

# Guide to using the Teacher Data Use Survey

Jeffrey C. Wayman Wayman Services, LLC

Stephanie B. Wilkerson Magnolia Consulting, LLC

> Vincent Cho Boston College

Ellen B. Mandinach WestEd

Jonathan A. Supovitz University of Pennsylvania

## **Summary**

The Teacher Data Use Survey can be used to query teachers, administrators, and instructional support staff about how teachers use data to support instruction, their attitudes toward data, and the supports that help teachers use data. This guide provides step-by-step instructions to help district and school planners implement the survey.





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## Summary

The Teacher Data Use Survey can be used to query teachers, administrators, and instructional support staff about how teachers use data to support instruction, their attitudes toward data, and the supports that help teachers use data. This guide provides step-by-step instructions to help district and school planners implement the survey.

The Teacher Data Use Survey was developed in response to a request from Metropolitan Nashville Public Schools for support in transforming to a data-informed culture. A data-informed culture is one in which educators believe that various forms of information can be used to inform their practice. Characteristics of such a culture include supports for data use and positive attitudes toward using data—characteristics that are measured in the Teacher Data Use Survey. Knowledge of the status of these characteristics can help schools and districts build a data-informed culture.

As one component of the support to Metropolitan Nashville Public Schools, Regional Educational Laboratory Appalachia commissioned a panel of researchers who are experts in data use to develop this survey. The researchers understand the practical challenges that schools and districts face in using data, having worked extensively with many schools and districts. The survey is a product of this expertise and draws heavily on the latest research in school data use. It was piloted in Metropolitan Nashville Public Schools and is now available for use in any school or district.

As Metropolitan Nashville Public Schools and other districts recognize, teachers are being asked to use more data to support their practice, but teacher data use is complex. Effective use of student data by teachers requires a multifaceted network of actions, attitudes, and supports. Unfortunately, many school and district leaders have only anecdotal knowledge about these issues. The Teacher Data Use Survey offers schools and districts a way to rigorously gauge what data teachers use, how they use these data, and how they feel about their data use. It also enables assessment of the network of supports that surround teacher data use.

The questions on the Teacher Data Use Survey are derived from a conceptual framework that views teacher data use as part of a larger system. This framework views the actions teachers take with data as influenced by their competence in using data, their attitudes toward data, their collaboration with other teachers, and the organizational supports available to them.

By administering the Teacher Data Use Survey, school or district leaders will have evidence on which to base a number of decisions, such as appropriation of resources to support teacher data use, supports school leaders might provide, and district policy around data use.

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## Introduction

Based on the premise that teachers can employ new information about student learning needs to inform lesson planning and create improvement strategies, teachers are being asked to use more and more diverse data to support their practice (Gummer & Mandinach, 2015; Hamilton et al., 2009).

Effective use of student data by teachers requires a multifaceted network of actions, attitudes, and supports. Data use should follow an inquiry cycle that involves identifying a problem, forming a hypothesis about how to improve student learning, gathering and analyzing data, and forming actionable recommendations based on the results (Boudett, City, & Murnane, 2005; Copland, 2003; Gummer & Mandinach, 2015). The inquiry cycle is often implemented in collaboration with other teachers (Lachat & Smith, 2005; Lipton & Wellman, 2012; Wayman, Midgley, & Stringfield, 2006). How teachers use data is affected by their competence in using data and their attitudes toward data (Goertz, Oláh, & Riggan, 2009; Gummer & Mandinach, 2015; Mandinach & Gummer, 2013; Supovitz, 2010). Furthermore, effective data use typically requires leadership and support by principals, appropriate technology, and support from skilled personnel (Hamilton et al., 2009; Marsh, McCombs, & Martorell, 2010; Wayman, Cho, Jimerson, & Snodgrass Rangel, 2015).

It is not always clear whether these actions, attitudes, and supports are present and operating effectively, so it is important that district and school leaders have a method to assess supports in a way that gives each educator a voice.

The Teacher Data Use Survey can provide helpful information to district and school leaders about how teachers use data, their attitudes toward data, and the supports available to help them use data. The survey offers a comprehensive perspective by including three versions—one for teachers, one for administrators, and one for instructional support staff (see appendixes A, B, and C for the three survey versions).

Administering the survey can provide beneficial information to district and school leaders, including:

- An overview of how teachers currently use state, school, and classroom data.
- A comprehensive perspective on how teachers view data use and how administrators and instructional support staff view teachers' data use.
- An evidence base from which to plan ongoing support, such as professional development, computer data systems, and collaborative structures.

This guide tells district and school survey planners how to customize the survey for use in their setting, how to administer it, and how to examine the findings. Once the survey has been customized to suit the local context, it takes 15–20 minutes to complete and is easily administered in most education contexts.

The Teacher Data Use Survey can provide helpful information to district and school leaders about how teachers use data, their attitudes toward data, and the supports available to help them use data

### **Description of the survey**

The Teacher Data Use Survey is based on a conceptual framework for how teachers use data (figure 1). The actions that teachers take with data are central to the process (see center of figure 1). These actions inform changes in teachers' knowledge and practice, which in turn can improve student learning (right side). The actions teachers take with data are influenced by four other components (left side): their competence in using data, their attitudes toward data, their collaboration with other teachers, and the organizational supports available.

This survey is designed to measure five components: the actions that teachers take with data and four other components that inform these actions. Each component is measured by one or more scales (see box 1 for definitions of key terms). Some components are measured by one or more individual survey items.

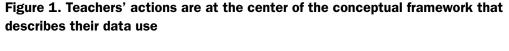
#### **Survey versions**

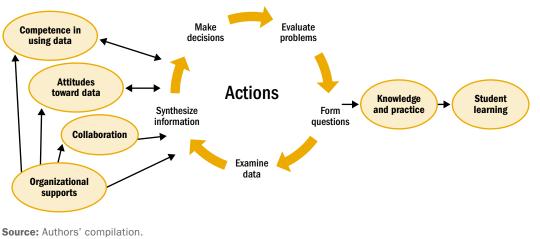
The survey questions are phrased differently in the three survey versions to address the appropriate target respondent group, but the objective is always to assess data use by teachers (see box 2 for an example of survey question variation).

#### Data examined by the survey

The survey examines use of student data from four categories:

- State data—for example, state achievement tests.
- Periodic data—for example, commercially available periodic assessments.
- Local data—for example, district-developed assessments such as common formative assessments.
- Personal (teacher) data—for example, classroom-based assessments developed by teachers, such as tests, quizzes, and homework.





The actions that teachers take with data can inform changes in teachers' knowledge and practice, which in turn can improve student learning

#### **Box 1 Key terms**

**Component.** The conceptual framework has five components: teachers' actions with data, teachers' competence in using data, teachers' attitudes toward data, their collaboration around data, and the organizational supports that are available to them.

**Conceptual framework.** A research-based model that describes how teachers use data to improve student learning. The conceptual framework is described in figure 1.

**Category of data.** One of four levels of student assessment data commonly used in a school: state data, periodic assessments, locally developed assessments, and personal or teacher-developed assessments (called state, periodic, local, and personal in the survey).

*Form of data.* A specific type of data in each category. Each category may have multiple forms of data. For example, under the state category, a form of data might be the state achievement test. Under the local category, a form of data might be a district-developed assessment. See also Specific form of data below.

*Inquiry cycle.* A typical inquiry cycle includes examining data to identify a problem, developing hypotheses (making predictions) about how to improve student learning, collecting and synthesizing data, and creating actionable recommendations to inform decisionmaking (Boudett, City, & Murnane, 2005; Copland, 2003; Gummer & Mandinach, 2015).

**Question stem and items.** A question stem is a specific question related to a scale theme, followed by a group of items that offer different variations on the theme. For example, a question stem might ask, "How often do you and your collaborative team(s) do the following?" This is followed by a list of lettered items such as "a. We approach an issue by looking at data," "b. We discuss our preconceived beliefs about an issue," and so on.

**Survey scale.** Groups of items that ask about the same thing in different ways. For example, the data competence scale is made up of four questions that ask about teachers' competence at using data to inform various aspects of their practice.

**Specific form of data.** The name of the specific student assessment used to collect data. The survey planning team in each district or school must identify the specific forms of data for each category of data to be used in the survey. For example, if the category is state, the specific form of data might be the Florida Comprehensive Assessment Test in a Florida district or school.

**Survey version.** The survey has three versions, one for teachers, one for administrators, and one for instructional support staff. The questions in each version are phrased differently depending on which respondent group the survey version targets but always with the objective of assessing data use by teachers.

#### Box 2. Example of variation of survey questions, depending on survey version

Question 1 of the Teacher Data Use Survey asks about the availability of specific forms of data but is phrased differently in the three survey versions:

- Teacher version: "Are the following forms of data available to you?"
- Administrator version: "Are the following forms of data available to your teachers?"
- Instructional support staff version: "Are the following forms of data available to the teachers you support?"

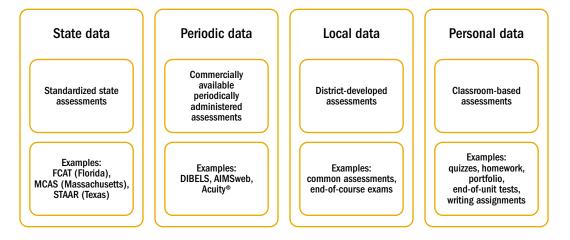
Within each category, several forms of data are available (figure 2). For example, in the state data category, a state achievement test is a form of data. The survey requires school or district survey planners to use the specific names of the forms of data used in the district or school. For example, in a Florida district, the Florida Comprehensive Assessment Test could be the specific form of data used in the category of state data.

The question in box 2 about specific forms of data would offer options such as those shown in box 3.

In customizing the survey, planners select the specific forms of data that are commonly used or otherwise most meaningful in their district or school. In questions 1–5 they can ask about as many forms of data from each category as necessary for their context. In questions 6–9 planners are required to narrow the list to one form of data per category to keep the survey length manageable.

To customize the Teacher Data Use Survey, planners select the specific forms of data that are commonly used or otherwise most meaningful in their district or school





FCAT is Florida Comprehensive Assessment Test. MCAS is Massachusetts Comprehensive Assessment System. STAAR is the State of Texas Assessments of Academic Readiness. DIBELS<sup>®</sup> is Dynamic Indicators of Basic Early Literacy Skills.

Source: Authors' compilation.

#### Box 3. Example of specific forms of data

Question 1 of the Teacher Data Use Survey asks about the availability of specific forms of data.

1: Are the following forms of data available to you?

	Yes	No
Florida Comprehensive Assessment Test		
Acuity® test		
End-of-year district benchmark test		
End-of-unit tests		

**Note:** The Florida Comprehensive Assessment Test is a state assessment, Acuity is a periodic commercial assessment, the end-of-year benchmark test is a district assessment, and end-of-unit tests are developed by teachers.

#### Survey structure

The survey begins with five questions (questions 1–5) that collect descriptive information about the availability and use of specific forms of student data. The survey then asks follow-up questions about the actions teachers take with four specific forms of data that have been selected by survey planners. The rest of the survey is organized around the four other components of the conceptual framework: teachers' competence in using data, their attitudes toward data, their collaboration around data, and the organizational supports available to them (table 1).

#### **Survey components**

The survey contains five components: actions teachers take with data, teachers' competence in using data, their attitudes toward data, their collaboration around data, and the organizational supports available to them. Each of the five components is measured by one or more scales or related clusters of questions (see table 1).

