



Illinois Teachers: Where they are teaching, and which new teachers are leaving.

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Two Illinois studies to be covered today

- **The distribution of teacher quality (teacher academic capital) – 140,000 Illinois teachers in 2002-2003**
- **New teacher attrition – 160,000 new Illinois teachers from 1971 to 2006**



What the research tells us about teacher quality and student outcomes

- **Selectivity of teacher's baccalaureate college**
 - *proxy for teacher's academic performance*
- **Years of teaching experience**
- **Teacher test scores**
 - *particularly for at-risk students*
- **Advanced subject-specific degrees**
 - *evidence limited to high school math and science*
- **Subject-specific teacher certification**
 - *evidence strongest for high school math*



Creating the Teacher Quality Index (TQI)

Note that weights are generated by Principal Components Analysis

School Level Teacher Characteristics

Weight

Teachers' Average ACT Composite Scores	0.861
Teachers' Average ACT English Scores	0.859
% of Teachers Failing Basic Skills Test on First Attempt	-0.691
% of Teachers with Emergency/Provisional Certification	-0.577
Teachers' Average College Competitiveness Ranking	0.520
<i>% of Teachers with 3 or Fewer Years' Experience</i>	<i>-0.044</i>

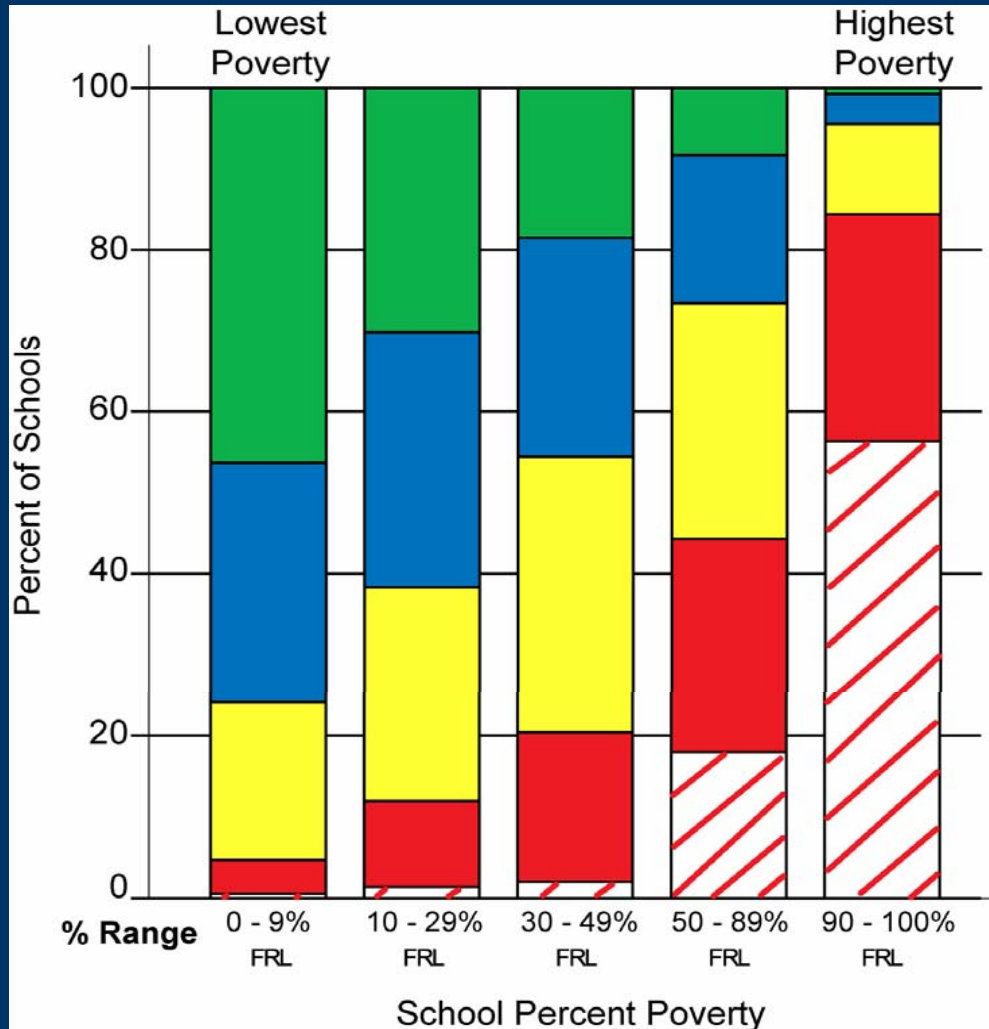
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ITAC = Index of Teacher
Academic Capital



