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**Preparing Effective
Teachers for the
Milwaukee Public
Schools**

*How Good a Job Do Wisconsin Schools of
Education Do?*

REPORT FROM THE PRESIDENT:

When the school day begins throughout Milwaukee Public Schools (MPS) and the classroom doors close, all of the extraneous noise ceases. Behind those doors there are no school board politics, no battles over irrelevant issues, and none of the convoluted surrounding school finance. Behind those doors, as has been true through the ages, education is reduced to the partnership between teachers and students. That is all that matters.

Much studied is one half of that partnership: urban students who are encumbered by single parent homes and poverty. Less studied are their teachers. This WPRI Report sheds some useful light on the training MPS teachers receive from the schools of education. We asked Professors Mark Schug and Scott Niederjohn to examine how well the thirty-two schools of education are preparing MPS teachers. They focused their attention on elementary teachers in their first six years teaching in MPS. The result is a fascinating insight into how well teachers are trained to work in Wisconsin's most challenging school district.

Are some universities better than others at preparing urban teachers? Somewhat surprising was the finding that, no, those university programs that focus their training on teaching in an urban setting do no better than teachers trained in the more rural Wisconsin colleges. They also found that teachers trained in an MPS alternative certification program produce the same achievement gains in students as teachers trained in traditional programs that are laden with many more professional education courses. Schools of education that have tried to urbanize their teacher training have yet to find the silver bullet that will yield higher performing students. Schug and Niederjohn also surveyed new teachers and found that less than half of the new teachers felt their training adequately prepared them for life in the MPS classroom.

In their feisty conclusion, Schug and Niederjohn eschew the expected laundry list of incremental changes. Instead, they suggest that our entire way of training teachers for urban schools be reevaluated from stem to stern. If the barnacles built up around "traditional teacher training" get in the way, remove them, argue the authors – even if it means working around senior faculty employed under the protective netting of tenure. Exempt the schools of education from the Department of Public Instruction's rules when necessary say the authors. Give the schools of education the same freedoms provided to charter schools. Allow them to experiment, to attract the best and the brightest into teaching. Try intense internships in urban schools in place of the traditional model of student teaching.

This study is no slam against MPS teachers, far from it. Instead, the authors have listened to what teachers have told them. They have studied the value-added data. Their conclusion: it is time to overhaul the traditional way we prepare teachers for the rigors of the urban classroom. When those classroom doors close, Milwaukee parents and children have to be assured that the teachers are job ready from day one.



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PREPARING EFFECTIVE TEACHERS FOR THE MILWAUKEE PUBLIC SCHOOLS *How Good a Job Do Wisconsin Schools of Education Do?*

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EXECUTIVE SUMMARY

When leaders in the Milwaukee Public Schools (MPS) and other Wisconsin school districts set about hiring new teachers, where should they look to find the candidates most likely to do a good job of improving their students' academic learning? There are several possibilities. In Wisconsin alone 32 colleges and universities, public and private, offer training programs leading to initial certification for teaching in the state's Kindergarten to Grade 12 (K-12) schools. These programs are alike in many ways, since all of them must meet the state's program-approval standards, but they are by no means identical. They vary in their stated goals, admission standards, curricular emphases, course requirements, and in the profiles of the faculty members who design and conduct the programs. It seems plausible, therefore, that the various programs also would differ in their effectiveness — some outperforming others in producing teachers who know how to improve students' academic achievement. To the extent that they differ in this respect, it also would seem plausible that school districts would take account of the differences, striving to hire graduates from those programs known for their strong, positive training effects.

After all, the stakes are high. It matters a great deal who gets hired to teach, especially in large urban school districts like the MPS, which are struggling to improve graduation rates and achievement levels. Notwithstanding the influence of homes and neighborhoods, teacher quality has a powerful effect on students' academic achievement.

Unfortunately, school districts to date have had no reliable basis for making well-informed judgments about the effectiveness of the many teacher training programs whose graduates they might consider for employment. This study addresses this problem, with special reference to the staffing needs of large urban school districts such as MPS.

Using three sources of data, we analyze the preparation of elementary school teachers who have six years or less experience in the MPS. First, we collected data regarding the programs and teacher candidates of schools and departments of education around the state. Second, we used a valued-added methodology (VAM) to measure the effectiveness of new MPS elementary school teachers trained at various schools and departments of education, based on their students' achievement gains. We wondered, for example, if teachers prepared at large, urban-based research institutions such as UW-Milwaukee outperformed teachers trained in other UW-System programs or in Wisconsin's many private colleges and universities. Finally, we invited new elementary school teachers in MPS to rate the quality of various aspects of their teacher certification program.

Teacher Knowledge

How knowledgeable are elementary teacher candidates from the various schools and departments of education in Wisconsin?

- Most teacher candidates in Wisconsin score above the national median on a national knowledge test (Praxis II) at the elementary and middle school level. This seems to be the case whether teachers are prepared at public or private institutions or by an MPS alternative certification program called the Milwaukee Teacher Education Center (MTEC).
- There is considerable variation in teachers' content knowledge by teacher training institution. Test-takers at UW-Madison produce the state's highest results.
- MPS is not able to attract many teachers from institutions whose graduates perform well above the national median on the Praxis II test.

Value-Added Analysis

We used "valued-added methodology" in an effort to measure the effectiveness of new MPS elementary teachers trained at various schools and departments of education, based on their students' achievement gains. Value-added is the name given to powerful statistical systems that measure test score gains of students and link these outcomes to other variables such as classroom teachers.

We found that new MPS elementary teachers add to the academic achievement of their students. However, the student performance gains *are not* significantly affected by the school or department of education from which the

teachers in question graduated. New MPS elementary school teachers trained in programs with an urban specialization (such as UW-Milwaukee and MTEC) fare no better than do teachers trained in the cornfields of rural Wisconsin.

Teacher Survey Results

We surveyed nearly 200 new MPS elementary school teachers, asking them to rate the value of various aspects of their teacher training programs. Here is a summary of the results.

- Overwhelmingly, new MPS elementary school teachers rated their clinical experiences (i.e., student teaching) as the most valuable components of their training programs. They rated their general professional education courses as the least valuable component. They rated their academic (non-education) courses as the second-least valuable component — far behind clinical experiences and teaching methods courses.
- New MPS elementary school teachers rated their general teaching preparation quite positively. Over 70 percent felt they were sufficiently prepared for their first teaching assignment. Over three fourths believed that they had sufficient content knowledge. However, less than half believed they were well prepared to manage their MPS classrooms.
- While new MPS elementary school teachers trained at UW-Milwaukee rated aspects of their preparation positively, they were less positive overall than were teachers trained at other programs. For example, UW-Milwaukee teachers rated their general teaching preparation and their preparation to manage their classroom less favorably than teachers from other programs.
- Teachers trained at the MTEC rated their preparation to teach in the MPS higher than did the teachers in all the other programs. Nearly 78 percent of the MTEC teachers felt well-prepared to deal successfully with diversity in their classrooms, and nearly 73 percent felt they had sufficient management skills. Eighty percent of MTEC teachers felt well prepared to work in a large urban district like MPS.

Overall Conclusions

Four important conclusions can be drawn from this study. First, Wisconsin provides no easy way for school districts to learn about the probable quality of certified teachers in advance of hiring.

Second, while most teacher candidates in Wisconsin score above the national median on the Praxis II exam, MPS is more likely to attract teachers from schools where candidates perform, on average, at the national median. That is because few new teachers from UW-Madison get hired to teach at elementary schools in MPS. MPS is much more likely to hire teachers from UW-Milwaukee and the MTEC program.

Third, the evidence shows that new MPS elementary school teachers are improving the academic achievement of their students, but the student performance gains are not significantly related to the schools or departments of education the teachers attended. Elementary school teachers trained at institutions that specialize in an urban mission — such as UW-Milwaukee and MTEC — perform no better in MPS than teachers trained elsewhere, in terms of the achievement gains they produce.

Fourth, the MTEC alternative teacher preparation program has two clear advantages over traditional programs. First, it is more efficient. Elementary school teachers trained at traditional schools and departments of education take, on average, about 66 credits of education courses — about half of all their university coursework. These are the courses that teachers surveyed for this study ranked as the least valuable parts of their training programs, by far. In contrast, the MTEC program requires about a month of classroom training and a great deal of on-the-job teaching. Moreover, many MTEC teachers rate the quality of their program more highly than teachers from other programs rate theirs. Yet, MTEC teachers are not more effective. They produce the same achievement gains as teachers trained in traditional programs at UW-Milwaukee and other UW-System schools. MTEC has struggled to figure out what it will take to produce achievement gains over teachers trained in traditional programs. Second, MTEC year-to-year has a high retention rate— over 80 percent in recent years. Milwaukee has a high turnover rate among its teachers — much higher than the rate in other Wisconsin school districts. The fact that MTEC teachers tend to stay with MPS is no small accomplishment.

Recommendations

Our study overall suggests many possible areas for improvement. For example, we might recommend that:

- Certain state certification standards should be increased. The minimum qualifying Praxis II score in Wisconsin is well below the national median score and is set somewhat below the level of some other states.
- Given that new MPS teachers do not feel well-prepared to manage their classrooms, schools and departments of education should improve their training in classroom management and discipline.
- Given that education foundations courses are not valued by new MPS teachers, they should be scrapped to make space for better designed academic content courses.
- The MTEC program is as good as other programs, or better, and it is more efficient to boot. Perhaps other districts — especially large urban districts like Racine, Kenosha, and Beloit — might wish to emulate some parts of this model.

But we choose to refrain from emphasizing a laundry list of specific recommendations for fine tuning Wisconsin's teacher preparation programs as they relate to MPS. Why? Partly because recommendations of this sort are old news. Similar recommendations have been proposed, and ignored, for a long time. Also, traditional teacher training programs today are restricted in ways that are almost too numerous to count. In other words, it is hard for us to imagine that the system can change itself by adoption of measures aimed at fine tuning. PI 34 — the state's rules governing teacher training — tie the enterprise up and buttress the status quo. Almost always, when leaders at traditional teacher training programs are challenged to defend their programs in response to student or parental complaints, they take refuge in the rules, pointing out they are just following the mandates of PI-34.

It gets worse. Tenure protection for senior faculty members makes it difficult to redesign or abolish certain courses in the teacher preparation program, no matter what program graduates think of them. Those courses belong to somebody, and he or she doesn't want to lose them. Similarly, college and university chancellors and presidents would be hard pressed to imagine why they should increase admission standards for schools and departments of education when such actions would almost certainly result in reduced enrollments and less revenue for the institution. And throughout the UW-System all the issues surrounding "faculty governance" add to the bureaucratic inflexibility which makes it almost impossible for schools and departments of education to embark on truly innovative approaches.

Our primary recommendation is not for fine tuning. It is that the State of Wisconsin should push its teacher training schools *to change the subject*—that is, to focus effort and resources sharply on the task of teaching new teachers how to improve the academic achievement of their students, in urban schools and elsewhere. Suitable programs would share many of the features that now exist in charter schools. Toward this end, exemptions from DPI rules should be issued as necessary. A state board — perhaps one appointed by the Board of Regents — could accept applications from interested institutions. New programs would be allowed to experiment. They would be supported in their efforts to attract bright, capable people from any background to serve as leaders. They would set new standards for teachers, admitting only candidates who stood out as smart, well-educated, and hard-working. They would feature intense internships (taking a cue from MTEC) rather than traditional models of student teaching. Their programs would focus on the curriculum and standards for which new teachers would actually be responsible when they begin to teach. And they would strive in all these efforts — and others of their devising — to validate their practices by reference to empirical evidence about the known effects of those practices on students' academic achievement. National partners such as Teach for America — a program that attracts thousands of college graduates, many from UW-Madison,¹ to teach in urban schools — might be an excellent model.

We also offer two other recommendations.

- Wisconsin, perhaps at the direction of the Board of Regents, should establish a way for officials in school districts such as the MPS and the general public to learn about the quality of teachers produced by Wisconsin's traditional and alternative certification programs. Information regarding performance on content tests, pass rates, number of professional education credits, number of content courses, types and intensity of clinical experiences, and so forth should be easily available. Results of VAM studies, which measure the relationship between teacher training programs and their impact on student performance should be readily available.

- The UW-System should take the lead in demanding a new level of accountability to departments and schools of education. What better way to do this than to demonstrate that teachers trained at some institutions add more value year-to-year in terms of academic gains than do teachers trained at other institutions? Wisconsin's researchers should initiate local and statewide VAM studies of graduates from all schools and departments of education as well as alternative certification programs. Such studies could address what features of specific teacher preparation programs contribute to achievement gains in the classroom.

