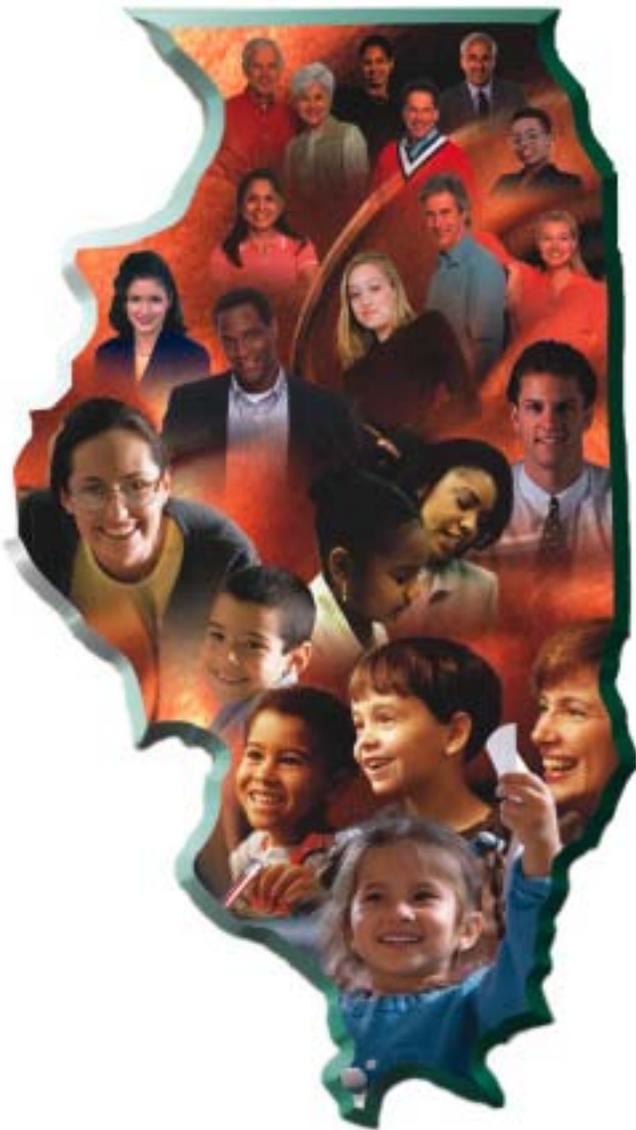


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**ABSTRACTS OF SYMPOSIUM PRESENTATIONS  
ARRANGED BY SESSION**

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# How Do They Compare? ITBS and ISAT Reading and Mathematics in the Chicago Public Schools, 1999 to 2002

John Q. Easton, Consortium on Chicago School Research

Although it had held a preeminent role in measuring school and student achievement in the Chicago Public Schools (CPS), in the mid-to-late 1990s, the Iowa Tests of Basic Skills (ITBS) took on even greater significance in Chicago. It was used to determine whether a school was placed on or off probation, grade-promotion eligibility, and summer school attendance. Indeed, as it was used in Chicago, the ITBS was a high-stakes test.

To broaden its criteria for measuring student performance, and to prepare for No Child Left Behind (NCLB), CPS announced a new accountability system in fall 2002. In the new system, two of the four statistical indicators upon which elementary schools are held accountable are based on the Illinois Standards Achievement Test (ISAT), the state's elementary assessment since 1999. In the past, all CPS accountability was ITBS based. Even with its prominence in the new accountability system, a lack of knowledge about the ISAT persists in Chicago. This presentation compares the two tests to bring needed attention to the ISAT and to assist the discussions about the next generation of assessments that must be put into place to comply with NCLB by 2005-06.

## **Methodology**

The sample includes all CPS students in grades three, five, and eight who took either the ITBS or the ISAT from 1999 to 2002 regardless of whether their scores were included in public reporting.

## **Summary of Findings**

The ISAT was developed to measure the extent to which students in Illinois public schools demonstrate mastery on pre-determined levels of the Illinois Learning Standards. The ITBS, on the other hand, compares students to a nationally representative group on widely acknowledged basic skills with less emphasis on specialized abilities and higher-order skills. The ITBS has a continuous scale across all grades and is administered every year to nearly all CPS students in grades three through eight. The ISAT is administered in grades three, five, and eight and does not have a unitary underlying scale.

### **Who is Tested?**

Although both the ITBS and ISAT seek to test most CPS students, their rules for who is tested and whose scores are reported differ. About 94 percent of the target grades take the ITBS, though only about 74 percent are included in public reporting.<sup>1</sup> There are two reasons for this discrepancy: (1) Some students with disabilities take the ITBS with accommodations and, since these may invalidate normative interpretation of results, are not included in reporting; (2) Bilingual education students take the test after two full years in a bilingual program, but their scores are not publicly reported until after the end of their fourth year. Untested students include those with severe/profound disabilities and English language learners enrolled in bilingual education for fewer than two years. The scores of all students who take the ISAT are reported, although English language learners do not do not take the ISAT until after three years in bilingual education.

When looking at inclusion patterns from 1999 to 2002, a few trends become apparent: more students take the ITBS in all three grades; more are included in ISAT reporting though fewer are tested; and inclusion rates seem to be increasing slightly over time, especially on the ISAT (the notable exception occurs among eighth graders on the ITBS because of growing special education enrollments in the upper grades).<sup>2</sup>

### **Test Format Differences**

The ITBS reading comprehension test is 55 minutes and its mathematics test is 80 minutes. The ISAT takes longer to complete; each test is 120 minutes. The ITBS is made up entirely of multiple-choice questions and the ISAT uses both multiple-choice and extended-response questions (these

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<sup>1</sup> See Rosenkranz (2001).

<sup>2</sup> See Miller and Gladden (2002).

require students to write answers to prompts about the reading passages and to explain how they completed certain mathematics problems).

**Reading.** Items on the ITBS reading comprehension test are organized around three main process skills: Factual Meaning, Inference and Interpretation, and Analysis and Generalization. Items on the ISAT reading test cover five or six content areas: Comprehension of Literary Works; Comprehension of Informational Text; Application of Strategies: Explicit Ideas; Application of Strategies: Implicit Ideas; Vocabulary; Word-analysis.<sup>3</sup> Unlike the ITBS, most ISAT test items are classified into more than one of these areas. Both intend to include a variety of literary genres: the ITBS includes eighth relatively short passages and the ISAT includes three to four longer passages. The ITBS includes only a few context-embedded (or context-dependent) vocabulary items while the ISAT contains more context-dependent than application-type (usage-oriented) items.

**Mathematics.** The ITBS mathematics section places much greater emphasis on computation. As a result, fewer of its items are classified as algebra, geometry, measurement, or data analysis. The ISAT places less emphasis on straightforward arithmetic computation. Instead, single items typically require the use of multiple skills and computation skills are most often embedded in an algebraic, geometric, statistical, or probabilistic context. As with reading, the ISAT “double counts” items based on which areas they cover whereas ITBS items count in only one content area. This aside, it is clear the ITBS is much more heavily weighted toward computation, and the ISAT contains up to three times as many items on algebra, geometry, measurement, and probability and statistics.

Correlations between mathematics and reading on the ISAT range from 0.74 to 0.79 among CPS students, depending on grade. They are marginally lower on the ITBS, ranging between 0.73 and 0.75, again depending on grade. If we exclude the computation portion of the ITBS from its total score, ITBS reading to mathematics correlations increase to a range of 0.75 to 0.78, nearly identical to those for the ISAT.<sup>4</sup> These findings rule out the proposition that ISAT mathematics scores are more heavily influenced by reading ability.

#### **Scoring the Tests**

The primary reporting score for the ITBS is the Developmental Standard Score, which is obtained from tables that convert raw scores (number correct) into standard scores. The standard score scale spans all grade levels (kindergarten through eight) and ranges in value from 110 to 350. Scale scores are converted to percentile rankings depending on the time of year the test is administered and the student’s grade level.

ISAT raw scores are also converted to scale scores, ranging in value from 120 to 200. The raw score consists of the number of correct multiple-choice questions plus points from the extended-response questions, which account for about 15 percent of each test’s total score. Scores are converted to a category rating describing a student’s level of proficiency: Exceeds Standards, Meets Standards, Below Standards, and Academic Warning.

On the ISAT, placement of the cut scores differs depending on both grade and subject. The most important cut score is between the Below Standards and Meets categories. In both third- and fifth-grade reading, this cut score is 155.5. In eighth grade, it is somewhat lower at 151.5. In mathematics, cut scores become progressively higher moving up the grades. For third grade it is 152.5, for fifth 157.5, and for eighth 161.5. There is also variability in the cut scores that differentiate the Academic Warning category from Below Standards. For example, only the very lowest performing students in fifth- and eighth-grade reading will warrant an Academic Warning designation, where the cut scores are 129.5 and 128.5, respectively. In contrast, the cut score between Academic Warning and Below Standards is 137.5 for third-grade reading. In mathematics, cut scores also vary by grade: 141.5 in third, and 137.5 in both fifth and eighth. The difference between a Meets Standards and an Exceeds Standards score also varies considerably by subject and grade. It is most difficult to reach Exceeds

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<sup>3</sup> Illinois State Board of Education (2001).

<sup>4</sup> The correlation between mathematics computation and reading comprehension on the ITBS is between 0.51 and 0.53 depending on the grade. Even with no reading involved, there is a moderate correlation between the two skill areas.

Standards in fifth-grade mathematics, where the cut score is 190.5. Compare this to 172.5 for third-grade mathematics and 170.5 for fifth-grade reading.

### **Test Correlations**

The ISAT and ITBS are highly correlated. On the reading sections of both tests in 2002, correlations for grades three, five, and eight are 0.83, 0.85, and 0.85, respectively. In mathematics, the correlations are slightly higher at 0.86, 0.87, and 0.86. When we correct the correlations for unreliability, the correlation coefficients increase to around 0.90. High correlations suggest that students who perform well on one test will perform well on the other and students who perform poorly on one will perform poorly on the other.

In spite of the high correlations, however, one-to-one correspondence does not exist between the ITBS national quartiles and ISAT performance categories. Though there is a relative correspondence between the second and third quartiles on the ITBS and the Below and Meets Standards categories on the ISAT, this breaks down at the first and fourth quartiles. Many first quartile scores are in the Below Standards rather than Warning category; more fourth quartile ITBS scorers are in the Meets Standards rather than the Exceeds Standards category. As we have seen, this is a function of the standards setting process, which tends to put the Academic Warning designation very low and the Exceeds Standards designation very high.

