

Resources on Teacher Effectiveness

This document compiles resources from the Institute of Education Science's Regional Educational Laboratories (REL-NEI), from other U.S. Department of Education-funded projects, and from responses to questions that have been posed to the REL-NEI reference desk by educators and policy makers in our region. Resources within range from rigorous random control trial studies to policy and informational briefs to scholarly journal articles. Also included is a list of related organizations that serve as a source of additional information.

This is the first of a series of resource compilations on issues related to teacher effectiveness. The resources here provide examples of the depth and breadth of the information available on measuring teacher effectiveness. If you have additional questions after reading this document, please submit them to the REL-NEI reference desk through the Regional Educational Laboratories' free [Ask-A-Rel](http://askarel.org) service: <http://askarel.org>.

RESEARCH REPORTS – U.S. Dept. of Education's Institute of Education Sciences

The reports included below address the topic of teacher effectiveness more generally, and are not necessarily focused on issues of measurement. The resources in this section will be the same in the second compilation, *Resources on Teacher Evaluation and Compensation* (forthcoming).

Regional Educational Laboratories (RELs) Reports

Descriptions drawn from the individual REL project listings.

Published: (<http://ies.ed.gov/ncee/edlabs/projects/>);

In Process: (<http://ies.ed.gov/ncee/edlabs/relwork/index.asp>)

- **Do states have certification requirements for preparing general education teachers to teach students with disabilities? Experience in the Northeast and Islands Region** (REL-NEI)

http://ies.ed.gov/ncee/edlabs/regions/northeast/pdf/REL_2010090.pdf

August 2010

Prepared by: Candice Bocala, Claire Morgan, Susan Mundry, and Daniel Mello (WestEd)

Description: This report on teacher certification requirements in the Northeast and Islands Region finds that eight of the nine jurisdictions require some coursework in teaching students with disabilities for initial licensure of general education teachers.

- **Updated Multistate Review of Professional Teaching Standards** (REL-West)

http://ies.ed.gov/ncee/edlabs/regions/west/pdf/REL_2010014.pdf

April 2010

Prepared by: Melissa Eiler White, Reino Makkonen, and Kari Becker Stewart (WestEd).

Description: States update their teaching standards on an ongoing basis and can learn from other states' efforts. For example the "Updated multistate review of professional teaching standards" by REL West, adds to their previous 2009 review of teaching standards by offering options for broad consideration that include – structure and target groups of teachers, as well as ways of addressing special populations and use of technology from six of the largest states in the nation.

- **A Multistate Review of Professional Teaching Standards** (REL-West)

http://ies.ed.gov/ncee/edlabs/regions/west/pdf/REL_2009075.pdf

July 2009

Prepared by: Melissa Eiler White, Reino Makkonen, and Kari Becker Stewart (WestEd).

Description: This review of teaching standards in six states—California, Florida, Illinois, North Carolina, Ohio, and Texas—focuses on the structure, target audience, and selected content of the standards to inform California's revision of its teaching standards. The report was developed at the request of key education agencies in California

- **State Policies on Teacher Evaluation Practices in the Midwest Region** (REL-Midwest)

http://ies.ed.gov/ncee/edlabs/regions/midwest/pdf/techbrief/tr_00408.pdf

July 2008

Prepared by: Chris Brandt, Julia Thomas, and Matt Burke (Learning Point Associates).

Description: This REL Technical Brief describes state-level policies and procedural requirements for guiding teacher evaluation practices at the district level in the seven states served by the Midwest Regional Educational Laboratory: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin. Building on the Issues & Answers report Examining district guidance to schools on teacher evaluation policies in the Midwest Region (Brandt et al. 2007), this technical brief reveals how teacher evaluation practices are addressed by state policies and other state-level initiatives that include teacher evaluation features.

- **Examining District Guidance to Schools on Teacher Evaluation Policies in the Midwest Region** (REL-Midwest)

http://ies.ed.gov/ncee/edlabs/regions/midwest/pdf/REL_2007030.pdf

November 2007

Prepared by: Chris Brandt, Carrie Mathers, Michelle Oliva, Melissa Brown-Sims, and Jean Hess (Learning Point Associates).

Description: This descriptive study provides a snapshot of teacher evaluation policies across a demographically diverse sample of districts in the Midwest Region. It aims to lay the groundwork for further research and inform conversations about current policies at the local, district, and state levels.”

