

U.S. Technical Report and User Guide for the 2018 Teaching and Learning International Survey (TALIS)

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U.S. Technical Report and User Guide for the 2018 Teaching and Learning International Survey (TALIS)

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1. Overview of TALIS 2018

1.1 Introduction

The Teaching and Learning International Survey (TALIS) is an international survey of lower secondary education teachers and principals coordinated by the Organization for Economic Cooperation and Development (OECD). The study is a collaborative effort of the OECD and participating countries. Representatives of each country form the TALIS Board of Participating Countries, which sets policies and standards for the administration, analysis, and reporting of TALIS. Each country administers TALIS according to the guidelines set by the TALIS Board of Participating Countries. In the United States, TALIS 2018 was conducted by the National Center for Education Statistics (NCES) of the Institute of Education Sciences (IES), U.S. Department of Education.

TALIS provides useful policy information on teachers and schools to participating countries. TALIS was first administered in 2008 and then in 2013 and 2018. The United States first participated in the 2013 cycle, along with 37 other education systems. The most recent round of data collection was in 2018, with 49 education systems participating.

1.2 What TALIS Measures

The OECD launched the Indicators of Education Systems (INES) project to help create a system of education indicators for cross-national comparisons for the use of policymakers, consumers, and private industry. INES achieves its purpose by collecting and analyzing a set of key indicators for international comparison; providing an international forum for the exchange of methods and practices of developing and using education indicators for national policymakers; and contributing to evaluation methodology and developing more valid, reliable, and comprehensive indicators for use in policymaking. TALIS, as part of INES, has been designed to increase the international information available to OECD countries and a set of partner countries on teachers and the conditions under which they work. The overall objective of TALIS is to provide international indicators and policy-relevant analysis on teachers and their workplaces in order to help countries develop and review policies that create the conditions for improved learning and spur further investigation into differences within and between countries.

The survey is designed to measure several policy-based themes identified in the conceptual framework (Ainley and Carstens 2018).

TALIS 2018 identified nine central themes, and two cross-cutting themes, motivated primarily by the collective policy interests of participating countries and secondarily by current theory and research, as follows:

1. Teachers' instructional practices: This includes beliefs about teaching, classroom climate in target class, pedagogical practices in target class, classroom management in target class, individualized/differentiated teaching (including gifted students) in target class, teachers' views regarding barriers to implementing a variety of practices, classroom composition and class size in target class, and lesson time distribution in target class.
2. School leadership: This includes the role and function of the school leader (administrative and pedagogical leadership); distributed leadership (team leadership in the school); qualifications and experience of school leaders; principal's job satisfaction; perception of school leadership (teacher responses); principal workload; principal working hours; principal autonomy in key areas (hiring and dismissing teachers, career ladders, pay, etc.); and training and development of school leaders, principal self-efficacy.
3. Teachers' professional practices: This includes collaboration among staff in school, teachers' participation in decision making at the school, role, profile, and participation in wider professional community, and teacher mobility across and within countries.
4. Teacher education and initial preparation: This includes characteristics of initial teacher education and training: content (e.g., pedagogy, subject matter, practice, teaching students with special needs); length, providers; and perceived effectiveness of training.
5. Teacher feedback and development: This includes support for in-service education and training; barriers for further engagement in in-service education and training; types of in-service education and training, including collaborative forms of professional development (PD); types of formal forms of PD; content of formal forms of PD (new teaching practices and emerging innovations); types of informal forms of PD (including teacher-initiated networks, online learning); and content of informal forms of PD (new teaching practices and emerging innovations).
6. School climate: This includes student-teacher relations (including supportive environment for learning); parental and community relations/participation with the school; disciplinary climate (including tolerant climate); teachers' beliefs about how student-teacher relations can be improved; factors hindering instruction; teachers' readiness for and openness to diversity; and school ethos (e.g., goal driven, high aspirations, community engagement).
7. Job satisfaction: This includes overall job satisfaction (with school and with profession), teacher perception of the value of the profession, teacher perceptions of national and local education policies, satisfaction with salary and working conditions, and teacher opinions about priorities for education policies and reform.
8. Teacher human resource issues and stakeholder relations: This includes school policies that recognize, reward, and evaluate teachers; career ladder and prospects of teachers; perceptions of the impact of policies that recognize, reward, and evaluate teachers; recognition for being innovative in pedagogical practices; and interventions to address underperformance.

9. Teacher self-efficacy: This includes teacher self-assessment of general pedagogical knowledge (instructional processes, student learning, formative assessment); teacher self-efficacy in general; and teacher self-assessment of non-cognitive skills/patience/motivation.

Innovation was seen as a cross-cutting issue closely related to teachers' instructional practices and also school climate. It became the tenth theme and included:

- teachers' openness to adopting innovative practices,
- types of innovation in school in past year,
- types of innovation in the target classroom in the current or past school year,
- perceptions regarding the barriers and incentives for the adoption of innovation, and
- evaluation and dissemination of innovative practices in the school.

Finally, equity and diversity were originally considered to be encapsulated in the substance of each of the nine themes but consultation with TALIS participants and policy stakeholders led to this theme emerging as a theme of high contemporary importance.

1.3 TALIS 2018 Administration

TALIS 2018 was implemented internationally by the TALIS International Consortium, led by the International Association for the Evaluation of Educational Achievement (IEA), with its premises in Amsterdam, the Netherlands, and Hamburg, Germany, was responsible for implementing the survey at the international level on behalf of the OECD Secretariat. The IEA's partners were Statistics Canada, based in Ottawa, Canada, and the Australian Council for Educational Research (ACER) based in Melbourne, Australia. Technical standards and a series of manuals provided standardized procedures for all countries to follow. In 2018, a total of 49 education systems participated in TALIS.

NCES is responsible for the U.S. implementation of TALIS. TALIS 2018 data collection and associated tasks were carried out through a contract with Westat, a private research firm. Westat was responsible for coordinating the project, preparing recruitment materials, and adapting international instruments. Westat was also responsible for school and teacher sampling, recruitment of schools and teachers, and data collection, analysis, and reporting. The key personnel involved in data collection included a school coordinator (a school staff member designated by the principal), and a TALIS administrator (a Westat employee). A field manager and a survey operations director (also Westat employees) oversaw data collection activities. Data collection occurred from March 1, 2018 through May 31, 2018, and the

[Volume 1 U.S. report](#) and [Volume 2 U.S. report](#) were released on June 19, 2019 and March 23, 2020, respectively.

The data for TALIS 2018 is provided in two independent datasets: a school dataset containing survey data collected from principals and school-level weights; and a teacher dataset that contains teacher survey data and teacher-level weights. For the United States, the school dataset has 164 schools, while the teacher dataset has 2,560 U.S. teachers from 165 schools.

1.4 Organization of This Document

This technical report and user guide is designed to provide researchers with an overview of the design and implementation of TALIS 2018, as well as with information on how to access the TALIS 2018 data. This information is meant to supplement that presented in OECD publications, in particular OECD *TALIS 2018 Technical Report* and OECD *TALIS 2018 User Guide*, by describing those aspects of TALIS 2018 that are unique to the United States (OECD 2019a; OECD 2019b). Chapter 2 provides information about sampling requirements and sampling in the United States. Chapter 3 describes the recruitment of schools and teachers to participate in the survey. Chapter 4 provides information on instrument development, and Chapter 5 describes field operations used for collecting data. Chapter 6 provides information about the school and teacher response rates. Chapter 7 describes international activities related to data processing and weighting. Chapter 8 describes the data available from both international and U.S. sources, and Chapter 9 discusses some special issues in analyzing the TALIS 2018 data.

2. Sampling

According to the Indicators of Education Systems (INES) data collection concept, “the formal definition of a classroom teacher is a person whose professional activity involves the planning, organizing, and conduction of group activities whereby students’ knowledge, skills, and attitudes develop as stipulated by educational programs. In short, it is one whose main activity is teaching.” An International Standard Classification of Education (ISCED) Level 2 teacher is one who, as part of his or her regular duties in school, provides instruction in programs at ISCED Level 2. In the United States, ISCED Level 2 teachers are those who provide any instruction for grades 7, 8, and/or 9. Teachers who taught a mixture of programs at different levels including ISCED Level 2 programs in the target school were included in the TALIS universe, as well as teachers who engaged with individual or small groups of students in programs that deliver instruction help by either providing assistance within the classroom (push-in programs) or removing the student from the class for more individualized instruction (pull-out programs). There was no minimum cut-off for how much ISCED Level 2 teaching—that is, either the number of classes or students—these teachers need to be engaged in to be included.

A majority of countries worked with Statistics Canada, the international contractor overseeing sampling, to select a sample of schools for the field test and main study simultaneously. Due to the age of the sampling frame used for the field test sample, the United States deviated from this approach and selected a field test sample in 2016 and a separate main study sample later in 2017 using a new frame (see Section 2.2).

The U.S. school sample for the field trial was designed as a purposive sample in that it was designed to meet the requirements of the field trial and is not a probability-based sample. The school frame for the TALIS 2018 Field Test national sample was developed from the 2017 National Assessment of Educational Progress (NAEP) school frame. The data for public schools was from the Common Core of Data (CCD) with 2014–2015 school data, and the data for private schools was from the Private School Survey (PSS) with 2013–2014 school data. The eligible schools in TALIS included all schools with grade spans ranging between grades 7, 8, or 9 operating in seven states: North Carolina, Pennsylvania, Arizona, Oregon, Michigan, Missouri and West Virginia. This model of state selection was based on the sampling plan for the U.S. Program for International of Student Assessment (PISA) 2018 field test, and was meant to coordinate the samples as well as avoid states where other studies (Trends in International Mathematics and Science Study [TIMSS] and International Computer and Information Literacy Study [ICILS]) had field trial sample schools. This selection of states also provided an adequate regional coverage of the United States, while avoiding sampling Florida, Texas, California, New York, and New Jersey—states

that typically are heavily sampled due to their population characteristics. The school types eligible for TALIS included all public and private schools expected to have grade 7, 8, or 9.

The required field test sample size was a total of 600 teachers and 30 principals from 30 schools. The United States planned to survey teachers and principals in at least 35 schools to ensure the minimum number of respondents. The U.S. field test sample consisted of 70 sample schools for field test across the seven states with one replacement school assigned per sample school. More schools were sampled than required due the international requirement of only one replacement for the field test, while two were used for the main study. This provided more schools in total, 140 schools including replacements, and was similar to having a sample of 50 schools with two replacements. Replacement schools were assigned as in the main study by designating neighboring schools in the sampling frame as replacement schools.

The TALIS 2018 U.S. sample for the main study was selected using a two-stage design—a sample of schools and a sample of teachers within sampled schools. The universe of interest was composed of schools where ISCED Level 2 education is provided along with the affiliated principals and teachers. No subject matter was excluded from the scope of TALIS teachers. Thus, coverage of TALIS extended to all teachers of ISCED Level 2 and to the principals of the schools where they teach.

2.1 International Requirements

TALIS's *international target population* restricts the survey to those teachers who teach in “regular” schools and to the principals of those schools. Teachers teaching adults are not part of the international target population and are therefore deemed “out of scope”; teachers working with children with special needs are “in-scope” if they teach in regular schools. However, when a school consists exclusively of these teachers, the school itself is said to be out of scope. Teacher aides; pedagogical support staff (e.g., guidance counsellors, librarians); and health and social support staff (e.g., doctors, nurses, psychiatrists, psychologists, occupational therapists and social workers) are not considered teachers and therefore cannot be part of TALIS.

The international sample design¹ of the main study required a minimum sample of 200 schools from the population of in-scope schools. To allow for reliable estimation, while allowing for some amount of non-response, the minimum sample size was set at 20 teachers within each participating school.

¹ For detailed description of the international sample design, please refer to Chapter 5 of the OECD *TALIS 2018 Technical Report* (2019a).

The data collected by each participating education system was adjudicated by the TALIS international consortium to ensure that the data met the TALIS technical standards for data collection. For TALIS 2018, the principal and teacher data were adjudicated separately thus there are two datasets — a school dataset with data from the principal survey, and a teacher dataset with data for teachers, each defined by their respective participation standards.

School-level data adjudication depended on only school data (the principal participation). For the school data, a school was considered “participating” if its principal returned his or her questionnaire with at least one valid response. For an education system’s data to be included in the main international comparisons, TALIS 2018 required a minimum participation rate of at least 50 percent of schools from the *original* school sample. Education systems were allowed to use replacement schools (selected during the sampling process) to increase the response rate once the 50 percent benchmark before replacement had been reached. TALIS 2018 set the minimum school participation rate at 75 percent *after replacement*.

For the teacher data, a school was deemed a “participating” school if at least 50 percent of the selected teachers returned their questionnaires with at least one valid response. Consequently, and in contrast to TALIS 2008 and 2013, a school record remained on the school file if the principal responded to the questionnaire, even if fewer than 50 percent of the teachers in the school participated in the survey. TALIS required a minimum participation rate of at least 75 percent of teachers across all participating schools.

2.2 School Sampling in the United States

The TALIS 2018 school sample was drawn for the United States in July 2017. The sample design was developed to retain most of the properties of the 2013 national sample and to follow international requirements as described in the *TALIS 2018 Technical Report* (OECD 2019a). The school universe included all educational institutions that serve students in grades 7, 8, or 9.

A sample of 220 schools was selected that each had grades 7, 8, or 9. This ensured an eligible school sample size of at least 200 schools. Based on the results from TALIS 2013, in which only three schools were ineligible, very few schools were expected to be lost due to ineligibility, but protection against the possibility of a larger instance of ineligibility and school closures was wanted. Thus, if more schools than expected were ineligible or closed, the required sample size of 200 would still be met.

2.2.1 School Sampling Frame

The U.S. school sampling frame was developed from two national databases in NCES—public schools in the CCD (<https://nces.ed.gov/ccd>) and private schools in the PSS (<https://nces.ed.gov/surveys/pss>). These sources provide full coverage of all ISCED Level 2 teachers in the education system in the United States. The TALIS 2018 school frame was constructed using the 2015–2016 CCD and the 2015–2016 PSS, the most current data at the time of the TALIS frame construction.

There was a total of 63,795 eligible schools in the TALIS 2018 school frame. These included schools operating in the 50 states and the District of Columbia, including U.S. Department of Defense (DoD) domestic schools, Bureau of Indian Education schools, vocational education schools, as well as schools in hospitals and treatment and detention centers. Schools in U.S. territories; DoD schools overseas; adult education institutions with no TALIS-eligible teachers, special education schools, and noneducation institutions (e.g., home schools, correspondence schools) were considered ineligible for the study. The 569 schools in hospitals and treatment and detention centers were excluded from the school frame resulting in 63,226 schools eligible for sampling.

It should be noted that “ineligibility” is different from “exclusion.” Schools that are ineligible are never considered part of the sample eligible population. Excluded schools are schools that are part of the eligible population sampled but were not able to be surveyed and thus become excluded from participation.

2.2.2 Stratification

Stratification for the U.S. main study used an overall scheme similar to TALIS 2013. The stratification used both explicit and implicit stratifying variables. Explicit strata were defined by school control (public/private) and grade structure (with three groups – middle/junior high schools with grades 6–8 or 7–9, high schools with grades 9–12, or other schools with grade structures that include at least one ISCED 2 grade). Given the small number of private schools with a middle/junior high school grade structure, this stratum was collapsed with the private schools with the high school grade structure. Thus, there were five explicit strata. Within each explicit stratum, schools were sorted by the implicit stratification variables census region, locale (urban/suburban/town-rural), percent minority students, state, and number of ISCED 2 students (measure of size – see section 2.2.3a below). Statistics Canada selected the school sample using the international method and drew the sample of schools within each explicit strata, sorted by the

implicit strata. The probability of selection for each school was proportional to a measure of size defined as the number of ISCED 2 students.

The following tables show the total number and percentage of students and schools in the TALIS 2018 U.S. school frame by school control (table 1), grade structure (table 2), and school control and grade structure (table 3).

Table 1. Number and percentage of students and schools included in the TALIS U.S. school sampling frame, by school control: 2018

School control	Students	Percent	Schools	Percent
Total	12,061,144	100.00	63,226	100
Private	943,137	7.8	18,738	29.6
Public	11,118,007	92.2	44,488	70.4

NOTE: Detail may not sum to totals because of rounding.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

Table 2. Number and percentage of students and schools included in the TALIS U.S. school sampling frame, by grade structure: 2018

Grade structure	Students	Percent	Schools	Percent
Total	12,061,144	100.00	63,226	100
Middle-junior	5,734,888	47.6	13,046	20.6
High school	3,366,237	27.9	16,373	25.9
Other	2,960,019	24.5	33,807	53.5

NOTE: Detail may not sum to totals because of rounding. "Other" includes all schools with any other grade structure that includes at least one ISCED Level 2 grade (7, 8, or 9).

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

Table 3. Number and percentage of students and schools included in the TALIS U.S. school sampling frame, by school control and grade structure: 2018

School control	Grade structure	Students	Percent	Schools	Percent
Total		12,061,144	100	63,226	100
Private	Middle-junior	9,256	0.1	109	0.2
Private	High school	145,729	1.2	1,583	2.5
Private	Other	788,152	6.5	17,046	27.0
Public	Middle-junior	5,725,632	47.5	12,937	20.4
Public	High school	3,220,508	26.7	14,790	23.4
Public	Other	2,171,867	18.0	16,761	26.5

NOTE: Detail may not sum to totals because of rounding. “Other” includes all schools with any other grade structure that includes at least one ISCED Level 2 grade (7, 8, or 9). There were five explicit strata. When the stratification was performed, because of the small number of private schools with a middle/junior high school grade structure, this stratum was collapsed with the high school grade structure in private schools.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

2.2.3 School Sample

The TALIS 2018 main study national sample was a stratified sample where schools were selected with probability proportional to a measure of size (PPS), and teachers were sampled within schools at a fixed Target Cluster Size (TCS) of 20 teachers per school. This means that in each large school with at least 20 teachers, the sample target is to sample with equal probability 20 teachers at random. In each small school with fewer than 20 teachers, the target is to sample all teachers with certainty. Assuming a participation rate of 77%, which is what was achieved in TALIS 2013, the TCS of 20 allowed for at least 15 responding teachers per school on average.

Detailed information on sampling steps can be found in the *TALIS 2018 Technical Report* (OECD 2019a). Very briefly, school sampling involved stratification, sample allocation by stratum, and selecting a systematic sample with probability proportional to a measure of size.

2.2.3.a Measure of Size

The CCD and PSS databases included the number of teachers per school. While the number of full-time equivalent teachers (FTE) was available from the CCD, the number of teachers by ISCED level was not. As in the field test, Westat estimated the number of ISCED 2 teachers by using a simple model of the

proportion of ISCED 2 teachers to the FTE. The model was based on examining teacher counts of a few public and private school websites to determine the proportion of ISCED 2 teachers. The estimates from the field test were accurate enough to validate this method of estimation for a field test.

However, in the main study, following the advice of Statistics Canada, Westat used the number of estimated ISCED 2 students rather than teachers as the measure of size. This was due to the uncertainty of the number of ISCED 2 teachers in certain types of schools (e.g., grade 9 teachers in grades 9–12 high schools) where the number of ISCED 2 students was a more accurate measure.

2.2.3.b *Tabulations Within Subgroups for Frame and Sample*

The following tables show the total number and percentage of students and schools in the TALIS 2018 U.S. school sample by school control (table 4), grade structure (table 5), and school control and grade structure (table 6). The PPS sampling and stratification worked effectively: the sample percentage of schools is close to the student percentage of the frame for all the implicit strata.

Table 4. Number and percentage of students and schools included in the TALIS U.S. school sample, by school control: 2018

School control	Frame		Sample	
	Students	Percent	Schools	Percent
Total	12,061,144	100.00	220	100
Private	943,137	7.8	18	8.2
Public	11,118,007	92.2	202	91.8

NOTE: Detail may not sum to totals because of rounding.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

Table 5. Number and percentage of students and schools included in the TALIS U.S. school sample, by grade structure: 2018

Grade structure	Frame		Sample	
	Students	Percent	Schools	Percent
Total	12,061,144	100	220	100
Middle-junior	5,734,888	47.6	104	47.3
High school	3,366,237	27.9	62	28.2
Other	2,960,019	24.5	54	24.5

NOTE: Detail may not sum to totals because of rounding. “Other” includes all schools with any other grade structure that includes at least one ISCED Level 2 grade (7, 8, or 9).

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

Table 6. Number and percentage of students and schools included in the TALIS U.S. school sample, by school control and grade structure: 2018

School control	Grade structure	Frame		Sample	
		Students	Percent	Schools	Percent
Total		12,061,144	100	220	100
Private	Middle-junior	9,256	0.1	0	0.0
Private	High school	145,729	1.2	4	1.8
Private	Other	788,152	6.5	14	6.4
Public	Middle-junior	5,725,632	47.5	104	47.3
Public	High school	3,220,508	26.7	58	26.3
Public	Other	2,171,867	18.0	40	18.2

NOTE: Detail may not sum to totals because of rounding. "Other" includes all schools with any other grade structure that includes at least one ISCED Level 2 grade (7, 8, or 9).

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

2.2.3.c *Substitute Schools*

The *TALIS 2018 Technical Report* describes the use of substitute schools for sampled schools that refused participation (OECD 2019a). Although efforts were made to secure the participation of all schools selected, it was anticipated that not all schools would choose to participate. Therefore, as each school was selected in the sample, the two neighboring schools in the sampling frame were designated as substitute schools. The first school following the sample school was the first substitute and the first school preceding it was the second substitute. For each school sample, if an original school refused to participate, the first substitute was then contacted. If that school also refused to participate, the second substitute was then contacted.

There were several constraints on the assignment of substitutes. One sampled school was not allowed to be a substitute for another, and a given school could not be assigned to be a substitute for more than one sampled school. Furthermore, substitutes were required to be in the same explicit stratum as the sampled school. If the sampled school was the first or last school in the stratum, then the second school following or preceding the sampled school was identified as the substitute. If the first substitute school did not have the same implicit stratification values as the sampled school, the first and second substitute schools could be switched. Under these rules, it was possible to identify two substitutes for each sampled school.

2.3 Teacher Sampling in the United States

To achieve the required a minimum teacher yield of 15 surveyed teacher per school, the United States set a target of 20 sampled teachers per national school with the goal of having 75 percent of sampled teachers participating. School coordinators were asked to provide lists of all teachers teaching students in grades 7, 8, or 9 in their schools.

A total of 5,343 teachers were listed from the 165 participating schools. The average list size was 32 teachers. Once the list of teachers was received from a school, it was formatted for importing into WinW3S, the sampling and data management software provided by the international consortium.

After importing the list from a school, the appropriate validation checks were run, a sample of teachers was selected with equal probability, and the teacher tracking form was output from WinW3S (exhibit 1). Westat provided the tracking forms with sampled teachers to schools 2 to 4 weeks before the start of the survey, depending on when the school provided the list of teachers to Westat. A total of 2,894 teachers (an average of 18 per school) were randomly sampled from the 165 participating schools.

Exhibit 1. Teacher Tracking Form

T2018 FT - Teacher Tracking Form					
TALIS Country/Region		Example Country			
School Name		City Public School			
School ID		9301			
1	2	2	3	4	5
Teacher Name	Teacher ID	Teacher ID	Main Subject Domain for [ISCED Level 2] Classes	Teacher Questionnaire	Teacher Questionnaire Return Status
<Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	
Next record <Teacher Name>	<Teacher ID>	<Teacher ID>	<Main Subject>	<Form>	

³ Main Subject Domain when teaching classes [to 7th, 8th, or 9th graders]:
1 = Language (mother tongue, foreign language) ; 2 = Social Sciences (History, Geography, Civics, Economics...) ;
3 = Mathematics & Science (Physics, Chemistry, Geology, Biology...) ; 4 = Other (Music, Art, Moral/Ethics, Physical Education, Home Economics...) ;
9 = Not specified

⁴ Teacher questionnaire:
A = Form A; B = Form B; C = Form C

⁵ Teacher Questionnaire Return Status:
2 = Returned (online); 3 = Not returned; 4 = Left school permanently; 5 = Teacher should have been excluded

3. School and Teacher Recruitment

3.1 Overview

Recruitment of schools for the field test began in January and concluded in early February, 2017. Once the required number of participating schools was reached, recruitment of schools stopped. Thirty-six schools and 602 teachers participated in the U.S. Teaching and Learning International Survey (TALIS) field test. Within-school sampling was carried out during January and February 2017. Data collection occurred March 1—March 19, 2017 with data delivered to the International Association for the Evaluation of Educational Achievement (IEA) Hamburg at the end of March.

The TALIS 2018 main study recruitment began in September 2017, 6 months prior to the data collection window and continued to the end of data collection. The general approach taken with schools was to contact them well before the beginning of the spring 2018 term. As in past rounds of TALIS, this early contact was believed to be necessary for schools to get TALIS on their calendars at the start next academic year. The second element to the recruitment of schools was to offer an incentive structure that paid schools, school coordinators, and teachers. Under this incentive structure, schools and school coordinators were each paid \$200 and participating teachers received \$20.