## Table 1. Organization of the Teacher Data Use Survey by conceptual framework component

Conceptual framework and scale	Description	Questions and items
Actions		
Not part of a scale	Frequency of teacher data use to plan for instruction	Questions 2–3
Actions with data	Actions teachers take with data for state, periodic, local, and personal forms of data specific to the local context	Questions 6–9, items a–h
Collaborative team actions	Actions data teams take with data as part of a collaborative inquiry cycle	Question 17, items a–j
Competence in using data		
Data competence	Perceptions about how good teachers are at using data to inform various aspects of their practice	Question 14, items a–d
Attitudes toward data		
Not part of a scale	Perceptions of how useful data are to teacher practice	Questions 4–5
Data's effectiveness for pedagogy	Perceptions of the value of data for everyday pedagogy	Question 11, items a–e
Attitudes toward data	Attitudes and opinions regarding data	Question 11, items f–i
Collaboration		
Collaborative team trust	Beliefs about trust while working in teams	Question 16, items a–e
Organizational supports		
Not part of a scale	Identifies which forms of data are available to teachers	Question 1
Support for data use	School supports for teachers using data	Question 10, items a–f
Principal leadership	Perceptions about how the principal and assistant principal(s) lead teachers in using data	Question 12, items a–f
Computer data systems	Technology for accessing and examining data	Question 13, items a–e

**Note:** The survey's first five questions are not part of a scale; instead, they define which specific forms of data teachers use.

Source: Authors' compilation.

The five conceptual framework components listed in the first column of table 1, along with their scales, are described below.

#### **Actions component**

The focal point of the conceptual framework is the set of actions that teachers take with data. Actions include the uses that teachers choose for specific forms of data and the processes involved in using that data.

Actions are measured by a question asking how often teachers use various forms of data (question 2) and by two scales assessing actions that teachers take with data: the actions with data scale (questions 6–9) and the collaborative team actions scale (question 17).

Regarding frequency of data use, question 2 asks about teachers' use of the forms of data specified by the planners (see the section below on customizing the survey). Question 3 allows respondents to write in other forms of data not on the list specified by the planners.

For the actions with data scale, planners select one specific form of data to represent each of the four general categories from the lists of specific forms of data in questions 1–5. The question items ask whether teachers use these data for certain purposes and if so, how often. Survey planners may choose to use these items individually instead of in a scale.

For the collaborative team actions scale, question items ask about the actions that district or school teams take with data. Since it is important that teams and individual teachers follow an inquiry cycle while using data, the question items in the scale follow that cycle. (The collaborative team actions scale could be part of the collaboration component of the conceptual framework, but its primary focus on actions that teachers take makes it fit best as part of the actions component of the framework.)

Teachers' actions are critical to their data use, and a number of attitudinal and organizational components support these actions. The following sections describe these components of the conceptual framework.

#### Competence in using data component

It is important not only that teachers be able to use data, but also that they perceive themselves as being capable of using data (Goertz et al., 2009; Gummer & Mandinach, 2015; Mandinach & Gummer, 2013; Supovitz, 2010). Accordingly, this component is measured by the data competence scale (question 14), which asks teachers, administrators, and instructional support staff how good they believe their teachers are at using data to inform various aspects of their practice.

### Attitudes toward data component

Teachers are more likely to use data, and make better use of data, when they believe that data are useful to their practice (Hamilton et al., 2009; Lachat & Smith, 2005; Wayman et al., 2015). This component is measured by questions concerning perceptions about the usefulness of various specific forms of data (questions 4 and 5) and by two scales: the data's

The focal point of the conceptual framework is the set of actions that teachers take with data, including the uses that teachers choose for specific forms of data and the processes involved in using that data effectiveness for pedagogy scale (question 11, items a–e) and the attitudes toward data scale (question 11, items f–i).

#### **Collaboration component**

Teachers often find it useful to collaborate when they use data. When working in groups, trust is important (Lachat & Smith, 2005; Lipton & Wellman, 2012; Wayman et al., 2006). Accordingly, this component is measured by the collaborative team trust scale (question 16). (As noted in the actions section above, the collaborative team actions scale could be thought of as part of this component of the conceptual framework. However, it is included in the actions component because its items are focused more on actions than on collaboration.)

#### **Organizational supports component**

Teachers cannot be expected to get the most value out of their data without support from their district and school (Hamilton et al., 2009; Marsh et al., 2010; Wayman et al., 2015). Examples of supports include the proper technology to access and examine data, leader-ship that promotes and enables data use, and school staff who can help teachers use data. This component is measured by a question about the availability of various specific forms of data (question 1) and by three scales: the support for data use scale (question 10), the principal leadership scale (question 12), and the computer data systems scale (question 13).

#### Other comments on data use

The survey's final question is open-ended: "What else would you like to share with us about data use?" It invites respondents to give their thoughts and comments about aspects of data use not covered in the survey.

### **Survey scales**

The survey contains nine scales—that is, nine groups of question items that measure each of the five conceptual framework components. These scales are in all three survey versions (teacher, administrator, instructional support staff), although the question stems and question items may vary by version (see appendix D for a list of items arranged by scale).

#### Scales used in the actions component

The actions component is measured by two scales: the actions with data scale and the collaborative team actions scale.

Actions with data scale. The actions with data scale consists of four questions of eight items each, with the question stems and items phrased differently for each respondent group (box 4). Each question refers to one of the four specific forms of data (state, periodic, local, or personal) that planners chose in customizing the survey.

**Collaborative team actions scale.** The collaborative team actions scale recognizes the importance of the inquiry cycle in working with data. It consists of one question of 10 items, with the question stem phrased differently for nonadministrators and administrators (box 5).

The Teacher Data Use Survey measures collaborative team trust, important for teachers using data when working in groups Box 4. The actions with data scale asks the same eight question items about the state, periodic, local, and personal specific forms of data selected for the survey (teacher version)

Questions 6–9.

"In a typical school year, how often do you do the following?"

- a. Use <specific state form of data> to identify instructional content to use in class?
- b. Use <specific state form of data> to tailor instruction to individual students' needs?
- c. Use <specific state form of data > to develop recommendations for additional instructional support?
- d. Use <specific state form of data> to form small groups of students for targeted instruction?
- e. Discuss <specific state form of data> with a parent or guardian?
- f. Discuss <specific state form of data> with a student?
- g. Meet with a specialist (e.g., instructional coach or data coach) about <specific state form of data>?
- h. Meet with another teacher about <specific state form of data>?

"In a typical school year, how often do you do the following?"

- a. Use <specific periodic form of data> to identify instructional content to use in class?
- b. Use <specific periodic form of data> to tailor instruction to individual students' needs?
- c. Use <specific periodic form of data> to develop recommendations for additional instructional support?

And so on for all questions for specific local and personal forms of data.

**Source:** Teacher Data Use Survey.

## Box 5. Collaborative team actions scale (teacher and instructional support staff version)

Question 17. "How often do you and your collaborative team(s) do the following?"

- a. We approach an issue by looking at data.
- b. We discuss our preconceived beliefs about an issue.
- c. We identify questions that we will seek to answer using data.
- d. We explore data by looking for patterns and trends.
- e. We draw conclusions based on data.
- f. We identify additional data to offer a clearer picture of the issue.
- g. We use data to make links between instruction and student outcomes.
- h. When we consider changes in practice, we predict possible student outcomes.
- i. We revisit predictions made in previous meetings.
- j. We identify actionable solutions based on our conclusions.

**Source:** Teacher Data Use Survey.

#### Scale used in the competence in using data component

*Data competence scale.* The competence component is measured by one scale: the data competence scale (box 6). It asks about how good teachers are at using data to inform various aspects of their practice. The scale consists of one question of four items, with the question stem phrased differently for teachers and nonteachers.

#### Scales used in the attitudes toward data component

The attitudes toward data component is measured by two scales: the data's effectiveness for pedagogy scale and the attitudes toward data scale.

*Data's effectiveness for pedagogy.* The data's effectiveness for pedagogy scale asks how valuable data are for everyday pedagogy (box 7). The scale consists of one question of five items, with the question stem and items phrased the same for all respondents.

Attitudes toward data scale. The attitudes toward data scale consists of the remaining four items of question 11, with the question stem and items phrased the same for all respondents (box 8). An exception is item 11(i), which uses teacher in the teacher version and educator in the administrator and instructional support staff versions.

#### Scales used in the collaboration component

**Collaborative team trust scale.** The collaboration component is measured by one scale: the collaborative team trust scale (box 9). The scale consists of one question of five items, with the question stem and items phrased the same for all respondents, except for item 16(e).

#### Box 6. Data competence scale (teacher version)

Question 14. These questions ask about your attitudes toward your own use of data. Please indicate how much you agree or disagree with the following statements:

- a. I am good at using data to diagnose student learning needs.
- b. I am good at adjusting instruction based on data.
- c. I am good at using data to plan lessons.
- d. I am good at using data to set student learning goals.

**Source:** Teacher Data Use Survey.

#### Box 7. Data's effectiveness for pedagogy scale (all versions)

Question 11. These questions ask about your attitudes and opinions regarding data. Please indicate how much you agree or disagree with the following statements:

- a. Data help teachers plan instruction.
- b. Data offer information about students that was not already known.
- c. Data help teachers know what concepts students are learning.
- d. Data help teachers identify learning goals for students.
- e. Students benefit when teacher instruction is informed by data.

**Source:** Teacher Data Use Survey.

#### Box 8. Attitudes toward data scale

Question 11. These questions ask about your attitudes and opinions regarding data. Please indicate how much you agree or disagree with the following statements:

- f. I think it is important to use data to inform education practice.
- g. I like to use data.
- h. I find data useful.
- i. Using data helps me be a better [teacher/educator].

**Source:** Teacher Data Use Survey.

#### Box 9. Collaborative team trust scale

Question 16. As you think about your collaborative team(s), please indicate how much you agree or disagree with the following statements:

- a. Members of my team trust each other.
- b. It's ok to discuss feelings and worries with other members of my team.
- c. Members of my team respect colleagues who lead school improvement efforts.
- d. Members of my team respect those colleagues who are experts in their craft.
- My principal or assistant principal(s) fosters a trusting environment for discussing data in teams. (teacher and instructional support staff versions)
   OR
- e. As an administrator, I foster a trusting environment for discussing data in teams. (administrator version)

**Source:** Teacher Data Use Survey.

#### Scales used in the organizational supports component

The organizational supports component is measured by three scales: the support for data use scale, the principal leadership scale, and the computer data systems scale.

*Support for data use scale.* The support for data use scale asks about the supports available to teachers for using data (box 10). It consists of one question of six items, with the items phrased differently for teachers and nonteachers.

**Principal leadership scale.** The principal leadership scale asks about how the principal and assistant principal lead teachers in using data (box 11). The scale consists of one question of six items, with the question stem and question items phrased differently for administrators and non-administrators. The administrator version phrases each item in the first person referring to the administrator rather than to teachers; for example, "12(a). I encourage data use as a tool to support effective teaching."

**Computer data systems scale.** The computer data systems scale asks about technology for accessing and examining data (box 12). The scale consists of one question of five items, with the question stem and items phrased the same for all respondents.

#### Box 10. Support for data use scale (teacher version)

Question 10. These questions ask about supports for using data. Please indicate how much you agree or disagree with the following statements:

- a. I am adequately supported in the effective use of data.
- b. I am adequately prepared to use data.
- c. There is someone who answers my questions about using data.
- d. There is someone who helps me change my practice (e.g., my teaching) based on data.
- e. My district provides enough professional development about data use.
- f. My district's professional development is useful for learning about data use.

