

Data Governance System For K-12 Data

Implementation Guidelines



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**Prepared by
K-12 Data Governance Group**

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Document Version Tracking

Version	Authors	Date	Description
1.0	Robin Munson, Allen Miedema & Gregg Lobdell – Sub-committee of the Data Governance Group and original drafters.	December 16, 2009	Adopted unanimously with 2 amendments included in this version by the K-12 Data Governance Group.
1.1	Bill Huennekens	November 2010	<p>Data Governance Committee changed to Data Governance Group throughout the document to be consistent with ESSB 2261 Sec. 203(1)</p> <p>Clarifying edits made to the Protocol for considering new or revised data collections.</p> <p>Protocol for significant changes to existing data definitions including: data dictionaries, business rules and data granularity</p>
1.2	Bill Huennekens	January 2011	<p>Clarification to long term collections made.</p> <p>Scope of the Data Management Committee added to.</p> <p>Question added for consideration of new data elements.</p> <p>Correction of Flagged Data added to the General Principals for Data Review and Validation section</p> <p>Updated Data Management Committee Membership</p>

2.0	Bill Huennekens	March 15, 2011	Adopted in the Data Governance Group with minor typographical edits
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Foreword: Why create a Data Governance System?

The essential notion behind establishing a data governance system is that decisions are only as good as the data on which they are based. As OPSI transforms data into information to facilitate wise decision-making, users and managers of K-12 data need a clear understanding of data definitions, data and process ownership and authority, accountability, security, and reporting needs and requirements, as well as the processes and timelines around each.

Currently many of these conditions do not exist within K-12 data management in the state of Washington. The 2009 Washington State Legislature created the data governance workgroup to identify critical research and policy questions, identify needed reports, conduct a gap analysis that analyzes the current status of the data system compared to the Legislature's intent, and define the operating rules and governance structure for K-12 data collections. Among the reasons for establishing a Data Governance System are:

- In the past OSPI's data systems focused on meeting compliance requirements. Being able to use data for policy development and research was not an explicit purpose.
- Individual programs within OSPI (e.g., Apportionment, Assessment, Bilingual and Migrant Education, Child Nutrition, Special Education) largely constructed their own data rules, data sets, processes and procedures that served their specific needs. These groups worked in "silos", with little coordination across groups to maximize data congruency and minimize the data-reporting burden on districts.
- Some of the results of these silos have been inconsistent data rules; lack of clear data ownership; conflicting, unclear or non-existent business processes around data collection, management and reporting; questionable data quality; frustrated data consumers; lack of accountability for data; spotty communication between agencies as well as between OSPI and districts; and turf issues within the groups that manage similar data sets.
- Available resources at the state, district, and local levels have not been sufficient to develop and maintain robust data collection/reporting systems or to hire the staff necessary to collect, report, and analyze additional data.

As Washington develops its K-12 longitudinal data system and begins to use that system for decision-making, it's imperative that these issues improve to make data more transparent and of highest quality possible. A well-designed data governance system is essential to that effort.

An effective data governance strategy clearly defines the roles, responsibilities, authority and associated activities of individuals and groups that come in contact with K-12 data. These roles and responsibilities include:

- Accountability roles to identify who is responsible for ensuring the accuracy of the data – who "owns" the data as it moves through the system.
- Ownership of each data element – that ownership needs to be understood, respected and communicated to the larger user community.
- Unambiguous policies and processes authorizing the collection, management and

dissemination of the data. This includes identifying who has the authority to collect, manage and report each type of data.

- Decision-making processes as well as timelines for making modifications to data definitions, collections, delivery, etc. Changes to these must be feasible, predictable, and well communicated to the user community.

Data Governance objectives:

- Establish a “culture of data quality” that integrates data use into the everyday aspects of the organization, ensures that proper data use and management are an integral part of the organization’s mission and success and, additionally, invests the necessary time and resources into making these efforts successful.
- Establish clear high-level, executive sponsorship of data governance. Accountability for successful data management should be integrated throughout all levels of the agency.
- Establish protocols that respect a distinction between the *ability* to collect and/or provide data and the *authority* to collect and/or provide data.
- Establish clear ownership and stewardship of each data element being collected (obviously one person will own multiple data elements.)
- Establish Data Owners by identifying those people within the organization who are accountable for the creation, definition, security and integrity of data assets. Note that these owners reside within business groups, not Information Technology (IT). IT establishes support systems to aid in the management and use of data; they don’t own the data or determine the way data will be used.
- Establish Data Stewards within each program or business group to have day-to-day responsibility for program data collection and use. It is essential that these stewards be respected, influential and subject-matter experts within the organization.
- Incorporate Data Steward activities into the regular, day-to-day aspects of these individuals’ jobs. Data Steward isn’t a job-title or a new position; it is one of the responsibilities of a person’s existing position.
- Establish data access protocols that legitimize the need for access to data sets but protect confidentiality and security data. Data access protocols must articulate needed authorization of data use.

1. INTRODUCTION

1.1 Design Objectives and Intended Audience

ESHB 2261 established a vision for a comprehensive K-12 data education data improvement system that will include financial, student, and educator data. According to the legislation, the objectives of the data system are to:

- ✓ monitor student progress;
- ✓ have information on the quality of the educator workforce;
- ✓ monitor and analyze the costs of programs;
- ✓ provide for financial integrity and accountability; and
- ✓ have the capability to link across these various data components by student, by class, by teacher, by school, by district, and statewide.

The intended audiences for reports from the data system include teachers, parents, superintendents, school boards, legislature, OSPI, and the public. These design objectives and the intended audiences frame the “context” for the system.

1.2 Document Overview and Organization

Data collected, stored, processed and disseminated by the OSPI are agency resources that must be managed from an enterprise perspective. Data governance establishes the data management policies and priorities for all agency data. The data governance system described in this manual tackles the issues of K-12 data governance through four major actions:

▪ ***Prioritizing Data Collection and Reporting: A Key Role of the Data Governance Group***

Prioritizing what data to collect is a key role of the Data Governance Group. Section 2 of this manual will describe the Data Governance Group’s role in helping to prioritize the research and policy questions that OSPI’s data collection and reporting need to address, and in filtering the myriad of ideas that people have for data OSPI should collect.

▪ ***Ensuring Data Quality: A Key Purpose of a Data Governance System***

The purpose of Washington’s Data Governance System is to improve the quality and efficiency of the data collected, analyzed and reported by OSPI. Education reform is an ongoing process in the state and across the country. Education reform requires accurate, reliable, useful, high-quality education data. Section 3 of the manual will describe issues related to data quality, and the Data Governance System’s strategies for addressing them.

▪ ***Managing Change Systematically: The Process to Achieve Data Quality***

The process to achieve quality data and quality reporting of Washington’s education data is a coordinated partnership of the Data Governance Group and the Data Management

Committee. Section 4 of the manual will frame the mechanisms by which changes to OSPI's data collection and reporting requirements will be determined and communicated. The data management components include technical infrastructures, defining data elements, schedules and timelines, identifying and resolving issues and privacy and data security.

