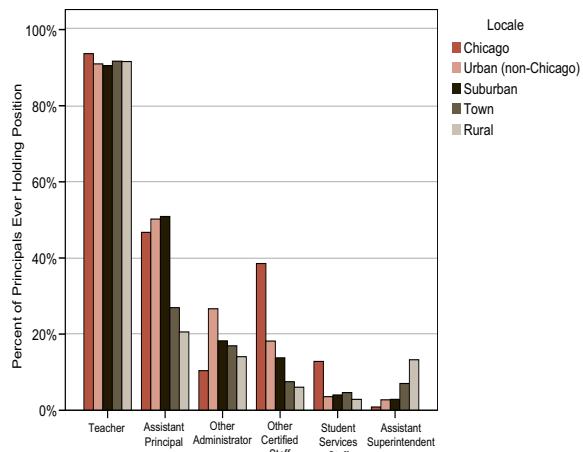


have AP experience (Figure 20). But also note in Figure 21 that the proportion of Chicago principals who also served as APs at their current school has increased dramatically since 2001.

Yet, despite having a relatively high proportion of principals with AP experience, CPS was near the bottom among locale types at the beginning of this study (2001) with only 5% of its principals having served as AP at their current school. But by 2008, it seems that something had prompted more assistant principal promotions from within the same school, as the CPS figure jumped to 26% (Figure 21). Recent findings that such experience has a significant positive impact on principal performance may help to explain the rationale behind this shift, and may prove a harbinger of good news for the district.

There were also some noteworthy differences in principals' prior employment by locale type.<sup>2</sup> Figure 22 provides further evidence that principals in suburban and urban schools (including Chicago) were more likely than their counterparts in towns and rural areas to have experience as assistant principals. On the other hand, principals in towns and rural areas are more likely than their peers in more populous locales to have worked—or to concurrently work—as superintendents or assistant superintendents. Principals in Chicago were more likely than non-CPS principals to have experience as other certified staff (such as reading specialists and staff supervisors) and student services staff. Again, it seems that many of the differences in principals' previous employment experiences are at least partially a reflection of the differences in the way schools are staffed in different locales across the state.

**Figure 22. Principals' Prior Experience by Locale**



### *Principals' Previous Teaching Assignments*

Since such a large proportion of Illinois principals were previously classroom teachers, we decided to explore those teaching experiences in more detail. To do this, we used data on teachers' main assignments from the teacher service record to classify their teaching experience into seven different groups: academic core, electives, non-classroom assignments, special populations, special subjects, vocational education, and other/missing. Academic core teachers were those assigned to self-contained classrooms at the elementary school level or math, science, English, or social studies classrooms at the middle and high school. Teachers of electives were those assigned to classes such as foreign languages, journalism, sociology and other non-core subjects. Individuals whose position was listed as a teacher but whose main assignment was listed as something other than classroom teaching (such as librarian or administrator) were considered non-classroom teachers. Teachers of special populations were those assigned to teach specific types of students, such as special education, bilingual, or gifted. Special subject teachers included those teaching music, art, physical education, and similar courses. Teachers of vocational education were assigned to teach one of a multitude of career preparation courses such as agriculture, marketing, drafting, and auto body repair. Finally, teachers whose assignments were missing or out of date were labeled as other/missing.<sup>3</sup> As in the previous section, principals' previous teaching assignments are not mutually exclusive, so annual totals are not expected to add to 100%. Further, this analysis

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*The most common teaching assignment by far was academic core, with over 60% of all principals having such experience.*

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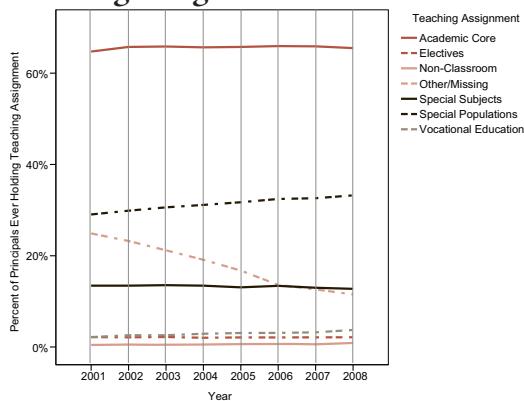
<sup>2</sup> For simplification, we average all years together in these charts. Differences between years were negligible compared to differences between school types.

<sup>3</sup> While our employment history dataset reaches back to 1971, the teaching assignment data prior to 1974 are quite spotty.

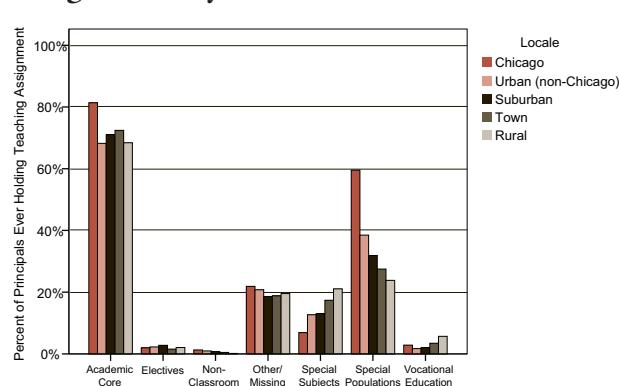
does not take into account the number of years of experience principals held in each assignment or how many years in the past such assignments occurred, rather we simply attempt to quantify whether principals have had any such experiences at any time in the past.