**Source:** Teacher Data Use Survey.

#### Box 11. Principal leadership scale (nonadministrator version)

Question 12. These questions ask how your principal and assistant principal(s) support you in using data. Principals and assistant principals will not be able to see your answers. Please indicate how much you agree or disagree with the following statements:

- a. My principal or assistant principal(s) encourages data use as a tool to support effective teaching.
- b. My principal or assistant principal(s) creates many opportunities for teachers to use data.
- c. My principal or assistant principal(s) has made sure teachers have plenty of training for data use.
- d. My principal or assistant principal(s) is a good example of an effective data user.
- e. My principal or assistant principal(s) discusses data with me.
- f. My principal or assistant principal(s) creates protected time for using data.

**Source:** Teacher Data Use Survey.

#### Box 12. Computer data systems scale (all versions)

Question 13. Your school or district gives you programs, systems, and other technology to help you access and use student data. The following questions ask about these computer systems. Please indicate how much you agree or disagree with the following statements:

- a. I have the proper technology to efficiently examine data.
- b. The computer systems in my district provide me access to lots of data.
- c. The computer systems (for data use) in my district are easy to use.
- d. The computer systems in my district allow me to examine various types of data at once (e.g., attendance, achievement, demographics).
- e. The computer systems in my district generate displays (e.g., reports, graphs, tables) that are useful to me.

Source: Teacher Data Use Survey.

## **Customizing the survey**

Before the Teacher Data Use Survey can be administered, survey planners must customize portions of the survey to the local district or school context. This includes choosing specific forms of data to include in questions 1–5, narrowing that list for use in questions 6–9, choosing whether to administer the survey in a paper or online format, tailoring survey skip logic, and deciding whether to collect demographic information.

#### Choosing specific forms of data

Seven survey questions require planners to specify forms of data particular to their local context. As always, the phrasing of the questions varies depending on whether the survey is the teacher, administrator, or instructional support staff version. The seven questions are:

- Question 1: "Are the following forms of data available to you/your teachers/the teachers you support?"
- Question 2: "How frequently do you/your teachers/the teachers you support use the following forms of data?"
- Question 4: "How useful are the following forms of data to your/teacher/teachers' practice?"
- Question 6: "These questions ask about <state data>. In a typical school year, how often do you/your teachers/the teachers you support do the following?"
- Question 7: "These questions ask about <periodic data> used in your school or district. In a typical month, how often do you/your teachers/the teachers you support do the following?"
- Question 8: "These questions ask about <local data> developed and used in your school or district. In a typical month, how often do you/your teachers/the teachers you support do the following?"
- Question 9: These questions ask about <personal data>. In a typical month, how often do you/your teachers/the teachers you support do the following?"

Customizing each of these questions and their associated instructions involves identifying the specific forms of data that the district or school uses and wants to measure. Key staff who will use the survey findings to inform decisionmaking should take part in identifying which specific forms of data to include in the survey.

The intents of these questions are to gain information about the specific forms of data in use (questions 1–5) and to explore more deeply one form of data (questions 6–9) from each general category. If data from any category are not relevant to the local context, survey planners may choose to omit one or more of questions 6–9.

The next two sections outline for planners some considerations for choosing which specific forms of data to include in those questions.

Choosing specific forms of data for questions 1, 2, and 4. Survey planners should generate a list of the specific forms of data commonly used in their district or school (box 13). This list will be used to populate the questions that ask respondents whether those specific forms of data are available to teachers (question 1), how often they are used by teachers (question 2), and how useful they are to teachers (question 4).

Customizing the Teacher Data Use Survey involves identifying the specific forms of data that the district or school uses and wants to measure

#### Box 13. Hypothetical survey questions 1–5 (teacher version)

1. Are the following forms of data available to you?

Form of data	Yes	No
AzMERIT		
Acuity		
BOY (beginning of year) district benchmark		
MOY (middle of year) district benchmark		
EOY (end of year) district benchmark		
End-of-unit tests		
Homework		
Other		

If you indicated "no" to all options in question 1, skip to question 10. If you responded "yes" to any option, please proceed to question 2.

2. Teachers use all kinds of information (i.e., data) to help plan for instruction that meets student learning needs. How frequently do you use the following forms of data?

Form of data	Do not use	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
AzMERIT					
Acuity					
BOY district benchmark					
MOY district benchmark					
EOY district benchmark					
End-of-unit tests					
Homework					
Other					

3. If you marked the "other" option above, please specify the form of data here:

4. Now, how useful are the following forms of data to your practice?

Form of data	Not useful	Somewhat useful	Useful	Very useful
AzMERIT				
Acuity				
BOY district benchmark				
MOY district benchmark				
EOY district benchmark				
End-of-unit tests				
Homework				
Other				

5. If you marked the "other" option above, please specify the form of data here:

Source: Authors' example.

The list of specific forms of data should be identical in each question (same forms, same names, and same order). The lists for questions 1, 2, and 4 should also be identical on all three versions of the survey (teacher, administrator, and instructional support staff).

Questions 1, 2, and 4 also allow survey respondents to check "other" if they use forms of data that are not on the list and then to describe them in questions 3 and 5.

In selecting which specific forms of data to include in this part of the survey, survey planners should consider the following:

- Include the specific forms of data that key stakeholders determine are of most interest in the district or school. A data form may be of interest to stakeholders because it is used frequently, under consideration for elimination, relevant to a specific district initiative, heavily invested in by the district, or for some other reason.
- Include any specific forms of data that are used frequently by teachers. Even if survey planners do not believe these forms of data are of interest, teachers may not believe the survey is useful if the forms they commonly use are not on the survey.
- Include at least one form of data from each general category (state, periodic, local, and personal), if possible. This gives the most comprehensive picture of teachers' data use.
- Include multiple forms per category if applicable. It is not necessary to balance the number of forms across categories; for example, it is fine to include just one form of periodic data but three forms of local data.
- Include as many specific forms of data as it takes to get a full picture of teachers' data use in the district, but not so many as to bore or fatigue respondents.
- List the specific forms of data by names that are recognizable and familiar to all survey recipients.

The survey can be easily customized for use in any context. Consider the following example.

Suppose that survey planners in a hypothetical district in Arizona are preparing to administer the Teacher Data Use Survey. They choose to include Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT) as the specific form of data in the state data category, and Acuity<sup>®</sup>, a commercially available assessment, in the periodic data category. In the local data category, planners choose to include three district-developed benchmarks, given at the beginning, middle, and end of the year. For the personal data category the district chooses end-of-unit tests and homework.

The survey planners in this district list each of these seven specific forms of data, in the same order, by the same names, in questions 1, 2, and 4 (see box 13).

**Choosing specific forms of data for questions 6–9.** The intent of the next four questions is to explore the actions that teachers take with specific forms of data from each of the four categories (state, periodic, local, and personal). The survey would be too long if these questions were asked of every form of data. Thus, for questions 6–9, survey planners are required to select one specific form of data from each category for deeper examination (box 14).

In selecting which specific forms of data to include in questions 1-5, survey planners should consider data that key stakeholders determine are of most interest. data that are used frequently by teachers, and one form of data from each general category (state. periodic, local, and personal)

#### Box 14. Hypothetical survey questions 6–9 (teacher version)

6. These questions ask about AzMERIT. In a typical school year, how often do you do the following? If you indicated that AzMERIT is "not available to me" in question 1, OR if you indicated that you "do not use" AzMERIT in question 2, please go to question 7.

Action	One or two times a year	A few times a year	Monthly	Weekly
a. Use AzMERIT to identify instructional content to use in class.				
b. Use AzMERIT to tailor instruction to individual students' needs.				
c. Use AzMERIT to develop recommendations for additional instructional support.				
d. Use AzMERIT to form small groups of students for targeted instruction.				
e. Discuss AzMERIT with a parent or guardian.				
f. Discuss AzMERIT with a student.				
g. Meet with a specialist (e.g., instructional coach or data coach) about AzMERIT.				
h. Meet with another teacher about AzMERIT.				

7. These questions ask about Acuity used in your school or district. In a typical month, how often do you do the following? If you indicated that Acuity is "not available to me" in question 1, OR if you indicated that you "do not use" Acuity in question 2, please go to question 8.

Action	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
a. Use Acuity to identify instructional content to use in class.				
b. Use Acuity to tailor instruction to individual students' needs.				
And so on.				

8. These questions ask about the EOY district benchmark developed and used in your school or district. In a typical month, how often do you do the following? If you indicated that the EOY district benchmark is "not available to me" in question 1, OR if you indicated that you "do not use" the EOY district benchmark in question 2, please go to question 9.

Action	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
a. Use the EOY district benchmark to identify instructional content to use in class.				
b. Use the EOY district benchmark to tailor instruction to individual students' needs.				
And so on.				

9. These questions ask about end-of-unit tests. In a typical month, how often do you do the following? If you indicated that end-of-unit tests are "not available to me" in question 1, OR if you indicated that you "do not use" end-of-unit tests in question 2, please go to question 10.

Action	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
a. Use end-of-unit tests to identify instructional content to use in class.				
b. Use end-of-unit tests to tailor instruction to individual students' needs.				
And so on.				

Source: Authors' example.

In selecting one specific form of data from each category, survey planners should consider the following:

- They should choose from the list in questions 1, 2, and 4. They should not introduce new data forms.
- They should try to choose the specific form of data from each category that is the most commonly used by teachers, if known. However, planners might include a specific form of data for other reasons, for example, if it is under consideration for elimination, relevant to a specific district initiative, or heavily invested in by the district.
- If the list of specific forms of data in questions 1, 2, and 4 does not cover all the categories (for example, if there are no specific local data forms on the list), then planners should eliminate the corresponding question in this part of the survey (for example, eliminate question 8 because there are no specific local data forms on the list).

In the list of specific forms of data for questions 1, 2, and 4 the hypothetical Arizona survey planners have only one specific form of data from the state data category (AzMERIT). Accordingly, they populate question 6 with AzMERIT. Similarly, they have only one form of data from the periodic data category (Acuity), so they populate question 7 with Acuity. Of the three specific forms of data in the local data category, the survey planners choose the end-of-year (EOY) district benchmark for question 8 because their anecdotal evidence suggests that teachers find more value in that benchmark than in the beginning or middle of year benchmarks. Because end-of-unit tests are weighted heavily in quarterly grades for this hypothetical district, planners choose that specific form of data for question 9 about personal data. See box 14 for an illustration of these choices. The instructions, question stems, and items all require populating with specific forms of data.

#### Choosing between online and paper survey formats

Planners need to decide whether to administer the survey online or on paper (table 2). Both formats have advantages. Online formats offer high accuracy, quick processing, and an automated method of skipping certain questions (skip logic). Paper formats offer a familiar format and are easy to complete for users who may not be comfortable working online. **Planners need to** decide whether to administer the survey online or on paper. Online formats offer high accuracy, quick processing, and an automated method of skipping certain questions. **Paper formats** offer a familiar format and are easy to complete for users who may not be comfortable working online

Factor	Online	Paper
Necessary materials	Online survey software.	Paper, envelopes.
Technical skills for survey construction	Knowledge of online software program.	Knowledge of word processing program.
Skip logic	Software automatically skips items if respondents mark that they do not use certain forms of data.	Respondents are instructed to skip items if they mark that they do not use certain forms of data
Data entry	None required; can designate automatic variable coding so that data produced by the survey go directly into electronic format.	Required; data must be entered by hand.
Missing data	Option available to require all items or allow nonresponse.	Not possible to require that all items be answered.
Out-of-range responses	Option available to require valid answers before proceeding.	Not possible to require valid answers before proceeding.

#### Table 2. Some considerations for using online versus paper survey formats

Source: Authors' compilation.

