
Principal Turnover and the Distribution of Principal Characteristics

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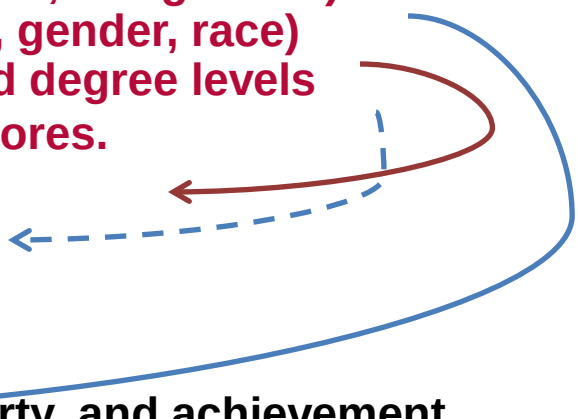
The Association for Education Finance & Policy

March 2011, Seattle, WA

The IERC Principals Project

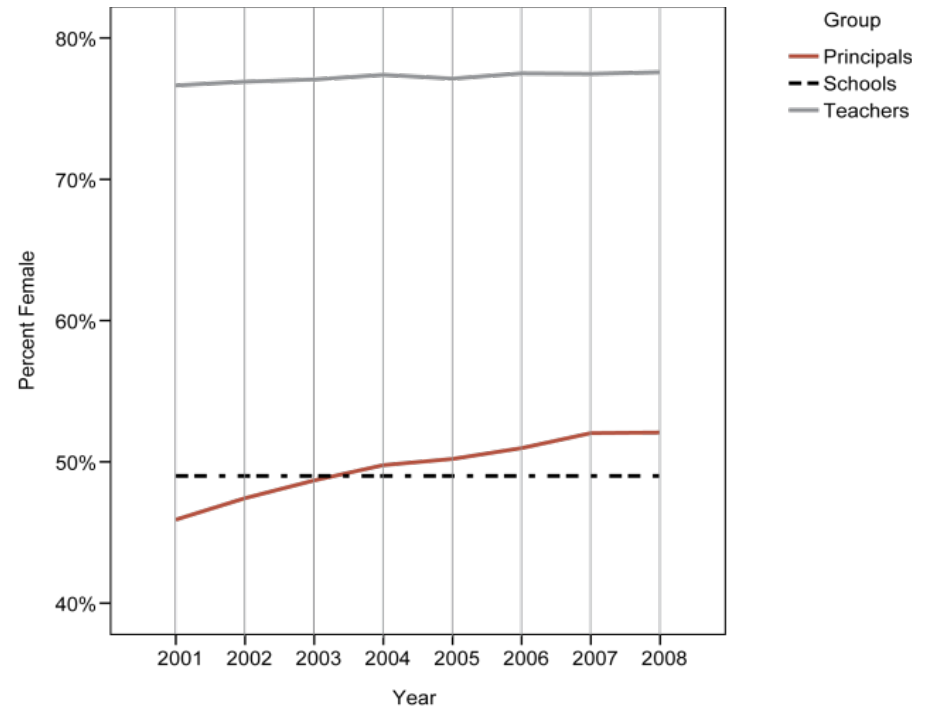
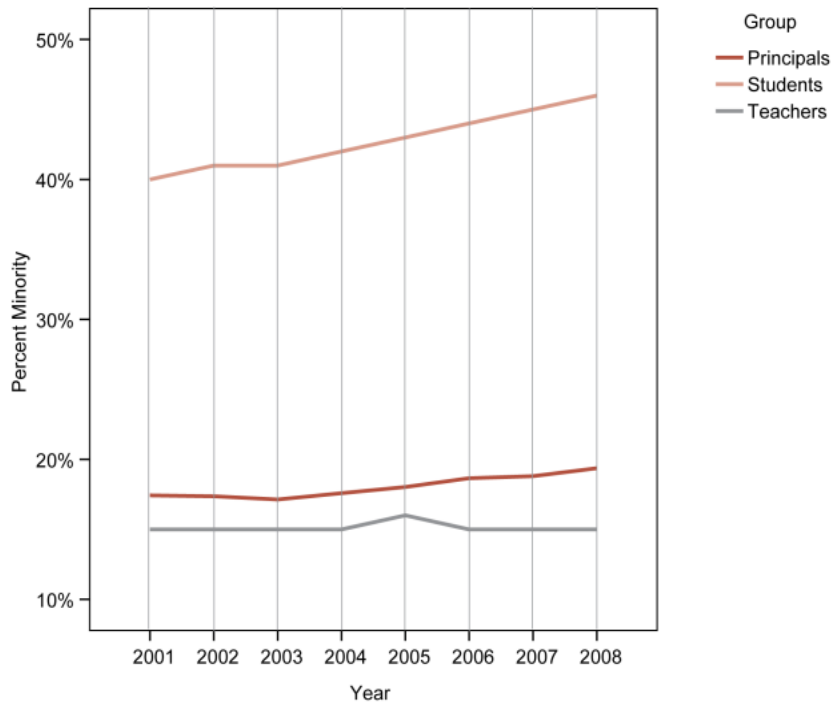
- **Context:**
 - Recent research finding principals have a significant (though largely indirect) impact on student outcomes, and that tenure in school (among other things) is associated with student achievement gains
 - New policies in Illinois (new principal certification and evaluation programs) and nationally (school-based accountability, RttT, School Improvement grants)
- **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

- **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
 - **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
- 

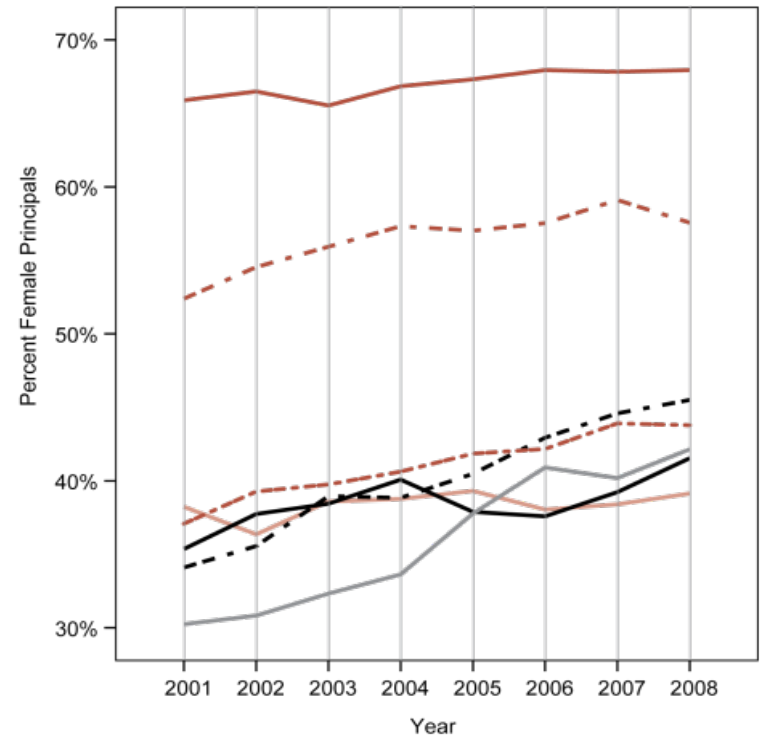
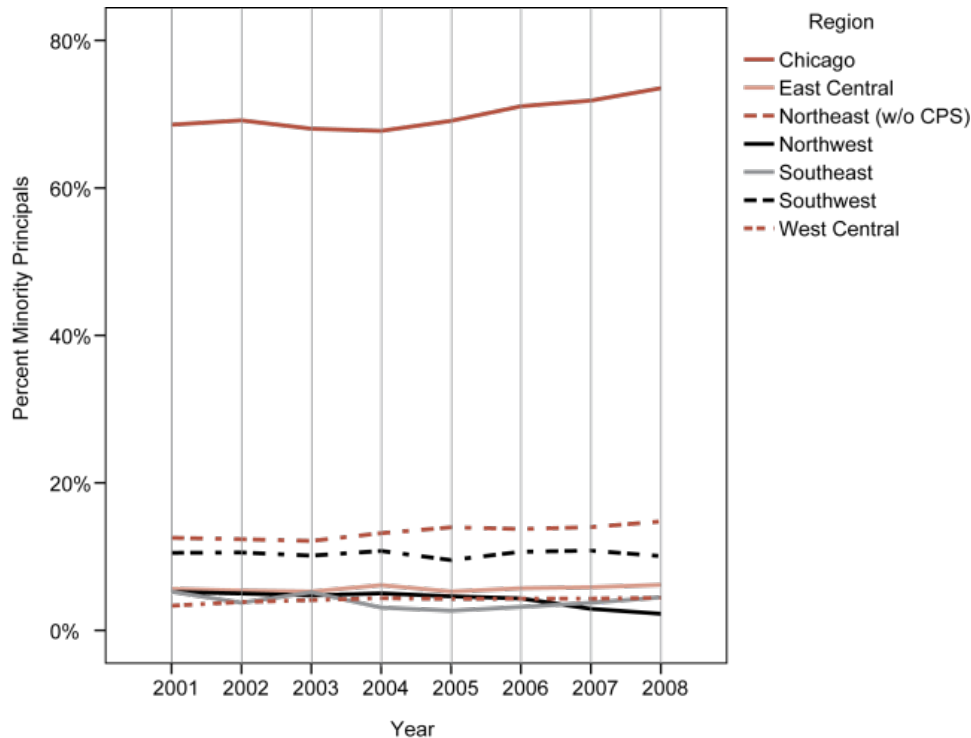
The Distribution of Principal Characteristics

Principal, Student, and Teacher Race and Gender



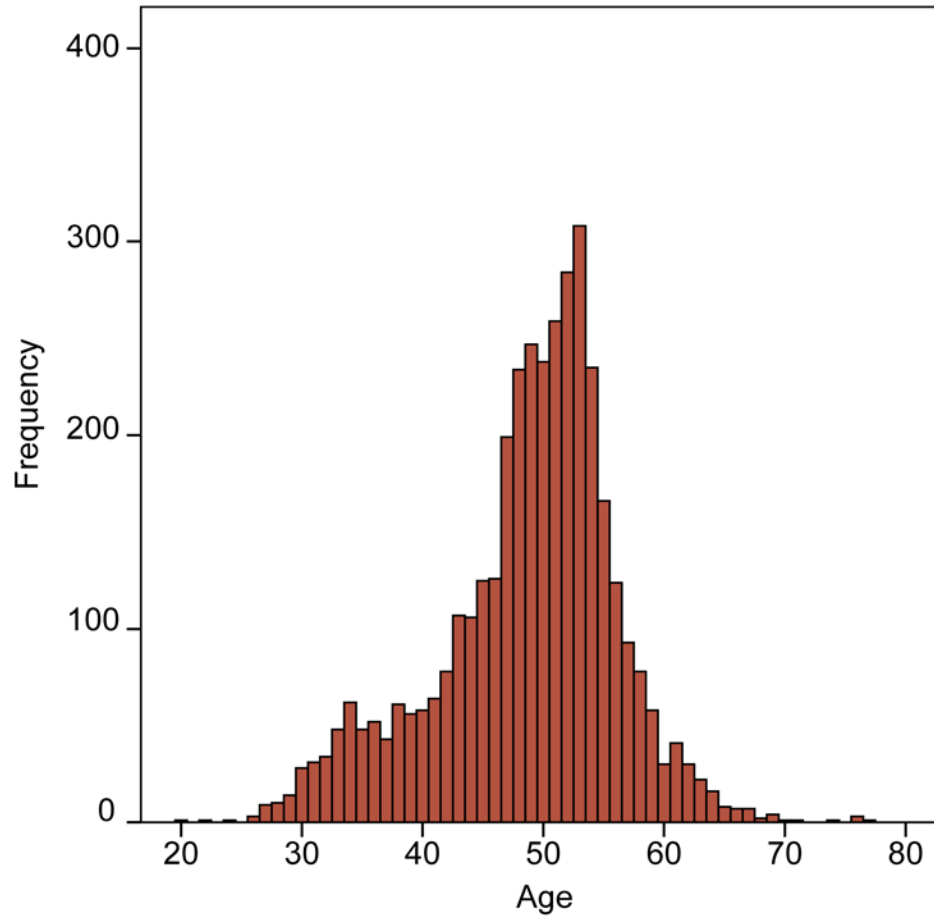
Relative to the student population in Illinois, minorities are under-represented amongst educators and women are over-represented amongst teachers