INTRODUCTION

When leaders in the Milwaukee Public Schools (MPS) and other Wisconsin school districts set about hiring new teachers, where should they look to find the candidates who are most likely to do a good job of improving their students' academic learning? There are several possibilities. In Wisconsin alone 32 colleges and universities, public and private, offer training programs leading to initial certification for teaching in the state's Kindergarten to Grade 12 (K-12) schools. These programs are alike in many ways, since all of them must meet the state's program-approval standards, but they are by no means identical. They vary in their stated goals, admission standards, curricular emphases, course requirements, and in the profiles of the faculty members who design and conduct the programs. It seems plausible, therefore, that the various programs also would differ in their effectiveness — some outperforming others in producing teachers who know how to improve students' academic achievement. To the extent that they differ in this respect, it also would seem plausible that school districts would take account of the differences, striving to hire graduates from those programs known for their strong, positive training effects.

After all, the stakes are high. It matters a great deal who gets hired to teach, especially in large urban school districts struggling to improve graduation rates and achievement levels. Notwithstanding the influence of homes and neighborhoods, teacher quality has a powerful effect on students' academic achievement. One study has shown that, for children fortunate enough to have good teachers throughout their years in school, the effects of good teaching can substantially offset or even eliminate the disadvantage ordinarily associated with growing up in a poor socio-economic environment.² The potential implications of such findings are enormous. Imagine, for example, the personal and societal benefits that would follow if parents and principals in Milwaukee could be confident that all the district's elementary school teachers could be counted on to produce large academic gains, year after year.

Unfortunately, school districts to date have had no reliable basis for making well-informed judgments about the effectiveness of the many teacher training programs whose graduates they might consider for employment. Information about effectiveness has not been available. One reason is simply that, until recently, there has been nothing that could serve as a valid outcome measure of K-12 achievement gains linked to the practice of particular teachers, and nothing, therefore, to correlate with the teacher training programs in question. As a result, the teacher training program of a given college or university might acquire a positive or a negative reputation in a particular school district for purely idiosyncratic reasons — institutional proximity, for example, fostering friendly or unfriendly personal and professional relationships between parties on both sides — unrelated to program effects.

Today, however, these circumstances have begun to change, thanks to new developments in state policy and education research. One development has to do with the establishment of statewide curriculum standards and assessment programs. Wisconsin, along with most other states, has adopted a system of statewide curriculum standards for grades K-12, along with an assessment system linked to those standards. Not everybody is satisfied with the standards or the assessment system, but taken together they provide, for the first time, bases for assessing how K-12 students in the state are doing by reference to formally established standards. By itself, however, this new means of assessment cannot provide answers to questions about the capacity of Teacher X to improve students' achievement, since levels of achievement for a given student in a given year might reflect factors outside the teacher's control — for example, previous years of good teaching or poor teaching for which the teacher should not be credited or blamed. To deal with this problem, we need a way to determine the extent to which a teacher improves students' achievement during the time she or he is their teacher.

The Central Role of Value-Added Methodology

It is now possible to make such a determination by using what is called value-added methodology (VAM). VAM is a system by means of which students' achievement gains are measured from year to year, rather than at widely spaced check points. Results from value-added testing can be correlated with individual teachers, showing how much value (i.e., achievement gain) can be attributed to the work of a given teacher over the course of a school year. Such results, in turn, can be correlated with the college and university programs in which the teachers in question received their training, and those correlations might shed light on questions that school district officials and others would have reason to ask about the effectiveness of those training programs.

The pioneer of VAM is William L. Sanders, a senior research fellow with the University of North Carolina system and, for more than 34 years, a professor and director of the University of Tennessee's Value-Added Research and Assessment Center. Professor Sanders developed the Tennessee Value-Added Assessment System as a method of measuring the effectiveness of school systems, schools, and teachers. In the course of his work he and his colleagues have concluded that classroom teachers are the single most important influence on student progress. In a summary of the VAM research, Sanders and Horn³ state that "Differences in teacher effectiveness [are] the dominant factor affecting student academic gain. The importance of . . . certain classroom contextual variables (e.g., class size, classroom heterogeneity) appears to be rather minor. . . ." And again, citing a 1997 study:⁴ "the two most important factors impacting student gain are the differences in classroom teacher effectiveness and the prior achievement level of the students. The teacher effect is highly significant in every analysis and has a larger effect size than any other factor in twenty of the thirty analyses."

Value-added analysis differs from the Adequate Yearly Progress (AYP) analysis called for by the No Child Left Behind (NCLB) Act. AYP requires that schools measure the performance of students at several grade levels as well as the performance of several sub-groups of students (by race, gender, disability and so forth) and then compare the proportion of students meeting a fixed standard. A fundamental problem with this approach is that some students will enter a grade with higher levels of achievement than others. Those who come in ahead of the others at the outset will obviously find it easier than the others to meet the proficiency standards set by AYP. And students who are performing below grade level might face great difficulty in meeting the AYP standards even if they do a great job of improving their performance over the school year. Value-added analysis deals with this problem by comparing individual students to themselves — by reference to their achievement levels early and late in a school year. VAM methods thus make the assessment of learning more equitable for students in large urban school districts such as MPS, where teachers face many students performing below grade level at the start of each school year. For the same reason, VAM is more equitable for teachers, since it enables individual teachers to show how much they are adding to the achievement gains of students in their classrooms. No teacher gets an edge merely because he or she teaches students who are ahead at the outset.

Applications of VAM are expanding quickly. The UW-Madison Wisconsin Center for Education Research (WCER) has established a research team that is well versed in VAM. In fact, the VAM model that we will present in this report is based upon the work of Rob Meyer, director of Value-Added Research Center (VARC), housed within the WCER.⁵ The Ohio Partnership for Accountability, including all 51 of Ohio's schools of education, is using VAM to better understand its teacher preparation programs. Researchers at Louisiana State University are developing a VAM approach designed specifically to measure the effectiveness of schools of education in that state.

The Present Study: Purpose and Focus

We approach the present study against the background sketched out above: The utility, for school district officials and others, of obtaining solid information about the effectiveness of teacher training programs. We also explore the possibility, given recent developments in state policy and education research, of obtaining such information by value-added analysis of academic achievement gains.

As a first step toward showing how information of this sort might be obtained, we focus here on elementary school teachers in MPS. Our purpose is to analyze their training programs, their value-added profiles, and the correlations of the programs and the value-added profiles.

We focus on elementary school teachers for two reasons, one theoretical and one practical. Basic problems facing MPS — low graduation rates and low levels of academic achievement — can be linked to the failure of students to learn basic reading and math skills in the early grades. Many students who get off to a bad start in school never recover, and it is a short step from the discouragement they feel to a decision to leave school. Second, as a practical matter, MPS is in the early stages of its efforts to use VAM for internal purposes. Thanks to these early efforts, and cooperation from MPS officials, we were able to assemble a data base suitable for use in measuring the performance of new MPS teachers — but only regular education teachers at the elementary school level. Students in middle schools and high schools have multiple teachers. Linking individual student performance to individual teachers is a more daunting task in those circumstances. We hope that additional analyses will be conducted as new data sets become available for students in later grades.

BACKGROUND: CONTESTED ISSUES REGARDING TEACHER QUALITY AND SCHOOLS OF EDUCATION

Teacher quality

Ask any parent what's important for children in the K-12 schools and you very likely will hear that children need good teachers. As obvious as that point seems, many leading scholars have, until recently, downplayed the importance of teacher quality in their analyses of what makes a difference in schooling. For two decades after the publication of James Coleman's *Equality of Educational Opportunity* (1966), many educators pointed to Coleman's findings as evidence for the claim that schools can do little to influence students' learning. Coleman's study, based on data for 60,000 teachers and more than 3000 schools, did not conclude that schools make no difference, but it did conclude that nearly all *variability* in students' academic achievement is attributable to their socioeconomic backgrounds. Students from middle-class families outperformed students from poor families — regardless of the schools they attended, the degrees held by their teachers, their teachers' years of experience, the size of their school's library, and a host of other school "input" variables. This general conclusion encouraged many educators and others to seek educational reform via broad social policies (anti-poverty measures and school desegregation, for example) intended to get at the underlying conditions said to put poor children at a disadvantage in the schools. It discouraged reform efforts addressed to such factors as teacher quality. "Don't bother with that stuff," the popularized version of Coleman's findings held; "it is a waste of resources."

Coleman's methodology is now regarded as flawed. Coleman analyzed data aggregated at the school level. Researchers now understand that aggregating data in this way can distort findings. Whitehurst illustrates this point very well:

I am reminded of the man who had his head in the oven and his feet in the freezer but whose temperature, on average, was just right. If you average together the effective teachers with the ineffective teachers, and the high performing students with the low performing students, you don't get to see the cold and hot spots where teacher characteristics might make a difference.⁶

Whitehurst goes on to discuss more recent analyses of data involving individual classrooms and students. Statistical techniques have been used on these disaggregated data to estimate the variables that contribute to differences in children's academic achievement. Such studies control for the influence of the individual abilities and knowledge the child brings to the classroom, the classroom itself, and the characteristics of the school.

A recent Texas study provides an example. Using a massive database of student test scores, Rivlin, Hanushek, and Kain (2002) analyzed the performance of students in mathematics over time and calculated the effect of individual teachers on student achievement. They found that teacher effectiveness varied dramatically and had a major effect on student performance. They concluded that having a high quality teacher throughout elementary school can substantially offset or even eliminate the disadvantage students incur from growing up in a low socio-economic background.⁷

Other examples also suggest that teacher quality is a far more important variable than people influenced by Coleman have supposed. In their review of the scholarship, Scheerens and Bosker⁸ found that roughly 20 percent of observed differences in student achievement is associated with the schools children attend; another 20 percent is associated with individual classrooms and teachers; and the remaining 60 percent is associated with differences among the children in each classroom, including the effects of their prior achievement and their socioeconomic background. Whitehurst notes that these studies might still underestimate the importance of the teacher.

The academic ability of teachers is an issue of particular importance, given the evidence that teachers with higher verbal ability produce greater achievement gains in their students. Haycock has summarized some of the research.⁹ Harvard's Ronald F. Ferguson, for example, examined the relationship between student achievement and teacher performance on a basic literacy test called the Texas Examination of Current Administrators and Teachers (TECAT). Ferguson found a significant positive relationship between teacher test scores on the TECAT and student scores on the Iowa Test of Basic Skills. He also found that higher-scoring teachers were more likely to produce significant gains in student achievement than were lower-scoring teachers.¹⁰ Ferguson obtained similar results in a study in Alabama, finding a strong positive relationship between teachers' test scores (ACT scores) and student achievement results.¹¹

There is also considerable evidence that teachers' content knowledge is a key factor in raising student achievement. The research is especially clear in mathematics and science. Goldhaber and Brewer found a significant posi-

tive relationship between teachers' degrees and student achievement in some subjects. They concluded that "in mathematics and science, it is the teacher subject-specific knowledge that is the important factor in determining tenth-grade achievement."¹² They found further that advanced education degrees and years of experience seem to have no clear relationship to student achievement.

Whitehurst provides a good summary of the research on the importance of academic quality among teachers. At a 2002 White House Conference on Preparing Tomorrow's teachers, he said:

The most robust finding in the research literature is the effect of teacher verbal and cognitive ability on student achievement. Every study that has included a valid measure of teacher verbal or cognitive ability has found that it accounts for more variance in student achievement than any other measured characteristic of teachers (e.g., Greenwald, Hedges, & Lane, 1996; Ferguson & Ladd, 1996; Kain & Singleton, 1996; Ehrenberg & Brewer, 1994).¹³ (Page 5)

Schools of education

It might be supposed that there is no need for anything like a value-added analysis to assess the effectiveness of new teachers. Most new teachers come into their positions after having graduated from a college- or university-based teacher training program. These programs, many of them offered by excellent colleges and universities, all declare their commitment in one fashion or another to admitting and training excellent students through programs that meet standards shaped by the criteria of national and state-level agencies and professional associations. In completing their training programs, moreover, teacher candidates are graded in the courses they take and evaluated in their various field experience and student teaching assignments. The record of their performance in this preparatory work — grade transcripts, student teaching evaluations, and letters of recommendation, for example — might seem to constitute an adequate proxy measure of the effectiveness that will mark their subsequent work as new hires in classrooms of their own. That certainly is a widespread assumption among teacher educators, and it has been, at least by default, a guiding assumption for school district officials as well.