Both formats also have potential disadvantages. Online formats require survey software, knowledge of how to use the software, and computer equipment that can support the software. Paper formats introduce accuracy problems (for example, respondents checking more than one box or failing to answer items), manual data entry, and more skip logic that requires participants to manually skip through the survey.

For ease of survey administration, data collection, and data management, building the survey online is recommended, if possible. Still, a paper version is a fine alternative in instances where a school or district may not have the capacity to administer the online version.

#### **Building survey skip logic**

The paper survey templates in appendixes A, B, and C provide clear instructions to respondents as they navigate survey questions. They indicate where to skip questions that are not relevant based on how respondents answer prior questions. If planners build the survey online, they need to embed skip logic stemming from responses to questions 1, 2, and 15.

Questions 1 and 2 set up the skip logic for questions 6–9 in the following ways:

- If a respondent selects "no" for any form of data listed in question 1, the skip logic prevents the respondent from answering associated questions 6–9.
- If a respondent selects "no" for all forms of data listed in question 1, the skip logic sends the respondent to question 10.
- If a respondent selects "yes" for any form of data listed in question 1, the skip logic allows the respondent to proceed to questions 2–5.
- If a respondent selects "do not use" for any form of data listed in question 2, the skip logic prevents the respondent from answering associated questions 6–9.

For example, suppose a teacher in the hypothetical Arizona district taking the teacher version of the survey indicates in question 1 that Acuity data is not available. The skip logic does not present that teacher with question 7 (the set of question items asking in detail how Acuity data is used), but rather presents the teacher questions 6, 8, and 9, about AzMERIT, end-of-year district benchmark, and end-of-unit tests.

As another example, if a school principal in the hypothetical Arizona district taking the administrator version of the survey indicates in question 1 that none of the listed specific forms of data is available to teachers, the skip logic does not present questions 6–9, but rather sends the principal directly to question 10.

Question 15 sets up the skip logic for questions 16 and 17. If a respondent selects "I do not have scheduled meetings to work in collaborative teams," the skip logic does not present questions 16 and 17 (questions about collaborative teams), but rather sends the respondent directly to question 18.

#### **Collecting demographic information**

The survey does not collect demographic information about respondents and therefore is anonymous. Offering anonymity to respondents increases the likelihood that they will provide candid answers. A limitation of a survey that does not collect demographic The Teacher Data Use Survey does not collect demographic information about respondents, increasing the likelihood that respondents will provide candid answers information is that results cannot be compared by subgroup (see subsection on comparing results with demographic variables in the section below on analyzing survey results).

Survey planners may choose to add demographic items to the beginning of the survey, keeping in mind the balance between anonymity and comparability. For instance, if the number of respondents is small or there are only one or a few members in a subgroup (such as years of teaching experience, grade level, school level, or content area), the risk that those few individuals could be identified rises. Demographic variables can be constructed in ways that mitigate the risk of identifying respondents. For instance, responses for years of experience could be phrased as a range (for example, teaching experience of less than 5 years, 5–10 years, and so on) instead of as a specific number.

## Administering the survey

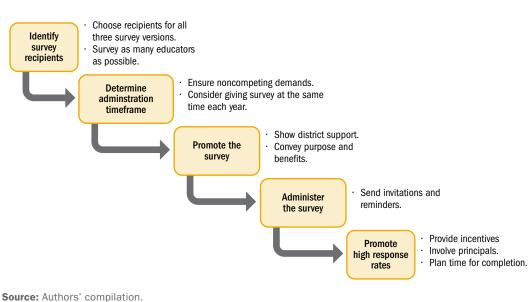
Survey administration involves five steps: identify survey recipients, determine the survey administration timeframe, promote the survey with a unified purpose, administer the survey, and promote high response rates (figure 3).

#### Step 1: Identify survey recipients

Survey planners and key stakeholders must determine whether all three survey versions—teacher, administrator, and instructional support staff—will be administered.

All teachers, administrators, and instructional support staff in a district or school may be intended survey recipients. But if it is not feasible or useful to administer the survey to all staff, planners can refine the sample using characteristics such as school level (elementary, middle, or high school) and content area (for example, literacy, math, or science).

In general, administering the survey to as many educators as possible will yield the clearest picture of data use throughout the district or school.



#### Figure 3. Administering the survey takes five steps

Survey planners may choose to add demographic items to the beginning of the survey, keeping in mind the balance between anonymity and comparability

#### Step 2: Determine when to schedule survey administration

Once planners know who is to receive the survey, it is important to consider recipients' schedules so that survey administration does not compete with other scheduled activities, such as testing periods, other survey campaigns, or district breaks.

If measuring change over time is important, planners will want to consider appropriate administration intervals for the survey. For instance, if the survey is to be given each year, it should be given at roughly the same time each year.

#### Step 3: Promote the survey

Promoting the survey is the next important step. The promotion can take place prior to survey invitations and can be through email, paper, or other forms. It should communicate not only what the survey will measure and when it will be administered, but also how the respondents will benefit from the survey's findings. This message includes the school's or district's specific aims and uses for the survey and its value to respondents. Teachers sometimes are negative about data use because they do not believe it aligns with their work. Therefore, survey recipients will be more likely to complete the survey if they first understand that data use is an integral component to achieving school goals and that their participation in the survey will identify areas where additional support for their data use is needed. Survey planners may also describe any incentives that will be offered for survey completion (for example, a gift card for individuals or instructional materials funds for schools with a high response rate).

It is important to tell survey recipients that their responses will remain anonymous or confidential (if that is true). Survey planners can tell survey recipients that their responses will remain anonymous if respondents cannot be identified. They can tell survey recipients that their responses will remain confidential if respondents can be identified, but planners will take measures to ensure that responses will be seen only by individuals who are analyzing results.

#### Step 4: Administer the survey

An invitation to complete the survey should accompany the survey whether it is administered online or on paper. An email invitation usually contains a link to an online survey; a cover letter invitation is sent with a paper survey (appendix E provides sample email invitations and reminders that can be adapted for use on paper).

If online survey responses are to be anonymous, the link to the survey should be a general one that cannot be tracked back to individual recipients after they submit the survey, rather than a unique link for each survey recipient. Any email follow-up reminders must be sent to all survey recipients, since there will be no way to determine who has or has not responded.

If the online survey is not anonymous, planners can provide a unique link to each survey recipient, which will allow responses to be tracked. Even if the survey itself does not collect identifying information, using a unique survey link for each recipient makes it possible to connect individual responses to individual email addresses.

**Survey** administration involves five steps: identify survey recipients, determine the survey administration timeframe. promote the survey with a unified purpose. administer the survey, and promote high response rates

Similar procedures may be followed for paper administration of the survey. If paper survey responses are to be anonymous, there should be no numbers or identifying marks on the survey that could be tracked back to the individual. If the paper survey is not anonymous, planners may use numbers or other forms of identification that do not identify the respondent directly but can be tracked back to a table of numbers (or other identification) that are linked to the respondent.

Invitations should include the following information:

- Purpose of the survey and plans for use of survey findings.
- Criteria for selection of the survey recipients.
- Length of time needed to complete the survey.
- Incentives for participation.
- Survey closing date.
- Anonymity/confidentiality of responses.

Planners should allow time for two or three follow-up survey reminders, possibly a week apart (see appendix E). Reminders should stress the importance of completing the survey, refer to incentives, and include the link to the survey (or possibly another copy for paper surveys).

#### Step 5: Promote a high response rate

A high survey response rate increases the likelihood that survey findings will be representative of the school or district. When response rates are low, findings could be biased toward certain types of responders; for example, if only recipients who are interested in data use respond, the results will not reflect the views of teachers who use data less frequently.

Taking steps to promote a high response rate is important to ensuring that survey findings represent the data use practices, attitudes, competence, and support of teachers across the district or school. Promoting the survey before its administration (step 3) and sending multiple follow-up reminders during its administration (step 4) are important ways to promote a high response rate. Other supportive actions include offering incentives, involving principals in promoting the survey to their staff, and designating time for survey completion, such as during school meetings or professional learning activities.

## **Analyzing survey responses**

This section describes basic analyses that can help schools and districts draw meaning from the survey data. Of course, many other analyses are possible.

#### Eliminating nonusers

Some questions allow for the respondent to indicate that he or she does not use particular forms of data, and the administrator and instructional support versions allow for the respondent to indicate that he or she does not know if teachers use certain forms of data. In some analyses (for example, means), analysts should take care to remove these responses before conducting the analyses. A high survey response rate increases the likelihood that survey findings will be representative of the school or district, so taking steps to promote a high response rate is important to ensuring that survey findings represent the data use practices, attitudes. competence, and support of teachers

#### Analyzing scale reliability

A reliability analysis is a measure of how well the questions in a scale measure the same thing. In pilot tests of the survey, scales were found to be highly reliable: Cronbach alpha statistics (a measure commonly used in reliability analyses) for each scale were 0.85 or higher. Even so, districts may wish to conduct their own reliability analyses after administering the survey to confirm that the survey is performing reliably in their context.<sup>1</sup>

#### **Conducting descriptive analyses**

For computational purposes the responses to each question item are assigned numerical values from 1 to 4. For example, for question 6, "one or two times a year" = 1, "a few times a year" = 2, "monthly" = 3, and "weekly" = 4. As another example, for question 10, "strongly disagree" = 1, "disagree" = 2, "agree" = 3, and "strongly agree" = 4. The responses to all question items in a scale are averaged for each respondent, resulting in the respondent's score for that scale. These mean scores from scales are used to measure the components of the conceptual framework in that district or school.

In pilot tests of the Teacher Data Use Survey, the scale measures were found to be highly reliable

In the most basic form, descriptive analyses include computing means, standard deviations, and sample size for each scale for each version of the questionnaire. The same statistics can be computed for individual question items of particular interest. These statistics can be used to draw various comparisons (see below).

Analysts may find it helpful to compute other statistics to understand the amount of error that could go along with these scale means when using the group of educators who responded to the survey to represent all educators in the school or district. Inferences of this sort are best made when the group of respondents is representative of all educators in the school or district. For example, analysts can compute the standard errors of means and the 95 percent confidence intervals for means.

#### **Drawing comparisons**

In drawing meaning from survey results, various kinds of comparisons may be useful, including comparisons of scale means with each other and across survey versions, comparisons of survey results among respondents with different demographic characteristics, and comparisons of how data are used by teachers, administrators, and support staff.

**Comparing scale means with each other and across survey versions.** Scale means can be compared with each other within and across survey versions. For instance, comparing scale means for the three survey versions (teacher, administrator, and instructional support staff) can provide a sense of how different educator groups perceive data use (table 3). Other statistics also can be compared, such as standard deviations and confidence intervals.

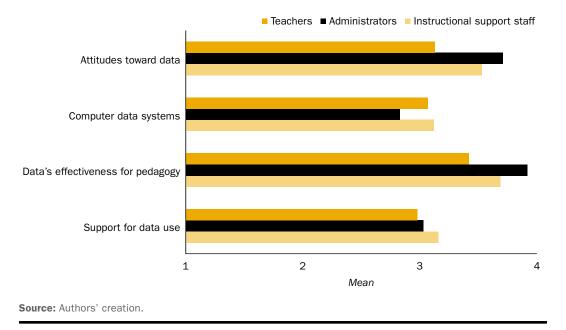
Comparisons of scale means in table 3 can be represented graphically as well (figure 4).