Despite this incentive structure, there was some resistance of schools to participate in TALIS and this required several approaches to build the school response rate. Examples of such approaches included contacting states, districts, and education organizations for letters of endorsement; using NAEP State Coordinators (NSCs) to assist in recruiting; making in-person visits to certain pending and refusing schools; and developing the MyTALIS.us website to assist with recruiting schools and facilitating participation and extending the recruitment period to extend into data collection window. Table 7 provided a summary of recruitment activities.

Table 7. Summary of U.S. TALIS school recruitment activities: 2018

Date	Activity
June 2017	School sampled selected
September 2017	NSCs and other state Department of Education (DOE) staff informed of TALIS sample and provided materials for contacting districts and schools
September 2017	School recruitment training for Westat gaining cooperation recruiters
September 2017–October 2017	Notification packages sent to private schools, public schools, and districts in states where NSCs were not assisting with recruitment
October 2017–March 2018	Special district approval in required districts
April 2018	School recruitment ended

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teaching and Learning International Survey (TALIS), 2018.

3.2 Recruitment Training

Five Gaining Cooperation Recruiters (GCRs) with experience in recruiting schools for international education studies (e.g., Trends in International Mathematics and Science Study [TIMSS], Program for International Student Assessment [PISA], International Early Learning Study [IELS], International Computer and Information Literacy Study [ICILS]) were hired to recruit schools for the TALIS main study. Each GCR was responsible for approximately 39–42 schools. The GCR training for gaining cooperation was designed to incorporate a large amount of independent study along with distance training via a 2-day webinar. This training took place on September 27 and 29, 2017.

One week before training, each GCR received a manual containing specific procedures for completing their work as well as gaining cooperation techniques tailored to the TALIS study. GCRs also received a home study memo that included several exercises designed to familiarize the GCRs with the TALIS procedures in advance of the WebEx training sessions.

The WebEx delivered PowerPoint presentations that walked GCRs through an introduction to TALIS, an overview of their role, materials for their assignment, contacting schools, security and confidentiality, conversion techniques, using the School Control System (SCS) on the MyTALIS.us website, and administrative procedures. A few days after training the field manager followed up with each GCR to ensure that all questions had been answered and that GCRs were ready to proceed with recruitment activities.

3.3 Recruitment of Schools

Beginning September 2017, TALIS information packages were sent to the Chief Education Officer in each state with sampled schools, NSCs, and State testing directors. The information packages contained the following:

- letter from National Center for Education Statistics (NCES), on NCES letterhead, signed by NCES Commissioner (or state letter);
- TALIS 2018 overview brochure, including a summary of activities for schools and study timelines;
- FAQs for states; and
- affidavits of nondisclosure.

Westat and NCES met with the NSCs over a series of WebEx sessions and individual phone calls to alert them about TALIS and discuss the participation of the selected schools in their state. An ideal plan for notifying schools, gaining their participation, and handing the schools off to Westat's GCRs was reviewed with the NSCs. Once the NSCs completed an affidavit of nondisclosure, Westat provided them with information on the sampled schools and they began their outreach to the schools. The level of involvement from the NSCs varied drastically with some doing all of the work to contact schools and obtain their cooperation, some only notifying schools of their selection for the study (and then passing it over to the GCRs to do the recruitment), some providing a letter from the state that Westat could use to contact schools, and some opting to not assist with TALIS recruitment.

Some districts required explicit approval before schools could be contacted. In states where the NSCs were assisting they obtained the necessary approval for TALIS. Westat identified 28 districts (12 percent of districts with original schools) where special approval was required in states where the NSCs did not assist with this process. Formal research requests were prepared and sent to these districts. This process for gaining district approval was different in each district and in some districts, approval took months. Fortunately, once approved most districts assisted with getting the school(s) to participate.

School packages were mailed to principals at the end of September – beginning of October with follow-up phone contact from recruiters beginning a few days after the mailing. Recruiters began contacting schools at the end of September and continued working their assignments through spring 2018. Over the course of the recruitment period GCRs, Westat project staff, NCES, state and district school officials, and other recruiting contact resources engaged in efforts to achieve a satisfactory school response rate. All recruitment materials can be found in appendix A.

3.3.1 Contacting States, Districts, and Schools

The school sample for the main study was drawn July 2017. The contact information for each state, district, and school office was then verified, and additional contact information was gathered for key personnel such as state and district superintendents, state and district testing directors, and school principals. Contact of states and districts began in September 2017. School contacts began in September 2017 in states where NSCs were contacting schools and in September – October in states where Westat staff were contacting schools. The mailing sequence for states, districts and schools contacted by Westat was as follows:

- state mailing: September 2017;
- district mailing: September – October 2017; and
- school mailing: September – October 2017.

3.3.1.a *State Contact*

As described above in states where NSCs were assisting with school recruitment, the NSC, Chief Education Officer, and state testing director received the state package and an affidavit was returned in order to release the sample schools to the NSC. In states where NSCs were not assisting school recruitment the package was sent to the state leadership and implied consent to approach districts and schools was assumed.

3.3.1.b *District Contact*

District contacts were made by GCRs only in states where NSCs were not assisting with recruitment. District superintendents and test administrators were sent similar packages to that of the states. Generally, districts were not actively recruited. However, our experience with school recruitment showed us that it was advantageous to allow GCRs to conduct a courtesy call with all districts a few days after the delivery of the package. This alerted the district to the delivery of the packet of information and provided the GCR the opportunity to answer any questions about the study. In states where NSCs were actively helping with school recruitment the NSCs took care of the district notification and let Westat know when the GCRs could begin making contact with the schools.

3.3.1.c *Special Handling Districts*

Special handling districts were those that required a formal review and approval of the study prior to allowing school contact. Westat compiled a list of known special handling districts across the nation and submitted a complete proposal to each of these districts in states where NSCs were not assisting with recruitment. Twenty-eight proposals were submitted. Of those, 15 districts gave us approvals, eight districts refused, and the other five either did not respond to our application or the review process for the application extended beyond the data collection period. In states where NSCs assisted with recruitment the NSC took care of any special approval procedures with the districts.

3.3.1.d *Initial School Contact*

Between September and October 2017 schools were contacted with an initial request to participate and received a TALIS information package. Following the mailing of the package GCRs began contacting schools to gain cooperation. In their contact(s) they verified the receipt of the notification package by the school and discussed the school's participation in TALIS.

The GCR recorded other information such as specific issues or questions the school had regarding participation and the general disposition of the school in both the school folder and the SCS. These were reviewed in the weekly calls with the field manager particularly with initial refusals in order to generate strategies to convert the schools.

In states where the NSCs gained the cooperation of the schools the GCRs' initial contact with the schools served to confirm participation of the school, describe the logistics of the survey, and answer any question they had regarding TALIS. In these cases, the GCR was not required to actively recruit the schools as they were already planning to participate in the study before the school contact was handed over to the GCR.

3.3.2 Reasons for School Refusal to Participate

The most prevalent reasons mentioned for schools not participating were that they already were participating in other surveys and that schools/districts were undergoing various changes (i.e., organizational change, curriculum, etc.). In a number of cases schools that did not participate never provided answers. There was also significant pushback from many refusing schools because schools

thought teachers did not have time with all of their other duties to complete the questionnaire. These reasons were mentioned across states and in both public and private schools.

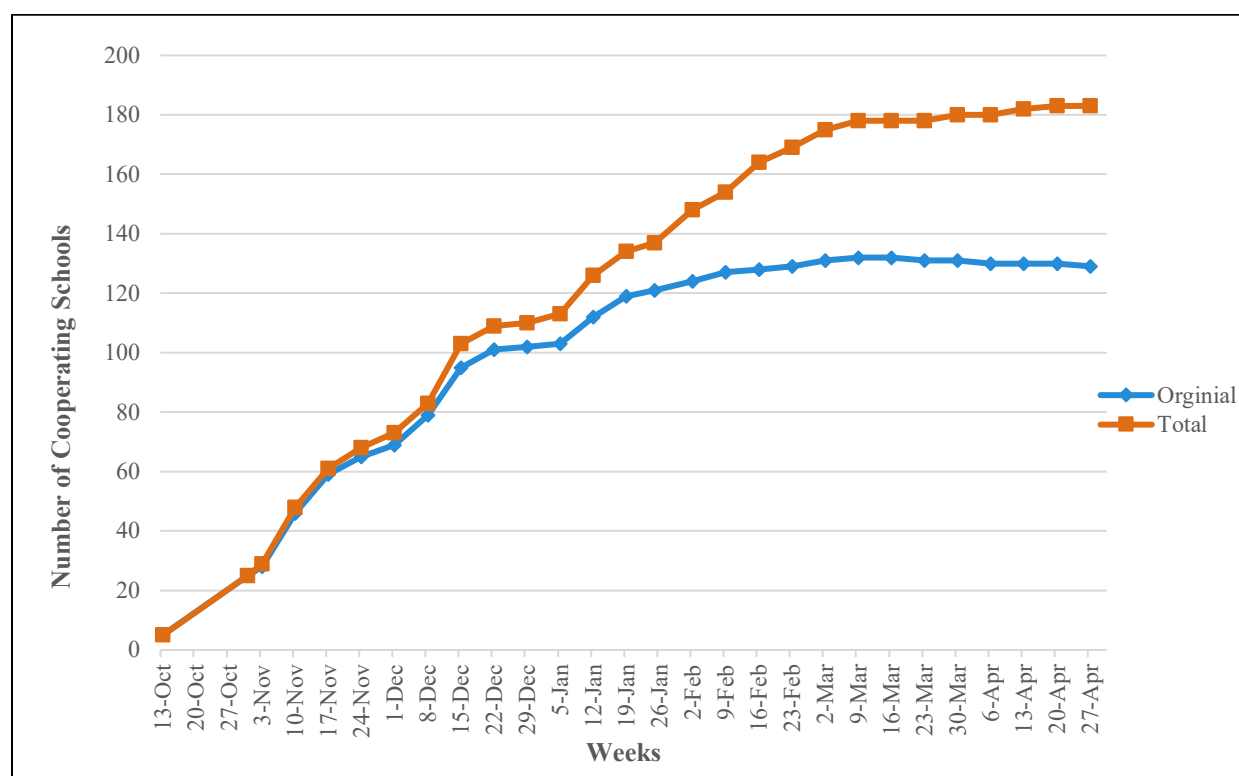
School attrition was another factor impacting school participation. Early in 2018 as recruitment staff were attempting to verify the participation of the participating schools, some schools that had initially agreed to participate withdrew their participation. The reasons tended to involve the reasons stated above. Also, staff turnover caused some schools to drop out because the decisionmaker who had initially agreed to participate was no longer at the school when school resumed in January 2018.

3.3.3 Solutions and Approaches Used With Refusing Schools

During the gaining cooperation phase, any original school refusals were discussed among Westat Home Office staff and the field manager as they occurred in order to understand the nature of the refusal and create a strategy for reversing the school's decision. Refusal conversion became active after all original schools had a sequence of contact and coincided with the release of replacement schools. This began in early November and continued until a satisfactory original school participation rate is achieved and/or efforts with the refusing schools have been exhausted. In each case NSCs, GCRs, and home office staff reviewed the contact history and the reasons for refusal and a contact strategy was decided for each school. Some strategies included additional mailings and targeted correspondence from the project director attempting to directly address a concern or reason for refusal with further information about TALIS, or directed explanation of survey procedures like actions by Westat that reduced burden for the school. Additional actions taken were follow-up telephone contacts, transferring the case to another staff member who has specific ability with certain types of schools, and/or a visit to the school. Other forms of conversion included the assistance of other outside personnel such as education experts with connections to a specific state, state officials, or members of supporting organizations willing to contact districts and/or school principals. Discussions with NCES about conversions and specific school cases were held during the conversion stage and throughout the conversion effort.

Figure 1 shows the school cooperation for each week of recruitment from the first status report on October 13, 2017 to the final report on April 27, 2018. TALIS showed an overall number of 183 schools (27.7 percent) participating on April 20. That number remained consistent throughout as the data collection was carried out, but the number of original school decreased and replacement schools increased. The original school participation number reached 132 schools (60 percent) on March 9 but reduced by 3 to 129 (58.6 percent) before the end of the data collection period.

Figure 1. TALIS 2018 original and total school participation, by week: 2018



SOURCE: U.S. Department of Education, National Center for Education Statistics, Teaching and Learning International Survey (TALIS), 2018.

3.3.4 Final Results of School Recruitment

Recruitment of schools closed in April approximately 32 weeks after the official start of the recruitment period. Table 8 provides the response status of original and substitute schools as of April 27 – the end of the recruitment period. It should be noted that the response status reported in table 8 differs from the final participation status shown in Chapter 6. The numbers in table 8 reflect the schools that had agreed to participate in the survey and had data collected in the school. The final status and rates reported in chapter 6 reflect the school participation after data was adjudicated by the International Consortium and schools and teachers rates were adjusted based on the participation standards set in the TALIS technical standards.

Table 8. TALIS 2018 schools, by recruitment status

Recruitment status	Original schools		Substitute schools		Total schools	
	Number	Percent	Number	Percent	Number	Percent
Total schools	220	100	440	100	660	100
Ineligible/closed	6	2.7	1	0.2	7	1.1
Total eligible schools	214	97.3	439	99.8	653	98.9
Participating	129	58.6	54	12.3	183	27.7
Refusal	84	38.2	93	21.1	177	26.8
Other (Pending, No contact)	1	0.5	292	66.4	293	44.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teaching and Learning International Survey (TALIS), 2018.

Of the 183 participating schools, 129 schools were original schools (59 percent of original schools) and 54 schools were replacement schools (12 percent of all replacement schools.).

3.4 Principal and Teacher Recruitment

School-level or school-targeted materials explaining the rationale for the study research and findings have been important tools for getting schools to participate in international education studies. For TALIS we included specific school-level materials as described in more detail above in the recruitment of schools section. Each participating school was required to designate a staff member to serve as school coordinator (SC) to be the TALIS point of contact at the school for the data collection period. In some cases, the principal chose to serve as the school coordinator. School coordinators received a school coordinator handbook to use in performing their activities. A significant portion of the SC handbook provided instructions on assembling a list of eligible teachers and E-Filing the teacher list on the MyTALIS.us website.

Once the teacher list was selected within a school and Filed on MyTALIS.us a sample of teachers was selected by the TALIS home office. School coordinators were then sent via FedEx principal and teacher packets to be distributed. These packages contained the following recruitment materials:

- Teacher Tracking Form – list of sampled teachers;
- Principal Questionnaire Invitation – provided the principal/ designee with the information needed to access the online Principal Questionnaire; and
- Teacher Questionnaire Invitations (approximately 20) – provided selected teachers with the information needed to access the online Teacher Questionnaire.

School coordinators monitored the participation and completion of the TALIS questionnaires during the field period and recorded the participation of the sampled teachers and principals. TALIS GCRs worked with school coordinators to answer any questions from teachers and/or principals. Additionally, paper versions of the questionnaires were provided to any principal or teacher who requested one and to anyone that did not complete to online questionnaire by mid-April.

4. Instrument Development and Distribution

4.1 Instrument Design

Instrument development began with creating the Teaching and Learning International Survey (TALIS) conceptual framework for 2018 (Ainley and Carstens 2018). Building the survey instruments involved both refinement of 2013 survey items and developing new measures. The TALIS 2018 survey instruments were designed and field tested in spring 2017 and subsequently revised and refined internationally for the main study data collection.

Countries were permitted to add “national only” questions/answers and answer categories. Also, each country adapted the international questionnaire to fit national terms, definitions, spelling, and punctuation. An example of adapting item information to national terms is adapting international terms with more appropriate terms, such as “grading” rather than “marking.” An example of adapting a national definition would be defining subject categories included in the formal education of teachers. Another example is changing the International Standardized Classification of Education (ISCED) categories to equivalent U.S. classification categories (e.g., ISCED 2011 Level 3 to “High School”).

The principal and teacher questionnaires were designed to be completed online or on paper. They went through several reviews by the Organization for Economic Cooperation and Development (OECD) staff to ensure international consistency of items, design, and instructions. These included the following steps:

- Make changes to OECD developed questionnaires to account for U.S. adaptations to questions;
- Translate the wording of questions, answer categories, and instructions into American English;
- Approve paper questionnaire layout;
- Modify the OECD developed online versions to questionnaires to incorporate all U.S. changes; and
- Modify the OECD developed codebook to incorporate all U.S. changes.

4.2 Survey Materials Development

The materials for TALIS 2018 in the United States included (1) a teacher questionnaire; (2) a principal questionnaire; (3) a gaining cooperation recruiter manual; and (4) a school coordinator handbook. Source

versions of all questionnaires were prepared in English and French and translated into the primary language or languages of instructions in each education system. Westat adapted the questionnaires, administration manuals, and school handbook for use in the United States. Even in countries where English is the primary language of instruction, adaptation was needed to ensure that the materials used spelling and vocabulary that were most commonly used in the United States (but did not change meaning) and that reflected the actual U.S. administration plans. This involved (1) changing the spellings and vocabulary into common U.S. usages; (2) adding a limited number of U.S. national items to the principal and teacher questionnaires (e.g., adding items on racial/ethnic groups to the questionnaires); and (3) adapting the administration manuals and handbooks to follow the U.S. plans for data collection.

These adaptations were reviewed by the international contractors through an iterative process that occurred from August 2017 to January 2018. After the international contractors approved the adaptations, they produced the final versions of the questionnaires and checked them a final time before fielding. The school coordinator handbook was adapted, negotiated, reviewed, and verified in a similar manner. The final approved versions of all instruments were also administered in the United States.

4.3 Preparation of Instruments

The final U.S. versions of the questionnaires are available on the on the NCES TALIS study website at <https://nces.ed.gov/surveys/talis/questionnaire.asp>. The principal questionnaire includes sections on principal's personal background information, school background information, school leadership, teacher appraisal and feedback, school climate, teacher induction and mentoring principal continuous professional development, and schooling in diverse environments. The teacher questionnaire included sections on teacher's background information, teacher continuous professional development, teacher appraisal and feedback, mentoring and induction, teaching practices, beliefs and attitudes, school climate, teaching in diverse environments, and job satisfaction.

There were many adaptations made to the U.S. questionnaires. In some cases, the edits were minor, including changes in spelling, punctuation, hyphenation, and wording, etc. In some cases, U.S.-only items were added, answer categories were split, or items were not administered.

Tables 13 and 14 in chapter 8 provide a summary of the changes made to the questionnaires. Appendix C provides a full detail of differences between the International and U.S. versions of the principal and teacher questionnaires.

4.4 Distribution of Materials to Respondents

In each school, up to 20 eligible teachers and the school principal or designate could participate in the questionnaire. Following sampling, Gaining Cooperation Recruiters mailed the school coordinator materials needed for the data collection. The mail out included:

- a letter to the school coordinator providing information and instructions;
- the TALIS school coordinator handbook;
- the principal questionnaire invitation; and
- a teacher questionnaire invitation for each selected teacher.

As school received these packages, data collection began. The first packages were sent beginning late February 2018.

5. Field Operations

Data collection consisted of the following major elements:

- an online principal questionnaire requiring approximately 45 minutes with logon credentials e-mailed to principals (with hardcopy questionnaire backup);
- online teacher questionnaires requiring approximately 60 minutes with logon credentials e-mailed to selected teachers (with hardcopy questionnaire backup);
- Hardcopy Teacher Tracking Forms and hardcopy principal and teacher invitations with logon credentials for the principal and selected teachers.

Data collection included the following steps:

- identifying a school coordinator at each school;
- obtaining a Teacher Listing Form from each school and sampling teachers;
- sending the principal and selected teachers an e-mail invitation to the survey with logon credentials and following up to ensure completion of the online or paper questionnaire;
- sending the school coordinator a packet containing the Teacher Tracking Form and hard copy invitations for the principal and selected teachers with logon credentials and following up to ensure completion of the online or paper questionnaire;
- providing incentive payments to school coordinators and to principals and teachers completing questionnaires; and
- working with school coordinators to track teacher survey completion status using a Teacher Tracking Form and the MyTALIS website.

All data collection activities were conducted using multiple modes of communication and data collection methods of internet, e-mail, telephone, and hard copy. Quality control activities were performed by Teaching and Learning International Survey (TALIS) representatives from Westat and by an international quality control monitor appointed by the Organization for Economic Cooperation and Development (OECD).

5.1 Presurvey Contacts With School Staff

Each participating school was asked to designate a staff member to serve as school coordinator. School coordinators were responsible for arranging the logistics of the survey with TALIS staff. School

coordinators were an integral part of the data collection process. School coordinators received a school coordinator handbook to use in preparing for the survey. A significant portion of this document provided instruction on identifying teachers and preparing the teacher list, encouraging participation of teachers and the school principal, and tracking participation on MyTALIS.

Prior to beginning their activities, all school coordinators from participating schools were invited to attend an online School Coordinator WebEx training held February 22, 2018 to prepare school coordinators for the activities and tasks to be completed prior to and during the survey period.

The primary responsibilities of the school coordinator are to provide lists of eligible teachers for sampling, receive and distribute study materials from the TALIS Home Office at Westat, encourage participation of the principal and sampled teachers, track participation in MyTALIS, and return materials to the Home Office.

Prior to the survey, each school coordinator was contacted at least two times.

1. Beginning February 2018, school coordinators were e-mailed instructions for preparing and submitting their teacher lists for sampling on the secure MyTALIS.us website. An electronic teacher listing form was attached in this e-mail, as well as an embedded link to MyTALIS. The E-Filing of teacher lists started on February, 2018.
2. After the teacher list was received, the lists were evaluated and prepared for sampling (see e-filing description below). Study staff processed the list following TALIS guidelines and using the required international sampling software, WinW3S. This process resulted in the production of a Teacher Tracking Form (TTF) indicating which teachers had been chosen to participate. Once the TTF was complete, an e-mail was sent to school coordinators notifying them that a package of materials was being sent to them via FedEx that included teacher and principal invitations to the survey, a return envelope and a red security storage envelope. Also included was a hard copy Teacher Tracking Form. The e-mail explained the next steps for the school coordinator and asked them to inform the sampled teachers of their selection to participate in the teacher questionnaire.

In many cases, additional contacts were made in fielding questions from school coordinators via the TALIS help desk telephone line or e-mail. These contacts generally dealt with questions or clarifications about teacher sampling. Several of the teacher lists required some level of verification or further contact with the school. In mid-March a courtesy call was made to all schools that had not provided a teacher listing form to determine if they needed assistance in preparing it or if there was any problem with their participation in TALIS. Subsequent contacts with teachers and principals are described in section 6.3 relating to data collection.

5.2 Preparing Teacher Lists and Within-School Sampling

Westat received completed Teacher Listing Forms via the MyTALIS.us website. School coordinators securely uploaded their list to the MyTALIS site per the e-file instructions provided to them. The e-file function in MyTALIS had a number of automatic data checks that compared the lists to various frame variables, such as estimated number of International Standard Classification of Education-2 (ISCED-2) teachers and school enrollment. This information was used to vet the lists and follow up with school coordinators if there was any question about the teachers listed.

Once the teacher list was deemed to be complete and accurate, the data were parsed and formatted for import into WinW3S. After importing the list, the appropriate validation checks were run, the teachers were sampled, and the Teacher Tracking Forms were output from WinW3S. School coordinators were then sent a package of materials as describe above.

5.3 Data Collection Approach and Activities

Online questionnaires were the primary mode of data collection for TALIS 2018. Responses from teachers and principals were monitored daily though the Online Survey System (OSS). An e-mail communication plan was executed to send reminders to teachers, principals, and school coordinators and to provide summary information for the school. The contact plan is shown in table 9.

Table 9. E-mail reminder and contact plan for TALIS: 2018

Date	Action/item	Target audience
Beginning March 5, 2018	Initial invitation	Principal; sampled teachers
March 22	First reminder	Not started, partial complete
April 4	Halfway reminder	Not started, partial complete
April 9	Summary of school responses and hard copy questionnaires to be sent	School coordinator
	April 12	
April 18	Post-hardcopy reminder	Not started, partial complete
April 26	Survey extension announcement with summary response status for principal and teachers	School coordinator
April 26	Survey extension announcement	Not started; partial complete
May 25	Last week of survey reminder	Not started, partial complete
May 31	Last day of survey	Not started

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teaching and Learning International Survey (TALIS), 2018.

Initial invitations were sent beginning March 5, 2018 coinciding with the survey materials sent to school coordinators that included hardcopy invitations. For each e-mail reminder contact, messages were customized for principals and teachers that had either started the survey but had not completed it, or those that had not started the survey. In particular, on April 9, an e-mail was sent to school coordinators with a summary of the response in their school and announcing that hardcopy questionnaires would be sent for those teachers/principals that had not started the survey by April 11. Following the shipment of hardcopy questionnaires, a reminder was sent to respondents on April 26.

To maximize response rates, the survey was extended through May. An announcement of the survey extension was sent to both school coordinators with an updated response summary for the school, as well as individual messages to principals/teachers that had not started or who partially completed the survey. Finally, reminders were sent to respondents on the Friday before the start of the last week of the survey and again to those respondents who had not started on the final day of the survey.

