



Illinois Education Research Council

Overview of Major Projects

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Director

Joint Spring Conference
IACTE, IATEPC, and ISBE
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Project 1:

The Class of 2002 Longitudinal Study



The Data

- All 113,660 public high school students in the Illinois Class of 2002.
- Enrollments in institutions of higher education, public and private, in state and out of state, from the National Student Clearinghouse each year.
- Certificates and degrees from ICCB (and the Shared Enrollment System in the future).
- Following the Class for six years. We are about to get the fourth year's data from NSC for AY 2005-2006.



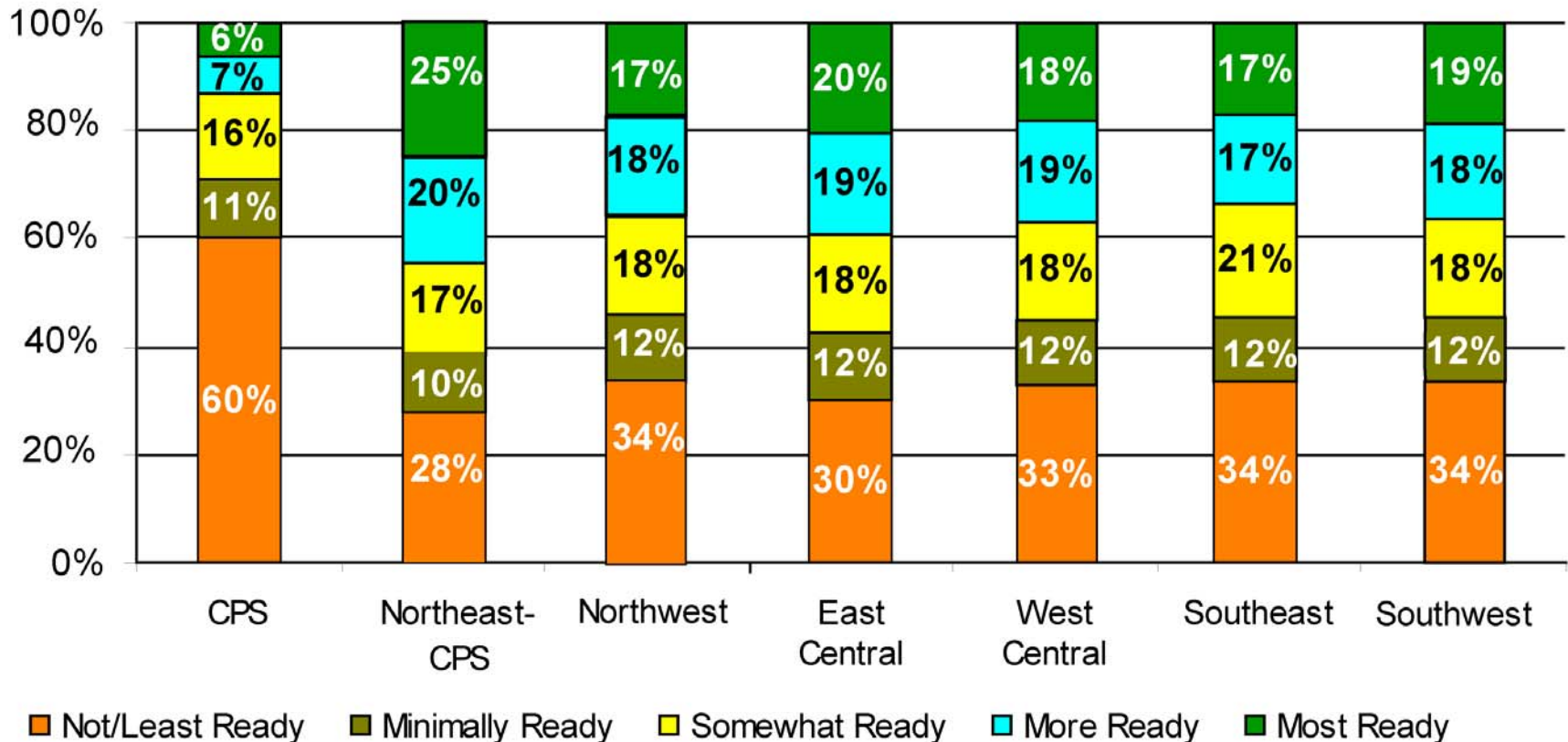
IERC College Readiness Index

Distribution of the Class of 2002		Percentage Expecting Bachelor's Degree or More
Not/Least Ready	34%	72%
Minimally Ready	11%	84%
Somewhat Ready	17%	
More Ready	17%	96%
Most Ready	20%	99%

- Roughly a third of the Class of 2002 are not/least ready for college, about a third are partially ready, and about a third are college ready.*
- Majority expect to earn a bachelor's degree.*



Readiness by Region of High School



- Students in most regions have quite similar readiness patterns. CPS has a weaker distribution, and the Northeast-CPS has the strongest.*
- College readiness is an issue across the state.*



College Readiness Recommendations

- **Better information** to students about life beyond high school.
- More **academic rigor** in high school (and earlier) courses.
- **Better teaching** in high school.
- Increased opportunities to **revamp high schools**.
- **Stronger articulation** between high-school and college curricula.
- Safer school environment for teaching and learning (**personal safety**).



Class of 2002's College-Going by Readiness

Readiness Index	% to College In 2002/03
Not/Least Ready	43%
Minimally Ready	58%
Somewhat Ready	69%
More Ready	79%
Most Ready	84%
Total	64%

- *College-going is strongly related to readiness.*
- *More than two in five not/least-ready students continue immediately into postsecondary education.*