Example of Distribution of School TQI: by School Percent Poverty

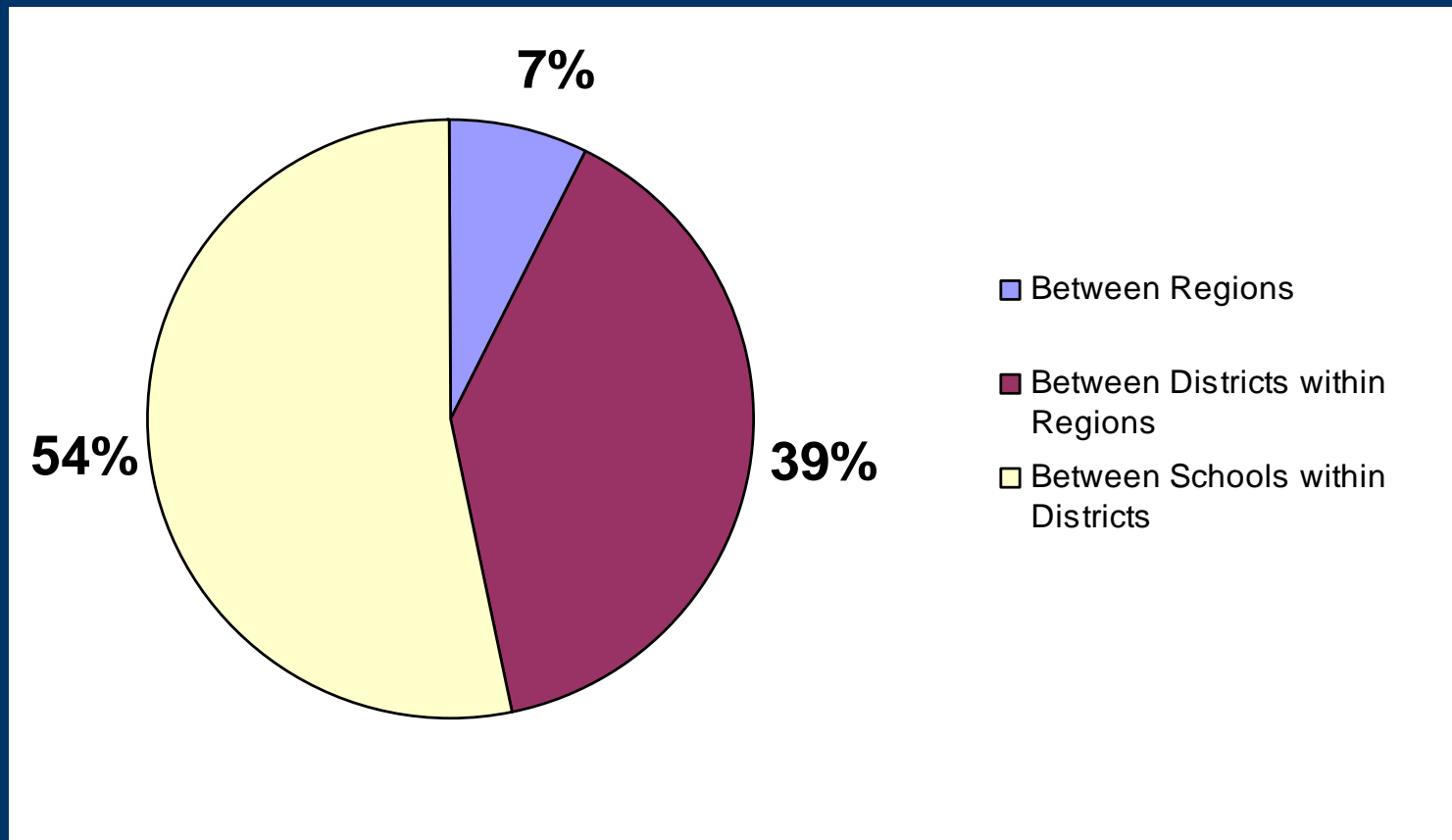


- *TQI distribution is related to school poverty levels.*
- *Pattern is similar for schools that are 50%- 100% minority.*





Sources of Variance in School TQI



- *Differences between schools within the same district are the biggest contributor to variation in TQI scores*