Table 10 shows the number of surveys that were completed in each month.

Table 10. TALIS teacher response in U.S. schools by month: 2018

Month	Total teacher surveys ¹	
	Count	Percentage
Total	2,554	100.0
March	1,499	58.7
April	733	28.7
May	322	12.6

¹ Teachers from nine national substitute schools participated but are not included in the data, as the original schools for these substitutes also participated.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teaching and Learning International Study (TALIS) 2018.

5.4 Quality Monitoring

Monitoring the quality of data collection was done through the evaluation of the responses from teachers and principals to the survey items, debriefing calls with school coordinators to gain feedback on their experience with the survey, and from in-person school visits conducted by an International Quality Monitor assigned by the International Project Team.

TALIS representatives conducted a final contact with school coordinators at the end of the administration period completing a school coordinator debriefing that gathered information about their experience in administering the survey in their school. The debriefing interview were done over the phone.

In addition, International Quality Monitors hired by the International Project Team contacted a small number of schools across the country and held short, in-person visits with the schools to understand how the survey went in the school. The International Quality Monitor worked to ensure that the implementation of the survey in schools has been undertaken according to the TALIS Technical Standards, such as checking that the anonymity of respondents had been respected and that the Teacher Listing Form and the TTF had been filled in correctly and stored securely.

6. Response Rates

As described in chapter 2, the Teaching and Learning International Survey (TALIS) 2018 international requirements stipulated that the minimum school response rate target needed to be 75 percent for all education systems. A minimum of 50 percent of schools from the original sample of schools were required to participate for an education system's data to be included in the international database. Education systems were allowed to use substitute schools (selected during the sampling process) to increase the response rate once the 50 percent benchmark had been reached. A school was considered participating if the principal responded to at least one item in the principal questionnaire.

TALIS 2018 also required a minimum participation rate of 75 percent of sampled teachers from schools within each education system. A teacher was considered to be a participant if he or she responded to at least one item in the teacher questionnaire. Data from education systems not meeting this requirement could be excluded from international reports.

The TALIS 2018 standards also required that nonresponse bias analyses be conducted if school response rates were less than 75 percent. The National Center for Education Statistics (NCES) standards for assessment surveys stipulated that a nonresponse bias analysis is required at any stage of data collection with a weighted unit response rate of less than 85 percent. The U.S. national sample required a nonresponse bias analysis. The nonresponse bias analysis is provided in appendix F.

The response rates presented in this chapter reflect the Organization for Economic Cooperation and Development (OECD) criteria for inclusion and exclusion into the national database and inclusion as a participant in the response rate report. As discussed on Chapter 3, the data reported for recruitment and data collection differ from the final rates reported here. This is because some schools that had agreed to participate ultimately provided no teacher list, the principal did not respond to the principal questionnaire, or less than 50 percent of sampled teacher responded to the teacher questionnaire.

For TALIS 2018, there are two independent datasets – one for the principal data and one for the teacher data. This aspect of the data structure for 2018 is discussed further in Chapter 8 which focuses on data files and their organization and content. For TALIS 2018, some 164 schools are included in the U.S. principal database. The teacher database contains responses from 2,560 teachers in 165 schools.

6.1 School Participation

Table 11 provides the participation status of original and substitute schools based on the participation of principals and provides unweighted and weighted response rates for participating original school and all schools including substitutes. There were 164 participating schools. Of these, 123 schools were original schools and 41 schools were substitutes.

Table 11. TALIS schools, by participation status of principals: 2018

Item	Number of schools	Participation rates	
		Unweighted	Weighted
Schools			
Sampled	220	†	†
Ineligible	6	†	†
Eligible	214	†	†
Participating	123	57.5	63.1
Substitutes	41	†	†
Participating (all schools)	164	76.6	77.6

† Not applicable.

NOTE: Detail may not sum to totals because of rounding. NCES standards (Standard 1-3-8) indicate that participation rates should be calculated without including substitute schools since substitute schools do not have an independent probability of selection (National Center for Education Statistics 2012). However, the participation rates shown in this table are those reported by TALIS and do include substitute schools in the calculations.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teaching and Learning International Survey (TALIS) 2018.

6.2 Teacher Participation

Table 12 reports the school participation based on participating teachers within schools and participation status of teacher. Table 12 also provides unweighted and weighted response rates for schools and teachers. There were 165 participating schools based on the percentage of responding teachers in each school. Table 12 reports the participation status of teachers that responded to the TALIS teacher questionnaire, including categories of nonparticipating teachers as defined by TALIS. There were 2,894 teachers sampled for TALIS 2018. Of these, 2,560 teachers participated and 312 did not respond to the survey (10.8 percent of the teachers sampled). Another nine teachers were coded as having left school permanently (0.3 percent of teachers sampled) and 13 teachers were coded as out-of-scope (0.4 percent of sampled teachers).

Table 12. TALIS schools, by participation status of teachers: 2018

Item	Number of schools	Participation rates	
		Unweighted	Weighted
Schools			
Sampled	220	†	†
Ineligible	6	†	†
Eligible	214	†	†
Participating	125	58.4	60.1
Substitutes	40	†	†
Participating (all schools)	165	77.1	76.8
Teaches in participating schools			
Sampled	2,894	†	†
Left school permanently	9	†	†
Out-of-Scope	13	†	†
Exempted	0	†	†
Was sampled in two or more schools	0	†	†
Eligible	2,872	†	†
Did not respond to questionnaire	312	†	†
Participated	2,560	89.1	89.6

† Not applicable.

NOTE: Detail may not sum to totals because of rounding. NCES standards (Standard 1-3-8) indicate that participation rates should be calculated without including substitute schools since substitute schools do not have an independent probability of selection (National Center for Education Statistics 2012). However, the participation rates shown in this table are those reported by TALIS and do include substitute schools in the calculations.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teaching and Learning International Survey (TALIS) 2018.

7. Data Processing and Weighting

This chapter provides an overview of the data processing and weighting procedures for the U.S. component of the Teaching and Learning International Survey (TALIS) 2018. The data processing section begins with a section on the processing that occurred at Westat, the National Processing Center for the United States. The U.S. efforts followed the instructions of the primary processing agent for all of the international components, the International Association for the Evaluation (IEA)- Germany. The second section provides an overview of the primary tasks performed by the IEA-Hamburg for data from all participating countries. Following the data processing, an overview of the weighting and sampling error details are provided. Significantly more detail on each of these topics may be found in the Organization for Economic Cooperation and Development's (OECD's) *TALIS 2018 Technical Report* (2019a).

7.1 Data Entry and Verification

Westat led the data collection in the United States. Westat was also responsible for processing the Teacher Tracking Forms and entering them into the WinW3S software for teacher sampling. The primary data collection mode in the United States was through online instruments. The online instruments were administered using the Online Survey System (OSS) software provided by the IEA-Hamburg that resided on Westat's server for the U.S. collection. Paper responses were entered and verified using the Data Management Expert (DME) software, also provided by the IEA-Hamburg. The data entry and verification steps consisted of Westat importing data into the DME software, completing the required validation checks in the DME, reconciling the data, and preparing data files for delivery to the international core contractors. While there were very few paper-based questionnaires, Westat entered and verified the responses from the paper-based items and, at the end of collection produced a DME file for both the teacher and school files.

For each of the teacher and principal data collections, the paper surveys were entered and verified in the DME and online responses were output and verified using the ODC software. The verification steps included an automatic validation of the paper surveys entered into the DME, as well as data checks that checked for duplicate codes and data output outside the expected valid range or values defined as valid. The reports were reviewed and verified to ensure invalid entries had been correctly reentered and that the available data corresponded to the expected data based upon the participation indicators and entries on the tracking forms. Westat provided the IEA-Hamburg staff with detailed documentation but did not make any changes to the data other than correcting data entry errors.

As is true with all international education studies, the data provided to the IEA-Hamburg first had to be approved by the Disclosure Review Board (DRB) at the National Center for Education Statistics (NCES) for confidentiality compliance. Westat implemented disclosure avoidance procedures based on an approved Disclosure Analysis Plan (DAP), which was reviewed and approved by the DRB.

After the confidentiality analysis, review and approval of the disclosure avoidance procedures by the DRB, Westat provided the IEA-Hamburg with the three components that were merged to provide the U.S. data file. The first piece was the WinW3S file that produced the teacher sample file from the Teacher Listing Forms that were input into it, as described in chapter 5. The second and third files were the survey data from the paper and online data collections. Additional details on the steps performed at the U.S. national data center are detailed in chapter 8 of the *TALIS 2018 Technical Report* (OECD 2019a).

7.2 Data File Cleaning and Editing

The majority of data file cleaning and editing was performed by the International Association for the Evaluation of Educational Achievement Data Processing and Research Center (IEA-DPC). Upon receipt of the WinW3S, DME, and OSS data, the data processing proceeded as described below.

- Importing check: The initial step involved merging WinW3S sampling and DME/OSS response data. The initial step of data processing included confirming that data were consistent and correct across the teacher listing, sampling and tracking, and questionnaire data. Duplicate cases were investigated and inconsistent data were checked against the different sources of data to resolve any problems.
- Structure check: This step involved resolving inconsistencies in questionnaire data by identifying and resolving inconsistencies. Examples of this type of processing included resolving discrepancies between filter questions and follow-up questions; investigating implausible or out of range values; and resolving discrepancies between respondent answers and Teacher Tracking Form information. Questions may have been forwarded to Westat regarding data discrepancies that were resolved after consultation with the data manager.
- Pre-cleaning: This step implemented data changes resulting from the previous steps including structure changes, ID and linkage issues, background issues that required recodings for partially answered lists, partially filled check-all-that-apply questions and logical inconsistencies, percent questions that did not add to 100 percent.
- Post-cleaning: This step set final participation indicators based on data availability and applied final data editing actions.

- Merge or compute derived and auxiliary variables: This included weights, scale scores and indices.
- Scrambling and suppressing specific variables: Similar to the disclosure rules governing data in the United States, there are now data protection rules in place in Europe that require similar disclosure analysis and actions. This step was implemented in accordance with the European data protection rules.
- Handling of missing data: The final step in the data processing included the handling of missing data and assigning the appropriate missing data values. Four missing data codes were used:
 - Omitted/invalid (9). Respondent had an opportunity to answer question but did not or provided an invalid response.
 - Not administered (8). If all responses were empty, all values were assigned this code. This code is the missing value assigned to all items on the school file when there was unit-level nonresponse, but the school case was placed on the file because more than 50 percent of the teachers at the school responded.
 - Not reached (7). This represents the same as an omitted/invalid response, but is assigned to all items after the last valid response.
 - Logically not applicable (6). This represents a valid skip.
- More details on this process, as well as examples of each type of data edit and missing value code are available in chapter 8 of the *TALIS 2018 Technical Report* (OECD 2019a).

7.3 Interim Data Products and the International Database

Data processing of the TALIS database was an iterative process and the IEA-Hamburg provided the OECD and each country's National Project Managers (NPMs) with a new version of their data file after each step in the process. This process ensured that the NPMs had a chance to review their data and run additional analysis to investigate issues and validate the data. The first file was received in October 2018, and these files were used to produce the preliminary analysis tables reviewed at the NPM meeting in Seoul, South Korea in October 2018. NPMs were allowed time to review their files and raise any issues concerning their data. A second file was issued in November 2018, and an updated version was delivered in February 2019. The interim products included detailed data processing and weighting documentation and summary statistics.

The International Database

The interim products described above included observations for each sampled unit, regardless of response. The draft and final international database included only records that met the sampling standards. Cases were removed for respondent-level nonparticipation, as well as for within-school nonparticipation. As mentioned above, the international database also included confidentiality measures to protect respondents including scrambled IDs as well as the removal of detailed stratification information. Final weights and replicate weights were included in the international database, but the various weighting factors described below were not included in the final database.

7.4 Weighting and Sampling Errors

This section provides an overview of the weighting of the data to produce estimates as well as the estimation of sampling error. The use of sampling weights is necessary for the computation of statistically sound, nationally representative estimates when analyzing data from a survey using a complex sample design. Survey weights adjust for the probabilities of selection for individual schools and teachers. TALIS used a stratified two-stage probability sampling plan with unequal probabilities of selection. The school sampling was a probability proportional to size systematic random sample, while the teacher sample was a systematic random sample with equal probability within selected schools. Survey weighting for all participating countries was carried out by Statistics Canada, as part of the TALIS consortium. Detailed descriptions of the sampling and weighting process, including formulas for the basic weights and all adjustment factors are included in chapter 9 of the *TALIS 2018 Technical Report* (OECD 2019a).

7.4.1 School Weights

The schools weights were a function of the school base weight, or design weight, and a nonresponse adjustment factor.

The final school weight is the product of

(School Base Weight) and (Nonresponse Adjustment Factor)

where:

School Base Weight is the probability of selection using the systematic random sampling scheme with probability proportional to size.

School Nonresponse Adjustment Factor is an adjustment that allocates the weight of the nonresponding schools to responding schools within each explicit stratum so that estimates reflected the population the sample was intended to represent.

7.4.2 Teacher Weights

The teacher weighting was more complicated than the school weighting because teacher weighting included the school base weight as well as four additional adjustment factors. The final teacher weight adjusted for school nonresponse, teacher nonresponse, and incidental inclusions, and included a multiplicity adjustment. The school base weight incorporates the probability of selection of the school into the teacher weight and the nonresponse adjustments account for participation, or lack of participation, at each level. The incidental inclusion adjustment accounts for teachers who are also principals in the U.S. case. The multiplicity adjustment factor adjusts for the fact that teachers working in more than one International Standard Classification of Education (ISCED) Level 2 school had more chance of being selected in the sample.

The final teacher weight is the product of

(School Base Weight) and (School Nonresponse Adjustment Factor) and (Teacher Base Weight) and (Teacher Nonresponse Adjustment) and (Adjustment Factor for Incidental Exclusions) and (Multiplicity Adjustment Factor)

where:

School Base Weight is the probability of selection using the systematic random sampling scheme with probability proportional to size.

School Nonresponse Adjustment Factor is an adjustment that accounts for nonresponse at the school level.

Teacher Base Weight is the inverse of the probability of selection of the teacher within each school at the time of selection.

Teacher Nonresponse Adjustment is an adjustment that allocates the weight of the nonresponding teachers to responding teachers so that estimates reflected the population the sample was intended to represent. The teacher nonresponse adjustment included adjustments within each explicit strata

that accounted for nonresponding teachers as well as teachers that left the school after having been selected for the sample.

Adjustment Factor for Incidental Exclusions is an adjustment to account for teachers who are also principals in the U.S. case.

Multiplicity Adjustment Factor is an adjustment that accounts for the fact that teachers working in more than one ISCED Level 2 school had more chance of being selected in the sample.

Additional details and specific formulas are available in chapter 9 of the *TALIS 2018 Technical Report* (OECD 2019a).

7.5 Sampling Error with Balanced Repeated Replication (BRR)

Estimating sampling errors when dealing with a complex sample design like TALIS must incorporate the survey design and unequal weights to obtain unbiased estimates. Not accounting for either may lead to significant underestimation of the sampling error. There are a number of methods that take into account the complex sample design and provide appropriate estimates of sampling errors. The Balanced Repeated Replication (BRR) method, with the particular variant known as Fay's method (Fay 1989), is used for TALIS and 100 replicate weights are provided in the international database for the implementation of this method in the estimation of standard errors for all analysis when using the appropriate software and commands. The *TALIS 2018 Technical Report* (OECD 2019a) covers this in greater detail and the IEA International Database (IDB) Analyzer software, available on the internet (<https://www.iea.nl/data-tools/tools>), uses the replicate weights to produce the appropriate standard errors when used in conjunction with SAS or SPSS.

8. U.S. TALIS 2018 Data

The TALIS 2018 data files for the United States are available as part of the TALIS international database. Additional national-based variables can be found in public- and restricted-use data files available through the National Center for Education Statistics (NCES). More information about these data files follow below:

U.S. international data files are part of the TALIS international database and are directly comparable to other participating education systems in the study. The data files consist of a principal file (BCGUSAT3) and a teacher file (BTGUSAT3). The variables listed in the files include all international-based variables, as well as the weighting variables needed to do analyses on the data. These files allow for comparisons of the United States with any of the other education systems participating in TALIS in virtually all respects. These files are available from the OECD at <https://www.oecd.org/education/talis/talis-2018-data.htm>. Note that these data files do not include the variables from U.S. specific adaptations or additions made to the U.S. versions of the questionnaires.

U.S. national public-use data files are considered add-on files that need to be merged with the international files. The U.S. national public-use principal and teacher data files include U.S. specific variables that are not part of the U.S. international data files. These U.S. specific variables, which are based on adapted or added questions, are listed in Tables 13 and 14 in section 8.3. The U.S. national public-use data files are available from the National Center for Education Statistics by download from the TALIS NCES “Publications and Products” webpage at <https://nces.ed.gov/pubsearch/getpubcats.asp?sid=118>.

Please note that the U.S. national public-use data files do not contain weight variables or replicate weights; therefore they must first be merged with the U.S. data files in the OECD’s international database before any analyses can be conducted. Information on merging the files is available in Chapter 9, section 9.2. Because the U.S. national public-use data files are considered supplementary, the most comprehensive and detailed references for the TALIS 2018 data are the *TALIS 2018 Technical Report* (OECD 2019a) and the *TALIS 2018 and TALIS Starting Strong 2018 User Guide* (OECD 2019b). Most of the information provided in this chapter refers primarily to the U.S. specific variables.

U.S. national restricted-use data files can only be obtained by completing a restricted-use license agreement with NCES. Similar to the U.S. national public-use data files, the restricted-use principal and teacher data files are considered add-on files that need to be merged with the international files. The

primary purpose of the U.S. restricted-use data files is to provide additional data variables that cannot be used by the general public due to data confidentiality concerns. Of these additional data, the most notable variables are found in the U.S. national restricted-use principal file: NCESSCH (the NCES unique public school identification code) and PPIN (the private school's unique identification number). These two variables allow users with restricted-use licenses to link TALIS records to the school records that appear in the publicly-available Common Core of Data (CCD) or Private School Universe Survey (PSS). Because these data reveal the identities of participating U.S. schools, the restricted-use data files are only made available to those users who obtain a NCES restricted-use data license. Directions on how to obtain the license can be found at <https://nces.ed.gov/pubsearch/licenses.asp>.

8.1 U.S. International Datasets

The TALIS 2018 international files are available for downloading at <https://www.oecd.org/education/talis/talis-2018-data.htm>. These files include data from TALIS 2018 for all countries, including for the United States. Users can either select the entire international database or individual country files. Details on the international database, appropriate analysis using these data files, and detailed documentation on all aspects of the data collection, processing, and production of the TALIS data files, are available in the *TALIS 2018 Technical Report* (OECD 2019a) and the *TALIS 2018 and TALIS Starting Strong 2018 User Guide* (OECD 2019b). Codebooks for the TALIS 2018 principal and teacher data are available in Annex I and J of the *TALIS 2018 and TALIS Starting Strong 2018 User Guide* (OECD 2019b).

8.2 U.S. National Data Files

The files on the OECD international website contain data from all countries, including the United States. The NCES U.S. files include only national variables not included in the international file. TALIS 2018 U.S. national data files can be downloaded from the NCES website on the TALIS “Publications and Products” webpage at <https://nces.ed.gov/pubsearch/getpubcats.asp?sid=118>. The U.S. national data are intended to be merged with the U.S. data international database to create a complete data set with all variables. Details on the U.S. national variables are included in appendix C. Instructions for how to merge the data with the international files is provided in Chapter 9. The U.S. national data files available are as follows:

U.S. Public-Use data

- A Readme document that lists the file names associated with the public-use data set.
- A Quick Guide that lists the public-use data file contents, how to create working files, and a data-use agreement.
- Illustrative code to merge data sets for SPSS and SAS
- Teacher Data Files
 - ASCII file (US_TQ18_PUD.txt) contains U.S.-specific variable from the teacher questionnaire including derived race/ethnicity variable for teachers.
 - SPSS syntax file (US_TQ18_PUD.sps) to read the ASCII file in SPSS.
 - SAS syntax file (US_TQ18_PUD.sas) to read the ASCII file in SAS.
 - SAS database (US_TQ18_PUD.sas7bdat)
 - SPSS database (US_TQ18_PUD.sav)
 - HTML codebook file (US_TQ18_PUD.html) that includes variable names, variable location and format information, variable label, question text, values, and unweighted frequencies.
- Principal Data Files
 - ASCII file (US_PQ18_PUD.txt) contains U.S. specific variables from the principal questionnaire including derived race/ethnicity variable for the principals. PUBPRIV variable added indicating public or private school type.
 - A SPSS syntax file (US_PQ18_PUD.sps) to read ASCII file in SPSS.
 - A SAS syntax file (US_PQ18_PUD.sas) to read the ASCII file in SAS.
 - A SAS database (US_PQ18_PUD.sas7bdat)
 - An SPSS database (US_PQ18_PUD.sav)
 - An HTML codebook file (US_PQ18_PUD.html) that includes variable names, variable location and format information, variable label, question text, values, and unweighted frequencies.

U.S. Restricted-Use data

- A Readme document that lists the file names associated with the restricted-use data set.
- A Quick Guide that lists the restricted-use data file contents, how to create working files, and a data-use agreement.

- Illustrative code to merge data sets for SPSS and SAS
- Teacher Data Files
 - ASCII file (US_TQ18_RUD.txt) contains the continuous teacher age variable and collapsed derived race/ethnicity variable.
 - SPSS syntax file (US_TQ18_RUD.sps) to read the ASCII file in SPSS.
 - SAS syntax file (US_TQ18_RUD.sas) to read the ASCII file in SAS.
 - SAS database (US_TQ18_RUD.sas7bdat)
 - SPSS database (US_TQ18_RUD.sav)
 - HTML codebook file (US_TQ18_RUD.html) that includes variable names, variable location and format information, variable label, question text, values, and unweighted frequencies.
- Principal Data Files
 - ASCII file (US_PQ18_RUD.txt) contains CCD and PSS school identifiers, uncollapsed derived race/ethnicity variable, continuous principal age variable, and continuous enrollment variable.
 - A SPSS syntax file (US_PQ18_RUD.sps) to read ASCII file in SPSS.
 - A SAS syntax file (US_PQ18_RUD.sas) to read the ASCII file in SAS.
 - A SAS database (US_PQ18_RUD.sas7bdat)
 - An SPSS database (US_PQ18_RUD.sav)
 - An HTML codebook file (US_PQ18_RUD.html) that includes variable names, variable location and format information, variable label, question text, values, and unweighted frequencies.

8.3 U.S. National Variables

The international data files contain the questionnaire variables used by all countries. The U.S. national data contains a set of national variables, which are questionnaire variables adapted or used only in the United States, for both the principal and teacher data files. Tables 13 and 14 list the adaptations made to the U.S. principal and teacher questionnaires, respectively, and their corresponding variable names.

Table 13. Changes made to U.S. principal questionnaire

Description	U.S. question number	International question number	Associated variable(s)
U.S. only question added	3	N/A	RACEETHP_C, RACEETHP ¹
U.S. only question added	4	N/A	RACEETHP_C, RACEETHP ¹
Response option removed	5	3	TC3G03_USA2
U.S. only answer category added	11H	N/A	TC3G09H_USAX2
U.S. only answer category added	11I	N/A	TC3G09I_USAX2
U.S. only answer category added	21I	N/A	TC3G19I1_USA2
U.S. only answer category added	23G	N/A	TC3G21G1_USA2
U.S. only question added	48	N/A	TC3N48A_USAX2, TC3N48B_USAX2, TC3N48C_USAX2

¹ Principals' race/ethnicity was obtained through principals' responses to questions 3 and 4 in the principal questionnaire. Principals were asked first whether they were Hispanic or Latino and then whether they were members of the following five racial groups: (1) White; (2) Black or African American; (3) Asian; (4) Native Hawaiian or other Pacific Islander; or (5) American Indian or Alaska Native. Multiple responses to the fourth question were allowed. A composite variable with two categories was constructed in which results are shown separately for (1) White, non-Hispanic; (2) Other. This composite variable with name "RACEETHP_C" is provided in the U.S. national public-use principal dataset. Race/ethnicity is provided with all categories with variable name "RACEETHP" in the U.S. national restricted-use principal dataset.

NOTE: The United States did not administer question 17D in the international questionnaire. See Appendix C for details.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teaching and Learning International Survey (TALIS) 2018.