- **Reviewing the Evidence on How Teacher Professional Development Affects Student Achievement** (REL-Southwest)

http://ies.ed.gov/ncee/edlabs/regions/southwest/pdf/REL_2007033.pdf

October 2007

Prepared by: Kwang Suk Yoon, Teresa Duncan, Silvia Wen-Yu Lee, Beth Scarloss (American Institutes for Research) and Kathy L. Shapley (Edvance Research).

Description: Of the more than 1,300 studies identified as potentially addressing the effect of teacher professional development on student achievement in three key content areas, nine meet What Works Clearinghouse evidence standards, attesting to the paucity of rigorous studies that directly examine this link. This report finds that teachers who receive substantial professional development—an average of 49 hours in the nine studies—can boost their students’ achievement by about 21 percentile points.

- **Describing the Alignment of District and State Teacher Evaluation Policy and Practice** (REL-Midwest)

<http://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=108>

In progress

Abstract: Many claim that teacher evaluation should be used to improve teacher effectiveness. Although the literature on the importance of teacher evaluation is extensive and districts implement some form of evaluation, descriptions of the practices and processes actually used in conducting teacher evaluations are not well documented. In early 2007, REL Midwest completed a study that attempted to describe teacher evaluation in the region. This study will take the logical next steps, which would be (1) to describe teacher evaluation policy at the intermediate and state levels and (2) to use data collected in the initial study to determine the extent of alignment between district and state policy and the standards. Data to be collected and analyzed include state documents, such as state legislation to inform teacher evaluation, state department of education policies and procedural requirements, and intermediate agency guidance and assistance.

- **Human Capital Resource Management** (REL-Midwest)

<http://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=199>

In progress

Abstract: This work will be a descriptive study examining current state level policies and practices in 4 human capital resource management (HCRM) areas as they relate to teachers, including preparation and licensure, recruitment, induction and professional development, and working conditions and compensation. Supporting documentation such as implementation studies, and pre-existing data that influenced resource

allocation in support of state HCRM policies and practices will also be examined to provide context for understanding state approaches to HCRM. The Chief State School Officers in the region agree that there should be a coordinated effort in their states to ensure highly qualified and highly effective teachers are in every classroom, but the SEA typically do not systematically provide guidance to districts about how this should be done. The work will consist of finding available guidance in the 4 HCRM categories from publicly available documents as well as interviews with key state personnel. The outcome of this project will be 7 state specific technical briefs, one for each state served by REL Midwest.

Regional Educational Laboratories (RELs) Webinar Archive

(Listing of all REL-NEI webinar archives: <http://www.relnei.org/events.webinararchives.php>)

- **Webinar: Measuring Teacher Effectiveness in New England** (REL-NEI, NECC, NCCTQ)

http://www.relnei.org/events.webinararchives.policychallenges_teacherEffectiveness_05_04_2010.php

May 4, 2010

Presenter: Dr. Douglas Harris, Associate Professor of Educational Policy Studies and Affiliate at the Institute for Research on Poverty, University of Wisconsin–Madison; Affiliated Scholar, Center for American Progress

Description: In this webinar co-hosted with the New England Comprehensive Center and the National Comprehensive Center for Teacher Quality, Dr. Douglas Harris at the University of Wisconsin–Madison presented current research on value-added models for measuring teacher effectiveness. Among the webinar participants were representatives from the New England Collaborative for Educator Quality and Effectiveness (NECEQE), a newly formed initiative comprised of teacher-effectiveness leaders from each of the six New England states.

REL-NEI REFERENCE DESK RESPONSE RESOURCES

The following references and general resources are additional resources drawn from responses on measuring teacher effectiveness produced by the REL-NEI reference desk. The responses were created following an established REL-NEI Reference Desk research protocol, in which researchers conducted a search for research reports as well as descriptive and policy-oriented briefs and articles in this area. The search sources included federally funded organizations, additional research institutions, several educational research databases, and a general Internet search using Google and other search engines. We have not done an evaluation of the resources themselves, but offer this list for your information only.