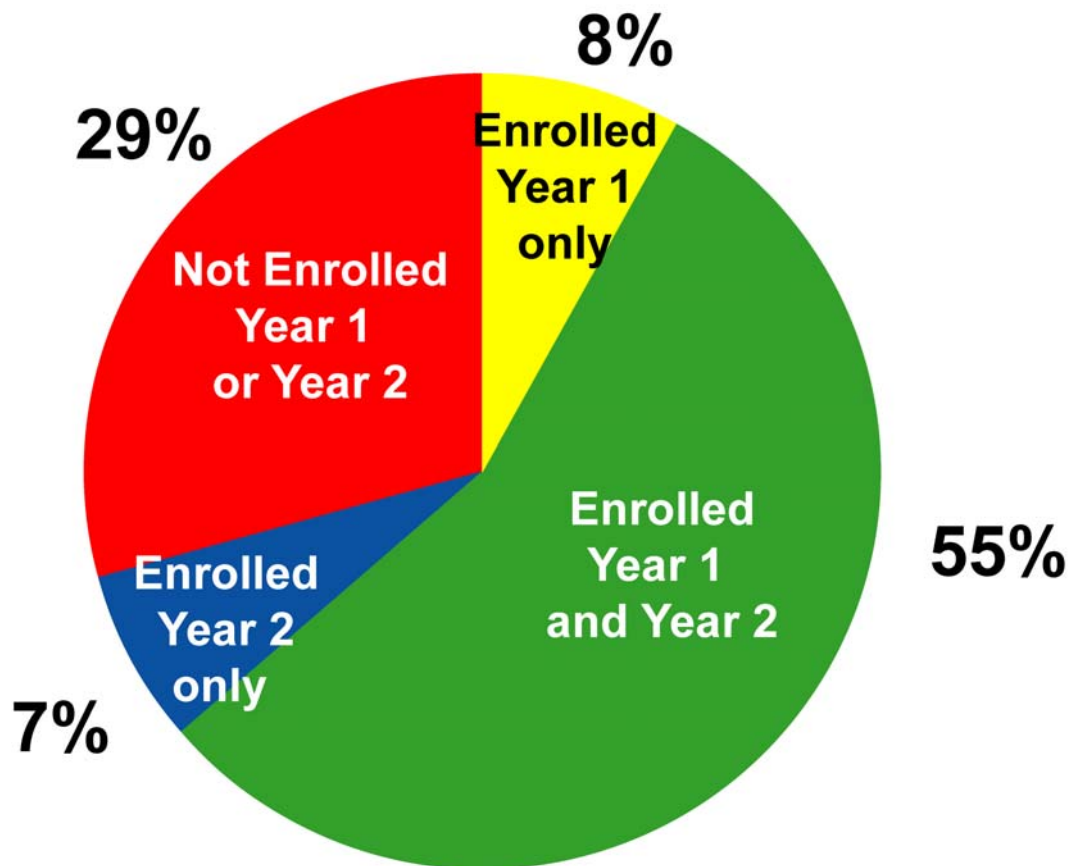


Summary of Findings for the First Transition Year

- Large percentages of Illinois' high school graduates are going to college under-prepared for success and yet most expect to earn bachelor's degrees.
 - *Even 86% of those starting at a community college expect eventually to earn a bachelor's degree.*
- Less-ready non-Asian minorities and low income students are still less likely to enroll than less-ready Asian, white and higher income students.
- The differential distribution of types of colleges by region in Illinois influences enrollment patterns of those continuing into higher education at each level of readiness.
 - *About one third of more-ready students from most regions enroll in a two-year institution, and 66% of those from the Southeast. Over one third of the most-ready students from this region also enroll in a two-year institution.*
 - *Strong institutions (both 2-year and 4-year) are needed throughout the state to maximize the potential of Illinois' "human capital."*



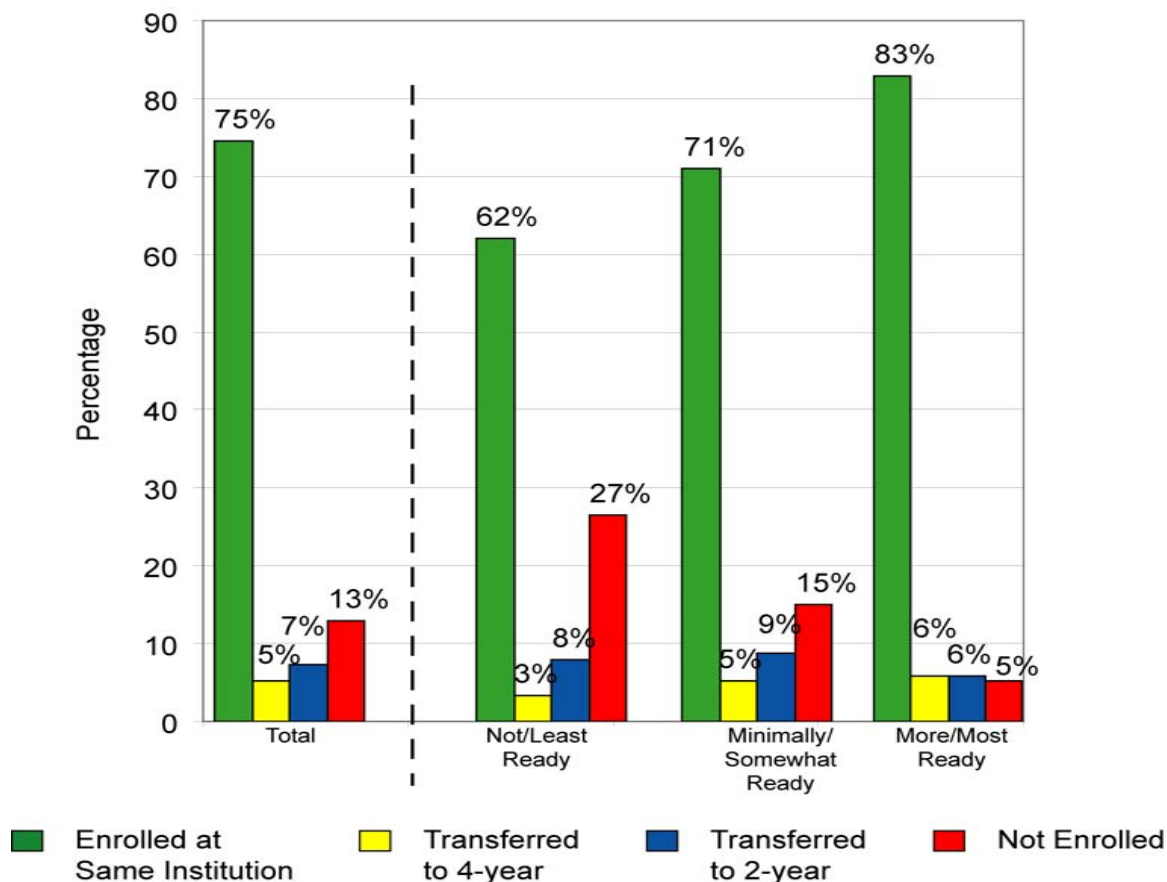
Second Year Status of the Class of 2002



- *By Year 2, 71% of the Class of 2002 had enrolled in postsecondary education (100%-29%).*



Second Year Status of 2002-2003 Starters by Readiness



- **87% of first-year enrollees were still enrolled, with 75% remaining at their first institution.**
- **Half of those who left enrolled elsewhere, with the majority transferring to 2-year institutions.**
- **Readiness again plays an important role in who remains enrolled and who transfers.**



Final Observations

- Academic preparedness is the **major critical component** to college access. It is even more strongly related to the type of institution attended, and to continuation.
- Our findings on persistence provide a **very different (and more positive) picture** of college-retention than looking at individual college persistence/graduation rates.