Table 14. Changes made to U.S. teacher questionnaire

Description	U.S. question number	International question number	Associated variable(s)
U.S. only question added	3	N/A	RACEETHT_C, RACEETHT ¹
U.S. only question added	4	N/A	RACEETHT_C, RACEETHT ¹
Response option removed	5	3	TT3G03_USA2
Answer category split into two categories	15A; 15B	15A	TT3G15A11_USA2, TT3G15A12_USA2, TT3G15A21_USA2, TT3G15A22_USA2
Answer category split into two categories	15L; 15M	15K	TT3G15K11_USA2, TT3G15K12_USA2, TT3G15K21_USA2, TT3G15K22_USA2
U.S. only answer category added	15N	N/A	TT3G15L11_USA2, TT3G15L12_USA2
U.S. only answer category added	18J	N/A	TT3G18J1_USA2
U.S. only answer category added	18K	N/A	TT3G18J2_USA2
U.S. only answer category added	18L	N/A	TT3G18J3_USA2
U.S. only answer category added	23O	N/A	TT3G23O1_USA2
U.S. only answer category added	26O	N/A	TT3G27O_USAX2
U.S. only answer category added	27H	N/A	TT3G28H_USAX2
U.S. only answer category added	27I	N/A	TT3G28I_USAX2
U.S. only question added	28A-D	N/A	TT3N28A_USAX2, TT3N28B_USAX2, TT3N28C_USAX2, TT3N28D_USAX2
Response options split and added	37	37	TT3G37_USA2

¹ Teachers' race/ethnicity was obtained through teachers' responses to questions 3 and 4 in the teacher questionnaire. Teachers were asked first whether they were Hispanic or Latino and then whether they were members of the following five racial groups: (1) White; (2) Black or African American; (3) Asian; (4) Native Hawaiian or other Pacific Islander; or (5) American Indian or Alaska Native. Multiple responses to the fourth question were allowed. A composite variable with two categories was constructed in which results are shown separately for (1) White, non-Hispanic; (2) Other race. This composite variable with name "RACEETHT_C" is provided in the U.S. national public-use teacher dataset. Race/ethnicity is provided with all categories with variable name "RACEETHT" in the U.S. national restricted-use teacher dataset.

NOTE: The United States did not administer Questions 4 (CNO), 5 (CNO), 6K, 6L, 24 (CNO), 35G, 56 (CNO), 57 (CNO), and 58 (CNO) in the international questionnaire. See Appendix C for details. Coordinated National Options (CNOs) are questions that were not part of the international core questionnaire content but ones that several countries/economies wanted to leave in the questionnaire templates, which the U.S. chose not to administer.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teaching and Learning International Survey (TALIS) 2018.

In some cases, the nature of the adaptations documented in tables 13 and 14 were such that categories that were not relevant to the United States were removed, which made it necessary to recode the national variable so it could be used with the international data files for comparable analysis. In other cases, additional categories were added, as needed, to create additional variables for the United States when the international items contained multiple categories that could be divided for U.S. analysis, but combined in the international data files for comparable analysis. Three international questionnaire items on the principal questionnaire and five items on the teacher questionnaire required recoding of the national variables before the data could be added to the international files.

In the Principal Questionnaire:

- Question 5 in the U.S. questionnaire is an adapted version of the international question 3, where the international category 4 (ISCED 4) has been removed because it was not applicable in the U.S.
- Question 21I in the U.S. questionnaire is a U.S. only variable that was added as an additional category to the international question. This addition resulted in the recoding of the option “Other” (21H) to include the U.S. category in the international data.
- Question 23G in the U.S. questionnaire is a U.S. only variable that was added as an additional category to the international question. This addition resulted in the recoding of the option “Other” (23H) to include the U.S. category in the international data.

In the Teacher Questionnaire:

- Question 5 in the U.S. questionnaire is an adapted version of the international question 3, where the international category 4 (ISCED 4) was removed because it was not applicable in the United States.
- For Question 15 in the U.S. questionnaire, the international category of reading, writing and literature was split into reading, writing and literature (15A) and English as a second language (15B). The international category of practical and vocational skills was split into business studies (15L) and practical and vocational skills (15M). There was also an additional of a U.S. variable (15N) for Special Education, which resulted in the recoding of the option “Other” (15O) to include the U.S. category in the international data.
- Questions 18J, K, and L in the U.S. questionnaire are U.S. only variables that resulted in the recoding of the option “Other” (18M) to include the three U.S. categories in the international data.
- Question 23O in the U.S. questionnaire is a U.S. only variable that resulted in the recoding of the option “Other” (23P) to include the U.S. category in the international data.

- For Question 37 in the U.S. questionnaire, the international category of reading, writing and literature was split into two categories. The first was reading, writing and literature; and the second was English as a second language. The international category of practical and vocational skills was split into business studies and practical and vocational skills. There was also an additional of a U.S. variable for Special Education, which resulted in the recoding of the option “Other” to include the U.S. category in the international data.

8.4 Variable Names

8.4.1 Identification and Administrative Variables

The following identification variables are used to identify uniquely each record in the U.S. data files:

- IDCNTRY – A two- to six-digit numeric code identifying the country/economy. Where possible, the ISO 3166 codes were used. For some countries/economies that are not covered in the ISO 3166 code list, a numeric code was created and assigned by the IEA Hamburg.
- IDSCHOOL – In all principal- and teacher-level files, this four-digit numeric code identifies the school within a country/economy. Note that codes are only unique within a country/economy. To uniquely identify schools across countries/economies, IDSCHOOL has to be used in combination with IDCNTRY.
- IDTEACH – A six-digit numeric code to identify teachers within schools. The first four digits are composed of the school ID (IDSCHOOL), followed by a unique, sequentially assigned two-digit number within each school. Note that codes are only unique within a country/economy. To uniquely identify teachers across countries/economies, IDTEACH has to be used in combination with IDCNTRY.

These variables are duplicates of the variables in the international files and are used for merging the U.S. national public-use or restricted-use files with the international files.

There was one administrative variable, PUBPRIV, added to the U.S. principal data. The variable indicates whether a school was public or private. Information for this variable is derived from the Common Core Data (CCD) and Private School Survey (PSS). Although information about the type of school is available in the principal questionnaire with two separate categories (publicly-managed schools and privately-managed schools), the PUBPRIV variable is provided in case of schools with missing data.

8.4.2 Naming conventions for variables

The U.S. versions of the TALIS questionnaires can be found at <https://nces.ed.gov/surveys/talis/questionnaire.asp>. The variables adapted for TALIS can be found in appendix C of this document. The variable names used in the U.S. database were assigned using a consistent and systematic naming convention, which generally follow the naming conventions established in the international datasets.

First two characters of the variable name (TC3G04A):

- TC – TALIS principal variable
- TT – TALIS teacher variable

Third character of the variable name (TC3G04A):

- 3 – The cycle of TALIS (2018 is the third cycle)

Fourth character of the variable name (TC3G04A):

- G – General question OR N – a national added question

Fifth through seventh characters of the variable name (TC3G04A):

- Used to represent the sequential numbering of each question. It should be noted that the sequential numbering does not necessarily correspond with the question numbers on the U.S. teacher and principal questionnaires because of the addition and deletion of questions in the U.S. questionnaire.

8.4.3 Specific Naming Conventions for U.S. Adapted or Added Questions

Some variables were adapted with specific changes for the United States that can be recoded to align with the international version of the variable. Other variables were added national options only administered in the United States. In both cases, these variables add additional characters to the variable name. For example, the variable for principal's level of education is adapted the responses to align with U.S education levels. The variable name is TC3G03_USA2, where USA2 indicates the variable is adapted by the United States for ISCED Level 2.

An example of a unique country adaptation is an adaptation where dimensions were added to a question or variables added as a national option, such as the question that asks if professional development available to teachers before or after school days (TT3N28A_USAX2) where N indicates a nationally added question and USAX2 indicates a unique country variable (X) for the United States for ISCED Level 2.

8.5 U.S. National Restricted-Use Variables

The principal and teacher restricted use datasets contain a small set of variables that allow users with restricted-use licenses to link TALIS 2018 data to school data from the Common Core of Data (CCD) and the Private School Survey (PSS) as well as providing other variables not included in the public-use file.

The NCESSCH (the NCES unique public school identification code) from the TALIS file is used to merge with NCESSCH school code from the CCD file. The PPIN (the private school's unique identification number) from the TALIS file is used to merge with the PPIN from the PSS file. The TALIS school frame was constructed using the 2015-16 CCD and the 2015-16 PSS, the most current data at the time of the TALIS frame construction.

In addition, the following additional variables are included in the principal restricted user data:

- IDSCHOOL – Scrambled School ID_SCR
- RACEETHP – National derived race/ethnicity (uncollapsed version)
- TC3G02 – Principal's age
- TC3G16 – Number of students enrolled in school

The following additional variables are included in the teacher restricted-user data:

- IDSCHOOL – Scrambled School ID_SCR
- IDTEACH – Scrambled Teacher ID_SCR
- RACEETHT – National derived race/ethnicity (uncollapsed version)
- TT3G02 – Teacher's age

9. Using the TALIS 2018 Data Files

The Teaching and Learning International Survey (TALIS) 2018 data consists of two independent data sets – the principal data and the teacher data. In previous cycles of TALIS, the principal data were not adjudicated since school info was only considered to be (1) a convenient location to find teachers and (2) a convenient location to find information about their surroundings, environment, place of work, and working conditions. For TALIS 2018, principals were considered as a population of interest of themselves, rather than just providing information on teachers, and the principal data was adjudicated on its own merits. Each data set has its own set of weights. In using these data sets, there are some considerations that need to be taken to ensure proper file creation and analysis. A detailed guide and examples of possible analyses are provided in the *TALIS 2018 User's Guide* (OECD 2019b).

9.1 Special Considerations—Replicate Weights

Two aspects of TALIS's design need careful attention in any analysis. The first stems from the sample design. The use of sampling weights is necessary for the computation of statistically sound, nationally representative estimates when random sampling is not employed. Although schools and teachers had known probabilities of selection, these probabilities were unequal. Adjusted survey weights adjust for the probabilities of selection for individual schools and teachers, as well as for school or teacher nonresponse, and errors in estimating the size of the school or the number of teachers in the school at the time of sampling. Thus, to generalize findings to the population sampled, either principals or teachers, analyses will need to apply the sampling weights provided in the files.

The second aspect to be considered also stems from the sampling design and involves the calculation of standard errors. Since the sample design is complex (a two-stage, stratified cluster design), most software packages, operating on the assumption of a simple random sample, will produce biased estimates of standard errors. To use the replicate weights contained in the data file, one must use special procedures to produce unbiased estimates of the standard errors. These procedures involve the use of Fay's method of balanced repeated replicates (BRR) with 80 replicates and the Fay coefficient set to 0.5 to estimate the standard errors. Both replicate weights and the Fay's method of BRR are described in detail in the *TALIS 2018 User's Guide* (OECD 2019b).

To calculate population estimates, the following weight variables are included in the international database:

- SCHWGT: Final principal weight for the principal-level files
- TCHWGT: Final teacher weight for the teacher-level files

To calculate correct BRR-Fay (Balanced Repeated Replication by Fay) variance estimates, the following replicate weights are included in the international database.

- SRWGT1 to SRWGT100: 100 principal BRR replicate weights for the principal-level files; and
- TRWGT1 to TRWGT100: 100 teacher BRR replicate weights for the teacher-level files.

These aspects can be handled by using IEA's IDB Analyzer. The IDB Analyzer is available at www.iea.nl/data. The IDB Analyzer can be used to combine and analyze data from TALIS. The analyzer is a downloadable tool that creates SPSS or SAS syntax that can be used to combine files from across different countries and levels (student, teacher, school, etc.) and perform analysis. It generates SPSS or SAS syntax that takes into account information from the sampling design in the computation of sampling variance. The code generated by the IEA IDB Analyzer enables the user to compute descriptive statistics and conduct statistical hypothesis testing among groups in the population without having to write any programming code. The following analyses can be performed with the analysis module:

- percentages and means,
- linear regression,
- logistic regression,
- calculation of benchmarks,
- correlations,
- percentiles, and
- differences by performance groups.

The NCES International Data Explorer (IDE) is another tool available to researchers for summarizing and describing the TALIS data. The IDE produces tabular reports and, like the IDB Analyzer, performs statistical hypothesis testing and significance tests, gap analysis and simple linear regression. The IDE is available at <https://nces.ed.gov/surveys/international/ide>.

The EdSurvey tool is another resource for analysis of the TALIS data, as well as several other complex data sets such as Trends in International Mathematics and Science Study (TIMSS) and the National Assessment of Educational Progress (NAEP). The EdSurvey tool is available at <https://www.air.org/project/nces-data-r-project-edsurvey#install>.

9.2 Merging Principal and Teacher Data

Consideration should be made when wanting to examine these data together and merging of the data. While the principal data and teacher data are independent data sets, each with their own sets of weights, the TALIS sample was designed to yield a nationally representative sample of ISCED Level 2-teachers teaching in schools. For meaningful and valid teacher-level analyses, it is typically recommended that the school data be disaggregated across teachers and school attributes be treated as “teacher characteristics.” This disaggregation can be accomplished by merging the principal data to the teacher file using the IDSCHOOL variable and analyzing the resulting file at the teacher level using the replicate weights (TRWGT1–TRWGT100) in the teacher database, which is the principal final weight based on teacher participation.

Merge code is provided to aid in performing three specific merges of the TALIS 2018 data:

- U.S. national public-use data to international public-use data (i.e., principal to principal, teacher to teacher);
- U.S. public-use file to U.S. restricted-use file; and
- Principal data to teacher data.

The merge code is included with the materials included with the TALIS 2018 U.S. data files. Additional information about the restricted-use files and accessing CCD and PSS data are described in the restricted-use file Quick Guide.

9.3 Nonresponse Bias

Detailed analysis was conducted to determine if nonresponse at the school level resulted in apparent biases in the results. The results indicated that school nonresponse to the study resulted in limited apparent bias of results. The full nonresponse bias analysis report is included in appendix D.

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Appendix A. TALIS 2018 School Recruiting Materials

This appendix contains the following materials:

- Council of Chief State Schools Officer (CCSSO) Advance Letter
- School District Advance Letter
- Public School Advance Letter
- Private School Advance Letter
- TALIS 2018 Public School study brochure and school activities
- TALIS 2018 Public School FAQs
- TALIS 2018 Public Teacher FAQs
- TALIS 2018 Private School study brochure and schedule of activities
- TALIS 2018 Private School FAQs
- TALIS 2018 Private School Teacher FAQs
- TALIS 2018 Teacher Invitation
- TALIS 2018 Principal Invitation

[Date]

[Title] [Name First] [Name Last]

[Title/Department]

[State]

[Address 1]

[City], [State] [Zip code]

Dear [Title] [Name Last]:

The United States is participating in an important international study in 2018: TALIS – the Teaching and Learning International Survey of principals and teachers at grades 7, 8, and 9. TALIS provides comparative information about teaching and the teaching profession around the world. This study is coordinated by the Organization for Economic Cooperation and Development (OECD), and more than 45 countries, including the United States, have committed to taking part in TALIS 2018. *Some schools in your state have been randomly selected to participate in TALIS 2018 this coming spring, and I am writing to ask your agency to support the participation of those schools.*

TALIS is the first and only international survey that focuses on the learning environment and the working conditions of teachers in middle schools and lower secondary schools. It fills important information gaps in the international comparisons of education systems and offers an opportunity for teachers and school principals to have a say in education analysis and policy development in key policy areas. TALIS allows countries to compare themselves with other education systems facing similar challenges, and to learn from other policy approaches.

TALIS is described in more detail in the enclosed materials. The study is conducted in the United States by the National Center for Education Statistics (NCES) in the U.S. Department of Education and is administered by Westat, a firm headquartered in Rockville, Maryland. The U.S. Office of Management and Budget has approved the data collection under OMB# 1850-0888. For information on the confidentiality of the data collected, please see the enclosed FAQ. While participation in this study is voluntary, we ask your agency to encourage the schools in your state to take part so that the United States has a representative sample of schools across the country.

Within the next few weeks, a representative of Westat will contact sampled school districts and schools to discuss participating in TALIS. We are in contact with your state assessment director and NAEP State Coordinator to try to ensure that we are not conflicting with other state efforts and that districts and schools understand how TALIS fits in with other data collections conducted by NCES. We also coordinate the administration of TALIS with NAEP and other NCES activities. In the meantime, if you have any questions, please do not hesitate to call 1-855-545-1163 or send an e-mail to TALISHelp@westat.com. You may also get more information about this study by contacting Mary Coleman at NCES at 202-245-8382 or Mary.Coleman@ed.gov or by visiting the TALIS website at <https://nces.ed.gov/surveys/talis>.

Thank you for your time and support.

Sincerely,

Peggy Carr, Ph.D.
Acting Commissioner

cc: [State assessment coordinator name]

Enclosures

The National Center for Education Statistics (NCES), within the U.S. Department of Education, conducts the Teaching and Learning International Survey (TALIS) in the United States as authorized by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

[Date]

[Title] [Name First] [Name Last], [Title/Department]

[School District]

[Address 1]

[City], [State] [Zip code]

Dear [Title] [Name Last]:

The United States is participating in an important international study in 2018: TALIS – the Teaching and Learning International Survey of principals and teachers at grades 7, 8, and 9. TALIS provides comparative information about teaching and the teaching profession around the world. This study is coordinated by the Organization for Economic Cooperation and Development (OECD), and more than 45 44 countries, including the United States, have committed to taking part in TALIS 2018. *Some schools in your district have been randomly selected to participate in TALIS 2018 this coming spring, and I am writing to ask your agency to support the participation of those schools.*

TALIS is the first and only international survey that focuses on the learning environment and the working conditions of teachers in middle schools and lower secondary schools. It fills important information gaps in the international comparisons of education systems and offers an opportunity for teachers and school principals to have a say in education analysis and policy development in key policy areas. TALIS allows countries to compare themselves with other education systems facing similar challenges, and to learn from other policy approaches.

Participating schools will receive \$200, and each school's TALIS school coordinator (school staff person designated to liaise with TALIS staff) will receive \$200 as a thank you for their time and effort. Selected teachers will receive \$20 for completing the TALIS teacher questionnaire.

TALIS is described in more detail in the enclosed materials. The study is conducted in the United States by the National Center for Education Statistics (NCES) in the U.S. Department of Education and is administered by Westat, a firm headquartered in Rockville, Maryland. The U.S. Office of Management and Budget has approved the data collection under OMB# 1850-0888. For information on the confidentiality of the data collected, please see the enclosed FAQ. While participation in this study is voluntary, we ask your agency to encourage the schools in your district to take part so that the United States has a representative sample of schools across the country.

Within the next few days, a representative of Westat will contact the following school or schools in your district that have been selected for this study: [LIST SAMPLED SCHOOLS HERE...].

If you have any questions, please do not hesitate to call 1-855-545-1163 or send an e-mail to TALISHELP@westat.com. You may also get more information about this study by contacting Mary Coleman at NCES at 202-245-8382 or Mary.Coleman@ed.gov or by visiting the TALIS website at <https://nces.ed.gov/surveys/talis>.

Thank you for your time and support.

Sincerely,

Peggy Carr, Ph.D.
Acting Commissioner

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[Date]

[Title] [Name First] [Name Last], [Title/Department]

[School District]

[Address 1]

[City], [State] [Zip code]

Dear [Title] [Name Last]:

The United States is participating in an important international study in 2018: TALIS – the Teaching and Learning International Survey of principals and teachers at grades 7, 8, and 9. TALIS provides comparative information about teaching and the teaching profession around the world. This study is coordinated by the Organization for Economic Cooperation and Development (OECD), and more than 45 countries, including the United States, have committed to participate in TALIS 2018. *Your school is one of only 220 across the United States that has been randomly selected to participate in TALIS 2018 this coming spring.*

TALIS is the first and only international survey that focuses on the learning environment and the working conditions of teachers in middle schools and lower secondary schools. It fills important information gaps in the international comparisons of education systems and offers an opportunity for teachers and school principals to have a say in education analysis and policy development in key policy areas. TALIS allows countries to compare themselves with other education systems facing similar challenges, and to learn from other policy approaches.

I'm writing to ask that you encourage the teachers in your school to participate in TALIS, as every teacher who completes the survey plays an important role in representing other teachers and schools that are similar. It's vital that teachers participate in TALIS to ensure the U.S. sample is an accurate reflection of what teaching and learning looks like across the country. This information provides unique insight on the conditions of and activities relating to teaching in your school. But bigger than that, by taking part in TALIS, they will be contributing to a global, collaborative conversation about how factors like learning environments, professional development, school leadership, and job satisfaction impact teaching practice around the world.

Participating schools will receive \$200, and each school's TALIS school coordinator (school staff person designated to liaise with TALIS staff) will receive \$200 as a thank you for their time and effort. Selected teachers will receive \$20 for completing the TALIS teacher questionnaire.

TALIS is described in more detail in the enclosed materials. The study is conducted in the United States by the National Center for Education Statistics (NCES) in the U.S. Department of Education and is administered by Westat, a firm headquartered in Rockville, Maryland. The U.S. Office of Management and Budget has approved the data collection under OMB# 1850-0888. For information on the confidentiality of the data collected, please see the enclosed FAQ. I hope you will participate in this voluntary study because it is important that the United States has a nationally representative sample of schools and teachers.

Within the next few days, a representative of Westat will contact you to discuss your participation. If you have any questions, please do not hesitate to call 1-855-545-1163 or send an e-mail to TALISHELP@westat.com. You may also get more information about this study by contacting Mary Coleman at NCES at 202-245-8382 or Mary.Coleman@ed.gov or by visiting the TALIS website at <https://nces.ed.gov/surveys/talis>.

Your participation in TALIS 2018 is vital. Thank you for your time and for supporting this important international study.

Sincerely,

Peggy Carr, Ph.D.
Acting Commissioner

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[Date]

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[School District]

[Address 1]

[City], [State] [Zip code]

Dear [Title] [Name Last]:

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I'm writing to ask that you encourage the teachers in your school to participate in TALIS, as every teacher who completes the survey plays an important role in representing other teachers and schools that are similar. It's vital that teachers in every kind of education system—including private schools—participate in TALIS to ensure the U.S. sample is an accurate reflection of what teaching and learning looks like across the country. This information provides unique insight on the conditions of and activities relating to teaching in your school. But bigger than that, by taking part in TALIS, they will be contributing to a global, collaborative conversation about how factors like learning environments, professional development, school leadership, and job satisfaction impact teaching practice around the world.

Participating schools will receive \$200, and each school's TALIS school coordinator (school staff person designated to liaise with TALIS staff) will receive \$200 as a thank you for their time and effort. Selected teachers will receive \$20 for completing the TALIS teacher questionnaire.

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TALIS 2018

Teaching and Learning International Survey

What is TALIS?

The Teaching and Learning International Survey (TALIS) is a survey about teachers, teaching, and learning environments. First conducted in 2008, its main objective is to provide international indicators that will help countries develop well-informed education policy. TALIS offers teachers and principals the opportunity to provide their perspectives on education in the United States. TALIS 2018 will be conducted in the spring of 2018.

Why is TALIS important?

TALIS is an effort by the United States and other countries to better understand the successes and challenges faced by teachers and school leaders. TALIS fills gaps in our knowledge of teacher and principal working conditions, an area that has been underrepresented in international studies of education. TALIS aims to inform policymakers and educators around the world about shared concerns and promising educational approaches.

Why should schools participate?

It's vital that teachers and principals in every kind of education system participate in TALIS to ensure the U.S. sample is an accurate reflection of what teaching and learning looks like across the country. The perspectives and opinions of educators provide unique and valuable insight on key factors like professional development opportunities, school leadership, mechanisms for feedback, and job satisfaction that are essential to the larger, global conversation about teaching practice and educational progress.

Who will be surveyed?

TALIS focuses on the middle and lower secondary levels: grades 7, 8, and 9 in the United States. Principals and teachers at U.S. schools have been randomly selected to participate. This ensures that the U.S. sample is representative of the overall U.S. school population, both public and private.



Teaching and Learning International Survey

What will schools and teachers be asked to do?

TALIS is composed of two questionnaires: one for school principals and another for teachers. The principal survey is designed to take approximately 45 minutes to complete and the teacher survey to take approximately 60 minutes. The online version of the questionnaire allows respondents to complete the survey during a single session or over multiple sessions. Both questionnaires cover the following topics:

- teacher and principal background and characteristics;
- school leadership and climate;
- teachers' instructional practices;
- teacher and principal professional development; and
- teacher appraisal and feedback.

How will the study be coordinated?

Data collection for this study will be carried out by staff from Westat, under contract with the U.S. Department of Education. Principals are asked to designate a School Coordinator who will liaise with TALIS staff and provide a list of 7th, 8th, and 9th grade teachers; distribute materials to the principal and selected teachers; and encourage the completion of surveys by the deadline.

What will happen with the collected data?

TALIS data will be used to describe the conditions of teaching and schooling across countries and to develop comparative education indicators. All of the information provided by school staff may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). Reports of the findings from TALIS will not identify participating districts, schools, or individual staff. Individual responses will be combined to produce summary statistics and reports.