Figure 23 shows the proportion of all principals who had ever worked in each of these teaching assignment areas in Illinois. As you can see, the most common teaching assignment by far was academic core, with over 60% of all principals having such experience. About one third of principals each year had experience working with special student populations (such as special education or gifted students), and around 15% annually had experience teaching special subjects (such as music and physical education). Principals were least likely to come from the ranks of vocational education, elective courses, and non-classroom assignments though, as principals from these assignments comprised less than 5% of the total each year.

**Figure 23. Principals' Previous Teaching Assignments**



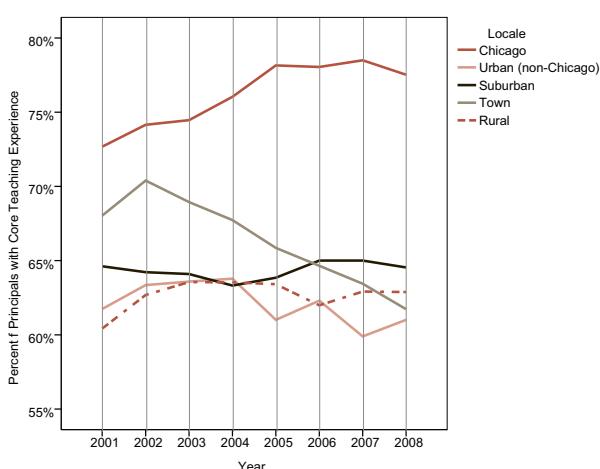
**Figure 24. Principals' Prior Teaching Assignments by Locale**



Since principals' previous positions were closely linked with school locale, we wanted to see if this was also the case with these more detailed data. Figure 24 shows the proportion of principals who ever worked in each of the main teaching assignment categories by locale. The chart shows that principals in Chicago are more likely

than principals in other locales to have experience teaching core academic classes and classes with special populations. Conversely, principals in less populous locales are more likely than principals in more populous locales to have experience teaching "specials" such as physical education and art.

**Figure 25. Distribution of Principals with Academic Core Teaching Experience by Locale**

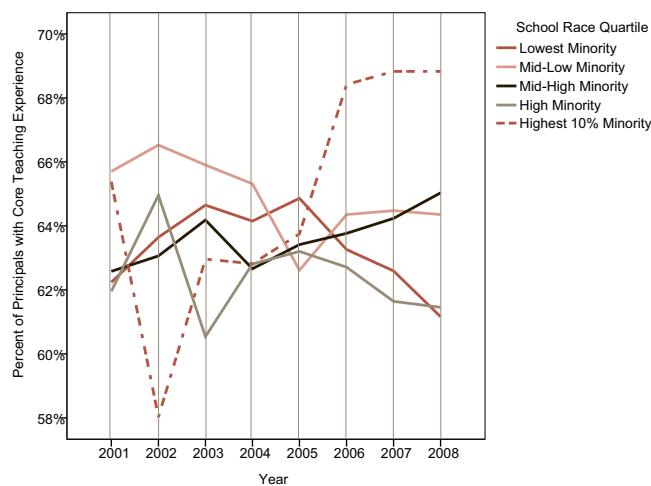


With increasing accountability for student achievement in core subjects and more emphasis on principals' instructional leadership abilities in recent years, we were also interested to investigate those principals who had experience in this area, including the types of schools in which they were likely to work and whether this population was increasing as a result of these trends. In Figure 25 we graph the changing distribution of principals with academic core teaching experience by locale over time, again showing that Chicago principals remained the most

likely to have academic core teaching experience throughout this period, increasing from 73% in 2001 to 78% in 2008. While these figures remained steady in most locales over this period, the proportion of principals with core teaching experience dropped in small towns from 70% in 2002 to 62% in 2008. The proportion of principals in rural, suburban, and non-Chicago urban schools hovered between 60% and 65% each year.

In Figure 26 we show changes to the distribution of principals who had ever been academic core teachers by school racial composition for all non-Chicago schools (we focus on schools outside of Chicago because we have already seen that CPS principals are most likely to have such experience). These data show that, even outside of Chicago, there is no clear or consistent relationship between a schools' demographics and whether its principal has any core academic teaching experience.<sup>4</sup> Furthermore, it remains to be seen whether this has any bearing on principal effectiveness, and we plan to explore this relationship in more depth in our future work.

**Figure 26. Distribution of Principals with Academic Core Teaching Experience by School Racial Composition (Non-CPS Schools)**



<sup>4</sup> There are about 80 non-CPS schools in the highest 10% by minority in each year of this study.