IERC Research Reports on the Class of 2002



Illinois Education Research Council

Bringing Research to Policy and Practice

POLICY RESEARCH REPORT: IERC 2005-3

The Demographics and Academics of College Readiness in Illinois

Jennifer B. Presley and Yuqin Gong

Executive Summary

Evidence is growing that state and national economic strength is increasingly dependent on an educated workforce, and that some postsecondary education is needed for a growing number of employment opportunities. Furthermore, the skills and knowledge required in the workplace are no longer very different from those needed for success in college. Employers seek well-educated and committed employees. At the July 2005 National Commission for Teaching and America's Future annual meeting, Robert Wehling, former Global Marketing Officer for The Procter & Gamble Company, told the assembled audience in Denver that the exodus of U.S. jobs abroad was not to utilize cheap labor, but to access highly educated and conscientious workforces that were not available in the U.S. The federal government urges states to "leave no child behind" and requires them to monitor progress in raising levels of U.S. student performance over time. But performance gaps continue to persist between different economic and racial/ethnic groups, even among those who reach the bar of high school graduation. Such discrepancies threaten not only Illinois' and the country's economic strength, but also the social contract of our education system to provide all students with opportunities to maximize their learning potential (and thus their earning potential) unfettered by the economic or racial/ethnic characteristics of their families.

The skills and knowledge required in the workplace are no longer very different from those needed for success in college.

The Illinois Longitudinal Study of the Class of 2002

In order to help Illinois policymakers and education administrators assess whether its public high school graduates are ready to enter and succeed in college, and to pinpoint some opportunities for improvement, the Illinois Education Research Council is undertaking a six-year longitudinal study following the Illinois Class of 2002 from public high school to college. We will be providing results in a series of upcoming reports. This first report addresses the readiness of the Class of 2002 for college. The next report in this series will address who went to college in the first academic year after high school (2002-2003). A third report will provide results on persistence in college, transfer and discontinuation during the first two years after high school (through 2003-2004). Two additional reports are anticipated at the fourth and sixth years after high school graduation.

<http://ierc.siue.edu>

IERC 2005-3



Illinois Education Research Council

Bringing Research to Policy and Practice

POLICY RESEARCH REPORT: IERC 2006-2

The Demographics and Academics of College Going in Illinois

Yuqin Gong and Jennifer B. Presley

Executive Summary

State and national economic strength is increasingly dependent on an educated workforce. A high school diploma, which once allowed people to live a decent and comfortable life, is no longer sufficient. The knowledge economy and globalization have significantly changed the relative earning power of different educational attainments. In order to help the state of Illinois assess the extent to which it is providing access to educational opportunities that lead to successful transitions to college and the workforce, the Illinois Education Research Council (IERC) is undertaking a six-year longitudinal study following the 113,660 students in the Illinois high school class of 2002. We are examining how well high school graduates are prepared for the next stages of their lives, and whether patterns of differential preparation along with background characteristics and high-school attributes are related to entry into and success in college.

Bird's Eye View of the Class of 2002

For every 1000 students in the Illinois Class of 2002, 262 were enrolled in an Illinois two-year institution their first year out of high school, while 112 were enrolled out-of-state. We can see in the table that 34% (343/1000) were not ready for college, and that 26% (262/1000) enrolled in a

two-year institution. We can also see that about half (52/112) of those enrolled out-of-state came from the most-ready group of students, and that about one quarter (52/198) of all most-ready students enrolled out-of-state, or 31% (52/167) of those who went to college that first year.

AY2002-03 College Going per 1,000 Illinois Class of 2002 Students

	College Readiness	College Enrollment Within a Year After High School Graduation		Institutional Type of First Enrollment						4-Year Competitiveness	
				Public 2-Year In-State	Public 4-Year In-State	Private In-State	Out of State	For Profit	Less	More	
343	Not/Least Ready	147	enrolled in college	104	17	10	12	4		31	5
		197	not enrolled in college								
111	Minimally Ready	64	enrolled in college	40	11	6	6	1		19	3
		47	not enrolled in college								
173	Somewhat Ready	120	enrolled in college	56	33	14	15	2		45	15
		54	not enrolled in college								
175	More Ready	138	enrolled in college	42	47	21	28	1		61	33
		37	not enrolled in college								
198	Most Ready	167	enrolled in college	20	62	33	52	0		40	30
		31	not enrolled in college								
1000		635	enrolled in college	262	171	84	112	8		204	152
		365	not enrolled in college								

Note: May not total exactly due to rounding.

<http://ierc.siue.edu>

IERC 2006-2



Project 2:

The Distribution of Teacher Quality in Illinois



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
% of Teachers with 3 or Fewer Years' Experience	-0.044

- The TQI is designed to have a statewide mean of 0.0 and a standard deviation of 1.0.***