1. What are indicators of teacher effectiveness beyond student achievement standardized test scores?

- **Methods of Evaluating Teacher Effectiveness.** 2009; Goe, L., Croft, A.; Washington DC: National Comprehensive Center for Teacher Quality; 12 pages.
Source: National Comprehensive Center for Teacher Quality
http://www.tgsources.org/publications/RestoPractice_EvaluatingTeacherEffectiveness.pdf
From the website: "This brief discusses the measures used in teacher evaluation and focuses on their strengths, limitations, and current use. It underscores aspects of evaluation policies currently aligned with best practices and illuminates areas in which policymakers can improve evaluation rules, regulations, and implementation—thereby improving teacher instruction and student performance."
- **Identifying Effective Classroom Practices Using Student Achievement Data.** 2010; Kane, T., Tyler, F., Wooten, A., and Taylor, E.; National Bureau of Economic Research, Working Paper No. 15803.
Source: Education Commission of the States (ECS Research Studies Database)
Full-text available for purchase from NBER: <http://www.nber.org/papers/w15803>
Abstract: "Recent research has confirmed both the importance of teachers in producing student achievement growth and in the variability across teachers in the ability to do that. Such findings raise the stakes on our ability to identify effective teachers and teaching practices. This paper combines information from classroom-based observations and measures of teachers' ability to improve student achievement as a step toward addressing these challenges. We find that classroom based measures of teaching effectiveness are related in substantial ways to student achievement growth. Our results point to the promise of teacher evaluation systems that would use information from both classroom observations and student test scores to identify effective teachers. Our results also offer information on the types of practices that are most effective at raising achievement."

- **Subjective and Objective Evaluations of Teacher Effectiveness.** 2010; Rockoff, J.E. & Speroni, C.; *American Economic Review*; Vol. 100, No. 2; pp. 261-266; 6 pages.
Source: General internet search using Google
Full text available for purchase from:
<http://www.aeaweb.org/issue.php?journal=AER&volume=100&issue=2>
Earlier version of the paper is available at:
http://www0.gsb.columbia.edu/faculty/jrockoff/papers/rockoff_speroni_subjective_evals_AEA_PP_final.pdf
From the paper: we measure the extent to which subjective and objective evaluations of new teachers in New York City can predict their future impacts on student achievement. Specifically, we examine evaluations of applicants to an alternative certification program, evaluations of new teachers by mentors that work with them during their first year, and evaluations based on student achievement data from their first year of teaching. We use a large sample, relative to prior work, and, unlike other studies (with the exception of John H. Tyler et al. (2010)), we examine subjective evaluations made by professionals as part of their jobs, not survey responses” (p.2)
- **Approaches to Evaluating Teacher Effectiveness: A Research Synthesis.** 2008; Goe, L., Bell, C. and Little, O.; *National Comprehensive Center for Teacher Quality*; 103 pages.
Source: National Comprehensive Center for Teacher Quality.
<http://www.tqsource.org/publications/teacherEffectiveness.php>
From the abstract: “This research synthesis examines how teacher effectiveness is currently measured and provides practical guidance for how best to evaluate teacher effectiveness. It evaluates the research on teacher effectiveness and the different instruments used to measure it. In addition, it defines the components and indicators that characterize effective teachers, extending this definition beyond teachers' contribution to student achievement gains to include how teachers impact classrooms, schools, and their colleagues as well as how they contribute to other important outcomes for students. The findings are presented along with related policy implications. In addition, the synthesis describes how various measures have been evaluated, explains why certain measures are most suitable for certain purposes (high-stakes evaluation versus formative evaluation, for instance), and suggests how the results of the study might be used to inform the national conversation about teacher effectiveness.” Also see *A Practical Guide to Evaluating Teacher Effectiveness*, by Goe, Bell, and Little (2008), based on this research synthesis:
<http://www.tqsource.org/publications/practicalGuide.pdf>
- **Challenges in Evaluating Special Education Teachers and English Language Learner Specialists.** 2010; Holdheide, L.R., Goe, L., Croft, A., & Reschly, D.J.; *National Comprehensive Center for Teacher Quality*; 36 pages.
Source: National Comprehensive Center for Teacher Quality.
<http://www.tqsource.org/publications/July2010Brief.pdf>
From the cover: This TQ Research & Policy Brief provides the results of an inquiry conducted by the TQ Center with support from the Council for Exceptional Children and several national experts in the context of current research and practice in teacher evaluation. It offers policy and practice recommendations for regions, states, and districts to help in their efforts to create valid, reliable, and comprehensive evaluation systems for all teachers as they work to improve the achievement of all students. The

recommendations provided within hold value for practitioners at all levels and, in some respects, teacher educators charged with preparing educators.

