State Board of Education
Executive Office
SBE-002 (REV. 01/2011)

MEMORANDUM

DATE: June 24, 2015

TO: MEMBERS, State Board of Education

FROM: STAFF, WestEd and State Board of Education

SUBJECT: Research to Inform the Development of Local Control Funding Formula Evaluation Rubrics

Summary of Key Issues

California *Education Code (EC)* Section 52064.5 requires that the State Board of Education (SBE) adopt evaluation rubrics on or before October 1, 2015. A bill recently passed by the legislature proposes to extend the deadline until October 1, 2016. The additional development time will be used to ensure the evaluation rubrics are built on a solid foundation of research and data analysis, as requested by the SBE in May.

The evaluation rubrics will allow local educational agencies (LEAs) to evaluate their strengths, weaknesses, and areas that require improvement; assist county superintendents of schools to identify needs and focus technical assistance; and assist the Superintendent of Public Instruction to direct interventions when warranted. Furthermore, the rubrics should provide standards for school districts and individual school site performance and expectations for improvement as related to the identified Local Control Funding Formula (LCFF) priorities.

Since September 2014, the SBE has received regular updates regarding the process and progress of designing the evaluation rubrics. As part of the May 2015 update, the SBE members provided the following direction and preferences:

- Ground and frame the development of the rubrics in research related to accountability indicators and current California context.
- Make them simple and locally relevant.
- Ensure the rubrics support growth in LEA, school, and subgroup performance.
- Incorporate evidence or practice expectations to more closely resemble traditional rubric structures.
- Address resource alignment.

Following the May SBE meeting, WestEd organized a meeting of research, assessment, and policy experts and consulted with additional experts to provide ideas regarding research and approaches to multiple metric accountability systems. In addition, WestEd has compiled a summary of research to share with the SBE in the

form of this memo prior to the July SBE meeting. The research outlines the potential value and benefit of using an evidenced-based foundation and of the LCFF priorities within the rubrics to support coherence and clarity.

In response to the SBE's request, Attachment 1 provides brief summaries of selected research related to:

- College and Career Readiness
- Early Warning Systems
- Indicator Selection

Implications of Research to the Design of the Evaluation Rubrics

The research validates the use of certain indicators as predictors of graduation and college and career readiness which is a metric within the pupil achievement priority within the context of the state's LCFF priorities. For instance, there is strong support for academic competency at specific grades and subject areas, regular school attendance, and course taking as indicators of graduation and college readiness.

The research also identifies relationships among metrics that could provide a potential organizer to aid in coherence and simplification for the evaluation rubrics. Based on these relationships, or the correlation among the metrics, the same indicator may be used for multiple state priorities. Examples of correlates include early grades reading and mathematics achievement as an early indicator of graduation, college and career readiness, positive school climate, and academic achievement. These correlations are described as early or leading indicators of change that relate to lagging indicators such as college and career readiness.

Leading indicators represent information that provides early signals of progress toward academic achievement. For example, elementary grade indicators may be used to guide needed intervention and/or provide early recognition of strengths and areas in need of improvement. Early reading (e.g., grade 2 or 3) has consistently emerged as a leading indicator of being on track to graduate. In contrast, lagging indicators (e.g., high school graduation rate) provide information that may be too late to assist with struggling student or schools.

While the research suggests some measures that apply to elementary and middle schools, the majority of measures with a strong research base are at the secondary level.

The data indicators recognized in the research as useful to informing or predicting graduation or college and career readiness include many that are uniformly defined and collected by the state, such as standardized test scores, advanced placement scores, and A-G course participation. However, there are several indicators that are collected, and in some cases defined, locally, such as grades for specific courses.

Dr. David Conley noted as part of his presentation to the SBE in May 2015 that "judging all schools solely on one indicator will lead to faulty conclusions about and will warp practices at some schools." He encouraged the SBE to consider a multiple metrics approach that includes setting criteria for local measures. He suggested as part of his presentation that the state could set criteria for using local measures, for example, requirements such as disaggregation of data by subgroup, demonstration of equal opportunities to learn, and improvement targets set for all groups/subgroups. Conley added that local community agreements could be required for use of any local measures. The Harvard Family Research Project developed a series of questions to inform selection of meaningful indicators that may provide a basis for developing criteria for indicator selection within the evaluation rubrics. These questions reference indicator validity, reliability, common data definitions, availability, credibility, and qualitative in nature.