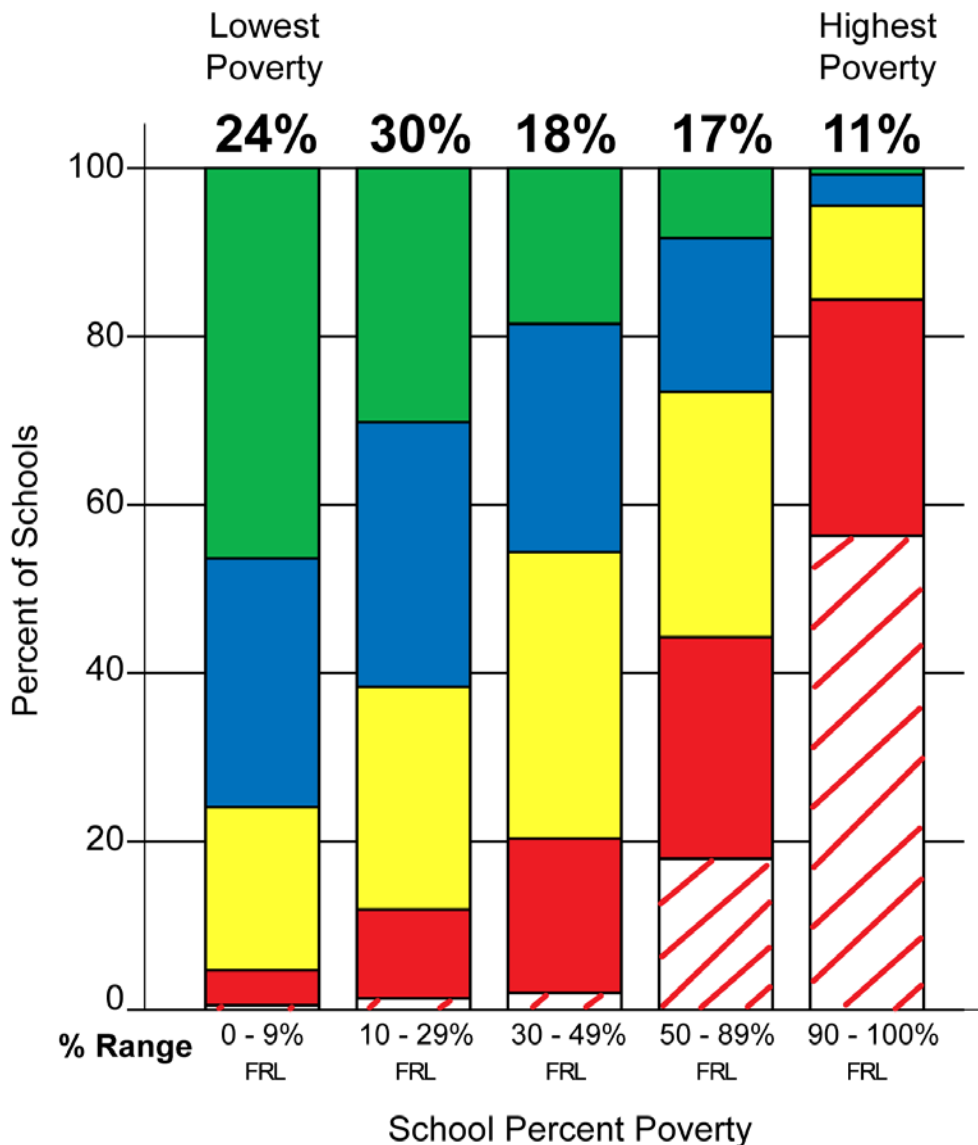
What the Average School Looks Like, by TQI Component and School TQI Quartile

TQI Component	Lowest Quartile		Middle-Low Quartile	Middle-High Quartile	Highest Quartile
	0-10%	11-25%			
Teachers' average ACT composite score	18.2	19.6	20.6	21.6	23.1
Teachers' average ACT English Score	18.4	19.9	21.2	22.3	23.7
% of teachers who failed the Basic Skills Test on first attempt	16%	6%	2.5%	1%	0.6%
% if teachers with emergency or provisional credentials	10%	3%	1%	0.7%	0.4%
Teachers' average undergraduate college competitiveness ranking	2.8	2.9	3.0	3.1	3.3
% of teachers with 3 or fewer years of teaching experience	18%	19%	18%	17%	16.5%

- Top-quartile TQI schools have teachers with ACT scores averaging 23, compared to 18 in the lowest 10% of TQI schools. Other components follow this pattern.***



Distribution of School TQI by School Percent Poverty

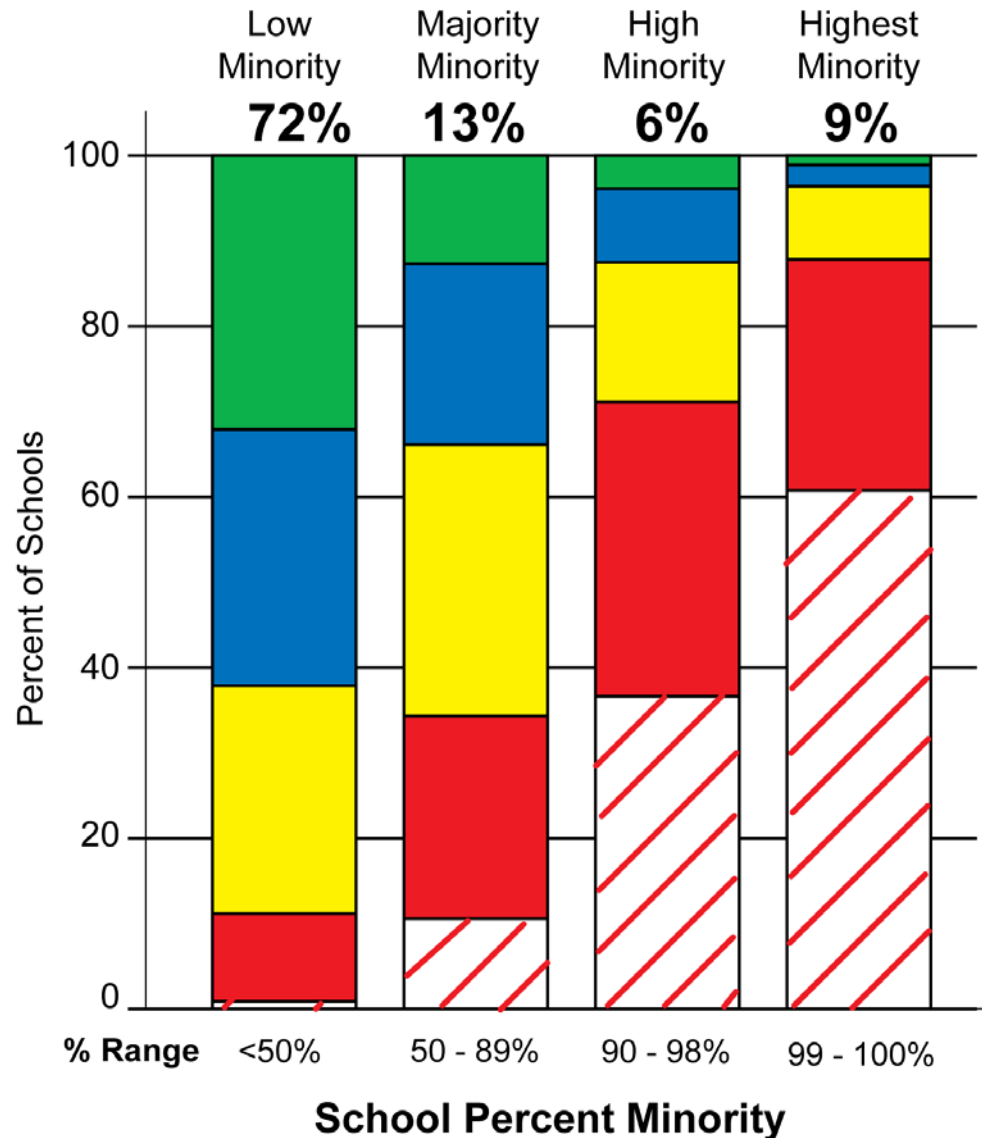


- TQI distribution is strongly related to school poverty levels ($r = -.63$).*
- The differences continue across all poverty groupings.*