## Principals' Academic Backgrounds

In this section, we address principals' academic characteristics, how they have changed over time, and their relationship to their schools' characteristics (Table 6). Before we begin, it is important to state upfront that there is not sufficient evidence yet to link principal effectiveness in terms of ability to improve student achievement at their school with any particular academic characteristics of principals. We are additionally limited due to the lack of availability of ACT data for tests taken prior to 1974. Since principals tend to be among the more experienced of school employees, this presents more of an obstacle than when we work with teacher populations, and as a result we were unable to obtain ACT data for a large portion of our principals. However, we were able to obtain ACT data for a remarkable 91% of principals born after 1957. (See Appendix A.) Thus, while this sample includes almost 2500 individuals' records and accounts for over 10,000 data points over time, it is important to keep in mind that the data are more representative of younger principals and, as a result, produce more precise estimates for schools from more recent years and for schools from outside of Chicago with lower proportions of poor and minority students.

For these reasons, we acknowledge the limitations of these data and attempt to use them cautiously to present evidence about the levels, changes in, and distribution of principal academic qualifications in a descriptive fashion and to help inform our understanding of educational equity and our future work that will more directly address the relationship between these characteristics and principal effects. At the same time, however, we must note that numerous other researchers (Papa et al., 2002; Clotfelter et al., 2006; Horng et al., 2009; Wheeler, 2006) have used these or similar measures as indicators of principal quality. For example, as described by Clotfelter et al. (2006), undergraduate college competitiveness might be a good measure of principal quality because “[a] principal who attended a highly competitive institution might be expected to exhibit greater ambitions and focus, greater intelligence, or more monetary and political resources than a principal who attended a less competitive college” (p. 14).

**Table 6. Principals' Academic Background Characteristics**

Principal Academic Characteristics	2001	2002	2003	2004	2005	2006	2007	2008
ACT English	21.3	21.4	21.6	21.4	21.4	21.5	21.5	21.3
ACT Math	21.3	21.2	21.0	21.0	20.9	21.0	21.1	20.9
ACT Composite	21.6	21.6	21.6	21.7	21.5	21.6	21.6	21.4
Mean Undergraduate Competitiveness	3.10	3.10	3.10	3.10	3.10	3.11	3.12	3.13
% from More Competitive Colleges	19.2	19.3	19.5	19.9	20.1	20.5	21.4	21.3
% from Less Competitive Colleges	13.2	13.1	13.4	13.7	13.7	13.9	14.3	13.7
Mean Graduate College Competitiveness	2.97	2.95	2.94	2.93	2.92	2.92	2.93	2.91
% with Doctorate Degree	8.6	8.9	8.7	8.7	8.8	8.5	8.1	7.5

There was little change overall in principal academic background characteristics with most measures holding remarkably steady between 2001 and 2008. ACT math and composite scores, average graduate college competitiveness, and the proportion of principals with doctoral degrees slightly decreased, while the proportion of principals graduating from less competitive undergraduate institutions slightly increased during this time frame. The proportion of principals receiving degrees from more competitive undergraduate colleges and the average competitiveness of the institutions from which they received their undergraduate degrees both

increased progressively. Especially interesting in light of the criticisms levied toward principal preparation described in the introduction to this paper was the evidence that the institutions from which principals earned their advanced degrees were slightly less competitive than their undergraduate institutions. This may reflect the local and regional nature of education labor markets, with principals choosing institutions for advanced preparation and certification on the basis of geographic convenience rather than any other factors. It is also important to remember that the Barron's ratings are intended to describe undergraduate programs and may not apply in the same fashion to graduate training.

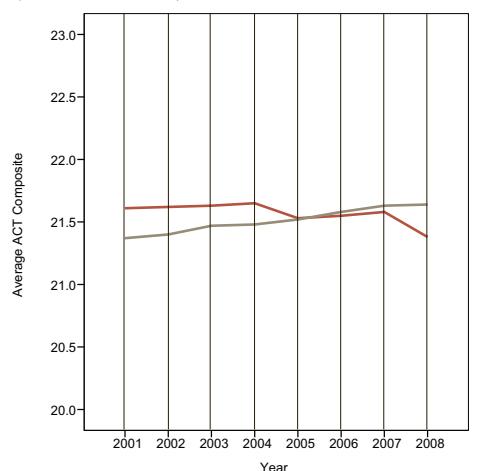
Compared to similar data from New York State (Papa et al., 2002) and North Carolina (Wheeler 2006), the similar mixed messages recur —Illinois principals appear to come from slightly less competitive undergraduate colleges than those in New York, but slightly more competitive undergraduate colleges than those in North Carolina, though both of these findings may say more about the availability of colleges of various competitiveness levels in each state than they do about the academic prowess of the states' respective school administrators.

*Data from the most recent years (2006, 2007, and 2008) indicate that teachers now tend to have higher ACT composite averages than principals.*

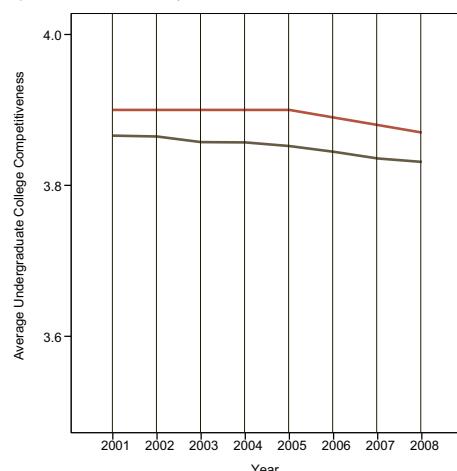
Altogether, these annual fluctuations were minor and do not seem to represent any dramatic or systematic change in principals' academic backgrounds for the state as a whole from 2001 through 2008, and the figures were quite similar to those found by Ringel et al.'s (2004) examination of previous cohorts of Illinois principals. In the next section we will examine differences between particular types of schools and whether any of those school types experienced specific changes over time.