- **The Other 69%: Fairly Rewarding the Performance of Teachers in Non-tested Subjects and Grades.** 2008; Prince, C.D., Schuermann, P.J., Guthrie, J.W., Witham, P.J., Milanowski, A. T., and Thorn, C.A.; *Center for Educator Compensation Reform; U.S. Dept. of Education, Office of Elementary and Secondary Education, Washington, DC; 41 pages.*
Source: Center for Educator Compensation Reform
<http://cecr.ed.gov/guides/other69Percent.pdf>
From the executive summary: This document “addresses the means by which states, districts, and schools can fairly and effectively measure the performance of teachers who teach a grade level or subject area in which student achievement tests are not administered or who teach English language learners or students with disabilities.” It provides “potential ways to award performance-based pay depending on the type of teacher.”
- **Review of Teaching Performance Assessments for Use in Human Capital Management. Working Paper.** August 2009; Milanowski, A.T., Heneman III, H.G. & Kimball, S.M.; *Consortium for Policy Research in Education (CPRE), Strategic Management for Human Capital (SMHC).*
Source: *Education Week* website
www.smhc-cpre.org/download/69/
From page 2, “Teacher performance in the classroom is the lifeblood of the educational enterprise. Teachers weave a combination of their knowledge, skills and abilities into specific performance competencies that become drivers of student learning and achievement. Thus systems or processes for measuring teaching have been increasingly recognized as an important part of the instructional improvement puzzle. The assessment of teaching performance is a critical part of any attempt to develop a coherent system for the strategic management of teacher human capital. Such assessments provide both a measure of how well we are achieving such management, and are part of the management system itself.”
- **Improving Instruction Through Effective Teacher Evaluation: Options for States and Districts.** February 2008; Mathers, C. & Olivia, M., with Laine, S.W.M.; *National Comprehensive Center for Teacher Quality; 24 pages.*
Source: National Comprehensive Center for Teacher Quality
<http://www.tqsource.org/publications/February2008Brief.pdf>
From the cover: “The purpose of this Research and Policy Brief is to provide state and local policymakers with a comprehensive understanding of the measures used in teacher evaluation—their strengths, limitations, and current use in policy and practice. The brief will underscore aspects of evaluation policies currently aligned with best practices as well as illuminate areas where policymakers may improve evaluation rules, regulations, and their implementation, thereby improving teacher instruction and student performance.”

- **Determining Processes that Build Sustainable Teacher Accountability Systems.** October 2009; Steiner, L.; National Comprehensive Center for Teacher Quality; 28 pages.
Source: National Comprehensive Center for Teacher Quality
<http://www.tqsource.org/publications/October2009Brief.pdf>
From the cover: “Ongoing issues of teacher accountability have impelled several responses in the form of changes to current teacher evaluation practices. This TQ Research & Policy Brief reports preliminary findings and recommendations from a study of such change processes that Public Impact conducted for the National Comprehensive Center on Teacher Quality in three school districts and three departments of education.”
- **Teacher Quality and Student Achievement: Making the Most of Recent Research.** March 2008; Goe, L. and Stickler, L. M.; National Comprehensive Center for Teacher Quality; 28 pages.
Source: National Comprehensive Center for Teacher Quality
<http://www.tqsource.org/publications/March2008Brief.pdf>
This research brief describes the associations between teacher quality and student achievement: “Taken together with empirical evidence of (1) the importance of academic majors or minors in the subject-area taught, (2) some types of teacher test scores, and (3) teachers’ pedagogical content knowledge, the research on teachers’ subject-area certification solidly supports the importance of this qualification for predicting which teachers will contribute to student achievement, at least in upper-level mathematics courses. Along the same lines, the research is strong and consistent about the importance of subject-matter knowledge for mathematics teachers—especially at the secondary level—whether that expertise is reflected in their certification, course taking, or degrees” (p.15).

It also provides a synthesis regarding the relationship between teacher content knowledge and student achievement: “Elementary teachers’ mathematical knowledge for teaching” positively impacted their students’ achievement (Hill et al., 2005). Teachers’ mathematics pedagogy courses contributed to student achievement (Monk, 1994). Observed teacher content knowledge was part of a composite of teacher practices that positively impacted elementary student achievement in reading, mathematics, and language (Schacter & Thum, 2004). Teachers’ subject-matter knowledge positively impacted high school students’ mathematics achievement (Rowan et al., 1997)” (p.20).
- **Evaluating Teacher Effectiveness.** October 2007; *The Progress of Education Reform 2007; Volume. 8, Number 4; Education Commission of the States.*
Source: Education Commission of the States
<http://www.ecs.org/clearinghouse/76/13/7613.pdf>
“This issue highlights recent research that attempts to explore the relationship between traditionally accepted measures of teacher quality – teacher certification and in-class performance – and teacher effectiveness as assessed through student academic performance. It also includes links to additional resources on teacher quality and teacher evaluation methods.”