Teacher Academic Capital is related to school outcomes

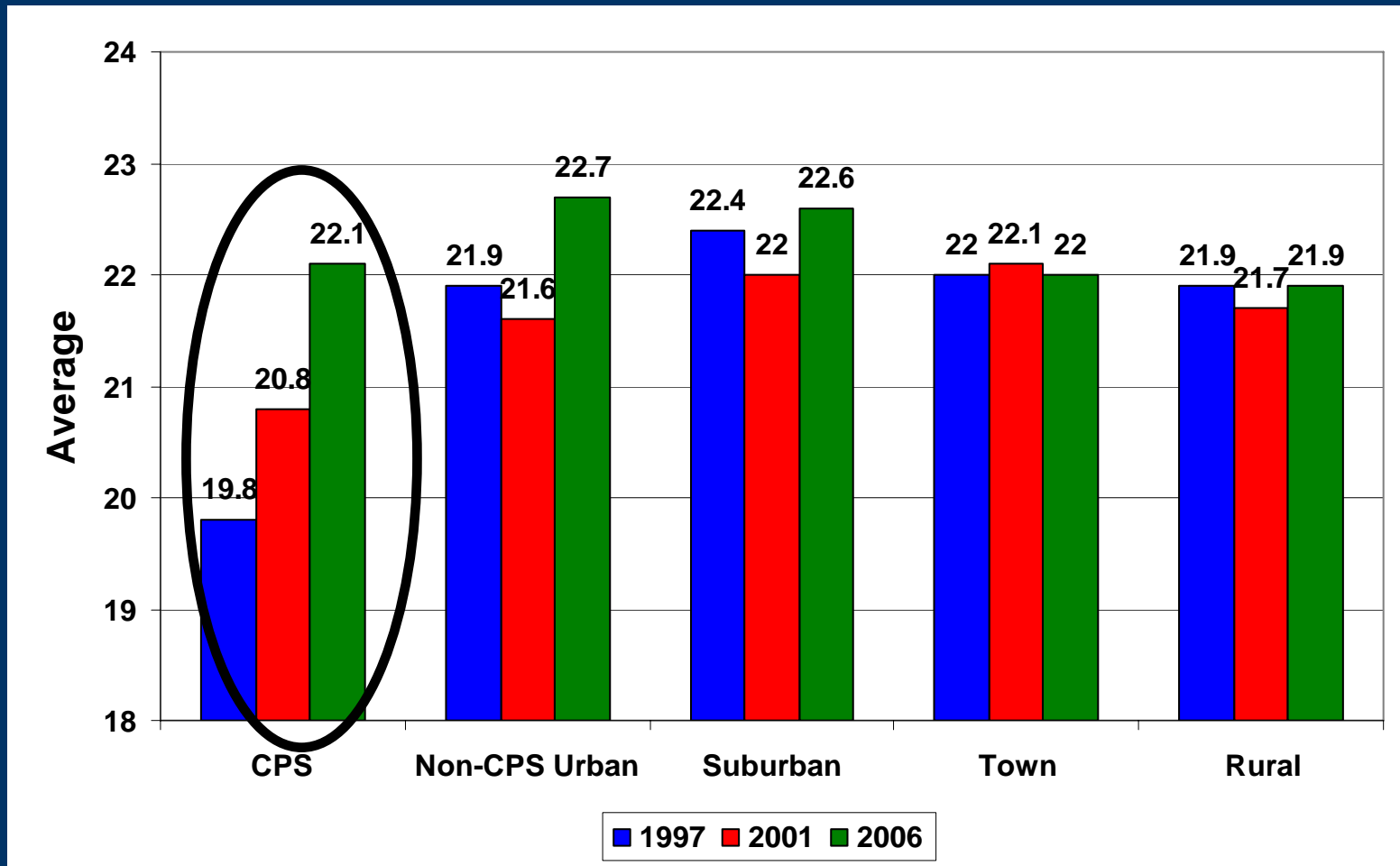
ELEM/MID SCHOOLS	All Schools	Chicago	Non-Chicago
Increase 1 SD Teacher Academic Capital	+.09	+.14	+.07
Increase 1 SD % Inexperienced	-.10	-.01	-.13

HIGH SCHOOLS	All Schools	Chicago	Non-Chicago
Increase 1 SD Teacher Academic Capital	+.28	+.24	+.31
Increase 1 SD % Inexperienced	+.00	+.02	-.01

- **ITAC** has positive relationship to school outcomes, especially for Chicago at both the elementary and high school levels, and for all high schools.
- **Teaching inexperience** has very little relationship to school achievement in Chicago, or in high schools state-wide; but it has a negative relationship (as would typically have been expected) at the elementary/ middle school level outside of Chicago



