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Highly Qualified Teachers in Indiana

By Molly Chamberlin, Jonathan Plucker, and Ann Kearns

In the past few years, policymakers in several states have focused on ensuring the presence of a high-quality teacher in every classroom. With the passage of the *No Child Left Behind Act* (NCLB), federal policymakers have also begun to emphasize issues of teacher quality.

As defined by NCLB, a high-quality teacher is one who possesses at least a bachelor's degree and is either state-certified or licensed by having passed a state licensing exam.

In addition, NCLB addresses teacher quality in subject knowledge, stating that:

- All new elementary school teachers must pass a state test of general subject knowledge and teaching skills.
- New middle school and secondary school teachers must have either studied their subject as an undergraduate or graduate major (or have advanced certification), or must pass a state subject test.
- Existing teachers must have either met the applicable subject matter knowledge criteria for new teachers, or must demonstrate competence in all subjects taught based on a state standard of evaluation.¹

According to this definition, teacher degree attainment is an important aspect of high-quality teaching. The definition also emphasizes the undesirability of out-of-field teaching (i.e., teaching a subject area in which one has little or no preparation). Research provides evidence that a relationship exists between teacher characteristics—degree levels, experience, subject and content knowledge—and student achievement.²

Certification is another aspect of the federal definition of a high-quality teacher. For traditional certification, high-quality teacher education programs are necessary. Studies have shown that, to be of the utmost value, teacher education programs should focus on the application of pedagogical and content knowledge in realistic situations.³ As a result of teacher retention problems, alternative certification programs have become increasingly popular. Some research suggests that alternative certification does not reduce teacher effectiveness and may increase teacher diversity.⁴ Teachers certified through these routes may be considered highly qualified *only if the alternative program provides high-quality professional development and intense supervision.*⁵

One of the most important provisions of the No Child Left Behind Act is a requirement that by the end of the school year 2005-2006, all teachers of core academic subjects must be "highly qualified."

*Rod Paige
U.S. Secretary of Education*

Indiana Statistics on Highly Qualified Teachers

Indiana received a grade of B- for improving teacher quality in the *Education Week Quality Counts 2003* Report, ranking sixth in the country, with the highest grade being South Carolina's B+.⁶ In addition, Indiana was recently mentioned as being one of only twelve states to report that at least 95% of its classes are taught by what the State defines as high-quality teachers.⁷

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Teacher Educational Attainment, Experience, and Retention

The National Center for Education Statistics, using Indiana's 1999-2000 data for teaching experience and educational attainment, reported that:

- Over 99% of Indiana public school teachers had at least a bachelor's degree.
- 31.8% of Indiana public school teachers had bachelor's degrees only, compared to the national percentage of 52%.
- 63.6% of Indiana public school teachers held master's degrees, compared to only 41.9% nationally.
- 11.1% of Indiana public school teachers had less than three years experience, compared to the national average of 12.9%.
- 41.1% of Indiana public school teachers had over 20 years experience, compared to only 29.8% nationally.

Tables 1 & 2. Indiana Statistics Related to Teachers' Educational Attainment and Teaching Experience

Table 1

| Level of Educational Attainment | | |
|---------------------------------|-----------|------------|
| | Indiana % | National % |
| Bachelor's | 31.8 | 52.0 |
| Master's | 63.6 | 41.9 |
| Ed. Specialist | 4.2 | 4.7 |
| Doctorate | 0.2 | 0.7 |

Table 2

| Years of Teaching Experience | | |
|------------------------------|-----------|------------|
| | Indiana % | National % |
| < 3 | 11.1 | 12.9 |
| 3-9 | 24.5 | 28.8 |
| 10-20 | 23.4 | 28.5 |
| > 20 | 41.1 | 29.8 |

NOTES: All data from National Center for Education Statistics (2002) *Digest of Education Statistics 2002*, online at <http://nces.ed.gov/pubs2003/2003060.pdf>. Data on teachers with less than a bachelor's degree are not shown separately. Percentages may not sum to 100 due to rounding.