■ Highest TQI Quartile
■ Upper Middle TQI Quartile
■ Lower Middle TQI Quartile
■ 11 - 25%
■ Lowest 10%



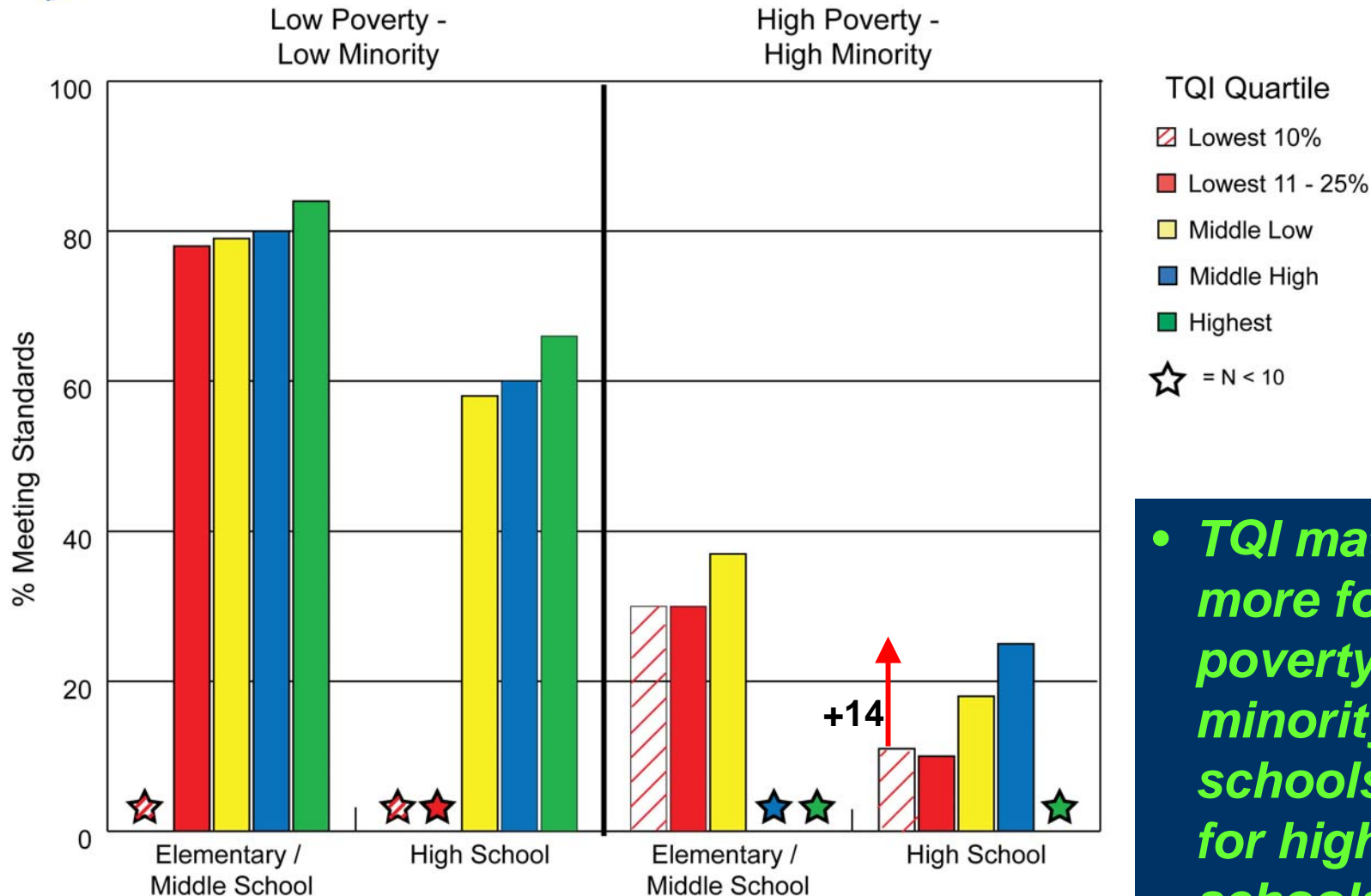
Distribution of School TQI by School Percent Minority



- TQI is strongly related to school minority levels ($r = -.58$).*
- This correlation is driven by schools that are at least 50% minority.*