The problem with the assumption is that skepticism about schools of education is also widespread. Researchers and other observers over many years have faulted schools of education — the courses they offer and the academic ability of the teacher candidates that they attract — for offering weak courses and programs. Economist Thomas Sowell, writing 15 years ago, is one such critic. "The biggest liability of the American public school system," he wrote, "is the legal requirement that education courses be taken by people who seek careers as tenured teachers. These courses are unanimously condemned — by scholars who have studied them, teachers who have taken them, and anyone else with the misfortune to have encountered them."¹⁴

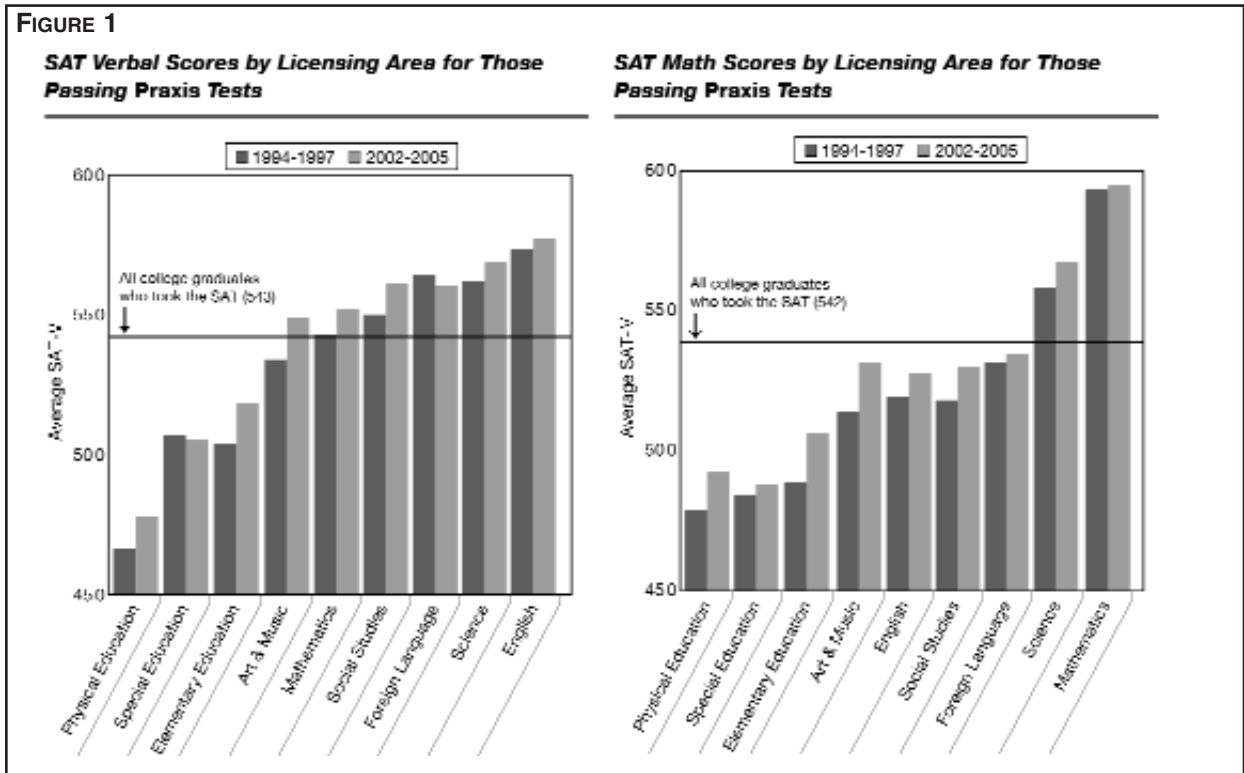
Studies have consistently shown that high school seniors who intend to major in education have earned lower scores on college admissions tests of verbal and quantitative ability than other college-bound students.¹⁵ While these results are frequently reported, they are somewhat misleading. College students frequently change their majors. In fact, a report published by the Education Testing Service (ETS) found that the average SAT and ACT scores of potential teachers who actually passed the Praxis I exam were equal to or slightly higher than the average scores of college-bound seniors.¹⁶ (Praxis I is the Pre-Professional Skills Test designed to measure basic skills in reading, writing and mathematics.) This would seem to be a much better indicator of the academic ability of potential teachers.

But problems of academic quality within teacher training programs remain. The same ETS study also presented other interesting findings. For example, teachers who passed the Praxis II exams score significantly lower on the SAT than do other college graduates. (Praxis II measures knowledge of specific K-12 subjects.) Math SAT scores vary considerably by gender, with females scoring lower than males. The ETS report notes that nearly 75 percent of the overall teaching population is female.

In assessing the claims and counter-claims about teacher training programs and their students, it is important to recognize that teacher candidates are not simply a lump called "teachers." In fact, teachers are not an academically homogeneous group. As an illustration, consider the data summarized in Figure 1 from a 2007 ETS study.¹⁷ See that panel on the left side of Figure 1. It shows that teacher candidates in such disciplines as English, science, foreign languages and social studies who pass the Praxis II exam have higher verbal ability, on average, than the average for all college graduates, as measured by the SAT. However, teacher candidates in physical education, special education, and elementary education who pass the Praxis II exam have lower average verbal ability than the average for all college graduates, again as measured by the SAT. Since elementary school teachers constitute the largest single group

of licensed teachers, this is not a small matter, given what we know about the importance of attracting teachers who have high verbal ability.

The right side panel of Figure 1 shows that math SAT scores for mathematics and science teachers are well above those for other college graduates. The data in both panels of Figure 1 also show that there has been an increase in these scores from 1994-1997 to 2002-2005. These findings are attributed to improved teacher quality policies at the state and federal levels, including No Child Left Behind.



Criticism of schools of education does not emanate exclusively from unfriendly sources outside the profession. Insiders also make strong contributions. Here are two examples, one provided by a distinguished research organization and another by the former president of Columbia Teachers College.

A massive report commissioned by the American Educational Research Association (AERA) Panel on Research and Teacher Education recently (2005) concluded that there is very little empirical evidence supporting the value of formal teacher education.¹⁸ Within higher education in the United States, the AERA is the dominant organization for education research. Reflecting on the 2005 report, one of the report's authors said this in an editorial:

The panel's report makes it clear that we do not have the empirical evidence demonstrating the positive impact of many of the policies that currently govern teacher education (e.g., teacher testing and accreditation) or of the curriculum and instructional practices that are common in teacher education programs across institutions (e.g., requiring courses in education foundations or using journaling as a way for teacher candidates to track and reflect on their developing practices). Likewise, the report reveals that there is not a clear empirical mandate for many of the reforms that are being advocated and/or implemented in state and national initiatives (e.g., moving teacher preparation outside of colleges and universities through the development of alternative routes and pathways into teaching or, along entirely different lines, improving collegiate teacher preparation through closer collaboration between education and arts and science faculty. Although there are extensive and, in some cases, persuasive rationales for these practices and reform policies, which are based on politics or "common sense," or on professional consensus, they are not supported by empirical evidence about their efficacy.¹⁹

The AERA panel suggests that certain historical reasons may explain the lack of empirical validation for training practices that are embraced fervently by many leaders in the profession. The panel notes, for example, that the field of teacher education is young and that doing rigorous research in areas of clinical practice is difficult and expensive. However, we have been training teachers in this country and in Wisconsin for a long time, and many evidence-

based practices that have been identified by education researchers have never found their way into mainstream training programs. Similarly, questions surrounding the ability of large urban school districts to produce high levels of academic achievement have been with us for decades. It is therefore worth considering alternative explanations for the paucity of attention within schools of education to research that might actually tell us what it takes to train teachers to work effectively in urban settings. We would like to suppose that teacher educators have tried but not quite succeeded in efforts to identify and impart the requisite teaching skills. But perhaps they simply have not taken up that task.

Arthur Levine, former president of Teachers College at Columbia University, issued a recent report (2006) based on visits he and his team of researchers made to 28 colleges with teacher education programs. The research team obtained information from deans, faculty members, alumni, and school principals.²⁰ They identified some schools with exemplary training programs — among them, Alverno College in Milwaukee, the University of Virginia, Stanford University, and Emporia State. Overall, however, Levine’s findings were sharply critical.

- Most teachers believe they were poorly prepared by their teacher education programs.
- School principals give low grades to the training new teachers receive regarding the realities of diverse classrooms.
- Schools of education serve as “cash cows” for their institutions. They enroll too many students and have low admission standards.
- There is no qualitative difference between teachers trained in schools of education accredited by the National Council for Accreditation of Teacher Education (NCATE) — the major national body for accreditation of teacher education programs — and teachers prepared in non-NCATE accredited programs.

Levine describes teacher education as an “unruly” and “chaotic” field, lacking in standards and accountability and engaged in the “pursuit of irrelevance.”

The AERA panel and Arthur Levine fault teacher training programs for the weakness of their conceptual and empirical foundations; other critics emphasize a near obsession among teacher educators with the causes of the political left. Individually and institutionally, many teacher trainers declare that they are guided in their work by a commitment to large social and developmental goals associated with the concept of social justice. This concept, as teacher trainers tend to understand it, implies a left-leaning political stance on issues ranging from tax policy to energy policy, trade policy, immigration, and many other areas of advocacy. Sol Stern traces this embrace of the left, noting its expression in various forms of what is called teaching for social justice. It is a tendency supported in part by accreditation processes for schools of education. Schools of education seeking accreditation through NCATE must show how their teacher training programs incorporate NCATE’s social justice standards. As an example, Stern cites the teacher education program at Marquette University, which proclaims that it “has a commitment to social justice in schools and society.” It seeks to use education “to transcend the negative effects of the dominant culture.” It requires that all prospective teachers demonstrate a “desire to work for social justice, particularly in urban environments.”²¹

By itself, this left-leaning tendency is neither surprising nor problematic. Professors of English and history tend to be left-leaning, too, and many of them nonetheless do a fine job of teaching English and history. University professors in general are attracted to the political left. One study of more than 1600 full-time faculty members at 183 four-year schools found that 72 percent of faculty members at American colleges and universities are political liberals, while 15 percent are conservatives.²² The imbalance can also be seen in declared party preferences. About 50 percent of college and university faculty members identify themselves as Democrats, while 13 percent identify themselves as Republicans.

Taken together with the profile of observed weaknesses in teacher training programs, however — weaknesses of the sort described in the AERA and Levine studies — there is something problematic about the widespread embrace of leftist ideology among teacher trainers. The problem is that this ideological orientation may provide an attractive distraction from the job that most parents and other citizens would regard as fundamental for teacher trainers. That fundamental job is to prepare smart and effective teachers equipped with the knowledge and skills they need to increase the academic achievement of their students. Teacher educators who do not concern themselves with imparting such knowledge and skills may still feel good about their work — may congratulate themselves, in fact, on their commitment to higher goals — if they focus their attention instead on topics, activities, and assignments cloaked in the rhetoric of social justice.

The teacher education program at the University of Wisconsin-Milwaukee provides a case in point. We quote from the Core Guiding Principle for teacher education and other state certification programs at the UWM School of Education:

All programs at UWM leading to licensure by the Wisconsin Department of Public Instruction have adopted a unified guiding principle centered on advocating for and providing an equitable education to all students, within a culture of inspiration, high expectations, accountability and quality services. Individuals licensed through UWM demonstrate an understanding of the unique characteristics of urban contexts and keep issues of race, class, culture, and language at the forefront of their work. Candidates have substantive knowledge about the varieties of urban contexts and cultures, the forces that maintain poverty, and other powerful historic and contemporary beliefs and traditions that support discrimination in society. They understand how other social identities, including gender, disability, sexual orientation, and religion, intersect with the forces of poverty, cultural traditions, language, and racism and lead to inequity in teaching and learning.²³

This Core Guiding Principle makes it clear that UW-Milwaukee seeks to prepare teachers and other educators for work in urban schools. How is that to be done? By teaching new teachers how to improve their students' achievement in academic areas, so that they can qualify for worthwhile jobs or postsecondary education? No. It is to be done by ensuring that issues of equity, race, class, and culture will be "at the forefront" of the enterprise. Thus teacher trainers who disdain teaching about effective instruction in order to emphasize social justice are simply putting first things first, according to their institution's Core Guiding Principle.

The Core Guiding Principle is not the sole source of guidance for teacher trainers at UWM. It is supplemented by a list of ten teacher standards that tell what program graduates are supposed to know and know how to do. These standards reveal something general about the culture of Wisconsin's schools of education, not merely the one at UWM, because the standards comply with those provided by Wisconsin Department of Public Instruction (DPI). Among the standards there is much that is worthwhile — e.g., program graduates should know how to communicate with families and they should hold high expectations for their students. But only one of the ten standards focuses on the disciplinary knowledge that should be expected of teacher candidates. And, despite certain rhetorical tributes to accountability, there is no reference in the Core Guiding Principle or the ten standards to the idea that teachers are themselves accountable for their ability to increase the academic achievement of their students.

IDENTIFYING HIGH QUALITY TEACHERS FOR THE MILWAUKEE PUBLIC SCHOOLS

By nearly every measure, MPS is doing a poor job of preparing young people to participate successfully in their community. There is disagreement about how to measure graduation rates in MPS, but everyone agrees that the rate is low. A report released by the Manhattan Institute in 2006 stated that 94 of the 100 largest school districts in the country had higher graduation rates than MPS.²⁴ The rate for MPS, according to the Manhattan report, was about 45 percent. It was 58 percent in Philadelphia, 63 percent in New Orleans, and 50 percent in Chicago (for the class of 2003). A 2006 report sponsored by the Bill & Melinda Gates Foundation reported that the rate for MPS was 43 percent.²⁵ In 2007, MPS reported that its graduation rate was 68 percent.²⁶ None of these reports are good news.