### **Trends in ITBS and ISAT Results, 1999 to 2002**

We have argued elsewhere that the arithmetic average is the most useful single statistic for describing group performance because it is influenced by the scores of all students, not just those whose scores are close to the cut scores between categories.<sup>5</sup> We performed a type of standardization of ITBS and ISAT scores to make it possible to compare results even though each test has its own scale. Each test is “centered” on a particular point on its scale and then the two are lined up. For the ISAT, we chose the cut score between Below Standards and Meets Standards, and for the ITBS, we chose the cut score between the second and third quartiles.

Given this process of standardization, we can compare trends in average CPS performance on both tests. Findings show a mixed picture in both reading and mathematics. In third-grade reading, both ISAT and ITBS scores improved slightly from 1999 to 2002. On the other hand, fifth-grade reading scores declined for both, with a significantly greater decline on the ITBS than the ISAT. For eighth-grade reading, trends run in opposite directions with the ISAT somewhat down and the ITBS somewhat up. Results are also mixed in mathematics. Third-grade scores rose (at least slightly) on both tests. In fifth grade, ITBS scores declined and ISAT scores rose. The difference between these opposing trends is statistically significant. Given that 2001 and 2002 scores on both tests move in the same direction however, this anomaly may not be of much concern. In eighth grade, ITBS scores are flat and the ISAT trend is up. Fifth- and eighth-grade ISAT trends are much lower as a function of the standards as discussed earlier. Looking at the trends by grade across tests and subjects, we see all positive results in the third grade, mostly negative in the fifth grade, and mixed in the eighth grade.

We also determine whether high- or low-performing students are following the average trends or moving in different directions. In fact, the trends for both groups do follow the average trends discussed above, with very few exceptions. Fifth-grade reading looks problematic in all cases, except that ISAT scores for high-performing students may be increasing. Overall, the general patterns are confirmed: increased scores in the third grade in both reading and mathematics on the two tests; negative trends in the fifth grade, with the exception of ISAT mathematics (where there are increases at all three grades); and a mixed picture of performance among eighth graders by subject and by test.

### **Concluding Observations**

In spite of large content and format differences, the ITBS and ISAT behave similarly among CPS students. Their scores are highly correlated, and their trends over time are mostly parallel. This examination has also shown how the standards setting process on the ISAT can influence score results. Higher standards will result in fewer students in the Meeting or Exceeding categories. In the eighth grade, ISAT reading scores are high because the cut score is relatively low. On the other hand, eighth-grade ISAT mathematics scores are low because the cut score is set high.

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<sup>5</sup> See Bryk et al. (1998) and Easton et al. (1998).

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## **Beyond Bean Counting: Mapping Data to Track University-School Relationships in Urban Teacher Education**

Joshua Radinsky, University of Illinois at Chicago

Recent years have brought new demands on teacher education programs to gather and report data on teacher candidates, certification programs, academic preparation, field placements, and even students' professional experiences after they graduate. At the University of Illinois at Chicago, adapting to these increasing demands for data has been a challenge, requiring us to allocate new resources to data gathering, access, and management. This has included implementing a Geographic Information System (GIS) database, and linking multiple internal and external data sources (including the Illinois Teacher Certification Data Warehouse). We have harnessed these new data resources to serve the larger purpose of reflecting on the university's urban mission with respect to Chicago schools and communities, and evaluating our progress toward this mission. In this presentation we share some products of this analysis, representing three key university-school relationships: (1) feeder high schools/community colleges to UIC teacher education programs, (2) field experience placement sites, and (3) schools hiring graduates of UIC programs as new teachers.



# **The Proof is in the Pudding: Capturing Teacher's Classroom Visions**

Kim Pittman, Aurora University

## **Introduction**

Educational developments are, by their very nature, quite complex. They can also bring unexpected problems with them. More than ever, teachers see themselves exposed to unpredictable and unexpected environmental influences and risks. At the same time, the externally imposed development and educational objectives are frequently at odds with the personal experiences of teachers. New methods of working and expectations usually do not correspond to the opinions of teachers with regard to what constitutes "good teaching." This means that the professional identities of individual teachers are often at issue.

Professional identity can be conceptualized as the result of an interaction between the personal experiences of teachers and the social, cultural, and institutional environment in which they function on a daily basis (Slegers & Kelchtermans, 1999). This conflict-ridden domain is underexposed.

Teachers attach meanings to their work, and these meanings comprise their professional identity. "Meaning construction is described as a dialectic process in that previous constructions of reality influence interpretations of new experiences and these new experiences influence the construction of reality. Individuals continuously test their assumptions and may confirm and instantiate those assumptions or they may disconfirm and reconstruct assumptions as new evidence emerges" (p.250). Of particular interest are those beliefs, attitudes, and emotions or irrefutable personal meanings or "truths" that every teacher adheres to with a particular manner of "existence" as a result.

Beliefs and attitudes or teachers' meanings often determine the decisions they make during their careers (Azjen, 1991; Goleman, 1996; Kennedy & Kennedy, 1996, Pajares, 1992). The results of several studies show teachers' meanings to be highly personal, resistant to persuasion, and quite evaluative. Teachers' meanings are also seen to determine the amount of energy they are willing to invest in their work. Teachers' meanings are often quite intangible, sometimes undetectable, and not always manageable. Meanings are deeply rooted within the individual owing to their long history and are more or less a part of the individual's personal identity. It has been shown that teachers develop or cling to certain beliefs and attitudes in response to policy developments. It is this vision that is oftentimes left unexplored in reform efforts. In addition, these visions are critical in identifying one's professional identity.

## **The Role of Teachers' Vision**

How can understanding teachers' vision help teacher educators support and sustain teachers? One of the most powerful predictors of teachers' commitment to teaching is a "sense of efficacy- the teachers' sense that he or she is making a positive difference in the lives of students" (Darling-Hammond, 1990, p.9). There are three key ways that vision may help support such a sense of efficacy (Hammerness, 2003). First, vision may provide a means to surface and examine teachers' beliefs, providing teacher educators with a way both to validate and build on teachers' hopes and dreams. Making vision explicit may also help provide a foundation for new teachers' developing theories. Second, vision may provide an avenue for teacher educators to help new teachers surface their beliefs and goals- examining, challenging, and further articulating their beliefs and assumptions through the sharing of visions. Finally, examining vision may provide a means for teacher educators to assist teachers to understand and deal with the gap between their hopes and practice (Hammerness, 2003).

## **Purpose of the Study**

The purpose of this study was to: examine key life experiences that have influenced the ways in which teachers recognize, understand and articulate values that have shaped teacher's pedagogical identities; examine some of the important values that underly teacher's approach to teaching and the relationship to their practical theories; and identify the real and ideal visions of teachers as well as identify the gaps that exist between the two visions.

## **Theoretical Perspective**

In Husserl's phenomenological method, the emphasis is carefully reflecting upon and describing experiences. According to Husserl, the hidden structures of consciousness can best be investigated, not through empirical studies, but by careful, systematic reflection. Since we usually pay attention to the results of conscious processes as we go about our daily activities, we remain unaware of the essential structures that provide meaning to our lives in subtle ways.

## **Methodology**

The participants in this study were 64 inservice teachers from a suburban school district of a large Midwestern city. All grade levels ranging from kindergarten to grade twelve were represented in this sample. Primary teachers (kindergarten through grade 2) composed 32% of the sample; intermediate teachers (grades 3-5) represented 20% of the sample; middle school/junior high school teachers (grades 6-8) made up 20% of the sample; and high school teachers (grades 9-12) formed 28% of the sample. The average number of years teaching experience was 8 years (standard deviation 3.61). All of the teachers held bachelor's degrees and they were all in a graduate program seeking a master's degree in educational leadership. Males composed 42% of the sample, and females composed 58% of the sample.

Through the use of metaphors and questionnaires, teachers identified their visions of a "real" classroom and an "ideal" classroom. This task was accomplished through an open-ended questionnaire that was developed to assess teacher's tacit beliefs related to their pedagogical identity. The questions specifically focused on the identification of values and belief systems of teaching; past experiences that have influenced career choices and motivation for continuing in the field.

In addition, teachers were asked to construct a metaphor that describes their teaching. Research has shown that metaphors provide a unique vehicle for giving deep meaning to sensory experience (Gentner, 1989). By constructing images, and then assigning language to those images, teachers reconstruct their experiences in ways that translate tacit understandings into concrete expressions of personal and professional identity. Metaphor analysis corroborated by questionnaire data provides a strategy for linking teacher action and reflection within the context of sustained professional development.

For the construction of the metaphors, the teachers were instructed to describe the role of the teacher and the student in the teaching/learning process. They were also asked to describe how learning occurs and include teaching strategies that they considered most effective for teaching. Teachers were given some examples of metaphors for purposes of instructional clarity: tour guide, bridge, mountain climbing guide, lighthouse, etc. The metaphors created by the practicing teachers help to characterize the many ways that teachers view their own roles and practice. Although these metaphors share some commonalities, they represent the unique perspectives teachers have about purpose, curriculum, classroom management, pedagogy and students.

The information gathered from the open-ended questionnaire and metaphors were compiled and content analyzed by categorizing the responses. Similar responses were combined and general category descriptions were developed. These categories were used for the descriptive information describing teacher's real and ideal visions. In addition, teacher's real and ideal visions of teaching were analyzed for alignment and misalignment.

## **What are coping strategies for not being in their "Ideal" world?**

There are a number of coping strategies that teachers use for not being in their "ideal classroom." First, the disillusionment and attitude shifts from a progressive mode to a more conservative mode. Teachers become reluctant to change anything.

Second, the gap between vision and reality leads some teachers to believe that students are incapable of attaining their high expectations so the teachers lower their expectations. In addition, the teachers may start to doubt their own effectiveness as a teacher.

Ultimately, this produces teachers that are resistant to many reform efforts. This calls for a professional development model that addresses the concerns and needs of the teacher in their “ideal classroom.”

Since the relationship between teachers’ beliefs and reform efforts demonstrates that teachers’ beliefs have a powerful impact on their willingness to adopt new curriculum and teaching strategies; the following strategies are worth pursuing and are important as a needs assessment for a professional development model. First, teacher educators may help teachers recognize the steps they need to take to reach their vision and come to terms with the time required. Second, assist teachers to articulate their visions more explicitly may enable them to develop a clearer sense of their purposes for teaching and their commitment to the profession. Finally, we need professional development models that address this need. In fact, helping teachers figure out ways to hold on to their ideals while confronting the realities of the classroom may be of special importance in this era of increased accountability.