In 2000, Indiana school districts lost 44% of teachers newly hired in 1994-1995, with 28% having left teaching completely.⁸ A 2001 study of Midwestern states indicated that new teacher support programs can be an effective way of retaining new teachers. Encouragingly, in 2001 86.8% of all Indiana school districts had adopted new teacher support programs. This rate was lower than in Michigan (92.9%) and Ohio (90.8%) but higher than in Wisconsin, Minnesota, and Illinois.⁹

Out-of-Field Teaching

According to the 2003 *Quality Counts* report and a 2002 report by Jerald and Ingersoll, Indiana's statistics for out-of-field teaching reveal that:

- About 73% of high school teachers majored in the subject that they teach, higher than the national average of 64%.
- About 12% of Indiana secondary students are taught by educators without at least a minor in their subjects. This percentage is smaller than all other states except Minnesota (7%) and possibly D.C. (10%).¹⁰ The percentage is higher in middle schools (21%) and lower in elementary schools (4%).
- 9% of Indiana secondary students are taught by teachers without at least certification in their subjects.
- 25% of secondary students in Indiana are taught by teachers without a major AND certification in the subjects that they teach. The percentage is higher for middle school students (36%).

Table 3. Indiana Statistics Related to Out-of-Field Teaching

| | Indiana % | National % | Indiana's Rank (in all cases, higher is better) |
|--|-----------|------------|---|
| % of secondary teachers WITH a major in subject | 73 | 64 | 9th |
| % of secondary students having teachers <i>without</i> a major OR minor in subject | 12 | 22 | 3rd |
| % of secondary students having teachers <i>without</i> at least certification in subject | 9 | 17 | 7th |
| % of secondary students having teachers <i>without</i> a major AND certification in subject | 25 | 37 | 5th |

NOTES: Rankings for all categories are based on the no. 1 ranked states having the LOWEST percentages. Data from *Education Week* online, *Quality Counts 2003*, and Jerald & Ingersoll (2002).

High-Quality Teacher Preparation and Licensing

In the *Quality Counts 2003* report, Indiana ranked especially high in the percentage of teachers (98%) having graduated from teacher education programs accredited by the National Council for Accreditation of Teacher Education. In the same report, Indiana did not have any teacher training programs identified as low-performing.

The Indiana Professional Standards Board (IPSB) has stated that as of July 2003, anyone receiving a standard license in Indiana must also pass rigorous state subject testing. Teachers holding limited licenses must have at least 15 undergraduate or graduate hours in the content area for which the license was issued.¹¹

The IPSB has worked to adopt a new, performance-based licensing framework (Rules 2002) that links educator standards to student standards.¹² The IPSB considers teachers licensed prior to 2002 highly qualified because:

- A teacher holding a Bulletin 400 license received prior to September 1985 was required to obtain a master's degree by 1990.
- Teachers with Rules 46-47 licenses obtained after July 1986 were required to pass state licensing tests

and must engage in professional development to renew their licenses every five years.

According to Indiana's 2002 Title II and IPSB reporting:

- Less than 1% of Indiana teachers are not fully certified. However, nearly 63% of the teachers without full certification are employed in high-poverty districts.¹³

In 2001-2002, Indiana issued 1,939 limited licenses. In the state,

- Urban districts accounted for 45% of limited licenses.
- Rural school districts accounted for 31% of limited licenses.
- Suburban and parochial school districts accounted for 20% and 4%, respectively, of limited licenses.
- Urban school districts in Indianapolis, South Bend, Gary, and Fort Wayne received the largest numbers of limited licenses.
- 84% of all limited licenses were given to teachers working in special education.¹⁴

Conclusions and Recommendations

The data presented in this report show that Indiana is doing well in several areas. Indiana ranks in the top fifth of all states in having low percentages of out-of-field teachers, its teacher education programs are highly rated, and its teaching force compares relatively well to national averages in experience and educational attainment. Furthermore, very few teachers have limited licenses.