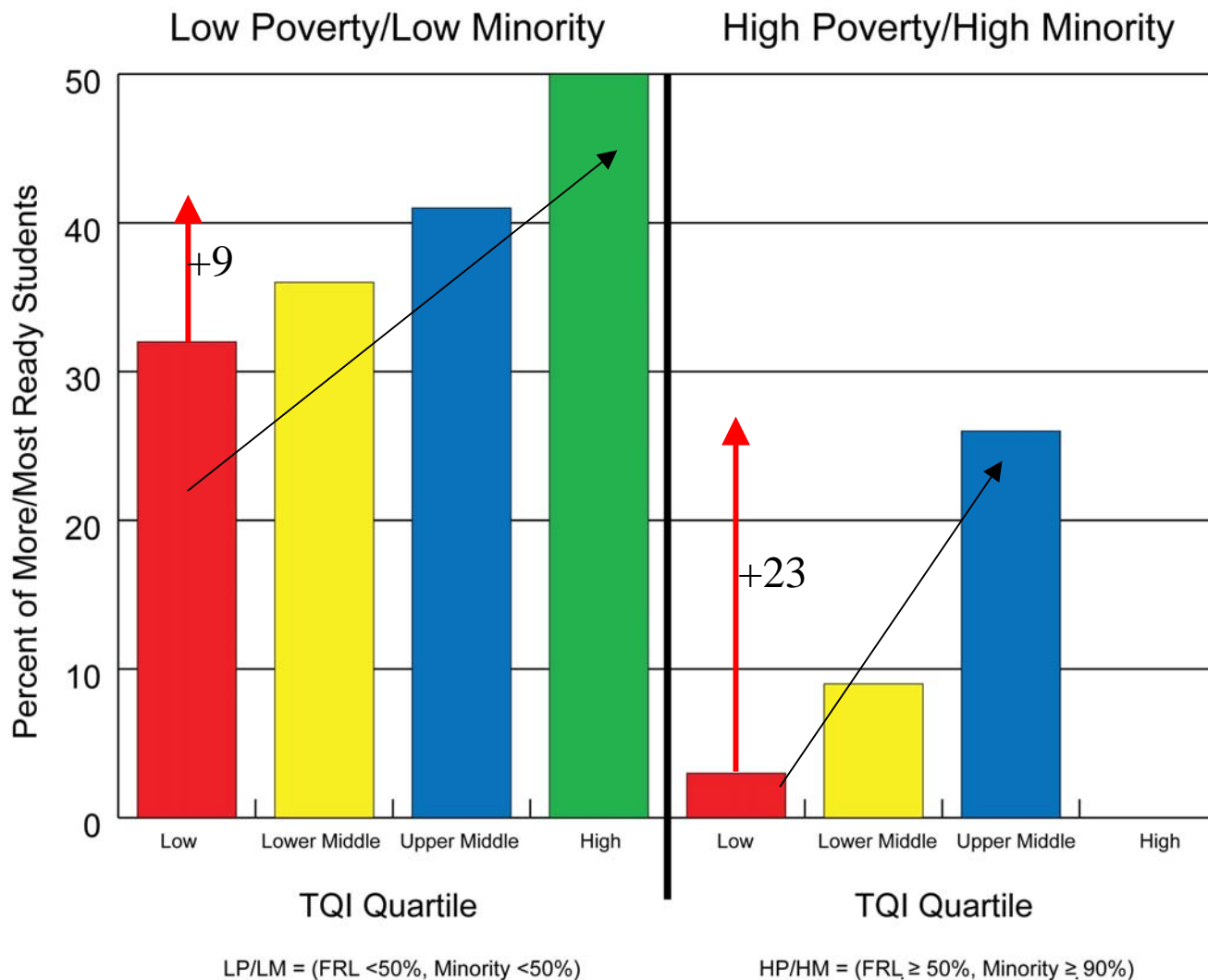
School Performance by TQI



• *TQI matters more for high-poverty/high-minority schools and for high schools.*



College Readiness by TQI



- TQI is closely related to students' college readiness, regardless of school poverty and minority characteristics.*
- TQI matters more for high schools serving mostly disadvantaged students.*



Summary of Findings

- Students in high-poverty and high-minority schools typically face teachers with lower average quality attributes.
- TQI has an independent effect on school achievement, and *this effect is largest in high-poverty, high-minority high schools.*



Priorities for Change

Improve conditions in schools: Every school should be a place where high quality teachers want to teach.

- *Community and state support*
- *District and school leadership*

Improve academic preparation of those who become teachers: Every teacher should be a person that schools want to hire and retain, and parents want in their children's classrooms.

- *Rigorous training*
- *In-service content and pedagogical support*

Improve administrative processes: Human resources policies should place a priority on getting and keeping high quality teachers in the most needy schools.

- *In hiring and retention*
- *In placement and transfer practices*



IERC Research Reports on Teacher Quality



Illinois Education Research Council

Bringing Research to Policy and Practice

POLICY RESEARCH REPORT: IERC 2005-1

The Distribution of Teacher Quality in Illinois

Karen J. DeAngelis, Jennifer B. Presley, and Bradford R. White

When the Illinois Education Research Council was founded in 2000, one of the first challenges it was given was to “find out who our teachers are.” We also heard that “there is a lot of data out there that are not being used.” So we connected the dots, obtained a copy of the Teacher Service Record file from the Illinois State Board of Education through a shared data agreement, and began the task of examining the measurable characteristics of Illinois public school teachers that have been shown in other national studies to be associated with student outcomes. In this study, we look at the distribution of all 140,000 teachers in 2002-2003 among Illinois’ public schools using five teacher attributes that have been shown in previous research to be related to student performance and for which we were able to obtain data - college competitiveness, years of experience, type of credential, performance on the Basic Skills test and ACT score.

We created a composite measure of school teacher quality that we named the *Teacher Quality Index (TQI)* using a statistical procedure called principal components analysis to combine these teacher quality characteristics plus ACT English scores into a standardized index. We use a school’s TQI as an indicator of average teacher quality at that school.

We found that teacher quality is distributed unevenly across schools in Illinois. However, *most of the variation is found among schools within districts*, suggesting that differences in the attractiveness of schools as workplaces are largely responsible for the systematic sorting of teachers that we see. Because of the size of the Chicago Public School District, we looked at it separately in this study. We found that CPS schools generally had much lower TQIs than schools in other urban areas, but that there was still wide variation of school TQI among the schools.¹

More generally, we found that *students in high minority and high low-income schools throughout the state typically face teachers with lower quality attributes than their peers in other schools*. But we also found substantial variation in school TQI within these school-type categories, again indicating that *other characteristics of schools also affect teachers’ decisions about where to work*. More research is needed to determine why schools that appear similar, at least in terms of the demographics of their students, attract qualitatively different teaching staffs. One-size-fits-all policies aimed at improving overall teacher quality, such as raising teacher salary levels for all teachers, will fail to address the systematic sorting of teachers among schools that exists within districts in Illinois. Rather, policies must be targeted to attract the highest quality teachers in a district or region to the neediest schools.

We recognize that the measures we are using in this study are input characteristics – not measures of individual teacher success. However, past research that informed our research design, and the results we present in this report, show that the teacher attributes we include are related to student performance. Additional research is underway at the IERC to examine in greater depth the relationship between school TQI, student demographics and student performance. In the meantime, although this research report falls short of establishing a causal link between the measurable quality attributes of teachers that we used in this study and student performance, it provides strong evidence that they are associated. Thus it would seem prudent for districts and schools to place more weight on these attributes during their consideration of prospective teachers.

¹ In another forthcoming policy research report, we will show that elementary/middle schools in four additional high-minority districts with enrollments of 10,000 or more students (East St. Louis, Cicero, Aurora East and Waukegan) had average school TQIs similar to or lower than CPS.