- **Evaluating Teacher Effectiveness: Emerging Trends Reflected in the State Phase 1 Race to the Top Applications.** May 2010; *An Emerging Trends Report*; Learning Point Associates; 20 pages.

Source: General internet search using Google.

(www.learningpt.org/pdfs/RttT_Teacher_Evaluation.pdf)

This report discusses the emerging trends for improving teacher effectiveness as presented by the 41 applicants in the first phase of the Race to the Top funds. A summary on Page 3 explains that “as required in the application, states provided multiple measures for determining teacher performance. During the review of the 41 applications, Learning Point Associates identified the following trends for measuring teacher performance: student growth measures, other quantitative measures related to student performance, teacher observations, analysis of teacher artifacts or portfolios, and other measures.” One commonality identified among the top four states (Georgia, Louisiana, Rhode Island, and Tennessee) is the emphasis on stakeholder groups that meet to discuss the design and implementation of educator evaluation systems. Detailed summaries of those four states’ teacher evaluation proposals begin on Page 6. Appendix A (p.12) lists resources from the National Comprehensive Center for Teacher Quality for evaluating teacher performance.

2. What does the research say about the use of value-added models to measure teacher effectiveness?

- **Implicit Measurement of Teacher Quality: Using Performance on the Job to Inform Teacher Tenure Decisions.** 2010; Golhaber, D. & Hansen, M.; *American Economic Review*; Vol. 100, No. 2; pp. 250-255; 6 pages.

Source: General internet search using Google

Full text available for purchase from:

<http://www.aeaweb.org/issue.php?journal=AER&volume=100&issue=2>

Earlier and expanded versions of the paper are available at:

http://web.missouri.edu/~podgurskym/Econ_4345/syl_articles/goldhaber_hansen.pdf

http://www.caldercenter.org/upload/Goldhaber-and-Hansen_-_Working-paper-31-new-version.pdf

From the introduction: In this paper the authors “explore the potential for using value added model (VAM) estimates as the primary criteria for rewarding teachers with tenure, a policy reform currently under consideration. Specifically, we describe selected findings from a larger study examining the stability of VAM estimates and their value in predicting student achievement (Goldhaber and Michael Hansen 2009)” (p. 250).

- **Using Student Progress to Evaluate Teachers: A Primer on Value-Added Models.** 2005; Braun, H.I.; *ETS Policy Information Perspective*; 20 pages.

Source: Education Commission of the States

<http://www.ets.org/Media/Research/pdf/PICVAM.pdf>

From the preface: “The concept is simple and attractive: Evaluate teachers on the basis of how much academic growth their students experience over the course of the school year. Often referred to as ‘value-added,’ this concept and the statistical methods for implementing it have been a topic of debate in state legislatures and at state and national education conferences over the past decade. Recently, the concept and the

practice have also been catching on in schools, districts and states across the country. Results from the value-added models are already playing an increasing role in the process of identifying teachers in need of targeted professional development. But, as is often the case, the issues involved in implementing this seemingly straightforward idea are complex and pose both statistical and practical challenges. In this Policy Information Perspective, Henry Braun examines value-added models and concludes with advice for policymakers who are seeking to understand both the potential and the limitations inherent in using such models to evaluate teachers. While welcoming the possibility of introducing a quantitative component into the teacher evaluation process, Henry Braun counsels policymakers to move forward with caution, especially if high stakes are attached to the results.”