#### Implications for Illinois Education

For all of us, the ultimate goal is a more coherent, organic and integrated schooling for American young people. However, creating that kind of experience does not necessarily BEGIN with rescheduling the school day, abolishing separate subjects, or instituting thematic interdisciplinary units. Vast changes and improvements in teaching can be made within the old subject boundaries. Education can better utilize the opportunities available to it by working in a more facilitative manner with the individual teacher.

Focusing on teachers’ vision may help us better understand why committed, thoughtful teachers consider leaving the profession, as well as why equally committed and thoughtful teachers remain inspired in their work. But perhaps even more important, teachers’ vision may also provide us with a particularly powerful means of focusing on the support of teachers by enabling us to validate their commitments, challenge and deepen their beliefs about teaching and learning, and even help them develop clear and attainable steps that assist them in moving closer to their ideals.

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## De-Mystifying the PSAE

Stephen M. Ponisciak, Consortium on Chicago School Research

### Purpose

The purpose of this work is to provide general information about the PSAE, a relatively new test for high school students in Illinois, and analyze PSAE data from the Chicago Public Schools (CPS) to determine if any interesting or relevant patterns exist.

### Data and Methods

The sample consists of all students enrolled in CPS between Fall 1998 and Spring 2002. For the analysis of the PSAE alone, the sample includes 19,715 students from 2001 and 20,499 students in 2002. I will provide some background information about the test, and simple summaries of the data, including who takes the test (and reasons for those who do not). I will then examine differences in scores between those who only take only one out of the two days of the test and those who take both days; procedures associated with testing accommodations; the percentage of freshmen who remain in CPS long enough to take the PSAE; the percentage of 11<sup>th</sup> graders who take it; and eighth-grade ISAT scores of those who remain in CPS long enough to take the PSAE compared with ISAT scores of those who do not. These values will also be examined for subgroups of the population.

I will describe relationships among the subtests and PSAE tests, including correlations and reliabilities for the ACT and ISBE tests, differences in ACT scores for each Work Keys skill level, and correlations and reliabilities of the five PSAE tests. I will describe CPS students' performance on the PSAE, with average scores for each test in each year, and the percentage of students who meet or exceed standards. I will show how scores have changed from 2001 to 2002, examine group differences in performance, and may examine differences in scores across schools. Any comparison of mean scores will involve a t-test, but will include a caveat about the size of the subgroups.

The main topic of investigation is the relationship between students' PSAE scores in 11<sup>th</sup> grade (in 2001 or 2002) and their eighth-grade ISAT scores from three years earlier. This analysis involves 23,853 students who were in eighth grade in 1999. In our data, 1999 eighth-grade ISAT math scores and 2002 PSAE math scores have a correlation of 0.83 (with a maximum of 0.94, based on the reliabilities of the two tests); the relevant value for the reading tests is 0.75 (with a maximum of 0.86). For this analysis, all scores are centered at the CPS grand mean. I will use a Bayesian hierarchical linear model, in the WinBUGS software package, with a different intercept for each combination of school, race, and gender. If we write the centered PSAE score as  $Y$  and the centered ISAT score as  $X$ , then our model is based on the assumption

$$Y_i = \alpha_{r(i)g(i)s(i)} + \beta X_i + \varepsilon_i$$

for student  $i$ , who is of race  $r(i)$  and gender  $g(i)$ , and attended school  $s(i)$ . I will determine whether a different slope  $\beta_{r(i)g(i)s(i)}$  is needed for each of these combinations as well by examining the fit of the model to the data. I will then compare schools based on differences in the value of the intercept  $\alpha$  (and the slope  $\beta$ , if different slopes are included in the model) between subgroups that contain at least 20 students. The intercept can be

interpreted as the typical PSAE score for a student in that subgroup who had the CPS average ISAT score, while the slope is the expected difference in PSAE scores for a one-point difference in ISAT scores. Schools with slopes larger than one are those whose higher-achieving students demonstrate a greater degree of improvement than their lower-achieving students. Schools where there are large differences between subgroups may be schools where improvement is needed.

### **Results**

Initial results suggest that a common slope (i.e. with no subscripts) is sufficient, and that there are some considerable differences between schools, in the performance of certain groups of students, and within schools, in the performance of different groups of students.

### **Implications**

The implications for Illinois education include the possibility that some schools are not meeting expectations for all students. In addition, while we hope to have minimized this possibility by taking advantage of the presence of multiple observations of the same student, some of the differences that we observe may be the effects of unmeasured variables.

## **School Psychological Services in Illinois: What is Provided versus What is Desired**

Andrew R. Brulle, Wheaton College

### **Purpose**

In these times of economic uncertainty and unparalleled mandates for efficiency, demands for effectiveness in school services seem to have become the norm. With the passage of the *No Child Left Behind Act* (P.L. 107-110, 2002), school districts must now provide proof that the achievement levels of their students are continually increasing. Within the school services area, the result of this movement could become increased demands on school psychologists for more and varied services offered to more children. In order to explore the need and desire for services, we opted to survey the perceptions of the immediate supervisors of psychologists. In most cases, these supervisors are building principals. This presentation will focus on the results of a statewide survey of school principals regarding their perceptions about current and desired school psychological services.

### **Methodology**

*Participants.* A list of all principals by county in the State of Illinois was obtained from the Illinois State Board of Education. Because Cook County (which includes the City of Chicago) accounted for almost one half of all of the schools in the state, the decision was made to eliminate Cook County principals from the study. Additionally, in order to allow the examination of the perceptions of public school personnel only, the names of all of the principals of private schools were eliminated from consideration.

The total number of schools in each county was then calculated, and a stratified random sampling procedure was used to ensure that an equal percentage of principals was selected from each county in the state. This process resulted in a list of 895 principals who received the survey. Completed and usable surveys were received from 368 (41%) respondents. This response rate was consistent across the state, consistent within counties, and representative of the state at the 95% confidence level.

*Survey Development.* An extensive search of the literature regarding the roles and expectations of school psychologists was conducted. We adapted several lists and identified 13 different services that could be grouped into three major areas. In the first area, Consultation Services, nine different services were identified: (1) pre-referral consultation/intervention; (2) academic interventions for the classroom; (3) behavioral interventions for the classroom; (4) moral education and prevention programs; (5) in-service training; (6) parent skills training; (7) program evaluation; (8) school/community relations; and (9) coordinating services with outside physicians, psychiatrists, and/or agencies. The second major area, Therapeutic Counseling Services, had three identified service areas: (1) individual counseling; (2) group counseling; and (3) crisis counseling. The final area, Assessment Services, had one identified service: assessment for special education eligibility.

The survey itself was divided into two parts. The first part asked for demographic information on the principal's county, the school setting (urban, suburban, or rural), the level of the school (elementary, middle/junior high school, high school, or other), the

number of students attending the school, the number of days per week in which the school received school psychologist services, and the employer of the psychologist (school district, special education cooperative, independent contracting).

In part two, the thirteen specific services were listed and respondents were asked to rate both the status of the current services and the level of ideally desired services on a 5-point scale (5 = most important, 4 = very important, 3 = somewhat important, 2 = slightly important, and 1 = not at all important). One final question asked the respondents to describe the current priority of the school psychologist's role in their schools by rating (1 = first priority to 3 = third priority) three different roles, consultant, therapeutic counselor, or special education child study specialist.

## **Results**

Currently-provided and ideally-desired services were first ranked in order of importance. The top three items were identical in their order in both the currently received services and the ideally desired services. Special education assessment was ranked first, followed by pre-referral consultation and behavioral intervention. Most other services were closely aligned by rank with the exception of parent skills training (ranked 13<sup>th</sup> in currently provided services and 9<sup>th</sup> in ideally desired services), group counseling (ranked 11<sup>th</sup> in currently provided services and 8<sup>th</sup> in ideally desired services), and program evaluation (ranked 7<sup>th</sup> in currently provided services and 11<sup>th</sup> in ideally desired services). Interestingly, the only item was rated above a level of 4 in the currently provided services was the first item, special education assessment. Additionally, only one other item in the currently provided services was rated above a level of 3 (pre-referral consultation). On the other hand, the top six items in the ideally desired services rankings were rated above a level of 4 and all of the items in the ideally desired services rankings were rated above a level of 3.

In order to determine if there were any significant differences between the levels of importance of currently provided services and ideally desired services, all items were examined through the use of t-tests. All thirteen of the items exhibited statistically significant differences between the levels of the currently provided services and the ideally desired services. In all cases, the levels of the ideally desired services were significantly higher than the levels of the currently provided services. Analyses of variance were conducted across the services to see if there were any differences by types, sizes, and locales of schools. No significant differences were found.

## **Implications for Illinois Education**

The results have several implications for Illinois education. First, the results demonstrate a much greater demand for psychological services than is currently provided. Policy implications of this finding include considerations of incentives for encouraging candidates to enter programs and discussions among administrators regarding the efficacious use of psychologists' time. Second, the results validate the domains stressed by the National Association of School Psychologists (NASP) and therefore provide support for programs of preparation that address these standards.

# **Predicting Attrition Among Illinois Teachers: Specifying a Probability-Based Predictive Model**

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## **Introduction**

The purpose of this project is twofold. First, we examine the distribution of attrition rates by experience levels for specific characteristics of teachers. For example, does attrition vary significantly by experience levels for teachers by assignment (such as Math, Science, English, and Vocational Education), gender, geographic location of school district. Second, we specify a probability-based predictive model of attrition among teachers based on demographic and socio-economic characteristics. Taken together the results provide a more comprehensive understanding of not only whether attrition behavior by experience differs for teachers, but whether observed descriptive differences can be captured and predicted by a probability model.

## **Data and Methods**

The Illinois State Board of Education (ISBE) provided the four Teacher Service Record (TSR) datafiles that includes micro records on each public school teacher in grades K-12. The datafiles cover the academic school years 1999 (N= 148,136), 2000 (N=151,869), 2001 (N=155,417) and 2002 (N=157,462). The files were standardized by data element and measurement. The variables in the analysis are salary, gender, race (White, Black, Hispanic, Asian, and Native American), and assignment (Art/Music, Foreign Language, Health/PE, English Language Arts, Math, Science, Social Science, Elementary, Special Education, Vocational Technical, Other, and None).

In addition, we developed a measurement of geography of school district. We originally intended to use Metropolitan Statistical Areas (MSAs) for the categorization, but decided later, since they cover such large geographic areas of the state, MSAs do not provide enough granularity for reasonably accurate classification. Moreover, they do not allow easy differentiation between urban and suburban areas. However, the “school report card” project at ISBE uses US Census data to classify each school district. We extended this work to differentiate school districts into city, suburb, town, rural and regional offices.