Conclusion

The research provides a basis for potentially clustering indicators to align with existing stated priorities and expectations for PreK-12 education such as basic learning conditions, graduation, and college and career readiness. Shifting from a listing of eight priority areas and 22+ related metrics to a structure that is organized into a smaller number of groupings that recognizes the research-based relationships among indicators would improve the usability and coherence of the evaluation rubrics. Furthermore, such an approach supports suggestions made at the May SBE meeting by David Conley and Linda Darling-Hammond to capture the local context and story within the evaluation rubrics as a means to facilitate local reflection and growth, improvement, and the determination of required assistance and/or intervention. For example, a common objective for PreK-12 education is college and career readiness. A standard for this objective of college and career readiness could include a measure for course taking patterns (lagging indicator), which is correlated to several leading indicators such as early reading and mathematics achievement, course access, and state standards implementation.

Based on the summary of research presented in Attachment 1, the following is recommended to the SBE:

- Develop the evaluation rubrics to align with state priorities and values related to certain conditions (i.e., *Williams* settlement legislation), graduation, and college and career readiness. The latter two areas are reflected in the research with relationships made to most of the LCFF priority areas. The inclusion of these conditions reflects current state policy and is a major contributor to ensuring positive learning environments. This approach would evolve the evaluation rubrics from a list of indicators based upon priority area groupings to clusters of key outcomes with their associated indicators.

- Incorporate into the evaluation rubrics descriptions of practices and exemplars for each of the state priorities grounded in research and best practices. Such

statements would address concerns that the evaluation rubrics place too much emphasis on data over practices.

- Conduct further research that reflects actual experience in California related to the indicators identified in research including data analysis of existing measures. This would include validating relationships among indicators noted in research, such as relationships between course taking, advancement placement, and graduation.

WestEd, on behalf of SBE, has researched existing standards as reflected in current statutes and regulations and initiated analysis of available data from the California Department of Education (CDE) related to the identified state priorities. The July presentation to the SBE will reflect the research included in this memo and the proposed research plan that corresponds with the revised timeline to complete the LCFF evaluation rubrics system by October 1, 2016.

ATTACHMENT(S)

Attachment 1: Summary of Research to Inform the Development of the Local Control Funding Formula Evaluation Rubrics (10 pages)

Summary of Research to Inform the Development of the Local Control Funding Formula Evaluation Rubrics

To inform the development of the evaluation rubrics, research was reviewed to address the following:

- Relationship and correlation among indicators of conditions for learning, pupil outcomes, and engagement.
- Data indicator selection and use to support local educational agency accountability and performance.

Following are brief summaries of selected research that provide a useful frame of reference for the development and use of the evaluation rubrics. The articles include recent research related to:

- College and Career Readiness
- Early Warning Systems
- Indicator Selection

College and Career Readiness

Predictors of Postsecondary Success
Hein, V., Smerdon, B., & Samnolt, M. (2013). Predictors of Postsecondary Success. Washington D.C.: College and Career Readiness and Success Center at American Institutes for Research.

The brief examines the relationship between early indicators of progress and postsecondary success based on a review of over 60 studies. From these studies potential benchmarks for further success were identified and classified as one of the following:

(1) Indicators are measures with an established threshold. Students who perform at or above the threshold (e.g., students who earn a 3.0 grade point average or higher) are more likely to be prepared for their college and career pursuits.
(2) Predicators are measures that are strongly correlated with improved postsecondary outcomes, but for which a numeric threshold has not been established.
(3) Other potential factors are skills and attributes that have been identified as important to students' success and are driven by sound theoretical arguments (e.g., collaborative skills are important for future success), but for which reliable metrics have not yet been developed or tested independently of other factors.

The brief cautions that the identified indicators, predicators, and other potential factors are not to be used independently, rather they are valuable components of a comprehensive data-informed process designed to improve postsecondary success for all students.