It is also widely reported that MPS students lag in their performance on state tests. In 2006, 28 percent of MPS tenth-grade students performed at the minimal level on the Wisconsin Knowledge and Concepts Examination (WKCE) in reading, and 25 percent performed at the basic level. For tenth-graders statewide, the averages were 9 percent minimal and 14 percent basic. MPS African American students scored lower still, with 33 percent at the minimal level and 27 percent at the basic level. It gets worse in math. In 2006, 45 percent of MPS tenth-grade students performed at the minimal level on the math portion of the WKCE, compared to only 14 percent at the minimal level statewide.

Given this context of low achievement levels, few would disagree with the proposition that attracting and retaining high quality teachers should be a key strategy for improvement. The research we have cited about teacher quality is consistent, in this matter, with common sense. However, Wisconsin provides no easy way — by website postings, for example — for school districts to learn about the quality of newly certified teachers by reference to the track record of the several teacher training programs in the state. Thirty-two colleges and universities train hundreds of teachers every year in Wisconsin, and yet, as far as anyone can tell by looking at grade transcripts and student teaching evaluations, all graduates are of about the same quality. Nor is it possible to learn anything about teacher quality in Wisconsin by consulting reports published by the U.S. Department of Education.²⁷ Because Wisconsin has been slow

to implement teacher content testing as part of its teacher certification programs, the U.S. Department of Education, which provides abundant information relevant to teacher quality for most states, reports no data regarding Wisconsin.

This lack of transparency is a problem. All Wisconsin school districts should have access to objective measures of teacher quality. MPS, in particular, desperately needs to identify and retain high-quality teachers — teachers who can improve achievement among students who need it the most. It is bad enough that MPS must cope with familiar teacher recruitment and retention problems. High-quality teachers are increasingly reluctant to apply for positions in MPS. They are deterred, apparently, by concerns about working in unsafe environments in MPS.²⁸ Milwaukee's teacher residency requirement also contributes to the problem. MPS is one of only two major school districts in the nation (the other is Chicago) to have clung to a teacher residency requirement.²⁹ Add the problem of poor information about the teacher candidates who do apply, and the task of hiring good teachers looks extraordinarily difficult.

COULD THINGS BE DIFFERENT?

Our purpose is to determine how effectively schools of education in Wisconsin prepare elementary school teachers to teach in MPS. We undertake the task in light of this context:

- Teacher quality is an important determinant of student achievement.
- Many elementary school teachers who may seem qualified because they pass state certification tests actually have SAT mean scores that are well below the average SAT scores of other college graduates.
- Many faculty members in schools of education are more interested in social and political issues than they are in educating effective teachers — teachers who can improve the achievement levels of their students.
- MPS is in great need of being able to hire smart, academically talented teachers.
- As of today, it is difficult for anyone to know whether schools of education are preparing effective teachers, or to what extent. Objective data are hard to come by, and the very notion that hiring might be guided by such data is unfamiliar.

Could things be different? Yes, but a significant change would require *changing the subject*. Our public interest in quality education calls for a marked shift in emphasis within departments and schools of education — away from contextualizing and ideology, toward a new focus on the knowledge and teaching skills new teachers need to improve the academic achievement of their students. No conceptual or technical problem stands in the way of making the shift. The steps to be taken are ones that many educators could take, if they chose to do so.

The question is whether teacher trainers and education researchers can put aside their own special interests — political and theoretical — in order to focus on teaching practices known to be effective. We know from ordinary observation that faculty members in some university departments with professional training missions are capable of focusing their effort in this way. Anecdotes prove nothing general, but they do illustrate possibilities. One of us conducted a review of a department outside the School of Education at UW-Milwaukee a few years ago. Faculty members in this department were a lot like other university faculty members. They tended to be political liberals and, judging by the signs and cartoons on their office doors, they were not friends of George Bush or the Republican Party. But in their work as instructors of undergraduates in a professional training program they were completely dedicated to their department's mission of helping people overcome particular disabilities. Working from a common knowledge base, they focused on training people who could go into the field and get their jobs done right. No such consensus — of purpose or method — exists in schools and departments of education. There faculty members can't even agree that using scores from the state's own curricular examinations is a legitimate way to measure academic achievement, even though doing so has been mandated by state policy.

Design of the Study

We worked with three sources of data to assess the effectiveness of new teachers in MPS. First, we collected information about the programs and teacher candidates of schools and departments of education around the state. We assumed that MPS could hire teachers from any of these state schools and that the full array of programs should therefore be included. To obtain information we surveyed schools and departments of education through e-mails and fol-

low-up telephone calls. As part of this process, we obtained two sets of statewide Praxis II test scores from all schools and departments of education in the state from the Wisconsin DPI.

Second, we used value-added methodology (VAM) to measure the effectiveness of new MPS elementary school teachers trained at various schools of education, according to their students' achievement gains. With the cooperation of MPS, we established a database that links individual teachers to the achievement gains of individual elementary school students in their classrooms. The database also links individual teachers to the college or university each one attended.

Third, we invited elementary school teachers with up to six years of experience in MPS to participate in a web-based survey designed to identify the parts of their teacher education programs that they found to be most valuable. We mailed our request for participation to over 1500 new MPS teachers; 193 teachers responded. Approximately 12 percent of the eligible pool provided complete survey responses for use in our analysis. The margin of error for our calculations is 6.65 percent at a 95 percent confidence level. When surveying a finite sample as is the case here, a 12 percent response rate is regarded as statistically acceptable.

RESEARCH QUESTIONS, RESULTS, AND DISCUSSION

New teachers' content knowledge

To assess teachers' content knowledge, we asked how well teacher candidates performed on the Praxis II test of content knowledge.

Teacher candidates in Wisconsin are required by PI 34 (a section of the DPI rules governing teacher certification in Wisconsin) to take a content test in order to qualify for state certification. The test currently in use is the Praxis II: Subject Assessment, which is one test from a series of Praxis II tests. The Praxis II is designed to measure knowledge of subjects that K-12 educators will teach. It was developed by the Educational Testing Service (ETS) and is used in many states; it was selected for use in Wisconsin by the DPI. The Praxis II includes both multiple-choice and constructed-response (e.g., short essay) test items.

We obtained a Praxis II report of test scores from the DPI. (The DPI had received the scores from ETS.) We used scores from two of the Praxis II series tests that were most relevant to this study which focuses primarily on the preparation of elementary teachers. The first set was the test scores for the Elementary Education Content Knowledge (Test Code 0014). The second set was the Middle School Subjects: Content Knowledge (Test Code 01460). The scores are summarized in Tables 1-4, below.

Before examining the results, we wish to mention one important caveat. ETS provided the test scores to the DPI for 2005-06. The test-takers who took the Praxis II during this time period probably were admitted to, and probably completed, the teacher training program of the school or department of education identified. But we can't be sure of that. The scores reported are not necessarily those of program completers. Some measure of error is thus built into analyses based on the scores.

Table 1 shows median Praxis II scores for individuals at UW-System universities who took the Elementary Content Test. Test takers here include prospective elementary but in some cases, such as at UW-Milwaukee, these test-takers are more likely to be Early Childhood majors. The average median score is 169 — well above the national median score of 163 and well above the state-set qualifying score of 147. Test-takers at UW-Madison and UW-Stout had the highest median scores of 179. Test-takers at UW-River Falls and UW-Green Bay are next highest, with median scores of 173.5 and 173, respectively — again, well above the national average median score of 163. Students from two schools or departments of education perform below the national median: UW-Milwaukee and UW-Platteville, with median scores of 160 and 161, respectively.

Table 1 also shows that teachers who are certified through a program called MTEC perform quite well on the Praxis II test, with a median score of 173 — well above the Wisconsin qualifying score of 147 and above the national median score of 163. Note, however, that the number of MTEC test-takers is quite low.

Since MTEC turns out to be an important focal point in our study, and since it is unlike traditional teacher preparation programs in Wisconsin, we diverge here from the analysis of Praxis II scores to provide a brief description of the program. MTEC is an alternative teacher training program for MPS, launched in 1996. About 700 MTEC teach-

TABLE 1 UW SYSTEM ELEMENTARY CONTENT TEST SCORES, PRAXIS II, 2005-2006

Institution	Number of Examinees	Median Score
National	74,381	163.0
UW-Eau Claire	27	164.0
UW-Green Bay	20	173.0
UW-La Crosse	56	169.5
UW-Madison	65	179.0
UW-Milwaukee	70	160.0
UW-Oshkosh	28	170.0
UW-Parkside	7	163.0
UW-Platteville	64	161.0
UW-Stevens Point	22	170.5
UW-River Falls	56	173.5
UW-Stout	65	179.0
UW-Superior	24	167.5
UW-Whitewater	47	164.0
MTEC	8	173.0
Average Median Score for UW System Only		169.0
Qualifying Score for Wisconsin		147.0

ers currently teach in MPS, and MTEC is the single largest supplier of new MPS teachers, training about 100 teachers per year. MTEC students are, on average, 36 years old. Candidates who complete the program are certified to teach in Wisconsin. The program involves a one-month induction phase in which participants receive basic training in curriculum and instruction. Then they do a two-semester paid apprenticeship in which they work as the teacher of record in an MPS classroom and attend weekly seminars. To be accepted into the MTEC program, applicants must hold a bachelor's degree; they also must have completed a successful experience in working with children in an urban environment; and they must have obtained passing scores on the Praxis I, a basic skills test that all Wisconsin teacher candidates take. MTEC has a remarkable retention rate. Most MTEC teachers remain in MPS. While it is difficult to calculate a completely accurate number, in 2005-2006, MTEC had an 85 percent retention rate for its teachers; in 2006-2007, it retained 87 percent. Some of this may be the result of financial incentives — loan forgiveness, for example — that are

offered to MTEC teachers on condition that they remain in the MPS for a period of time.

Table 2 shows the median Elementary Content Test scores for test-takers at Wisconsin's private colleges and universities. The average median score is 167 — above the national median score of 163 and well above the state-set qualifying score of 147. Test-takers at Maranatha Baptist Bible College perform the highest, with a median score of 181 (note, however, that the number of test-takers there is very low). Test-takers at Wisconsin Lutheran and Marian College show the next highest scores — with medians of 178 and 175.5, respectively. (Here again, the number of test-takers is low.) All these scores are well above the national average median score of 163. Test-takers from four schools perform below the national median: Alverno College, Edgewood College, Lakeland College, and St. Norbert College.

Table 3 shows median scores for individuals at UW-System schools who took the Middle School Content Knowledge Test. We include these results because some teacher training programs (including UW-Milwaukee) require prospective elementary school teachers to take this test instead of the Elementary Content Test because they are seeking a state certification up to Grade 8. The average median score here is 160, close to the national median score of 159 but well above the state-set qualifying score of 146. Test-takers at UW-Madison had the highest median scores, with an average median of 170.5. Test-takers at UW-La Crosse and UW-Green Bay scored next-highest, with median scores of 167 and 165 respectively. These scores are well above the national average median score of 159. UW-Milwaukee had many test takers here (n=127), and they perform above the national median with an average median score of 161. Test-takers from three schools scored below the national median: UW-Superior and UW-Whitewater (at 157) and UW-Stout (well below the national median at 148).

Table 3 also shows that MTEC teachers score above the national median on the Middle School Content Knowledge Test, with a median of 163. Note that the number of MTEC test-takers here is 43 — larger than reported in Table 1.

TABLE 2 PRIVATE COLLEGES ELEMENTARY CONTENT TEST SCORES, PRAXIS II, 2005-2006

Institution	Number of Examinees	Median Score
National	74,381	163.0
Alverno College	19	160.0
Cardinal Stritch University	63	168.0
Carroll College	27	169.0
Concordia University	14	164.5
Edgewood College	21	162.0
Lakeland College	7	162.0
Maranatha Baptist Bible College	5	181.0
Marian College	8	175.5
Ripon college	9	167.0
St. Norbert College	25	161.0
Silver Lake College	21	163.0
Viterbo	9	157.0
Wisconsin Lutheran	8	178.0
Average Median Score for Private Colleges		167.0
Qualifying Score for Wisconsin		147.0

TABLE 3 UW SYSTEM MIDDLE SCHOOL CONTENT KNOWLEDGE TEST SCORES, PRAXIS II, 2005-2006

Institution	Number of Examinees	Median Score
National	5,713	159.0
UW-Eau Claire	104	161.5
UW-Green Bay	77	165.0
UW-La Crosse	61	167.0
UW-Madison	52	170.5
UW-Milwaukee	127	161.0
UW-Oshkosh	116	159.5
UW-Parkside	7	161.0
UW-Platteville	20	159.0
UW-Stevens Point	73	161.0
UW-River Falls	85	163.0
UW-Stout	15	148.0
UW-Superior	31	157.0
UW-Whitewater	128	157.0
MTEC	43	163.0
Average Median Score for UW System Only		161.0
Qualifying Score for Wisconsin		146.0

TABLE 4 PRIVATE COLLEGES MIDDLE SCHOOL CONTENT TEST SCORES, PRAXIS II

Institution	Number of Examinees	Median Score
National	5,713	159.0
Alverno College	8	166.0
Cardinal Stritch University	92	164.0
Carroll College	34	164.5
Carthage College	61	156.0
Concordia University	29	160.0
Edgewood College	66	166.0
Lakeland College	32	157.5
Marian College	73	163.0
Marquette University	32	163.5
Ripon college	8	170.0
St. Norbert College	24	163.5
Silver Lake College	44	159.0
Viterbo	9	168.0
Wisconsin Lutheran	11	159.0
Average Median Score for private colleges		163.0
Qualifying Score for Wisconsin		146.0

Table 4 shows median test scores on the Middle School Content Knowledge Test for test-takers at Wisconsin's private colleges and universities. The average median score here is 163 — above the national median score of 159 and well above the state-set qualifying score of 146. Test-takers at Ripon College and Viterbo College had the highest scores, with medians of 170 and 168, respectively (again, the number of test-takers for these two schools is low). Except in one case, these scores are well above the national average median of 159. Carthage College is the only private college whose test-takers scored (at 156) below the national median.