Attrition was calculated by testing each Social Security Number (SSN) in a particular datafile against the succeeding year. Consequently, we were only able to create data in the first three years’ files, as we did not have data succeeding the fourth year. The link variable was then updated in the original file based on the existence of the SSN in the second file, and on the employment status of that particular individual. The link methodology, then, created six teacher populations: 1. the teacher left the school system from full-time employment; 2. the teacher left the school system from part-time employment; 3. the teacher continued in full-time employment; 4. the teacher continued in part-time employment; 5. the teacher changed employment status from full-time to part-time; and 6. the teacher changed employment status from part-time to full-time. For this analysis we included only teachers whose employment status was full-time in the current year file. Next, we defined as attrition those who were full-time in the current year file and left the school system in the succeeding year.

## **Homogeneity Tests within each variable’s categories**

The Kruskal-Wallis (KW) test is a non-parametric statistical measure used to compare the medians of several populations with unknown distributions. We used it to investigate the similarity (homogeneity) of attrition distributions across experience levels for

gender, geography, race and assignment. Also, we tested for the homogeneity of attrition across two panel years (1999 vs. 2000). The findings revealed a consistent pattern of attrition behavior by each of the variables across the two panel years. In addition, the distribution of attrition for females is different from males although reasonably similar by assignment with the exception of Math and Health/PE. Attrition in suburban and city schools is not significantly different, as is the case for towns and rural areas. However, the former two geographic groups are significantly different from the latter two geographic groups.

### **Binary logistic model**

Attrition, the response variable, was transformed into a binary variable. Full-time teachers that left the educational system are coded as 1. All other teachers, who stayed or just shifted their status within Illinois' State Board of Education (ISBE), are coded as 0. First, we ran a backward stepwise binary logistic regression for attrition in each of the academic-year panels, to test for the removal of a predictor based on the probability of the Wald statistic. For example, in the 2001 panel, the statistic tested the null hypothesis that a predictor should be removed. In fact, the significance level for gender was 0.532, which is greater than a critical value of 5%. Therefore, the null hypothesis could not be rejected and gender was removed from the model. On the other hand, experience, geography, race and assignment produced a non-significant finding and remained in the model. These findings were consistent with the 1999 and 2000 panels. The final logit model had attrition as a function of one continuous predictor, total experience, and three categorical predictors, assignment, geographic location and race.

The findings report that all four predictors (total experience ( $w=124.6$ ,  $p=0$ ), assignment ( $w=74$ ,  $p=0$ ), geography ( $w=92$ ,  $p=0$ ) and race ( $w=31$ ,  $p=0$ )) have p-values less than 0.05 and, therefore, there is sufficient evidence that the parameters are not zero using a significance level of  $\alpha = 0.05$ . Although the model suggests that the parameter of total experience is not zero, the odds ratio is very close to one (1.012), indicating that one extra year of full-time teaching experience minimally affects a teacher's attrition decision. A more meaningful interpretation can be made for full-time teachers with a more work experience. For example, if the total experience is 10 years, the odds ratio becomes  $\exp(10 \cdot .011) = 1.12$ , indicating that the odds of a full-time teacher leaving increases by 12% with each 10 years increase in experience.

Under the heading of assignments, Health & Physical Education full-time teachers tend to have a higher attrition rate than Self-Contained Elementary (SCE) full-time teachers, the coefficient is -0.235 and the odds ratio of 0.791. Controlling for all other factors, the odds of SCE full-time teachers leaving the profession is 79.1% of the odds of Health and Physical Education leaving their profession. Controlling for all other factors, the odds of SCE full-time teachers leaving the profession is 87.1% of the odds of Special Education teachers leaving their profession. Special Education full-time teachers tend to have a higher attrition rate than SCE teachers.

Geographic location of the school district also impacts attrition behavior of teachers. Full-time teachers in town and rural areas tend to have a higher attrition rate than full-time teachers in the city, with approximate odds of 77% and 78%, respectively. Finally, Black full-time teachers tend to have a higher attrition rate than White full-time teachers, controlling for all other factors. The odds of White full-time teachers leaving their profession is 84.7% of the odds of Black full-time teachers leaving their profession. On the other hand, Asian full-time teachers tend to have a lower attrition rate than full-time White teachers.

## **Trends in Measures of School Organization in Chicago Public Schools and Their Relationship with High Stakes Accountability**

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### **Objectives**

While school reform initiatives have been a part of the education landscape since the Common Schools era began in 1840, finding ways to improve school performance has gained added urgency with the passage of the No Child Left Behind legislation and with the increased emphasis on high stakes testing that is sweeping the country. In Chicago, the Theory of Essential Supports and Contextual Resources has guided reform efforts since 1994, and there is substantial evidence linking these Supports with increased student learning. This paper examines trends in the Essential Supports in Chicago Public Schools (CPS) and discusses the implications of the finding that decreasing levels of these Supports has coincided with CPS' increased emphasis on accountability based on standardized test scores.

### **Background**

In 1994 the Superintendent of the Chicago Public Schools convened a series of meetings to create a theoretical and practical roadmap for school development that could be used to propel an improvement agenda across the whole system (Bryk, Sebring et al., forthcoming). Since that time the framework has been refined by continued interaction between researchers and practitioners. It has evolved into a model of Essential Supports for Student Learning that has empirical and theoretical support and that has been used to guide school improvement planning and research over time (Wenzel, Smylie et al., 2001). This model posits that student academic learning flourishes when it is supported by inclusive facilitative school leadership and a vital professional community of teachers, and when there is parental and community involvement. It is enhanced by a student-centered learning climate and quality instruction. These supports do not exist in a vacuum: there is a broader context that includes social trust, structural factors, and community history (Sebring, Bryk et al., 1995). Subsequent Consortium research has shown that each of these supports is individually related to student academic achievement (Bryk, Sebring et al., forthcoming); furthermore, they tend to function systemically, and change in one of them is often linked to changes in others (Wenzel, Smylie et al., 2001).

The school reform context in Chicago has changed twice in the latter part of the 20<sup>th</sup> century (Sebring, Bryk et al., 1996). The 1998 Chicago School Reform Act decentralized authority, giving elected Local School Councils authority to approve their local budget and School Improvement Plan, as well as the responsibility to hire and fire school principals (Sebring, Bryk et al., 1995). However, in 1995, the Illinois legislature passed a second Chicago school reform bill, which gave the mayor control over the school system and authority to appoint a Board of Trustees and a Chief Executive Officer, replacing the position of superintendent (Sebring, Bryk et al., 1996). Since 1995, CPS has embarked on a policy of high stakes accountability. In 1996 it ended social promotion, retaining students in grades 4, 6 and 8 based on their performance on the ITBS (Roderick, Bryk et al., 1999); it also placed schools on probation, again based on ITBS scores (Bryk, Thum et al., 1998).

Obviously this external climate has had an impact on earlier reform efforts. In fact, many schools abandoned their newly-planted reform programs in order to concentrate on meeting accountability standards (Smylie, Wenzel et al., forthcoming).

## **Methodology**

The Consortium on Chicago School Research is an independent organization affiliated with the University of Chicago that conducts research on ways to improve Chicago's public schools. It includes faculty from area universities, Chicago Public Schools leadership, representatives of the Chicago Teachers Union and the Illinois State Board of Education, as well as members of education advocacy groups and civic and professional leaders. It uses data from a variety of sources to study educational processes and outcomes in Chicago, including Chicago Public Schools data, Census data at the block group level, data from the Project on Human Development in Chicago Neighborhoods, survey data, and, as part of the study of schools involved in the Chicago Annenberg Challenge, longitudinal case studies. Over the past five years it has produced more than 40 reports on key indicators of educational performance, evaluation of CPS policies, and factors that sustain student learning over time.

Data for this study come from surveys that the Consortium distributed to students in grades 6-10 and to all teachers in Chicago Public Schools in 1994, 1997, 1999 and 2001.<sup>6</sup> Typically, between 50,000 and 60,000 elementary school students (grades 6-8) have responded, as have between 25,000 and 28,000 high school students (grades 9-10), answering approximately 150 items about their school experiences. In addition, about 9,000 elementary school teachers and 2,000 high school teachers completed surveys in each year, responding to about 300 questions. Over the four survey administrations, about 75% of elementary schools and 70% of high schools have been represented (Public Use Data Sets Users Manuals, 1997, 1999; Sebring, Bryk et al. 1995; Sebring, Bryk et al. 1996)

Rasch methods were used to develop indicators from survey items measuring various aspects of the Essential Supports. In practice, this means that questions from the survey that seem conceptually coherent and that fit statistically make up a measure; respondents are then given a score that indicates the extent to which they show the trait being examined. Then, three-level hierarchical linear models were used to determine trends over time for each measure. Finally, a contrast test was performed between the intercepts for 1999 and 2001 to see if there had been a significant level of change between these two points (Smylie, Wenzel et al., forthcoming).

In addition to the survey data, as part of the analysis of the Chicago Annenberg Challenge, researchers collected four or five years of data from field visits to 14 elementary schools. These data include an average of 22 interviews and observations from each school as well as documents and earlier case reports (Smylie, Wenzel et al., forthcoming). Three analysts independently rated the 14 schools on their strengths and weaknesses on each of the Essential Supports, and reached consensus through discussion or additional data analysis (Smylie, Wenzel et al.).

## **Results**

In general, the survey data indicate that measures related to School Leadership, Professional Capacity and Parent and Community Partnerships increased between 1994<sup>7</sup> and 1999, but most of them decreased between 1999 and 2001. This statistically significant trend is apparent for schools across the system as well as for those schools that were part of the Chicago Annenberg Challenge, where the statistical analyses are reinforced by the longitudinal case studies. In other words, measures of schools' infrastructure and of their relationships with the larger community have virtually all declined since 1999, and measures of social trust linking teachers with other teachers, principals and parents have declined or remained flat. This decrease has occurred in a context of high stakes accountability for students and for schools.

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<sup>6</sup> School principals were also surveyed. Their responses are not a part of this study.

<sup>7</sup> Some measures were not created until 1997. For those measures, trends from 1997 to 2001 are discussed.