Illinois Education Research Council

Bringing Research to Policy and Practice

POLICY RESEARCH REPORT: IERC 2005-2

Examining the Distribution and Impact of Teacher Quality in Illinois

Jennifer B. Presley, Bradford R. White and Yuqin Gong

Executive Summary

In a previous Illinois Education Research Council (IERC) policy research report, *The Distribution of Teacher Quality in Illinois* (IERC 2005-1), we introduced the Illinois Teacher Quality Index (TQI). The TQI is a school-level indicator of teacher quality that describes a school’s concentration of certain teacher attributes that research suggests are associated with student performance. In this report, we continue our exploration of the TQI, its distribution, and its relationship to student performance outcomes.

Our analysis found a very strong negative relationship ($r = -.63$) between TQI and the percent of students with free/reduced lunches (FRL), our measure of schools’ poverty. The relationship between TQI and poverty continues across all poverty levels. The correlation between TQI and school percent minority ($-.58$) is not quite as high, but still substantial. However, the relationship is not evident once percent minority falls below about 50%. The teacher-sorting process seems to be related consistently to school poverty, but is dramatically apparent as well in schools that are more than 90% minority.

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TQI and School Performance

We were interested in knowing whether schools with higher TQIs had better performance outcomes. We examined the relationship between TQI and school poverty and minority status separately, and found that TQI made a difference in school achievement—especially for high-poverty and high-minority

schools. In order to look further into this poverty/minority/TQI interrelationship, we examined TQI and the performance of high minority/high poverty (HH) schools and low poverty/low minority (LL) schools directly. We found that both HH and LL schools continue to exhibit stronger school performance when they have higher school TQIs. Importantly, the strongest relationship between TQI and the performance continues to be demonstrated in the most disadvantaged schools—those that are both high poverty and high minority. The average percentage of elementary/middle school students in HH schools meeting or exceeding state standards went up seven percentage points (for a 23% improvement) when TQIs moved from the lowest to the next TQI quartile. For HH high schools, the increase was 14 percentage points from the lowest to the middle-high quartile—more than doubling the success rates for these schools. In short, TQI matters, and matters most for the most disadvantaged schools.

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Because we have several variables that are interrelated, we also did a regression analysis to measure the independent effects of school poverty status, minority status and TQI on performance outcomes. We confirmed that TQI has an independent relationship to school performance, even after taking into account the minority and poverty level of the school. Its influence is most important at the high school level, where an increase of one unit (1.0) in TQI (in this case that is one standard deviation) is related to an increase of 5.9 percentage points in the percent of students meeting or exceeding the Prairie State



Project 3:

Pipelines and Pools: Examining the supply and demand for early childhood teachers in Illinois

*(Funded by a grant from the
National Institute for Early
Education Research/Pew funds)*



Defining the Potential Reserve Pool

- Were awarded a Type 04 teaching certificate (or renewal of Type 02) since 1989,
- **and** were not teaching in an Illinois public school in 2002-2003 (the most current year for which we had teaching data).

N=5,402



Survey Design and Response Rates

- 74% sample of potential reserve pool – 4,000 surveys.
 - *Survey was administered between February and May, 2005.*
 - *Had website for data collection – 48% responded this way. 52% used the paper survey.*
- 46% response rate = 1,664 useable surveys received. Responses can be generalized to the potential reserve pool population (N = 5,402).



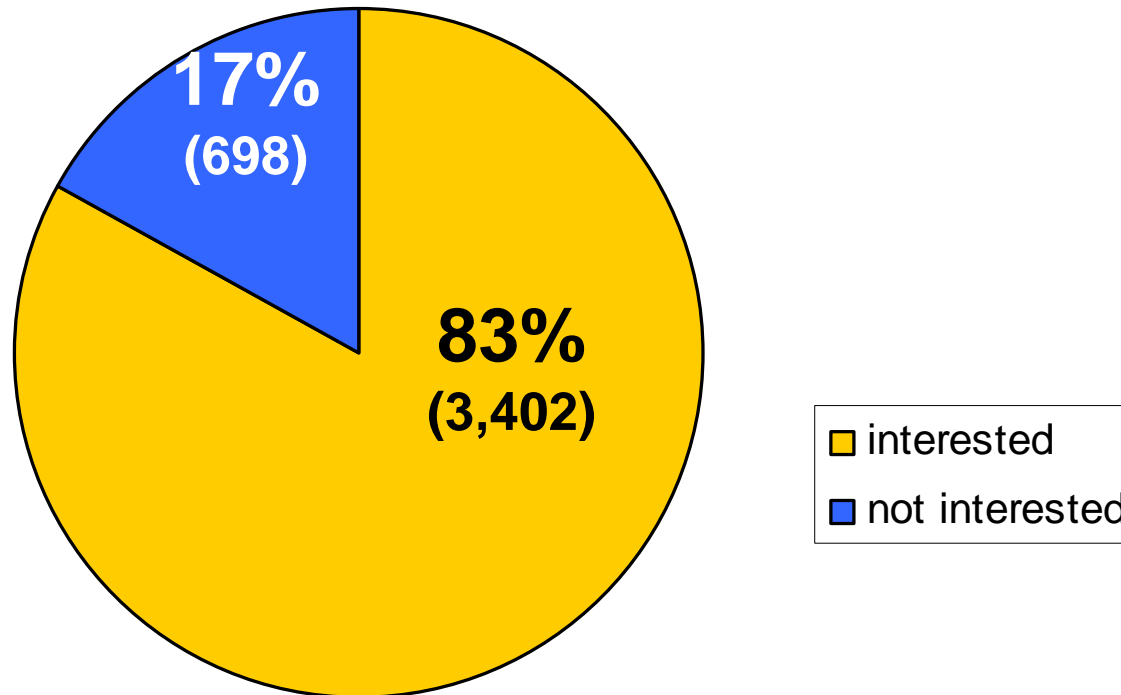
Defining the Reserve Pool: Ready, Willing and Qualified

- Are in the potential reserve pool (N=5,402)
 - *Minus those who are currently working in an Illinois early childhood center (N=558).*
 - *Minus those who are retired or disabled (N=743).*
- **And** indicated a willingness to consider working in an Illinois early childhood center.