New teachers in Chicago are bringing stronger academic capital: Average ACT composite scores now on par with all new IPS teachers across the state





Review of Findings on Teacher Distribution

- TQI (ITAC) is distributed unequally by school percent poverty and percent minority.
- **Districts play an important role in teacher distribution.**
- **Teacher Academic Capital matters.**
 - It matters more for high-poverty/high minority schools,
 - And especially for high schools.
- **Recent new teachers are bringing stronger academic backgrounds, especially in Chicago and other urban locales. The implications for placement may contradict NCLB requirements.**



New Teacher Attrition

- Do 50 percent of new teachers in Illinois flee the profession within five years?
- To what extent does new teacher attrition differ across schools?



We looked at attrition from two perspectives:

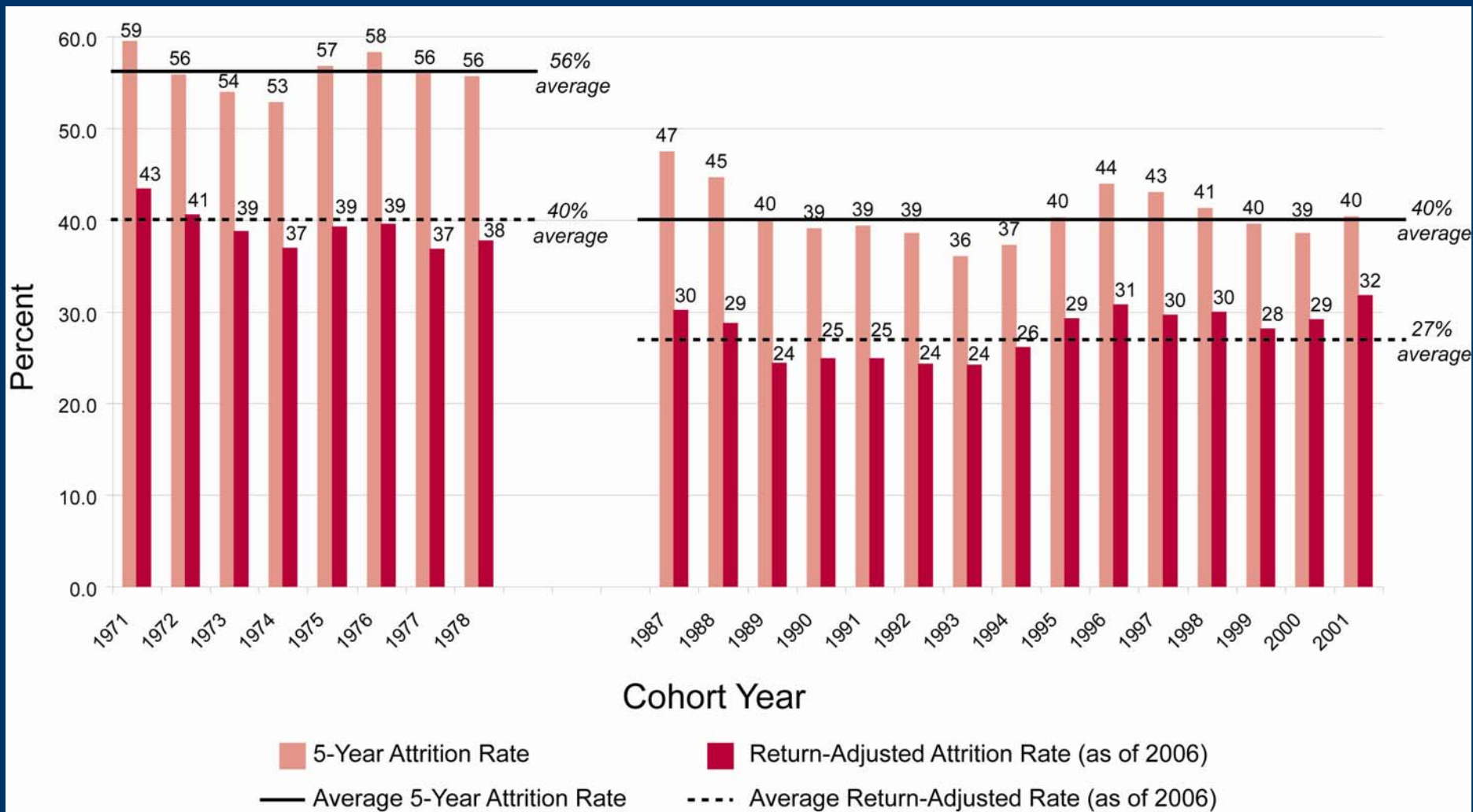
- **From the Profession:** departure of new teachers from teaching in Illinois public schools (IPS)
 - **Five-Year Attrition Rate** (a gap in teaching of at least one year by year 6)
 - **Return-Adjusted Attrition Rate** (return to teaching in IPS after at least a one-year gap during their first five years after entering IPS as a teacher). We can track new teachers for 36 years for the 1971 cohort and for six years for the 2001 cohort.
- **From Individual Schools:** departure of new teachers from teaching in their initial school (includes those who leave teaching in IPS, move to another IPS school to teach, and change to a non-teaching position in IPS). It is not return-adjusted.