It is difficult to draw firm conclusions from the Praxis scores, given the uncertainty we have noted about the extent to which test-takers remained in the institutions' teacher-candidate pools. Nevertheless, we think four observations stand out.

First, the minimum qualifying score set by the state is well below the national median score. It invites further attention. Several other states including Delaware, Kentucky, Utah, and

Vermont have set their qualifying scores on the Praxis II Elementary Content Test somewhat higher than Wisconsin. The University of Utah uses the national median score as the passing score for content tests for which Utah has not yet established a qualifying score. Should the DPI consider raising its qualifying scores on the Praxis II series? Are such scores good predictors of the ability of teachers to increase student achievement gains? Follow-up studies of these and related questions might well suggest a need to boost Wisconsin's minimum standard.

Second, most teacher candidates in Wisconsin score above the national median in their performance on the Praxis II content tests at the elementary and middle school level. This appears to be true whether the teachers in question are prepared at public or private institutions.

Third, test scores do vary by institution. Scores linked to some schools are well above the national median, while those linked to other schools fall below — sometimes well below. Test-takers at UW-Madison consistently show the state's highest results. If, as research cited earlier suggests, academic ability is an important variable contributing to teachers' ability to improve students' academic achievement, then UW-Madison should be regarded as potentially an important provider of MPS teachers. Currently, few teachers from UW-Madison programs work in MPS.

Fourth, teachers prepared by the MTEC program do as well as or better than test-takers from traditional teacher training programs. This finding also invites further study. MTEC teachers are older, on average, than candidates from traditional teacher training programs, and they are further removed from traditional college studies. Why do they perform better on Praxis tests than teacher candidates who are currently enrolled in a bachelor's degree program? Are their higher scores explained by the fact that MTEC requires a completed bachelor's degree as an admission requirement? Are the lower scores for candidates from traditional programs explained by the allocation in those programs of two years of time or more to education courses rather than content courses?

Required credits in education courses

To learn about curricular emphases in training programs for elementary school teachers, we asked how many semester credits in education courses each of the programs requires.

The value of coursework in education is often questioned. Many critics contend that teacher quality would be enhanced if training programs included more coursework in the liberal arts and less in education. With this issue in mind, we repeatedly called and sent e-mails to all the schools and departments of education in the UW-System to learn the number of education credits required of an elementary major. We received responses from seven universities. Based on this limited sample, the lowest total (48 credits) is required at UW-La Crosse; the highest total (72 credits) is required at UW-River Falls. UW-Milwaukee requires 67 credits — the equivalent of about two years of full-time study. We estimate the average to be about 60 education credits. Compare this to the one month of training required of MTEC teachers.

Elementary education majors spend about half their time in college taking education courses. Given what we will see later about the value placed on general education courses by new MPS elementary teachers, and given the strong track record of MTEC teachers in MPS, this emphasis on education coursework seems excessive.

The link between training programs and teachers' effectiveness

To learn about this link, we asked how new MPS teachers' training programs correlate with their empirically observed capacity to improve their students' achievement. This analysis — checking the value added by new teachers according to their teacher preparation program in one large urban district — may be unique in the nation.

We defined “new teacher” as one who had worked for up to six years, full-time, in MPS. Our sample was 160 new teachers. To conduct our analysis, we used a data base developed in cooperation with MPS officials. Teacher and student data were provided by MPS's Division of Assessment and Accountability. Initial files identified 4857 (mathematics)/4,846 (reading) students (grades 3, 4, and 5) matched with new teachers. From the initial teacher-students file, 870 (mathematics)/865 (reading) students had pre-test and post-test scores linked with teachers whose institutional assignments were identifiable.

Our data show that MPS gets more new teachers (42 percent) from programs at UW-Milwaukee than from any other school. The next most prevalent Wisconsin institution in the sample is UW-Madison, at 8 percent.³⁰ Because the institutional counts yield very small sample sizes for many colleges and universities, we combined schools into three categories: Wisconsin institutions versus non-Wisconsin institutions; Wisconsin public institutions versus Wisconsin private institutions; and UW-Milwaukee versus other UW-system schools.

Table 5 displays descriptive statistics for these three groupings. The average years of experience for the novice teacher groupings varied from a low of 1.76 years for the UW-Milwaukee group to a high of 2.1 years in the non-Wisconsin teacher group. Sample sizes varied as expected, with most of the teachers coming from public Wisconsin institutions.

TABLE 5 CHARACTERISTICS OF TEACHER INSTITUTIONAL GROUPINGS

	Wisconsin Institutions Versus Non-Wisconsin Institutions		Wisconsin Public Institutions Versus Wisconsin Private Institutions		UW-Milwaukee Versus Other UW System Schools	
	Non-Wisconsin	Wisconsin	Wisconsin Public	Wisconsin Private	UWM	Other UW System
Average Years of Experience	2.1	1.89	1.86	1.99	1.76	2.06
Number	27	133	105	28	67	36

We did regression analyses using the pre- and post-test data on student performance gains. The question is whether a novice teacher's training institution significantly affects gains in student performance. We controlled for student demographic variables typically used in such models: minority status, free and reduced lunch status, English Language Learner status, and special education assignment. Teachers' years of experience and degree level (Bachelors or Masters) were also included in the regression model.

Table 6 displays the estimated differences between institutional groupings, along with standard error and significance levels.

TABLE 6 REGRESSION FINDINGS FROM NOVICE TEACHER BY INSTITUTIONAL GROUPING

Institutional Groupings	Reading Analyses			Mathematics Analyses		
	Beta	SE	Sig	Beta	SE	Sig
Wisconsin Institutions Versus Non-Wisconsin Institutions	-0.258	3.220	0.936	-4.083	2.864	0.154
Wisconsin Public Institutions Versus Wisconsin Private Institutions	1.349	2.984	0.651	-0.250	2.649	0.925
UW-Milwaukee Versus Other UW System Schools	-0.262	2.679	0.922	-0.633	2.478	0.798

Taking the Reading Analysis for Wisconsin Institutions Versus Non-Wisconsin Institutions as an example, Table 6 can be interpreted as follows: The estimated growth in student achievement difference between students with teachers from Wisconsin institutions and those with teachers from non-Wisconsin institutions is -0.258. That is, students with teachers from non-Wisconsin institutions are predicted to gain .258 scale score points more than students with teachers from Wisconsin institutions. However, these differences are not statistically significant, as shown by the very large significance level of the estimate (0.936). Such a significance level means there is a 93.6 percent probability that the result could have happened by chance (or that there is only a 6.4 percent chance that this increase in student achievement is related to the difference in teacher training institution). Other institutional groupings in both reading and mathematics can be interpreted similarly. For the purposes of this report, and as can be seen from Table 6, no institutional grouping comparison even approached reaching a level of significance in the regression analyses that would statistically suggest any difference in student achievement obtained by one institutional group versus another. Put more clearly, the available MPS pre-test/post-test scores for third-, fourth-, and fifth-grade reading and math students suggest that student performance gains *are not* significantly affected by the school of education their teachers attended, after controlling for student demographics and the teachers' highest degree and experience. The school of education a teacher attends does not appear to have any effect on the achievement of the students in the teacher's classes.

A number of caveats require mentioning. There was a sampling issue. Our regression analyses were conducted on only one-fifth of the student sample. Many students' scores were omitted because their teachers were not assigned in the database or their teachers did not have undergraduate institutions of record. Another variable not included in analyses, and potentially one of some importance, was the quality of teachers' instruction. Teacher evaluations, both by administrators and students, might more clearly identify differences among the teachers. Also, our regression models utilize a pretest/posttest design. Since Wisconsin assesses students in November, a perfect matched sample is not possible. A portion of students' gain is most certainly affected by the teacher in the following year between the months of September and November. There is currently no way to account for this effect in the model.

Nonetheless, given the caveats, performance gain differences — between students having teachers with degrees from Wisconsin or other states, from Wisconsin public institutions or private institutions, or from UW-Milwaukee or other UW-system schools — are not evident. The statistical evidence is quite clear: teachers trained in the same zip codes where MPS schools are located fare no better in raising student achievement than teachers trained in rural Wisconsin cornfields.

Our findings on this point are compatible with findings H. Gary Cook obtained in a similar study he carried out for MPS, comparing the performance of teachers trained in the MTEC program to other MPS teachers trained in traditional teacher preparation programs.³¹ Using a VAM analysis, Cook found no significant growth differences

between MPS students taught by MTEC teachers and those taught by non-MTEC teachers in reading or mathematics at MPS elementary schools.³²

MPS teachers rate their training programs

To find out how new MPS teachers rate their teacher training programs, we conducted a survey in cooperation with the MPS Division of Assessment and Accountability.

We distributed a cover letter inviting all MPS elementary school teachers with up to six years of experience (1576 teachers) to participate in an online survey about their training programs.³³ One hundred ninety one teachers, or approximately 12 percent of the eligible pool, provided complete survey responses for use in our analysis. The margin of error for our calculations is 6.65 percent at a 95 percent confidence level.

Because the sample size was small for many of the individual teacher certification programs, we grouped the schools into five categories: UW-Milwaukee, representing 36 percent of the sample; all other (non-UW-Milwaukee) Wisconsin public colleges and universities, representing 15 percent of the sample; Wisconsin private colleges and

TABLE 7 CHARACTERISTICS OF NEW MPS ELEMENTARY TEACHERS BY CATEGORY

	UW-Milwaukee	Other Wisconsin Public Colleges and Universities	Wisconsin Private Colleges and Universities	Colleges and Universities not in Wisconsin	MTEC	Total
How many years of full-time teaching experience do you have in the Milwaukee Public Schools?						
1 to 2 years	10.3% (7)	17.9% (5)	24.4% (11)	30.0% (3)	17.5% (7)	17.3% (33)
3 to 4 years	32.4% (22)	21.4% (6)	20.0% (9)	10.0% (1)	20.0% (8)	24.1% (46)
5 to 10 years	52.9% (36)	53.6% (15)	51.1% (23)	60.0% (6)	62.5% (25)	55.0% (105)
More than 10 years	4.4% (3)	7.1% (2)	4.4% (2)	0.0% (0)	0.0% (0)	3.7% (7)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)
How many years of full-time teaching experience do you have overall?						
1 to 2 years	7.4% (5)	14.3% (4)	17.8% (8)	0.0% (0)	12.5% (5)	11.5% (22)
3 to 4 years	25.0% (17)	21.4% (6)	22.2% (10)	20.0% (2)	20.0% (8)	22.5% (43)
5 to 10 years	51.5% (35)	50.0% (14)	46.7% (21)	60.0% (6)	65.0% (26)	53.4% (102)
More than 10 years	16.2% (11)	14.3% (4)	13.3% (6)	20.0% (2)	2.5% (1)	12.6% (24)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)

universities, representing 24 percent of the sample; colleges and universities not in Wisconsin, representing 5 percent of the sample; and teachers trained at MTEC,³⁴ representing 21 percent of the sample.³⁵ Even with these groupings, some samples remain small.

Table 7 displays some basic characteristics of the teacher cohorts. Interestingly, while the invitation letter was sent only to teachers identified by the MPS human resources department as having six years or less of MPS experience, a small number of teachers reported having more experience in the district than this. Perhaps some teachers included their student teacher service or substitute service to MPS before beginning to teach full-time. Nonetheless, the data show that approximately 17 percent of our sample are in their first or second year in MPS; about 24 percent have three or four years of experience; and about 55 percent have five years of experience. These results vary somewhat by institutional group. UW-M graduates constitute the smallest number of new teachers in the sample, while 30 percent of the out-of-state graduates are first- or second- year MPS teachers. The second part of Table 7 shows this same distribution but for total years of full-time teaching experience irrespective of district.