Comparing principals' academic backgrounds to those of teachers (Figures 27 and 28) reveals little evidence that only the most academically talented teachers move on to become principals. In fact, data from the most recent years (2006, 2007, and 2008) indicate that teachers now tend to have slightly higher ACT composite averages than principals and that they have continuously graduated from somewhat more competitive undergraduate institutions, on average.

**Figure 27. ACT Composite Averages (2001-2008)**



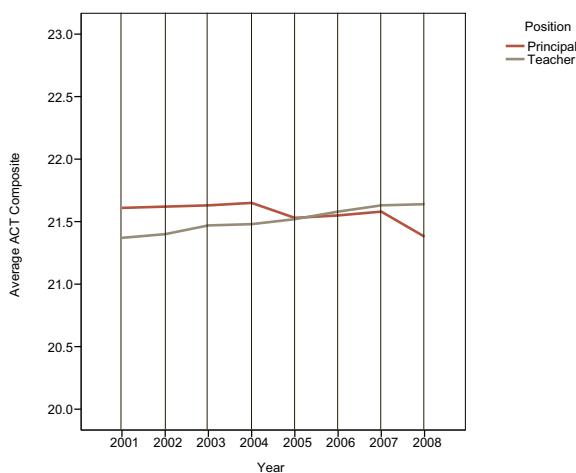
**Figure 28. College Competitiveness (2001-2008)**



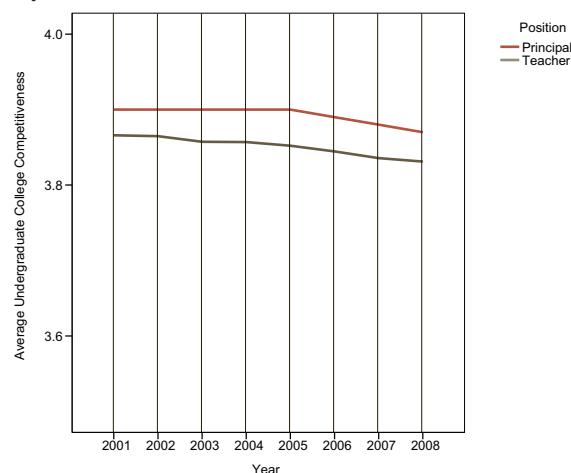
### *The Distribution of Principals' Academic Attributes*

Looking at principals' academic qualifications by school level shows that high school principals tend to have stronger academic backgrounds than principals at elementary and middle schools (Figures 29 and 30). That is, high school principals in Illinois have consistently higher ACT composite averages and graduated from more competitive undergraduate colleges than their elementary and middle school counterparts. Our investigation of teacher academic characteristics in Illinois revealed similar school level differences (Presley et al., 2005; White et al., 2008).

**Figure 29. Principal ACT by School Level**

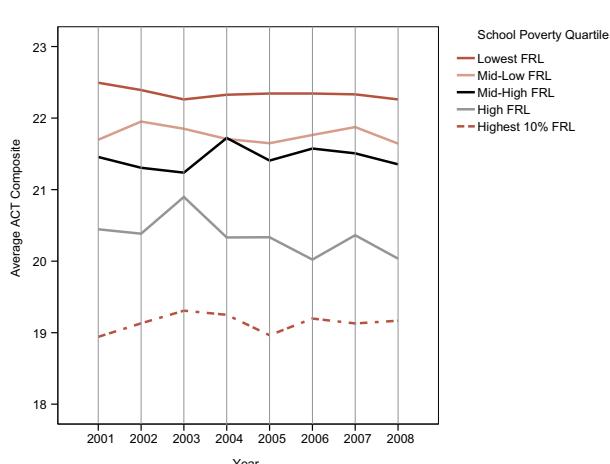


**Figure 30. Principal College Competitiveness by School Level**

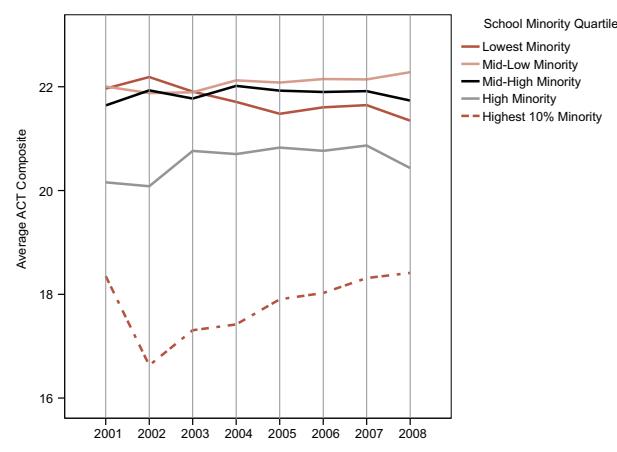


The distribution of principals' academic characteristics by school poverty (Figure 31) and minority concentration (Figure 32) also mirrors the distribution of teacher academic qualifications as discussed in White et al. (2008). That is, students in the most disadvantaged schools typically have access to principals with the weakest academic backgrounds, while schools with lower concentrations of poor and minority students typically have access to principals with the strongest academic backgrounds. For example, in 2008 the average ACT composite score for principals in the lowest poverty quartile schools was 22.3, while the principal ACT