Principal Race and Gender by Region

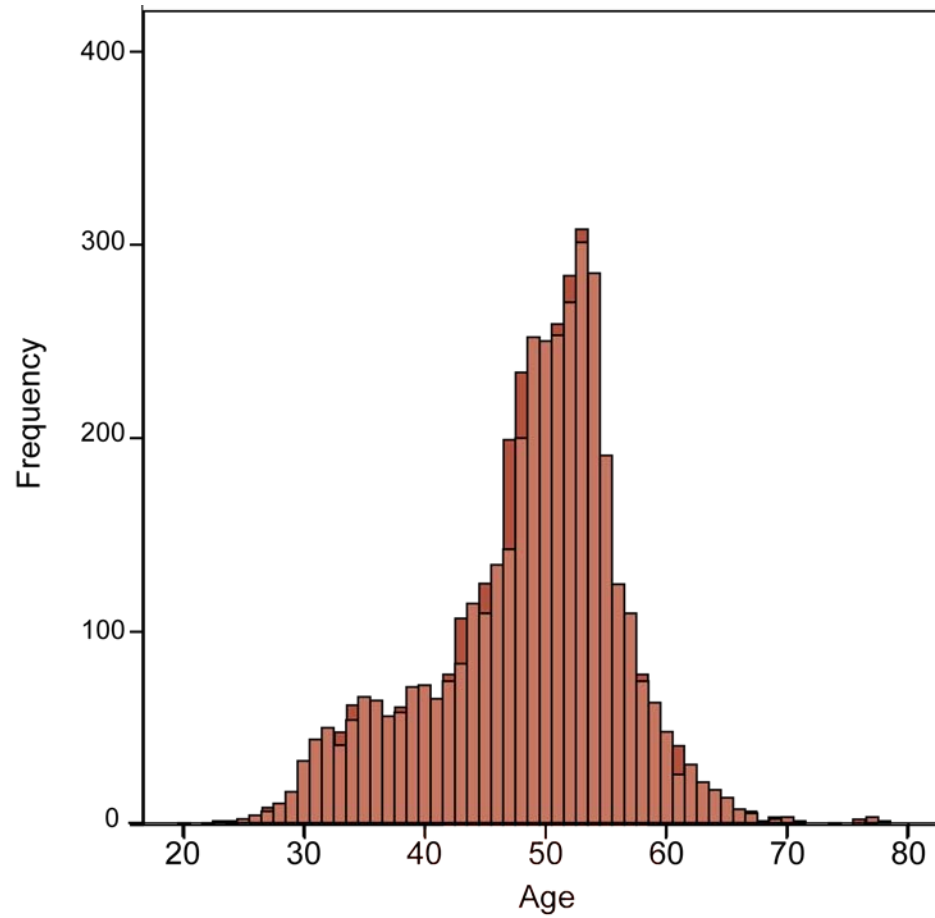


Minorities make up a much larger proportion of principals in Chicago...and so do women

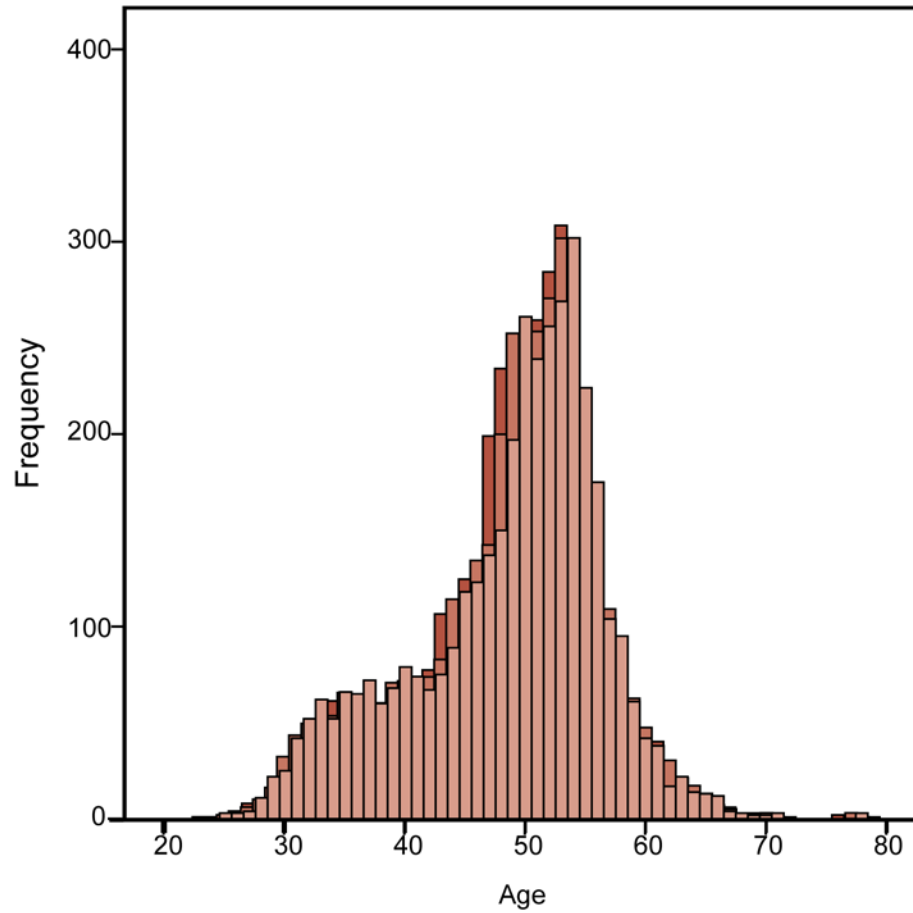
Principal Age Distribution (2001)