Correlates of Secondary and/or Postsecondary Readiness and Success

Elementary		
Indicator	**Predicator**	**Other Potential Factors**
• Reading by third grade	• Being rated highly by teachers on attention span and classroom participation • High scores on the Social Skills Rating System	• Social competence
Middle Grades		
Indicator	**Predicator**	**Other Potential Factors**
• <20% absenteeism in middle grades • Remaining in the same school through the middle grades • Receiving no unsatisfactory behavior grades in sixth grade • Passing all English/language arts and mathematics courses and meeting benchmarks on state exams • Passing Algebra I in eighth grade • NAEP mathematics score of >292 in eighth grade • Meeting the following benchmarks on college preparatory exams: ACT EXPLORE test scores of English 13, mathematics 17, science 20, and reading 15; SAT-9 score >50th percentile	• Taking rigorous coursework in middle grades • High score on the Grit-S (8-item self-report measure of grit) and Grit-O (12-item self-report measure of grit) scales (Duckworth & Quinn, 2009)	• Social-emotional and decision-making skills
High School		
Indicator	**Predicator**	**Other Potential Factors**
• <10% absences • No more than one failure in ninth-grade subjects • Completing mathematics course sequence leading to calculus completion by 12th grade • 3.0 high school grade point	• Few school transfers between grades • Early Assessment Program (EAP) and Preliminary Scholastic Aptitude Test (PSAT) completion	• Participation in SEL Intervention Meeting with an academic advisor • ACT Work Keys, NWRC based on Equipped for

average • AP Exam: 3 or higher; IB Exam: 4 or higher • Dual enrollment participation • Passing state exams • FAFSA completion • Meeting the following benchmarks on national assessments: 10th grade NELS Scale Score > 54; 12th grade NAEP Score > 320; 12th grade ECLS Score > 141 • Meeting the following benchmarks on college preparatory exams: SAT >1550; PLAN test scores: English 15, reading 17, mathematics 19, science 21; ACT scores: English 18, mathematics 22, reading 21, science 24 • Participation in the following: summer bridge program, school year transition program, senior year transition courses, and early assessment and intervention programs • College Knowledge target outreach programs such as multi-year college-readiness programs, embedded college counseling, and college-readiness lessons		Future Standards and the CASAS Workforce Skills Certification System

Beyond Test Scores: Leading Indicators in Education

Foley, E., Mishook, J., Thompson, J., Kubiak, M., Supovitz, J., Rhude-Faust, M. K. (2008) Beyond test scores: Leading indicators for education. Providence. Brown University, Annenberg Institute for School Reform, RI.

The authors make the case for broadening the use of data to inform decisions that impact student outcomes to include both leading and lagging indicators. The most current and widely accepted and used indicators in education are standardized-test scores, an example of a lagging indicator. The authors noted that lagging indicators confirm trends, but do not easily inform investments. Leading indicators offer a means to assessing progress towards a goal. Leading indicators are:

(1) Timely and actionable – They are reported with enough time to change a course of action.

(2) Benchmarked – Users are able to understand what constitutes improvement on a leading indicator through construction of "metrics."
(3) Powerful – They offer targets for improvement and show progress, or lack of progress, towards a desired outcome before the outcome occurs.

Based on indepth case study research of four districts, the following leading indicators were identified with examples of associated interventions, and the level at which the indicator applies:

Leading Indicator	Associated Intervention(s) by Study Districts	Level Applied To
Early reading proficiency	Reading intervention; investment in early childhood education	Individual student System
Enrollment in pre-algebra and algebra	Provide math tutoring or other supports; increase enrollment and course offerings	Individual student System
Overage/under-credited	Alert someone at the school about students meeting this criteria; establish transition goals; create grades 6-12 academy to reduce transitions	Individual student School System
College admission test scores	Change placements and provide support to succeed in more rigorous courses	Individual student
Attendance and suspensions	Intervene with student and parents; adopt strategies to reduce violence and disruption	Individual student School
Special education enrollment	Reduce number of separate placements; inclusion	System
Student engagement	Benchmark and look at data; develop rubrics	Classroom or school
Teacher and principal quality	New teacher evaluation; coaching for teachers and principals; conversations about data	School or system

Measures for a College and Career Indicator: Final Report
Conely, D.T., Beach, P., Their, M., Lench, S.C., Chadwick, K..L. (2014) Report for the California Department of Education prepared by the Educational Policy Improvement Center – Measures for a College and Career Indicator. Retrieved from http://www.cde.ca.gov/be/ag/ag/yr15/documents/jan15item03.doc.