In this example some differences in scale means are apparent within survey versions (see table 3 and figure 4). For instance, teachers responded more positively on the data's effectiveness for pedagogy scale than they did on the support for data use scale. Administrators were considerably more positive in their attitudes toward what data can do (attitudes

Respondent group	Attitudes toward data	Computer data systems	Data's effectiveness for pedagogy	Support for data use
Teachers	3.13	3.07	3.42	2.98
Administrators	3.71	2.83	3.92	3.03
Instructional support staff	3.53	3.12	3.69	3.16

**Note:** Means are calculated for a range of responses to each question item that are assigned numerical values from 1 to 4. The table is adapted from a report on district data use that used a precursor of the Teacher Data Use Survey. The scales presented here are those used in the report. Other combinations of scales can be used.

Source: Adapted from Wayman et al. (2015).



#### Figure 4. Graphical comparison of survey scale means, by respondent group

toward data scale and data's effectiveness for pedagogy scale) than they were about the technology available to help them access and use student data (computer data systems scale).

Possible differences across survey versions within scales are also evident. For instance, administrators and instructional support staff had more positive attitudes toward what data can do (attitudes toward data scale and data's effectiveness for pedagogy scale) than did teachers.

**Comparing results with demographic variables.** Another kind of analysis that schools and districts may find useful is to compare scale means across demographic characteristics if survey planners chose to include them on the survey. Such a comparison is shown for the demographic variable of teacher's years of experience in table 4 and figure 5.

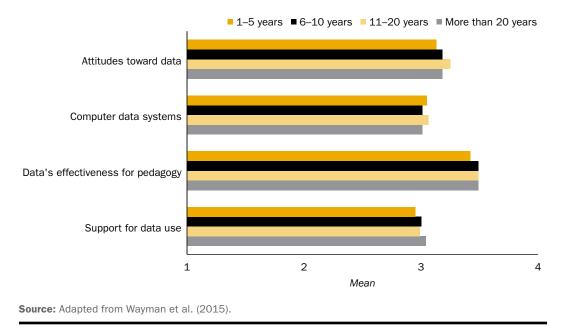
In this example the data's effectiveness for pedagogy scale has the highest scale mean at all levels of experience. Scale means differ little across years of experience, however.

Comparing scale means for the three survey versions (teacher, administrator, and instructional support staff) can provide a sense of how different educator groups perceive data use

Teaching experience	Attitudes toward data	Computer data systems	Data's effectiveness for pedagogy	Support for data use
1–5 years	3.13	3.05	3.42	2.95
6–10 years	3.18	3.01	3.49	3.00
11–20 years	3.25	3.06	3.49	2.99
More than 20 years	3.18	3.01	3.49	3.04
Instructional support staff	3.53	3.12	3.69	3.16

**Note:** Results are from the teacher version. The table is adapted from a report on district data use that used a precursor of the Teacher Data Use Survey. The scales presented here are those used in the report. Other combinations of scales can be used.

Source: Adapted from Wayman et al. (2015).



#### Figure 5. Graphical comparison of survey scale means, by teaching experience

**Comparing data use by teachers, administrators, and support staff.** Yet another kind of comparison involves ranking the frequency of use of various forms of data (for example, local data) and comparing them across respondent groups (table 5).

In this example respondents in different roles prioritize data use differently. Both administrators and instructional support staff most frequently meet with teachers about data, whereas this data use is the fifth most common for teachers. Discussing data with students and parents ranks low for all three groups.

*Warning about comparisons.* Finally, although it may be tempting to benchmark against other districts administering this survey, analysts must remember that those studies were administered in different contexts and may have used a different methodology. Instead of comparing the survey findings with outside sources, it is better to conduct comparisons within a particular context.

Another kind of analysis that schools and districts may find useful is to compare scale means across demographic characteristics if survey planners chose to include them on the survey

Rank	Teachers	Administrators	Instructional support staff
1	Tailor instruction to individual student needs (2.68).	Meet with a teacher about data (3.13).	Meet with a teacher about data (2.74).
2	Identify instructional content to use in class (2.60).	Develop recommendations for additional instructional support (3.03).	Tailor instruction to individual student needs (2.65).
3	Form small groups of students for targeted instruction (2.51).	Tailor instruction to individual student needs (2.90).	Develop recommendations for additional instructional support (2.55).
4	Develop recommendations for additional instructional support (2.47).	Identify instructional content to use in class (2.88).	Identify instructional content to use in class (2.50).
5	Meet with another teacher about data (2.45).	Meet with a specialist about data (2.84).	Form small groups of students for targeted instruction (2.34).
6	Discuss data with a student (2.12).	Form small groups of students for targeted instruction (2.69).	Meet with a specialist about data (2.22).
7	Meet with a specialist about data (1.83).	Discuss data with a parent (2.65).	Discuss data with a student (2.12).
8	Discuss data with a parent (1.83).	Discuss data with a student (2.58).	Discuss data with a parent (2.04).

#### Table 5. Ordered means of local data uses, by respondent group

Furthermore, if the Teacher Data Use Survey is given each year, the school or district can

#### Limitations of the survey

begin to establish baselines and trends showing how attitudes and uses change over time.

The Teacher Data Use Survey will give a school or district relevant information about teacher use of data. Still, the survey has several important limitations.

First, surveys in general have limitations. While many respondents will answer honestly and thoughtfully, some may hurry through the survey or answer as they believe the survey planners want them to respond, particularly if the survey is not anonymous. These problems can be minimized through proper communication and survey administration procedures, but they are inherent in all survey research.

Second, some of the items and scales in the survey have been adapted from Wayman, Cho, & Shaw (2009) and thus have been administered in many contexts; others are new to this survey. The only psychometric data available for new items are from the pilot test conducted in a large urban school district. In that pilot administration the items and scales performed as expected, with high reliability. However, the survey must be administered in more contexts before these new items can be considered valid and reliable. The survey scales that fall into this new category are the actions with data scale, the collaborative team actions scale, and the collaborative team trust scale. While many respondents will answer honestly and thoughtfully, some may hurry through the survey or answer as they believe the survey planners want them to respond, particularly if the survey is not anonymous. **These problems** can be minimized through proper communication and survey administration procedures

## Appendix A. Teacher Data Use Survey Teacher Version

Jeffrey C. Wayman Vincent Cho Ellen B. Mandinach Jonathan A. Supovitz Stephanie B. Wilkerson

Prepared for the Institute of Education Sciences (IES) under Contract ED-IES-12-C-0005 by Regional Educational Laboratory Appalachia administered by CNA.

Welcome! The purpose of the Teacher Data Use Survey is to learn about how teachers use data for educational improvement in your district. Administering the Teacher Data Use Survey can provide many benefits to district and school leaders as well as teachers. Among them the Teacher Data Use Survey can yield:

- A comprehensive perspective on how teachers use data, their attitudes toward data, and the supports that help them use data.
- An evidence base from which to plan ongoing support, such as professional development, computer data systems, and collaborative structures for data use.
- A triangulated assessment of how administrator and instructional support staff view teacher data use.

There are three versions of the Teacher Data Use Survey: one for teachers, one for instructional support staff and one for principals and assistant principals.

The Teacher Data Use Survey takes about 15–20 minutes to complete. Please continue to the next page to start the survey.

The following questions ask about various forms of data that you may use in your work.

1. Are the following forms of data <u>available</u> to you?

Form of data	Yes	No
<state data=""></state>		
<periodic data=""></periodic>		
<local data=""></local>		
<personal data=""></personal>		
Other		

If you indicated "no" to all options in question 1, skip to question 10. If you responded "yes" to any option, please proceed to question 2.

2. Teachers use all kinds of information (i.e., data) to help plan for instruction that meets student learning needs. How <u>frequently</u> do you use the following forms of data?

Form of data	Do not use	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
<state data=""></state>					
<periodic data=""></periodic>					
<local data=""></local>					
<personal data=""></personal>					
Other					

- 3. If you marked the "other" option above, please specify the form of data here:
- 4. Now, how <u>useful</u> are the following forms of data to <u>your</u> practice?

		Somewhat		
Form of data	Not useful	useful	Useful	Very useful
<state data=""></state>				
<periodic data=""></periodic>				
<local data=""></local>				
<personal data=""></personal>				
Other				

\_\_\_\_\_

5. If you marked the "other" option above, please specify the form of data here:

If you indicated that <state data> is not available to you in question 1, OR if you indicated that you do not use <state data> in question 2, please go to question 7.

6. These questions ask about <state data>. In a typical <u>school year</u>, how often do you do the following?

Action	One or two times a year	A few times a year	Monthly	Weekly
a. Use <state data=""> to identify instructional content to use in class.</state>				
b. Use <state data=""> to tailor instruction to individual students' needs.</state>				
<ul> <li>c. Use <state data=""> to develop recommendations for additional instructional support.</state></li> </ul>				
<ul> <li>d. Use <state data=""> to form small groups of students for targeted instruction.</state></li> </ul>				
e. Discuss <state data=""> with a parent or guardian.</state>				
f. Discuss <state data=""> with a student.</state>				
g. Meet with a specialist (e.g., instructional coach or data coach) about <state data="">.</state>				
h. Meet with another teacher about <state data="">.</state>				

Items adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

If you indicated that <periodic data> is "not available" to you in question 1, OR if you indicated that you "do not use" <periodic data> in question 2, please go to question 8.

7. These questions ask about <periodic data> used in your school or district. In a typical <u>month</u>, how often do you do the following?

Action	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
a. Use <periodic data=""> to identify instructional content to use in class.</periodic>				
b. Use <periodic data=""> to tailor instruction to individual students' needs.</periodic>				
<ul> <li>c. Use <periodic data=""> to develop recommendations for additional instructional support.</periodic></li> </ul>				
<ul> <li>d. Use <periodic data=""> to form small groups of students for targeted instruction.</periodic></li> </ul>				
e. Discuss <periodic data=""> with a parent or guardian.</periodic>				
f. Discuss <periodic data=""> with a student.</periodic>				
g. Meet with a specialist (e.g., instructional coach or data coach) about <periodic data="">.</periodic>				
h. Meet with another teacher about <periodic data="">.</periodic>				

If you indicated that <local data> is "not available" to you in question 1, OR if you indicated that you "do not use" <local data> in question 2, please go to question 9.

8. These questions ask about <local data> developed and used in your school or district. In a typical <u>month</u>, how often do you do the following?

Action	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
a. Use <local data=""> to identify instructional content to use in class.</local>				
b. Use <local data=""> to tailor instruction to individual students' needs.</local>				
<ul> <li>c. Use <local data=""> to develop recommendations for additional instructional support.</local></li> </ul>				
<ul> <li>d. Use <local data=""> to form small groups of students for targeted instruction.</local></li> </ul>				
e. Discuss <local data=""> with a parent or guardian.</local>				
f. Discuss <local data=""> with a student.</local>				
g. Meet with a specialist (e.g., instructional coach or data coach) about <local data="">.</local>				
h. Meet with another teacher about <local data="">.</local>				

Items adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

If you indicated that <personal data> is "not available" to you in question 1, OR if you indicated that you "do not use" <personal data> in question 2, please go to question 10.