**Figure 31. Principal ACT by School Poverty**



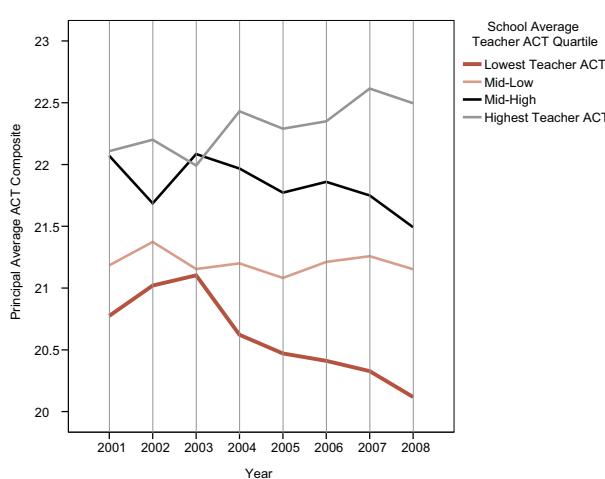
**Figure 32. Principal ACT by School Minority Concentration**



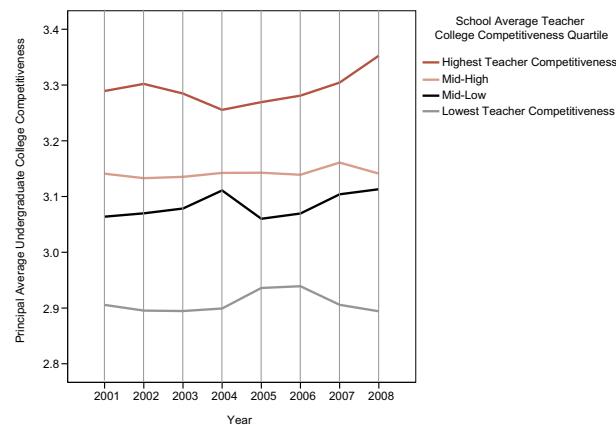
composite averages for schools from the 75<sup>th</sup> through 89<sup>th</sup> percentile was 20.0 and for schools in the highest 10% of poverty was 19.2, and these trends held for each year in our study. Differences with regard to school minority concentration were less pronounced between the bottom three quartiles (the 75% of schools with the smaller proportions of minority students), but principal ACT composite averages for the bottom quartile remained remarkably lower than all other schools.

In fact, and perhaps not surprisingly, there is a strong relationship between principals' academic backgrounds and those of teachers at their schools. In Figures 33 and 34, we divide all Illinois schools into quartiles based on the educational backgrounds of their teachers and show that schools with higher average teacher ACT composite scores also tend to have principals with higher ACT composite scores and that schools with higher average teacher baccalaureate college competitiveness rankings also tend to have principals with higher undergraduate competitiveness. Viewed through either of these perspectives, it is clear that the most disadvantaged schools—those with higher proportions of poor students, minority students, or teachers with lower academic preparation—are more likely to have principals with weaker academic backgrounds than all other schools.

**Figure 33. Principals' ACT by Average Teachers' ACT**



**Figure 34. Principals' College Competitiveness by Teachers' College Competitiveness**

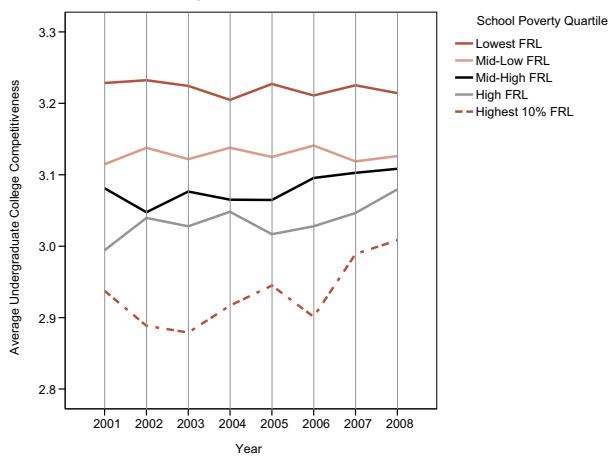


The relationship between student demographics and principals' college selectivity rankings is not as clear-cut as the distribution by ACT scores and, as illustrated in the figures below, has a clear geographic component as well. Figure 35 show that the most disadvantaged schools (in this case, those with higher poverty concentrations) tend to have principals who attended less competitive undergraduate institutions, on average.