1. Attrition from the Profession

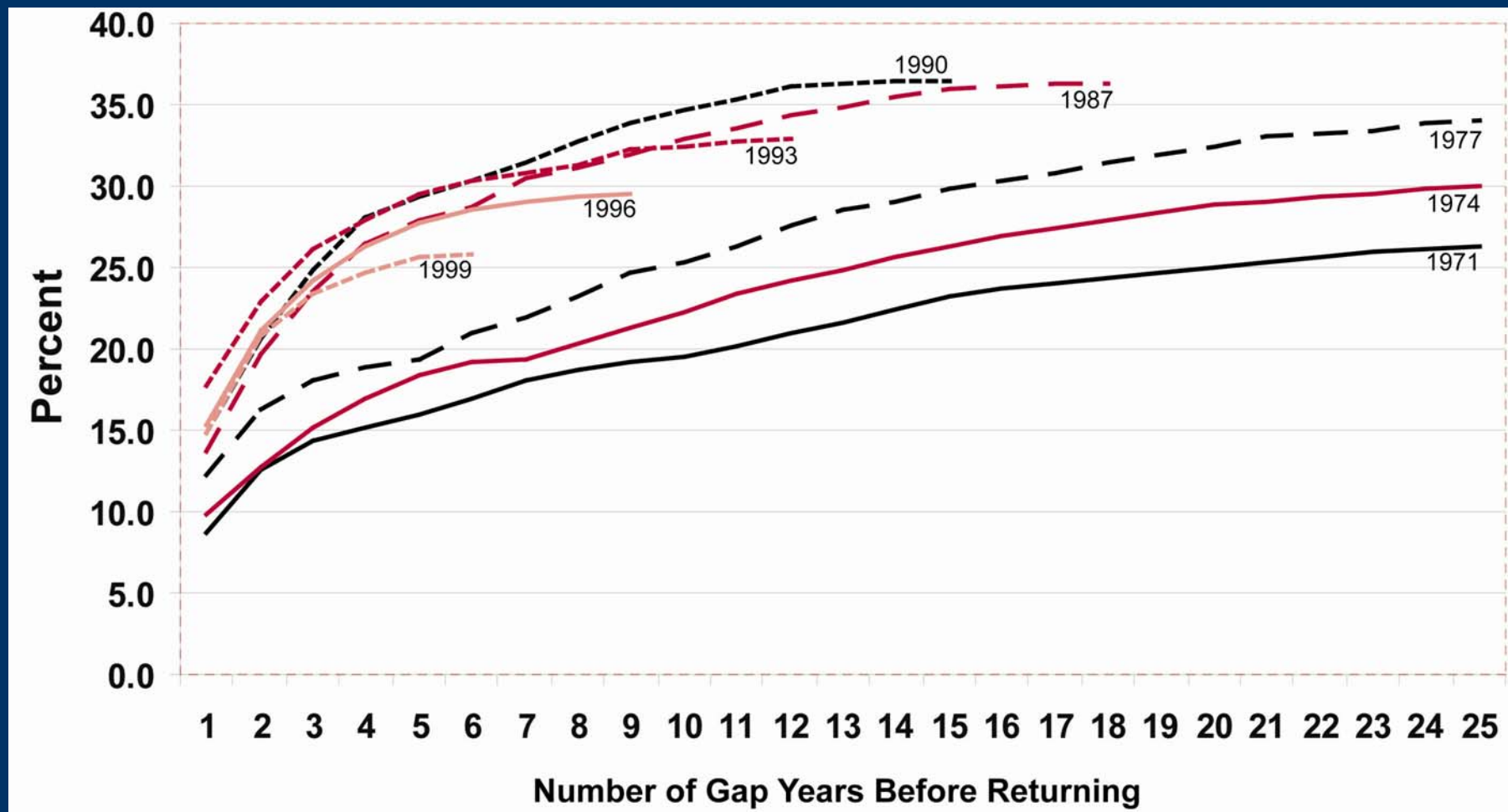


Five-year and return-adjusted attrition rates down since 1970s – now about 40%/27%





1990s leavers are returning sooner than teachers of the 1970s





New teachers are not scared away from teaching based on their first experience.