## **Implications**

This study supports the hypothesis that early efforts at school reform in CPS, including the efforts of the Chicago Annenberg Challenge, were negatively impacted by the district's push for high stakes accountability. The trend over the whole system shows a pattern of increases in those Essential Supports crucial to schools' development of their organizational and contextual capacities between 1994 and 1999 when teachers and students were surveyed. Between 1999 and 2001, coinciding with the district's increased reliance on test scores and public accountability, these gains have been largely eliminated. Since we have good evidence from schools in Chicago showing what needs to be present for sustained learning improvement (Bryk, Sebring et al., forthcoming), this downward trend in levels of three of the Essential Supports is troubling. Exploring ways in which the hard work of educational reform can bear fruit in the context of high stakes accountability is important for Chicago Public Schools and for countless other districts in Illinois and elsewhere.

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**The Impact of Welfare Reform on Academic Outcomes: Findings from Illinois**  
*Parental Workforce Participation, Welfare Receipt, and Children's Academic Outcomes*

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**Introduction**

In this paper, we will examine how changes in the welfare system brought about by the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) have affected parental report of children's academic outcomes. PRWORA put into place the Temporary Aid to Needy Families (TANF) program, which was intended to increase welfare recipients' workforce participation and decrease their welfare receipt. These TANF policies, including the 30-hour-per-week work requirement and 60-month time limit, have led to a nationwide decrease in the welfare rolls of 56% between 1993 and 2000 (U.S. Department of Health and Human Services, 2000). Thus, the 1996 welfare reform has generally been heralded as a great success.

In spite of the overwhelming public support for welfare reform, many of its consequences remain as of yet unknown. For example, we have yet to find out the kinds of effects that the reform will have on the children of current and former welfare recipients. Applying the life-course perspective to the families, the principle of "linked lives" states that the lives of the parents and children "are lived interdependently, and social and historical influences are expressed through this network of shared relationships" (Elder, 1998, p. 4). Thus, policies aimed at recipients' workforce participation and welfare receipt will inevitably affect the recipients' children as well.

There are a number of ways in which TANF policies may indirectly affect the recipients' children's academic outcomes. The work requirement, for example, may lead many mothers to work full-time. Some research has shown that maternal employment among poor women has positive or neutral effects on children's academic outcomes (Moore and Driscoll, 1997; Morris et al., 2001; Zaslow and Emig, 1997). The positive and neutral effects, however, may depend on the wage-level earned by the parent (Moore and Driscoll, 1997) as well as the occupational complexity of the parent's job (Menaghan and Parcel, 1995; Parcel and Menaghan, 1997).

Work requirements under PRWORA may also lead parents to become less involved in their children's education, thereby affecting their children's academic performance. Parental involvement has been shown to have a positive affect on children's academic achievement (Bogensneider, 1997; Izzo et al., 1999). At least part of the positive effect of parental involvement on academic achievement has been shown to be related to school-related activities that take place in the home (Ho and Willms, 1996). Research has shown that single mothers who participate in low-wage work have a difficult time balancing the demands of parenting and work (Edin and Lein, 1997). Thus, single parents who work at least thirty hours a week, as is required under TANF, will most likely have fewer opportunities to be actively involved in their children's schooling, which may negatively affect their children's academic outcomes.

The way in which parental employment affects children's academic achievement may also depend on the timing of employment. Another principle of the life-course perspective states that "the developmental impact of a succession of life transitions or events is contingent on when they occur in a person's life" (Elder, 1998, p. 3). For example, while evaluations of welfare-to-work programs found that mandatory parental employment had

mostly positive and neutral effects on the academic achievement of elementary school-age children, the two programs that looked at adolescent outcomes found that mandatory parental employment had some rather unfavorable effects on adolescent children's achievement (Morris et al., 2001).

Parental employment and/or loss of cash benefits may also lead to a change in family income. Many studies have shown that living in poverty is associated with negative cognitive and academic outcomes for children (e.g., Collins and Aber, 1997; Duncan et al., 1998; Guo, 1998). Research has also shown that a raised level of family income is associated with positive effects on children's academic performance (Smith et al., 1997). Thus, an increase or decrease in family income due to employment and/or loss of welfare benefits could positively or negatively impact children's academic achievement.

In this paper, we hypothesize that a number of TANF policies, including the 30-hour-per-week work requirement and 60-month time limit, may affect children's academic and behavioral outcomes through their impact on parents' workforce participation and welfare receipt. We also theorize that parents' workforce participation and welfare receipt will have differential affects on children according to their age, with younger children being more impacted by changes in family income due to parent's workforce participation and welfare receipt and adolescents being more impacted by the amount of time parents spend at work.

### **Sample, Method, and Findings**

The data to be used in this study are taken from the first two waves of the Illinois Families Study (IFS), a longitudinal study of 1362 respondents who were receiving TANF in the State of Illinois during September, October, and November of 1998. The first wave of data collection was completed in September of 2000 and the second wave was concluded in September of 2001.

The sample from the IFS to be used in this study contains 725 children who were in first through twelfth grades during both waves of data collection. Children from families that have only one school-aged child were all selected, and one child per family was selected from families with more than one school-aged child.

A number of multiple regression analyses will be completed in the study. The dependent variable of interest is the Wave 2 parental report of the selected child's grades, and the independent variables of interest consist of Wave 1 and Wave 2 changes/consistencies in parental work and welfare status. Various child and parent background characteristics will be controlled for, including the child's health status, Wave 1 parental report of the child's grades, parental depression, and housing problems, etc.

Our findings show that children whose parents transitioned from not working in Wave 1 to working in Wave 2 were significantly more likely to be achieving academically – receiving A's and B's – at Wave 2. Parental employment at Wave 2 was not found to be a positive factor in all cases, however. We found that children whose parents were employed in both waves were significantly less likely to receive A's and B's at Wave 2 than were children whose parents transitioned from not working to working. We also found that receiving welfare during Wave 2 had a positive relationship with receiving A's and B's at Wave 2, which suggests that welfare payments may be a protective factor for families. We argue that parental employment may be beneficial for children's academic achievement, particularly if families are able to continue receiving welfare benefits.

### **Implications for Illinois Education**

Illinois has led the nation in welfare reform by reducing welfare rolls while increasing the income of those who are no longer receiving aid. This paper suggests that the

children of former recipients have indirectly benefited from Illinois welfare reform policy. We also examine some of the unanticipated consequences for children of a policy that has transformed the lives of their parents.

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## **Educator Quality and Preparation in Illinois: The Role of Principal Preparation**

Ray Legler, NCREL

### **Introduction**

In the past several years concerns have been growing regarding the issue of the principalship. Due to shifts in demographics (i.e. the increasing age of many principals), many who are interested in improving the performance of schools worry that the pool of qualified principal candidates will be insufficient to meet the pending demand. At the same time that concerns about the availability of qualified principals are growing, others have suggested that the role and responsibilities of principals have changed and grown substantially over the last several decades. It may be that the increasing demands on principals have made the job an increasingly unappealing one (especially without concomitant changes in salaries) and have contributed to the difficulty of attracting qualified candidates in some areas.

### **Data and Methods**

In 2002, NCREL conducted a survey of principals in the Midwest (IA, IL, IN, MI, MN, WI, OH) in order to explore the issue of principal preparation. The study was conducted to explore the relationship between the daily job demands on principals and the preparation that they received. The survey contained questions that focused on principals' daily job tasks and their preparation for those tasks. Questions for the survey were derived from other instruments used in previous research to explore the issue of principal job responsibilities and preparation.

In the spring of 2002 we mailed surveys to a random sample of 3,400 principals in the Midwest. Our final sample was 1,110 (32.6% response rate), including 186 responses from Illinois principals. In terms of the demands of their jobs, we asked principals a series of questions about the amount of time that they spent daily on tasks in areas such as instructional leadership, communication, school and community relations, student interaction, and management. We then asked the same questions in terms of how prepared the principals thought they were for those tasks. Analysis of the data from this exploratory study consisted primarily of the calculation of descriptive statistics.

### **Findings**

Our analysis of the data on principal job tasks and preparation focused on the identification of discrepancies between daily activities and reported levels of preparation. The results suggested that there are several aspects of principals' jobs that are not well-covered in their preparation programs (in relation to daily time spent on these issues), including instructional scheduling, communications issues, fundraising, and other issues. We also disaggregated the results by state in order to look at Illinois in comparison to the other states. The main pattern that we found across states, including Illinois, was that principals rarely reported feeling well or very well prepared for any of their daily tasks.

In terms of principal preparation, our study provides a starting point for examining the relationship between the primary demands on principals' time and the extent to which they acquired the necessary skills from their preparation programs. As the job of the principal has become broader and more diverse, it is important to assess the

extent to which preparation programs are aware of these changes and are responsive to the requirements of the principalship. Our findings suggest that in particular areas of instructional leadership, communication, and community relations, principals do not feel as prepared as they would like. More broadly, principals reported feeling not at all or only somewhat prepared for most of their responsibilities. While more research on these issues is necessary, higher education programs that prepare principals may wish to consider revising their programs to more adequately address the evolving job demands on today's principals.

# **Reading Achievement in an Integrated Inner Suburb: A Multi-Level, Multi-Assessment, Multi-Year Review**

G. Alfred Hess, Jr., Northwestern University

## **Introduction**

This review of reading achievement in Evanston-Skokie Community School District 65 was undertaken as a part of The Lighthouse Partnership between Northwestern University's School of Education and Social Policy and District 65. The partnership, now in its third year, was forged to link the research interests of the university's faculty with the school district in which it is located, at the initiation of the district's new superintendent. The partnership has worked with middle grades science teachers to adopt inquiry-based science units which are richly infused with technology, created new math units to supplement the district's Everyday Math curriculum, worked with elementary teachers to improve their math instruction through participation in a video club, helped the district design and implement a Two Way Immersion program that has now replaced its traditional bilingual education program, and helped the Board of Education develop and adopt a community-based Five Year Strategic Plan. The author of this paper has acted as the coordinator of the partnership throughout its three-year history.

One facet of District 65's Five Year Strategic Plan was to increase its program evaluation efforts. The first two major evaluation projects focused on Special Education and on Reading Achievement. The author was asked to conduct a review of reading achievement in the district over a five-year period, with particular attention paid to the achievement of low-income minority students. The proposed paper contains a summary of the final report of the project, which was presented to the District 65 Board of Education in November 2002.

## **Methodology and Data Limitations**

This review of reading achievement in the Evanston-Skokie Community School District 65 combines data from two standardized tests, the Stanford Achievement Test and the Illinois Standards Achievement Test (ISAT), and a set of curriculum based tests provided by the district's Scholastic reading program. It links individual students over five years to their achievement on these three assessments. It links their achievement to the schools they attended and, for about 60% of the students, to the teachers who instructed them. The review thus provides the most comprehensive report on reading achievement available to the district.