▪ ***Including Data Stakeholders: A Critical Component of Success***

There are many stakeholders interested in the education data collected and reported by OSPI. Section 5 of this manual describes various stakeholders and how the data governance process will ensure their voices are heard.

1.3 Context of K-12 and P-20 data collection

This manual and OSPI's Data Governance Group focus on the K-12 data collected, and longitudinally maintained and reported by OSPI. This focus is within the context of Washington's P-20 (pre-school to post-secondary and workforce) longitudinal data system, the Education Research and Data Center's (ERDC). The legislature established the state's P-20 data system in RCW 43.41.400, directing the Office of Financial Management (OFM) to develop the ERDC. The legislature directed all state education agencies to share data with the ERDC. With OSPI, the Department of Early Learning, the public four-year higher education institutions, the Higher Education Coordinating Board, Workforce Training and Education Coordinating Board, State Board for Community and Technical Colleges, Employment Security Department, Professional Educator Standards Board, and State Board of Education, ERDC will assemble data to link individual students' information from pre-school through higher education and the workforce. One focus of the ERDC's research analysis will be on the transitions between the various levels of education, for example 'What facilitates a smooth transition from pre-school to kindergarten?' or 'What course taking patterns best prepare students for success in post-secondary or the workforce?'

By virtue of the Legislature designating the ERDC as a part of OSPI, OSPI is able to share all K-12 identifiable individual records with ERDC in compliance with the Family Education Right to Privacy Act (FERPA). As part of OSPI, ERDC is subject to FERPA constraints and cannot re-disclose confidential information. Like OSPI already does for K-12 data, ERDC will develop de-identified research data sets for sharing their data with other state agencies and "outside" researchers. ERDC data sets will include data from pre-school through college and the workforce.

The ERDC is a collaborative effort between the various education agencies, OFM, and the Legislative Evaluation and Accountability Program (LEAP). All partners in this effort will collaborate to identify the important P-20 research questions that cross or integrate these sectors, though each partner also conducts its own research and policy analyses.

While OSPI's data system focus is on K-12 data, it has significant interest in the issues related to early childhood and to post-high school outcomes. The Data Governance Group will almost certainly be including the "P" and the "20" in their prioritized research and policy questions.

2. Prioritizing Data Collection and Reporting: A Key Role of the Data Governance Group

Four key roles of the Data Governance Group are to prioritize education policy and research questions, determine new reporting needs and ideas, eliminate redundant reporting requirements, and evaluate the advantages and disadvantages of adding new data elements to what is collected from schools and/or districts. These three activities are key to the success of a cohesive, coordinated data system that is functional, feasible and informative. Without these priorities, the state’s data collection activities will continue to be fragmented, uncoordinated, duplicative and overwhelming to both districts and the state.

2.1 Prioritizing education policy questions and research questions

With the vast array of data contained in the K-12, and P-20, longitudinal data systems, the list of possible education policy questions and research questions that a successful system could address is nearly endless. One of the major roles of the Data Governance Group will be to continually prioritize the questions that should be addressed with currently available data, as well as to identify other questions that may require additional data.

This work will be started with the assistance of a contractor, but the data governance system must be able to sustain continual review and revision of the identification and prioritization of the questions. At least biennially (every other year), in the summer/fall, the Data Governance Group should review and, if necessary, update the prioritized list of education policy questions and research questions.

2.2 Determining new reporting needs

Even the very best K-12 longitudinal data system will be of little use if it does not help address the prioritized education policy and research questions, as well as classroom, school and district needs for information held by the state. To address these questions user-friendly reports, data dashboards, and other tools are needed. The Data Governance Group will play a critical role in identifying user needs and considering new formats and ways of presenting information. The Data Governance Group will seek input from stakeholders, including classroom teachers and support staff, school and district administrators, parents, legislators, and researchers. The Data Governance Group will also seek examples of best practice for reporting data from other states and other “industries”. The Data Governance Group will make recommendations to OSPI for new reports and reporting tools.

2.3 Eliminating redundant reporting requirements

Data are requested of districts in a variety of reports and reporting formats. Sometimes the data requested in two collections varies only slightly in format or timing or content. Further, accountability policies change and certain data reporting and collections may not be necessary. A key role for the Data Governance Group is to identify and eliminate redundant reporting requirements. An annual review of what is requested of districts and

an analysis of whether any data collection is redundant with another data collection will be completed each December so early communication announcing the elimination of a requirement can be made. Every effort will be made to never ask districts to report the same thing to OSPI in two different ways. If OSPI, for instance, collects individual student records for a particular program throughout the year, OSPI should be able to derive the annual summary data for that program without needing the district to also submit a summary report.

2.4 Considering new data elements

One of the primary responsibilities of the Data Governance Group is to assist OSPI in determining the data to be collected and reported. For each additional data element to be collected at the state level there are implications and costs to the entire system, from the classroom to OSPI. With districts challenged by the scarcity of resources available for data collection and reporting, and with accepted prerogative of local control, and therefore significant variability across 295 districts, implementing a new data collection is not a simple task. Providing adequate time to complete tasks such as sufficiently specifying the new data collection, make resulting modifications to information systems and/or business practices, and clearly communicating the rationale for the new requirement(s) to all stakeholders are all critical to the success of implementing a new data collection or modifying an existing collection. Furthermore, it is imperative that the broad range of stakeholders (described in Section 5) are involved in the analysis of the pros and cons of the proposed data collection modification.

Several key issues should be examined by the Data Governance Group when considering additional data collections. These include:

- a. At what level (federal, state, district, school, or classroom) is it appropriate to have a new data element?
 - b. How can the data element influence practice, policy, or research?
 - c. Is collecting this data element the most efficient way to influence practice policy, or research?
 - d. Can the data element be clearly and commonly defined?
 - e. Is the data already collected/maintained by most districts or is similar data that might meet the need commonly collected?
 - f. Will the data have a high degree of quality if collected?
 - g. What is the cost (time, money, resources) associated with this new collection from the classroom to the Office of Superintendent of Public Instruction?
 - h. Does the expected Return on Investment (ROI) of this new collection justify putting it in place?
 - i. Is there an existing data element or combination of data elements that can answer the same question that the proposed new data element is meant to address?
- a. At what level is it appropriate to maintain a new data element?**

Not all data produced, collected, or maintained in a classroom should be reported to OSPI. Just as the United States Education Department (USED) only needs a subset of the

data OSPI collects from districts, so too should OSPI only need a subset of what districts collect from schools and schools from classrooms. Below is a colorful mockup illustrating how some key data elements generated in a classroom get reported at each level, ultimately influencing practice, federal education policy, and research, while other elements don't need to be reported to the next higher level.