The State, especially the IPSB, should be recognized for its efforts to improve teacher quality through:

- The development and administration of an alternative certification program, "Transition to Teaching." Through this program, after 18 hours of education courses for the secondary level or 24 hours for the elementary level, a person holding a college degree may become a teacher.¹⁵
- The Title II Quality Enhancement Project, which aims to further link teacher preparation programs to academic standards and to increase accountability for teacher quality, as well as further developing alternative licensing routes and building the recruitment of teachers for high-poverty areas.
- Efforts to further connect student and educator standards through the development and implementation of the Rules 2002 license.
- The development of a revised system of new teacher mentoring and support. In this system, a

beginning teacher will receive a provisional license valid for two years. The beginning teacher must then complete a performance assessment portfolio under the guidance of a specially trained mentor teacher. Upon successful completion of this portfolio, the new teacher will be eligible for a full license, valid for five years.

Current data show that Indiana has a highly experienced teacher force, which is certainly beneficial at the moment; however, as these more experienced teachers retire, Indiana may find itself facing a critical teacher shortage in the future. In order for Indiana's schools to have high-quality teachers, new candidates to teaching should be well-prepared to begin teaching and then must remain in the profession. The efforts to create performance-based standards for teacher preparation programs, mentoring programs, and alternative certification routes may help to address issues of preparation and retention.

- The State should ensure that alternative certification routes produce high-quality teachers. In programs such as Transition to Teaching, assessments based on content knowledge should be continually evaluated and revised. Teachers receiving licenses through this program should be held to the same accountability standards as teachers receiving traditional licenses.

Conclusions and Recommendations (Continued)

The State should address the number of limited licenses that are issued in urban and high-poverty areas and in certain subject areas, especially special education.

- Indiana should make it a priority to identify strategies that will decrease the number of teachers holding limited licenses, especially in urban areas and in special education. Possible strategies include increased incentives for fully licensed teachers to work in urban areas or special education, as well as support systems for existing teachers, including specialized professional development programs that focus on the needs of urban teachers and students and special needs teachers and students.
- Indiana should examine the possibility of adding a detailed blueprint on improving the quality of teachers in these areas to its state accountability plan.
- In addition, pre-service programs should prepare new teachers to work in classrooms that traditionally are staffed with un- or under-licensed teachers.

The portfolio assessment currently being implemented will help ensure that new teachers are held accountable for their classroom performances. However, existing teachers should be held to the same high standards, especially considering the high number of experienced educators in the Indiana teaching force. The State should also use available technology to collect and publicize information on highly qualified teachers.

- The State should develop strategies for equitably assessing existing teachers. This assessment system should respect the teachers'

experience and seniority while at the same time addressing the standards of quality and accountability set out in NCLB.

- The State should track and disseminate statistics detailing not only the number of new or existing teachers with majors in their content areas, but also the number of new teachers who have passed subject area tests *and* are currently teaching those subjects.
- The State should examine sponsoring ongoing research in schools to ensure that the measures being taken to ensure teacher quality are actually resulting in better student performance. The State may consider a research program similar to Tennessee's value-added research, which tracks student learning from the beginning to the end of a school year. Similar research systems have been implemented in Texas, Arizona, North Carolina, and Minnesota.¹⁶

Effective and meaningful professional development experiences should be provided to teachers so they can achieve and maintain high levels of quality.

- The State should work with teachers and administrators to create and implement professional development programs that address specific problem areas in their schools. In this way, teachers may see a coherent connection between the programs and their own teaching environments, thus leading to school-specific improvements. Although techniques presented in professional development programs are expected to have been scientifically "proven to work," they will be much more useful to the educators if they can see them "proven to work" in their own classrooms.