- For example, there is almost no difference in attrition from the profession whether teachers start at LL or HH minority/poverty schools. **But school performance matters.**
- Starting region matters most. CPS keeps most of its returning teachers.

Initial School Characteristics	Five-year attrition	Return-adjusted attrition (excluding returning to different school type)
Low minority/low poverty	40%	28% (33%)
High minority/high poverty	41%	26% (34%)
High performance	37%	30% (35%)*
Low performance	45%	33% (42%)*

Region in Illinois	Five-year attrition	Return-adjusted attrition (excluding returning to different region)
East Central	45%	30% (36%)
Southern Regions	35%	23% (27%)
CPS	40%	26% (28%)

*1999-2001 cohorts only. Return-adjusted rate may be somewhat lower with additional years of tracking.



There are some differences in attrition from the profession based on teachers' characteristics.

- Hispanic new teachers, and those 35 or older are most likely to stay in teaching – but the differences are quite small.
- Teacher academic capital matters most. Even so, two out of three academically skilled teachers stay.

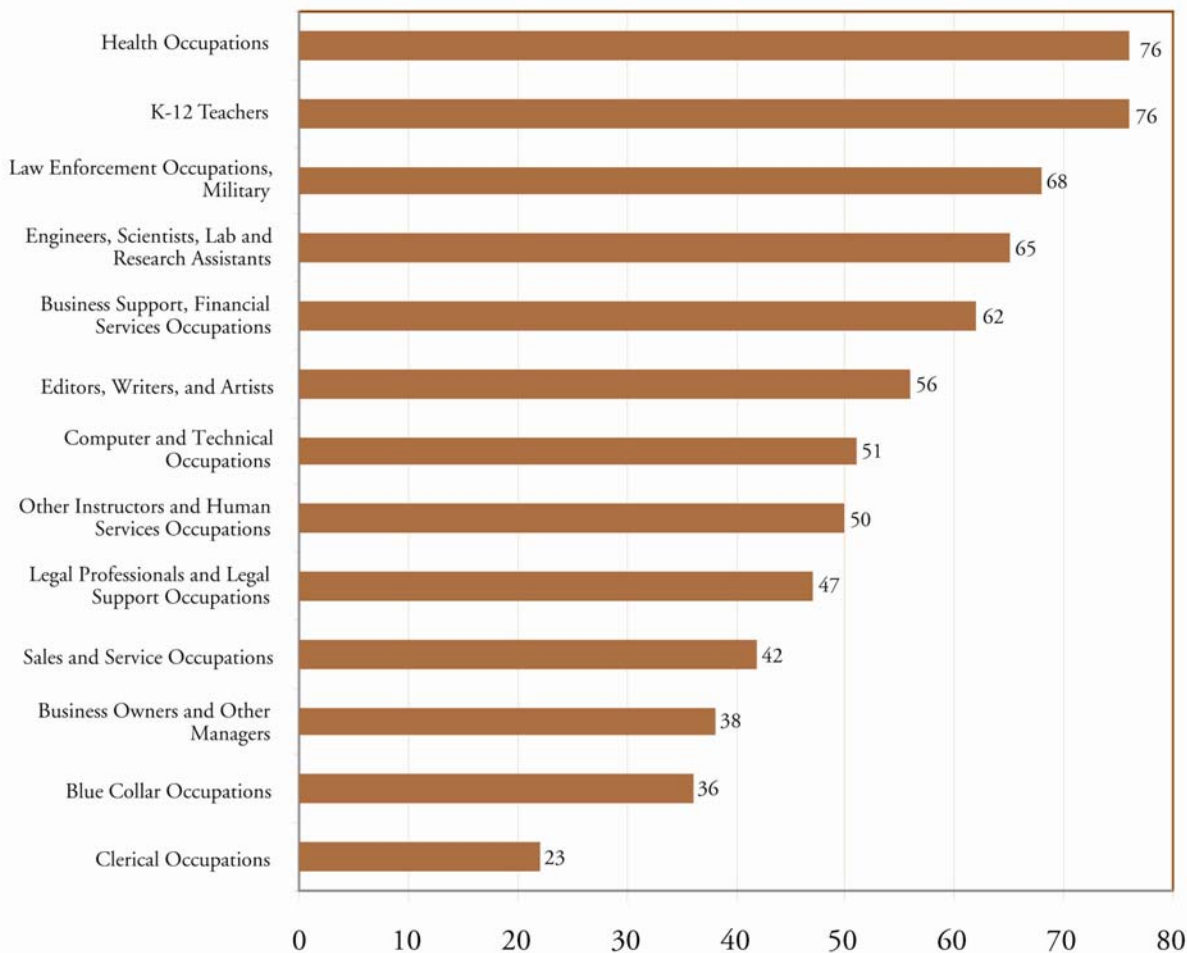
	Five-year attrition	Return adjusted attrition
Asian	43%	29%
Hispanic	36%	24%
<=25 at entry	42%	28%
26-34 at entry	43%	30%
>=35 at entry	35%	23%