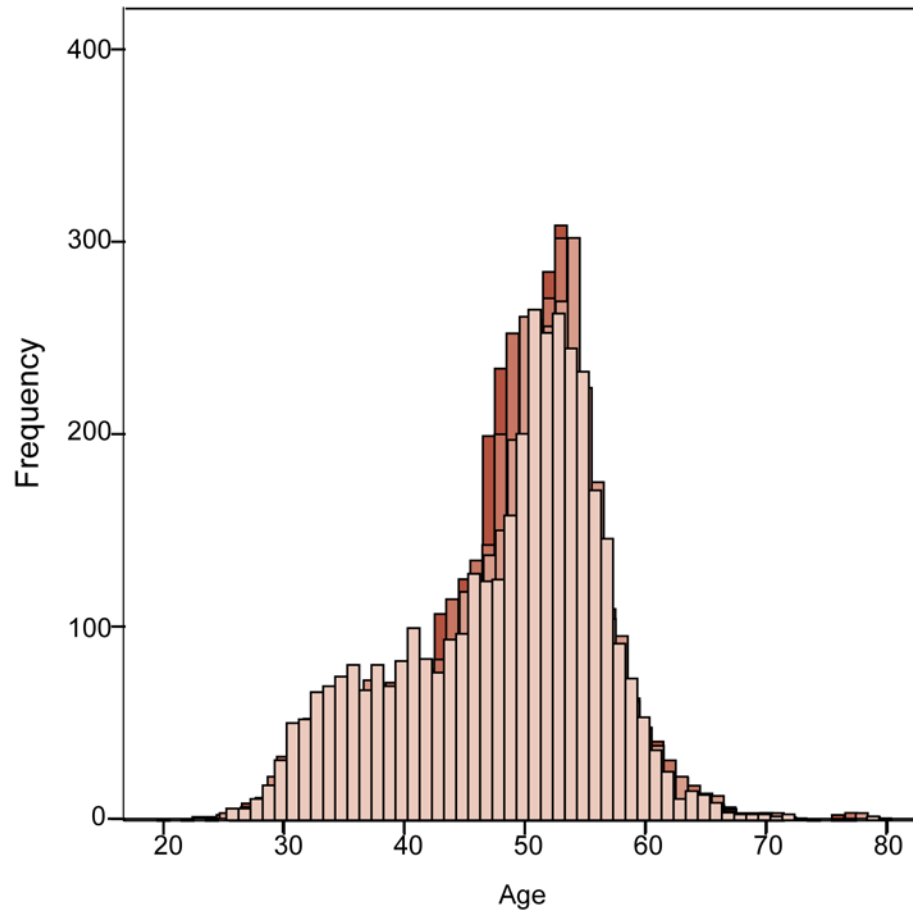
2002



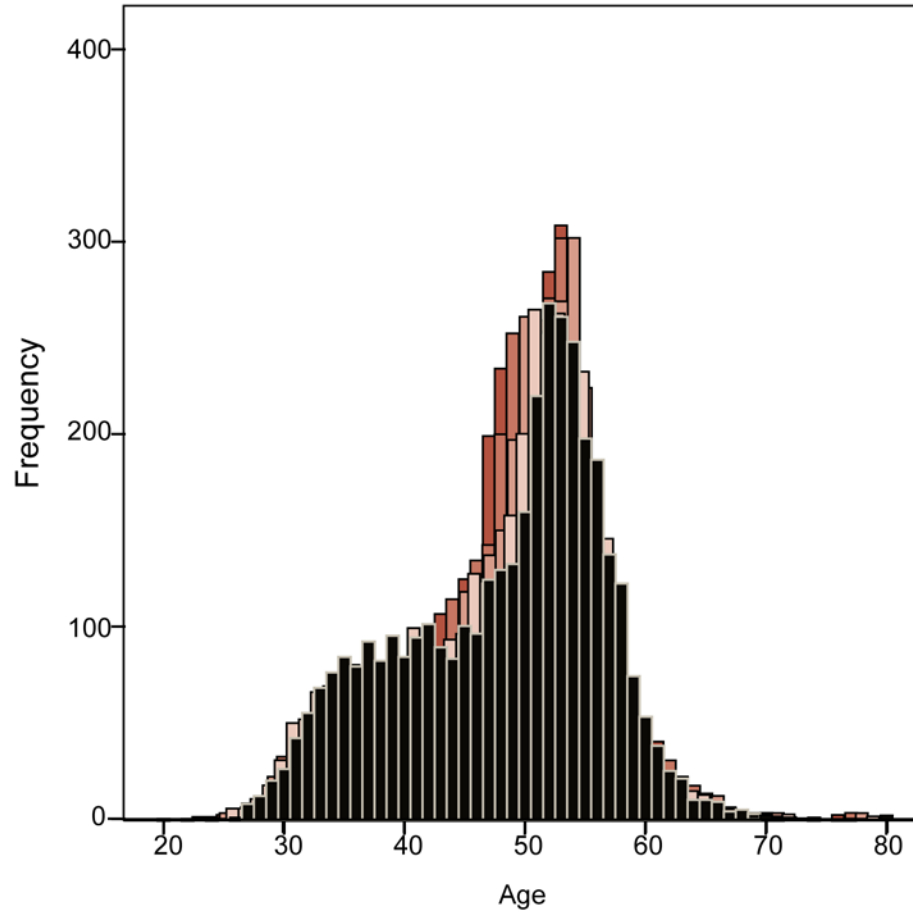
2003



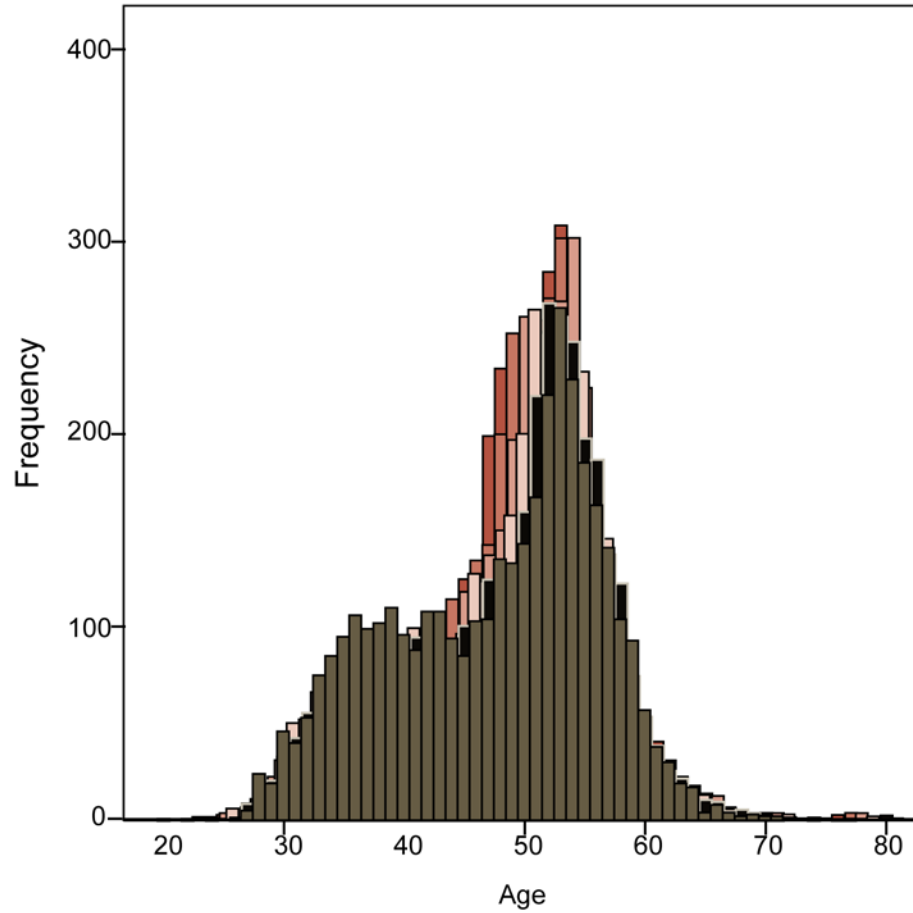
2004



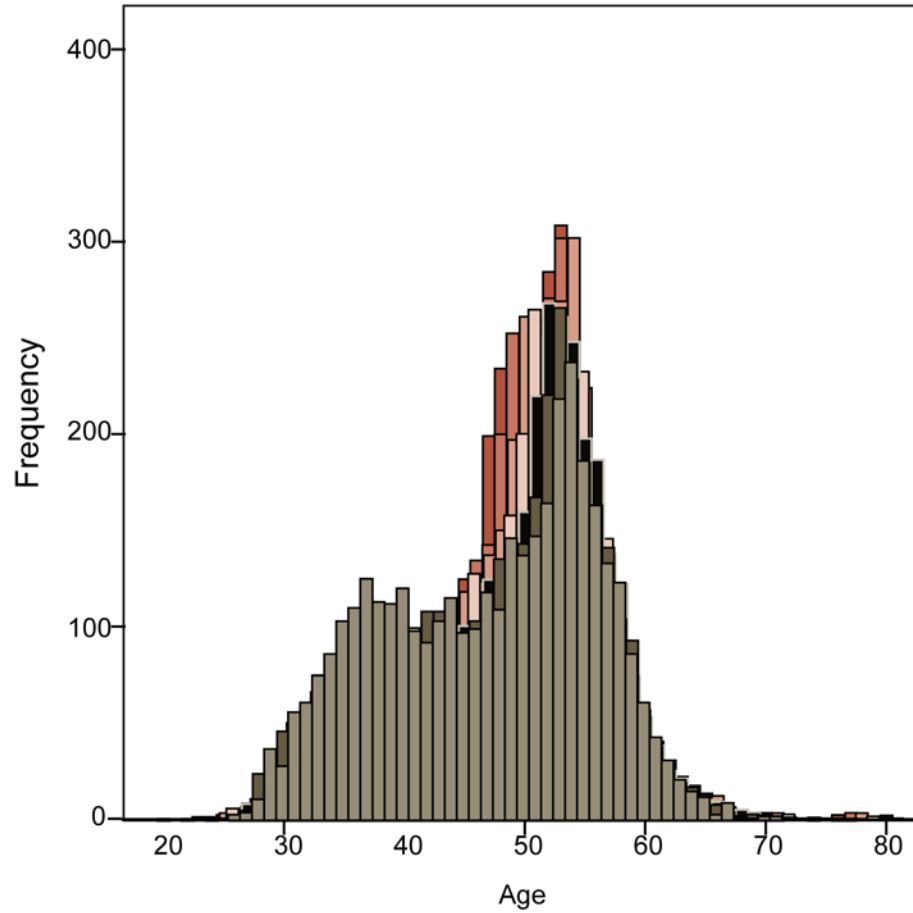
2005



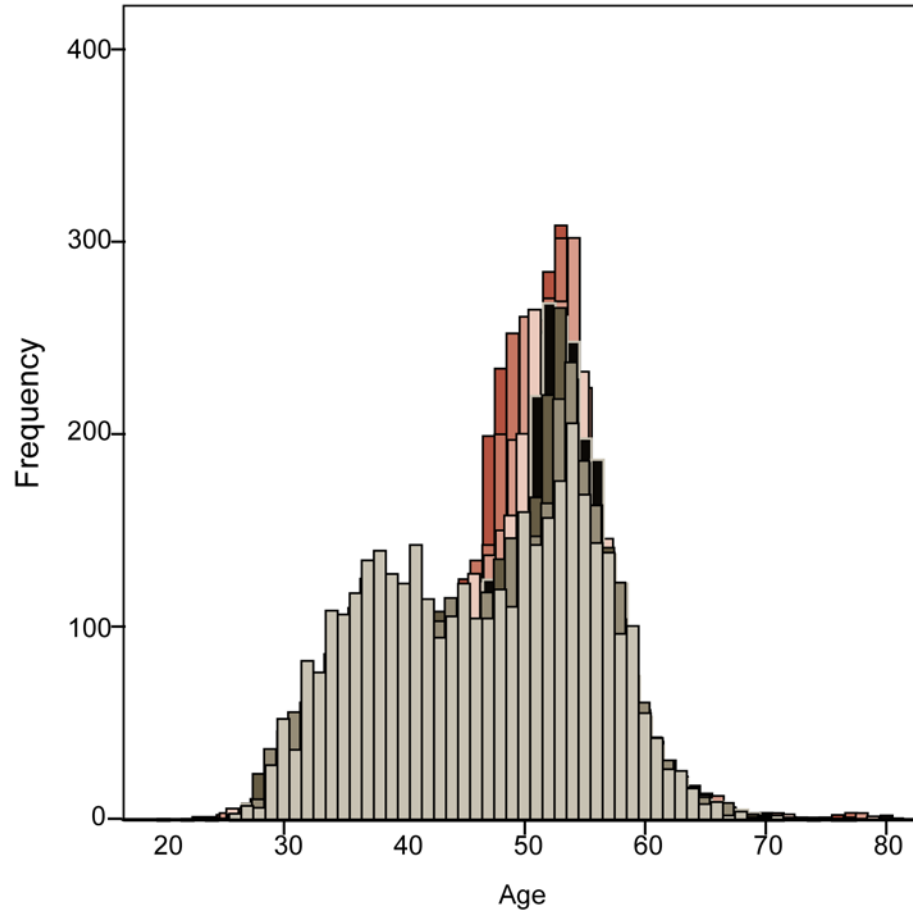
2006



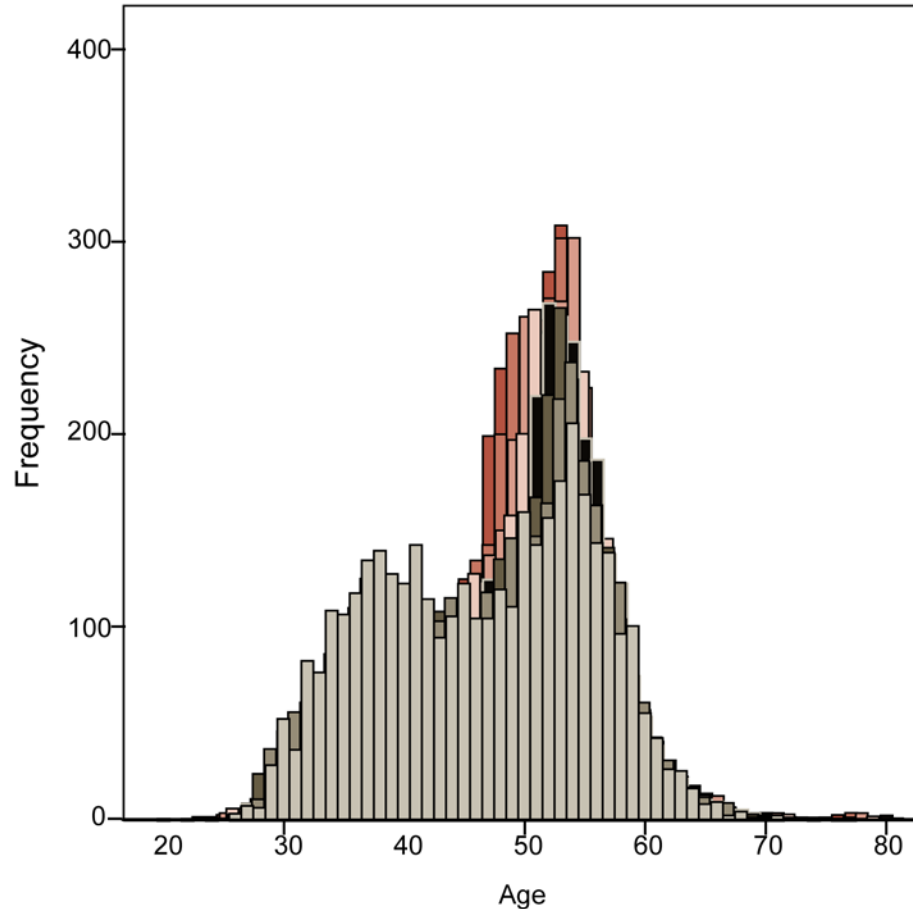
2007



2008

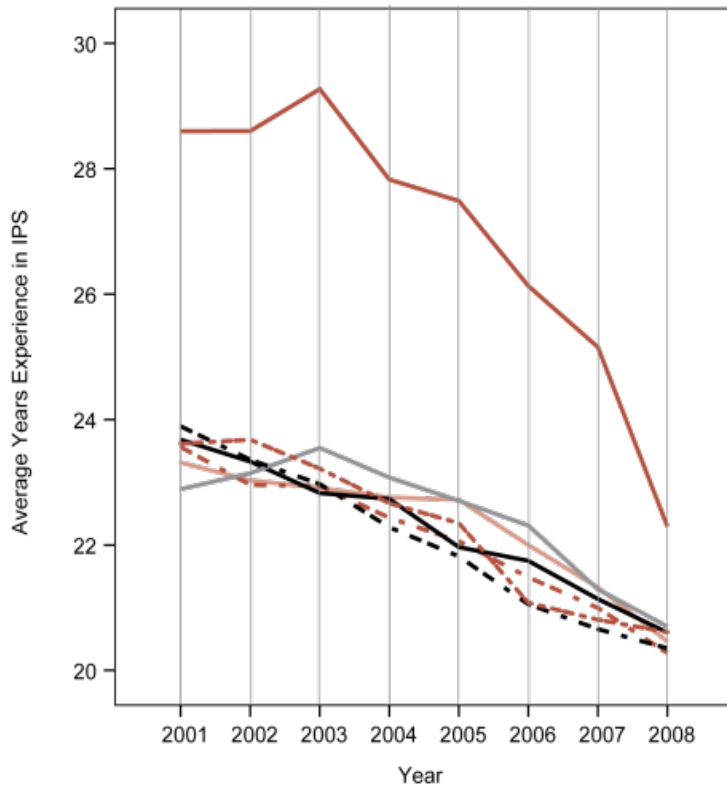


Illinois principals are getting younger on average, and distribution becoming less normal, more bimodal