Federal	Enrollment Counts, Money spent on major programs, Percent meeting standard on tests by demographic subgroups
State	Enrollment dates, Demographics, Courses taken, Apportionment Allocations and Expenditures, Program participation, Semester grades, Statewide test scores, Teacher Qualifications
District	Enrollment dates, Demographics, Courses taken, Program participation schedule, Semester grades, District's formative assessment, Statewide test scores, Teacher qualifications, Apportionment Allocations and Expenditures, Bus Pickup Schedule, Field trip authorization
School	Daily Attendance, Enrollment dates, Demographics, Courses taken, Program participation schedule, Classroom-based assessments, Semester grades, District's formative assessment, Statewide test scores, Locker combinations, Bus Pickup Schedule, Field trip authorization,
Classroom	Daily Attendance, Enrollment dates, Demographics, Courses taken, Program participation schedule and services, Daily assignments, Classroom-based assessments, Semester grades, District's formative assessment, Statewide test scores, Locker combinations, Bus Pickup Schedule, Mom's availability for volunteering, Field trip authorization, Favorite after-school activity

b. How can the data element influence practice, policy, or research?

The need to collect a data element is dependent on the influence that data element can have on practice, policy, or research. This determination interplays with the question above regarding the appropriate level for maintaining the data element, but also is subject to the extent to which the actual data outcomes will lead to a change of or continuation of practice or policy. For instance, collecting course schedule information for high school students can describe course-taking patterns, and when compared to graduation status and post-high school outcomes can influence both policy decisions on graduation requirements and counseling practices in schools.

c. Is collecting this data element the most efficient way to influence practice, policy, or research?

Some data elements need to be regularly collected at an individual student or teacher level to address the prioritized education policy and research questions, and/or to assist with classroom, school or district practice, but collecting others may not have efficacy. Sometimes a one-time survey or poll or data collection sampling is all that is needed to influence practice, policy, or research.

d. Can the data element be clearly and commonly defined?

The first key to ensuring data quality is to have a precise and clear definition of each data element. A clear definition is critical from beginning to end: those

collecting and submitting the data must have a common and exact understanding of what is being requested; those analyzing the data need to share the same definition so they know how the data can be analyzed and reported, particularly as they are combined with other data; those utilizing the data (various audiences) must also share the same definitions so they can appropriately interpret the data.

e. Is the data already collected/maintained by most districts or is similar data that can meet the need commonly collected?

The wide variability in size and resources in Washington's 295 school districts must be considered when determining if school districts can provide the data desired. Not only do districts need and use a variety of information systems, but more important, they also have a variety of district-specific information needs. Therefore a data element that may be commonly collected and stored by every district with more than 10,000 students may not be collected by most smaller districts.

f. Will the data have a high degree of quality if collected?

There is little point in going through the time and expense of collecting a new data element if that data cannot be used reliably for the purpose intended. Some of the questions to be considered here are: is the data available for the student, family or other source to provide when asked; is the source of the data likely to provide the information willingly, accurately and timely enough so the work with the data can be performed; do resources exist for the collection of the data at the level of quality required; and once collected, can the quality of the data be maintained at an acceptable level with the resources available?

Depending on the purpose for collecting the data, the associated quality necessary to use the information will vary from element to element. These thresholds must be considered and assessed for reasonableness before the energy and expense associated with the collection is undertaken.

g. What is the cost (time, money, resources) associated with collection of the new data from the classroom to Office of Superintendent of Public Instruction?

Any new or modified data collection is going to have some associated cost. This might be in terms of actual dollars spent (e.g., new registration forms need to be created to accommodate a new data element). Or it could be that the cost is just in terms of staff time (e.g., the new elements associated with the new data collection have to be keyed into the District's information system). It is more likely is that costs of collection are a combination of different types of costs. Every new or modified data collection comes at some cost to those involved. Understanding those costs all the way from the initial data collections at schools to the offices at OSPI where the associated analysis on the data will be conducted is critical to determining the value of the collection.

h. Does the expected cost/benefit of this new collection justify putting it in place?

As has been mentioned in the items above, while it is critical to determine the cost of a new or modified data collection, it is also important to determine what the related benefit is. Once this has been determined, cost/benefit analysis can be

conducted to determine if there is enough value in the collection to justify any associated cost. This is not solely based on a determination of whether a collection is important. One outcome here could be that, while the information collected would be valuable, the cost to the entire system, starting at the point of inception, is more than any benefit that would be gained. Similarly, it could be determined that the cost is not something the State is willing to incur at this point itself or ask others to incur and the collection would be put off until more resources are available. Or it could be that that analysis shows that the necessary resources that would need to be expended for the collection are within reason, given the value of the information that collection would yield.

What is important here is that a thoughtful and complete analysis is done of the collection to determine if there is enough justification for moving the collection forward, given the total costs (time and money) that have been determined.

j. Is there an existing data element or combination of data elements that can answer the same question that the proposed new data element is meant to address?

It may be the case that an existing data element or combination of data elements can be used to answer the questions the proposed new data element is meant to address. This question should be explored with members of the Data Management Committee and representatives of the districts.

Further, it may be the case that the alteration of an existing definition of an existing data element will enable the question to be answered without the collection of a new data element. If this is a possibility the protocol for changes to existing data definition in section 4.3 should be followed.

Protocol for considering new, revised or the elimination of long term data collections

When new data or revised data collections are proposed to be collected, or a data collection is proposed to be eliminated, the following steps will be taken to evaluate the value and feasibility of doing so.

1. Proposer submits a request to the Data Governance Coordinator
2. Data Governance Coordinator shares idea with OSPI Data Owner(s) most closely associated with the data collection.
3. OSPI Data Owner determine if the desired data are already collected or if the data collection proposed for elimination is either no longer needed or can be subsumed by another collection.
4. Data Owner(s) discusses idea with the proposer and invites a discussion/proposal to the Data Management Committee. The issues described above should be addressed in the presentation.
5. In the meantime, the Data Owner(s) contact stakeholders, including districts, for input on feasibility of the new or revised data collection. Stakeholders for any

- proposed data collection eliminations should include any current users of reports or data sets dependent on the data collection proposed to be eliminated.
6. If the proposal seems feasible to the Data Owner, representative districts are consulted (2 large, 2 med large, 2 med small, 2 small and 2 tiny).
 7. Feedback from districts is presented to Data Governance Group. Among the areas this feedback should address are issues related to cost (staff and vendor-related), timing, impact on local business practices, local value of new or revised collection and any impacts from proposed eliminated data collections.
 8. Cost/benefit analysis is completed and submitted to the Data Governance Group at a “second hearing”.
 9. Data Governance Group makes a recommendation to Superintendent of Public Instruction.