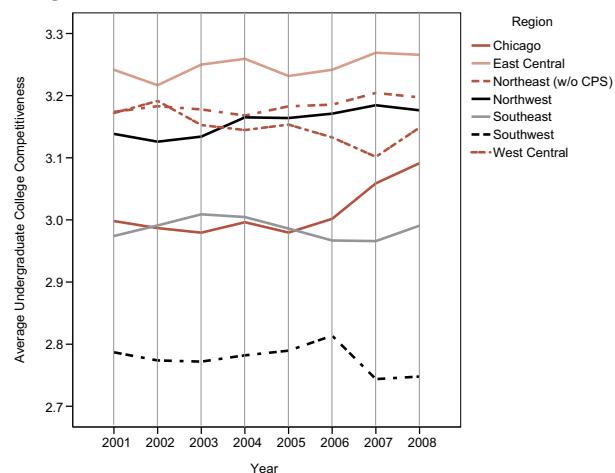
However, Figure 36 shows that when these same data are viewed by region, Chicago—which educates the largest proportion of poor and minority students in the state—is in the middle of the pack with regard to principals' college selectivity.

Part of the explanation for these apparently contradictory findings might lie in the fact that though many disadvantaged elementary and high schools can be found in Chicago, the region is also home to the largest proportion of more competitive colleges in the state—and evidence suggests that educator labor markets are

**Figure 35. Principals' College Selectivity by School Poverty**



**Figure 36. Principals' College Selectivity by Region**



extremely regional, and that teachers, who often later become principals, tend to find work in close proximity to the high school or college from which they graduated. For example, note that the East Central region—home to the largest of the state's more competitive institutions, University of Illinois at Urbana-Champaign—is the highest ranking region in Figure 36. Similarly, alumni of the highly competitive institutions in the northeastern part of the state tend to find employment in either Chicago or its racially diverse (relative to the rest of the state) suburbs in the northeastern region of the state, thus boosting the region's college competitiveness ranking. (See Appendix B for more details on the relationship between school demographics, school geography, and the distribution of college competitiveness throughout the state.)

Other researchers who have investigated the relationship between principals' academic backgrounds and school characteristics have also found that disadvantaged schools tend to employ principals with weaker academic backgrounds. For example, Papa et al. (2002) found that urban schools in New York, especially those in New York City, tended to employ principals who obtained their bachelor's degrees from lower ranked undergraduate institutions. Looking at data from North Carolina, Clotfelter and colleagues (2006) found that principals in high poverty schools scored lower than principals in low poverty schools on a variety of measures of academic performance, including the Praxis and NTE tests and undergraduate college competitiveness. Other researchers report similar findings even within a single large urban district and even after controlling for numerous school and principal variables (Horng et al., 2009; Wheeler, 2006).

Comparing educational institutions is problematic, given the great diversity in mission, size, and other factors. A national, benchmarked licensure exam taken by all aspiring principals could lead to a greater understanding of principal preparation and eventual effectiveness in the field. Educational Testing Service (ETS) has developed a national exam based on the ISLLC standards. However, Illinois is not one of the states that uses the ETS School Leader Licensure Assessment (SLAA) and is not considering using it under the new principalship redesign process.

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## Summary

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Our findings are divided into three major sections focused on different categories of principal characteristics—demographics, experience, and academic background.

**Principal Demographics.** Between 2001 and 2008, Illinois' principal corps became slightly more racially diverse, mostly through increases in the proportion of Hispanic principals, and minorities now make up a larger proportion of the principals than of teachers. The proportion of female principals doubled between 1990 and 2008, and the principalship in Illinois has been a predominantly female profession since 2005. There are larger proportions of both female principals and minority principals in elementary and middle schools than in high schools, and principals in Chicago Public Schools are much more likely to be minorities and to be women than principals in other regions of the state.

**Principal Experience.** The average Illinois principal in 2008 was younger and less experienced than the average Illinois principal eight years prior. Principals in disadvantaged schools—particularly those in Chicago—tended to be older and considerably more experienced working in Illinois public schools, but they were not any more likely than principals in other schools to have any more experience working as principals. More than 90% of Illinois principals have prior experience as teachers in Illinois public schools, and the vast majority of those taught in the core academic areas. The proportion of principals with experience as assistant principals (AP) at their current school has increased considerably, which is important because recent research suggests that principals with such experience tend to be more effective (Clark et al., 2009). During the same time, the proportion of principals with previous experience teaching academic core subjects also inched up during this time frame. So while overall experience is declining, the types of experience that may matter the most are increasing, and principals in Chicago are most likely to have such experience.

**Principal Academic Background.** Overall, there was little change in the academic qualifications of Illinois principals from 2001 through 2008, and the distribution of principal academic characteristics tends to mirror that of teachers in Illinois (White et al., 2008). That is, high school principals tend to have stronger academic backgrounds than principals at elementary and middle schools, and principals in the state's most disadvantaged schools typically have weaker academic backgrounds than those in schools with lower concentrations of poor and minority students.

Because not enough is known about the relationship between principal effectiveness and the observable characteristics of principals used in this report, this analysis is intended to be descriptive rather than prescriptive. Our findings may also serve as a baseline measure of Illinois school leaders prior to the implementation of the state's new principal endorsement guidelines. This report is the first of a planned multi-stage study, and in subsequent analyses we will investigate principal effectiveness and labor markets in more depth.