The California Department of Education engaged the Educational Policy Improvement Center (EPIC) to prepare a series of analyses and papers to inform development of a measure for college and career preparedness to include in the update of the Academic Performance Index. The process included establishing evaluative criteria against which to assess potential college and career preparedness measures:

Dimension	Criterion
Technical quality	• Has a research base demonstrating a relationship with postsecondary success • Allows for fair comparison • Has stability
Stakeholder relevance	• Has value for students • Is publically understandable • Has instructional sensitivity • Emphasizes student performance, not educational processes
System utility	• Minimizes burden • Provides as much student coverage as possible • Recognizes various postsecondary pathways

Based on analysis of five possible categories of measurement – (1) college admission exams, (2) advanced coursework, (3) innovative measures, (4) course-taking behavior, (5) career preparedness assessments – EPIC recommended that *course-taking behavior* would be the single best indicator that meets the evaluative criteria used. Examples of such measures include: A-G subject requirements, career-technical education course pathways, and integrated course pathways. EPIC noted that when combined with grades students get in courses, course-taking behavior is the best single predictor of college success. The recommendation made by EPIC assumes that course-taking behavior would be *added* to the Academic Performance Index to serve as a college and career indicator.

Creating a P-20 Continuum of Actionable Academic Indicators of Student Readiness
Achieve (2013). Creating a P-20 continuum of actionable academic indicators of student readiness. Retrieved from http://www.achieve.org/Student-Readiness-Indicators.

This brief focused on informing the selection by state policy makers of indicators to include within an accountability system that supports coherence across the pre-kindergarten to postsecondary continuum. The identified indicators are focused on highlighting student readiness for college and career. The brief encourages a "pipeline" strategy that includes indicators that span from early childhood through postsecondary education. Among the strengths cited for the pipeline approach is early attention to factors leading to inequitable results; such an approach is consistent with the progression expected under new college and career standards.

Based on the experiences of states (e.g., Colorado, Hawaii, Louisiana, Florida, Kentucky, Ohio, New York, Indiana, Virginia) that have implemented changes to their accountability systems to align with college and career readiness standards and expectations, the brief recommends the following indicators.

Readiness Indicator	Definition
School Readiness	
Kindergarten readiness	The percentage of students who enter kindergarten with kindergarten readiness assessment scores associated with academic readiness for kindergarten-level CCSS in ELA/literacy and mathematics.
Reading in Grades K-2	The percentage of students in grades K-2 scoring at a level associated with readiness/proficiency in reading.
Reading/literacy in Grade 3	The percentage of students scoring at the readiness/proficiency level on an assessment covering third grade ELA/literacy state standards (or other college and career readiness standards) by the end of the third grade.
Mathematics in Grade 3	The percentage of students scoring at the readiness/proficiency level on an assessment covering third grade mathematics state standards (or other college and career readiness standards) by the end of the third grade.
High School Readiness	
Mathematics in Grade 5	The percentage of students scoring at the readiness/proficiency level on an assessment covering fifth grade mathematics state standards (or other college and career readiness standards) by the end of the fifth grade.
Course Failure in Grade 6	The percentage of students failing mathematics or English/language arts, or both, in the sixth grade.
Mathematics in Grade 8	The percentage of students completing eighth grade mathematics courses covering state standards (or other college and career readiness standards), or Algebra I, with a "C" or higher by the end of the eighth grade.
College and Career Readiness	
Cohort Graduation Rate	The percentage of ninth graders who graduate from high school in four years calculated using a four-year adjusted cohort graduation rate.
College and Career Ready Diploma	The percentage of students graduating with a college- and career-ready diploma, whether in the form of a mandatory diploma default diploma, or opt-in diploma.
College and Career Ready Assessment	The percentage of students who score at the college- and career-ready level on statewide high school assessments anchored in state standards.
Earning College Credit	The percentage of high school graduates who earned college credit while still enrolled in high school through Advanced Placement, International Baccalaureate, dual enrollment, and/or early college.
Career Readiness	The percentage of students who engage in a meaningful career preparatory activity, including completing a career-technical education program of study and a college- and career-ready diploma, earning an industry-based credential, and/or earning a CTE endorsement on a college- and career ready diploma.

The Secret Behind College Completion

DiPrete, T., Buchmann, C. (2014). The Secret Behind College Completion: Girls, Boys, and the power of eighth grade grades. Retrieved from:
http://content.thirdway.org/publications/813/NEXT_-_The_Secret_Behind_College_Completion.pdf

The report focuses on middle school performance as a predictor of high school grades, which then predict college success. The study is based on analysis of data from the National Longitudinal Survey of Youth conducted by the U.S. Bureau of Labor Statistics. The report finds that almost all students who earned As in middle school earned As or As and Bs in high school.