3. Ensuring Data Quality: A Key Purpose of a Data Governance System

In its September 2004 study on “Improvements Needed in Education’s Process for Tracking States’ Implementation of Key Provisions,” the Government Accountability Office (GAO) found that “more than half of the state and school district officials we interviewed reported being hampered by poor and unreliable student data.” (p. 3)

GAO’s report, GAO 04-734, is available on the GAO website (www.gao.gov) at <http://www.gao.gov/new.items/d04734.pdf>.

Among the key data quality problems associated with education data reporting are:

- *Non-standardized data definitions.* Various data providers use different definitions for the same elements. When non-comparable data are aggregated, inappropriate and inaccurate results are produced.
- *Unavailability of data.* Data required do not exist or are not readily accessible. In some cases, data providers may take an approach of “just fill something in” to satisfy distant data collectors, thus creating errors.
- *Data entry errors.* Inaccurate data are entered into a data collection instrument. Errors in reporting information can occur at any point in the process – from the student’s assessment answer sheet to the state’s report to the Federal government.
- *System non-interoperability.* Data collected in one system are not electronically transmittable to other systems. Re-entering the same data in multiple systems consumes resources and increases the potential for data entry errors.
- *Inconsistent item response.* Not all data providers report the same data elements. Idiosyncratic reporting of different types of information from different sources creates gaps and errors in macro-level data aggregation.
- *Inconsistency over time.* The same data element is calculated, defined, and/or reported differently from year to year. Longitudinal inconsistency creates the potential for inaccurate analysis of trends over time.
- *Lack of timeliness.* Data are reported too late. Late reporting can jeopardize the completeness of macro-level reporting and the thoroughness of review. Tight deadlines, for example, can lead to late reporting, poor data quality, and delayed implementation of program improvement efforts. Rushed reporting can often lead to poor data quality, while reporting that is delayed months or even years can often limit data utility.
- *Poor Communication.* Critical information concerning data collections are inadequately communicated throughout the community of stakeholders. This leads to misunderstandings concerning what is to be collected, how it should be

reported, when the collection is needed, what the purpose of the collection is, etc. Taking all of these into consideration, it is easy to see how lack of a good and well-executed communication plan can lead to most, if not all, of the problems mentioned above.

- *Lack of Effective Professional Development.* Recognizing that data users, particularly at the local level, may have very limited experience with data management, it is imperative that effective training be provided to users. Just as students aren't expected to learn mathematics by simply presenting them with a set of rules and axioms, data users should not be expected to produce quality data as a result of being presented a data manual and collection schedule. Similarly, if data users have not been trained how to analyze and use the data it is not reasonable to expect that they will facilitate the desired change in student outcomes.

Nothing is more critical to the success of OSPI's longitudinal data systems than ensuring data quality which, as such, is a key role for the Data Governance Group. The U.S. Office of Management and Budget (OMB) developed a set of Federal Information Quality Guidelines which established a basic definition of data quality that includes three overarching elements: utility, objectivity, and integrity. OMB also directed each Federal agency to develop its own Department-specific standards. The U.S. Department of Education published its Information Quality Guidelines in February 2003.

The U.S. Department of Education's Information Quality Guidelines indicate data quality requires:

- Using clearly defined, broadly understood data definitions;
- Using clearly documented, well thought-out methodologies for data collection;
- Using reliable data sources;
- Processing data in a manner to ensure that data are "cleaned" and edited;
- Properly documenting and storing data collections and results;
- Producing data that can be reproduced or replicated;
- Conducting data collections and releasing data reports in a timely manner; and

Key Federal Information Quality Documents

OMB: Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, February 22, 2002

<http://www.whitehouse.gov/omb/fedreg/reproducible2.pdf>

U.S. Dept. of Ed.: "U.S. Department of Education Information Quality Guidelines," February 2003

<http://www.ed.gov/policy/gen/guid/infoqualguide.html>

U.S. Dept. of Ed. OIG: Management Information Report, "Best Practices for Management Controls Over Scoring of the State Assessments Required Under the *No Child Left Behind Act* of 2001," February 3, 2004

GAO: "Improvements Needed in Education's Process for Tracking States' Implementation of Key Provisions," September 2004

- Establishing procedures to correct any identified errors.

The remainder of this manual describes the organizational structure and key principles OSPI will follow to meet the requirements stated above. It is the responsibility of the Data Governance Group to provide guidance and support while monitoring these activities.

4. Managing Change Systematically: The Process to Achieve Data Quality

The process to achieve quality data and quality reporting of Washington’s education data is a coordinated partnership of the Data Governance Group and the Data Management Committee. Improving data quality is a goal of the Data Governance Group, while achieving data quality is the responsibility of the Data Management Committee. Together the goal is to establish what the National Forum on Education Statistics calls “a culture of high quality data.” That culture should pervade all levels of the data organization – from schools to districts to OSPI.

4.1 Roles and Responsibilities

Data Governance Group (See Sections 1 & 2)

 Data Management Committee (see below)

 Data Owners

 Data Stewards

 Information Technology

The main responsibility for managing OSPI’s data collection and reporting is the Data Management Committee. This group is comprised of the Data Owners and Data Stewards from all programs within the agency, e.g., Teacher Certification, Title I, Bilingual Education, Child Nutrition, Special Education, Facilities, Assessment, etc., the CIO and representatives from Districts and other state agencies, as appropriate. The scope of the committee’s work is:

Data Management Committee Scope

- > Establish standard processes, policies, training and associated communication plans for coordinated data collection, management, dissemination, and use;
- > Serve as a source of knowledge and advocacy for data management and initiatives;
- > Approve all new OSPI long term data collections from districts;
- > Maintain and enforce a current data collection calendar;
- > Approve all new data applications;
- > Identify, track, and resolve critical data issues;
- > Communicate critical data issues that cannot be solved internally to individuals that can influence change.
- > Review and advise on proposed one-time data collections.

The activities of the Data Management Committee will be guided by the Data Governance Coordinator. This position, new to OSPI in 2009, intentionally is not an IT position but rather has broader policy based experience and authority. The data governance coordinator is responsible for facilitating the overall data governance system and particularly for coordinating the data-related work of the various OSPI program areas, through the Data Management Committee.

Goals of the Data Management Committee

1. Improve data quality;
2. Increase accountability for data accuracy;
3. Eliminate redundancy in data collection;
4. Improve understanding of data within OSPI and among districts;
5. Facilitate transformation of data into information for wise decision-making;
6. Increase use of data to make program and policy decisions;
7. Improve data reporting capability and timeliness of reporting.

Objectives of the Data Management Committee

- a. Identify the owner of every data element;
- b. Define all data elements;
- c. Document all data processes;
- d. Standardize data processes from year to year;
- e. Reduce manual manipulation of data;
- f. Articulate roles of authority for collecting, accessing and reporting data;
- g. Identify the official source of data for all data reporting;
- h. Eliminate redundant data collections;
- i. Allow districts to review their data before it is externally reported;
- j. Communicate all data decisions/changes to districts;
- k. Increase the use of student-level data external reporting;
- l. Establish data access protocols and procedures.