N = 3,402



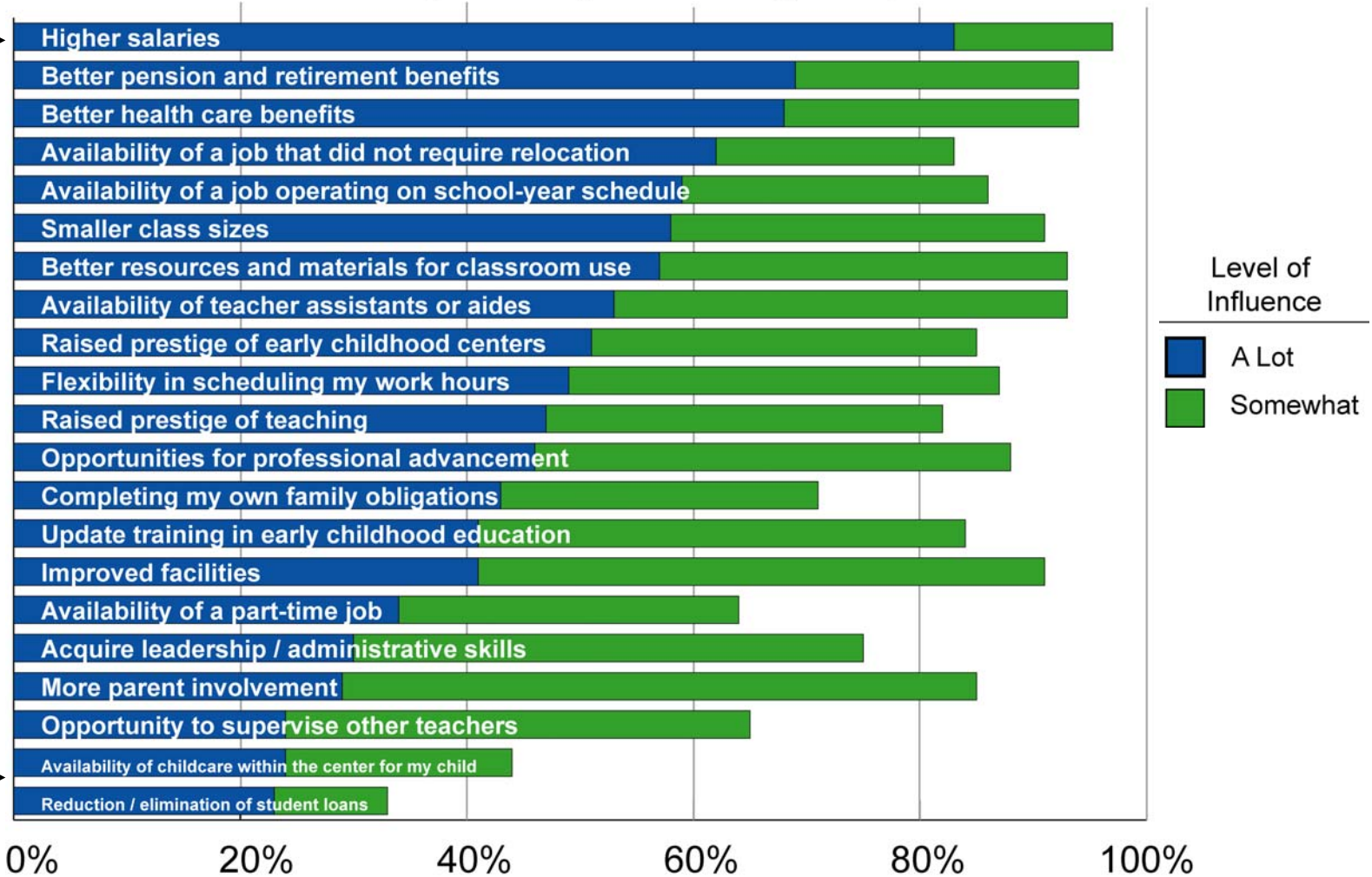
Reserve Pool's Interest



- *Most of the reserve pool expressed willingness to consider working in an early childhood center.*



Conditions (Ranked by % answering "A lot")



- Many conditions would positively influence the reserve pool's decisions to work in an Illinois early childhood center.**



Conditions Placed in Top Three

Conditions	% Placing Condition in Top Three
Higher salaries	72%
Availability of a job operating on school-year schedule	23%
Better health care benefits	22%
Flexibility in scheduling my work hours	21%
Completing my own family obligations	20%
Better pension and retirement benefits	19%
Smaller class sizes	18%
Better resources and materials for classroom use	14%
Availability of a part-time job	11%
All other conditions	<10%

- ***Higher salaries trump all other influences when the reserve pool chooses the top three conditions.***



Summary of Findings

- We estimate that there are about **3,400** early-childhood-certified individuals who would be willing to work in an Illinois early childhood center under certain conditions.
- We identified many conditions that would influence their decisions, but **salary** outpaces everything else.
 - *45% would work for \$40,000 or less annually (FT/FY).*
- Most of the Reserve Pool would work in an Illinois early childhood center for an extended period.
 - *48% expect to stay 4-10 years.*
 - *34% expect to stay more than 10 years.*



Conclusions and Recommendations

- Contrary to common belief, certified early-childhood teachers are **not opposed to working in a early childhood center**. In fact, many have done so since certification.
- The reserve pool provides an **immediate cadre of qualified teachers**.
 - *Most require a salary that is similar to what they would earn if they were teaching in an Illinois public school.*
 - *Recruiting from the reserve pool is a feasible strategy to immediately strengthen the number of certified teachers working in early childhood centers.*
- The pipeline from bachelor's degree programs is quite leaky. **Increasing the productivity of some large programs** can help to increase the number of qualified minority early-childhood teachers.
- Some potential teachers may need to **gain facility with Spanish** in order to serve the growing bi-lingual pre-school population. This would be a sensible use of new training funding.



Project 4:

Teacher Induction in the Midwest
(SRI International is lead organization)

January 2006 to December 2007

(Funded by the Joyce Foundation)



Purpose of the Study

- Three-state study in Illinois, Wisconsin and Ohio
 - *IERC, Andrew Wall (Eastern Illinois University) and Renee Clift (UIUC) are Illinois collaborators.*
- Research questions:
 - *What is the status of teacher induction?*
 - *What are the impacts of induction programs on first-year teachers and student achievement?*



Completed Projects

- The New Teacher Study
- The Pipeline for Administrators in Illinois
- Biennial Policy Inventory on Teaching and Learning
- Preparing School Principals (with IEL)
- Evaluation of State Teacher Quality Enhancement Grant
- Issues in Education series



The IERC Focus on Illinois Education Research Symposium

- 5th annual symposium **June 15 (evening) and 16, 2006**
- Springfield's Lincoln Museum (evening) and the President Abraham Lincoln Hotel
- Keynote speaker: Hilary Pennington, Jobs for the Future
- 16 research sessions plus 2 plenary sessions – Randy Dunn and Ralph Martire
- Registration materials are available



Contact us at:

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