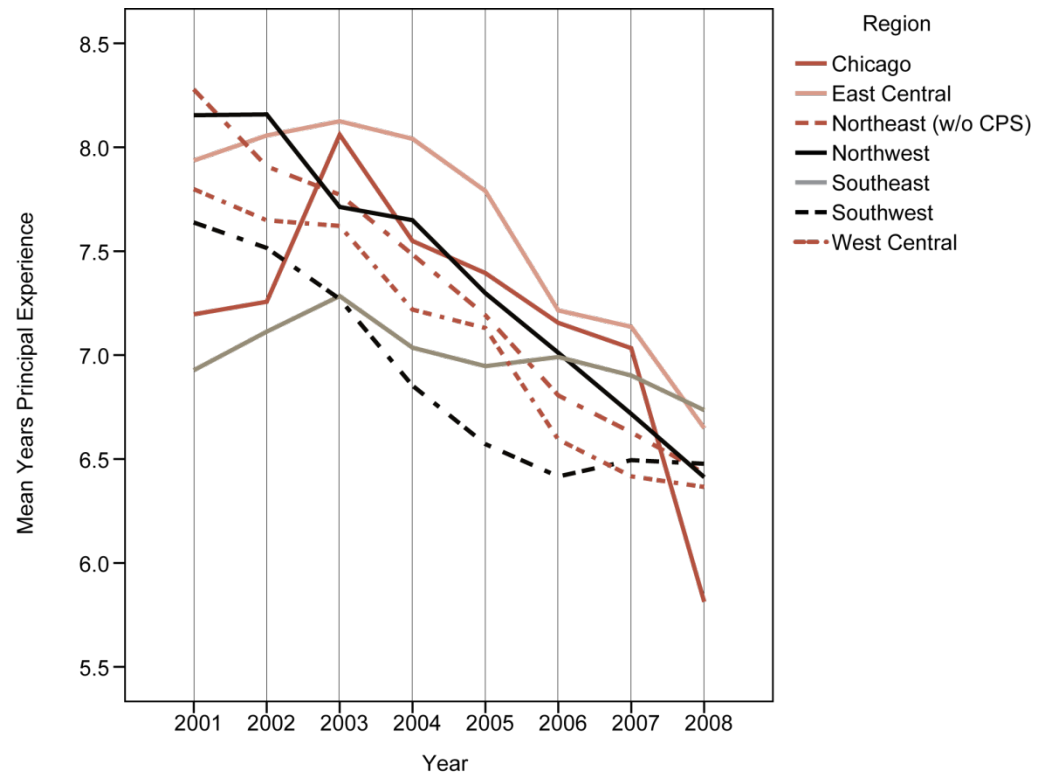


Principal Experience by Region

Experience in Any Position

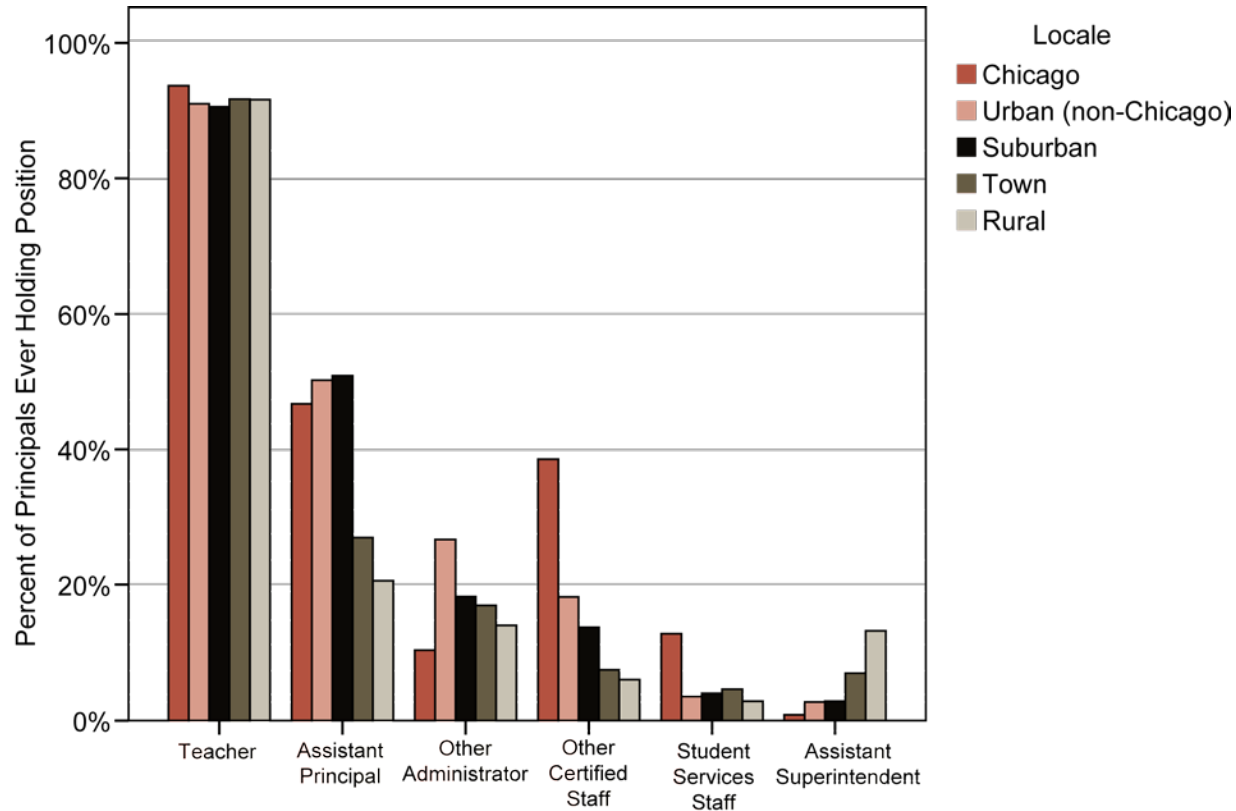


Experience as a Principal



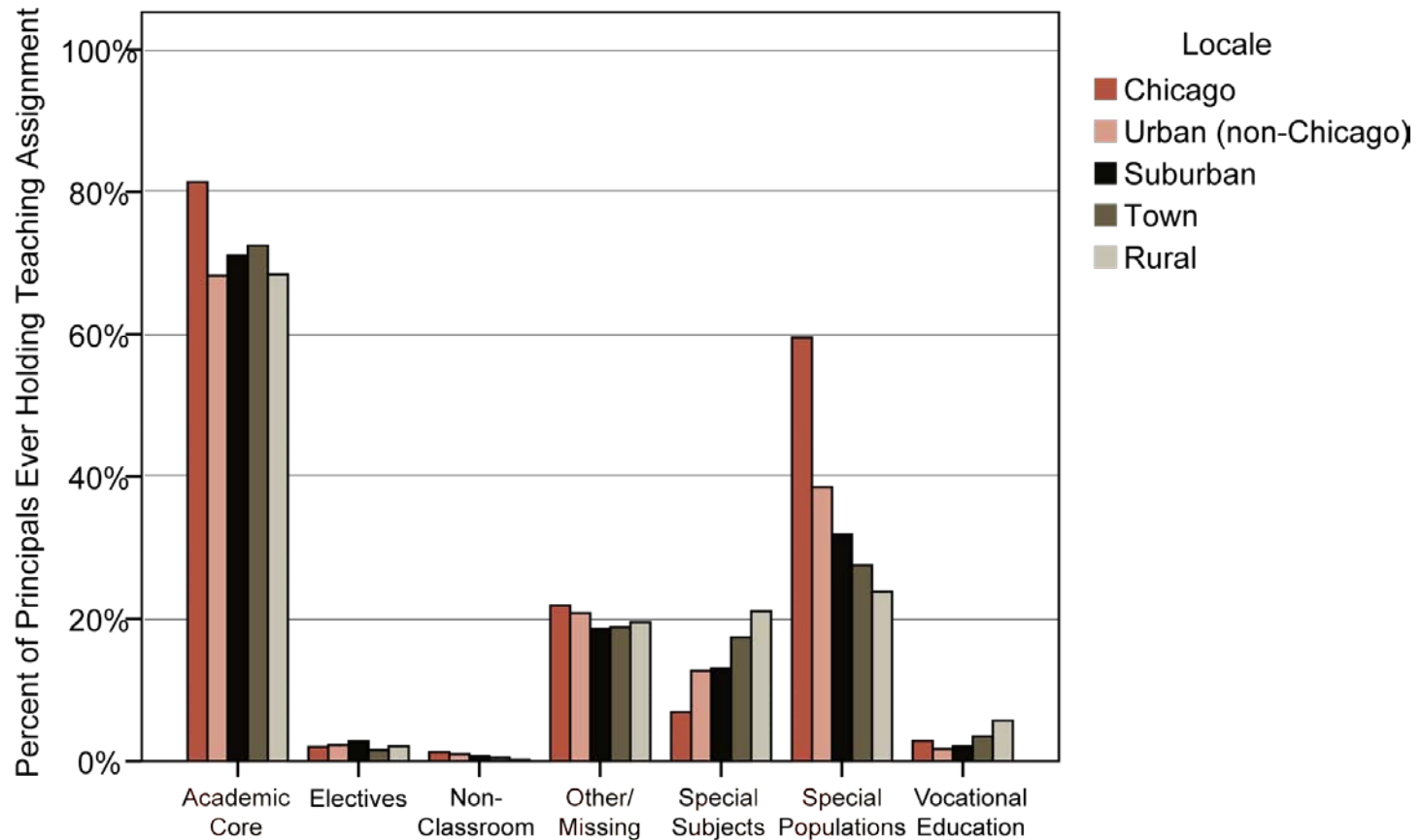
Chicago principals have more overall experience, but there's not much difference between regions in terms of experience as a principal