OSPI Data Management Committee Membership

Data Management Committee Facilitator\Coordinator: Data Governance Coordinator		
<i>Program Area</i>	<i>Data Owners</i>	<i>Data Stewards</i>
Overall Student Data	Director of Student Information	
Student Demographics		Student Information Coordinator
Assessment		Student Information Coordinator
Graduation and Dropout Status		Research Analyst, Student Information
Learning and Teaching		Learning and Technology Program Director
Early Childhood		Early Learning Project Coordinator
Special Education		Special Education Data

		Management Coordinator
Bilingual Education Immigrant, Migrant Education		Dir, Migrant and Bilingual Education
Gifted Education		Gifted Education Program Supervisor
Title I/LAP		Title I/LAP and Consolidate Program Review Director
School and District Improvement		Director of Operations, District and School Improvement and Accountability
Career and Technical Education		CTE Program Supervisor
Teaching and Learning Support		Director of Teaching and Learning Support
Child Nutrition, Economic Status		Director of Child Nutrition
Discipline/Weapons/Attendance and Safe and Drug Free Schools		School Safety Center Supervisor
Digital Learning		Director of Digital Learning
Center for the Improvement of Student Learning		Research Assistant
Comprehensive guidance and counseling / Career & College Readiness (Navigation 101)		Navigation 101 Program Supervisor
Overall Teacher Data	Assoc Dir, Certification	
Teacher Certification/Testing		Certification Specialist
Highly Qualified Teachers		Director of Special Programs and Federal Accountability
Educator Data Analyst		Educator Data Analyst
SFSF Reporting		Fiscal Analyst
Overall Financial Data	Director of School Apportionment, Financial Services, and Finance Reform	
Transportation		Director of Transportation
Facilities		Director of School Facilities & Organization
School/District Entities		Help Desk Staff
Cross-sectional Federal Reporting	Assistant Superintendent, Special Programs and Federal Accountability	
Consolidated State Performance Report		CSPR Coordinator

AYP, Report Card		Title 1/LAP and Consolidate Program Review Director
EDEN		EDEN Data Analyst
iGrants		iGrants System Administrator
<i>Additional Members of the Committee</i>		
Chief Information Officer		
Information Technology, Project Management & Application Development		
Communications		
Education Research and Data Center		
School District Representatives		

Each of the Data Stewards listed above will play a key role on the Data Management Committee. This coordinated approach will be new to most of the Data Stewards, as their data-related work in the past has been primarily contained within their own program or in collaboration with IT, but not as collaboration across program areas. Some Data Stewards and Data Owners have established advisory committees that assist them with their data definitions and processes. Advisory committee input and decisions will be shared with the Data Management Committee.

Data Steward Responsibilities

- a. Promote and model appropriate uses of data to inform program and policy decision making;
- b. Regularly evaluate data quality and enforce data quality standards;
- c. Identify and resolve data quality issues (integrity, timeliness, accuracy, completeness);
- d. Determine and use the definitive source for each data element;
- e. Verify that data elements are recorded and kept current in the data dictionary
- f. Identify opportunities to share and re-use data;
- g. Identify and recommend solutions for data discrepancies and issues, escalating data issues to the Data Management Committee where appropriate;
- h. Ensure data projects maintain focus and meet deadlines;
- i. Monitor federal and state legislation that will affect OSPI data and inform appropriate staff of the impact for the agency;
- j. Identify new data that need to be collected, including the purpose, source, definitions, and business rules;
- k. Communicate with districts regarding changes to data collection, calculation, and reporting;
- l. Maintain awareness of and compliance with FERPA;
- m. Provide data (in compliance with data confidentiality policy) to internal and external requesters and for official agency reports;
- n. EDEN/EDFacts responsibilities:

- o Inform EDEN Coordinator of annual submission plan for all applicable files;
- o Develop plan to begin submitting files that cannot be submitted currently;
- o Create files in compliance with file specification;
- o Submit files to EDEN Coordinator by deadline in submission plan;
- o Document data source, elements, and any calculations or transformations performed to create EDEN file.
- o. Attend Data Management Committee meetings.

It will be the role of the student, teacher, financial, transportation and accountability data owners to facilitate the collaboration across Data Stewards. The Data Owners will ensure data collection and reporting are properly authorized. The Data Owners will also serve on the Data Management Committee and represent this Committee on the Data Governance Group. The Data Owners should be IT's first point of contact related to the various program areas, though the Data Owners will then collaborate with the data stewards to resolve or inform the IT issues.

4.2 Technical Infrastructure

Adequate technical infrastructures are required within districts and within OSPI to ensure smooth collection, transmission, storage and reporting of education data. The following general principles for technical infrastructure are adopted by the K-12 Data Governance Group.

General Principles for Technical Infrastructure

- *Automation:* All data collection and reporting systems should be automated, and should include automated system backups. Having an adequate technical infrastructure in place is one key element in producing quality data. At a minimum, data collection, processing, and reporting should be automated and transmittable in an electronic format. Even in small districts and schools, pen-and-paper systems for managing data will be overwhelmed by the emphasis that accountability systems place on accurate, comprehensive, and timely data reporting.
- *Interoperability:* Districts should use hardware and software that are interoperable, or compatible, with systems within their district and with the OSPI systems. Minimal "translation" or re-entry of data should be required for state reporting as data are transmitted from districts to the state.
- *Connectivity:* All schools and districts should be electronically connected through a network or a common web portal through which all data collection and reporting occurs.
- *Capacity:* Infrastructure established to link interoperable data systems – whether web portals or networks – should have sufficient capacity to accommodate, at a minimum, collection and reporting of all required data elements by all users at

specific times. Infrastructure should also have sufficient capacity to include redundant (backup) data storage.

- *Utility:* The data systems should be structured around the needs of its users. Processes for gaining access, entering data, generating reports, and transmitting information should be transparent and cause the least possible burden to users.
- *Reliability:* Before they are deemed ready for operation, all data systems should be fully tested. System performance should be monitored on a continuing basis and an IT contingency plan should be in place to ensure the continuity of the

Technical Focus: Building Infrastructure

What technical specifications should we build into our infrastructure to produce quality data?

- ✓ File descriptions for data elements, record format, and file design
- ✓ Actual collection instruments and data sources to be used
- ✓ Time period for collection and reporting deadlines
- ✓ Data conversion and processing
- ✓ Storage requirements
- ✓ Preferred formats for output reports
- ✓ Data security and confidentiality checks
- ✓ Controls on the accuracy and completeness of each input, process and output (audit trails, control totals, status flags, and system interrupt/restart procedures)
- ✓ Method for evaluating how well the system is performing, including percentage of forms verified and accuracy rates for coding and key entry

(Adapted from National Center for Education Statistics Cooperative Education Data Collection and Reporting Standards Project Task Force, *Standards for Education Data Collection and Reporting*, 4-4, 4-5, 4-22.)

system in the case of unforeseen disruptions (such as natural disasters).