	Five-year attrition	Return adjusted attrition
ACT 25 or more	48%	32%
ACT 18 or less	36%	22%
High college selectivity	48%	34%
Low college selectivity	35%	22%



Teaching is more stable than other occupations

Percent of 1992-1993 bachelor's degree recipients in same occupation in April 1994 and April 1997.



- Research shows that college entrants to the teaching profession (along with health occupations) are more likely to stay in this occupation than entrants to other occupations.



Key Findings: Attrition from the Profession

- New teachers' commitment to the profession in Illinois has improved since the 1970s, and is stronger than conventional wisdom would suggest.
- So, about one quarter of new teachers in Illinois public schools leave during their first five years and do not return, not the 50% commonly identified as “fleeing the profession.” Furthermore, recent cohorts return sooner than cohorts of the 1970s.
- There is variation across regions. However, CPS is very similar to the state average, and keeps most of its teachers who return to teaching.
- Strong teacher academic capital is most related to higher attrition rates, although 2 out of 3 of even the top quartile of teachers by ACT score or college selectivity remain in or return to the profession of teaching.

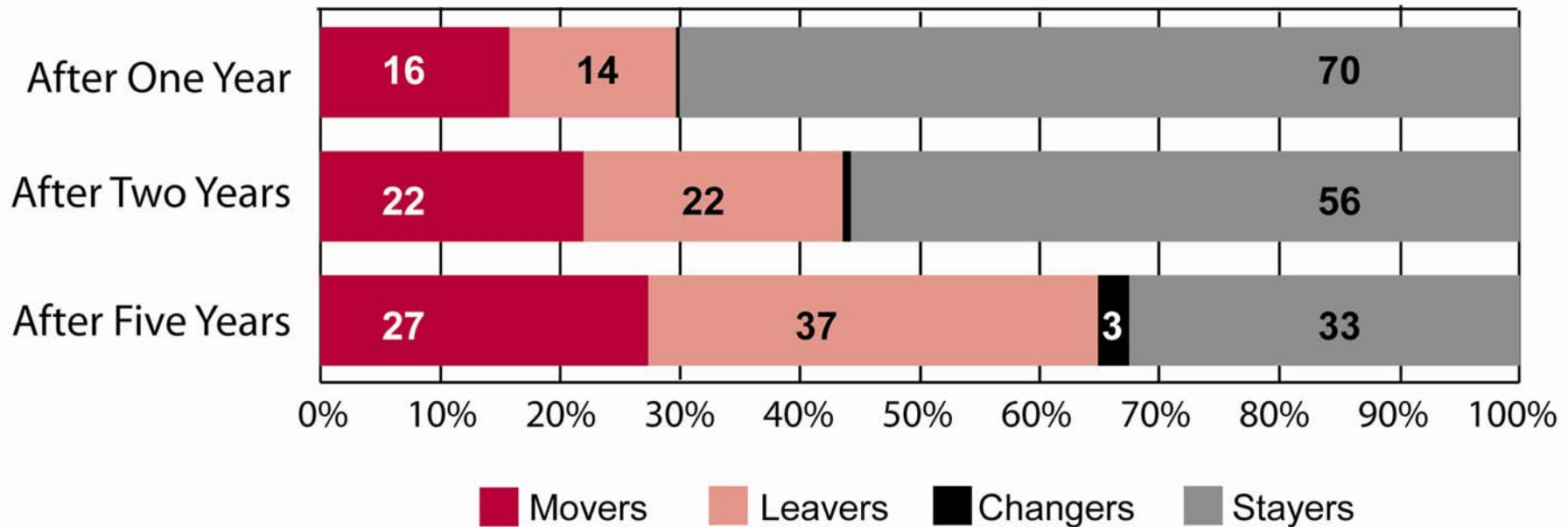


2. Attrition from Initial School



Status of New Teachers in Their Initial Schools After One, Two, and Five Years Following Entry