The report attributes this connection to the fact that high-performing middle school students tend to exhibit the same behavior patterns and academic performance in high school as they did in middle school. For example, they generally did more homework, were more likely to take Advanced Placement classes, and were less likely to encounter behavioral problems, such as frequent absences, tardiness, or suspensions as high school students.

For the most part, the students exhibiting more of these behaviors and faring better academically are girls. In fact, the report notes that girls' academic performance advantage over boys is already "well established" by the eighth grade. The study concludes that reforms targeting early and middle school years offer the greatest potential for closing the gender gap in college completion.

Preventable Failure: Improvement in Long-Term Outcomes when High School Focused on the Ninth Grade

Consortium on Chicago School Research (2014). Preventable Failure: Improvement in Long-Term Outcomes when High School Focused on the Ninth Grade. Retrieved from:
https://ccsr.uchicago.edu/publications/preventable-failure-improvements-long-term-outcomes-when-high-schools-focused-ninth

In 2007, Chicago Public Schools initiated a focus to ensure that all ninth grade students were on track to graduate based on research conducted by the University of Chicago that found that students who ended their ninth-grade year on track are almost four times more likely to graduate from high school than those who are off track. Freshmen are considered on track if they have enough credits to be promoted to tenth grade and have earned no more than one semester F in a core course.

This report documents subsequent research, which found that improvements in ninth grade on-track rates were sustained in tenth and eleventh grade and followed by a large increase in graduation rates. This analysis was done on 20 "early mover schools" that showed large gains in on-track rates as early as the 2007-08 and 2008-09 school years, allowing for enough time to have elapsed to analyze how the increase in on-track rates affected graduation rates.

Other key findings:

- Between 2007-08 and 2012-13, system-wide improvements in ninth-grade on-track rates were dramatic, sustained, and observed across a wide range of high schools and among critical subgroups—by race, by gender, and across achievement levels. Although all students appeared to gain, the benefits of getting on track were greatest for students with the lowest incoming skills. Students with eighth-grade Explore scores less than 12—the bottom quartile of CPS students—had a 24.5 percentage point increase in their on-track rates. On-track rates improved more among African American males than among any other racial/ethnic gender subgroup, rising from 43 percent in 2005 to 71 percent in 2013.
- Improvements in on-track were accompanied by across-the-board improvements in grades. Grades improved at all ends of the achievement spectrum, with large increases both in the percentage of students getting Bs and the percentage of students receiving no Fs. Thus, evidence suggests that on-track improvement was driven by real improvement in achievement, not just a result of teachers giving students grades of "D" instead of "F."
- Increasing ninth-grade on-track rates did not negatively affect high schools' average ACT scores—despite the fact that many more students with weaker incoming skills made it to junior year to take the test. ACT scores remained very close to what they were before on-track rates improved, which means that the average growth from Explore to ACT remained the same or increased, even though more students—including many students with weaker incoming skills—were taking the ACT.

A Climate for Academic Success
Voight, A., Austin, G., Hanson, T. (2013). A Climate for Academic Success: How School Climate Distinguishes Schools That Are Beating the Achievement Odds. Retrieved from http://www.wested.org/online_pubs/hd-13-01.pdf

This study examines the connection between climate and achievement in California secondary schools. Based on an analysis of school climate data from 1,715 secondary schools, the study found a positive correlation between school climate and student achievement.

The study compared School Climate Index (SCI) data derived from the California Healthy Kids Survey across three groups as follows:

1. *Beating-the-odds* (BTO) schools, which make up 2.4 percent of the sample. These are schools performing much better over multiple years than student characteristics would predict, using test scores.
2. *Chronically underperforming* (CU) schools
   These are schools performing much worse over multiple years than would be predicted, using test scores.
3. Other secondary schools

The data from the study suggest that school climate is positively correlated with student achievement outcomes. When comparing BTOs to other schools, the difference in the SCI is 33 percentiles (82nd and 49th, respectively); the difference between BTOs and CUs is 68 percentiles (82nd and 14th, respectively). The probability of beating the odds

increases as both SCI and personnel resources increase. However, this analysis shows the SCI had the strongest association with a school's likelihood of beating the odds.