Teaching and Learning International Survey

Timeline of Main Study Activities for TALIS 2018

	November–December 2017	January–March 2018 Pre-survey Contact	March–April 2018	Benefits
Principal	<ul style="list-style-type: none"> Identify a school coordinator. 		<ul style="list-style-type: none"> Complete an online Principal Questionnaire on the characteristics of your school. 	<ul style="list-style-type: none"> Represent other similar U.S. schools. Receive U.S. national report with TALIS 2018 results. Schools will receive \$200 for participating.
Teachers			<ul style="list-style-type: none"> Complete an online Teacher Questionnaire on education and teaching experience. 	<ul style="list-style-type: none"> Teachers will receive \$20 for completing the teacher questionnaire.
School Coordinator		<ul style="list-style-type: none"> Provide a list of eligible teachers to TALIS staff. Notify selected teachers and inform them about the benefits of participating. 	<ul style="list-style-type: none"> Coordinate the principal's completion of the school questionnaire. Coordinate the teachers' completion of the teacher questionnaire. 	<ul style="list-style-type: none"> Receive \$200 for time and effort in coordinating the survey.
TALIS Staff	<ul style="list-style-type: none"> Provide school with materials explaining TALIS and its importance. 	<ul style="list-style-type: none"> Call the school coordinator to discuss survey and teacher participation. Work with school coordinator to construct a list of eligible teachers. Select random sample of eligible teachers to participate. Provide online access information for the teacher and school questionnaires to the school coordinator. 	<ul style="list-style-type: none"> Meet with school coordinator after the assessment. Help with any technical issues or other coordination that is required. Protect data collected from the school and teachers. 	
Find out more	http://nces.ed.gov/surveys/talis			



Teaching and Learning International Survey

TALIS 2013: Examples of key findings

- Teachers who receive more professional development tend to believe they work more effectively.
- Teachers with stronger beliefs about teaching methods report, on average, more collaborative behavior with colleagues and more positive student teacher relations.
- Teachers who receive recognition for good performance from their principal or colleagues tend to feel they are more effective.
- Appraisal and feedback are associated positively with teachers' job satisfaction and security, but only a minority of teachers reported that appraisal and evaluation affect professional development, career advancement, or pay.

SOURCE: Organization for Economic Cooperation and Development. (2014). *TALIS 2013 Results: An International Perspective on Teaching and Learning*. Paris: Author.

TALIS 2018: Participants

OECD Countries

Australia
Austria
Belgium (Fl., Fr.)
Canada (Alberta)
Chile
Czech Republic
Denmark
Estonia
Finland
France
Hungary
Iceland
Israel

Italy
Japan
Korea
Latvia
Mexico
Netherlands
New Zealand
Norway
Portugal
Slovak Republic
Slovenia
Spain
Sweden

Turkey
United Kingdom
(England)
United States
Non-member Economies
Argentina (BA)
Brazil
Bulgaria
China (Shanghai)
Chinese Taipei
Colombia

Croatia
Cyprus
Georgia
Kazakhstan
Lithuania
Malta
Romania
Russian Federation
Singapore
United Arab Emirates
Vietnam

For more information

TALIS is sponsored by the Organization for Economic Co-operation and Development (OECD) and managed in the U.S. by the National Center for Education Statistics (NCES), part of the U.S. Department of Education.

To learn more about TALIS, visit <http://nces.ed.gov/surveys/talis> and <http://www.oecd.org/edu/school/talis.htm>. For questions about TALIS, contact the TALIS Information Hotline at 1-855-545-1163 or TALISHelp@westat.com.



The National Center for Education Statistics (NCES), within the U.S. Department of Education, conducts the Teaching and Learning International Survey (TALIS) in the United States as authorized by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). The U.S. Office of Management and Budget has approved this data collection under OMB #1850-0898.



Teaching and Learning International Survey

Frequently Asked Questions

Information for Schools

TALIS 2018

What is TALIS?

TALIS (Teaching and Learning International Survey) is an international survey of the teaching workforce, teaching as a profession, and the learning environments of schools. TALIS draws on questionnaire responses from nationally representative samples of teachers and their school principals in participating countries and education systems. The main objective of TALIS is to provide accurate and relevant international indicators on teachers and teaching. A central goal of TALIS is helping countries review current conditions and develop informed education policy. TALIS offers an opportunity for teachers and school principals to provide their perspectives on the state of education in their own countries, allowing for a global view of teachers and the education systems in which they work. In the United States, TALIS surveys teachers and principals of students in grades 7, 8, and 9.

Why was my school selected for participation?

Schools with varying demographics and in different locales were randomly selected so that the U.S. sample is representative of the overall U.S. school population, both public and private. The random selection process is important for ensuring that a country's sample accurately reflects its schools and therefore can be compared fairly with samples of schools from other countries.

Why is it important for my school to take part?

The perspectives and opinions of educators provide unique and valuable insight that paints a comprehensive picture of what teaching and learning looks like in different classrooms and school environments across the United States. Every teacher and principal who completes the TALIS survey plays an important role in representing other similar teachers and schools.

Will all teachers in the school be asked to participate?

It depends on the number of teachers in the school. The study requires a random sample of up to 20 teachers who teach at least one class/course to 7th, 8th, or 9th graders in each school, regardless of subject matter. In schools with 20 or fewer eligible teachers, all teachers who teach at target grades will be asked to participate.

Who conducts the study?

The study will be undertaken by trained staff from Westat under contract to the National Center for Education Statistics (NCES) in the U.S. Department of Education. NCES is authorized to conduct this study by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). The U.S. Office of Management and Budget has approved this data collection under OMB# 1850-0888.

Is participation required by federal law?

No. School and teacher participation is voluntary. However, we hope you will participate in this study so that the principal and teachers like those in your school are accurately and fairly represented.

When will TALIS be conducted?

The study will be conducted March–April, 2018. Both the principal and selected teachers will receive instructions on how to complete the questionnaires. To make responding easier, the questionnaires will be available online, and a paper-based version will also be available.



TALIS 2018

What are schools and teachers asked to do?

TALIS is composed of two online questionnaires: one for the school principal and another for teachers. Both teacher and principal questionnaires include questions about the following core components:

- Teacher and principal background and characteristics;
- Teacher and principal professional development;
- School leadership and management;
- Teacher appraisal and feedback;
- Teachers' instructional approaches and pedagogical practices;
- Teacher efficacy and job satisfaction; and
- School climate.

How long do the questionnaires take to complete?

The principal questionnaire is designed to be completed within 45 minutes, while the teacher questionnaire is designed to be completed within 60 minutes. These timings include the time it may take to read instructions and gather the needed information. The online version of the questionnaires will allow respondents to complete the survey questions during a single session or over multiple sessions.

What will happen with the collected data?

The data from the questionnaires will be used to document the conditions of teaching and schooling that may be related to student learning and to develop comparative education indicators geared toward informing policy discussions about teachers and teaching. All of the information provided by school staff may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). Reports of the findings from TALIS will not identify participating districts, schools, students, or individual staff. Individual responses will be combined with those from other participants to produce summary statistics and reports. For a recent example of how TALIS data are reported, please visit <http://nces.ed.gov/surveys/talis/talis2013/index.asp>.

How will the study be coordinated in my school?

Schools are asked to designate a School Coordinator to distribute materials and gather information. The School Coordinator will be the main contact at the school through whom Westat will communicate. There is no need for Westat staff to visit the school. The School Coordinator is asked to complete a sampling form listing eligible teachers of 7th, 8th, or 9th graders, distribute information materials to the selected teachers, provide the principal and teachers with the questionnaires or login/password information for the online surveys, and to encourage the completion of the surveys by the agreed upon deadline.

The School Coordinator can be a teacher or any school staff member (e.g., office administrator).

Where can I find out more about TALIS?

For more information on TALIS, including results from previous data collections, please visit the TALIS website at <http://nces.ed.gov/surveys/talis>.

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OMB No. 1850-0388

50148.0817



Teaching and Learning International Survey

Frequently Asked Questions

Information for Teachers

TALIS 2018

What is TALIS?

TALIS (Teaching and Learning International Survey) is an international survey of the teaching workforce, teaching as a profession, and the learning environments of schools. TALIS draws on questionnaire responses from nationally representative samples of teachers and their school principals in participating countries and education systems. The main objective of TALIS is to provide accurate and relevant international indicators on teachers and teaching. A central goal of TALIS is helping countries review current conditions and develop informed education policy. TALIS offers an opportunity for teachers and school principals to provide their perspectives on the state of education in their own countries, allowing for a global view of teachers and the education systems in which they work. In the United States, TALIS surveys teachers and principals of students in grades 7, 8, and 9.

What role do teachers have in TALIS?

Teachers are the main source of information for TALIS. TALIS gives you an opportunity to provide information that is critical to understanding the conditions and activities of teaching in schools like yours as well as to voice your perspectives on teaching and learning at your school. The teacher questionnaire asks about your background and teaching experience, teaching practices, the student body, and your views on school policies and evaluation.

Why should I take the time to participate?

Every teacher who completes the TALIS survey plays an important role in representing other similar teachers across the nation. Your perspective, and the perspective of your colleagues, provides unique and valuable insight and paints a more comprehensive picture of what teaching and learning looks like in different classrooms and school environments across the United States. Beyond that, by taking part in TALIS, you have the opportunity to share your perspective and contribute to a global conversation about how factors like learning environments, professional development, school leadership, and job satisfaction impact classroom experiences, and how educators and policymakers can work together to improve teaching practice around the world.

How was I selected to take the TALIS teacher questionnaire?

The TALIS school coordinator in your school (the person designated by your school principal to communicate with TALIS staff) provided a list of all teachers who teach any students in grades 7, 8, or 9. You are one of up to 20 teachers from your school who were selected to participate. Your participation in TALIS is vital to assure that your views are represented.

How long will it take to complete the TALIS teacher questionnaire?

The teacher questionnaire will take approximately 60 minutes to complete online, and you do not have to complete it all in a single session. The online software automatically saves your responses to each question as you navigate through the questionnaire so that if you wish to complete the questionnaire later, you may pick up right where you left off.



TALIS 2018

How can I access the TALIS teacher questionnaire?

To access the teacher questionnaire (<https://portal.mytalis.us>) you will need to have an internet connection, a suitable internet browser (see the list below), and your login credentials. You will be emailed a unique hyperlink that you can click on to access the questionnaire directly. The TALIS staff are ready to work with you to make access and completion of the teacher questionnaire as easy and efficient as possible.

The following browsers are supported by TALIS and can be downloaded for free if you do not already have them installed on the computer:

- Firefox: version 19 and above
- Internet Explorer: version 8 and above
- Google Chrome: version 25 and above
- Safari (Mac version): versions 6 and above

What is done with the information you collect from me?

Your responses to the TALIS teacher questionnaire will be combined with those from other participating teachers across the United States to produce summary statistics and reports. The data from the questionnaires will be used to document the conditions of teaching and schooling that may be related to student learning and to develop comparative education indicators geared toward informing policy discussions about teachers and teaching. All of the information provided by school staff may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). Reports of the findings from TALIS will not identify participating districts, schools, students, or individual staff. Individual responses will be combined with those from other participants to produce summary statistics and reports. For a recent example of how TALIS data are reported, please visit <http://nces.ed.gov/surveys/talis/talis2013/index.asp>.

Where can I go for help or technical support?

If you have any questions or experience any difficulties, please contact the TALIS U.S. home office at 1-855-545-1163 or email TALISHelp@westat.com.

For more information on TALIS, including results from previous data collections, please visit the TALIS website at <http://nces.ed.gov/surveys/talis>.





Teaching and Learning International Survey

TALIS 2018

What is TALIS?

The Teaching and Learning International Survey (TALIS) is a survey about teachers, teaching, and learning environments. First conducted in 2008, its main objective is to provide international indicators that will help countries develop well-informed education policy. TALIS offers teachers and principals the opportunity to provide their perspectives on education in the United States. TALIS 2018 will be conducted in the spring of 2018.

Why is TALIS important?


TALIS is an effort by the United States and other countries to better understand the successes and challenges faced by teachers and school leaders. TALIS fills gaps in our knowledge of teacher and principal working conditions, an area that has been underrepresented in international studies of education. TALIS aims to inform policymakers and educators around the world about shared concerns and promising educational approaches.


Why should private schools participate?

It's vital that teachers and principals in every kind of education system, including private and parochial schools, participate in TALIS to ensure the U.S. sample is an accurate reflection of what teaching and learning looks like across the country. The perspectives and opinions of educators in private school environments provide unique and valuable insight on key factors like professional development opportunities, school leadership, mechanisms for feedback, and job satisfaction that are essential to the larger, global conversation about teaching practice and educational progress.

Who will be surveyed?

TALIS focuses on the middle and lower secondary levels: grades 7, 8, and 9 in the United States. Principals and teachers at U.S. schools have been randomly selected to participate. This ensures that the U.S. sample is representative of the overall U.S. school population, both public and private.

	<h2>Teaching and Learning International Survey</h2>
	<p>What will schools and teachers be asked to do?</p> <p>TALIS is composed of two questionnaires: one for school principals and another for teachers. The principal survey is designed to take approximately 45 minutes to complete and the teacher survey to take approximately 60 minutes. The online version of the questionnaire allows respondents to complete the survey during a single session or over multiple sessions. Both questionnaires cover the following topics:</p> <ul style="list-style-type: none"> • teacher and principal background and characteristics; • school leadership and climate; • teachers' instructional practices; • teacher and principal professional development; and • teacher appraisal and feedback. <p>How will the study be coordinated?</p> <p>Data collection for this study will be carried out by staff from Westat, under contract with the U.S. Department of Education. Principals are asked to designate a School Coordinator who will liaise with TALIS staff and provide a list of 7th, 8th, and 9th grade teachers; distribute materials to the principal and selected teachers; and encourage the completion of surveys by the deadline.</p> <p>What will happen with the collected data?</p> <p>TALIS data will be used to describe the conditions of teaching and schooling across countries and to develop comparative education indicators. All of the information provided by school staff may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). Reports of the findings from TALIS will not identify participating districts, schools, or individual staff. Individual responses will be combined to produce summary statistics and reports.</p>

	<h1>Teaching and Learning International Survey</h1>			
	<h2>Timeline of Main Study activities for TALIS 2018</h2>			
	November–December 2017	January–March 2018 Pre-survey Contact	March–April 2018	Benefits
Principal	<ul style="list-style-type: none"> Identify a school coordinator. 		<ul style="list-style-type: none"> Complete an online Principal Questionnaire on the characteristics of your school. 	<ul style="list-style-type: none"> Represent other similar U.S. schools. Receive U.S. national report with TALIS 2018 results. Schools will receive \$200 for participating.
Teachers			<ul style="list-style-type: none"> Complete an online Teacher Questionnaire on education and teaching experience. 	<ul style="list-style-type: none"> Teachers will receive \$20 for completing the teacher questionnaire.
School Coordinator		<ul style="list-style-type: none"> Provide a list of eligible teachers to TALIS staff. Notify selected teachers and inform them about the benefits of participating. 	<ul style="list-style-type: none"> Coordinate the principal's completion of the school questionnaire. Coordinate the teachers' completion of the teacher questionnaire. 	<ul style="list-style-type: none"> Receive \$200 for time and effort in coordinating the survey.
TALIS Staff	<ul style="list-style-type: none"> Provide school with materials explaining TALIS and its importance. 	<ul style="list-style-type: none"> Call the school coordinator to discuss survey and teacher participation. Work with school coordinator to construct a list of eligible teachers. Select random sample of eligible teachers to participate. Provide online access information for the teacher and school questionnaires to the school coordinator. 	<ul style="list-style-type: none"> Meet with school coordinator after the survey. Help with any technical issues or other coordination that is required. Protect data collected from the school and teachers. 	
Find out more	http://nces.ed.gov/surveys/talis			



Teaching and Learning International Survey

TALIS 2013: Examples of key findings

- Teachers who receive more professional development tend to believe they work more effectively.
- Teachers with stronger beliefs about teaching methods report, on average, more collaborative behavior with colleagues and more positive student teacher relations.
- Teachers who receive recognition for good performance from their principal or colleagues tend to feel they are more effective.
- Appraisal and feedback are associated positively with teachers' job satisfaction and security, but only a minority of teachers reported that appraisal and evaluation affect professional development, career advancement, or pay.

SOURCE: Organization for Economic Cooperation and Development. (2014). *TALIS 2013 Results: An International Perspective on Teaching and Learning*. Paris: Author.

TALIS 2018: Participants

OECD Countries			
Australia	Italy	Turkey	Croatia
Austria	Japan	United Kingdom	Cyprus
Belgium (Fl., Fr.)	Korea	(England)	Georgia
Canada (Alberta)	Latvia	United States	Kazakhstan
Chile	Mexico	Non-member Economies	Lithuania
Czech Republic	Netherlands	Argentina (BA)	Malta
Denmark	New Zealand	Brazil	Romania
Estonia	Norway	Bulgaria	Russian Federation
Finland	Portugal	China (Shanghai)	Singapore
France	Slovak Republic	Chinese Taipei	United Arab Emirates
Hungary	Slovenia	Colombia	Vietnam
Iceland	Spain		
Israel	Sweden		

For more information

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Institute of Education Sciences



Teaching and Learning International Survey



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TALIS 2018

Teaching and Learning International Survey

Frequently Asked Questions

Information for Private Schools

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Why was my school selected for participation?

Schools with varying demographics and in different locales were randomly selected so that the U.S. sample is representative of the overall U.S. school population, both public and private. The random selection process is important for ensuring that a country's sample accurately reflects its schools and therefore can be compared fairly with samples of schools from other countries.

Why is it important for my school to take part?

The perspectives and opinions of educators in private schools provide unique and valuable insight that, when combined with contributions from public school educators, paints a more comprehensive picture of what teaching and learning looks like in different classrooms and school environments across the United States. Every teacher and principal who completes the TALIS survey plays an important role in representing other similar teachers and schools.

Will all teachers in the school be asked to participate?

It depends on the number of teachers in the school. The study requires a random sample of up to 20 teachers who teach at least one class/course to 7th, 8th, or 9th graders in each school, regardless of subject matter. In schools with 20 or fewer eligible teachers, all teachers who teach at target grades will be asked to participate.

Who conducts the study?

The study will be undertaken by trained staff from Westat under contract to the National Center for Education Statistics (NCES) in the U.S. Department of Education. NCES is authorized to conduct this study by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). The U.S. Office of Management and Budget has approved this data collection under OMB# 1850-0888.

Is participation required by federal law?

No. School and teacher participation is voluntary. However, we hope you will participate in this study so that the principal and teachers like those in your school are accurately and fairly represented.

When will TALIS be conducted?

The study will be conducted March-April, 2018. Both the principal and selected teachers will receive instructions on how to complete the questionnaires. To make responding easier, the questionnaires will be available online, and a paper-based version will also be available.



TALIS 2018

What are schools and teachers asked to do?

TALIS is composed of two online questionnaires: one for the school principal and another for teachers. Both teacher and principal questionnaires include questions about the following core components:

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How long do the questionnaires take to complete?

The principal questionnaire is designed to be completed within 45 minutes, while the teacher questionnaire is designed to be completed within 60 minutes. These timings include the time it may take to read instructions and gather the needed information. The online version of the questionnaires will allow respondents to complete the survey questions during a single session or over multiple sessions.

What will happen with the collected data?

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The School Coordinator can be a teacher or any school staff member (e.g., office administrator).

Where can I find out more about TALIS?

For more information on TALIS, including results from previous data collections, please visit the TALIS website at <http://nces.ed.gov/surveys/talis>.

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**NATIONAL CENTER FOR
EDUCATION STATISTICS**

Institute of Education Sciences

OME No. 1850-0988
50146.0817



Teaching and Learning International Survey

Frequently Asked Questions

Information for Private School Teachers

TALIS 2018

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What role do teachers have in TALIS?

Teachers are the main source of information for TALIS. TALIS gives you an opportunity to provide information that is critical to understanding the conditions of and activities related to teaching in schools like yours as well as to voice your perspectives and opinions. The teacher questionnaire asks about your background and teaching experience, teaching practices, the student body, and your views on school policies and evaluation.

Why should I take the time to participate?


Every teacher who completes the TALIS survey plays an important role in representing other similar teachers and schools across the nation. Your perspective, and the perspective of your colleagues, as educators in a private school, provides unique and valuable insight that, when combined with contributions from other private, parochial, and public school teachers, paints a more comprehensive picture of what teaching and learning looks like in different classrooms and school environments across the United States. Beyond that, by taking part in TALIS, you have the opportunity to share your perspective and contribute to a global conversation about how factors like learning environments, professional development, school leadership, and job satisfaction impact classroom experiences, and how educators and policymakers can work together to improve teaching practice around the world.

How was I selected to take the TALIS teacher questionnaire?

The TALIS school coordinator in your school (the person designated by your school principal to communicate with TALIS staff) provided a list of all teachers who teach any students in grades 7, 8, or 9. You are one of up to 20 teachers from your school who were selected to participate. Your participation in TALIS is vital to assure that your views are represented.

How long will it take to complete the TALIS teacher questionnaire?

The teacher questionnaire will take approximately 60 minutes to complete online, and you do not have to complete it all in a single session. The online software automatically saves your responses to each question as you navigate through the questionnaire so that if you wish to complete the questionnaire later, you may pick up right where you left off.



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TALIS 2018

What is TALIS?

TALIS (Teaching and Learning International Survey) is an international survey of the teaching workforce, teaching as a profession, and the learning environments of schools. TALIS draws on questionnaire responses from nationally representative samples of teachers and their school principals in participating countries and education systems. The main objective of TALIS is to provide accurate and relevant international indicators on teachers and teaching. A central goal of TALIS is helping countries review current conditions and develop informed education policy. TALIS offers an opportunity for teachers and school principals to provide their perspectives on the state of education in their own countries, allowing for a global view of teachers and the education systems in which they work. In the United States, TALIS surveys teachers and principals of students in grades 7, 8, and 9.

What role do teachers have in TALIS?

Teachers are the main source of information for TALIS. TALIS gives you an opportunity to provide information that is critical to understanding the conditions of and activities related to teaching in schools like yours as well as to voice your perspectives and opinions. The teacher questionnaire asks about your background and teaching experience, teaching practices, the student body, and your views on school policies and evaluation.

Why should I take the time to participate?

Every teacher who completes the TALIS survey plays an important role in representing other similar teachers and schools across the nation. Your perspective, and the perspective of your colleagues, as educators in a private school, provides unique and valuable insight that, when combined with contributions from other private, parochial, and public school teachers, paints a more comprehensive picture of what teaching and learning looks like in different classrooms and school environments across the United States. Beyond that, by taking part in TALIS, you have the opportunity to share your perspective and contribute to a global conversation about how factors like learning environments, professional development, school leadership, and job satisfaction impact classroom experiences, and how educators and policymakers can work together to improve teaching practice around the world.

How was I selected to take the TALIS teacher questionnaire?

The TALIS school coordinator in your school (the person designated by your school principal to communicate with TALIS staff) provided a list of all teachers who teach any students in grades 7, 8, or 9. You are one of up to 20 teachers from your school who were selected to participate. Your participation in TALIS is vital to assure that your views are represented.

How long will it take to complete the TALIS teacher questionnaire?

The teacher questionnaire will take approximately 60 minutes to complete online, and you do not have to complete it all in a single session. The online software automatically saves your responses to each question as you navigate through the questionnaire so that if you wish to complete the questionnaire later, you may pick up right where you left off.



TALIS 2018 Teacher Questionnaire Invitation

Dear «teacherFirstLast»:

Your school is one of about 200 schools across the United States taking part in the Teaching and Learning International Study (TALIS) 2018 main study. Conducted every 5 years since 2008, TALIS is an international survey of principals and teachers at grades 7, 8, and 9 and provides comparative information about teaching and the teaching profession around the world. More than 45 countries and other education systems are participating in 2018.

You've been selected to complete a TALIS online teacher questionnaire about the courses you teach, your teacher training and education, and your views on teaching. The questionnaire takes about 60 minutes to complete and can be completed in a single session or multiple sessions. If you have any questions about how you were selected for this survey, please contact your TALIS school coordinator, «SCName».

You will receive \$20 as a thank you for completing the questionnaire, if allowed by your school's policy. Use the provided link and unique account information below to complete your questionnaire.

<https://portal.mytalis.us>

User ID: «IDTEACH»

Password: «T_ChkSum»

Your participation is valuable and appreciated. The information you contribute, combined with responses from principals and other teachers, provides accurate and reliable data to teachers, principals, and policy makers around the world.

TALIS is sponsored in the United States by the National Center for Education Statistics (NCES) in the U.S. Department of Education and is conducted by Westat in Rockville, Maryland. The U.S. Office of Management and Budget has approved the data collection under OMB #1850-0888.

To get more information about this study, visit the TALIS website at <http://nces.ed.gov/surveys/talis>

If you need assistance accessing the survey, please contact the TALIS help desk by phone between 8 a.m. and 8 p.m. Eastern Standard Time at 1-855-545-1163 or email TALISHelp@westat.com.

Sincerely,
The TALIS USA Team

The National Center for Education Statistics (NCES), within the U.S. Department of Education, conducts the Teaching and Learning International Survey (TALIS) in the United States as authorized by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).



TALIS 2018 Principal Questionnaire Invitation

Dear «principalFirstLast»:

Your school is one of about 200 schools across the United States taking part in the Teaching and Learning International Study (TALIS) 2018 main study. Conducted every 5 years since 2008, TALIS is an international survey of principals and teachers at grades 7, 8, and 9 and provides comparative information about teaching and the teaching profession around the world. More than 45 countries and other education systems are participating in 2018.