Implementing and maintaining teacher quality is a difficult task for the State. Some reports have noted that many states lack the necessary data systems to track teacher quality and have suggested that such systems may assist states in ensuring highly qualified teachers in every classroom.¹⁷

- The State should examine the possibility of creating a comprehensive data system to collect and link information important to understanding the level of teaching quality in Indiana. Such a data system could provide relevant information on pre-service teachers, existing teachers, and teachers certified through alternative certification programs, as well as data on teacher retention and mobility.¹⁸



Footnotes

¹ See *No Child Left Behind* Web site: www.nclb.gov

² See Fetler, M. (2001). Student mathematics achievement test scores, dropout rates, and teacher characteristics. *Teacher Education Quarterly*, 28(1), 151-168; Goldhaber, D., & Brewer, D. (1996). *Evaluating the effect of teacher degree level on educational performance*. ERIC Document Reproduction Service No. ED 406 400; and Monk, D., & King, J. (1994). Multilevel teacher resource effects on pupil performance in secondary mathematics and science: The case of teacher subject matter preparation. In R. Ehrenberg (Ed.), *Choices and consequences: Contemporary policy issues in education* (pp. 29-58). Ithaca, NY: ILR Press.

³ See Darling-Hammond, L., & Youngs, P. (2002). Defining highly-qualified teachers: What does scientifically-based research actually tell us? *Educational Researcher*, 31(9), 13-25; and Sullivan, C. (2001). *Into the classroom: Teacher preparation, licensure, and recruitment*. Alexandria, VA: National School Boards Association.

⁴ See Goldhaber, D., & Brewer, D. (2000). Does teacher certification matter? High school teacher certification status and student achievement. *Educational Evaluation & Policy Analysis*, 22(2), 129-145; and Shen, J. (1998). The impact of alternative certification on the elementary and secondary public teaching force. *Journal of Research and Development in Education*, 32(1), 9-16.

⁵ U.S. Department of Education. (2002). *Meeting the highly-qualified teachers' challenge. The Secretary's annual report on teacher quality, June 2002*, from <http://www.title2.org/SecReptHTML/index.html>

⁶ Report is available online at *Education Week*, <http://www.edweek.org/sreports/QC03>

⁷ "States report wide range of teacher quality." (2003, October 22). CNN.com, from <http://www.cnn.com/2003/EDUCATION/10/22/teacher.quality.ap/>

⁸ Theobald, N., & Michael, R. (2002). Teacher turnover in Illinois, Indiana, Minnesota, and Wisconsin: Who stays, moves, and leaves? *NCREL (North Central Regional Educational*

Laboratory) Policy Issues, 10, 1-8, online at <http://www.ncrel.org/quality/mobility/turnover.htm>

⁹ Hare, D., & Heap, J. (2001). Teacher recruitment and retention strategies in the Midwest: Where are they and do they work? *NCREL Policy Issues*, 8, 1-8.

¹⁰ Two reports (*Quality Counts 2003*, and Jerald, C., & Ingersoll, R. [2002]. *All talk, no action: Putting an end to out-of-field teaching: Technical Appendix. August 2002*, from The Education Trust, <http://www.edtrust.org/main/documents/ATNA.TechnicalAppendix.FINA.pdf>) have put D.C.'s percentage between 10-18%)

¹¹ All Indiana Professional Standards Board (IPSB) information online at <http://www.in.gov/psb>. A limited license is issued to an individual holding a teaching license but teaching out of field, or an individual holding an undergraduate degree but not in education. Such licenses may be renewed annually but not for more than three years.