Principals' Previous Positions by Locale



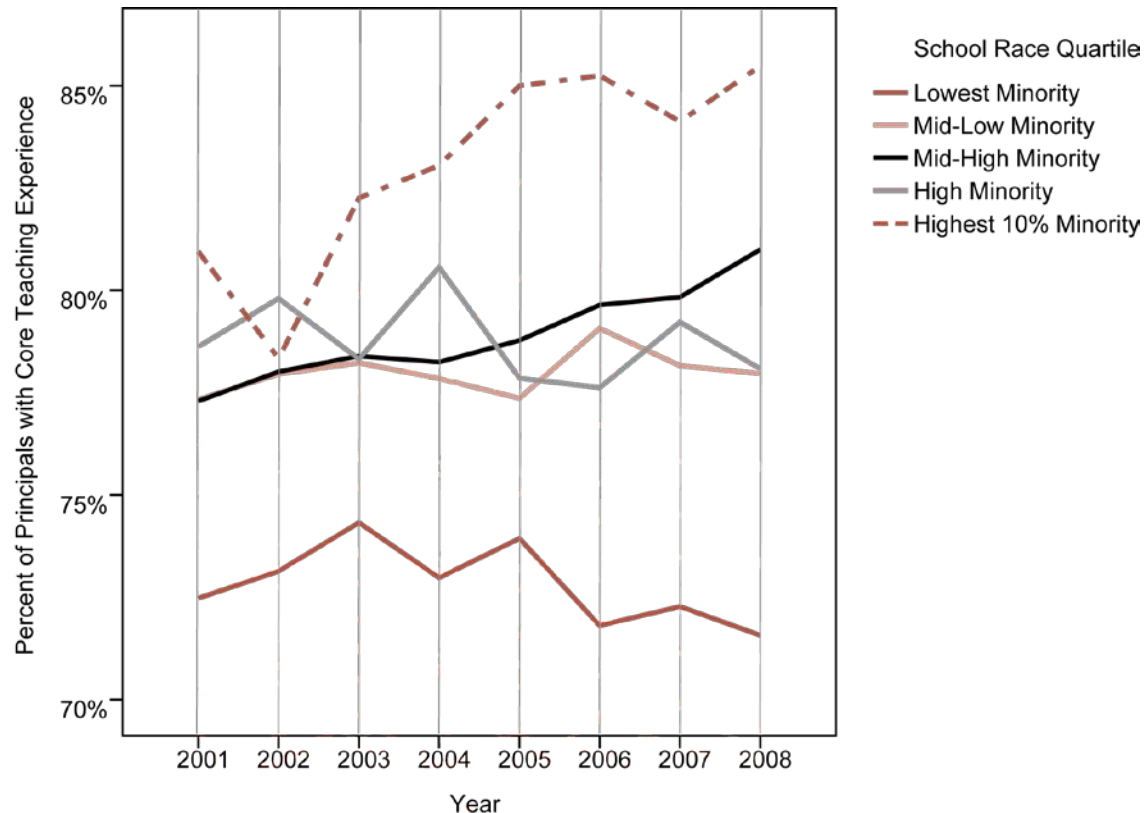
Principals in town/rural schools were less likely to have experience as APs, other certified staff, or student services, and more likely to have worked (or to concurrently work) as superintendents/asst supts.

Principals' Prior Teaching Assignments by Locale



Principals in more populous locales are more likely to have experience teaching special student populations and less likely to have experience teaching “specials” (such as art or PE)

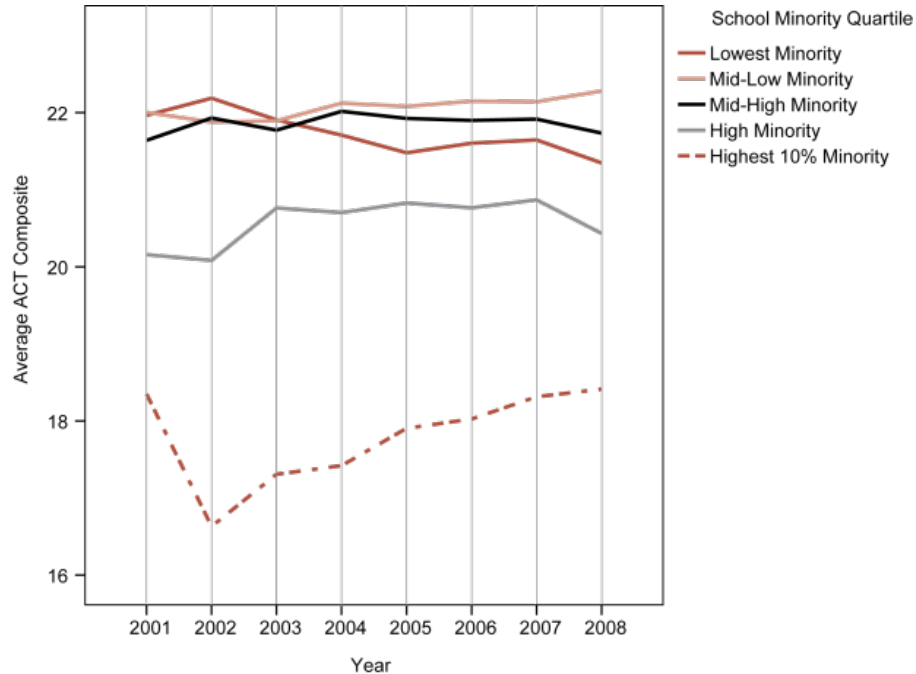
Academic Core Teaching Experience by School Racial Composition (Non-CPS Schools)



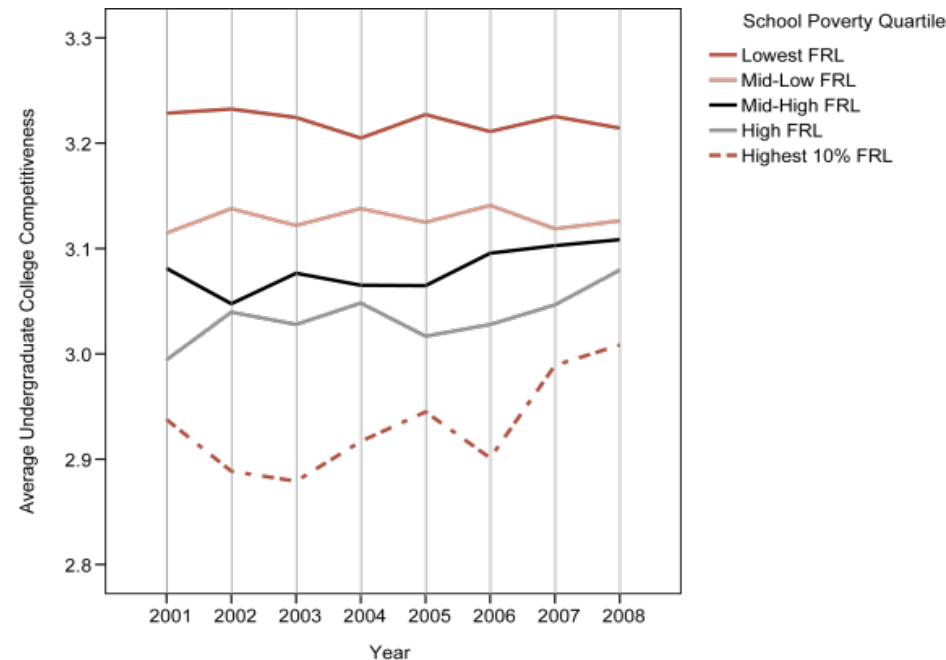
Even excluding Chicago, principals in high-minority schools are more likely to have an academic core teaching background