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## About the Authors

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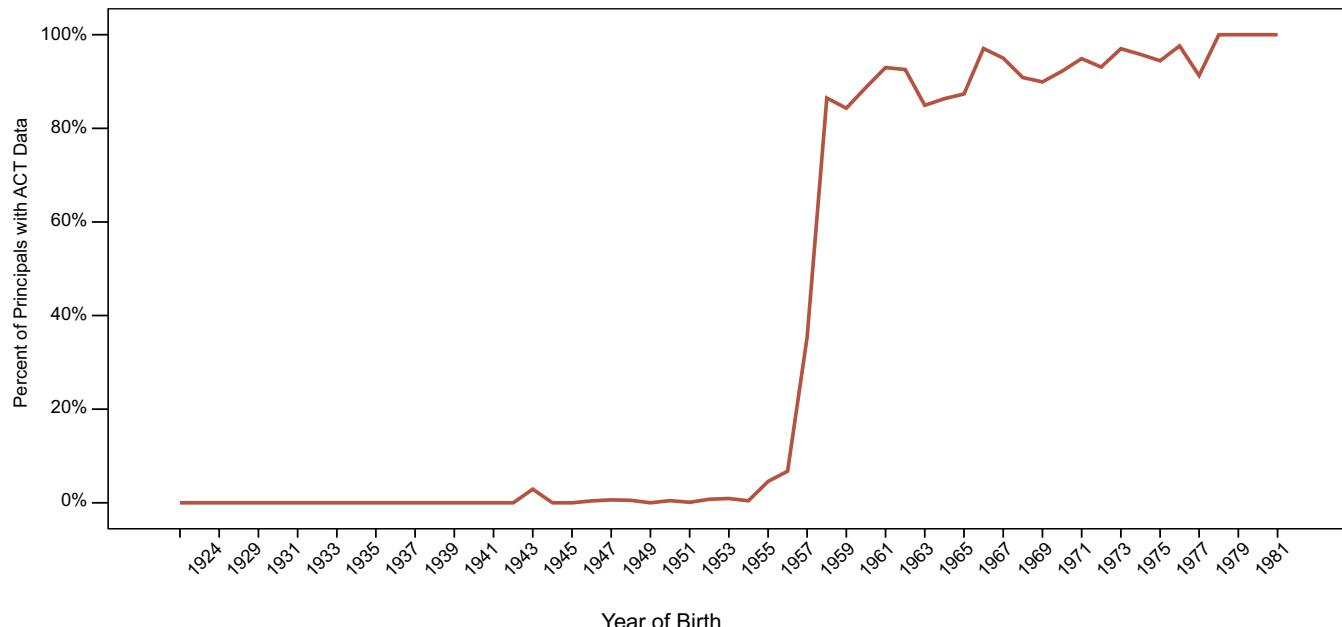
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## Appendix A. The Availability of ACT data

As illustrated in Figure A, the availability of ACT data for principals varied considerably across school types, and this variance was dependent upon the average age of principals in a given type of school. Through an agreement with ACT, Inc., the Illinois Education Research Council was able to obtain test results for examinations taken from 1974 onward. This allowed us to match ACT data for a remarkable 91% of the principals in our study who were born in 1958 or later (Figure A).