9. These questions ask about <personal data>. In a typical <u>month</u>, how often do you do the following?

Action	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
a. Use <personal data=""> to identify instructional content to use in class.</personal>				
<ul> <li>b. Use <personal data=""> to tailor instruction to individual students' needs.</personal></li> </ul>				
<ul> <li>c. Use <personal data=""> to develop recommendations for additional instructional support.</personal></li> </ul>				
<ul> <li>d. Use <personal data=""> to form small groups of students for targeted instruction.</personal></li> </ul>				
e. Discuss <personal data=""> with a parent or guardian.</personal>				
f. Discuss <personal data=""> with a student.</personal>				
g. Meet with a specialist (e.g., instructional coach or data coach) about <personal data="">.</personal>				
h. Meet with another teacher about <personal data="">.</personal>				

The remainder of this survey asks general questions about the use of data to inform your education practice. For the rest of this survey, please consider only the following when you are asked about "data":

- State achievement tests.
- Periodic assessments.
- Locally developed assessments.
- 10. These questions ask about supports for using data. Please indicate how much you agree or disagree with the following statements:

Strongly disagree	Disagree	Agree	Strongly agree

Items adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

11. These questions ask about <u>your</u> attitudes and opinions regarding data. Please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
a. Data help teachers plan instruction.				
b. Data offer information about students that was not already known.				
c. Data help teachers know what concepts students are learning.				
d. Data help teachers identify learning goals for students.				
e. Students benefit when teacher instruction is informed by data.				
f. I think it is important to use data to inform education practice.				
g. I like to use data.				
h. I find data useful.				
i. Using data helps me be a better teacher.				

12. These questions ask how your principal and assistant principal(s) support you in using data. Principals and assistant principals will not be able to see your answers. Please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
<ul> <li>My principal or assistant principal(s) encourages data use as a tool to support effective teaching.</li> </ul>				
<ul> <li>b. My principal or assistant principal(s) creates many opportunities for teachers to use data.</li> </ul>				
c. My principal or assistant principal(s) has made sure teachers have plenty of training for data use.				
d. My principal or assistant principal(s) is a good example of an effective data user.				
e. My principal or assistant principal(s) discusses data with me.				
f. My principal or assistant principal(s) creates protected time for using data.				

Items adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

13. Your school or district gives you programs, systems, and other technology to help you access and use student data. The following questions ask about these computer systems. Please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
a. I have the proper technology to efficiently examine data.				
b. The computer systems in my district provide me access to lots of data.				
c. The computer systems (for data use) in my district are easy to use.				
d. The computer systems in my district allow me to examine various types of data at once (e.g., attendance, achievement, demographics).				
e. The computer systems in my district generate displays (e.g., reports, graphs, tables) that are useful to me.				

Items a-d adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

## 14. These questions ask about your attitudes toward <u>your own</u> use of data. Please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
a. I am good at using data to diagnose student learning needs.				
b. I am good at adjusting instruction based on data.				
c. I am good at using data to plan lessons.				
d. I am good at using data to set student learning goals.				

The following questions ask about your work in collaborative teams.

- 15. How often do you have scheduled meetings to work in collaborative team(s)? (Check only one.)
  - $\Box$  Less than once a month.
  - $\Box$  Once or twice a month.
  - □ Weekly or almost weekly.
  - $\Box$  A few times a week.
  - □ I do not have scheduled meetings to work in collaborative teams.

If you answered "I do not have scheduled meetings to work in collaborative teams" in question 15, please go to question 18.

16. As you think about your <u>collaborative team(s)</u>, please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
a. Members of my team trust each other.				
b. It's ok to discuss feelings and worries with other members of my team.				
<ul> <li>Members of my team respect colleagues who lead school improvement efforts.</li> </ul>				
d. Members of my team respect those colleagues who are experts in their craft.				
<ul> <li>My principal or assistant principal(s) fosters a trusting environment for discussing data in teams.</li> </ul>				

Items a–d are from University of Chicago Consortium on School Research. (2013). *Teacher Survey Codebook,* Chicago, IL: Author.

## 17. How often do you and your collaborative team(s) do the following?

Never	Sometimes	Often	A lot
		Never         Sometimes	Never         Sometimes         Otten

18. What else would you like to share with us about data use?

# Appendix B. Teacher Data Use Survey Administrator Version

Jeffrey C. Wayman Vincent Cho Ellen B. Mandinach Jonathan A. Supovitz Stephanie B. Wilkerson

Prepared for the Institute of Education Sciences (IES) under Contract ED-IES-12-C-0005 by Regional Educational Laboratory Appalachia administered by CNA.

Welcome! The purpose of the Teacher Data Use Survey is to learn about how teachers use data for educational improvement in your district. Administering the Teacher Data Use Survey can provide many benefits to district and school leaders as well as teachers. Among them the Teacher Data Use Survey can yield:

- A comprehensive perspective on how teachers use data, their attitudes toward data, and the supports that help them use data.
- An evidence base from which to plan ongoing support, such as professional development, computer data systems, and collaborative structures for data use.
- A triangulated assessment of how administrator and instructional support staff view teacher data use.

There are three versions of the Teacher Data Use Survey: one for teachers, one for instructional support staff and one for principals and assistant principals.

The Teacher Data Use Survey takes about 15–20 minutes to complete. Please continue to the next page to start the survey.

The following questions ask about various forms of data that teachers may use in their work.

1. Are the following forms of data <u>available</u> to your teachers?

Form of data	Yes	No
<state data=""></state>		
<periodic data=""></periodic>		
<local data=""></local>		
<personal data=""></personal>		
Other		

If you indicated "no" to all options in question 1, skip to question 10. If you responded "yes" to any option, please proceed to question 2.

2. Teachers use all kinds of information (i.e., data) to help plan for instruction that meets student learning needs. How <u>frequently</u> do your teachers use the following forms of data?

Form of data	Do not use	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
<state data=""></state>					
<periodic data=""></periodic>					
<local data=""></local>					
<personal data=""></personal>					
Other					

3. If you marked the "other" option above, please specify the form of data here:

4. Now, how <u>useful</u> are the following forms of data to <u>teachers'</u> practice?

		Somewhat		
Form of data	Not useful	useful	Useful	Very useful
<state data=""></state>				
<periodic data=""></periodic>				
<local data=""></local>				
<personal data=""></personal>				
Other				

5. If you marked the "other" option above, please specify the form of data here:

If you indicated that <state data> is "not available" to your teachers in question 1, OR if you indicated that your teachers "do not use" <state data> in question 2, please go to question 7.

6. These questions ask about <state data>. In a typical <u>school year</u>, how often do your teachers do the following?

Action	One or two times a year	A few times a year	Monthly	Weekly
a. Use <state data=""> to identify instructional content to use in class.</state>				
b. Use <state data=""> to tailor instruction to individual students' needs.</state>				
<ul> <li>c. Use <state data=""> to develop recommendations for additional instructional support.</state></li> </ul>				
d. Use <state data=""> to form small groups of students for targeted instruction.</state>				
e. Discuss <state data=""> with a parent or guardian.</state>				
f. Discuss <state data=""> with a student.</state>				
g. Meet with a specialist (e.g., instructional coach or data coach) about <state data="">.</state>				
h. Meet with another teacher about <state data="">.</state>				

Items adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

If you indicated that <periodic data> is "not available" to your teachers in question 1, OR if you indicated that your teachers "do not use" <periodic data> in question 2, please go to question 8.

7. These questions ask about <periodic data> used in your school or district. In a typical <u>month</u>, how often do your teachers do the following?

Action	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
a. Use <periodic data=""> to identify instructional content to use in class.</periodic>				
b. Use <periodic data=""> to tailor instruction to individual students' needs.</periodic>				
<ul> <li>c. Use <periodic data=""> to develop recommendations for additional instructional support.</periodic></li> </ul>				
<ul> <li>d. Use <periodic data=""> to form small groups of students for targeted instruction.</periodic></li> </ul>				
e. Discuss <periodic data=""> with a parent or guardian.</periodic>				
f. Discuss <periodic data=""> with a student.</periodic>				
g. Meet with a specialist (e.g., instructional coach or data coach) about <periodic data="">.</periodic>				
h. Meet with another teacher about <periodic data="">.</periodic>				

If you indicated that <local data> is "not available" to your teachers in question 1, OR if you indicated that your teachers "do not use" <local data> in question 2, please go to question 9.

8. These questions ask about <local data> developed and used in your school or district. In a typical <u>month</u>, how often do your teachers do the following?

Action	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
a. Use <local data=""> to identify instructional content to use in class.</local>				
b. Use <local data=""> to tailor instruction to individual students' needs.</local>				
<ul> <li>c. Use <local data=""> to develop recommendations for additional instructional support.</local></li> </ul>				
<ul> <li>d. Use <local data=""> to form small groups of students for targeted instruction.</local></li> </ul>				
e. Discuss <local data=""> with a parent or guardian.</local>				
f. Discuss <local data=""> with a student.</local>				
g. Meet with a specialist (e.g., instructional coach or data coach) about <local data="">.</local>				
h. Meet with another teacher about <local data="">.</local>				

Items adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

If you indicated that <personal data> is "not available" to your teachers in question 1, OR if you indicated that your teachers "do not use" <personal data> in question 2, please go to question 10.

9. These questions ask about <personal data>. In a typical <u>month</u>, how often do your teachers do the following?

Action	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
a. Use <personal data=""> to identify instructional content to use in class.</personal>				
b. Use <personal data=""> to tailor instruction to individual students' needs.</personal>				
<ul> <li>c. Use <personal data=""> to develop recommendations for additional instructional support.</personal></li> </ul>				
<ul> <li>d. Use <personal data=""> to form small groups of students for targeted instruction.</personal></li> </ul>				
e. Discuss <personal data=""> with a parent or guardian.</personal>				
f. Discuss <personal data=""> with a student.</personal>				
g. Meet with a specialist (e.g., instructional coach or data coach) about <personal data="">.</personal>				
h. Meet with another teacher about <personal data="">.</personal>				

The remainder of this survey asks general questions about the use of data to inform your education practice. For the rest of this survey, please consider only the following when you are asked about "data":

- State achievement tests.
- Periodic assessments.
- Locally developed assessments.
- 10. These questions ask about supports for using data. Please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
a. My teachers are adequately supported in the effective use of data.				
b. My teachers are adequately prepared to use data.				
c. There is someone who answers my teachers' questions about using data.				
d. There is someone who helps my teachers change their practice (e.g., their teaching) based on data.				
e. My district provides my teachers enough professional development about data use.				
f. My district's professional development for my teachers is useful for learning about data use.				

Items adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

# 11. These questions ask about <u>your</u> attitudes and opinions regarding data. Please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
a. Data help teachers plan instruction.				
b. Data offer information about students that was not already known.				
c. Data help teachers know what concepts students are learning.				
d. Data help teachers identify learning goals for students.				
e. Students benefit when teacher instruction is informed by data.				
f. I think it is important to use data to inform education practice.				
g. I like to use data.				
h. I find data useful.				
i. Using data helps me be a better educator.				

12. These questions ask about teacher supports for using data. Please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
a. I encourage data use as a tool to support effective teaching.				
b. I create many opportunities for teachers to use data.				
c. I have made sure teachers have plenty of training for data use.				
d. I am a good example of an effective data user.				
e. I discuss data with my teachers.				
f. I create protected time for using data.				

Items adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

13. Your school or district gives you programs, systems, and other technology to help you access and use student data. The following questions ask about these computer systems. Please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
a. I have the proper technology to efficiently examine data.				
b. The computer systems in my district provide me access to lots of data.				
c. The computer systems (for data use) in my district are easy to use.				
d. The computer systems in my district allow me to examine various types of data at once (e.g., attendance, achievement, demographics).				
e. The computer systems in my district generate displays (e.g., reports, graphs, tables) that are useful to me.				

Items a-d adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

# 14. These questions ask about your attitudes toward <u>your teachers'</u> use of data. Please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
<ul> <li>My teachers are good at using data to diagnose student learning needs.</li> </ul>				
b. My teachers are good at adjusting instruction based on data.				
c. My teachers are good at using data to plan lessons.				
d. My teachers are good at using data to set student learning goals.				

The following questions ask about your work in collaborative teams.