Principal Academics by School Demographics

Principal ACT by School Minority



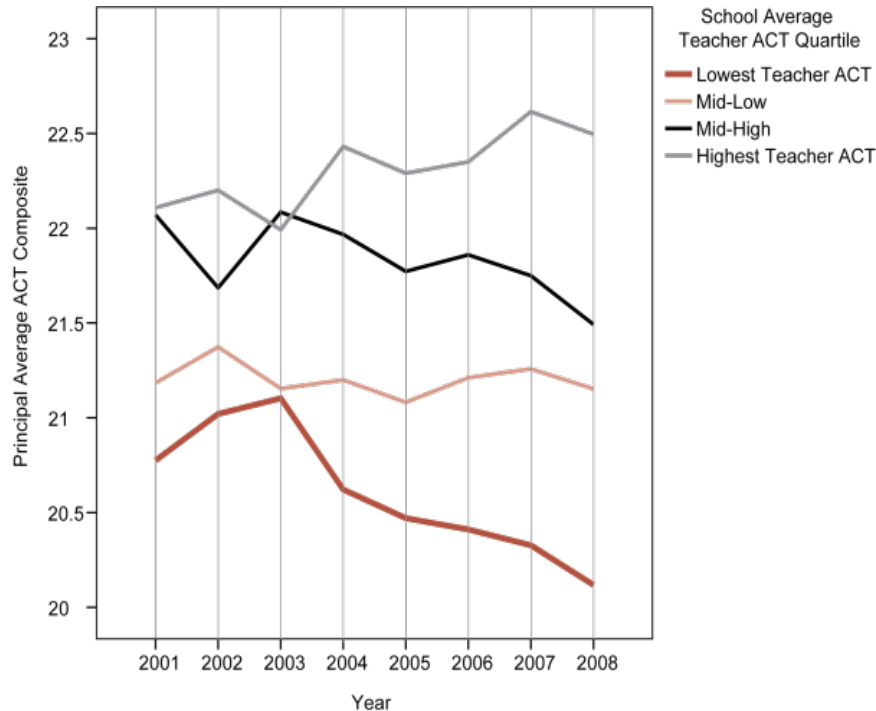
Principal College by School Poverty



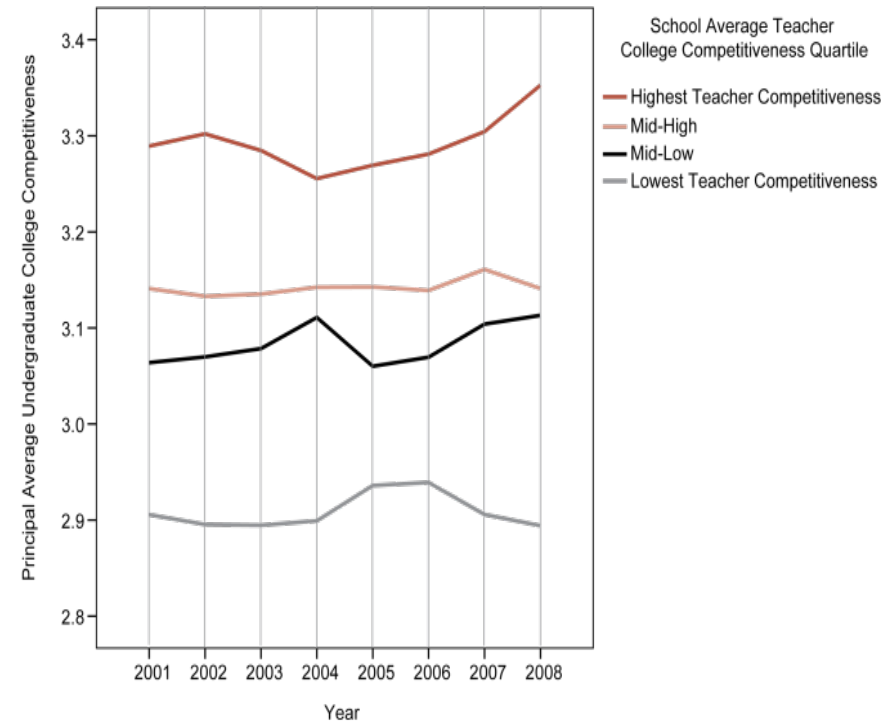
The principals in the most disadvantaged schools tend to have the weakest academic backgrounds

Principal Academics by Teacher Academics

ACT Composite



College Competitiveness



Principals' academic characteristics tend to be similar to those of the teachers at their school

Summary: Distribution of Principal Characteristics 2001-2008

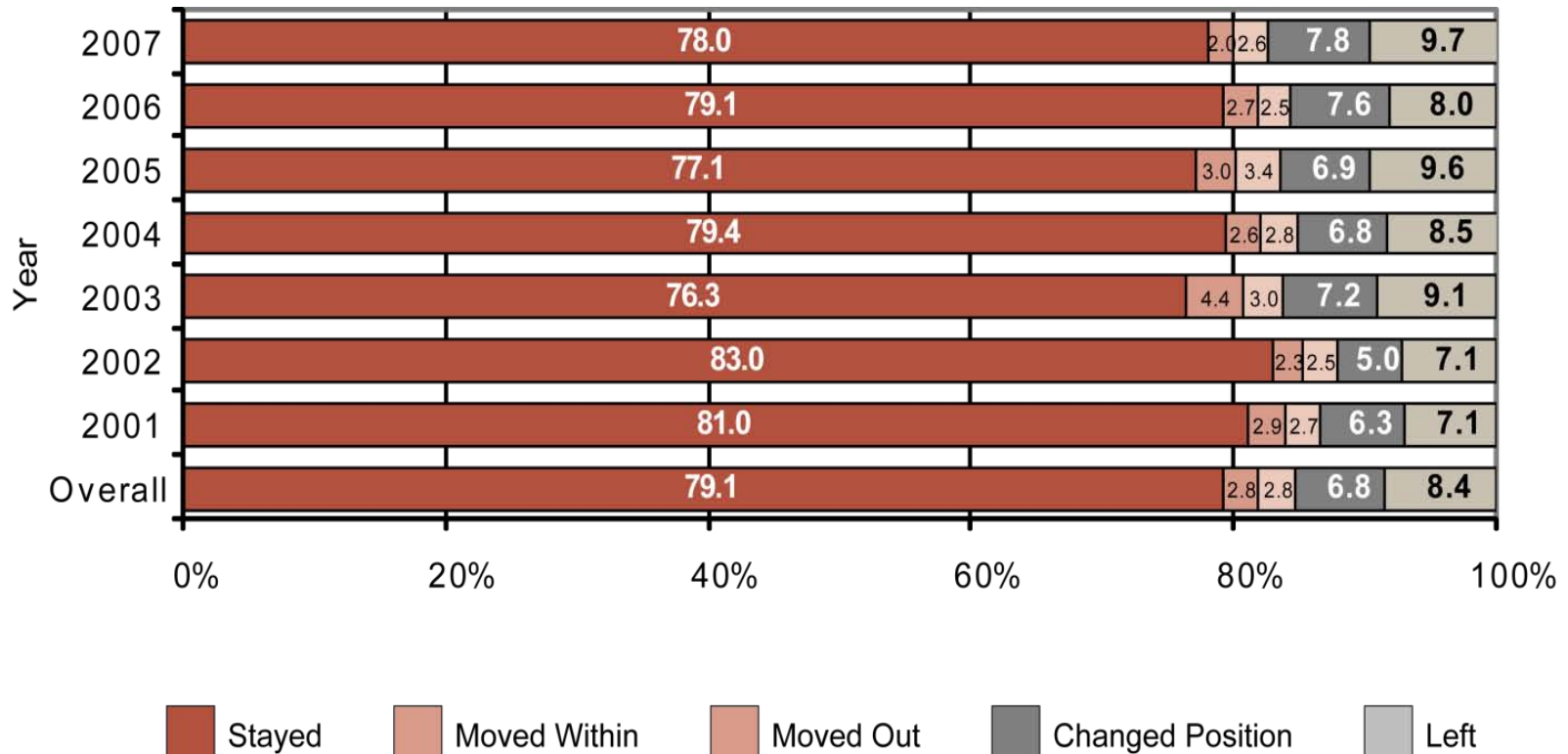
- Proportion of women increased to more than 50% and proportion of minorities *slightly* increased
 - Principals in more populous areas (Chicago/ Northeast/ urban/suburban) are more likely to be minorities and more likely to be women
- Today's principals are younger and less experienced than those eight 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

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

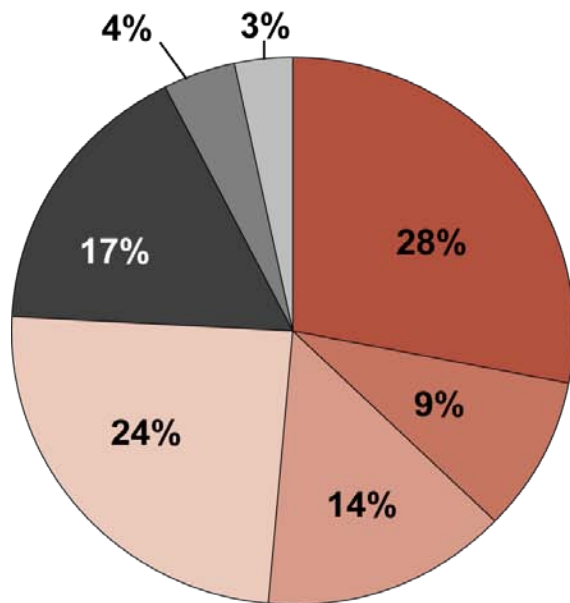


Decline in principal stability

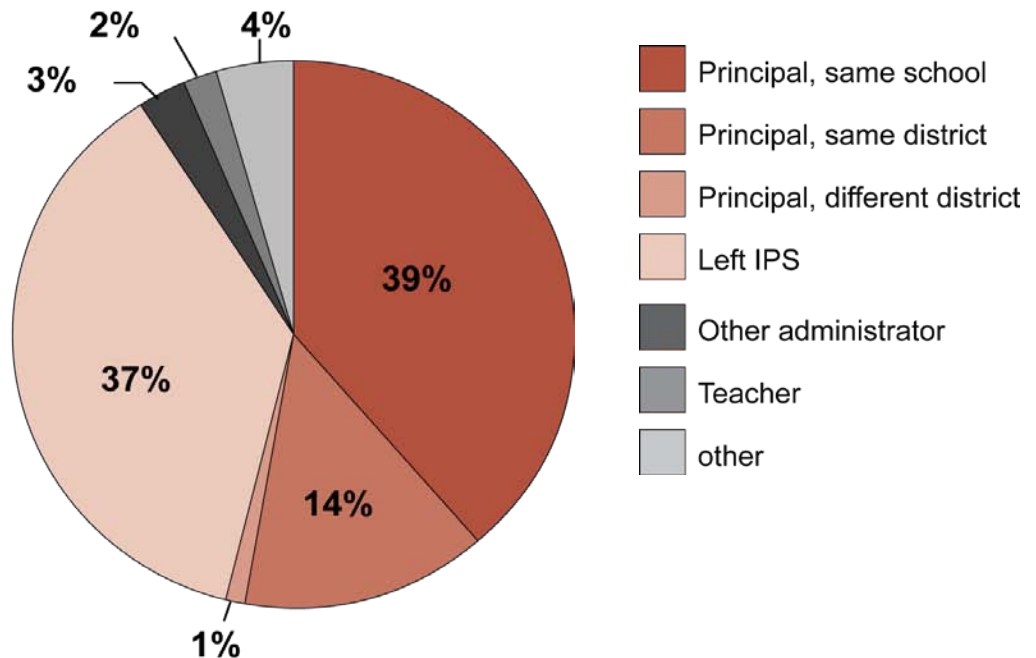
(79% stay rate now vs. 86% in the 1990s)