Each principal is asked to complete the TALIS online principal questionnaire about their school. The questionnaire takes about 45 minutes to complete and can be completed in a single session or multiple sessions.

Use the provided link and unique account information below to complete your questionnaire.

<https://portal.mytalis.us>
User ID: «idschool»
Password: «Sch_ChkSum»

Your participation is valuable and appreciated. The information you contribute, combined with responses from teachers and other principals, provides accurate and reliable data to teachers, principals, and policy makers around the world.

TALIS is sponsored in the United States by the National Center for Education Statistics (NCES) in the U.S. Department of Education and is conducted by Westat in Rockville, Maryland. The U.S. Office of Management and Budget has approved the data collection under OMB #1850-0888.

To get more information about this study, visit the TALIS website at <http://nces.ed.gov/surveys/talis>

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Appendix B. Agencies Endorsing TALIS 2018

The following agencies endorsed the 2018 Teaching and Learning International Survey:

- American Federation of Teachers
- National Council of Teachers of Mathematics
- National Education Association
- Association for Middle Level Education
- National Science Teacher Association
- Learning Forward
- Association of Christian Teachers and Schools
- Christian Schools International

Appendix C. TALIS 2018 Questionnaire Adaptations

Any type of adaptations that were made to the U.S. versions of the questionnaires is included in this appendix. These include adaptations to spelling, punctuation, hyphenation, wording, answer categories, new USA-only questions, question numbering, and skip instructions that were added to accommodate new USA-only questions.

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C-2	Teacher Questionnaire: Questions that require national adaptationsC-19

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
†	***USA-only question	†	PQ-Q03	Are you of Hispanic or Latino origin? <i>Please mark one choice.</i> 1 = Yes 2 = No	RACEETHP_C (PUF); RACEETHP (RUF).	†
†	***USA-only question	†	PQ-Q04	What is your race? <i>Mark one or more races to indicate what you consider yourself to be.</i>	RACEETHP_C (PUF); RACEETHP (RUF)	†
†		†	PQ-Q04A	White	RACEETHP_C (PUF); RACEETHP (RUF)	†
†		†	PQ-Q04B	Black or African American	RACEETHP_C (PUF); RACEETHP (RUF)	†
†		†	PQ-Q04C	Asian	RACEETHP_C (PUF); RACEETHP (RUF)	†
†		†	PQ-Q04D	Native Hawaiian or Other Pacific Islander	RACEETHP_C (PUF); RACEETHP (RUF)	†
†		†	PQ-Q04E	American Indian or Alaska Native	RACEETHP_C (PUF); RACEETHP (RUF)	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ- Q03	What is the highest level of formal education you have completed? <i>Please mark one choice.</i> 1 = Below <ISCED 2011 Level 3> 2 = <ISCED 2011 Level 3> 3 = <ISCED 2011 Level 4> 4 = <ISCED 2011 Level 5> 5 = <ISCED 2011 Level 6> 6 = <ISCED 2011 Level 7> 7 = <ISCED 2011 Level 8>	TC3G03	PQ- Q05	1 = I did not complete high school 2 = High school 3 = Associate's degree (2-year college program) 4 = Bachelor's degree (4-year college program) 5 = Master's degree or professional degree (MD, DDS, lawyer, minister) 6 = Doctorate (Ph.D., or Ed.D .)	TC3G03_USA2	National -> International 1 -> 1 2 -> 2 3 -> 4 4 -> 5 5 -> 6 6 -> 7 International Category 4 (ISCED Level 4) is not administered
PQ- Q06	Did the formal <education or training> you completed include the following and, if yes, was this before or after you took up a position as principal? <i>Please mark one choice in each row.</i> 1 = Before 2 = After 3 = Before and after 4 = Never	†	PQ- Q08	Did the formal education or training you completed include the following and, if yes, was this before or after you took up a position as principal? <i>Please mark one choice in each row.</i> 1 = Before 2 = After 3 = Before and after 4 = Never	†	†
PQ- Q06A	School administration or principal training programme or course	TC3G06A	PQ- Q08A	School administration or principal training program or course	†	†
PQ- Q06B	Teacher training/education programme or course	TC3G06B	PQ- Q08B	Teacher training/education program or course	†	†
PQ- Q07F	Formal qualification programme (e.g. a degree programme)	TC3G07F	PQ- Q09F	Formal qualification program (e.g., a degree program)	†	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ-09	How strongly do you agree or disagree that the following present barriers to your participation in professional development?	TC3G09A	PQ-Q11	How strongly do you agree or disagree that the following present barriers to your participation in professional development?	†	†
PQ- Q09A	I do not have the pre-requisites (e.g. qualifications, experience, seniority).		PQ- Q11A	I do not have the prerequisites (e.g. qualifications, experience, seniority).		
†	***USA-only question	†	PQ-Q11H	h) The professional development offered is of poor quality.	TC3G09H_USAX2	†
†	***USA-only question	†	PQ-Q11I	i) Professional development is not readily accessible to me.	TC3G09I_USAX2	†
PQ- Q10	Which best describes this school's location? <i>Please mark one choice.</i> 1 = <A village, hamlet or rural area> (up to 3,000 people) 2 = <Small town> (3,001 to 15,000 people) 3 = <Town> (15,001 to 100,000 people) 4 = <City> (100,001 to 1,000,000 people) 5 = <Large city> (more than 1,000,000 people)	TC3G10	PQ- Q12	Which best describes the community in which your school is located? <i>Please mark one choice.</i> 1 = A village, hamlet or rural area (up to 3,000 people) 2 = Small town (3,001 to 15,000 people) 3 = Town (15,001 to 100,000 people) 4 = City (100,001 to 1,000,000 people) 5 = Large city (more than 1,000,000 people)	†	†
PQ- Q11A	<Government> (including departments, municipal, local, regional, state, national and supranational levels)	TC3G11A	PQ- Q13A	Government (including departments, municipal, local, district, state, national and supranational levels)	†	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ- Q12	Is this school publicly- or privately-managed? <i>Please mark one choice.</i> 1 = Publicly-managed <i>This is a school <u>managed</u> by a public education authority, government agency, municipality, or governing board appointed by government or elected by public franchise.</i> 2 = Privately-managed <i>This is a school <u>managed</u> by a non-government organisation; e.g. a <church,> trade union, business or other private institution.</i>	TC3G12	PQ- Q14	1 = Publicly-managed <i>This is a school <u>managed</u> by a public education authority, government agency, or governing board appointed by government or elected by public franchise.</i> 2 = Privately-managed <i>This is a school <u>managed</u> by a non-government organization e.g., a religious institution, trade union, business or other private institution.</i>	†	†
PQ- Q13	For each type of position listed below, please indicate the number of staff (head count) currently working in this school. <i>Staff may fall into multiple categories.</i> <i>Please write a number in each row.</i> <i>Write 0 (zero) if none.</i>	†	PQ- Q15	For each type of position listed below, please indicate the number of staff (head count) currently working in this school. <i>Staff may fall into multiple categories.</i> <i>Please write a number in each row.</i> <i>Write 0 (zero) if there are none.</i>	†	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ- Q13B	____ Personnel for pedagogical support, irrespective of the grades/ages they support <i>Including all teacher aides or other non-teaching professionals who provide instruction or support teachers in providing instruction, professional curriculum/instructional specialists, educational media specialists, psychologists <and nurses></i>	TC3G13B	PQ- Q15B	____ Personnel for pedagogical support, irrespective of the grades/ages they support <i>Including all teacher aides or other non-teaching professionals who provide instruction or support teachers in providing instruction, professional curriculum/instructional specialists, educational media specialists, psychologists and nurses</i>	†	†
PQ- Q13C	____ School administrative personnel <i>Including receptionists, secretaries, and administration assistants</i>	TC3G13C	PQ- Q15C	and administrative assistants <i>Including receptionists, secretaries, and administration assistants</i>	†	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ- Q15	<p>Are the following <ISCED 2011 levels> and/or programmes taught in this school and, if yes, are there other schools in the area that compete for students at that level and/or programme?</p> <p><i>Please indicate ‘Yes’ or ‘No’ in part (A) for each of the levels and/or programmes listed below. If ‘Yes’ in part (A), please indicate in part (B) the number of other schools in this area that compete for students.</i></p> <p>(A) Level/programme taught 1 = Yes 2 = No</p> <p>(B) Competition 1 = Two or more other schools 2 = One other school 3 = No other schools</p>	†	PQ- Q17	<p>Are the following education levels and/or programs taught in this school and, if yes, are there other schools in your area that compete for students at that education level and/or program?</p> <p>Please indicate ‘Yes’ or ‘No’ in part (A) for each of the levels and/or programs listed below. If ‘Yes’ in part (A), please indicate in part (B) the number of other schools in this area that compete for your students.</p> <p>(A) Level/program taught 1 = Yes 2 = No</p> <p>(B) Competition 1 = Two or more other schools 2 = One other school 3 = No other schools</p>	†	†
PQ- Q15A	<ISCED 2011 Level 0>	TC3G15A1-A2	PQ- Q17A	Pre-primary education (pre-kindergarten, preschool, or kindergarten)	†	†
PQ- Q15B	<ISCED 2011 Level 1>	TC3G15B1-B2	PQ- Q17B	Primary education (any of grades 1–6)	†	†
PQ- Q15C	<ISCED 2011 Level 2>	TC3G15C1-C2	PQ- Q17C	Lower secondary education (any of grades 7–9)	†	†
PQ- Q15D	<ISCED 2011 Level 3> general education programmes	TC3G15D1-D2	PQ- Q17D	Upper secondary (any of grades 10–12) general education programs	†	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ- Q15E	<ISCED 2011 Level 3> vocational or technical education programmes	TC3G15E1-E2	PQ- Q17E	Upper secondary (any of grades 10–12) vocational or technical education programmes	†	†
PQ- Q16	What is the <u>current</u> school enrolment, i.e. the number of students of all grades/ages in this school? <i>Please write a number.</i> _____ Students	TC3G16	PQ- Q18	What is the <u>current</u> school enrollment, i.e. the number of students of all grades/ages in this school? <i>Please write a number.</i> _____ Students	†	†
PQ- Q17	Please <u>estimate</u> the broad percentage of <<ISCED level x> or 15-year-old> students in this school who have the following characteristics. < ‘Special needs’ students are those for whom a special learning need has been <u>formally identified</u> because they are mentally, physically, or emotionally disadvantaged. <Often they will be those for whom additional public or private resources (personnel, material or financial) have been provided to support their education.>> < ‘Socio-economically disadvantaged homes’ refers to homes lacking the basic necessities or advantages of life, such as adequate housing, nutrition or medical care.>	†	PQ- Q19	Please <u>estimate</u> the broad percentage of students in grades 7, 8, and/or 9 in this school who have the following characteristics. <i>Students with special needs are those for whom a special learning need has been <u>formally identified</u> due to mental, physical, or emotional characteristics.</i> <i>‘Socioeconomically disadvantaged homes’ refers to homes lacking the basic necessities or advantages of life, such as adequate income, housing, nutrition or medical care.</i>	†	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
	<i>A 'refugee' is one who, regardless of legal status, fled to another country seeking refuge from war, political oppression, religious persecution, or a natural disaster.</i> <i>An 'immigrant student' is one who was born outside the country. A 'student with migrant background' has parents who were both born outside the country.</i> <i>Students may fall into multiple categories.</i> <i>Please mark one choice in each row.</i> 1 = None 2 = 1% to 10% 3 = 11% to 30% 4 = 31 to 60% 5 = More than 60%		<i>A 'refugee' is one who, regardless of legal status, fled to another country seeking refuge from war, political oppression, religious persecution, or a natural disaster.</i> <i>Students may fall into multiple categories.</i> <i>Please mark one choice in each row.</i> 1 = None 2 = 1% to 10% 3 = 11% to 30% 4 = 31 to 60% 5 = More than 60%		
PQ- Q17A	Students whose <first language> is different from the language(s) of instruction or from a dialect of this/these languages(s)	TC3G17A	PQ- Q19A	Students whose first language is not English	†
PQ- Q17C	Students from <socio-economically disadvantaged homes>	TC3G17C	PQ- Q19C	Students from socioeconomically disadvantaged homes	†
PQ- Q17D	Students who are immigrants or with migrant background	TC3G17D	†	Not Administered	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ- Q18	Does this school have a <school management team>? <i>'<School management team>' refers to a group within the school that has responsibilities for leading and managing the school in decisions such as those involving instruction, use of resources, curriculum, assessment and evaluation, and other strategic decisions related to the appropriate functioning of the school. Please mark one choice.</i> 1 = Yes 2 = No -> Please go to Question <20>.	TC3G18	PQ- Q20	Does this school have a school management team? <i>'School management team' refers to a group within the school that has responsibilities for leading and managing the school in decisions such as those involving instruction, use of resources, curriculum, assessment and evaluation, and other strategic decisions related to the appropriate functioning of the school. Please mark one choice.</i> 1 = Yes 2 = No -> Please go to Question 22.	†	†
PQ- Q19	Are the following currently represented on the <school management team>? <i>Please mark one choice in each row.</i> 1 = Yes 2 = No 3 = Not applicable	†	PQ- Q21	Are the following currently represented on the school management team? <i>Please mark one choice in each row.</i> 1 = Yes 2 = No 3 = Not applicable	†	†
PQ- Q19B	<Vice/deputy principal or assistant principal>	TC3G19B	PQ- Q21B	Vice/deputy principal or assistant principal	†	†
PQ- Q19F	<School governing board> ***USA-only question	TC3G19F †	PQ- Q21F PQ- Q21I	School governing board Representatives of businesses, religious institutions, or other private institutions	† TC3G19I1_USA2	† Maps to 'other' TC3G19I
PQ- Q19I	Other	TC3G19I	PQ- Q21J	†	TC3G19I2_USA2	Maps to 'other' TC3G19I

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ- Q20	Regarding this school, who has a significant responsibility for the following tasks? <i>A 'significant responsibility' is one where an active role is played in decision making.</i> <i>Please mark as many choices as appropriate in each row.</i> A(1)-K(1) = Principal A(2)-K(2) = Other members of the <school management team> A(3)-K(3) = Teachers (not as a part of the <school management team>) A(4)-K(4) = <School governing board> A(5)-K(5) = <Local, municipality/regional, state, or national/federal> authority	†	PQ- Q22	Regarding this school, who has a significant responsibility for the following tasks? <i>A 'significant responsibility' is one where an active role is played in decision making.</i> <i>Please mark as many choices as appropriate in each row.</i> A(1)-K(1) = Principal A(2)-K(2) = Other members of the school management team A(3)-K(3) = Teachers (not as a part of the school management team) A(4)-K(4) = School governing board A(5)-K(5) = Local school district or state education authority	†	†
PQ- Q20G	Establishing student assessment policies, including <national/regional> assessments	TC3G20G1-G5	PQ- Q22G	Establishing student assessment policies, including state and district assessments	†	†
PQ- Q20J	Determining course content, including <national/regional> curricula	TC3G20J1-J5	PQ- Q22J	Determining course content, including state and district curricula	†	†
PQ- Q21D	_____% Student interactions <i>Including counselling and conversations outside structured learning activities, discipline</i>	TC3G21D	PQ- Q23D	_____% Student interactions <i>Including counseling and conversations outside structured learning activities, discipline</i>	†	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ- Q21F	_____ % Interactions with local and regional community, business and industry	TC3G21F	PQ- Q23F	_____ % Interaction with local and regional community, businesses and industries	†	†
†	***USA-only question	†	PQ-Q23G	g) % Extra-curricular planning and supervision	TC3G21G1_USA2	Maps to ‘other’ - TC3G21G
PQ- Q21G	_____ % Other	TC3G21G	PQ-Q23H	_____ % Other	TC3G21G2_USA2	Maps to ‘other’ - TC3G21G
PQ- Q22D	I took actions to support co-operation among teachers to develop new teaching practices.	TC3G22D	PQ- Q24D	I took actions to support cooperation among teachers to develop new teaching practices.	†	†
PQ- Q23B	Other members of the <school management team>	TC3G23B	PQ- Q25B	Other members of the school management team	†	†
PQ- Q23D	Teachers (who are not part of the <school management team>)	TC3G23D	PQ- Q25D	Teachers (who are not part of the school management team)	†	†
PQ- Q23E	External individuals or bodies (e.g. inspectors, municipality representatives, districts/jurisdictions office personnel, or other persons from outside the school)	TC3G23E	PQ- Q25E	External individuals or bodies (e.g., inspectors, local or state education authorities, or other persons from outside the school)	†	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ- Q24	Who uses the following types of information as part of the formal appraisal of teachers' work in this school? <i>Please mark as many choices as appropriate in each row.</i> 1 = External individuals or bodies 2 = Principal 3 = Member(s) of the <school management team> 4 = Assigned mentors 5 = Other teachers (not a part of the <school management team>) 6 = Not used in this school	†	PQ- Q26	Who uses the following types of information as part of the formal appraisal of teachers' work in this school? <i>Please mark as many choices as appropriate in each row.</i> 1 = External individuals or bodies 2 = Principal 3 = Member(s) of the school management team 4 = Assigned mentors 5 = Other teachers (not a part of the school management team) 6 = Not used in this school	†	†
PQ- Q26F	There is a collaborative school culture which is characterised by mutual support.	TC3G26F	PQ- Q28F	There is a collaborative school culture which is characterized by mutual support.	†	†
PQ- Q26H	The school staff enforces rules for student behaviour consistently throughout the school.	TC3G26H	PQ- Q28H	The school staff enforces rules for student behavior consistently throughout the school.	†	†
PQ- Q26J	Teachers and students usually get on well with each other.	TC3G26J	PQ- Q28J	Teachers and students usually get along well with each other.	†	†
PQ- Q27G	The school co-operates with the local community.	TC3G27G	PQ- Q29G	The school cooperates with the local community.	†	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ- Q29	To what extent is this school's capacity to provide quality instruction currently hindered by any of the following issues? <i>Please mark one choice in each row.</i> 1 = Not at all 2 = To some extent 3 = Quite a bit 4 = A lot	†	PQ- Q31	To what extent is this school's capacity to provide quality instruction currently hindered by any of the following issues? <i>Please mark one choice in each row.</i> 1 = Not at all 2 = To some extent 3 = Quite a bit 4 = A lot	†	†
PQ- Q29F	Insufficient Internet access	TC3G29F	PQ- Q31F	Insufficient internet access	†	†
PQ- Q29L	Shortage of teachers with competence in teaching students from <socio-economically disadvantaged homes>	TC3G29L	PQ- Q31L	Shortage of teachers with competence in teaching students from socioeconomically disadvantaged homes	†	†
PQ- Q30	In this school, how often do the following occur amongst students? <i>Please mark one choice in each row.</i> 1 = Never 2 = Less than monthly 3 = Monthly 4 = Weekly 5 = Daily	†	PQ- Q32	In this school, how often do the following occur among students? <i>Please mark one choice in each row.</i> 1 = Never 2 = Less than monthly 3 = Monthly 4 = Weekly 5 = Daily	†	†
PQ- Q30F	A student or parent/guardian reports postings of hurtful information on the Internet about students.	TC3G30F	PQ- Q32F	A student or parent/guardian reports postings of hurtful information on the internet about students.	†	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ- Q30G	A student or parent/guardian reports unwanted electronic contact among students (e.g. via texts, e-mails, online).	TC3G30G	PQ- Q32G	A student or parent/guardian reports unwanted electronic contact among students (e.g. via texts, e-mails, online).	†	†
†	<i>The following section includes questions on induction and mentoring. 'Induction activities' are designed to support new teachers' introduction into the teaching profession and to support experienced teachers who are new to a school, and they are either organised in formal, structured programmes or informally arranged as separate activities. 'Mentoring' is defined as a support structure in schools where more experienced teachers support less experienced teachers. This structure might involve all teachers in the school or only new teachers.</i>	†	†	<i>The following section includes questions on induction and mentoring. 'Induction activities' are designed to support new teachers' introduction into the teaching profession and to support experienced teachers who are new to a school, and they are either organized in formal, structured programs or informally arranged as separate activities. 'Mentoring' is defined as a support structure in schools where more experienced teachers support less experienced teachers. This structure might involve all teachers in the school or only new teachers.</i>	†	†
PQ- Q31A	There is a <u>formal</u> induction programme for new teachers.	TC3G31A	PQ- Q33A	There is a <u>formal</u> induction program for new teachers.	†	†
PQ- Q32	Which teachers at this school are offered a formal induction programme? <i>Please mark one choice.</i> 1 = All teachers who are new to this school 2 = Only teachers new to teaching	TC3G32	PQ- Q34	Which teachers at this school are offered a formal induction program? <i>Please mark one choice.</i> 1 = All teachers who are new to this school 2 = Only teachers new to teaching	†	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ- Q34	Do teachers at this school have access to a mentoring programme? <i>Please mark one choice.</i> 1 = Yes, but only teachers who are new to teaching, i.e. in their first job as teachers, have access. 2 = Yes, all teachers who are new to this school have access. 3 = Yes, all teachers at this school have access. 4 = No, at present there is no access to a mentoring programme for teachers in this school. -> Please go to Question <37>.	TC3G34	PQ- Q36	Do teachers at this school have access to a mentoring program? <i>Please mark one choice.</i> 1 = Yes, but only teachers who are new to teaching (i.e. in their first job as teachers) have access. 2 = Yes, all teachers who are new to this school have access. 3 = Yes, all teachers at this school have access. 4 = No, at present there is no access to a mentoring program for teachers in this school. -> Please go to Question 39.	†	†
PQ- Q37	Does this school include students of more than one cultural or ethnic background? <i>Please mark one choice.</i> 1 = Yes 2 = No -> Please go to Question <39>.	TC3G37	PQ- Q39	Does this school include students of more than one cultural or ethnic background? <i>Please mark one choice.</i> 1 = Yes 2 = No -> Please go to Question 41.	†	†
PQ- Q38A	Supporting activities or organisations that encourage students' expression of diverse ethnic and cultural identities (e.g. artistic groups)	TC3G38A	PQ- Q40A	Supporting activities or organizations that encourage students' expression of diverse ethnic and cultural identities (e.g., artistic groups)	†	†
PQ- Q38B	Organising multicultural events (e.g. cultural diversity day)	TC3G38B	PQ- Q40B	Organizing multicultural events (e.g., cultural diversity day)	†	†
PQ- Q39A	Teaching students to be inclusive of different socio-economic backgrounds	TC3G39A	PQ- Q41A	Teaching students to be inclusive of different socioeconomic backgrounds	†	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
PQ- Q39C	Explicit policies against socio-economic discrimination	TC3G39C	PQ- Q41C	Explicit policies against socioeconomic discrimination	†	†
PQ- Q41A	Schools should encourage students from different socio-economic backgrounds to work together.	TC3G41A	PQ- Q43A	Schools should encourage students from different socioeconomic backgrounds to work together.	†	†
PQ- Q41D	It is important to treat students from all socio-economic backgrounds in the same manner.	TC3G41D	PQ- Q43D	It is important to treat students from all socioeconomic backgrounds in the same manner.	†	†
PQ- Q43G	Keeping up with changing requirements from <local, municipality/regional, state, or national/federal> authorities	TC3G43G	PQ- Q45G	Keeping up with changing requirements from local school district or state education authorities	†	†
PQ- Q45B	Apart from my salary, I am satisfied with the terms of my principal <contract/employment> (e.g. benefits, work schedule).	TC3G45B	PQ- Q47B	Apart from my salary, I am satisfied with the terms of my principal contract/employment (e.g., benefits, work schedule).	†	†
PQ- Q45D	I need more support from <municipal, local, regional, state, or national> authorities.	TC3G45D	PQ- Q47D	I need more support from municipal, local, regional, state, or national authorities.	†	†

See note at end of table.