4.3 Data Definitions

A fundamental piece of any data quality infrastructure is a standardized set of precise data definitions that all providers use. The following general principles for data definitions are adopted by the K-12 Data Governance Group.

Data Dictionaries. A “data dictionary,” which unambiguously identifies all data elements and describes their content, coding options, and format, is essential to establishing consistent collection and reporting. Adhering to a standard data dictionary improves data quality by fostering interoperability of different reporting systems and promoting the use of comparable data across the entire state. Staff who understand the definitions of the data they are collecting, entering, and reporting will be less likely to commit errors. Data dictionaries can be useful even where systems remain un-integrated and un-connected to a wider network. They should be the foundation for staff training and a resource for staff to use during the data quality review process.

Business Rules. A collection and reporting system that is linked directly to a data dictionary can greatly improve data quality as it funnels – or, in some cases, forces – data into a pre-defined configuration. This integration is achieved through the creation of systematic “business rules” that define acceptable values, character formats, and options for handling missing or unavailable data. In the absence of an integrated statewide network, another option is a web portal-based collection system, in which the central portal enforces data dictionary business rules as data are entered.

Data Definitions. In some cases, the U.S. Department of Education (through the National Center for Education Statistics), the U.S. Office of Management and Budget, or the *No Child Left Behind* Act maintains a definition of a required data element. Where Federal definitions do not exist, a standard definition should be used for all districts and schools in the state. For example, the U.S. Department of Education allows flexibility among states on the definition and parameters of a “full academic year.” Once states define data elements such as these, it is important that the definition be adopted uniformly across all data systems in all districts. This information should be maintained in an accountability workbook that is readily available to staff in schools and districts. Hardware and software should be configured around standard definitions, and the accountability guide should provide a clear description of how data collection, entry, and reporting processes work.

Data Granularity. To the maximum extent possible, all data elements should be collected and stored in their most “granular” form. In other words, each component of a calculated data element should be collected separately and stored separately in the database. For instance, when collecting graduation rate data, it is better to store a total number of students graduating and a total number of students eligible to graduate than to store only a computed percentage. To ensure that data reported by all districts and schools are comparable, percentages, ratios and other computed data should not be computed until final calculations are made at the state level.

General Principles for Data Definitions

- ❑ *Unique Identifiers:* To the maximum extent possible, unique statewide identifiers will be attached to every student and teacher record.
- ❑ *Indivisibility:* Every data element will be defined and collected in as “granular” a format as possible. For example, the data dictionary will separate total days of enrollment and total days in attendance and indicate how they can be used to compute an attendance rate.
- ❑ *Comprehensiveness:* Data dictionaries will include all relevant information for each data element, including its definition, unique code, dates of collection, technical validation rules (e.g., “three-digit number” or “ten non-numerical characters, all caps”), and practical business rules (e.g., students in the State Transitional Bilingual program should not have English as their primary language).

- *Accessibility:* The data dictionary will be easily available to all staff at the state, district, and school levels. The dictionary will be posted on-line, available for download into databases and applications, and distributed in hard copy format.
- *Permanence:* Codes or definitions from the data dictionary will be permanently maintained. Codes or definitions that change or go out of date will be deactivated so that staff will not use them inadvertently, but will be maintained so that historical comparisons and longitudinal analysis can occur.
- *Validity:* Business rules will not be the final arbiter of valid data. Data should be checked by a staff member who will know if an anomaly captured by a business rule is, in fact, an error. For instance, business rules may identify counts that are out of range based on previous years' data, but are, in fact, accurate because a significant change has occurred in the reporting unit.

Protocol for changes to existing data definitions including: data dictionaries, business rules and data granularity

When significant changes are proposed for the data dictionaries, business rules or data granularity of a particular data collection the following steps will be taken to evaluate the feasibility and impact of the proposed change.

1. The proposer submits a request to the Data Governance Coordinator.
2. The Data Governance Coordinator shall share the proposed changes with the Data Owner(s) most closely associate with the data collection
3. Data Owner(s) discusses idea with the proposer and invites a discussion of the proposal to the Data Management Committee. The issues described above should be addressed in the presentation.
4. In the meantime, the Data Owner(s) contacts stakeholders, including districts, for input on feasibility of the proposed change.
5. Feedback from districts is presented to the Data Management Committee at a second hearing. Among the areas this feedback should address are issues related to cost (staff and vendor-related), timing, impact on local business practices, and the value of the change(s) to the data dictionaries, business rules or data granularity.

6. The Data Management Committee shall make a recommendation on the

Technical Focus: Defining Data Elements

What types of information should be included in the data dictionary?

A typical data dictionary entry from the National Center for Education Statistics (NCES):

- Name: Adequate Yearly Progress Status
- Number: 0028
- Definition: An indication as to whether the education institution meets AYP standards.
- Element Type: ID
- Field Length: 4
- Domains: IEU [Intermediate Educational Unit], LEA, School, SEA
- Related Entities: Accountability Report
- Related Options: 0911 – Does not meet AYP standards, 0910 – Meets AYP standards

The NCES Handbooks Online website contains data dictionary entries for a comprehensive list of U.S. Department of Education data elements. The Handbook can be accessed at <http://nces.ed.gov/programs/handbook/index.asp>.

proposed change to the Data Owner(s)

4.4 Identifying and resolving data issues

Data issues come to OPSI's attention from a variety of sources including calls and emails from districts and or the public, error messages on federal data submissions, inquiries from researchers or other data analysts. Technical data issues are handled by IT Customer Support, who will inform the Data Owners of all issues and involve them in the resolution and communication to the field. Content issues are handled by the respective Data Owners and Data Stewards. Both technical and content issues are to be shared with the Data Management Committee for discussion and resolution. If the Data Management Committee is unable to find a resolution, or needs more input on the topic, the issue will be shared with the Data Governance Group. If it needs further escalation the issue will then be brought to the OSPI Superintendent's Cabinet.

4.5 Schedules and Deadlines

Producing quality data takes time. Good data systems require clearly established, firmly enforced collection, validation, and reporting schedules to ensure good data quality. Hurried or *ad hoc* collection and reporting, done on the spur of the moment in response to an unexpected request, greatly increases the potential for virtually all of the data quality problems described above. The following general principles for schedules and deadlines are adopted by the K-12 Data Governance Group.

A Continuous, Inclusive Process. The state data quality schedule should include a continuous management process that updates all elements of the data system on a regular basis. In addition to collection, validation, and reporting processes, schedules should include regular updates to the data dictionary, regular technical system performance tests, regular staff training, and regular data quality policy reviews. All schedules should take into account both policy *and* technical considerations. Neither IT staff nor policy staff should dictate deadlines alone. Both should be involved in ensuring that timelines are workable and meet Federal and state requirements.