First-Time Principal Turnover: 2001 & 2002 cohorts after six years

Illinois



Chicago

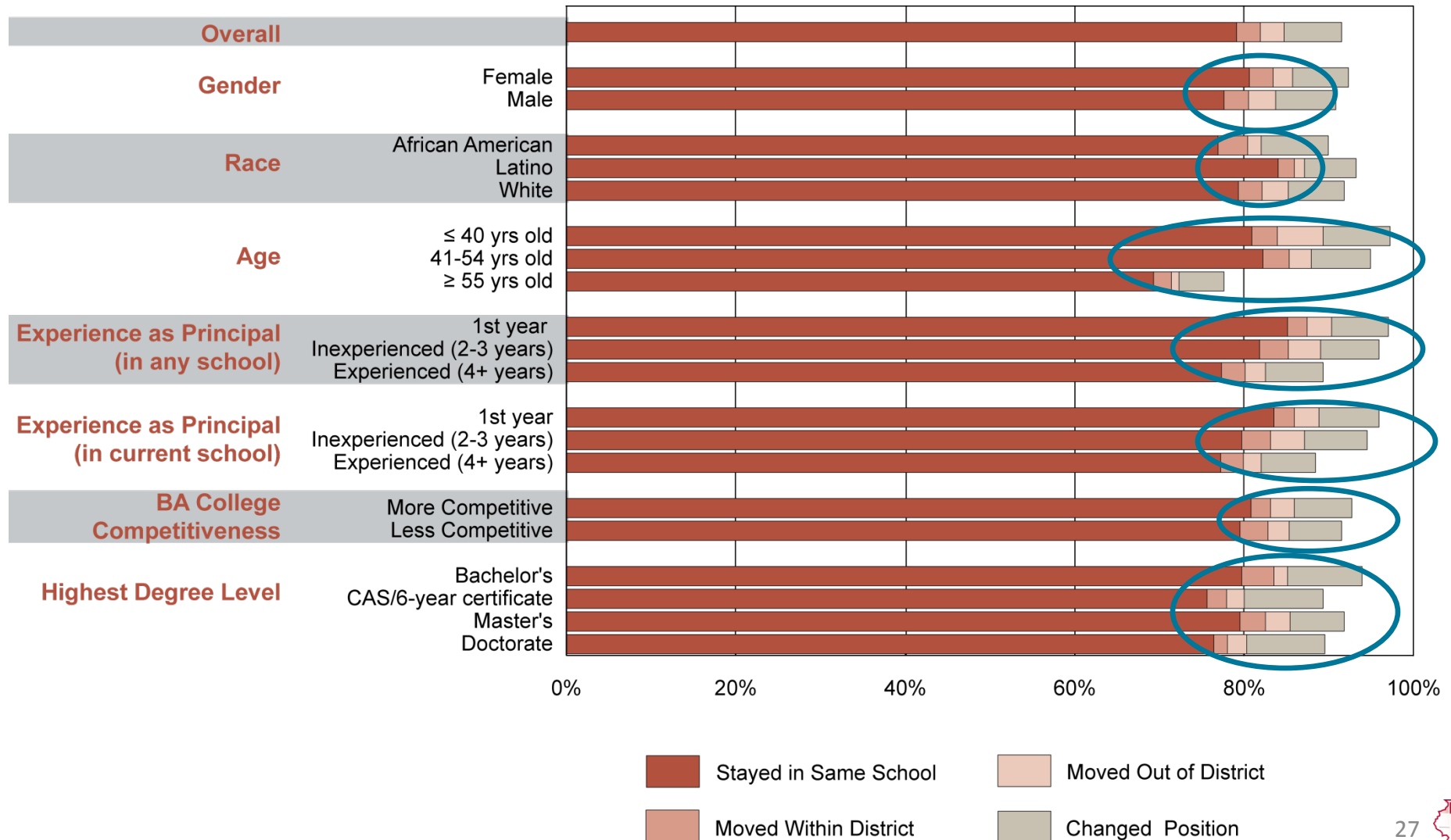


Decline in stability for first-time principals too

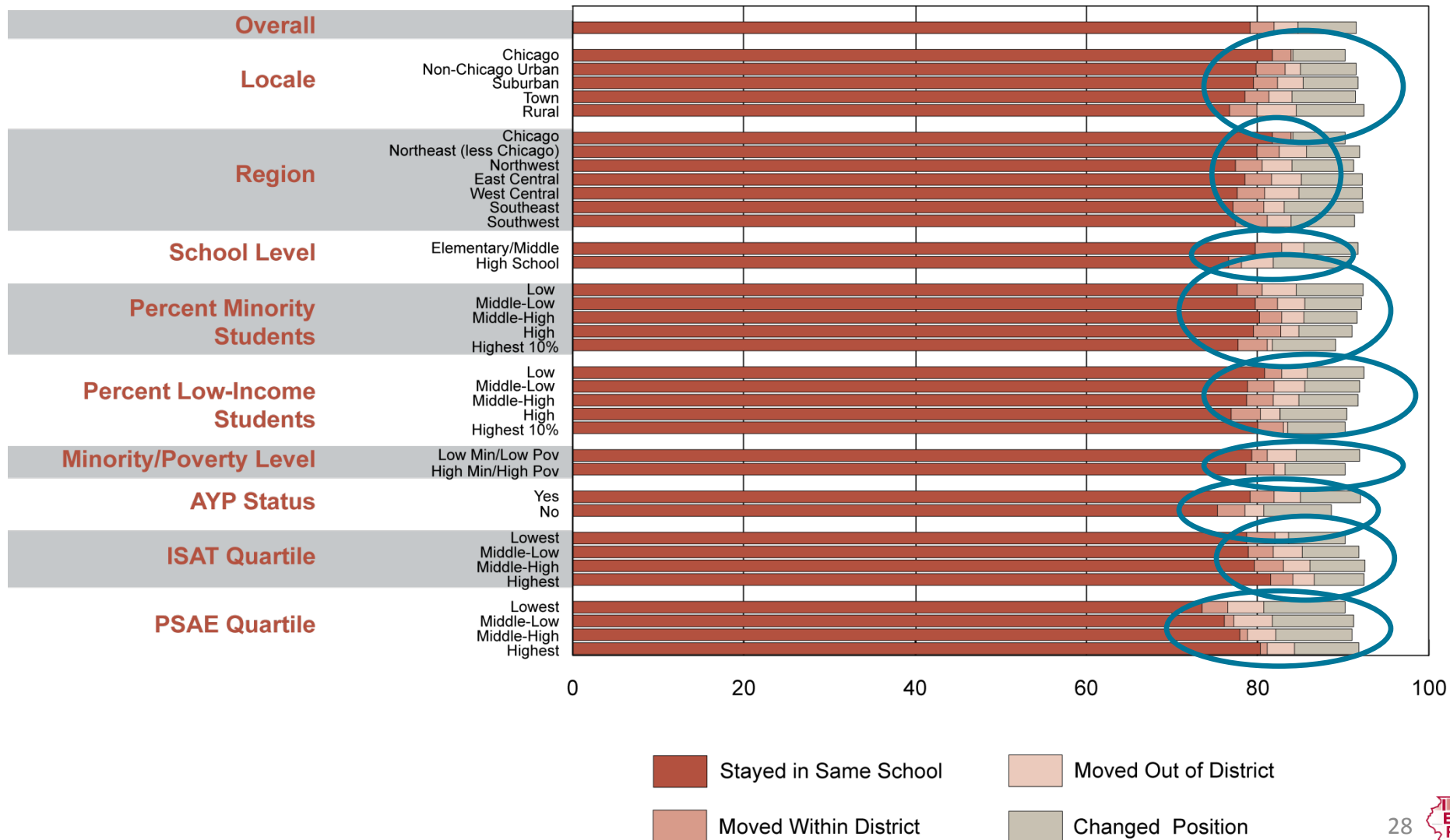
(State: 28% now vs. 38% in 1990s)

Chicago: 39% now vs. 53% in 1990s)

Average Turnover Rates by Principal Characteristics

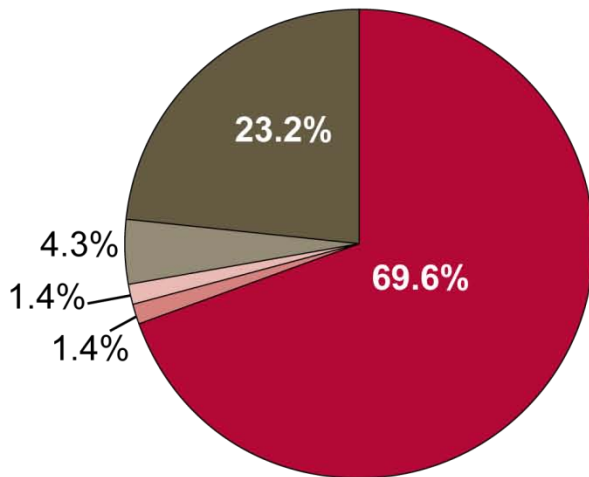


Average Principal Turnover Rates by School Characteristics

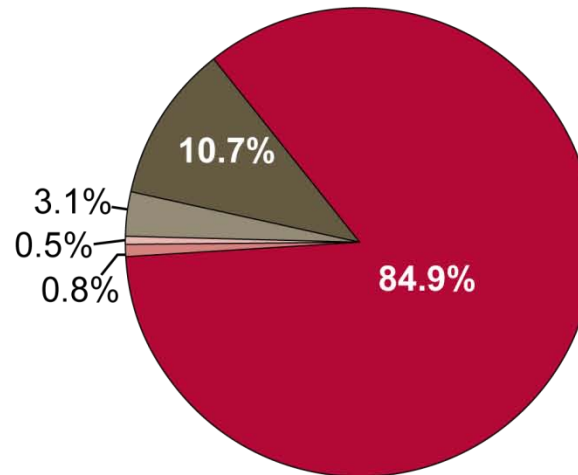


Leavers: Average Rates of Return

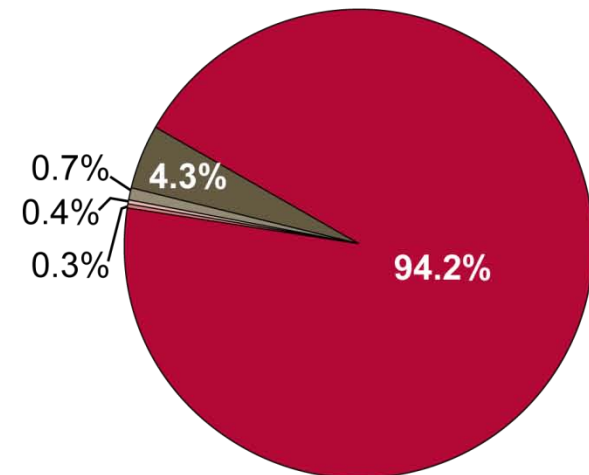
≤ 40 years old



41 – 54 years old



≥ 55 years old



Most who leave don't return (though younger leavers more likely to do so)

Leavers: Reasons for Leaving

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

^a 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

	% Minority Students		% Low-Income Students		Mean Achievement (standardized score)		Mean Teacher ACT Score		% Inexperienced Teachers	
	Initial	Receiving	Initial	Receiving	Initial	Receiving	Initial	Receiving	Initial	Receiving
Overall	38.4	39.5*	43.4	42.2 [†]	-0.10	-0.13	20.9	21.0	17.2	18.4*
Chicago	95.1	93.8	87.0	84.4	-1.53	-1.47	19.7	19.8	19.6	22.5 [†]
Non-CPS Urban	52.3	52.4	54.7	47.3**	-0.32	-0.35	21.2	21.2	17.3	17.4
Suburban	43.5	45.6**	37.9	38.3	0.02	-0.04	20.8	21.0	18.8	21.3**
Town	13.2	12.0	42.6	38.8	0.20	0.26	21.2	21.1	12.2	10.4
Rural	5.4	7.1**	26.7	27.5	0.40	0.34	21.2	21.3	15.0	15.0

Within district movers experienced very little change in student and teacher characteristics