- 15. How often do you participate in scheduled meetings to work in collaborative team(s) with your teachers? (Check only one.)
  - $\Box$  Less than once a month.
  - $\Box$  Once or twice a month.
  - □ Weekly or almost weekly.
  - $\Box$  A few times a week.
  - □ I do not participate in scheduled meetings to work in collaborative teams.

If you answered "I do not participate in scheduled meetings to work in collaborative teams" in question 15, please go to question 18.

16. As you think about your <u>collaborative team(s)</u>, please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
a. Members of my team trust each other.				
b. It's ok to discuss feelings and worries with other members of my team.				
<ul> <li>Members of my team respect colleagues who lead school improvement efforts.</li> </ul>				
d. Members of my team respect those colleagues who are experts in their craft.				
e. As an administrator, I foster a trusting environment for discussing data in teams.				

Items a–d are from University of Chicago Consortium on School Research. (2013). *Teacher Survey Codebook,* Chicago, IL: Author.

# 17. How often do collaborative team(s) in your school do the following?

Action	Never	Sometimes	Often	A lot
a. We approach an issue by looking at data.				
b. We discuss our preconceived beliefs about an issue.				
c. We identify questions that we will seek to answer using data.				
d. We explore data by looking for patterns and trends.				
e. We draw conclusions based on data.				
f. We identify additional data to offer a clearer picture of the issue.				
g. We use data to make links between instruction and student outcomes.				
h. When we consider changes in practice, we predict possible student				
outcomes.				
i. We revisit predictions made in previous meetings.				
j. We identify actionable solutions based on our conclusions.				

18. What else would you like to share with us about data use?

# Appendix C. Teacher Data Use Survey Instructional Support Staff Version

Jeffrey C. Wayman Vincent Cho Ellen B. Mandinach Jonathan A. Supovitz Stephanie B. Wilkerson

Prepared for the Institute of Education Sciences (IES) under Contract ED-IES-12-C-0005 by Regional Educational Laboratory Appalachia administered by CNA.

Welcome! The purpose of the Teacher Data Use Survey is to learn about how teachers use data for educational improvement in your district. Administering the Teacher Data Use Survey can provide many benefits to district and school leaders as well as teachers. Among them the Teacher Data Use Survey can yield:

- A comprehensive perspective on how teachers use data, their attitudes toward data, and the supports that help them use data.
- An evidence base from which to plan ongoing support, such as professional development, computer data systems, and collaborative structures for data use.
- A triangulated assessment of how administrator and instructional support staff view teacher data use.

There are three versions of the Teacher Data Use Survey: one for teachers, one for instructional support staff and one for principals and assistant principals.

The Teacher Data Use Survey takes about 15–20 minutes to complete. Please continue to the next page to start the survey.

The following questions ask about various forms of data that teachers may use in their work.

1. Are the following forms of data <u>available</u> to the teachers you support?

Form of data	Yes	No
<state data=""></state>		
<periodic data=""></periodic>		
<local data=""></local>		
<personal data=""></personal>		
Other		

If you indicated "no" to all options in question 1, skip to question 10. If you responded "yes" to any option, please proceed to question 2.

2. Teachers use all kinds of information (i.e., data) to help plan for instruction that meets student learning needs. How <u>frequently</u> do the teachers you support use the following forms of data?

Form of data	Do not use	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
<state data=""></state>					
<periodic data=""></periodic>					
<local data=""></local>					
<personal data=""></personal>					
Other					

3. If you marked the "other" option above, please specify the form of data here:

4. Now, how <u>useful</u> are the following forms of data to <u>teachers'</u> practice?

		Somewhat		
Form of data	Not useful	useful	Useful	Very useful
<state data=""></state>				
<periodic data=""></periodic>				
<local data=""></local>				
<personal data=""></personal>				
Other				

5. If you marked the "other" option above, please specify the form of data here:

If you indicated that <state data> is "not available" to your teachers in question 1, OR if you indicated that your teachers "do not use" <state data> in question 2, please go to question 7.

6. These questions ask about <state data>. In a typical <u>school year</u>, how often do the teachers you support do the following?

Action	One or two times a year	A few times a year	Monthly	Weekly
a. Use <state data=""> to identify instructional content to use in class.</state>				
b. Use <state data=""> to tailor instruction to individual students' needs.</state>				
<ul> <li>c. Use <state data=""> to develop recommendations for additional instructional support.</state></li> </ul>				
<ul> <li>d. Use <state data=""> to form small groups of students for targeted instruction.</state></li> </ul>				
e. Discuss <state data=""> with a parent or guardian.</state>				
f. Discuss <state data=""> with a student.</state>				
g. Meet with a specialist (e.g., instructional coach or data coach) about <state data="">.</state>				
h. Meet with another teacher about <state data="">.</state>				

Items adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

If you indicated that <periodic data> is "not available" to your teachers in question 1, OR if you indicated that your teachers "do not use" <periodic data> in question 2, please go to question 8.

7. These questions ask about <periodic data> used in your school or district. In a typical <u>month</u>, how often do the teachers you support do the following?

Action	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
a. Use <periodic data=""> to identify instructional content to use in class.</periodic>				
b. Use <periodic data=""> to tailor instruction to individual students' needs.</periodic>				
<ul> <li>c. Use <periodic data=""> to develop recommendations for additional instructional support.</periodic></li> </ul>				
<ul> <li>d. Use <periodic data=""> to form small groups of students for targeted instruction.</periodic></li> </ul>				
e. Discuss <periodic data=""> with a parent or guardian.</periodic>				
f. Discuss <periodic data=""> with a student.</periodic>				
g. Meet with a specialist (e.g., instructional coach or data coach) about <periodic data="">.</periodic>				
h. Meet with another teacher about <periodic data="">.</periodic>				

If you indicated that <local data> is "not available" to your teachers in question 1, OR if you indicated that your teachers "do not use" <local data> in question 2, please go to question 9.

8. These questions ask about <local data> developed and used in your school or district. In a typical <u>month</u>, how often do the teachers you support do the following?

Action	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
a. Use <local data=""> to identify instructional content to use in class.</local>				
b. Use <local data=""> to tailor instruction to individual students' needs.</local>				
<ul> <li>c. Use <local data=""> to develop recommendations for additional instructional support.</local></li> </ul>				
<ul> <li>d. Use <local data=""> to form small groups of students for targeted instruction.</local></li> </ul>				
e. Discuss <local data=""> with a parent or guardian.</local>				
f. Discuss <local data=""> with a student.</local>				
g. Meet with a specialist (e.g., instructional coach or data coach) about <local data="">.</local>				
h. Meet with another teacher about <local data="">.</local>				

Items adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

If you indicated that <personal data> is "not available" to your teachers in question 1, OR if you indicated that your teachers "do not use" <personal data> in question 2, please go to question 10.

9. These questions ask about <personal data>. In a typical <u>month</u>, how often do the teachers you support do the following?

Action	Less than once a month	Once or twice a month	Weekly or almost weekly	A few times a week
a. Use <personal data=""> to identify instructional content to use in class.</personal>				
b. Use <personal data=""> to tailor instruction to individual students' needs.</personal>				
<ul> <li>c. Use <personal data=""> to develop recommendations for additional instructional support.</personal></li> </ul>				
<ul> <li>d. Use <personal data=""> to form small groups of students for targeted instruction.</personal></li> </ul>				
e. Discuss <personal data=""> with a parent or guardian.</personal>				
f. Discuss <personal data=""> with a student.</personal>				
g. Meet with a specialist (e.g., instructional coach or data coach) about <personal data="">.</personal>				
h. Meet with another teacher about <personal data="">.</personal>				

The remainder of this survey asks general questions about the use of data to inform your education practice. For the rest of this survey, please consider only the following when you are asked about "data":

- State achievement tests.
- Periodic assessments.
- Locally developed assessments.
- 10. These questions ask about supports for using data. Please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
a. My teachers are adequately supported in the effective use of data.				
b. My teachers are adequately prepared to use data.				
c. There is someone who answers my teachers' questions about using data.				
d. There is someone who helps my teachers change their practice (e.g., their teaching) based on data.				
e. My district provides my teachers enough professional development about data use.				
f. My district's professional development for my teachers is useful for learning about data use.				

Items adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

# 11. These questions ask about <u>your</u> attitudes and opinions regarding data. Please indicate how much you agree or disagree with the following statements:

Strongly disagree	Disagree	Agree	Strongly agree

12. These questions ask how your principal and assistant principal(s) support your teachers in using data. Principals and assistant principals will not be able to see your answers. Please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
<ul> <li>My principal or assistant principal(s) encourages data use as a tool to support effective teaching.</li> </ul>				
b. My principal or assistant principal(s) creates many opportunities for teachers to use data.				
c. My principal or assistant principal(s) has made sure teachers have plenty of training for data use.				
d. My principal or assistant principal(s) is a good example of an effective data user.				
e. My principal or assistant principal(s) discusses data with my teachers.				
f. My principal or assistant principal(s) creates protected time for using data.				

Items adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

13. Your school or district gives you programs, systems, and other technology to help you access and use student data. The following questions ask about these computer systems. Please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
a. I have the proper technology to efficiently examine data.				
<ul> <li>b. The computer systems in my district provide me access to lots of data.</li> </ul>				
c. The computer systems (for data use) in my district are easy to use.				
d. The computer systems in my district allow me to examine various types of data at once (e.g., attendance, achievement, demographics).				
e. The computer systems in my district generate displays (e.g., reports, graphs, tables) that are useful to me.				

Items a-d adapted from Wayman, J. C., Cho, V., & Shaw, S. (2009). Survey of Educator Data Use. Unpublished instrument.

# 14. These questions ask about your attitudes toward <u>your teachers'</u> use of data. Please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
<ul> <li>My teachers are good at using data to diagnose student learning needs.</li> </ul>				
b. My teachers are good at adjusting instruction based on data.				
c. My teachers are good at using data to plan lessons.				
d. My teachers are good at using data to set student learning goals.				

The following questions ask about your work in collaborative teams.

- 15. How often do you have scheduled meetings to work in collaborative team(s) with your teachers? (Check one only).
  - □ Less than once a month.
  - $\Box$  Once or twice a month.
  - □ Weekly or almost weekly.
  - $\Box$  A few times a week.
  - □ I do not have scheduled meetings to work in collaborative teams.

If you answered "I do not have scheduled meetings to work in collaborative teams" in question 15, please go to question 18.

16. As you think about your <u>collaborative team(s)</u>, please indicate how much you agree or disagree with the following statements:

Statement	Strongly disagree	Disagree	Agree	Strongly agree
a. Members of my team trust each other.				
b. It's ok to discuss feelings and worries with other members of my team.				
<ul> <li>Members of my team respect colleagues who lead school improvement efforts.</li> </ul>				
d. Members of my team respect those colleagues who are experts in their craft.				
e. My principal or assistant principal(s) fosters a trusting environment for discussing data in teams				

Items a–d are from University of Chicago Consortium on School Research. (2013). *Teacher Survey Codebook,* Chicago, IL: Author.

### 17. How often do you and your collaborative team(s) do the following?

Action	Never	Sometimes	Often	A lot
a. We approach an issue by looking at data.				
b. We discuss our preconceived beliefs about an issue.				
c. We identify questions that we will seek to answer using data.				
d. We explore data by looking for patterns and trends.				
e. We draw conclusions based on data.				
f. We identify additional data to offer a clearer picture of the issue.				
g. We use data to make links between instruction and student outcomes.				
h. When we consider changes in practice, we predict possible student				
outcomes.				
i. We revisit predictions made in previous meetings.				
j. We identify actionable solutions based on our conclusions.				