¹² National Title II web site: <http://www.title2.org>

¹³ National Title II Web site. (2002). *October 2002 State Reports*. From <http://www.title2.org/title2dr/CompleteReport.asp>; numbers provided by individual school districts to the Indiana Department of Education (IDOE); total teachers numbered 84,357 with 626 not being fully certified. Numbers include those with part-time assignments as well as those who combine teaching with other duties. Anyone employed by more than one school district was reported by both districts. Conversion of these numbers would yield a total of approximately 59,000 full-time teachers (see also IDOE, <http://mustang.doe.state.in.us/TRENDS/trends0.cfm>)

¹⁴ Information based on available data taken from the IPSB's *Limited License Report for 2001-2002 School Year*, online at http://www.in.gov/psb/board/2002/sep/V_I_B_2_LimitedLicenseReport.pdf; school

district demographic information from Indiana's Accountability System for Academic Progress (ASAP) Web site, at <http://www.doe.state.in.us/asap/data.html>. School districts listed as "town" were considered rural, and "metropolitan" were considered urban. Special education and vocational co-ops, Camp Summit, and the Indiana Schools for the Blind and Deaf were considered to belong to the demographic area in which they are located.

¹⁵ IPSB. Candidates are assessed on content knowledge and skills prior to admission to the program.

¹⁶ The Education Trust. (2003). *In need of improvement: Ten ways the U.S. Department of Education has failed to live up to its teacher quality commitments*. Online at <http://www2.edtrust.org/NR/rdonlyres/6FF0031F-EEFC-4415-9E0D-1C0432F29FF8/202/TeacherQuality1.pdf>

¹⁷ United States General Accounting Office. (2003). *No Child Left Behind Act: More information would help states determine which teachers are highly qualified*. Report to Congressional Requesters, July 2003, online at <http://www.gao.gov/new.items/d03631.pdf>; and The Education Trust. (2003). *In need of improvement: Ten ways the U.S. Department of Education has failed to live up to its teacher quality commitments*. Online at <http://www2.edtrust.org/NR/rdonlyres/6FF0031F-EEFC-4415-9E0D-1C0432F29FF8/202/TeacherQuality1.pdf>

¹⁸ See Voorhees, R., & Barnes, G. (2003). *Data systems to enhance teacher quality. State Higher Education Executive Officers (SHEEO) report*, online at <http://www.sheeo.org/quality/data%20sys.pdf>

Additional Resources

Data Sources

Indiana Professional Standards Board: <http://www.in.gov/psb>

National Center for Education Statistics: <http://nces.ed.gov/>

Quality Counts 2003: If I can't learn from you. (2003). *Education Week on the Web*. Available at www.edweek.org/sreports/qc03/

Title II Reports 2002: <http://www.title2.org/>

Federal Reports

National Center for Education Statistics. (1999). *Teacher quality: A report on the preparation and qualifications of public school teachers*. Available online at <http://nces.ed.gov/pubs99/1999080.pdf>

U.S. Department of Education. (2002). *Meeting the highly qualified teachers challenge: The Secretary's annual report on teacher quality*. Available online at <http://www.title2.org/SecReptHTML/index.html>

U.S. Department of Education. (2003). *Meeting the highly qualified teachers challenge: The Secretary's second annual report on teacher quality*. Available online at <http://www.ed.gov/offices/OPE/News/teacherprep/Title-II-Report.pdf>.

Additional Reports and Research on Teacher Quality

Darling-Hammond, L., Berry, B., & Thoreson, A. (2001). Does teacher certification matter? Evaluating the evidence. *Educational Evaluation and Policy Analysis*, 23(1), 57-77.

Darling-Hammond, L., & Youngs, P. (2002). Defining "highly qualified teachers": What does "scientifically-based research" actually tell us? *Educational Researcher*, 31(9), 13-25.

The Education Trust. (2003). *In need of improvement: Ten ways the U.S. Department of Education has failed to live up to its teacher quality commitments*. Online at <http://www2.edtrust.org/NR/rdonlyres/6FF0031F-EEFC-4415-9E0D-1C0432F29FF8/202/TeacherQuality1.pdf>

Goldhaber, D., & Brewer, D. (2000). Does teacher certification matter? High school teacher certification status and student achievement. *Educational Evaluation & Policy Analysis*, 22(2), 129-145.

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