By combining a series of disparate assessment and demographic files, this review links classroom administered, curriculum based assessments with national and state standardized assessments in a unique way. This is an effort to overcome the disjointed set of assessments that were administered by the district during the five years under review, from 1996-97 through 2000-01. Unlike many large urban districts which administer a common set of assessments to every student in every elementary grade, District 65 has administered one set of assessments to some students and another set to others, with no equating between the various measures, making it very difficult to consistently track the achievement of students from year to year to see if they are progressing appropriately from grade to grade. By collecting and computerizing teacher reports of student achievement on the end of year curriculum tests provided by Scholastic, such a continuous assessment database was created, but only for about 60% of the students. This database did provide a linkage between students taking the assessment and the teachers who were instructing them in that year. Through these

students, the review was able to link results from the Stanford and ISAT assessments to individual teachers as well.

The Stanford assessments provided nationally normed data on the district's students, but only for four years (1996-97 through 1999-2000) and only at grades 2 and 5; grade 4 data were available for only the last year of these four. It did provide the best linkage to demographic data on the students and most students in the designated grades did take the assessment. ISAT was given only for three years (1998-99 through 2000-01) at grades 3 and 5; most students took this assessment, but student demographic data were seriously flawed.

For this review, a common demographic data set was created from these three assessment sources and the district's administrative files on students. During most of the period under review, the district had no archived data on either students in the schools during those years or the teachers providing instruction in their classrooms. This is a serious deficiency for any district trying to understand its past performance trends in order to improve its present and future outcomes.

## **Findings**

Three major findings from this review of reading achievement are presented:

**1. District wide, reading achievement varies by student constituency.** District 65 educates two quite different constituencies: one composed of students from higher income and more educationally advantaged students (95% of white, most Asian, and about a third of African American and Hispanic students are in this group) while the rest of the minority students come from low income families. The median achievement level for the first group is about the 80<sup>th</sup> percentile while for the second is about the 40<sup>th</sup> percentile. Low-income minority achievement fell from the 35<sup>th</sup> percentile in second grade to the 27<sup>th</sup> percentile in fifth.

**2. School by school achievement of Black and Hispanic students varies widely.** In some District 65 elementary schools, Black and Hispanic students achieve above or close to the national norms in reading. In others, minority reading achievement is abysmal and gets worse the longer the students attend those schools. By the fifth grade, the average low-income Black student attending one District 65 school is reading at only the 18<sup>th</sup> percentile nationally.

**3. Some individual teachers, at every grade, have been consistently successful with low-income African American students.** By analyzing classroom results of low income Black students and, separately, middle and high income Black students, and rank ordering these results for classrooms across the district on each assessment in each grade in each year, a set of teachers whose Black students consistently ranked in the top third in multiple years has been identified. About half of these teachers consistently are assigned better performing low income Black students; their performance is important in maintaining these high levels of performance, but different in nature from those teachers assigned previously less successful students. A smaller group of teachers has been identified who have been consistently successful with lower performing students; they should be closely observed to understand the practices they utilize that produce this consistent success with students with whom other teachers have been less successful in reading.

# **The Influence of Multiple Institution Transfer Patterns on Undergraduate Degree Attainment and Time-to-Degree**

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## **Introduction**

Students are moving among postsecondary institutions with increased fluidity. Due to increasing numbers of transfer students, and the more varied and complex progression of students through higher education, transfer and articulation concerns have become more prominent issues in higher education policy discussions. The increase in policy salience has been accompanied by an increase in the research which examines the impact of transfer on degree completion and time-to-degree at national and state levels.

## **Purpose of the Study**

This study contributes to the policy and scholarly discourse by focusing on one aspect of the increased complexity of transfer patterns. The purpose of this study is to examine how multiple institution attendance patterns influence degree attainment and time-to-degree within the state of Illinois. The inquiry is conducted through student transcript analysis and interviews with students.

## **Perspectives and Theoretical Framework**

Attitudes toward two-year institutions have changed in the last thirty years. Community colleges in the United States were initially viewed as an extension of the high school in preparation for university study. There were two routes to a baccalaureate degree – 1) four years at a college or university; or 2) two years at a community college and two years at a university. Dougherty (1987) outlined three ways in which the two-year college hindered degree attainment – 1) the high attrition at two-year colleges; 2) the difficulty in transferring to four-year institutions; and 3) attrition after transfer. This perspective was supported in Pascarella and Terenzini's 1991 evaluation of the research from the 1970's and 1980's when they found that institutional continuity in undergraduate attendance enhanced degree attainment. In contrast, analyses of a national longitudinal dataset of high school classes from the early 1980's revealed that while there was considerable attrition at two-year institutions, the degree completion rate for those students who did eventually transfer to a four-year institution, was very high. In fact, students who followed traditional transfer patterns of completing freshman year credits at a two-year college and then successfully transferred to a four-year institution, were very likely to complete their baccalaureate degree. This analysis of the two national datasets found that the number of institutions attended does not hinder degree completion, but does increase the time-to-degree. (Adelman, 1999, p. 66) These data suggest that the classic or traditional form of transfer, (that is 2 years at a community college and transfer to a 4 year institution) is an extremely effective route to baccalaureate degree attainment.

Non-traditional transfer patterns including reverse transfers (four-year to two-year and lateral transfers (four-year to four-year and two-year to two-year) began to emerge during the 1970's and 1980's. Kintzer, (1983) identified several categories of transfer students including: 1) articulated vertical transfers; 2) reverse transfers; 3) vocational transfers; and 4) lateral transfers. He noted that each type of transfer poses special articulation and transfer problems. It is clear that students no longer progress through higher education only through the traditional patterns. Reverse transfers (university to two-year) and lateral transfers (two-year to two-year; four-year to four-year) are increasingly common patterns of college attendance. In one Midwestern state alone, 1999 data revealed that transfers to community colleges constituted almost 30 percent of all transfers in the state.

The direction of transfer has become more varied, and the context for degree attainment has become more complicated. ‘Transfer swirl’ or the movement of students between and within sectors of higher education was first labeled by de los Santos and Wright (1989), is an increasing common phenomenon in higher education. National studies reveal that the proportion of students who attended more than one institution and began their higher education studies at a four-year institution ranged from 40 to 50 percent. (Adelman, 1999) From these data, efforts to assure seamless transfer from one college to another have been a concern of higher education policymakers. It is in this context that policy and research concerns over the influence of multiple institution attendance patterns on educational outcomes have become important.

Increases in the time-to-degree as well as changes in attendance patterns have been well documented and thus, have influenced how articulation agreements are configured, and the way in which research is conducted. Adelman (1999) noted that “the long tradition of institutional effects research in higher education is outmoded” due to changing attendance patterns of students. Building on the findings from prior research, this study examines the growing trend toward multiple institution attendance en route to obtaining a baccalaureate degree, with a particular focus on students who attend more than two institutions. The study design is intended to incorporate transfer in every direction possible (e.g. two-year to four-year, four-year to two-year, etc.); between different institutional types (private, public, four-year and two year); and takes into consideration the period of time that it takes for students to complete the baccalaureate degree.

## **Methods**

The research design is an analysis of students’ progress toward degree. The design involved a quantitative analysis of student transcripts. Detailed transcript analysis of four cohorts of fulltime advanced (junior status) undergraduate students was conducted. The four cohorts were:

- 1998 junior students who:
  - o transferred at least once in their undergraduate career;
  - o were native to the institution;
- 1999 junior students who:
  - o transferred at least once in their undergraduate career;
  - o were native to the institution.

The dependent variables used for the quantitative evaluation in the study are degree attainment and time-to-degree (years to degree). Statistical analysis of differences between the native and transfer cohorts in progress to degree and degree attainment were noted. Additional variables included in the model were student age and gender, number of hours transferred, total hours accumulated before attaining a degree, and cumulative grade point average.

## **Data Sources**

The sample is a subset of 480 transcripts from a larger sample obtained for a statewide evaluation project of a State initiative to facilitate transfer among institutions of higher education. Four random samples of students were obtained from the institutional research office at each of four participating four-year institutions in the study: The four institutions were selected for the study based on transfer activity and geographic representation within the state. Two of the four have substantial residential undergraduate student populations. Two are located in an urban center in the State. Three of the institutions are public universities. One is a private university.

The samples included four cohorts of students. Cohorts one and two were students who recorded at least 24 hours of transfer credit and were at junior status in fall 1998 and a second group at junior status in 1999. Cohorts three and four were students who were native to the institution and at junior status during fall term 1998 and a second group from fall 1999. From these samples, transcripts were then acquired from the Registrar’s office at each institution.

## **Analysis and Results**

The results of the study are drawn from three predominant categories of analysis; the examination of: 1) differences among the institutions in transfer patterns; 2) differences among the native, single transfer and multiple transfer students in degree completion and progress toward degree; and 3) differences in the articulation experiences of students who transferred.

Results of the transcript analysis revealed different transfer attendance patterns at the four institutions. The two urban and less residential four-year institutions show a higher proportion of students who transferred more than once before gaining junior status. The two institutions that have substantial residential populations show a more traditional transfer pattern with more focused enrollment progression.

Not surprisingly, native students showed a higher rate of degree completion within two years. In addition, students who transferred more than once before earning junior status had a lower rate of degree completion than their transfer counterparts who transferred only once. However, the more hours completed before transferred were positively associated with degree completion. Students who transferred took a longer time to earn junior status.

## **Importance of Study and Implications for Illinois Education**

Generally, the confluence of the trend toward multiple institution attendance, growing public pressures for accountability in the educational pipeline, and recent national examination of time-to-degree rates suggest the need for more research on the impact of transfer decisions. However, the present downturn in the economy both nationally, and in Illinois, exacerbates attendance and accountability pressures, and punctuates the need for reliable findings that can inform policy at institutional and state levels.

Tighter student budgets are likely to lead to increased transfer as students attempt to keep college costs under control. Students are likely to begin their academic careers at more economical institutions. In addition, students beginning at more expensive institutions may need to transfer in order to keep college costs within their budgets. If family finances are constrained, parents may turn to Illinois legislators and higher education administrators to address the gap in their financial need.

This research contributes to the understanding of all stakeholders regarding the relationship between transfer decisions and time-to-degree; which in turn, has implications for personal and family finances, and well as the institutional and state policies and programs required to address these very real financial concerns.