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

* $p \leq .05$
 ** $p \leq .01$
 *** $p \leq .001$
[†] $p \leq .10$

Out-of-District Movers: Characteristics of initial and receiving schools

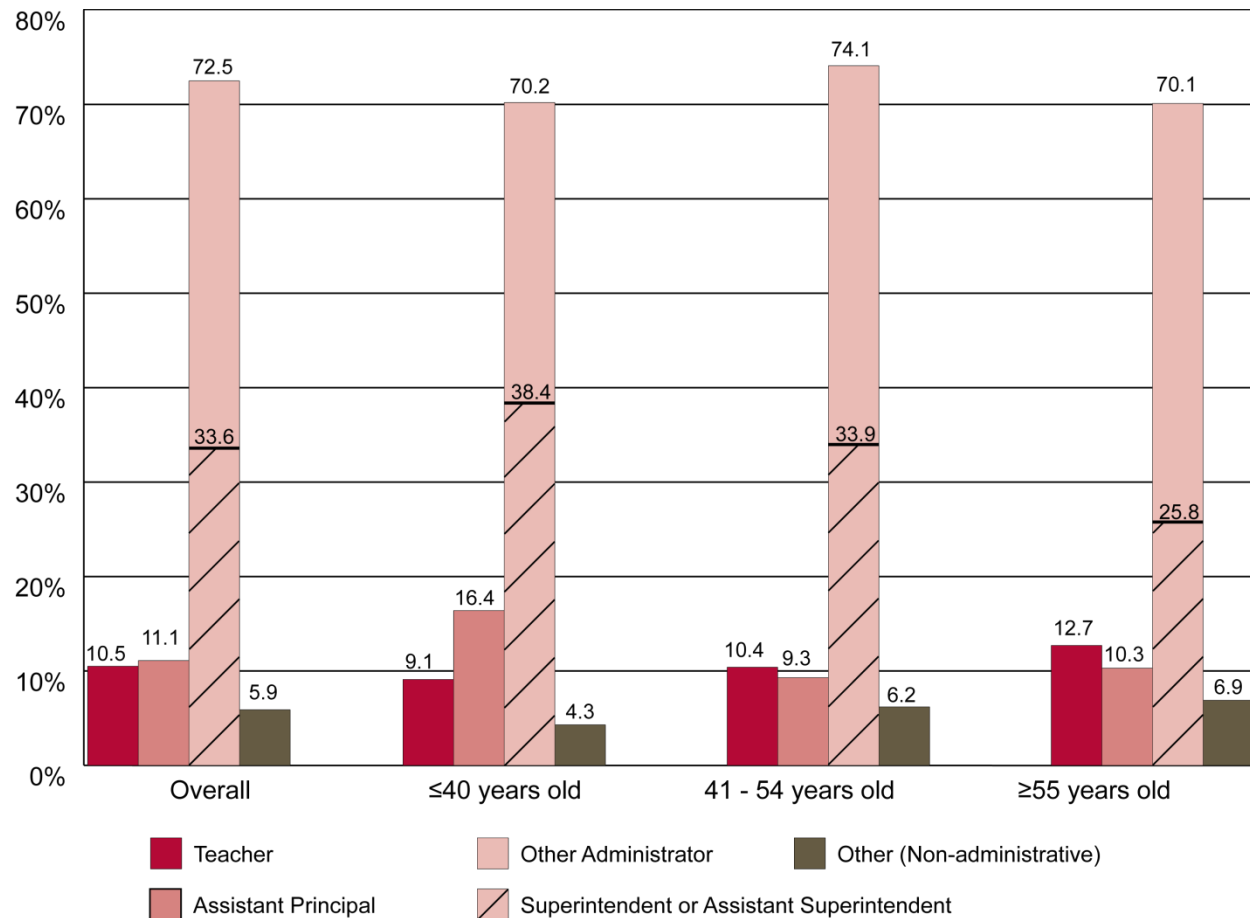
	% Minority Students		% Low-Income Students		Mean Achievement (standardized score)		Mean Teacher ACT Score		% Inexperienced Teachers	
	Initial	Receiving	Initial	Receiving	Initial	Receiving	Initial	Receiving	Initial	Receiving
Overall	24.8	24.9	29.5	27.8 [†]	0.16	0.29***	21.4	21.5*	18.6	17.7
Chicago	92.7	66.7	87.5	42.9**	-1.42	-0.47 [†]	19.8	21.1	23.8	23.7
Non-CPS Urban	48.5	33.9**	40.0	29.8*	-0.02	0.28 [†]	21.6	21.6	19.2	16.8
Suburban	37.8	34.7 [†]	28.0	24.9*	0.21	0.37**	21.3	21.6***	20.1	19.1
Town	10.8	14.3	36.2	30.0 [†]	0.12	0.23	21.4	21.5	11.8	13.9
Rural	6.1	2.8***	26.5	30.1**	0.18	0.22	21.6	21.5	18.2	16.8

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

Multinomial logit model of principal turnover, 2003-2007 cohorts: Part 1 *(Stayed in the same school is the reference outcome)*

Principal Characteristics		Moved Within District	Moved Out of District	Changed Positions	Left IPS
Gender (Male is reference)	Female	0.73*	0.95	0.97	0.83**
Race/Ethnicity (White is reference)	African American	1.27	1.26	1.24†	1.16
	Latino	0.41*	1.47*	1.06	0.94
Age		1.19*	1.01	1.02	1.02
Age²		0.99*	1.00	1.00	1.00
Degree Level (BA is reference)	CAS	0.53	1.47	1.04	1.15
	Master's	0.68	1.63	0.76	1.23
	Doctoral	0.49*	1.88	1.19	1.29
BA competitiveness ranking (Competitive/very competitive is reference)	Highly/most competitive	0.92	1.04	1.04	0.93
	Less/non competitive	1.09	1.02	0.88	0.94
Years of principal experience (1 st year is reference)	2 years	1.76**	1.56*	0.94	1.16
	3 years	1.53†	2.03***	1.45**	1.36
	4 years	1.88**	2.58***	1.36*	1.58*
	5 years	1.93**	1.82**	1.50**	1.67**
	6 years	1.92**	2.64***	1.46*	1.52*
	7 years	2.41***	1.86*	1.81***	2.27***
	8 years	1.45	2.36**	1.52*	2.60***
	9 years	1.32	1.40	1.72***	2.24***
	10 years	1.62†	2.21**	1.38†	2.29***
	11 years	1.11	2.33**	1.24	1.92***
	12 years	1.17	1.53	1.44†	2.36***
	13 years	2.08**	1.55	1.49†	3.72***
	14 years	0.74	0.70	1.41	2.97***
	15 years	1.24	1.46	1.10	1.85**
	16 years	1.36	1.02	1.01	3.48***
	17 years	1.49	1.54	1.09	3.65***
	18 years	1.41	0.45	1.53	3.45***
	19 years	2.23†	0.53	0.78	3.08***
	20+ years	0.60	0.43	0.56†	3.82***

Note: Relative risk ratios are reported. All models include year dummies.

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

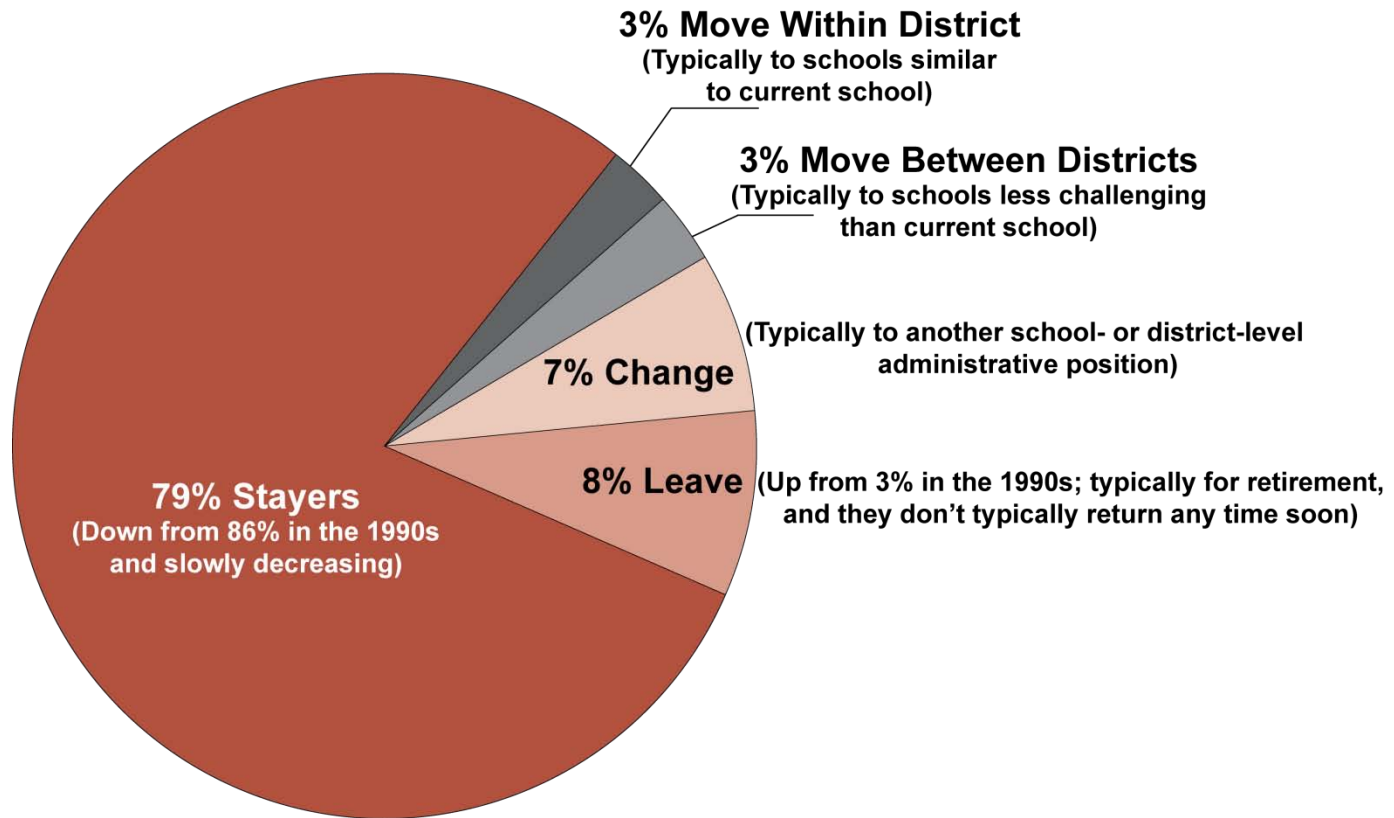
Multinomial logit model of principal turnover, 2003-2007 cohorts, Part 2 *(Stayed in the same school is the reference outcome)*

School Characteristics		Moved Within District	Moved Out of District	Changed Positions	Left IPS
Locale (Suburban is reference)	Chicago	0.59*	0.02***	0.79	0.54***
	Non-Chicago Urban	1.07	0.71†	1.06	0.97
	Town	0.92	0.97	1.23	1.02
	Rural	1.24	1.26†	1.24*	1.05
School Level (Elementary/ Middle is reference)	High School	0.55***	1.35*	1.34**	1.02
% Minority Students		1.00	1.00	1.00	1.00
% Low Income Students		1.01*	0.99	1.00	0.99*
Mean standardized achievement score		0.98	0.72**	0.81**	0.81***
	AYP status (1=yes, 0=no)	0.75*	0.95	1.02	0.82*
School Size (in 100s)		0.92***	0.96*	1.00	1.00
Mean Teacher ACT composite score in school		1.01	1.06	0.99	1.00
% of Teachers in School with 3 or fewer years of experience		0.77	1.89	1.26	0.88
% Non-highly Qualified Teachers in School		1.01	1.02***	1.00	1.02***

Note: Relative risk ratios are reported. All models include year dummies.

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

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