Table 8 shows responses to a question asking the teachers to state which components of their teacher training programs were most valuable to them. Overwhelmingly, the teachers selected clinical experiences (i.e., student teaching) as the most valuable component. They ranked their teaching methods courses (e.g., courses in how to teach math, reading, science, etc.) as second-most valuable. Academic courses (e.g., courses in history, mathematics, biology, etc.) ranked third. Coming in last — ranked least valuable — were the general professional education (e.g., courses in cultural and psychological foundations of education). In fact, only three teachers in the sample listed such courses as the most valuable component of their teacher certification programs.

Our results are generally congruent with results from other studies³⁶ showing that clinical experiences are the program component that teacher candidates typically find most valuable. It is interesting to consider what the reasons might be for this outcome. One possibility is that professors of education make the student teaching experience valuable by virtue of the expertise they bring to bear on supervising student teachers in their placements and by providing on-going, high-quality coaching in concurrent student teaching seminars. In some cases, that explanation is correct. More typically, it is not correct. At least in traditional teacher training programs, faculty members in education foundations courses do not supervise clinical experiences at all, and many faculty members in other departments (nominally responsible for clinical experiences) give them short shrift, avoiding supervisory responsibility altogether or engaging in it very lightly. Direct supervision of student teachers at many UW-System campuses — including UW-Milwaukee and UW-Madison — is turned over in large measure to graduate students, retired teachers, retired school administrators, or other ad hoc staff members. And these staff members, depending on their workloads, typically see student teachers five to six times per semester, for about an hour per time. As a matter of simple arithmetic, therefore, the beneficial effects of student teaching must derive very largely from the experience itself and from instruction provided day in and day out by the K-12 teachers who serve as cooperating teachers.

Actually, this practice makes a lot of sense. It implies tacit recognition of the fact that many tenure-track faculty members are uninterested in, and unqualified to provide help with, details of K-12 classroom practice. What do you do when Jason has a tantrum in the back of the room? What do you do when the lesson you thought would engage the students for 45 minutes is over in 10 minutes and all hell breaks loose? And how often should little Rachel be permitted to go to the bathroom? A professor might have good intuitions or poor ones about such matters, but in either case the quality of the advice she might give would very likely not be grounded in her graduate school training or her subsequent scholarly activity. By default, she or he would address such problems much in the way that parents or flight attendants or park rangers address the day-to-day problems they face in dealing with difficult and unpredictable children and passengers and tourists. That isn't necessarily a bad thing, but it does argue for turning the job to people who do it all the time — i.e., to classroom teachers who are willing to help. For university faculty members, moreover, working intensively with student teachers is not necessarily a smart career move. Even though student teaching is regarded by nearly everyone as the key to training good teachers, faculty members are rarely rewarded for such work. Tenure, promotion, and salary increases typically go to those who write articles and books and get grant dollars for research. There is not much to be gained at UW-Madison or UW-Milwaukee by supervising student teachers. Better to leave such work to others.

While MPS elementary school teachers assigned high value to their student teaching experiences, they did not find much to value in their general professional education courses. Typically, these are courses in the history and philosophy of education and in cultural and psychological foundations of education. In an effort to understand the low rankings of these courses, we contacted all of the UW-System schools and departments of education to obtain syl-

TABLE 8 VALUE OF TEACHER TRAINING PROGRAM COMPONENTS BY AREA AND CATEGORY**WHAT WAS THE MOST VALUABLE PART OF YOUR TEACHER CERTIFICATION PROGRAM?**

	UW- Milwaukee	Other Wisconsin Public Colleges and Universities	Other Wisconsin Private Colleges and Universities	Colleges and Universities not in Wisconsin	MTEC	Total
Academic Courses	10.3% (7)	0.0% (0)	13.3% (6)	0.0% (0)	5.0% (2)	7.9% (15)
Clinical Experiences	58.8% (40)	85.7% (24)	51.1% (23)	70.0% (7)	62.5% (25)	62.3% (119)
General Professional Education	2.9% (2)	0.0% (0)	0.0% (0)	0.0% (0)	2.5% (1)	1.6% (3)
Courses on Teaching Methods	27.9% (19)	14.3% (4)	35.6% (16)	30.0% (3)	30.0% (12)	28.3% (54)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)

labi for the cultural foundations or philosophy of education course that is typically required in their teacher training programs. After numerous requests by e-mail and telephone calls, we were able to come up with eight syllabi to examine. Given the low response rate, our observations are informal and anecdotal.

We found three things. First, these courses vary widely from campus to campus. In some academic disciplines, such as economics, there is widespread agreement on the content and organization of undergraduate and graduate courses. Principles of economics textbooks, for example, are marked by similar organizational patterns reflecting this consensus among economists. No such consensus exists among the faculty members who teach courses in cultural, psychological, historical, or philosophical foundations of education courses. Some stress the historical background of American public education; others stress multiculturalism; others stress current issues in education, including self-actualization, suicide prevention, the dangers of bullying, the recognition of gang paraphernalia, eating disorders, the inadequacy of standardized tests, images of the teacher in popular television shows, and many others. Despite the variation, these courses are included in teacher training programs to address a common curricular requirement. The assignments are also all over the place. Some courses require no examinations or papers. Instead students keep portfolios, write reflection papers, do action research, participate in cooperative learning activities, write autobiographies, explain their personal philosophies, and so forth.

Second, key topics addressed in these courses — urban schooling, social change, culture, the sociology of knowledge, oppression, power, poverty, race, class, gender, and ethnicity — lend themselves readily to analysis from a left-leaning political perspective. Other analyses of the same topics would be possible, of course, but reading lists attached to the syllabi we could examine featured familiar names from the progressive movement (Rousseau, Dewey) and its latter-day followers (James Banks, Jonathan Kozol, and William Ayers). An undergraduate informed by these topics and these reading lists would not learn about the argument for school choice or state assessment programs or merit pay or the concept of human capital, even though those topics are of great importance outside schools of education. Nor would such a student encounter the arguments of education critics such as Milton Friedman, Thomas Sowell, Diane Ravitch, Chester Finn, and E.D Hirsch. The concept of diversity, as understood in these courses, evidently does not include intellectual diversity.

Finally, Table 8 shows that MPS teachers also give academic courses low rankings. How to reconcile this finding with advocacy among many education reformers for more liberal arts courses for education majors? Earlier we cited research by Goldhaber and Brewer in which results showed a significant positive relationship between teachers' degrees and their students' achievement in some subjects.³⁷

One possible explanation of the apparent disjuncture of views here has to do with the teaching of reading. The teaching of reading looms very, very large among the instructional tasks of elementary school teachers. For some primary-grades teachers, it is nearly all that matters. And it is not clear how college and university liberal arts courses—in chemistry or history or German, say—could inform the teaching of early reading in any direct manner. Still, that point does not explain why college and university courses in math and composition and history and political science would not be viewed as important by elementary school teachers who also are expected to teach math and composition and history and government. Something is clearly wrong with a system in which the content teachers are expected to teach is not much valued by the teachers. One possible implication is that faculty members in college and university liberal arts departments present their courses poorly, failing to capture the interest of students who will go on to become teachers, and thus share the blame for a strain of anti-intellectualism in the schools. Alternatively, it may be the case that composition, history, government, and similar areas of study undergo such an extreme transformation *in the elementary school curriculum* that their disciplinary sources, as represented in college and university courses, strike classroom teachers as merely quaint and frivolous. Either way, it is not a good thing.

Table 9 shows responses of new MPS elementary school teachers to a question asking them to rate the general preparation for teaching they received at their teacher education programs. Teachers were first asked to respond to the statement, “I believe that my teacher certification program provided me with sufficient preparation overall for my first teaching assignment.” Over 72 percent of the teachers in the sample either agreed or strongly agreed with this statement, while just under 20 percent disagreed or strongly disagreed. Overall, this appears to be good news. The non-Wisconsin institutions fared the best on this statement.

About 73 percent of MTEC teachers agreed or strongly agreed that they were sufficiently prepared in general for the classroom. The results were far less positive for UW-Milwaukee, where about 60 percent agreed or strongly agreed that they were sufficiently prepared in general for the classroom. Nearly 30 percent of the UW-Milwaukee teachers disagreed or strongly disagreed with this statement.

Table 9 shows the MPS teachers’ responses to the statement, “I believe that my teacher certification program provided me with sufficient teaching skills to be successful in the classroom.” Over 70 percent of the teachers in the sample either agreed or strongly agreed with this statement, while just under 20 percent disagreed or strongly disagreed.

MTEC teachers stated positive ratings of their preparation in teaching skills, with about 75 percent agreeing or strongly agreeing with the prompt—higher than average. The results were less positive for teachers from UW-Milwaukee. Fifty-nine percent of them agreed or strongly agreed with the prompt. UW-Milwaukee also had the highest percentage of teachers who disagreed or strongly disagreed (nearly 30 percent) with the prompt.

Table 9 also shows the MPS teachers’ responses to the statement, “I believe that my teacher certification program provided me with sufficient content knowledge to be successful in the classroom.” Over three-fourths of the teachers (about 77 percent) in the sample either agreed or strongly agreed with this statement, while about 16 percent disagreed or strongly disagreed. Other Wisconsin public colleges and universities actually achieved a 100 percent rating. Again, not all the programs fared the same. MTEC teachers rated their preparation in content knowledge at 60 percent—far below the total percentage. UW-Milwaukee trained teachers rated their program much higher. Seventy-eight percent of UW-Milwaukee trained teachers agreed or strongly agreed with the prompt.

Table 10 shows responses of new MPS elementary school teachers to a set of statements about their preparation to teach in MPS. The first statement asked the teachers to rate how well prepared they were to deal successfully with the diversity of students in their classrooms. On this question, 67 percent of the respondents agreed or strongly agreed with the prompt. Over 23 percent of the teachers disagreed or strongly disagreed with it. Again, this seems to be a positive rating, although not as high as the ratings given in response to previous questions on general preparation for teaching. The responses here were relatively evenly distributed. Perhaps the only surprising finding is that nearly 30 percent of UW-Milwaukee teachers disagreed or strongly disagreed with the prompt. By comparison, teachers from other public colleges and universities gave higher rankings regarding their preparation for dealing with diversity; 71 percent of them agreed or strongly agreed with the prompt, and only 21.5 percent disagreed with it. Given UW-Milwaukee’s stated mission of preparing teachers to work in a diverse environment, one might have expected these ratings to have been reversed.

Table 10 shows MPS teachers’ responses to the statement, “I believe that my teacher certification program provided me with sufficient classroom management skills to work in an urban school environment.” Here, only 47 percent of the teachers agreed or strongly agreed with the prompt, and almost one quarter disagreed or strongly dis-

TABLE 9 ASSESSMENT OF GENERAL PREPARATION FOR TEACHING

	UW- Milwaukee	Other Wisconsin Public Colleges and Universities	Other Wisconsin Private Colleges and Universities	Colleges and Universities not in Wisconsin	MTEC	Total
I believe that my teacher certification program provided me with sufficient preparation overall for my first teaching assignment.						
Agree/ Strongly Agree	60.3% (41)	85.7% (24)	77.8% (35)	90.0% (9)	72.5% (29)	72.2% (138)
Disagree/ Strongly Disagree	29.4% (20)	14.3% (4)	8.9% (4)	0.0% (0)	22.5% (9)	19.4% (37)
Uncertain	10.3% (7)	0.0% (0)	6.7% (3)	10.0% (1)	5.0% (2)	6.8% (13)
No Response	0.0% (0)	0.0% (0)	6.7% (3)	0.0% (0)	0.0% (0)	1.6% (3)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)
I believe that my teacher certification program provided me with sufficient teaching skills to be successful in the classroom.						
Agree/ Strongly Agree	58.8% (40)	75.0% (21)	80.0% (36)	80.0% (8)	75.0% (30)	70.7% (135)
Disagree/ Strongly Disagree	29.4% (20)	14.3% (4)	11.1% (5)	0.0% (0)	22.5% (9)	19.9% (38)
Uncertain	11.8% (8)	10.7% (3)	2.2% (1)	20.0% (2)	2.5% (1)	7.9% (15)
No Response	0.0% (0)	0.0% (0)	6.7% (3)	0.0% (0)	0.0% (0)	1.6% (3)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)
I believe that my teacher certification program provided me with sufficient content knowledge to be successful in the classroom.						
Agree/ Strongly Agree	78.8% (53)	100.0% (28)	73.3% (33)	80.0% (8)	60.0% (24)	76.5% (146)
Disagree/ Strongly Disagree	13.3% (9)	0.0% (0)	13.3% (6)	10.0% (1)	35.0% (14)	15.7% (30)
Uncertain	8.8% (6)	0.0% (0)	6.7% (3)	10.0% (1)	5.0% (2)	6.3% (12)
No Response	0.0% (0)	0.0% (0)	6.7% (3)	0.0% (0)	0.0% (0)	1.6% (3)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)

agreed. This is the second-lowest ranking given to any of the prompts in our survey. It reflects a long-standing criticism of traditional teacher training programs — i.e., that they do a poor job of training teachers to establish orderly classroom environments and to handle discipline problems effectively. Only 35 percent of the teachers trained at UW-Milwaukee — where the explicitly stated mission is to prepare for work in MPS — agreed or strongly agreed with the prompt, and half disagreed or strongly disagreed. The sole exception to this negative pattern of results came from teachers trained in the MTEC program. Over 70 percent of the MTEC teachers agreed or strongly agreed with the statement, while about 23 percent disagreed.