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# Teacher Induction in Illinois: Evidence from the Illinois Teacher Study

Brenda Klostermann, Illinois Education Research Council

## Purpose

National data show that teachers who do not participate in induction activities are nearly twice as likely to leave teaching within one to three years compared with those who do participate in an induction program.<sup>8</sup> This study explores the experiences of and opinions about induction activities of newly certified teachers and teachers with one to five years of teaching experience in the Illinois public schools (IPS). Data concerning teachers' overall satisfaction with teaching and intentions to continue to teach in IPS relative to how helpful they found their induction activities, and the number and type of activities received also are presented. The findings identify components for professional development programs that are most likely to influence intentions to continue teaching in the IPS.

## Methodology

As part of a larger study, data were collected from telephone surveys from random samples of 800 regular IPS teachers in 2000/2001 (400 1999/2000 certificants who were regular teachers in 2000/2001 [*Starters*]; 400 1994/1995 certificants who were teaching in 1999/2000 and 2000/2001 [*Stayers*]). "Regular" teachers in this study include full-time regular teachers and full-time special education teachers in IPS. Five focus groups conducted with recent teacher education graduates and current teachers (total of 35 participants) provided more in-depth information concerning satisfaction with teacher preparation programs and reasons for leaving IPS during the first five years of teaching.

## Results

### *Satisfaction with Teacher Preparation Courses*

Both Starters and Stayers felt their undergraduate studies and teacher preparation courses adequately prepared them for teaching. Over 80% of the respondents from each group judged their preparation as adequate or more than adequate on the following criteria:

- How to work collaboratively,
- Knowledge of the subject matter that they are certified to teach,
- Overall readiness to teach,
- Knowledge of and practice in appropriate instructional techniques, and,
- Knowledge of and practice in assessment techniques for their certified subject matter.

Teachers gave their lowest ratings (i.e., less than 70% of respondents) of adequacy to the following three aspects of their preparation courses:

- How to work with students with special needs,
- How to implement the Illinois Learning Standards into lessons, and,
- How to use technology for professional and instruction purposes.

In focus groups, teachers indicated they would have liked to have more student teaching experience, and more realistic expectations about how hard their first year would be.

### *Participation in Induction Activities*

Schools and districts have stepped up new teacher induction activities to help newly certified teachers "swim" rather than "sink" during the first year of teaching.

- Nearly all teachers in the study reported receiving at least one induction activity, and 90% received at least two.
- More than half (54%) of the Starters received at least six of the eight activities included in the study, compared to just one third (32%) of the more experienced Stayers.

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<sup>8</sup> Lee, J.B., Cleary, A.B., & Presley, J.B. (2001, October). *Paths to Teaching*. (IERC 2001.1). Edwardsville, IL: Illinois Education Research Council.

Induction activities most likely to have been received by both teacher groups include:

- Access to computers and other technologies to assess and try out classroom applications (85% Starters; 72% Stayers),
- District/school workshops aimed at new teachers (81% Starters; 73% Stayers), and,
- Access at district/school expense to topical workshops (e.g., teaching methods, lesson planning, student discipline) (81% Starters; 79% Stayers).

Induction activities least likely to have been received, again for both teacher groups, include:

- Reduced duties (e.g., no committee assignments) (44% Starters; 34% Stayers), and,
- Release time to observe other teachers (45% Starters; 37% Stayers).
- Starters were more likely to have received classroom observation by experienced teachers that were Stayers (61% versus 36%).

### **Helpfulness of Induction Activities**

Most teachers in both groups found all of the induction activities they received during their first year of teaching to be “somewhat” to “very” helpful. And they hold similar opinions about which induction activities were most helpful. About half of teachers in the two groups found the following activities very helpful:

- Access to computers and other technologies to assess and try out classroom applications (56% Starters; 54% Stayers),
- Formal assignment of an experienced teacher to provide mentoring (55% Starters; 52% Stayers), and,
- Access at school or district expense to seminars or workshops on topics such as teaching methods, lesson planning, or student discipline (53% Starters; 44% Stayers).

### **Participation in Induction Activities and Intentions to Continue Teaching**

Four specific activities were associated with the Starters’ intention to be teaching in 2006. However, two of the four (reduced activities and release time to observe other teachers) were least likely to have been received.

- Reduced duties (e.g., no committee work),
- Release time to observe other teachers,
- Access at district/school expense to attend workshops on topics such as teaching methods, lesson planning, or student discipline, and,
- Access to computers and other technologies to assess and try out classroom applications.

Twice as many Starters who participated in at least six different induction activities reported intentions to be teaching in 2006.

- About a third of those receiving from one to five activities did not intend to be teaching in 2006, compared to about 15% of those who received six or more activities.

### ***The Role of Teacher Satisfaction in Intentions to Continue Teaching***

New teachers’ general satisfaction with teaching is related to:

- Finding their induction activities helpful,
- Receiving more induction activities,
- Receiving specific induction activities:
  - Support sessions with school administrators, release time to observe other teachers, topical workshops, and, access to computers and other technologies to assess and try out classroom applications.
- Intending to teach in 2006.
  - 85% of new teachers who are “very satisfied” intended to teach in 2006, compared to 63% of those who are “somewhat satisfied,” and 54% of those who are “dissatisfied” with teaching.

# **What Do New Teachers Want From the Novice Teacher Support Project for Their First Years of Teaching?**

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## **Purpose**

The purpose of this presentation is to report on a continuous effort to evaluate and revise the Novice Teacher Support Project (NTSP), which has been providing ongoing professional development to new teachers in East Central Illinois for the past six years. In this presentation we update and expand on earlier research (Chubbuck, Clift, Allard & Quinlan, 2001; Johnson, Clift, & Klecka, in pres) and discuss the evolution of participation within the Illinois context.

## **Background**

The NTSP started in Fall 1997 to provide professional development and support to first, second and third year teachers in East Central Illinois. The NTSP is a partnership among the University of Illinois at Urbana-Champaign, the Regional Offices of Education in Champaign, Ford and Vermilion counties, the Illinois Education Association, the Illinois Federation of Teachers and twenty-one partner school districts. One major goal of the project is to enable new teachers to apply theories and implement practices learned in their teacher education programs taking into account the school and district context, the diversity of students, and the subject matter content. Another goal is to provide a safe environment in which to reflect on their teaching experiences. Numerous studies suggest that teachers who are supported in their teaching are more committed to remaining in the profession (e.g., Klostermann, Presley, Peddle, Trott, & Bergeron, 2003; Riehl & Sipple, 1996; Rosenholtz & Simpson, 1990; Firestone & Rosenblum, 1988). In addition, the new Illinois policy related to moving from the initial teaching certificate to the standard teaching certificate permits participation in an approved induction program as one option for obtaining a standard certificate. Thus there is a compelling local reason for developing and continuously evaluating programs to support new teachers.

The project had 92 active teacher participants during 2001-2002, but far fewer during 2002-2003. The drop in participation is a concern, but was anticipated. Until this year, external funding made it possible for new teachers to participate in the project without charge and to receive modest stipend for their participation. This year the external funding ended. Additionally, districts in East Central Illinois have hired fewer and fewer novice teachers over the past two years due, in part, to budget cutbacks. Evaluating the project this year, therefore, provides a crucial comparison point with prior years.

## **Methodology**

A series of open-ended surveys were administered to first, second, and third year teachers during 2001-2002 and, again, during this academic year. The participants, who attended five Saturday morning professional development sessions, responded to both open-ended questions and questions requiring forced choice ratings. Responses were

summarized by question – including comments on the workshop contents, the effectiveness of the presenters and comments on the project overall. In addition, the forced choice items, which ask participants to rate the effectiveness of the content and presenters, were tabulated and compared to the open ended comments.

### **Results to Date**

We are still in the process of collecting 2002-2003 data. At this point the initial responses of this study confirm the some from the previous findings that novice teachers evaluated the workshops based mainly on “level of practicality and presenter’s style” (p. 9, Chubbuck, Clift, Allard & Quinlan, 2001). The new information provided by this evaluation, that was not collected previously, asked for self-reports of what actions novice teachers reported taking in their classroom that were prompted by the NTSP sessions. These data suggest that novice teachers were constantly reflecting on their teaching context and their students while attending Saturday sessions. They noted that while some suggestions were valuable, others were not, given their context. The reasons for this will be discussed in detail in the presentation, as will the ways in which the NTSP is being revised based on this information.

### **Implications**

The findings can inform us as teacher educators and professional developers about novice teachers’ expectations of professional development activities and its relationship to their concerns about their classrooms and their students. This is vitally important to the continuous improvement of the NTSP and will also be useful to other induction programs across Illinois.

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# **Reflecting On Electronic Mentoring: Is It A Viable Approach For Moving New Teachers From Initial To Standard Certification?**

Cari L. Klecka and Renee T. Clift  
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## **Context and Purpose**

In Illinois, there has been an increased amount of attention paid to formalized support for new teachers in the form of induction and mentoring programs. Tiered licensure- specifically the need for new teachers to move from initial to standard certification has emphasized the importance of offering quality induction and mentoring programs as one way to facilitate novice teachers earning the standard certificate. More recently, proposed rules and regulations for what quality induction and mentoring programs should look like have been made public by the state. Existing programs need to fit within an existing structure based on research on best practices in induction and mentoring in the face-to-face context. Nonetheless, with an increasing interest in educational technologies and with more widespread access, in addition to the increasing demand for mentors, teacher educators will increasingly turn to group contexts and untraditional models employing educational technologies to support this process.

In the spring of 2000, the Novice Teacher Support Project (NTSP) became one of these projects implementing web-based educational technologies to extend support to beginning teachers in primarily rural areas. The project website, which offers professional resources for new and experienced teachers has been augmented by an electronic mentoring (e-mentoring) initiative. All of this is partially embedded within a face-to-face professional development based induction program designed to support new teachers in the first three years of their careers. The password-protected electronic conferences (e-conferences) provide the structural foundation that facilitates the interactions between experienced and novice teachers that would ordinarily prove impossible (O'Neill, Wagner & Gomez, 1996)- especially in small, rural school districts (Klecka, Clift & Thomas, 2002).

In our case of online mentoring, the purpose of the project is to develop something useful and supportive to new and experienced teachers. It is important to gain insight into the meaning participants make within the online conferences, how they use what they read and how these data can contribute to the development of a program to better serve teachers' needs. This research focus will provide understanding into how the e-conferences are used to support the process of learning to teach for novice teachers in primarily rural communities- specifically the nature of new and experienced teachers' participation in this context. As part of our ongoing research, we have also documented issues raised in our own experiences in developing online mentoring as one way to extend support to new teachers.