Exhibit C-1. Principal Questionnaire: Questions that required national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
	***USA-only question		PQ48	<p>We are interested in the importance you place on various educational goals. From the following ten goals, which do you consider the most important, the second most important, and the third most important?</p> <p>a. Most important</p> <p>b. Second most important</p> <p>c. Third most important</p> <p>1. Building basic literacy skills (reading, math, writing, speaking)</p> <p>2. Encouraging academic excellence</p> <p>3. Preparing students for postsecondary education</p> <p>4. Promoting occupational or vocational skills</p> <p>5. Promoting good work habits and self-discipline</p> <p>6. Promoting personal growth (self-esteem, self-knowledge, etc.)</p> <p>7. Promoting human relations skills</p> <p>8. Promoting specific moral values</p> <p>9. Promoting multicultural awareness or understanding</p> <p>10. Fostering religious or spiritual development</p>	TC3N48A_USAX2, TC3N48B_USAX2, TC3N48C_USAX2	†

† Not applicable.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
†	***USA-only question	†	TQ-Q03	Are you of Hispanic or Latino origin? <i>Please mark one choice.</i> 1 = Yes 2 = No	RACEETHT_C (PUF); RACEETHT (RUF).	†
†	***USA-only question	†	TQ-Q04	What is your race? <i>Mark one or more races to indicate what you consider yourself to be.</i>	RACEETHT_C (PUF); RACEETHT (RUF).	†
†	†	†	TQ-Q04A	White	RACEETHT_C (PUF); RACEETHT (RUF).	†
†	†	†	TQ-Q04B	Black or African American	RACEETHT_C (PUF); RACEETHT (RUF).	†
†	†	†	TQ-Q04C	Asian	RACEETH_C (PUF); RACEETHT (RUF).	†
†	†	†	TQ-Q04D	Native Hawaiian or Other Pacific Islander	RACEETHT_C (PUF); RACEETHT (RUF).	†
†	†	†	TQ-Q04E	American Indian or Alaska Native	RACEETHT_C (PUF); RACEETHT (RUF).	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q03	What is the highest level of formal education you have completed? <i>Please mark one choice.</i> 1 = Below <ISCED 2011 Level 3> 2 = <ISCED 2011 Level 3> 3 = <ISCED 2011 Level 4> 4 = <ISCED 2011 Level 5> 5 = <ISCED 2011 Level 6> 6 = <ISCED 2011 Level 7> 7 = <ISCED 2011 Level 8>	TT3G03	TQ-Q05	What is the highest level of formal education you have completed? <i>Please mark one choice.</i> 1 = I did not complete high school 2 = High school 3 = Associate's degree (2-year college program) 4 = Bachelor's degree (4-year college program) 5 = Master's degree or professional degree (MD, DDS, lawyer, minister) 6 = Doctorate (Ph.D., or Ed.D.)	TT3G03_USA2	National -> International 1 -> 1 2 -> 2 3 -> 4 4 -> 5 5 -> 6 6 -> 7 International Category 4 (ISCED Level 4) is not administered
TQ- Q04 (CNO)	How did you receive your first teaching qualification? <i>A '<regular concurrent teacher education or training programme>' grants future teachers a single credential for studies in subject-matter content, pedagogy, and other courses in education during the first period of post-secondary education.</i>	TT3G04	†	Not administered	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
	<i>A ‘<regular consecutive teacher education or training programme>’ requires future teachers to complete two phases of post-secondary education: university education with the focus on subject-matter and a second phase with the focus on pedagogy and practicum. Please mark one choice.</i>					
	1 = A <regular concurrent teacher education or training programme>					
	2 = A <regular consecutive teacher education or training programme>					
	3 = A <fast-track or specialised teacher education or training programme>					
	4 = <Education or training> in another pedagogical profession					
	5 = Subject-specific <education or training> only					
	6 = I have no formal qualification related to the subject I am teaching or to any type of pedagogical education.					
	-> Please go to Question <7>.					
	7 = Other					

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q05 (CNO)	When did you complete the formal <education or training> that qualified you to teach? <i>An approximate year is sufficient. Please write in a number.</i>	TT3G05	†	Not administered	†	†
TQ- Q06	Were the following elements included in your formal <education or training>, and to what extent did you feel prepared for each element in your teaching? <i>Please mark one choice in both part (A) and part (B) in each row.</i> (A) Inclusion in <education or training> 1 = Yes 2 = No (B) Preparedness 1 = Not at all 2 =Somewhat 3 = Well 4 = Very well	†	†	Were the following elements included in your formal education or training, and to what extent did you feel prepared for each element in your teaching? <i>Please mark one choice in both part (A) and part (B) in each row.</i> (A) Inclusion in education or training 1 = Yes 2 = No (B) Preparedness 1 = Not at all 2 =Somewhat 3 = Well 4 = Very well	†	†
TQ- Q06I	Student behaviour and classroom management	TT3G06I1-I2	†	Student behavior and classroom management	†	†
TQ- Q06K	Facilitating students' transitions from <ISCED 2011 level 0> to <ISCED 2011 level 1>	TT3G06K1-K2	†	Not administered	†	†
TQ- Q06L	Facilitating play	TT3G06L1-L2	†	Not administered	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q09	What is your employment status as a teacher <u>at this school</u>? <i>Please mark one choice.</i> 1 = Permanent employment (an on-going contract with no fixed end-point before the age of retirement) 2 = Fixed-term contract for a period of more than 1 school year 3 = Fixed-term contract for a period of 1 school year or less	TT3G09	†	What is your employment status as a teacher <u>at this school</u>? <i>Please mark one choice.</i> 1= Permanent employment (an ongoing contract with no fixed end-point before the age of retirement) 2 = Fixed-term contract for a period of more than 1 school year 3 = Fixed-term contract for a period of 1 school year or less	†	†
TQ- Q12	Do you currently work as a teacher of <<ISCED 2011 level x>/15-year-olds> <u>at another school</u>? <i>Please mark one choice.</i> 1 = Yes 2 = No -> Please go to Question <14>.	TT3G12	†	Do you currently work as a teacher of 7th, 8th, and/or 9th grade students <u>at another school</u>? <i>Please mark one choice.</i> 1 = Yes 2 = No -> Please go to Question 14.	†	†
TQ- Q13	If ‘Yes’ in the previous question, please indicate at how many <u>other</u> schools you currently <work as a <ISCED 2011 level x> teacher/teach to 15-year-old students>. <i>Please write a number.</i> _____ School(s)	TT3G13	†	If ‘Yes’ in the previous question, please indicate at how many <u>other</u> schools you currently teach 7th, 8th, and/or 9th grade students. <i>Please write a number.</i> _____ School(s)	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q14	<p>Across all your <<ISCED 2011 level x> classes/classes where most students are 15 years old> at this school, how many are special needs students?</p> <p><i>< ‘Special needs’ students are those for whom a special learning need has been <u>formally identified</u> because they are mentally, physically, or emotionally disadvantaged. <Often they will be those for whom additional public or private resources (personnel, material or financial) have been provided to support their education.>></i></p> <p><i>Please mark one choice.</i></p> <p>1 = None 2 = Some 3 = Most 4 = All</p>	TT3G14	†	<p>Across all your 7th, 8th, and/or 9th grade classes at this school, how many of your students are students with special needs?</p> <p><i>Students with special needs are those for whom a special learning need has been <u>formally identified</u> because they are mentally, physically, or emotionally disadvantaged. Often they will be those for whom additional public or private resources (personnel, material or financial) have been provided to support their education.</i></p> <p><i>Please mark one choice.</i></p> <p>1 = None 2 = Some 3 = Most 4 = All</p>	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q15	<p>Were the following subject categories included in your formal <education or training>, and do you teach them during the current school year to any <<ISCED 2011 Level X> / 15-year-old> students <u>in this school</u>?</p> <p><i>Please mark as many choices as appropriate in each row.</i></p> <p>A(1)-L(1) = Included in my formal <education or training></p> <p>A(2)-L(2) = I teach it to <<ISCED 2011 Level X> / 15-year-old> students this year</p>	†	†	<p>Were the following subject categories included in your formal education or training, and do you teach them during the current school year to any 7th, 8th, and/or 9th grade students <u>in this school</u>? <i>Please mark as many choices as appropriate in each row.</i></p> <p>A(1)-L(1) = Included in my formal education or training</p> <p>A(2)-L(2) = I teach it to 7th, 8th, and/or 9th grade students this year</p>	†	†
TQ- Q15A	<p>Reading, writing and literature</p> <p><i>Includes reading and writing (and literature) in the mother tongue, in the language of instruction, or in the tongue of the country (region) as a second language (for non-natives); language studies, public speaking, literature</i></p> <p>***USA-only question</p>	TT3G15A1-A2	†	Not administered	†	†
†		†	Q15A	<p>Reading, writing and literature</p> <p><i>Includes reading and writing (and literature) in English, language arts, public speaking, literature, composition, communications, journalism</i></p>	TT3G15A11-A12_USA2	Maps to TT3G15A1-A2

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
†	***USA-only question	†	Q15B	2 English as a Second Language (ESL) <i>Includes ESL or bilingual education in support of students' subject matter learning.</i>	TT3G15A21-A22_USA2	Maps to TT3G15A1-A2
TQ- Q15B	Mathematics <i>Includes mathematics, mathematics with statistics, geometry, algebra, etc.</i>	TT3G15B1-B2	Q15C	Mathematics <i>Includes basic and general mathematics, geometry, pre-algebra, algebra, business and applied mathematics, statistics and probability, trigonometry, calculus, and pre-calculus</i>	†	†
TQ- Q15C	Science <i>Includes science, physics, physical science, chemistry, biology, human biology, environmental science, agriculture/horticulture/forestry</i>	TT3G15C1-C2	Q15D	Science <i>Includes general or integrated science, physics, physical science, chemistry, biology or life science, human biology, environmental science, Earth science</i>	†	†
TQ- Q15D	Social studies <i>Includes social studies, community studies, contemporary studies, economics, environmental studies, geography, history, humanities, legal studies, studies of the own country, social sciences, ethical thinking, philosophy</i>	TT3G15D1-D2	Q15E	Social studies/Social science <i>Includes general social studies, anthropology, economics, geography, government or civics, history, humanities, philosophy, psychology, sociology</i>	†	†
TQ- Q15E	Modern foreign languages <i>Includes languages different from the language of instruction</i>	TT3G15E1-E2	Q15F	Modern foreign languages <i>Includes languages other than English (e.g., French, German, Spanish, ASL)</i>	†	†
TQ- Q15F	Ancient Greek and/or Latin	TT3G15F1-F2	Q15G	Classical Greek and/or Latin	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q15I	Physical education <i>Includes physical education, gymnastics, dance, health</i>	TT3G15I1-I2	Q15J	Physical and health education <i>Includes physical education, gymnastics, dance, health</i>	†	†
†	***USA-only question	†	Q15L	Business studies <i>Includes accounting, business management, business principles and ethics, marketing and distribution</i>	TT3G15K11- K12_USA2	Maps to TT3G15K1- K2
†	***USA-only question	†	Q15M	Practical and vocational skills <i>Includes vocational skills (preparation for a specific occupation), agriculture and natural resources, domestic science, career education, clothing and textiles, construction trades, cosmetology, culinary arts, driving, health occupations, home economics, mechanics and repair, polytechnic courses, secretarial studies, tourism and hospitality, handicraft</i>	TT3G15K21- K22_USA2	Maps to TT3G15K1- K2
TQ- Q15K	Practical and vocational skills <i>Includes vocational skills (preparation for a specific occupation), technics, domestic science, accountancy, business studies, career education, clothing and textiles, driving, home economics, polytechnic courses, secretarial studies, tourism and hospitality, handicraft</i>	TT3G15K1-K2	†	Not administered	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
†	***USA-only question	†	Q15N	Special Education <i>Includes education of students with special needs</i>	TT3G15L11-L12_USA2	maps to TT3G15L1-L2
TQ- Q15L	Other	TT3G15L1-L2	Q15O	†	TT3G15L21-L22_USA2	Maps to TT3G15L1-L2
TQ- Q16	<p>During your <u>most recent complete calendar week</u>, approximately how many 60-minute hours did you spend in <u>total</u> on tasks related to your job <u>at this school</u>?</p> <p><i>Include time spent on teaching, planning lessons, marking, collaborating with other teachers, participating in staff meetings, participating in professional development and other work tasks. Also include tasks that took place during evenings, weekends or other out of class hours.</i></p> <p><i>A ‘complete’ calendar week is one that <u>was not shortened by breaks, public holidays, sick leave, etc.</u></i></p> <p><i>Round to the nearest whole hour.</i></p> <p>_____ Hours in total</p>	TT3G16	†	<p>During your most recent complete calendar week, approximately how many 60-minute hours did you spend in total on tasks related to your job at this school? <i>Include time spent on teaching, planning lessons, grading, collaborating with other teachers, participating in staff meetings, participating in professional development and other work tasks. Also include tasks that took place during evenings, weekends or other out of class hours.</i></p> <p><i>A ‘complete’ calendar week is one that <u>was not shortened by breaks, public holidays, sick leave, etc.</u></i></p> <p><i>Round to the nearest whole hour.</i></p> <p>_____ Hours in total</p>	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q17	Of this total, how many 60-minute hours did you spend on teaching at this school during your most recent complete calendar week? <i>Please only count actual teaching time.</i> <i>Time spent on preparation, marking, professional development, etc. will be recorded in the next question.</i> <i>Round to the nearest whole hour.</i> _____ Hours teaching	TT3G17	†	Of this total, how many 60-minute hours did you spend on teaching at this school during your most recent complete calendar week? <i>Please only count actual teaching time.</i> <i>Time spent on preparation, grading, professional development, etc. will be recorded in the next question.</i> <i>Round to the nearest whole hour.</i> _____ Hours teaching	†	†
TQ- Q18B	_____ Hours. Team work and dialogue with colleagues within this school	TT3G18B	†	_____ Hours. Teamwork and dialogue with colleagues within this school	†	†
TQ- Q18C	_____ Hours. Marking/correcting of student work	TT3G18C	†	_____ Hours. Grading/correcting of student work	†	†
TQ- Q18D	_____ Hours. Counselling students (including student supervision, mentoring, virtual counselling, career guidance and behaviour guidance)	TT3G18D	†	_____ Hours. Student counseling (including student supervision, mentoring, virtual counseling, career guidance and behavior guidance)	†	†
TQ- Q18H	_____ Hours. Communication and co-operation with parents or guardians	TT3G18H		_____ Hours. Communication and cooperation with parents or guardians	†	†
†	***USA-only question	†	TQ- Q18J	_____ Hours. Developing students' test-taking skills to improve performance on mandated assessments	TT3G18J1_USA2	maps to 'other' TT3G18J

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
†	***USA-only question	†	TQ- Q18K	_____ Hours. Administering, proctoring, and scoring mandated assessments	TT3G18J2_USA2	maps to 'other' TT3G18J
†	***USA-only question	†	TQ- Q18L	_____ Hours. Reviewing and analyzing results of mandated assessments to improve instruction	TT3G18J3_USA2	maps to 'other' TT3G18J
TQ- Q18J	_____ Hours. Other work tasks	TT3G18J	TQ- Q18M		TT3G18J4_USA2	maps to 'other' TT3G18J
†	<i>In this section, 'professional development' is defined as activities that aim to develop an individual's skills, knowledge, expertise and other characteristics as a teacher. Please only consider professional development you have undertaken <u>after</u> your initial <education or training>.</i>	†	†	<i>In this section, 'professional development' is defined as activities that aim to develop an individual's skills, knowledge, expertise and other characteristics as a teacher. Please only consider professional development you have undertaken after your initial education or training</i>	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q19	Did you take part in any induction activities? <i>'Induction activities' are designed to support new teachers' introduction into the teaching profession and to support experienced teachers who are new to a school, and they are either organised in formal, structured programmes or informally arranged as separate activities. Please mark as many choices as appropriate in each row.</i> A(1)-B(1) = Yes, during my first employment A(2)-B(2) = Yes, at this school A(3)-B(3) = No	†	†	Did you take part in any induction activities? <i>'Induction activities' are designed to support new teachers' introduction into the teaching profession and to support experienced teachers who are new to a school, and they are either organized in formal, structured programs or informally arranged as separate activities. Please mark as many choices as appropriate in each row.</i> A(1)-B(1) = Yes, during my first employment A(2)-B(2) = Yes, at this school A(3)-B(3) = No	†	†
TQ- Q19A	I took part in a <u>formal</u> induction programme. If you did <u>not</u> answer 'Yes, at this school' to either a) or b) -> Please go to Question <21>.	TT3G19A1-A3	†	I took part in a <u>formal</u> induction program. If you did <u>not</u> answer 'Yes, at this school' to either a) or b) -> Please go to Question 21.	†	†
TQ- Q20D	Planned meetings with principal and/or experienced teachers	TT3G20D	†	Planned meetings with the principal and/or experienced teachers	†	†
TQ- Q20E	Supervision by principal and/or experienced teachers	TT3G20E	†	Supervision by the principal and/or experienced teachers	†	†
TQ- Q22D	Formal qualification programme (e.g. a degree programme)	TT3G22D	†	Formal qualification program (e.g. a degree program)	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q22F	Observation visits to business premises, public organisations, or non-governmental organisations If you answered ‘No’ to all of the above -> Please go to Question <27>.	TT3G22F	†	Observation visits to business premises, public organizations, or non-governmental organizations If you answered ‘No’ to all of the above -> Please go to Question 26.	†	†
TQ- Q23F	Student behaviour and classroom management	TT3G23F	†	Student behavior and classroom management	†	†
TQ- Q23H	Approaches to individualised learning	TT3G23H	†	Approaches to individualized learning	†	†
TQ- Q23M	Teacher-parent/guardian co-operation	TT3G23M	†	Teacher-parent/guardian cooperation	†	†
†	***USA-only question	†	Q23O	Implementation of national/state curriculum standards or Common Core standards	TT3G23O1_USA2	Maps to TT3G23O
TQ- Q23O	Other	TT3G23O	Q23P		TT3G23O2_USA2	Maps to TT3G23O
TQ- Q24 (CNO)	For the professional development in which you participated during the last <u>12 months</u>, did you receive any of the following? <i>Please mark one choice in each row.</i> 1 = Yes 2 = No	†	†	Not Administered	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q25	Thinking of all of your professional development activities during the last <u>12 months</u>, did any of these have a positive impact on your teaching practice? <i>Please mark one choice.</i> 1 = Yes 2 = No -> Please go to Question <27>.	TT3G25	TQ-Q24	Thinking of all of your professional development activities during the last <u>12 months</u>, did any of these have a positive impact on your teaching practice? <i>Please mark one choice.</i> 1 = Yes 2 = No -> Please go to Question 26.	†	†
TQ- Q26G	It provided opportunities to practise/apply new ideas and knowledge in my own classroom.	TT3G26G	TQ- Q25G	It provided opportunities to practice/apply new ideas and knowledge in my own classroom.	†	†
TQ- Q27	For each of the areas listed below, please indicate the extent to which you currently need professional development. <i>Please mark one choice in each row.</i> 1 = No need at present 2 = Low level of need 3 = Moderate level of need 4 = High level of need	†	TQ- Q26	For each of the areas listed below, please indicate the extent to which <u>you currently need</u> professional development. <i>Please mark one choice in each row.</i> 1 = No need at present 2 = Low level of need 3 = Moderate level of need 4 = High level of need	†	†
TQ- Q27F	Student behaviour and classroom management	TT3G27F	TQ- Q26F	Student behavior and classroom management	†	†
TQ- Q27H	Approaches to individualised learning	TT3G27H	TQ- Q26H	Approaches to individualized learning	†	†
TQ- Q27M	Teacher-parent/guardian co-operation	TT3G27M	TQ- Q26M	Teacher-parent/guardian cooperation	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
†	***USA-only question		TQ- Q26O	Implementation of national/state curriculum standards or Common Core standards	TT3G27O_USAX2	†
TQ- Q28A	I do not have the pre-requisites (e.g. qualifications, experience, seniority).	TT3G28A	TQ- Q27A	I do not have the prerequisites (e.g. qualifications, experience, seniority).	†	†
†	***USA-only question	†	TQ- Q27H	The professional development offered is of poor quality.	TT3G28H_USAX2	†
†	***USA-only question	†	TQ- Q27I	Professional development is not readily accessible to me.	TT3G28I_USAX2	†
†	***USA-only question	†	TQ-Q28	In the past 12 months, professional development was available to teachers at THIS school: (Please mark one or more responses.) 1 = not selected 2 = selected	†	†
†	***USA-only question	†	TQ-Q28A	Before or after school days	TT3N28A_USAX2	†
†	***USA-only question	†	TQ-Q28B	During in-service days (teacher planning or work days) when students are NOT in school	TT3N28B_USAX2	†
†	***USA-only question	†	TQ-Q28C	During regular school days when students are in school	TT3N28C_USAX2	†
†	***USA-only question	†	TQ-Q28D	During summer and other extended school breaks	TT3N28D_USAX2	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q29	<p>In this school, who uses the following types of information to provide feedback to you?</p> <p><i>‘External individuals or bodies’ as used below refer to, for example, inspectors, municipality representatives, or other persons from outside the school.</i></p> <p><i>Please mark as many choices as appropriate in each row.</i></p> <p>A(1)-F(1) = External individuals or bodies</p> <p>A(2)-F(2) = School principal or member(s) of the <school management team></p> <p>A(3)-F(3) = Other colleagues within the school (not a part of the <school management team>)</p> <p>A(4)-F(4) = I have never received this feedback in this school.</p> <p>If you answered ‘I have never received this feedback in this school’ to all of the above -> Please go to Question <32>.</p>	†	†	<p>In this school, who uses the following types of information to provide feedback to you?</p> <p><i>‘External individuals or bodies’ as used below refer to, for example, inspectors, municipality representatives, or other persons from outside the school.</i></p> <p><i>Please mark as many choices as appropriate in each row.</i></p> <p>A(1)-F(1) = External individuals or bodies</p> <p>A(2)-F(2) = School principal or member(s) of the school management team</p> <p>A(3)-F(3) = Other colleagues within the school (not a part of the school management team)</p> <p>A(4)-F(4) = I have never received this feedback in this school.</p> <p>If you answered ‘I have never received this feedback in this school’ to all of the above -> Please go to Question 32.</p>	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q30	Thinking of all of the feedback that you have received during the last <u>12 months</u>, did any of these have a positive impact on your teaching practice? <i>Please mark one choice.</i> 1 = Yes 2 = No -> Please go to Question <32>.	TT3G30	†	Thinking of all of the feedback that you have received during the last 12 months, did any of these have a positive impact on your teaching practice? Please mark one choice. 1 = Yes 2 = No -> Please go to Question 32	†	†
TQ- Q33B	Provide feedback to other teachers about their practice	TT3G33B	†	b) Observe other teachers' classes and provide feedback	†	†
TQ- Q33D	Exchange or develop teaching materials with colleagues	TT3G33D	†	d) Exchange teaching materials with colleagues	†	†
TQ- Q33E	Discuss the learning development of specific students	TT3G33E	†	e) Engage in discussions about the learning development of specific students	†	†
TQ- Q33H	Participate in collaborative professional learning	TT3G33H	†	h) Take part in collaborative professional learning	†	†
TQ- Q34D	Control disruptive behaviour in the classroom	TT3G34D	†	Make my expectations about student behavior clear	†	†
TQ- Q34F	Make my expectations about student behaviour clear	TT3G34F	†	Make my expectations about student behavior clear	†	†
TQ- Q34K	Provide an alternative explanation, for example when students are confused	TT3G34K	†	Provide an alternative explanation (e.g., when students are confused)	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
†	<p>In the following, we want to get into more detail about your teaching practices. Within this questionnaire, we cannot cover the whole scope of your teaching. Therefore, we use an exemplary approach and focus on the teaching of one <i><class></i>.</p> <p><i>The following questions ask you about a particular <class> that you teach. The <class> that we would like you to respond to is the first <<ISCED 2011 Level x>> <class> <attended by 15-year-old students> that you taught in this school after 11 a.m. last Tuesday. Please note that if you do not teach a <class> <at <ISCED 2011 Level x>> / <attended by 15-year-old students> on Tuesday, this can be a class taught on a day following the last Tuesday.</i></p> <p><i>In the questions below, this <class> will be referred to as the <target class>.</i></p>		†	<p>In the following, we want to get into more detail about your teaching practices. Within this questionnaire, we cannot cover the whole scope of your teaching. Therefore, we use an exemplary approach and focus on the teaching of one class.</p> <p><i>The following questions ask you about a particular class that you teach. The class that we would like you to respond to is the first 7th, 8th, or 9th, grade class that you taught in this school after 11 a.m. last Tuesday. Please note that if you do not teach a 7th, 8th, or 9th grade class on Tuesday, this can be a class taught on a day following the last Tuesday.</i></p> <p><i>In the questions below, this class will be referred to as the <u>target class</u>.</i></p>		