Statewide Deadlines. The guidelines that follow provide information on implementing a statewide data reporting schedule that will meet Federal timelines and still maintain safeguards for data quality. It is critical that these efforts be directed from the state level, because the OSPI is ultimately responsible for ensuring that Federal reporting timelines are met. A key overarching principle is to prepare ahead. While it is true that the turnaround time for assessment results may be tight because of testing schedules, most other data required for NCLB Report Cards should be available earlier in the year. Teacher quality data, subgroup demographics, past years' accountability information, graduation rates, and attendance rates, for example, should not need to wait until the last moment for collection and validation. The NCLB timelines are transparent in the statute, and states – in consultation with data providers at the school and LEA levels – should build their data reporting schedules with those timelines in mind.”

General Principles for Schedules and Deadlines

- *Standardization.* Standard statewide reporting deadlines should be established. District- and school-level deadlines should be set at the local level to meet the state schedule.
- *Feasibility.* Schedules and deadlines should take into account the technical capabilities of all data providers. While technical issues should not dictate timelines for reporting, local systems must be physically capable of meeting collection and validation schedules set at the state level. An additional aspect of feasibility to be accounted for is the seasonal workloads and schedules at the school and district level. A new, unannounced data collection scheduled for May or June is not likely to be successful or well-received by those working to finalize student schedules for next year and close down business for the current year.
- *Follow-up Capability.* State-, LEA-, and school-level schedules should build in substantial time for following up with data providers on data anomalies, missing items, and other data quality issues. Reporting to the next level should not occur until all anomalies have been resolved.
- *Transparency.* All schedules and deadlines should be set in consultation with key personnel responsible for providing data and validating data quality, including schools and districts. Final timelines should be disseminated well in advance of deadlines and periodic reminders should be relayed to key data staff.
- *Firmness.* State deadlines should be firm and *include consequences* for non-compliance. Specific procedures should be established for permitting and processing late data reporting. Similarly, deadlines, policies and processes for establishing new or modified data collections must be strictly observed.

4.6 Data Quality Review and Validation

The data quality process does not end with a successful data collection. Having an ongoing set of management controls over data gathering is important and a set of business rules and validation checks for reporting can help ensure that the final report does not reproduce and transmit errors that occurred during the original collection.

Wherever possible, ongoing data quality checks should be automated, performed on a regular schedule, and linked automatically to the data dictionary. In most established data systems, for example, regular quality control sampling seeks 100 percent verification of a sample of records from either the entire system or from a specific

Data Quality Validation Flags

Non-correspondence. Some members of the population for which data are collected are not in the corresponding database, or some members represented in the database have no (or incomplete) corresponding data.

Invalid value. The value entered is not possible, given the data element's definition. For example, "-1" as an assessment score or "?R" as a teacher's length of service.

Invalid code. The code entered does not exist in the data dictionary.

Out-of-range. The value entered, while theoretically possible, is outside the expected range of responses (for example, a dropout rate of 100% or a teacher salary of \$1 million). Out-of-range errors should rely on analysis of historical trends and should generate system flags rather than outright error messages.

system level. Such procedures can be effective in finding correctable errors.

The following general principles for data review and validation are adopted by the K-12 Data Governance Group.

General Principles for Data Review and Validation

- ❑ *Regularity.* Monitoring during data collection should occur on a regular basis according to a pre-determined schedule. Wherever possible, control processes should be automated to ensure adherence to the schedule.
- ❑ *Consistency.* Validation checks should be performed automatically each time data are entered into the system. The data dictionary should define business rules that will consistently identify entries as out of range, missing, incorrectly formatted, or having invalid codes.
- ❑ *Interoperability.* Validation rules should be consistent across various databases and systems sharing information. Each time data are transmitted from one system to another (e.g., from the school to the LEA or from the LEA to the state), data should be re-checked.
- ❑ *Reliability.* Ongoing monitoring should include periodic review of a sample of data for accuracy and completeness. Wherever possible, reliability reviews should use independent verification processes rather than the regular quality check system (e.g., manual comparisons with other databases).
- ❑ *Accuracy.* Data checks should include confirmation that calculations are sound. Rules for rounding should be clear and consistently observed and, until final aggregation at the state level, data should be reported as raw numbers rather than pre-calculated percentages.
- ❑ *Correction of Flagged Data.* It is the responsibility of the sending entity or agency to correct flagged data that is forwarded or downloaded to another entity or agency.
- ❑ *Feedback Capability.* Ongoing monitoring should include the capability to record and respond to data providers' and requestors' concerns about the collection and reporting system.
- ❑ *Flexibility.* Data collection systems should be able to be updated or changed as data quality issues emerge. Dynamic data dictionaries should allow validation rules to be changed as provider and requestor needs evolve, and as data definitions change.
- ❑ *Transparency.* Information on all ongoing data quality monitoring procedures should be collected as a staff resource and archived as a continuing reference.

Handbooks on management controls should include descriptions of valid data elements from the data dictionary and processes for correcting errors.

- ❑ *Documentation.* Data collection systems should include a user-friendly capability to document data quality problems in real time. Users should be able to document intentional deviations from the regular collection processes and business rules immediately, including known instances of non-responses. All data entry should include coding that identifies the person responsible for the data.

4.7 Data Privacy and Security Issues

No more important responsibility belongs to data owners than to protect the privacy of individual students. The following comments on and general principles for data security and privacy are adopted by the K-12 Data Governance Group.

The identification of individual students is restricted under FERPA. FERPA guidelines provide for reporting only aggregated or de-identified information to ensure that even disaggregated data used to report achievement results for subgroups cannot be traced back to an identifiable individual. Therefore, it is important to establish a data collection, entry, and reporting system that protect individual students' privacy to the maximum extent possible.

Furthermore, maintaining a secure data system requires a combination of technical and human safeguards. On the technical side, it is critical that all hardware, software, and network infrastructure be firewall-secure from unauthorized external access and password-protected to control internal access. Periodic system tests should be run to ensure that technical security protocols remain effective. On the human side, it is important that the data quality team develop specific policies on who will have access to what data and how that access will be controlled. Ideally, Data Stewards will be owners of all data in their domain, and will be responsible for monitoring and maintaining the security of those data. Staff training for all school-, district-, and State-level personnel, including ethical and legal responsibilities for maintaining security is essential.

General Principles for Data Security and Privacy

- ❑ *Minimalism.* Records and notes created during the data collection process – whether electronic or paper – should contain only the minimum necessary personally identifiable information.
- ❑ *Exclusivity.* Access to data should be strictly limited to personnel with specific responsibility over each data element or a “legitimate educational interest” in viewing it (as defined by state or local policy). Electronic databases should be password and log-in protected and personally identifiable information should be accessible only when necessary for a specific reporting purpose.
- ❑ *Awareness.* Staff training should include building an understanding of Federal, state, and local privacy laws and their application to ongoing data collections. Privacy experts should conduct sessions specifically addressing data security

issues, and should be readily accessible during data collection periods to answer questions from the field.