- **Teacher Quality in Educational Production: Tracking, Decay, and Student Achievement.** 2009; Rothstein, J.; Princeton University and NBER; 44 pages.
Source: Center on Innovation and Improvement
www.irs.princeton.edu/pubs/pdfs/25ers.pdf
From the abstract: “Growing concerns over the inadequate achievement of U.S. students have led to proposals to reward good teachers and penalize (or fire) bad ones. The leading method for assessing teacher quality is ‘value added’ modeling (VAM); which decomposes students’ test scores into components attributed to student heterogeneity and to teacher quality. Implicit in the VAM approach are strong assumptions about the nature of the educational production function and the assignment of students to classrooms. In this paper, [the author] develop[s] falsification tests for three widely used VAM specifications, based on the idea that future teachers cannot influence students’ past achievement. In data from North Carolina, each of the VAMs’ exclusion restrictions are dramatically violated. In particular, these models indicate large ‘effects’ of 5th grade teachers on 4th grade test score gains.” Implications for the use of VAMs as personnel tools are discussed.
- **Would Accountability Based on Teacher Value-Added Be Smart Policy? An Examination of the Statistical Properties and Policy Alternatives.** 2009; Harris, D; Education Finance and Policy.
Source: REL-NEI Webinar on Measuring Teacher Effectiveness
<http://www.mitpressjournals.org/doi/pdf/10.1162/edfp.2009.4.4.319>
From the abstract: “With annual standardized student testing, it now may be feasible to measure the contributions to student achievement made by individual teachers. But will these “teacher value-added” measures help to improve student achievement and learning? I address this question through a “policy validity” framework” that includes three factors: (a) *statistical validity*, i.e., how well teacher value-added measures actually measure true teacher contributions to achievement; (b) *purposes*, i.e., whether the measures are intended to signal effective teachers or provide a path to improvement; and (c) *costs*. Regarding statistical properties, I outline many of the key assumptions of value-added, most of which are rejected by empirical evidence. However, there is some evidence that the assumption violations may not be severe and that the measures contain useful information. I also compare the policy validity of teacher value-added accountability to three main policy alternatives: teacher credentials, school value-added accountability, and formative uses of test data. This analysis shows that teacher value-added is likely to increase student achievement more effectively and efficiently than a teacher credentials-only strategy, but it is unclear whether teacher value-added would

raise achievement more than alternative uses of student test scores. Resolving this issue will require studies of how different uses of student test scores influence instruction and student learning in practice.” Also see *The Policy Uses and “Policy Validity” of Value-Added and Other Teacher Quality Measures*, by Harris (2007).

www.wcer.wisc.edu/publications/highlights/v19n3.pdf

- **Key Issue: Using Value-Added Models to Identify and Support Highly Effective Teachers.** *May 2008; Goe L.; ETS; The National Comprehensive Center for Teacher Quality; 25 pages.*
Source: The National Comprehensive Center for Teacher Quality
<http://www2.tqsource.org/strategies/het/UsingValueAddedModels.pdf>
From page 24: “Dallas has become one of the most aggressive U.S. districts in its use of value-added data to assess the performance of its 7,000 teachers and take appropriate action to enhance their effectiveness...The Dallas value-added methodology has similarities to the Tennessee Value-Added Assessment System, but there are important differences. Most notably, the Dallas system tries to factor into the value-added calculation a number of what it calls “fairness variables,” statistical adjustments for considerations such as ethnicity, socioeconomic status, prior student achievement, and school characteristics such as size and population density.” Starting in the 2007-08 school year Dallas piloted its “Pay for Performance program in 59 schools. The pay program combines value-added data and a number of other factors to determine the amount of incentive pay that teachers will receive. The value-added data include a score both for an individual teacher’s classroom performance and for the performance of a teacher’s entire school, and bonuses are awarded to both outstanding individual teachers and outstanding schools.”(From page 25)
- **Evaluating Value-Added Models for Teaching Accountability.** *2004; McCaffrey, D.F., Lockwood, J.R., Koretz, D., & Hamilton, L.; Santa Monica, CA: RAND Corporation; 191 pages.*
Source: General internet search using Google
<http://www.cgp.upenn.edu/pdf/rand.pdf>
From the summary (page xi): “This monograph is one of the products of an effort by RAND Corporation researchers to begin a systematic review and evaluation of leading approaches to VAM. It had several goals: to clarify some of the most important issues, to begin evaluating their practical impact, to spur additional work on these issues, and to help inform the debate among both researchers and policymakers about the potential of VAM. In the monograph, we clarify the primary questions raised by the use of VAM for measuring teacher effects, review the most important recent applications of VAM, and discuss a variety of important statistical and measurement issues that might affect the validity of VAM inferences.”
- **Estimating Teacher Impacts on Student Achievement: An Experimental Evaluation.** *Kane, T.J. and Staiger, D.O.; December 2008; NBER Working Paper 14607*
Source: General internet search using Google.
www.opr.princeton.edu/seminars/papers/kane_and_staiger3-30-2010.pdf
From the abstract: “We used a random-assignment experiment in Los Angeles Unified School District to evaluate various non-experimental methods for estimating teacher effects on student test scores. Having estimated teacher effects during a pre-experimental period, we used these estimates to predict student achievement following