**Figure A. ACT Availability by Principal's Birth Year**

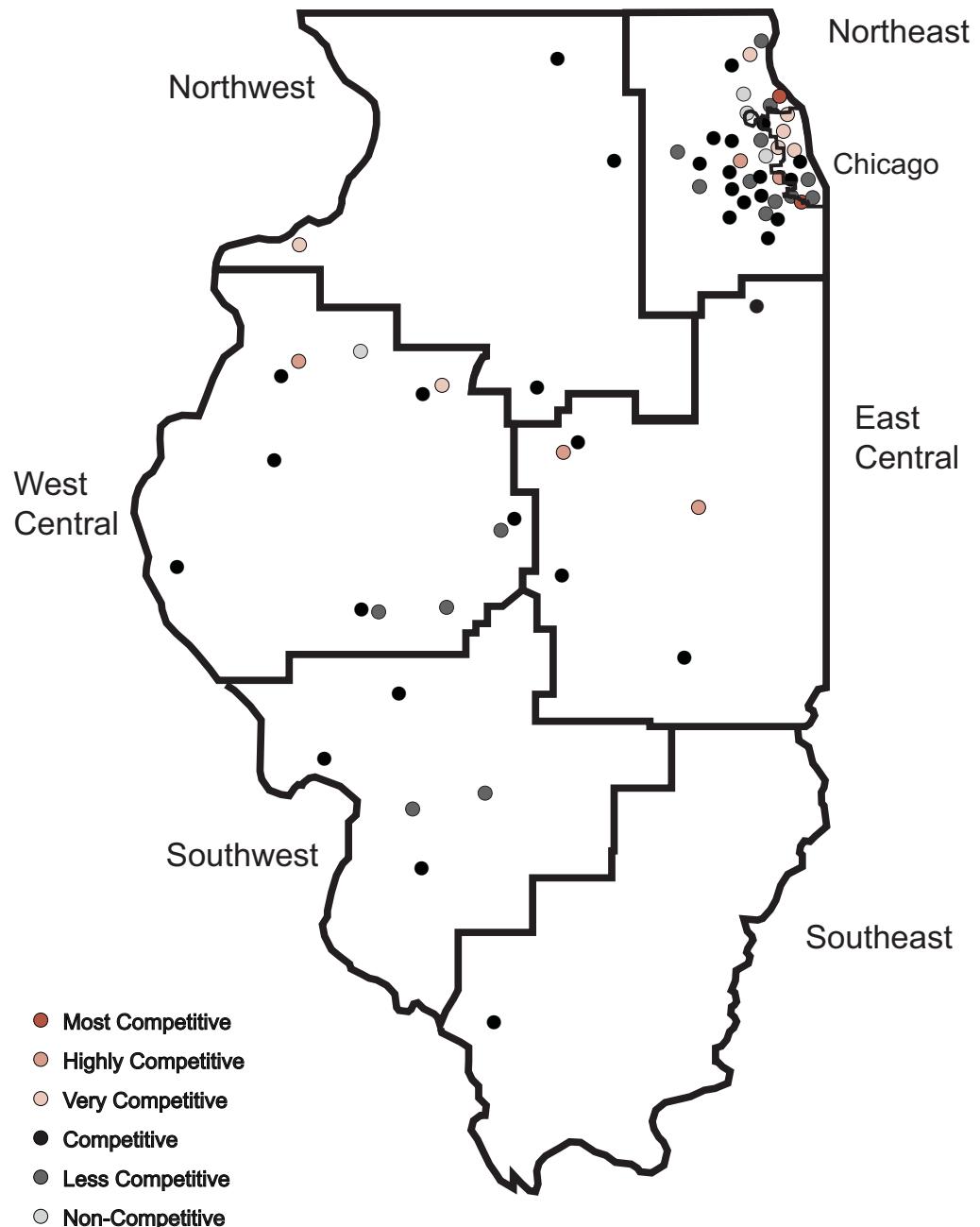


## Appendix B: The Regional Nature of School Demographics, Locale, and College Competitiveness in Illinois

While it may sound commonsensical, it is worth mentioning that the various school types described in this paper are not distributed evenly throughout the state. And though each of the state's seven regions has a unique composition that influences their educational needs and culture, none is as homogenous as one might imagine. For example, as shown in the table below, Chicago schools have an overwhelmingly larger proportion of minority students and students living in poverty compared to other regions, but they also have a greater concentration of more selective colleges and the highest average college competitiveness of any region in the state. Meanwhile, students in the Southeast and Southwest regions of the state have no colleges in their region that are considered more competitive by Barron's rankings. The Northeast region has the highest proportion of suburban and lowest poverty schools, but very few of their schools fall into the lowest minority quartile. The Northwest and West Central regions of the state both have a plurality of rural schools (43% and 46% respectively), but these regions also have about 15% of their schools in urban areas, and while schools in the Northwest tend to be more racially diverse, schools in the West Central region tend to be more economically diverse. Similarly, though a majority of the schools in the East Central region are in rural areas, another 22% are located in urban areas. The Southeast region of the state is the most predominantly rural and has the largest proportion of schools from the lowest minority quartile, but only 1% of their schools are from the lowest poverty category and a full 80% of their schools are above the median in terms of student poverty in the state. Interestingly, the most common locale for schools in the Southwest region of Illinois was suburban, due to their proximity to St. Louis, Missouri. The region is also home to the largest concentration of schools outside of Chicago from the highest 10% minority category. Finally, the geographic distribution of Illinois colleges by competitiveness shown in Table B below illustrates the varying levels of local college competitiveness to which students from each of these regions have access.

**Table B. Distribution of School Types within Each Geographic Region**

Category	School Types	Chicago	Northeast (Non-CPS)	Northwest	East Central	West Central	Southeast	Southwest
School Poverty	Lowest FRL	1.1	50.3	18.3	13.8	13.5	0.8	11.9
	Mid-Low FRL	3.1	20.9	43.9	42.2	30.8	19.2	30.3
	Mid-High FRL	6.5	14.9	26.5	31.5	41.3	63.4	41.5
	High FRL	33.5	12.2	10.1	11.5	11.9	15.0	10.8
	Highest 10% FRL	55.8	1.7	1.1	0.9	2.4	1.7	5.5
School Racial Composition	Lowest Minority	0.0	3.4	31.5	47.2	58.1	65.2	53.3
	Mid-Low Minority	0.0	33.3	37.5	25.2	20.9	23.2	20.8
	Mid-High Minority	8.5	39.3	26.6	23.0	16.3	8.2	15.8
	High Minority	37.4	20.1	4.3	4.6	4.7	3.4	3.6
	Highest 10% Minority	54.0	3.8	0.0	0.0	0.0	0.0	6.5
School Locale	Chicago	100.0	0.0	0.0	0.0	0.0	0.0	0.0
	Urban (non-Chicago)	0.0	11.3	15.3	21.6	15.4	0.0	0.1
	Suburban	0.0	83.1	21.2	14.4	19.2	0.0	46.2
	Town	0.0	0.0	20.1	12.2	19.0	39.3	9.6
	Rural	0.0	5.6	43.4	51.8	46.4	60.7	44.1
College Selectivity	Mean Selectivity of Colleges in Region	3.00	2.14	1.82	2.33	2.38	1.40	2.00
	% of Colleges in Region that are More Selective	31.3	10.7	9.1	16.7	15.4	0.0	0.0





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