Table 10 also shows MPS teachers' responses to the statement, "I believe that I was well prepared by my teacher certification program for working in a large urban school system like the Milwaukee Public Schools." Here, 54 percent of the teachers agreed or strongly agreed, and one third disagreed or strongly disagreed. As with the previous prompt regarding classroom management, this is a relatively low rating. Only 51 percent of the teachers trained at UW-Milwaukee agreed or strongly agreed with the prompt, and nearly 40 percent disagreed or strongly disagreed. Again, this is not a positive result, given UW-Milwaukee's urban mission. The only consolation UW-Milwaukee might take here is that other Wisconsin state schools did far worse. Only about one-third of other UW-System teachers agreed or strongly agreed that they were well prepared to teach in the MPS, and over 40 percent disagreed or strongly disagreed. The sole exception, again, was teachers trained through the MTEC program. Over 70 percent of the MTEC teachers agreed or strongly agreed with the statement that they were well prepared to teach in MPS, and nearly 23 percent disagreed.

Table 11 shows responses of new MPS elementary school teachers to a question about their attitudes toward student achievement. The first prompt is "I believe that teaching to increase academic achievement is the central job of a classroom teacher." On this statement nearly 90 percent of the teachers agreed or strongly agreed, while less than 10 percent disagreed or strongly disagreed. This is as close to a consensus result as we have seen.

The second prompt in Table 11 is "I believe that my teacher certification program did a good job of preparing me to increase the academic achievement of my students." Here the responses are not as positive. While nearly 90 percent of the MPS teachers felt that increasing academic achievement was central to the job, only 66 percent of the agreed or strongly agreed that they were well prepared to raise achievement, and about 19 percent disagreed or strongly disagreed. Only 52 percent of the MTEC teachers agreed or strongly agreed with the prompt, compared to 60 percent of the teachers trained at UW-Milwaukee.

Table 12 shows responses from new MPS elementary school teachers to prompts regarding other aspects of their training programs. The first prompt is "The knowledge I learned about how to be an effective teacher from the instructors in my teacher preparation program was similar to what I found I needed to be successful as a classroom teacher." This statement was intended to measure the congruence between what teachers learned in their certification programs and what they encountered in MPS. Sixty-six percent of the respondents agreed or strongly agreed with the statement, while almost 21 percent disagreed or strongly disagreed. This seems like a positive result, given the long history of complaint among teachers about the gap between theory and practice in teacher training. Teachers trained at other UW-System schools were the most positive. Three fourths of them agreed or strongly agreed with the statement. MTEC teachers gave the next highest ranking; 70 percent of them agreed or strongly agreed. Ratings for teachers trained at UW-Milwaukee were considerably lower; only 57 percent of them agreed or strongly agreed with the prompt.

The second prompt in Table 12 is "I believe that teaching for social justice is the central job of a classroom teacher." Overall, 45 percent of the teachers agreed or strongly agreed with this prompt, while almost 25 percent disagreed. Teachers from UW-Milwaukee agreed at a rate of 50 percent, while positive ratings were lower for teachers from other schools. It appears that most new MPS teachers do not see teaching for social justice as their main responsibility. The relatively low overall rating on this prompt is perhaps predictable, given that the vast majority of new MPS teachers (over 88 percent) stated in response to an earlier prompt that viewed increasing academic achievement is a central part of their job.

The third prompt in Table 12 is "I believe that my teacher certification program was academically rigorous and challenging." Over 85 percent of the teachers trained at other UW-System institutions agreed or strongly agreed with this statement. About 70 percent of UW-Milwaukee teachers agreed or strongly agreed; 60 percent of the MTEC teachers agreed or strongly agreed.

Finally, Table 12 shows the teachers' responses to the statement, "I would recommend my teacher certification program to others." Overall, almost 73 percent of new MPS elementary teachers trained in all the programs agreed

TABLE 10 ASSESSMENT OF PREPARATION TO TEACH IN THE MPS

	UW- Milwaukee	Other Wisconsin Public Colleges and Universities	Other Wisconsin Private Colleges and Universities	Colleges and Universities not in Wisconsin	MTEC	Total
I believe that my teacher certification program provided me with the knowledge and skills to deal successfully with the diversity of students in my classroom.						
Agree/ Strongly Agree	64.7% (44)	71.4% (20)	60.0% (27)	60.0% (6)	77.5% (31)	67.0% (128)
Disagree/ Strongly Disagree	29.5% (20)	21.5% (6)	15.5% (7)	40.0% (4)	20.0% (8)	23.6% (45)
Uncertain	5.9% (4)	7.1% (2)	17.8% (8)	0.0% (0)	2.5% (1)	7.9% (15)
No Response	0.0% (0)	0.0% (0)	6.7% (3)	0.0% (0)	0.0% (0)	1.6% (3)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)
I believe that my teacher certification program provided me with sufficient classroom management skills to work in an urban school environment.						
Agree/ Strongly Agree	35.3% (24)	39.3% (11)	48.9% (22)	50.0% (5)	72.5% (29)	47.6% (91)
Disagree/ Strongly Disagree	50.0% (34)	46.4% (13)	26.6% (12)	50.0% (5)	22.5% (9)	38.2% (73)
Uncertain	14.7% (10)	14.3% (4)	17.8% (8)	0.0% (0)	5.0% (2)	12.6% (24)
No Response	0.0% (0)	0.0% (0)	6.7% (3)	0.0% (0)	0.0% (0)	1.6% (3)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)
I believe that I was well prepared by my teacher certification program for working in a large urban school system like the Milwaukee Public Schools.						
Agree/ Strongly Agree	51.4% (35)	32.2% (9)	51.1% (23)	50.0% (5)	80.0% (32)	54.4% (104)
Disagree/ Strongly Disagree	38.3% (26)	42.8% (12)	31.1% (14)	40.0% (4)	12.5% (5)	32.0% (61)
Uncertain	10.3% (7)	25.0% (7)	11.1% (5)	10.0% (1)	7.5% (3)	12.0% (23)
No Response	0.0% (0)	0.0% (0)	6.7% (3)	0.0% (0)	0.0% (0)	1.6% (3)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)

TABLE 11 ATTITUDES ABOUT STUDENT ACHIEVEMENT

	UW- Milwaukee	Other Wisconsin Public Colleges and Universities	Other Wisconsin Private Colleges and Universities	Colleges and Universities not in Wisconsin	MTEC	Total
I believe that teaching to increase academic achievement is the central job of a classroom teacher.						
Agree/ Strongly Agree	82.3% (56)	96.5% (27)	88.9% (40)	100.0% (10)	90.0% (36)	88.5% (169)
Disagree/ Strongly Disagree	8.9% (6)	3.6% (1)	2.2% (1)	0.0% (0)	2.5% (1)	4.7% (9)
Uncertain	8.8% (6)	0.0% (0)	2.2% (1)	0.0% (0)	7.5% (3)	5.2% (10)
No Response	0.0% (0)	0.0% (0)	6.7% (3)	0.0% (0)	0.0% (0)	1.6% (3)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)
I believe that my teacher certification program did a good job of preparing me to increase the academic achievement of my students.						
Agree/ Strongly Agree	60.3% (41)	89.2% (25)	73.3% (33)	60.0% (6)	52.5% (21)	66.0% (126)
Disagree/ Strongly Disagree	22.1% (15)	7.1% (2)	13.3% (6)	20.0% (2)	27.5% (11)	18.9% (36)
Uncertain	17.6% (12)	3.6% (1)	6.7% (3)	20.0% (2)	20.0% (8)	13.6% (26)
No Response	0.0% (0)	0.0% (0)	6.7% (3)	0.0% (0)	0.0% (0)	1.6% (3)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)

or strongly agreed with this statement; only about 10 percent disagreed. The strongest positive ranking came from teachers trained in other UW-System schools; 93 percent of them agreed or strongly agreed with the prompt. Seventy percent of the MTEC teachers agreed or strongly agreed. The lowest positive ranking (63 percent) came from teachers trained at UW-Milwaukee.

Here is a summary of the survey results.

- Overwhelmingly, new MPS elementary school teachers rated their clinical experiences (i.e., student teaching) as the most valuable components of their training programs.
- New MPS elementary school teachers rated their general professional education courses as the least valuable component of their training programs. An examination of several syllabi for philosophical and cultural foundations courses suggests there is little agreement among instructors on what should be included in such courses. The topics vary widely. The syllabi also suggest a pervasive left-wing political bias in these courses.
- New MPS elementary school teachers rated their academic (non-education) courses as being the second-least valuable component of their training programs — far behind clinical experiences and teaching methods courses.

TABLE 12 OTHER ATTITUDES AND OPINIONS

	UW- Milwaukee	Other Wisconsin Public Colleges and Universities	Other Wisconsin Private Colleges and Universities	Colleges and Universities not in Wisconsin	MTEC	Total
The knowledge I learned about how to be an effective teacher from the instructors in my teacher preparation program was similar to what I found I needed to be successful as a classroom teacher.						
Agree/ Strongly Agree	57.3% (39)	75.0% (21)	73.3% (33)	50.0% (5)	70.0% (28)	66.0% (126)
Disagree/ Strongly Disagree	30.8% (21)	10.7% (3)	11.1% (5)	30.0% (3)	20.0% (8)	20.9% (40)
Uncertain	11.8% (8)	14.3% (4)	8.9% (4)	20.0% (2)	10.0% (4)	11.5% (22)
No Response	0.0% (0)	0.0% (0)	6.7% (3)	0.0% (0)	0.0% (0)	1.6% (3)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)
I believe that teaching for social justice is the central job of a classroom teacher.						
Agree/ Strongly Agree	50.0% (34)	39.3% (11)	35.6% (16)	30.0% (3)	55.0% (22)	45.0% (86)
Disagree/ Strongly Disagree	20.5% (14)	32.2% (9)	28.8% (13)	20.0% (2)	22.5% (9)	24.6% (47)
Uncertain	29.4% (20)	28.6% (8)	28.9% (13)	50.0% (5)	22.5% (9)	28.8% (55)
No Response	0.0% (0)	0.0% (0)	6.7% (3)	0.0% (0)	0.0% (0)	1.6% (3)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)
I believe that my teacher certification program was academically rigorous and challenging.						
Agree/ Strongly Agree	70.5% (48)	85.7% (24)	84.5% (38)	80.0% (8)	60.0% (24)	74.3% (142)
Disagree/ Strongly Disagree	20.6% (14)	10.7% (3)	2.2% (1)	10.0% (1)	32.5% (13)	16.7% (32)
Uncertain	8.8% (6)	3.6% (1)	6.7% (3)	10.0% (1)	7.5% (3)	7.3% (14)
No Response	0.0% (0)	0.0% (0)	6.7% (3)	0.0% (0)	0.0% (0)	1.6% (3)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)

TABLE 12 OTHER ATTITUDES AND OPINIONS (CONTINUED)

	UW- Milwaukee	Other Wisconsin Public Colleges and Universities	Other Wisconsin Private Colleges and Universities	Colleges and Universities not in Wisconsin	MTEC	Total
I would recommend my teacher certification program to others.						
Agree/ Strongly Agree	63.3% (43)	92.9% (26)	75.6% (34)	80.0% (8)	70.0% (28)	72.8% (139)
Disagree/ Strongly Disagree	14.7% (10)	7.1% (2)	4.4% (2)	10.0% (1)	12.5% (5)	10.5% (20)
Uncertain	22.1% (15)	0.0% (0)	13.3% (6)	10.0% (1)	17.5% (7)	15.2% (29)
No Response	0.0% (0)	0.0% (0)	6.7% (3)	0.0% (0)	0.0% (0)	1.6% (3)
Total	100.0% (68)	100.0% (28)	100.0% (45)	100.0% (10)	100.0% (40)	100.0% (191)

- New MPS elementary school teachers tended to rate their general teaching preparation quite positively. Over 70 percent felt that they were sufficiently prepared for their first teaching assignment, and 70 percent felt they had sufficient teaching skills to be successful in the classroom. Over three fourths believed that they had sufficient content knowledge.
- New MPS elementary school teachers trained at UW-Milwaukee rated their general preparation for teaching less favorably than others questioned in our survey. About 60 percent of teachers from UW-Milwaukee felt that they were sufficiently prepared for their first teaching assignment, and about 60 percent felt they had had sufficient overall teaching skills.
- How well do elementary school teachers feel they are prepared to teach in MPS? On average, about two thirds of the teachers believed they were able to deal with the diversity of students in their classrooms, and over half felt prepared to work in a large urban district like MPS. However, less than half believed they were well prepared to handle classroom management tasks.
- Regarding diversity and overall preparation to teach in MPS, teachers trained at UW-Milwaukee rated their program nearly as favorably as teachers from the other programs. Teachers trained at UW-Milwaukee rated their preparation to manage their classrooms less favorably than teachers from other programs.
- Teachers trained in the MTEC program rated their preparation to teach in MPS higher than other teachers rated their programs. Nearly 78 percent of the MTEC teachers felt well prepared to deal successfully with diversity, and nearly 73 percent felt they had sufficient management skills. Eighty percent of the MTEC teachers felt well prepared to work in a large urban district like the MPS. Given these positive results, one might anticipate that MTEC teachers would produce higher student achievement gains than teachers prepared in other programs. Unfortunately, this is not the case. The VAM analysis showed that MTEC teachers are as effective as others.
- Nearly 90 percent of the teachers agreed that teaching to increase academic achievement is the central goal of a classroom teacher. However, only 66 percent of the teachers overall believed that their programs did a good job of preparing them to raise academic achievement. The percentages were lower for UW-Milwaukee trained teachers (60 percent) and lower still for MTEC teachers (52 percent).
- Asked whether they would recommend their teacher certification program to others, almost 73 percent of the teachers trained in all the programs agreed that they would. However, teachers from UW-Milwaukee

were less positive. Only 63 percent of the UW-Milwaukee teachers agreed that they would recommend their program. A somewhat higher percent (70) of the MTEC teachers agreed.