Remember that these data do NOT include returners



Is 67% leaving their first post within five years high? Although there are no directly comparable statistics for other occupations, there is some evidence to suggest that new teachers, on the average, stay in their initial job longer than the typical post-baccalaureate labor market entrant.



School and teacher differences in leave rates from first school

	One year stay rate	Five year stay rate
77% + meet standards (top quartile) < 25% meet standards (bottom 5%)	78% 68%	36% 22%
Low Minority/Low Poverty High Minority/High Poverty	73% 73%	37% 30%
Special Education Self-contained Elementary Social Science	65% 74% 73%	24% 37% 41%
Teacher <=25 at entry Teacher >=35 at entry	70% 70%	30% 39%
Teacher ACT 25 or more Teacher ACT 18 or less	71% 72%	30% 33%
ACT 25 or more in high performing school in low performing school	75% 64%	31% 12%
ACT 18 or less in high performing school In low performing school	73% 71%	37% 25%

Lowest performing schools lose more new teachers

Smaller difference by LL/HH

Schools lose special education new teachers but keep new social science teachers

Older new teachers stay longer in first school

Little difference overall by teacher academic capital

But new teachers are less likely to stay in low performing schools – especial those with high academic capital.



Importantly, new teacher turnover rates vary much more within school types.

Likely best possible benchmark.

		Percent of New Teachers Retained After Five Years		
		Lower Retention: 10 th Percentile School	Median School	Higher Retention: 90 th Percentile School
	Overall	8%	32%	57%
Selected Locales	CPS	15%	33%	56%
	Rural	6%	30%	56%
Selected Poverty	< 10%	13%	36%	60%
	>= 90%	12%	31%	54%
Low Minority/Low Poverty		13%	36%	60%
High Minority/High Poverty		12%	29%	50%
Selected School Performance on ISAT	< 25%	0%	19%	43%
	46-64%	0%	31%	60%
	>= 77%	11%	38%	64%



Key Findings: Attrition from Initial School

- Very low school performance makes a consistent difference to new teachers' attrition from the first schools.
- The very highest retention in the best performing schools in Illinois is about 64% after 5 years.
- Teachers with high academic capital are the least likely to stay in low performing schools.
- There is much more variation in new teacher turnover within school types.



Implications of the Studies

- Attrition is a localized school issue, not a general issue of the profession.
- School conditions other than the student body characteristics considered in this study (such as leadership, collaboration, safety and order, condition of facilities) impact teacher attrition, and they seem to vary among all types of schools.
- Improving these key climate conditions in low-performing schools may help to keep the more academically skilled new teachers that are now being recruited into CPS and other urban locales.
- Finally, we show that districts are the locus of much of the variation in the distribution of teacher quality. District policies, then, could be a critical component of the solution.



Final Comments

- The language that is typically being used regarding new teacher attrition (50% leave in 5 years) sends an erroneous and harmful message to potential teachers and those that advise potential teachers (family, friends, high school and university faculty). In fact, those who enter teaching are *more* committed to the profession than is typical – and many return after just a short gap.
- A ‘hard to staff school’ is not about the kids’ demographics – it’s about the conditions for teaching and learning in some schools – something that can be changed. Not all high-minority/high-poverty schools lose most of their new teachers, while some low-minority/low-poverty schools do. It’s the low performing schools that are most likely to lose their new teachers.



Finding the Reports

DeAngelis, Karen J. and Presley, Jennifer B. (2007). *Leaving schools or leaving the profession: Setting Illinois' record straight on new teacher attrition* (IERC 2007-1). Edwardsville, IL: Illinois Education Research Council.

Presley, Jennifer B., White, Bradford R., and Gong, Yuqin. (2005). *Examining the distribution and impact of teacher quality in Illinois* (IERC 2005-2). Edwardsville, IL: Illinois Education Research Council.

DeAngelis, Karen J, Presley, Jennifer B. and White, Bradford R (2005). *The Distribution of Teacher Quality in Illinois* (IERC 2005-1). Edwardsville, IL: Illinois Education Research Council.

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