random assignment of teachers to classrooms. While all of the teacher effect estimates we considered were significant predictors of student achievement under random assignment, those that controlled for prior student test scores yielded unbiased predictions and those that further controlled for mean classroom characteristics yielded the best prediction accuracy. In both the experimental and non-experimental data, we found that teacher effects faded out by roughly 50 percent per year in the two years following teacher assignment.”

“Our analysis suggests that standard teacher value-added models are able to generate unbiased and reasonably accurate predictions of the causal *short-term* impact of a teacher on student test scores. Teacher effects from models that controlled both for prior test scores and mean peer characteristics performed best, explaining over half of the variation in teacher impacts in the experiment.” (p. 33)

- **Value-Added and Other Methods for Measuring School Performance.** *February 2008; R. H. Meyer & M. S. Christian; National Center of Performance Incentives Working Paper 2008-17; 45 pages.*

Source: National Center on Performance Incentives.

www.performanceincentives.org/news_events/detail.asp?pageaction=ViewSinglePublic&LinkID=233&ModuleID=38&NEWSPID=1

From the introduction: “in this paper we review methods proposed by TIF [Teacher Incentive Fund] grantees for measuring the performance of schools, teachers, and administrators with respect to student achievement.... One of the major objectives of this paper is to evaluate the different performance measurement approaches in terms of a specific statistical standard – a value-added model (VAM).”

3. What are the characteristics of a data system that will support value-added analysis?

- **Linking Teacher and Student Data to Improve Teacher and Teaching Quality.** *March 2007; Berry, B., Fuller, E., and Reeves, C.; Data Quality Campaign; 16 pages.*

Source: Data Quality Campaign

http://dataqualitycampaign.org/files/Meetings-DQC_Quarterly_Issue_Brief_031207.pdf

“In this brief, find out more about: the benefits of connecting teacher and student data; important metrics for improving teacher quality and retention; how to develop comprehensive teacher data systems; four states that are leveraging teacher/student data connections (Virginia, Delaware, Ohio and Colorado); the benefits and challenges of value-added measurement; and further reports and resources you can use for additional information on linking teacher and student data to improve teacher quality and student achievement.”

- **Key Attributes of State Data Systems that Allow for Sophisticated Research on Teachers.** *2005; Goldhaber, D.; Center for Teaching Quality; 14 pages.*

Source: National Comprehensive Center for Teacher Quality

<http://www.tqsource.org/issueforums/hqplans/resources/KeyAttributes.pdf>

“This brief [provides] a simple roadmap for states wishing to develop a data structure that permits the estimation of value-added teacher quality models” (p.4). Goldhaber concludes that “high- quality student and teacher data is essential for research and accountability purposes. Specifically, to do research on the impacts of teachers on students, it is important to have: annual student testing with achievement tests that are

specifically designed to permit value-added modeling; detailed student information including multiple observations of student achievement (preferably annual) and background variables that account for SES; detailed teacher information including degree, experience level, and licensure test performance; the ability to link students to their specific teachers (in specific subjects); the ability to track student and teacher information; and the ability to link all of the above to other school and community characteristics” (p.11).

- **Data Systems to Enhance Teacher Quality.** 2003; Voorhees, R.A., Barnes, G.T.; *State Higher Education Executive Officers*; 48 pages.
Source: State Higher Education Executive Officers
<http://www.sheeo.org/quality/data%20sys.pdf>
“This study examined the data systems in 14 states to learn whether it is possible to improve what we know about [the policies that will help states develop, recruit, and retain more high quality teachers]. Surprisingly, perhaps, the authors discovered that much of the critical information already exists, but that it is buried in the nooks and crannies of different data bases – data bases maintained by schools and colleges, by state licensing boards, by state unemployment insurance agencies, etc....States are finding innovative ways of dealing with these issues, however, and this study of 14 state data systems will be a useful resource to all interested in enhancing teacher quality and educational policy” (p.iii).