OVERALL CONCLUSIONS

Four important conclusions can be drawn from this study. First, Wisconsin provides no easy way for school districts to learn about the probable quality of certified teachers in advance of hiring.

Second, while most teacher candidates in Wisconsin score above the national median on the Praxis II exam, MPS is more likely to attract teachers from schools where candidates perform, on average, at the national median. That is because few new teachers from UW-Madison get hired to teach at elementary schools in MPS. MPS is much more likely to hire teachers from UW-Milwaukee and the MTEC program.

Third, the evidence shows that new MPS elementary school teachers are improving the academic achievement of their students, but the student performance gains are not significantly related to the schools or departments of education the teachers attended. Elementary school teachers trained at institutions that specialize in an urban mission — such as UW-Milwaukee and MTEC — perform no better in MPS than teachers trained elsewhere, in terms of the achievement gains they produce.

Fourth, the MTEC alternative teacher preparation program has two clear advantages over traditional programs. First, it is more efficient. Elementary school teachers trained at traditional schools and departments of education take on average about 66 credits of education courses — about half of all their university coursework. These are the courses that teachers surveyed for this study ranked as the least valuable parts of their training programs, by far. In contrast, the MTEC program requires about a month of classroom training and a great deal of on-the-job teaching. Moreover, many MTEC teachers rate the quality of their program more highly than teachers from other programs rate theirs. Yet, MTEC teachers are not more effective. They produce the same achievement gains as teachers trained in traditional programs at UW-Milwaukee and other UW-System schools. MTEC has struggled to figure out what it will take to produce achievement gains over teachers trained in traditional programs. Second, MTEC year-to-year has a high retention rate — over 80 percent in recent years. Milwaukee has a high turnover rate among its teachers — much higher than the rate in other Wisconsin school districts. The fact that MTEC teachers tend to stay with MPS is no small accomplishment.

RECOMMENDATIONS

Our study overall suggests many possible areas for improvement. For example, we might recommend that:

- Certain state certification standards should be increased. The minimum qualifying Praxis II score in Wisconsin is well below the national median score and is set somewhat below the level of some other states.
- Given that new MPS teachers do not feel well prepared to manage their classrooms, schools and departments of education should improve their training in classroom management and discipline.
- Given that education foundations courses are not valued by new MPS teachers, they should be scrapped to make space for better designed academic content courses.
- The MTEC program is as good as other programs, or better, and it is more efficient to boot. Perhaps other districts — especially large urban districts like Racine, Kenosha, and Beloit — might wish to emulate some parts of this model.

But we choose to refrain from emphasizing a laundry list of specific recommendations for fine tuning Wisconsin's teacher preparation programs as they relate to MPS. Why? Partly because recommendations of this sort are old news. Similar recommendations have been proposed, and ignored, for a long time. Also, traditional teacher training programs today are restricted in ways that are almost too numerous to count. In other words, it is hard for us to imagine that the system can change itself by adoption of measures aimed at fine tuning. PI 34 — the state's rules governing teacher training — tie the enterprise up and buttress the status quo. Almost always, when leaders at traditional teacher training programs are challenged to defend their programs in response to student or parental complaints, they take refuge in the rules, pointing out they are just following the mandates of PI-34.

It gets worse. Tenure protection for senior faculty members makes it difficult to redesign or abolish certain courses in the teacher preparation program, no matter what program graduates think of them. Those courses belong to somebody, and he or she doesn't want to lose them. Similarly, college and university chancellors and presidents would be hard pressed to imagine why they should increase admission standards for schools and departments of education when such actions would almost certainly result in reduced enrollments and less revenue for the institution. And throughout the UW-System all the issues surrounding "faculty governance" add to the bureaucratic inflexibility which makes it almost impossible for schools and departments of education to embark on truly innovative approaches.

Our primary recommendation is not for fine tuning. It is that the State of Wisconsin should push its teacher training schools *to change the subject* — that is, to focus effort and resources sharply on the task of teaching new teachers how to improve the academic achievement of their students, in urban schools and elsewhere. Suitable programs would share many of the features that now exist in charter schools. Toward this end, exemptions from DPI rules should be issued as necessary. A state board — perhaps one appointed by the Board of Regents — could accept applications from interested institutions. New programs would be allowed to experiment. They would be supported in their efforts to attract bright, capable people from any background to serve as leaders. They would set new standards for teachers, admitting only candidates who stood out as smart, well-educated, and hard-working. They would feature intense internships (taking a cue from MTEC) rather than traditional models of student teaching. Their programs would focus on the curriculum and standards for which new teachers would actually be responsible when they begin to teach. And they would strive in all these efforts — and others of their devising — to validate their practices by reference to empirical evidence about the known effects of those practices on students' academic achievement. National partners such as Teach for America — a program that attracts thousands of college graduates, many from UW-Madison,³⁸ to teach in urban schools — might be an excellent model.

We also offer two other recommendations.

- Wisconsin, perhaps at the direction of the Board of Regents, should establish a way for officials in school districts such as the MPS and the general public to learn about the quality of teachers produced by Wisconsin's traditional and alternative certification programs. Information regarding performance on content tests, pass rates, number of professional education credits, number of content courses, types and intensity of clinical experiences, and so forth should be easily available. Results of VAM studies which measure the relationship between teacher training programs and their impact on student performance should be readily available.
- The UW-System should take the lead in demanding a new level of accountability to departments and schools of education. What better way to do this than to demonstrate that teachers trained at some institutions add more value year to year in terms of academic gains than do teachers trained at other institutions? Wisconsin's researchers should initiate local and statewide VAM studies of graduates from all schools and departments of education as well as alternative certification programs. Such studies could address what features of specific teacher preparation programs contribute to achievement gains in the classroom.

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APPENDIX — MPS TEACHER TRAINING PROGRAM SURVEY

September 10, 2007

Dear Teacher,

We are writing to invite you to participate in an MPS-approved and supported online survey regarding your preparation to be an MPS teacher. The purpose of this survey is to gather information regarding how satisfied MPS teachers are with their teacher certification program including traditional programs such as those at UW System universities as well as alternative programs such as MTEC. We think this information will be of great value to improving the ability of MPS to hire capable teachers in the future so we deeply hope that you are willing to participate.

The survey will take only a few minutes to complete and can be easily accessed at: www.lakeland.edu/mpssurvey

While this survey will provide important information about the preparation of MPS teachers, your participation is completely voluntary and your responses will be completely confidential. Your completion of the survey will be an indication that you have read this letter and given your consent to participate.

Please take a moment and complete the survey now.

If you have questions, please contact Mark Schug at mschug@uwm.edu or call (414) 229-XXXX.

Thanks for your consideration.

Sincerely,

Mark C. Schug, Ph.D.
Senior Fellow, Wisconsin Policy Research Institute
Professor Emeritus, UW-Milwaukee

Scott Niederjohn, Ph.D.
Professor of Economics
Lakeland College

Background Information

Please answer the following questions about your education and teaching background. Your responses will remain strictly confidential.

1. In what year did you complete your teacher certification training program? _____

2. What is your area of teaching certification? Check any that apply:
 - A. Bilingual Education
 - B. Elementary Education
 - C. Exceptional Education
 - D. Secondary Education
 - E. Other

3. At which college or university did you complete your teacher certification training program?
 - A. Alverno
 - B. Carroll
 - C. Cardinal Stritch
 - D. Concordia
 - E. Mount Mary
 - F. MTEC
 - G. UW-Green Bay
 - H. UW-Oshkosh
 - I. UW-Parkside
 - J. UW-Madison
 - K. UW-Milwaukee
 - L. UW-Whitewater
 - M. Other _____

4. What was the most valuable part of your teacher certification program?
 - A. Academic courses in such areas as English, math, science and social studies.
 - B. General professional education courses such as cultural foundations of education.
 - C. Teaching methods courses such as reading methods, mathematics or social studies methods
 - D. Clinical experiences such as student teaching.

5. How many years of full-time teaching experience do you have in the MPS?
 - A. 1-2 years
 - B. 3-4 years
 - C. 5 to 10 years
 - D. more than 10 years

6. How many years of full-time teaching experience do you have overall?
 - A. 1-2 years
 - B. 3-4 years

- C. 5 to 10 years
- D. more than 10 years

7. Have you completed, or begun study toward, a graduate degree?

- A. Yes
- B. No

Directions

Please indicate the degree to which you agree or disagree with each statement below by circling the appropriate letter to the right of the statement. Your responses will remain strictly confidential.

8. I believe that my teacher certification program provided me with sufficient preparation overall for my first teaching assignment.

SA	A	UN	D	SD
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

9. I believe that my teacher certification program provided me with sufficient teaching skills to be successful in the classroom.

SA	A	UN	D	SD
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

10. I believe that my teacher certification program provided me with sufficient content knowledge that to be successful in the classroom.

SA	A	UN	D	SD
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

11. I believe that my teacher certification program provided me with the knowledge and skills to deal successfully with the diversity of students in my classroom.

SA	A	UN	D	SD
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

12. I believe that my teacher certification program provided me sufficient classroom management skills to work in an urban school environment.

SA	A	UN	D	SD
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

13. I believe that I was well prepared by my teacher certification program for working in a large urban school system like the Milwaukee Public Schools.

SA	A	UN	D	SD
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

14. I believe that my certification program was academically rigorous and challenging.

SA	A	UN	D	SD
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

15. I believe that teaching to increase academic achievement is the central job of a classroom teacher.

SA	A	UN	D	SD
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

16. I believe that my certification program did a good job of preparing me to increase the student academic achievement of my students.

SA	A	UN	D	SD
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

17. The knowledge I learned about how to be an effective teacher from the instructors in my teacher preparation program was similar to what I found I needed to be successful as a classroom teacher.

SA	A	UN	D	SD
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

18. I believe that teaching for social justice is the central job of a classroom teacher.

SA	A	UN	D	SD
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

19. I would recommend my teacher certification program to others.

SA	A	UN	D	SD
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

ABOUT THE INSTITUTE

The **Wisconsin Policy Research Institute** is a not-for-profit institute established to study public-policy issues affecting the state of Wisconsin.

Under the new federalism, government policy increasingly is made at the state and local levels. These public-policy decisions affect the life of every citizen in the state. Our goal is to provide nonpartisan research on key issues affecting Wisconsinites, so that their elected representatives can make informed decisions to improve the quality of life and future of the state.

Our major priority is to increase the accountability of Wisconsin's government. State and local governments must be responsive to the citizenry, both in terms of the programs they devise and the tax money they spend. Accountability should apply in every area to which the state devotes the public's funds.

The Institute's agenda encompasses the following issues: education, welfare and social services, criminal justice, taxes and spending, and economic development.

We believe that the views of the citizens of Wisconsin should guide the decisions of government officials. To help accomplish this, we also conduct regular public-opinion polls that are designed to inform public officials about how the citizenry views major statewide issues. These polls are disseminated through the media and are made available to the general public and the legislative and executive branches of state government. It is essential that elected officials remember that all of the programs they create and all of the money they spend comes from the citizens of Wisconsin and is made available through their taxes. Public policy should reflect the real needs and concerns of all of the citizens of the state and not those of specific special-interest groups.