Early Warning Systems

On Track for Success
Fox, J.H., Balfanz, R., Bruce, M., Bridgeland, J.M. (2011). On Track for Success: The Use of Early Warning Indicator and Intervention Systems to Build a Grad Nation. Retrieved from http://www.civicenterprises.net/MediaLibrary/Docs/on_track_for_success.pdf.

This report is the first national assessment of Early Warning Indicator and Intervention Systems (EWS) at the district, state, and national levels. It compiles research and practice evidence to identify elements of effective EWS oriented towards students graduating high school prepared for college and career success.

The EWS rely on nearly real time data to identify students who may be off-track so that action can be taken to ensure they remain on-track to graduate with college and career readiness. Initially EWS approaches focused on drop-out prevention, but they are evolving to address school readiness and college and career readiness. In the early 2000s, researchers from the Consortium on Chicago School Research, the Center for Social Organization of Schools at Johns Hopis University, and the Philadelphia Education Fund identified three key factors predictive of dropping out of school:

- Attendance: Missing 20 days or being absent 10% of school days
- Behavior: Two or more mild or more serious behavior infractions; and
- Course Performance: An inability to read at grade level by the end of third grade; failure in English or math in sixth through ninth grade; a GPA of less than 2.0 or more failures in ninth grade courses and failure to earn on-time promotion to the tenth grade.

Since the initial study was published, the initial findings have been validated in large district and longitudinal studies in Arkansas, Boston, Colorado, Florida, Indianapolis, Nashville, and Tennessee.

The effective use of EWS goes beyond data indicators and includes systemic practices of which the EWS data are one element. Based on reviewing several state and local EWS implementation efforts, the study identifies the following lessons from the field:

- There are a variety of ways in which data are collected. This usually entails a combination of state and local longitudinal information. State data collection frequency ranged from nearly real time to annually. It was noted that EWS that have relied on state data systems have faced challenges with aggregating data in a timely fashion.
- Clearly stated beliefs that are understood and reinforced by leadership are critical to effective EWS. Alignment between vision, mission, and EWS indicators are critical.
- Data quality, consistency, and focus are factors that must be supported by the design of EWS.

- The EWS can help identify needs, but human capacity and other resources are essential to the long-term success of EWS.

Indicator Selection

Indicators for a Results-Based Accountability System
Horsch, K. (1997). Indicators: definition and use in a results-based accountability system. Retrieved from http://www.hfrp.org/publications-resources/browse-our-publications/indicators-definition-and-use-in-a-results-based-accountability-system.

This is one of several briefs published by the Harvard Family Research Project's (HFRP) Reaching Results Project to support discussion regarding evaluation and accountability. This brief focused on indicator definition and use in results-based accountability systems. According to HFRP, "an indicator provides evidence that certain conditions exist or certain results have or have not been achieved. Indicators enable decision-makers to assess progress towards the achievement of intended outputs, outcomes, goals, and objectives."

The HRFP created the following questions to help guide selection of meaningful indicators:
- *Does the indicator enable one to know about the expected result or conditions?* In other words, the best measures are ones closely associated with the desired outcomes. When direct measures are not available, proxies may be used to approximate outcomes, but such measures may not provide the best evidence of conditions or results.
- *Is the indicator defined in the same way over time?* Are data for the indicator collected in the same way over time? Consistency in the measurement over time is needed to draw conclusions about impact or affect over time. Changes in policies, protocols, and assessments can lead to inconsistent and therefore unreliable results.
- *Will data be available for an indicator?* Data must be collected with regularity to be useful for accountability. Outcome data is often only available on an annual basis whereas other measure such as those related to outputs, process, and inputs are typically available more frequently. Furthermore, with LCFF in mind, data for subgroups must be included to support assessment of equity.
- *Are data currently being collected? If not, can cost-effective instruments for data collection be developed?* Data availability presents a practical limitation to using data. In situations where data is not readily available, cost-effective methods are needed to collect and manage data to support quality and availability.
- *Is this indicator important to most people? Will this indicator provide sufficient information about a condition or result to convince both supporters and skeptics?* Indicators that are publicly reported and used for accountability must have high credibility. In other words, they must provide information that is easy to understand and accept by important stakeholders.
- *Is the indicator quantitative?* Numeric indicators are most useful and understandable to decision-makers, but qualitative information can be helpful to fully understand measured phenomenon.