ORGANIZATIONS

The following organizations provide information related to teacher effectiveness. We have not done an evaluation of these organizations or the resources themselves, but offer this list for your information only. Descriptions in quotes are drawn directly from the organizations' websites.

- **Center for Educator Compensation Reform**
<http://cecr.ed.gov/>
“The Center for Educator Compensation Reform (CECR) is the premier organization that works to raise national awareness of alternative and effective strategies for educator compensation reform. This website serves as the primary online repository for information, tools, and resources to support Teacher Incentive Fund (TIF) grantees, policymakers, state officials, and district professionals with the design and implementation of educator compensation reform programs and policies.” The website includes state and district cases summaries, implementation guides, research syntheses, and a national map describing educator compensation initiatives across the country.
- **Center for Teaching Quality**
<http://www.teachingquality.org/>
“The Center for Teaching Quality seeks to improve student learning and advance the teaching profession by cultivating teacher leadership, conducting timely research, and crafting smart policy — all in an effort to ensure that every student in America has a qualified, well-supported and effective teacher.”
- **Consortium for Policy Research in Education**
<http://cpre.wceruw.org/>
“CPRE unites seven of the nation's top research institutions in an effort to improve student learning through research on education reform, policy, and finance.” Recently, CPRE launched “the *Strategic Management of Human Capital in Public Education*, a center focused on improving the quality of classroom instruction and student outcomes in K-12 classrooms by radically improving the strategic management of teaching and instructional leadership talent (human capital) in large, public school districts.” A direct link to the center website can be found at <http://www.smhc-cpre.org/>
- **Education Commission of the States**
<http://www.ecs.org/>
“The mission of The Education Commission of the States is to help states develop effective policy and practice for public education by providing data, research, analysis and leadership; and by facilitating collaboration, the exchange of ideas among the states and long-range strategic thinking.” Included on this site is The Teacher Effectiveness and Evaluation Policy Issue section which provides a discussion of the policy issues related to defining and measuring teacher effectiveness, tools and resources that provide information about what other states are doing to address these issues, and a list of related research and websites. The direct link to this site can be found at <http://www.ecs.org/html/issue.asp?issueid=129&subissueID=62>

- **National Board for Professional Teaching Standards**
<http://www.nbpts.org>
“NBPTS is an independent, nonprofit, nonpartisan and nongovernmental organization. It was formed in 1987 to advance the quality of teaching and learning by developing professional standards for accomplished teaching, creating a voluntary system to certify teachers who meet those standards and integrating certified teachers into educational reform efforts.” The five “core propositions” of NBPTS are outlined in “What Teachers Should Know and Be Able to Do.” To download the publication, click here:
<http://www.nbpts.org/index.cfm?t=downloader.cfm&id=263>
- **National Center on Performance Incentives**
http://peabody.vanderbilt.edu/LSI_Projects/NCPI_Project_Home.xml
“Welcome to the National Center on Performance Incentives (NCPI), a national research and development center for state and local policy at Vanderbilt University’s Peabody College.... The purpose of the Center is to address one of the most contested questions in public education: Do financial incentives for teachers, administrators, and schools affect the quality of teaching and learning? NCPI’s work involves a series of rigorous research initiatives, including randomized field trials and evaluations of existing pay-for-performance programs. We are engaged in these research and development activities to inform both education policy and practice, and to improve teaching and learning within our nation’s public schools.”
- **National Comprehensive Center for Teacher Quality**
<http://www.tqsource.org>
“The National Comprehensive Center for Teacher Quality (TQ Center) is a national resource to which the regional comprehensive centers, states, and other education stakeholders turn for strengthening the quality of teaching—especially in high-poverty, low-performing, and hard-to-staff schools—and for finding guidance in addressing specific needs, thereby ensuring highly qualified teachers are serving students with special needs.” The site includes a large number of research syntheses and guides for policy and practice. Two interactive tools are particularly relevant to the topic of measuring teacher effectiveness:
 - Critical Decisions Guide: Building Teacher Effectiveness Systems
<http://www.tqsource.org/criticalDecisions/>
 - *Guide to Teacher Evaluation Products*
<http://www3.learningpt.org/tqsource/GEP/>
- **National Council on Teacher Quality**
<http://www.nctq.org/p/>
“The National Council on Teacher Quality is a nonpartisan research and advocacy group committed to restructuring the teaching profession, led by our vision that every child deserves effective teachers.”

REL Northeast and Islands:

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