18. What else would you like to share with us about data use?

# Appendix D. Survey scales, questions, and items

This appendix lists Teacher Data Use Survey items by scale. Because introductory questions 1–5 do not form a scale, they are excluded.

### Table D1. Teacher Data Use Survey scales

Scale/ question <sup>a</sup>	Description	Items
Conceptual frame	ework: Actions	
Actions with data (questions 6–9)	Actions	a. Use <specific data="" form="" of=""> to identify instructional content to use in class?</specific>
	teachers take	b. Use <specific data="" form="" of=""> to tailor instruction to individual students' needs?</specific>
	with data for	c. Use <specific data="" form="" of=""> to develop recommendations for additional instructional support?</specific>
	state, periodic, local, and personal forms of data specific to the local context	d. Use <specific data="" form="" of=""> to form small groups of students for targeted instruction?</specific>
		e. Discuss <specific data="" form="" of=""> with a parent or guardian?</specific>
		f. Discuss <specific data="" form="" of=""> with a student?</specific>
		g. Meet with a specialist (e.g., instructional coach or data coach) about <specific data="" form="" of="">?</specific>
		h. Meet with another teacher about <specific data="" form="" of="">?</specific>
Collaborative team actions (question 17)	Actions data teams take with data as part of a collaborative inquiry cycle	a. We approach an issue by looking at data.
		b. We discuss our preconceived beliefs about an issue.
		c. We identify questions that we will seek to answer using data.
		d. We explore data by looking for patterns and trends.
		e. We draw conclusions based on data.
		f. We identify additional data to offer a clearer picture of the issue.
		g. We use data to make links between instruction and student outcomes.
		h. When we consider changes in practice, we predict possible student outcomes.
		i. We revisit predictions made in previous meetings.
		j. We identify actionable solutions based on our conclusions.
Conceptual frame	ework: Competence	e in using data
Data	Perceptions about how good teachers are at using data to inform various aspects of their practice	a. I am good at using data to diagnose student learning needs.
competence		b. I am good at adjusting instruction based on data.
(question 14)		c. I am good at using data to plan lessons.
		d. I am good at using data to set student learning goals.
Conceptual frame	ework: Attitudes to	ward data
Data's	Perceptions of the value of data for everyday pedagogy	a. Data help educators plan instruction.
effectiveness		b. Data offer information about students that was not already known.
for pedagogy		c. Data help educators know what concepts students are learning.
(question 11)		d. Data help educators identify learning goals for students.
		e. Students benefit when teacher instruction is informed by data.
Attitudes toward data	Attitudes and opinions regarding data	f. I think it is important to use data to inform education practice.
		g. I like to use data.
(question 11)		h. I find data useful.
		i. Using data helps me be a better [teacher/educator].

(continued)

### Table D1. Teacher Data Use Survey scales (continued)

Scale/ question <sup>a</sup>	Description	Items
Conceptual fram	ework: Collaboratio	on
Collaborative team trust (question 16)	Beliefs about	a. Members of my team trust each other.
	trust while working in teams	b. It's ok to discuss feelings and worries with other members of my team.
		c. Members of my team respect colleagues who lead school improvement efforts.
		d. Members of my team respect those colleagues who are experts in their craft.
		e. My principal or assistant principal(s) fosters a trusting environment for discussing data in teams.
Conceptual fram	ework: Organizatio	nal supports
Organizational supports (question 10)	School-level support for teachers using data	a. I am adequately supported in the effective use of data.
		b. I am adequately prepared to use data.
		c. There is someone who answers my questions about using data.
		d. There is someone who helps me change my practice (e.g., my teaching) based on data.
		e. My district provides enough professional development about data use.
		f. My district's professional development is useful for learning about data use.
Principal leadership	School-level support for teachers using data	<ul> <li>a. My principal or assistant principal(s) encourages data use as a tool to support effective teaching.</li> </ul>
(question 12)		b. My principal or assistant principal(s) creates many opportunities for the faculty to use data.
		c. My principal or assistant principal(s) has made sure the faculty has plenty of training for data use.
		d. My principal or assistant principal(s) is a good example of an effective data user.
		e. My principal or assistant principal(s) discusses data with me.
		f. My principal or assistant principal(s) creates protected time for using data.
Computer data	School-level support for using data	a. I have the proper technology to efficiently examine data.
systems (question 13)		b. The computer systems in my district provide me access to lots of data.
		c. The computer systems (for data use) in my district are easy to use.
		d. The computer systems in my district allow me to examine various types of data at once (e.g., attendance, achievement, demographics).
		e. The computer systems in my district generate displays (e.g., reports, graphs, tables) that are useful to me.

Note: Questions 1–5 are excluded because they do not form a scale.

Source: Authors' compilation.

## **Appendix E. Survey emails**

Following are some examples of emails that can be sent out to introduce the survey and later remind participants. These examples are alterable. They can also form the basis of a paper introduction letter if needed. Remember also that if the survey is to be used for research purposes, it will be necessary to include appropriate statements about review board approval.

#### Teacher version: initial email

Hello,

Our district is looking to improve how we use student data to inform our practice. As part of this effort, we invite you to complete a survey of how teachers use student data. We will use the results of this survey to learn more about how data are used throughout our district, and ultimately, to make it easier for teachers to use data.

We want to stress that your responses will be kept completely confidential and will not be tracked or attributed to you. Results from this survey will be reported in aggregate, not individually.

This survey will give us a full picture of how teachers use data. This information will inform our work toward [include goals or aims specific to the school or district here]. All teachers, building administrators, and instructional support staff are being asked to complete this survey [or, if a school or district is sampling, note how the participant was chosen]. This survey will be open until [provide closing date here].

[If there are any incentives for participation, state them here.]

It is important that you take this survey, so please take a moment to click the link below to take the survey. The survey takes about 15 minutes to complete.

Survey link: [insert web link when available]

Thank you for your time and participation in this survey.

#### Teacher version: reminder email

Hello,

Recently, we sent you an email inviting you to participate in a survey about how teachers use student data. If you have already completed the survey, please ignore this email. If you have not completed the survey, could you please take a moment right now to complete it?

Our district is looking to improve how we use student data to inform our practice. We will use the results of this survey to learn more about how data are used throughout our district and, ultimately, to make it easier for teachers to use data. We want to stress that your responses will be kept completely confidential and will not be tracked or attributed to you. Results from this survey will be reported in aggregate, not individually.

This survey will give us a full picture of how teachers use data. This information will inform our work toward [include goals or aims specific to the school or district here]. All teachers, building administrators, and instructional support staff are being asked to complete this survey [or, if a school or district is sampling, note how the participant was chosen]. This survey will be open until [provide closing date here].

[If there are any incentives for participation, state them here.]

It is important that you take this survey, so please take a moment to click the link below to take the survey. The survey takes about 15 minutes to complete.

Survey link: [insert web link when available]

Thank you for your time and participation in this survey.

### Administrator version: initial email

Hello,

Our district is looking to improve how we use student data to inform our practice. As part of this effort, we invite you to complete a survey of how teachers use student data. We will use the results of this survey to learn more about how data are used throughout our district, and ultimately, to make it easier for teachers to use data. As an administrator, you work closely with teachers, so your opinions about teacher data use are important.

We want to stress that your responses will be kept completely confidential and will not be tracked or attributed to you. Results from this survey will be reported in aggregate, not individually.

This survey will give us a full picture of how teachers use data. This information will inform our work toward [include goals or aims specific to the school or district here]. All teachers, building administrators, and instructional support staff are being asked to complete this survey [or, if a school or district is sampling, note how the participant was chosen]. This survey will be open until [provide closing date here].

[If there are any incentives for participation, state them here.]

It is important that you take this survey, so please take a moment to click the link below to take the survey. The survey takes about 15 minutes to complete.

Survey link: [insert web link when available]

Thank you for your time and participation in this survey.

#### Administrator version: reminder email

Hello,

Recently, we sent you an email inviting you to participate in a survey about how teachers use student data. If you have already completed the survey, please ignore this email. If you have not completed the survey, could you please take a moment right now to complete it?

Our district is looking to improve how we use student data to inform our practice. We will use the results of this survey to learn more about how data are used throughout our district, and ultimately, to make it easier for teachers to use data. As an administrator, you work closely with teachers, so your opinions about teacher data use are important.

We want to stress that your responses will be kept completely confidential and will not be tracked or attributed to you. Results from this survey will be reported in aggregate, not individually.

This survey will give us a full picture of how teachers use data. This information will inform our work toward [include goals or aims specific to the school or district here]. All teachers, building administrators, and instructional support staff are being asked to complete this survey [or, if a school or district is sampling, note how the participant was chosen]. This survey will be open until [provide closing date here].

[If there are any incentives for participation, state them here.]

It is important that you take this survey, so please take a moment to click the link below to take the survey. The survey takes about 15 minutes to complete.

Survey link: [insert web link when available]

Thank you for your time and participation in this survey.

### Instructional support staff version: initial email

Hello,

Our district is looking to improve how we use student data to inform our practice. As part of this effort, we invite you to complete a survey of how teachers use student data. We will use the results of this survey to learn more about how data are used throughout our district, and ultimately, to make it easier for teachers to use data. You work closely with teachers, so your opinions about teacher data use are important.

We want to stress that your responses will be kept completely confidential and will not be tracked or attributed to you. Results from this survey will be reported in aggregate, not individually.

This survey will give us a full picture of how teachers use data. This information will inform our work toward [include goals or aims specific to the school or district here]. All teachers, building administrators, and instructional support staff are being asked to complete this survey [or, if a school or district is sampling, note how the participant was chosen]. This survey will be open until [provide closing date here].

[If there are any incentives for participation, state them here.]

It is important that you take this survey, so please take a moment to click the link below to take the survey. The survey takes about 15 minutes to complete.

Survey link: [insert web link when available]

Thank you for your time and participation in this survey.

Instructional support staff version: reminder email

Hello,

Recently, we sent you an email inviting you to participate in a survey about how teachers use student data. If you have already completed the survey, please ignore this email. If you have not completed the survey, could you please take a moment right now to complete it?

Our district is looking to improve how we use student data to inform our practice. We will use the results of this survey to learn more about how data are used throughout our district, and ultimately, to make it easier for teachers to use data. You work closely with teachers, so your opinions about teacher data use are important.

We want to stress that your responses will be kept completely confidential and will not be tracked or attributed to you. Results from this survey will be reported in aggregate, not individually.

This survey will give us a full picture of how teachers use data. This information will inform our work toward [include goals or aims specific to the school or district here]. All teachers, building administrators, and instructional support staff are being asked to complete this survey [or, if a school or district is sampling, note how the participant was chosen]. This survey will be open until [provide closing date here].

[If there are any incentives for participation, state them here.]

It is important that you take this survey, so please take a moment to click the link below to take the survey. The survey takes about 15 minutes to complete.

Survey link: [insert web link when available]

Thank you for your time and participation in this survey.

# Note

1. The pilot study, which was not publicly reported, was performed in an urban district serving approximately 81,000 students of whom 47 percent were Black, 33 percent were White, 16 percent were Hispanic, 4 percent were Asian, and 1 percent were "other ethnicity." Content validity of the various scales was assured through the use of content experts, cognitive interviews in constructing the scales, and the use of scales borrowed from a similar, unpublished instrument (Wayman et al., 2009). Respondents to pilot administration of the survey included 47 teachers, 19 administrators, and 17 instructional support staff. All alpha reliabilities were greater than .80; most were greater than .90. Item-total correlations were greater than .70 for nearly every scale.

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