## **Methodology**

Given our focus, a naturalistic research design is necessary to gain understanding into how teachers participate in this setting. Three years of research include data collected via three focus group interview sessions, five open-ended surveys, email communications, ongoing analysis of message texts posted to the e-conferences, and website statistics. Participants in this research include novice teachers and e-mentors who have participated in the NTSP in academic years 2000-2001, 2001-2002 and 2002-2003. Number of participants varied year-to-year with as many as 73 e-mentors and 82 novice teachers and as few as 40 e-mentors and 41 novice teachers. Participants include teachers with zero to 38 years of experience in the classroom. Participants teach in diverse school settings and at grade levels varying from pre-school through twelfth grade and in a range of content areas.

Message texts and interview data continue to be analyzed using two preliminary coding categories that reflect the nature of participation – specifically the content and purpose of messages posted and how this informs the roles individuals assume in the e-conferences. The qualitative data analysis software NUD\*IST is being used to facilitate the analysis of the over 3000 message texts posted in the 2001-2002 academic year alone. Since the participation in the project is not only reflected by posted messages, website statistics and reporting data are used to flesh out the extent of participation.

### **Summary of Findings**

In this presentation we will document the financial investment and human commitment needed to initiate and sustain the project, in addition to the cognitive and emotional nature of an e-mentoring system. Our findings include 1) *Facets of participation* -- In Year One of the project we found messages posted do not reflect the nature of activity in the e-conferences. Interview data supported by website statistics illustrate that participants read more than they post their own messages (Klecka, Clift & Thomas, 2002). In Year Two, we uncovered an interesting tension between what e-mentors expect from the new teachers and how novices participate in the e-conferences. Specifically, e-mentors want new teachers to ask questions and initiate conversations, while new teachers tend to be peripheral participants. Regardless of this tension, both groups of participants expect one another to participate based on personal classroom experiences; 2) *Anonymity* -- Anonymity among the participants shapes the level of perceived safety and confidence in the e-conferences. This issue is further complicated by the decisions we make about who to provide access to the e-conferences. Although our decision to exclude administrators from the e-conferences was made to protect the tenuous position of the new teachers, we have learned of several “breaches” of security that affect the actual level of safety participants have within this medium; 3) *Institutional support* -- This is a persistent question that continually influences how we proceed with the technology and with the project.

### **Implications for Illinois**

In face-to-face contexts, building trust is key to mentoring success and is fostered by both verbal and non-verbal cues such as posture, gestures, and voice inflection (Costa & Garmston, 1994) and other embodied actions that facilitate meaning-making (Dreyfus, 2001). On the Internet, these embodied cues are no longer available. In the development of the NTSP e-mentoring we have learned about practices and patterns of participation that contribute to mentoring online.

In examining this model as a statewide initiative, we will share some our findings and insights about how this model can be shaped to meet the new rules and regulations and how this may impact the nature of interactions in the online context. Our documented experiences combined with data collected over the last two years (and data we continue to collect in Year Three) indicate findings that can help inform our work and that of others to construct meaningful experiences for new and experienced teachers.

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# Measuring the Impact of School Effects on Students' Achievement Test Score Gains

Marisa de la Torre, Chicago Public Schools

## Introduction

Chicago Public Schools has become increasingly interested in measuring the impact of schools on the achievement gains of their students. Annual gain scores have become an important component of school accountability as we become more focused on how much *value* schools *add* to students' achievement levels. We are shifting our accountability plan to emphasize improvement and academic growth in schools, rather than simply the status attainment of students enrolled. This work follows a national trend toward *value added* measurement and accountability as exemplified by the work of Williams Sanders in the Tennessee Value Added Assessment System.

This presentation will describe how the Chicago Public Schools (CPS) measures student achievement gains on the Iowa Tests of Basic Skills (ITBS), how the gains are related to prior student performance, and the great variability among schools in average student gain scores.

## Data and Methods

CPS has administered the ITBS for several decades to nearly all students in grades three through eight in late spring. The annual testing permits the calculation of gain scores by subtracting the previous year's scores from the current score. Recently CPS adopted the use of the test publisher's *standard score* (SS) as its primary reporting score, permitting more accurate measurement of gain. The national average SSs range in value from 185 at grade three to 250 at grade eight. The average gains decrease as students move up the grades, reflecting the idea that students in lower grades learn more than students in upper grades. Therefore any meaningful analysis of students' gains needs to be carried out for students in the same grade.

Using spring 2002 test results, we have calculated gain scores for all students stably enrolled in the same elementary school from October 2001 to May 2002. Since third grade is the first time that students are required to take the ITBS, the gains begin at grade four. Our major interest in this study is to examine the variability in average gains from one school to another, taking into account the well known phenomenon of "regression to the mean," where low performing students tend to score higher in repeated testings and high performing students tend to score lower.

The first step in this analysis was to compute average ITBS gains of students by grade in the SS metric. Then, to examine gains by prior achievement, we used students' scores from the previous **two** years to create a stable base. Using this more reliable measure of prior achievement, we then divided students into three groups: below average, average, and above average. In two of four grades, we find the expected pattern where students with lower prior achievement make greater gains than average and higher performing students, yet in two grades there is no relation between prior performance and gain. At this point we do not know why we see this finding, but we believe that it may be related to CPS policies regarding student promotion and grade retention.

With gains calculated and students grouped by prior performance, we next turned to examining school effects. In the simplest analysis, we grouped schools on the basis of

simple measures of student level performance: how many students in the schools are “at or above national norms.” Of course this is highly related to socio-economic status, so we are really just sorting schools on this basis. What we find is not unexpected. On average, gains are considerably higher in the higher performing schools, and they are higher for all students. For example, sixth grade students with “average” prior performance gain 5.3 SS in Quartile 1 schools, 9.4 SS in Quartile 2 schools, 11.5 SS in Quartile 3 schools, and 16.1 SS in Quartile 4 schools. The pattern is repeated for below average and above average students. In other words, students with equivalent prior achievement gain about three times as much in our strongest schools than they do in our weakest schools.

This initial analysis is interesting, but it doesn’t help us to understand why some schools have greater gains than others. So in the next phase of the analysis, we are sorting schools on the basis of their average gains, rather than the level of performance. We are now investigating differences among high gain and low gain schools, first based on demographic characteristics. The more telling analyses, yet to be done, will add programmatic variables to help us better understand why we find such strong school effects and what differentiates high gain from low gain students.

These analyses are conducted in over 400 CPS elementary schools with over 200,000 test records per year. So far our analysis has been restricted to OLS regressions, however, we intend to conduct HLM analyses in order to nest students within schools and arrive at better estimates of school effects.

### **Implications**

This work is of great value for at least two reasons. First it will help us understand school differences in Chicago better and at least learn where we get high student gains. We may learn something about why schools differ in how much students learn, but realistically that will require much finer data about the schools and their communities than we have now. The second important area for this work is how it pushes us to think about No Child Left Behind and measuring Adequate Yearly Progress. Perhaps this is a more sensitive method of determining whether schools are improving rapidly enough.

## **Illinois P-16 Initiatives: Development of a Research Agenda**

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### **Purpose**

The Illinois P16 Summit in Chicago on Dec. 2, 2002 was heralded by the Illinois Board of Higher Education and by a consortium of university presidents as timely and significant for the improvement of education in Illinois. Five P16 initiatives were presented and discussed at the Summit. The initiatives include: (a) partnerships with community colleges to develop an Associate of Arts in Teaching Degree; (b) Extension of model teacher mentoring and induction programs statewide; (c) online professional development for educators; (d) Expansion of the Teacher Data Warehouse; (e) School leadership preparation and development. The overall goals of the P16 initiatives are:

1. To increase the number of Illinois teachers in high need areas, such as math, science, special education and teachers for hard to staff schools.
2. To improve the quality of education in Illinois through enhancement of the preparation and induction of qualified teachers..
3. To increase accountability of teacher preparation programs through expansion of the Teacher Data Warehouse.
4. To strengthen school leadership in Illinois schools by focusing on cultures of academic achievement as opposed to traditional managerial approaches to principalship.

The purpose of this presentation is to describe a detailed set of research questions and a research agenda for the five initiatives and to report on the key P-16 themes and issues identified by Deans and Directors of Schools and Colleges of Education in Illinois.

### **Methodology**

The research questions and benchmarks for each agenda are derived from input from leaders of each of the P16 initiatives, the P16 Steering Committee and a follow-up of the P16 Summit [which is currently in process]. A proposed research agenda was developed through interviews with key leaders of each of the P16 meetings and input from selected Deans of Colleges of Education in Illinois. The leaders of each of the P16 initiatives are now being asked to respond to this proposed research agenda, which will then be reviewed by the full P16 Steering Committee. In addition, 24 Deans and Directors of Colleges of Education in Illinois are being asked to participate in a telephone interview to respond to open-ended questions regarding:

1. The issues that they perceive as the most critical among those already in place as P-16 initiatives;
2. Emerging issues that may need to be added to the P-16 agenda
3. An inventory of their own activities related to the Illinois P16 initiatives.

4. An inventory of the activities of their organization related to the Illinois P16 initiatives
5. Recommendations for future evaluative research related to each of the P-16 initiatives.

Data from these interviews will be collected and analyzed prior to the Symposium. Selection criteria for participants are: (a) head of a Department or College of Education in Illinois or (b) member of the University of Illinois P-16 Steering Committee. Data will be collected through telephone interviews and recorded by detailed notes. These notes will then be transcribed. Since data collected are in response to open-ended questions, responses will be analyzed using qualitative analytic methods to generate central themes that emerge from the data. Transcripts will be coded by at least two readers who will then refine the coding scheme to increase uniformity of coding. Data will also be descriptively tabulated in terms of frequency of themes and recommendations. Illustrative quotes will be used in presenting the findings.

### **Findings**

Findings will be available at the Symposium.

### **Implications for Illinois Education**

The No Child Left Behind Act of 2001 was one expression of the accountability movement in education. As we examine outcomes of education in Illinois and throughout the nation, key needs have been identified that are critical to be addressed in order to achieve an educated citizenry, prepared for the work of tomorrow. These are daunting challenges, and the Illinois P16 initiatives are ambitious efforts to address some of the most pressing needs in Illinois education. The ultimate goal of the P16 initiatives is to improve education in Illinois, but there are also many benchmarks to mark progress toward that goal. Assessing, evaluating and reviewing each of these initiatives in order to strengthen them and to achieve improved outcomes is an essential aspect of these P16 proposals. This panel discussion is an opportunity for educators and researchers both to learn about the research agenda and to comment and give input into this process. Since the P16 initiatives have been embraced by the IBHE, university presidents and heads of Schools and Colleges of Education in Illinois, they represent a major investment and significant contribution to education in Illinois. Thus they are worthy of attention from educational researchers.