- *Documentation.* Develop a written list of policies and practices related to data security and privacy and ensure that it is disseminated to all personnel involved in data collection, entry, and reporting.
- *Comprehensiveness.* Statewide system-generated identifiers should be created for all individual student records. Using a statewide system will allow tracking students as they move between schools and districts. Social security numbers should not be used as student identifiers.

5. Including Data Stakeholders: A Critical Component of Success

There are many stakeholders interested in the education data collected and reported by OSPI. Stakeholders range from the elementary school office coordinator who enters data into the local student information system about each new student who enrolls, to the program manager in the federal Office of Special Education who needs to determine if all states are appropriately implementing federal programs to students with vision impairments. Stakeholders are described below, starting with the federal government.

Federal-level Stakeholders

The accountability provisions included in the *No Child Left Behind Act* of 2001 (NCLB) dominate the data collection priority for federal accountability, to ensure that determinations of whether schools and LEAs make “adequate yearly progress” (AYP) are fair and valid.

States, and therefore school districts must report information on their academic assessments in reading, math and science, other AYP outcomes such as attendance and graduation rates, and teachers’ qualifications. Data elements are disaggregated by Federally-defined subgroups. A summary overview table of annual Federal NCLB Report Card reporting requirements for Title I, Part A recipients is below.

Federal Data Requirements for Report Cards for Title I, Part A Recipients Under <i>No Child Left Behind</i>	Level of Reporting			Disaggregation Subgroups								
	State-Level	LEA-Level	School-Level	All Students	Major Racial & Ethnic Groups	Students With Disabilities	Limited English Proficient	Economically Disadvantaged	Migrant ¹	Gender ¹	High Poverty Schools ²	Low Poverty Schools ²
Reading and Mathematics Assessment Data³												
Percentage of students tested	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Percentage of students achieving at each proficiency level	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Most recent 2-year trend data in student achievement for each subject and grade assessed	✓	✓	✓	✓								
LEA achievement compared to State achievement		✓		✓	✓	✓	✓	✓	✓	✓		
School achievement compared to LEA and State achievement			✓	✓	✓	✓	✓	✓	✓	✓		
Accountability Data												
Comparison between actual achievement and State's annual measurable objectives	✓	✓	✓	✓	✓	✓	✓	✓				
Student achievement on other academic indicators used for AYP (e.g., high school graduation rate)	✓	✓	✓	✓	✓	✓	✓	✓				
Number and names of LEAs and schools identified for improvement, corrective action, and restructuring	✓	✓	✓									
Percentage of schools identified for school improvement, corrective action, or restructuring		✓										

Teacher Quality Data												
Professional qualifications of all public elementary and secondary school teachers (e.g., bachelors and advanced degrees, licensure)	✓	✓	✓									
Percentage of all public elementary and secondary school teachers with emergency or provisional credentials	✓	✓	✓									
Percentage of core academic subject classes not taught by highly qualified teachers	✓	✓	✓								✓	✓

¹Subgroups of migrant and gender are required subgroups for reporting purposes, but are not among the required subgroups for AYP determinations.

²High poverty refers to top quartile and low poverty refers to bottom quartile.

³Beginning in 2007-08, science assessment data will be included in this requirement.

Source: *Report Cards: Title I, Part A Non-Regulatory Guidance*, U.S. Department of Education, September 12, 2003, <http://www.ed.gov/programs/titleiparta/reportcardsguidance.doc>

In addition to NCLB reporting requirements, other federal reporting requirements include Perkins reporting for Career and Technical Education, Title III Education for Bilingual and Migrant students, and Office of Special Education reporting.

State-level Stakeholders

State-level stakeholders include the state legislature, which has mandates a variety of annual or periodic reporting requirements regarding program implementation, participation, costs, and outcomes, as well as individual legislators, and their staff, who often have unique inquiries as they plan for legislative sessions. Also in this category is staff from legislative fiscal and policy committees, and from LEAP, the Legislative Evaluation and Accountability Program.

The Education Research and Data Center (ERDC) is also a primary stakeholder. As the custodians of the state’s P-20 longitudinal data system, staff from ERDC will need extensive access to OSPI data and will be critical to the discussions of feasibility, definitions, and data quality.

Other state agencies are also stakeholders for OSPI’s longitudinal data. There are numerous state interests or activities that can be informed, enhanced, or facilitated by K-12 information. These include the Department of Health (e.g., children’s health care, epidemiology), Children’s Administration (e.g., foster care, homelessness), Economic Services Administration (e.g., TANF – the state’s welfare program), the Higher Education Coordinating Board, State Board of Education, State Board for Community and Technical Colleges, Council of Presidents (4-year institutions), Workforce Training Board, Department of Corrections, and others.

OSPI program offices and administration are also key state-level stakeholders. As the Superintendent and his/her Cabinet form policy recommendations or design programs for implementation, they need to have confidence in the data available to influence their decisions.

Finally, academic and government researchers are also state-level stakeholders. Academic and government research can inform practice and policy at all levels.

District- and School-Level Stakeholders

There are probably no more important stakeholders than district and school personnel. School personnel, such as office secretaries, registrars, counselors and teachers typically are the front-line data collectors and data entry specialists. They are the key to whether the data are accurate and timely. They know the difficulty of collecting information, the constraints of entering data in a timely fashion, and each nuance of the data they have entered.

In addition to school personnel who enter the data, there are also school-level users of the information. Principals and other administrators, as well as counselors and teachers, can provide advice on what data, and in what format, they need to make good decisions.

District-level stakeholders include all district administrators and the school board, as information users, and the information technology folks for the technical aspects of data collection storage and transmission.

Family-level stakeholders

Parents, students, and the general public are also important stakeholders of K-12 longitudinal data. From wanting to have good information for selecting a local school to wondering how their children's test scores and grades compare with those of students in other parts of the state, parents are keenly interested in K-12 data.

In the general public category, additional stakeholders include researchers and the media. And the general public includes another key audience – voters!

Access to K-12 Data

Most of the stakeholders described above are interested in the data, either in summary reports and tools or in unit-record data sets. OSPI is committed to making data available to anyone who wants it, while ensuring the confidentiality of student level data.

The Data Management Committee will need to establish data access protocols for unit-record data sets. Until that work is completed, those wanting student level data may request it of OSPI's Student Information Department, in the Division of Assessment and Student Information. Data sets that contain de-identified student-level records are available for enrollment and demographic data, assessment data, and graduation and dropout status data. Recipients are asked to sign a data sharing agreement, acknowledging that even de-identified data can be linked to individual students in cases of few records, and therefore they must adhere to the state's requirement of not reporting data for small data counts.

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