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q35	<p>We would like to understand the composition of the <target class>. Please estimate the broad percentage of students who have the following characteristics.</p> <p><i>< ‘Socio-economically disadvantaged homes’ refers to homes lacking the basic necessities or advantages of life, such as adequate housing, nutrition or medical care.></i></p> <p><i>A ‘refugee’ is one who, regardless of legal status, fled to another country, seeking refuge from war, political oppression, religious persecution, or a natural disaster.</i></p> <p><i>An ‘immigrant student’ is one who was born outside the country.</i></p> <p><i>A ‘student with migrant background’ has parents who were both born outside the country.</i></p> <p><i>This question asks about your <u>personal</u> perception of student background. It is acceptable to base your replies on rough estimates.</i></p> <p><i>Students may fall into multiple categories.</i></p>	†	†	<p>We would like to understand the composition of the <u>target class</u>. Please estimate the broad percentage of students who have the following characteristics.</p> <p><i>‘Socioeconomically disadvantaged homes’ refers to homes lacking the basic necessities or advantages of life, such as adequate income, housing, nutrition or medical care.</i></p> <p><i>A ‘refugee’ is one who, regardless of legal status, fled to another country, seeking refuge from war, political oppression, religious persecution, or a natural disaster.</i></p> <p><i>This question asks about your personal perception of student background. It is acceptable to base your replies on rough <u>estimates</u>.</i></p> <p><i>Students may fall into multiple categories.</i></p> <p><i>Please mark one choice in each row.</i></p>	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
	<i>Please mark one choice in each row.</i> 1 = None 2 = 1% to 10% 3 = 11% to 30% 4 = 31% to 60% 5 = More than 60%					
TQ- Q35A	Students whose <first language> is different from the language(s) of instruction or from a dialect of this/these language(s)	TT3G35A	†	Students whose first language is not English	†	†
TQ- Q35D	Students with behavioural problems	TT3G35D	†	Students with behavioral problems	†	†
TQ- Q35E	Students from <socio-economically disadvantaged homes>	TT3G35E	†	Students from socioeconomically disadvantaged homes	†	†
TQ- Q35G	Students who are immigrants or with migrant background	TT3G35G	†	Not Administered	†	†
TQ- Q36	Is your teaching in the <target class> directed entirely or mainly to <special needs> students? <i>Please mark one choice.</i> 1 = Yes -> Please go to Question <44>. 2 = No	TT3G36	†	Is your teaching in the <u>target class</u> directed entirely or mainly to special needs students? <i>Please mark one choice.</i> 1 = Yes -> Please go to Question 44. 2 = No	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q37	<p>Into which subject category does this <target class> primarily fall? Please mark one choice.</p> <p>1 = Reading, writing and literature <i>Includes reading and writing (and literature) in the mother tongue, in the language of instruction, or in the tongue of the country (region) as a second language (for non-natives); language studies, public speaking, literature</i></p> <p>2 = Mathematics <i>Includes mathematics, mathematics with statistics, geometry, algebra, etc.</i></p> <p>3 = Science <i>Includes science, physics, physical science, chemistry, biology, human biology, environmental science, agriculture/horticulture/forestry</i></p> <p>4 = Social studies <i>Includes social studies, community studies, contemporary studies, economics, environmental studies, geography, history, humanities, legal studies, studies of the own country, social sciences, ethical thinking, philosophy</i></p> <p>5 = Modern foreign languages <i>Includes languages different from the language of instruction</i></p> <p>6 = Ancient Greek and/or Latin</p> <p>7 = Technology</p>	TT3G37	†	<p>Into which subject category does this target class primarily fall? Please mark one choice.</p> <p>1 Reading, writing and literature <i>Includes reading and writing (and literature) in English, language arts, public speaking, composition, communications, journalism 2</i> English as a Second Language (ESL) <i>Includes ESL or bilingual education in support of students' subject matter learning.</i></p> <p>3 Mathematics <i>Includes basic and general mathematics, geometry, pre-algebra, algebra, business and applied mathematics, statistics and probability, trigonometry, calculus, and pre-calculus</i></p> <p>4 Science <i>Includes general or integrated science, physics, physical science, chemistry, biology or life science, human biology, environmental science, Earth science</i></p>	TT3G37_USA2	<p>USA--> International</p> <p>1-->1</p> <p>2-->1</p> <p>3-->2</p> <p>4-->3</p> <p>5-->4</p> <p>6-->5</p> <p>7-->6</p> <p>8-->7</p> <p>9-->8</p> <p>10-->9</p> <p>11 -->10</p> <p>12-->11</p> <p>13-->11</p> <p>14-->12</p> <p>15-->12</p>

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
	<i>Includes orientation in technology, including information technology, computer studies, construction/surveying, electronics, graphics and design, keyboard skills, word processing, workshop technology/design technology</i>			5 Social studies/Social science <i>Includes general social studies, anthropology, economics, geography, government or civics, history, humanities, philosophy, psychology, sociology</i>		
	8 = Arts <i>Includes arts, music, visual arts, practical art, drama, performance music, photography, drawing, creative handicraft, creative needlework</i>			6 Modern foreign languages <i>Includes languages other than English (e.g., French, German, Spanish, ASL)</i>		
	9 = Physical education <i>Includes physical education, gymnastics, dance, health</i>			7 Classical Greek and/or Latin		
	10 = Religion and/or ethics <i>Includes religion, history of religions, religion culture, ethics</i>			8 Technology <i>Includes orientation in technology, including information technology, computer studies, construction/surveying, electronics, graphics and design, keyboard skills, word processing, workshop technology/design technology</i>		
	11 = Practical and vocational skills <i>Includes vocational skills (preparation for a specific occupation), technics, domestic science, accountancy, business studies, career education, clothing and textiles, driving, home economics, polytechnic courses, secretarial studies, tourism and hospitality, handicraft</i>			9 Arts <i>Includes arts, music, visual arts, practical art, drama, performance music, photography, drawing, creative handicraft, creative needlework</i>		
	12 = Other					

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
				10 Physical and health education <i>Includes physical education, gymnastics, dance, health</i>		
				11 Religion and/or ethics <i>Includes religion, history of religions, religion culture, ethics</i>		
				12 Business studies <i>Includes accounting, business management, business principles and ethics, marketing and distribution</i>		
				13 Practical and vocational skills <i>Includes vocational skills (preparation for a specific occupation), agriculture and natural resources, domestic science, career education, clothing and textiles, construction trades, cosmetology, culinary arts, driving, health occupations, home economics, mechanics and repair, polytechnic courses, secretarial studies, tourism and hospitality, handicraft</i>		

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
				14 Special Education <i>Includes education of students with special needs</i>		
TQ- Q38	How many students are currently enrolled in this <target class>? <i>Please write a number.</i> _____ Students	TT3G38	†	15 Other How many students are currently enrolled in this <u>target class</u>? <i>Please write a number.</i> _____ Students	†	†
TQ- Q39	For this <target class>, what percentage of <class> time is typically spent on each of the following activities? <i>Write a percentage for each activity. Write 0 (zero) if none. Please ensure that responses add up to 100%</i>	†	†	For this <u>target class</u>, what percentage of class time is typically spent on each of the following activities? <i>Write a percentage for each activity. Write 0 (zero) if none. Please ensure that responses add up to 100%</i>	†	†
TQ- Q40	How strongly do you agree or disagree that you have control over the following areas of your planning and teaching in this <target class>? <i>Please mark one choice in each row.</i> 1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree	†	†	How strongly do you agree or disagree that you have control over the following areas of your planning and teaching in this <u>target class</u>? <i>Please mark one choice in each row.</i> 1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q41	How strongly do you agree or disagree with the following statements about this <target class>? <i>Please mark one choice in each row.</i> 1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree	†	†	How strongly do you agree or disagree with the following statements about this target class? <i>Please mark one choice in each row.</i> 1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree	†	†
TQ- Q41A	When the lesson begins, I have to wait quite a long time for students to quieten down.	TT3G41A	†	When the lesson begins, I have to wait quite a long time for students to quiet down.	†	†
TQ- Q42	Thinking about your teaching in the <target class>, how often do you do the following? <i>Please mark one choice in each row.</i> 1 = Never or almost never 2 = Occasionally 3 = Frequently 4 = Always	†	†	Thinking about your teaching in the target class, how often do you do the following? <i>Please mark one choice in each row.</i> 1 = Never or almost never 2 = Occasionally 3 = Frequently 4 = Always	†	†
TQ- Q42L	When the lesson begins, I tell students to quieten down quickly.	TT3G42L	†	When the lesson begins, I tell students to quiet down quickly.	†	†
TQ- Q42N	I let students practice similar tasks until I know that every student has understood the subject matter.	TT3G42N	†	I let students practice similar tasks until I know that every student has understood the subject matter.	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q43	How often do you use the following methods of <u>assessing student learning</u> in the <target class>? <i>Please mark one choice in each row.</i> 1 = Never or almost never 2 = Occasionally 3 = Frequently 4 = Always	†	†	How often do you use the following methods to assess student learning in the <u>target class</u>? <i>Please mark one choice in each row.</i> 1 = Never or almost never 2 = Occasionally 3 = Frequently 4 = Always	†	†
TQ- Q43B	I provide written feedback on student work in addition to a <mark, i.e. numeric score or letter grade>.	TT3G43B	†	I provide written feedback on student work in addition to a letter grade or numeric score.	†	†
TQ- Q44	Have you ever taught a classroom with students from different cultures? <i>Please mark one choice.</i> 1 = Yes 2 = No -> Please go to Question <46>.	TT3G44	†	Have you ever taught a classroom with students from different cultures? <i>Please mark one choice.</i> 1 = Yes 2 = No -> Please go to Question 46.	†	†
TQ- Q45C	Ensure that students with and without a migrant background work together	TT3G445C	†	Ensure that students with and without migrant backgrounds work together	†	†
TQ- Q45D	Raise awareness for cultural differences amongst students	TT3G45D	†	Raise awareness of cultural differences among students.	†	†
TQ- Q45E	Reduce ethnic stereotyping amongst students	TT3G45E	†	Reduce ethnic stereotyping among students.	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q46	Does this school include students of more than one cultural or ethnic background? <i>Please mark one choice.</i> 1 = Yes 2 = No -> Please go to Question <48>.	TT3G46	†	Does this school include students of more than one cultural or ethnic background? <i>Please mark one choice.</i> 1 = Yes 2 = No -> Please go to Question 48.	†	†
TQ- Q47A	Supporting activities or organisations that encourage students' expression of diverse ethnic and cultural identities (e.g. artistic groups)	TT3G47A	†	Supporting activities or organizations that encourage students' expression of diverse ethnic and cultural identities (e.g., artistic groups)	†	†
TQ- Q47B	Organising multicultural events (e.g. cultural diversity day)	TT3G47B	†	Organizing multicultural events (e.g. cultural diversity day)	†	†
TQ- Q48E	There is a collaborative school culture which is characterised by mutual support.	TT3G48E	†	There is a collaborative school culture which is characterized by mutual support	†	†
TQ- Q48G	The school staff enforces rules for student behaviour consistently throughout the school.	TT3G48G	†	The school staff enforces rules for student behavior consistently throughout the school.	†	†
TQ- Q49A	Teachers and students usually get on well with each other.	TT3G49A	†	Teachers and students usually get along well with each other.	†	†
TQ- Q52C	Having too much marking	TT3G52C	†	Having too much grading	†	†
TQ- Q52I	Keeping up with changing requirements from <local, municipality/regional, state, or national/federal> authorities	TT3G52I	†	Keeping up with changing requirements from local school district or state education authorities	†	†
TQ- Q54B	Apart from my salary, I am satisfied with the terms of my teaching <contract/employment> (e.g. benefits, work schedule).	TT3G54B	†	Apart from my salary, I am satisfied with the terms of my teaching contract/employment (e.g. benefits, work schedule).	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q55	Thinking about education <at ISCED level x / for 15-year-olds> as a whole, if the budget were to be increased by 5 %, how would you rate the importance of the following spending priorities? <i>Please mark one choice in each row.</i> 1 = Of low importance 2 = Of moderate importance 3 = Of high importance	†	†	Thinking about education in grades 7, 8, and 9 as a whole, if the budget were to be increased by 5 %, how would you rate the importance of the following spending priorities? <i>Please mark one choice in each row.</i> 1 = Of low importance 2 = Of moderate importance 3 = Of high importance	†	†
TQ- Q56 (CNO)	Have you ever been abroad for professional purposes in your career as a teacher or during your teacher <education or training>? <i>Please mark one choice in each row.</i> 1 = Yes 2 = No	†	†	Not Administered	†	†
TQ- Q56A	As a student, as part of my teacher <education or training> If you answered ‘No’ to all of the above -> Please go to <the end of the Questionnaire>.	TT3G56A	†		†	†
		†	†	Not Administered	†	†
TQ- Q57 (CNO)	Were the following activities professional purposes of your visits abroad? <i>Please mark one choice in each row.</i> 1 = Yes 2 = No	†	†	Not Administered	†	†

See note at end of table.

Exhibit C-2. Teacher Questionnaire: Questions that require national adaptations—Continued

2018 International question number	2018 International version	2018 International variable name	2018 USA question number	2018 USA adaptation in English	2018 USA variable name	Recoding instructions
TQ- Q57A	Studying, as part of my teacher education	TT3G57A	†	†	†	†
TQ- Q57B	Language learning	TT3G57B	†	†	†	†
TQ- Q57C	Learning of other subject areas	TT3G57C	†	†	†	†
TQ- Q57D	Accompanying visiting students	TT3G57D	†	†	†	†
TQ- Q57E	Establishing contact with schools abroad	TT3G57E	†	†	†	†
TQ- Q57F	Teaching	TT3G57F	†	†	†	†
TQ- Q57G	Other	TT3G57G	†	†	†	†
TQ- Q58 (CNO)	In total, how long have you stayed abroad for professional purposes? <i>Please mark one choice.</i> 1 = For less than three months 2 = For three to twelve months 3 = For more than a year	TT3G58	†	Not Administered	†	†

† Not applicable.

Appendix D. TALIS 2018 Nonresponse Bias Analysis Report

1. Introduction

The target international population for Teaching and Learning International Survey (TALIS) 2018 survey comprises teachers categorized in the International Standard Classification of Education (ISCED) Level 2 teachers and the principals of the schools in which they teach. In the United States, these are teachers of students in grades 7 through 9 (here labeled lower secondary education for convenience). The TALIS national data collection took place in March and May 2018.

TALIS 2018 used a two-stage stratified sampling design. The first stage used a systematic probability-proportionate-to-size (PPS) technique to select schools where size, in the United States, is the estimated grade-eligible enrollment of the school. Although efforts were made to secure the participation of all schools selected in the first stage, it was anticipated that not all schools would choose to participate. Therefore, as each school was selected in the sample, the two neighboring schools in the sorted sampling frame (immediately preceding and following the selected school) were designated as substitute schools. The sampling frame was sorted by first explicit strata and secondarily by implicit strata, so the replacement schools were within the same strata as the original school. If the sampled school refused to participate, the first substitute was then contacted. If that school also refused to participate, the second substitute was then contacted. The second stage of sampling consisted of selecting grade-eligible teachers within sampled schools. Twenty grade-eligible teachers were sampled in each school with each teacher having an equal probability of selection. When there were fewer than 20 grade-eligible teachers in the school, all of the eligible teachers were selected.

School data was not adjudicated in previous TALIS cycles. The adjudication of the school data is new for 2018 cycle and thus TALIS 2018 had two definitions of a “participating school.” From the perspective of adjudicating the school-level data, a “participating school” is one whose principal participates, i.e., the school principal was administered the entire principal questionnaire and provided at least one response. The principal participation rates were shown previously in table 11. The initial rate was 63 percent (weighted with baseweights) and 78 percent (weighted with baseweights) after school replacement. From the perspective of adjudicating the teacher-level data, a “participating school” is one where at least 50 percent of the selected teachers participate, i.e., the selected teachers who were administered the entire teacher questionnaire and provided at least one response. A “participating school” for this analysis is defined from the perspective of adjudicating teacher-level data since that is the main focus of the study.

There were 220 schools in the original U.S. sample. Of these 220 sampled schools, 214 were determined to be eligible¹ (the eligible original school sample), having at least one grade-eligible student,² and of these, 125 participated (the participating original sample) for an initial unweighted response rate of 58 percent before replacement (60 percent weighted with baseweights). An additional 40 substitute schools participated for a total of 165 participating schools after replacement (the participating final sample), increasing the unweighted response rate to 77 percent (also 77 percent weighted with baseweights). The school participation rates for the U.S. sample are summarized in table D-1.

Table D-1. Selected characteristics for the nonresponse bias analysis of the U.S. TALIS final school sample: 2018

Sample	Schools in original sample	Eligible schools in sample	Number of participating schools		Percent			
			Before replacement	After replacement	School participation rate before replacement		School participation rate after replacement	
					Un-weighted	Weighted	Un-weighted	Weighted
U.S.	220	214	125	165	58.4	60.1	77.1	76.8

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

NCES standards for surveys stipulate that nonresponse bias analysis is required at any stage of data collection reporting a weighted unit response rate less than 85 percent. Since the U.S. TALIS weighted school response rate is below 85 percent, the National Center for Education Statistics (NCES) requires an investigation into the potential magnitude of nonresponse bias at the school level in the U.S. sample. The teacher participation rate after school replacement for the United States was 89.6 percent. Because the U.S. TALIS weighted teacher response rate is above 85 percent, a nonresponse bias analysis at the teacher level is not required.

¹ Of the 220 original schools selected for the sample, three schools were ineligible and three were closed.

² Following the advice of Statistics Canada, Westat used the number of estimated ISCED Level 2 students, rather than teachers, as the measure of size. This was due to the uncertainty of the number of ISCED Level 2 teachers in certain types of schools (e.g., grade 9 teachers in grades 9–12 high schools) where the number of ISCED Level 2 students was a more accurate measure.

2. Methodology

To measure the potential nonresponse bias at the school level, the characteristics of participating schools were compared to those of the total eligible sample of schools. For this analysis, all statistical significance tests account for the fact that the participating schools are a subset of the eligible schools, and not a distinct group.

The general approach taken involves an analysis in three parts as described below.

1. Analysis of the participating original sample: The distribution of the participating original school sample ($N = 125$) was compared with that of the total eligible original school sample ($N = 214$). The participating original sample is the sample before substitution. In each sample, schools were weighted by their school base weights and estimate of eligible teachers, referred to as a size-adjusted weight, excluding any nonresponse adjustment factor. The size-adjusted weight modifies the PPS weight so that schools with relatively small number of teachers (and large school baseweights) will not influence the results more than schools with relatively large number of teachers (and small school baseweights). In this report, the estimated number of teachers of a school is a better measure of the relative sizes of the school than the measure of size of the estimated grade-eligible enrollment of a school, described in the previous section. The base weight for each original school is the reciprocal of its selection probability.
2. Analysis of the participating final school sample with substitutes: The distribution of the participating final school sample ($N = 165$), which includes 40 participating substitutes that were used as replacements for nonresponding schools from the eligible original sample, was compared to the total eligible final school sample ($N = 214$). The total eligible final sample includes the participating final sample plus those original nonrespondents that were not replaced by substitutes. Again, schools were weighted by their size-adjusted school base weights for both the eligible sample and the participating schools. The base weight for each substitute school is equal to the base weight of its original school.³
3. Analysis of the nonresponse adjusted final sample with substitutes: The same sets of schools were compared as in the second analysis, but this time, when analyzing the participating final schools alone, school nonresponse adjustments were applied to the size-adjusted school base weights. The international weighting procedures form nonresponse adjustment classes by cross-classifying the explicit stratification variables. The eligible sample respondents were again weighted by their size-adjusted school base weights.

The first analysis indicates the potential for nonresponse bias that was introduced through school nonresponse. The second analysis suggests the remaining potential for nonresponse bias after the mitigating effects of substitution have been accounted for. The third analysis indicates the potential for bias after accounting for the mitigating effects of both substitution and nonresponse weight adjustments.

³ In most cases, the estimated number of eligible teachers for a substitute school is very close to the original. Differences in the eligible percentages between the original sample and the final sample with substitutes are attributable to differences between original and substitute schools in the estimated number of eligible teachers.

Nonresponse adjustments reduce the bias in the frame variables used to form the adjustment classes. The explicit stratification variables used to form the adjustment classes for the United States were school control and grade structure. Both the second and third analyses, however, may provide an overly optimistic scenario, resulting from the fact that substitution and nonresponse adjustments may correct somewhat for deficiencies in the characteristics examined here, but there is no guarantee that they are equally as effective for other characteristics of interest.

Participating TALIS schools and the total eligible TALIS school sample were compared by as many school sampling frame characteristics as possible that might provide information about the presence of nonresponse bias. Comparing frame characteristics between participating schools and the total eligible school sample is not an ideal measure of nonresponse bias if the characteristics are unrelated or weakly related to more substantive items in the survey; however, often it is the only approach available since TALIS data are not available for nonparticipating schools.

Frame characteristics for public schools were from the 2015-16 Common Core of Data (CCD) and, for private schools, from the 2015-16 Private School Universe Survey (PSS).

The following categorical variables were available in the sampling frame for all schools:

- School control—indicates whether the school is under public control (operated by publicly elected or appointed officials) or private control (operated by privately elected or appointed officials and derives its major source of funds from private sources);
- Locale—urban-centric locale code (i.e., central city, suburb, town, rural);
- Census region—Northeast, Midwest, South, and West (see appendix A for state listing);
- Poverty level⁴—for public schools, a high poverty school is defined as one in which 50 percent or more of the students are eligible for participation in the national free and reduced-price lunch (FRPL) program, and a low poverty school is defined as one in which less than 50 percent are eligible;
- Grade structure—schools with grades 6–8, grades 9–12, and other; and
- School size—grade-eligible enrollment of school (as shown on school samples frame) divided into three equally sized categories (small, medium, and large).⁵

⁴ The sample frame did not contain a direct measure of poverty. No FRPL program data were available for private schools, thus all private schools are treated as low-poverty schools.

⁵ Small schools had less than or equal to 105 age-eligible students. Medium schools had more than 105 and less than or equal to 365 age-eligible students. Large schools had more than 365 age-eligible students.

The following continuous variables were available in the sampling frame for all schools:

- Estimated number of grade-eligible students enrolled;
- Total number of students; and
- Percentage of students in seven race/ethnicity categories (White, non-Hispanic; Black, non-Hispanic; Hispanic; Asian; American Indian or Alaska Native; Hawaiian/Pacific Islander; and Two or more races).⁶

An additional continuous variable, the percentage of students eligible to participate in the FRPL, was available only for public schools. The poverty level variable mentioned among the categorical variable is the recoded version of this continuous variable.⁷

For categorical variables, the distribution of frame characteristics for participating schools was compared with the distribution for all eligible schools. The hypothesis of independence between the characteristic and participation status was tested using a Rao-Scott modified Chi-square statistic at the 5 percent level (Rao and Thomas 2003). For continuous variables, summary means were calculated and the difference between means was tested using a *t* test. The *p* values for the tests are presented in the tables that follow. The statistical significance of differences between participants and the total eligible sample is identical to that which would result from comparing participants and nonparticipants, since all significance tests account for the fact that the participants are a subset of the full sample. The bias and relative bias are also shown in each table. The bias is calculated as the difference between the respective estimates for the participants and the eligible sample. The relative bias is calculated as the bias divided by the estimate from the eligible sample, and is a measure of the size of the bias compared to the eligible sample (i.e., unbiased) estimate.

In addition to these tests, logistic regression models were used to provide a multivariate analysis that examined the conditional independence of these school characteristics as predictors of participation. The logistic regression compared frame characteristics for participating schools with nonparticipating schools, which is effectively the same as comparing the participating schools to the eligible sample as in the bivariate analysis.

Multivariate analysis can provide additional insights, over and above those gained through the bivariate analysis. It may be the case that only one or two variables are actually related to participation status. However, if these variables are also related to the other variables examined in the analyses, then other

⁶ Black includes African American, and Hispanic includes Latino. Racial categories exclude Hispanic origin.

⁷ The continuous variable percentage of students eligible to participate in the FRPL is missing for private schools; however, private schools are treated as low poverty for the categorical variable poverty level.

variables, which are not related to participation status, will appear as significant in simple bivariate tables. Multivariate analysis, in contrast, examines the conditional relationships with participation after controlling for the other predictor variables—thereby, testing the robustness of the relationships between school characteristics and participation.

Dummy variables were created for each component of the categorical variables so that each component was included separately. The last component of each categorical variable, as shown in the bivariate analysis tables, is used as the reference category. For example, rural is the last component for locale and is used as the reference category for central city, suburb, and town. The p value of a dummy variable indicates whether there is a significant difference at the 5 percent level from the effect of the (omitted) reference category. It is not possible to include all the frame characteristics in a single model because the seven race/ethnicity variables are linearly dependent (i.e., they sum up to 100 percent for every school). Therefore, two models were used. In the first model, six race/ethnicities (Black, non-Hispanic; Hispanic; Asian; American Indian or Alaska Native; Hawaiian/Pacific Islander; and Two or more races) were included in the model with “percentage White, non-Hispanic” as the reference category. An F test was used to determine whether the parameter estimates of these six characteristics were simultaneously equal to zero. In the second model, the summed percentage of the six race/ethnicities (Black, non-Hispanic; Hispanic; Asian; American Indian or Alaska Native; Hawaiian/Pacific Islander; and Two or more races) replaced the six race/ethnicity variables with “percentage White, non-Hispanic” again as the reference category. The second model permits analysis of differences in the percentages of White, non-Hispanic students, which is not possible in the first model. All other frame characteristics were included in both models.

Because the percentage of students eligible for FRPL was not included in the main logistic regression analysis, a separate analysis with public schools only was conducted. To include FRPL eligibility in a model, public schools were modeled separately using a third model with the summed race/ethnicity percentage and adding the percentage of students eligible for FRPL. Since poverty is derived from the percentage of students eligible for FRPL, an interaction term between the two characteristics was also included in the model.

The multivariate regression analysis cannot be conducted after the school nonresponse adjustments are applied to the weights. The concept of nonresponse-adjusted weights does not apply to the nonresponding units, and, thus, we cannot conduct an analysis that compares respondents with nonrespondents using nonresponse-adjusted weights.

The bivariate analysis and the logistic regression were both performed using replicate weights to properly account for the complex sample design. The balanced repeated replication (BRR), the Fay method of BRR, was used to create the replicate weights (Westat 2007).

3. Participating Original Sample

This section presents the nonresponse bias analysis based on the original sample of 214 eligible schools for the Teaching and Learning International Survey (TALIS). The distribution of the participating original sample was compared to the schools in the total eligible original sample. Size-adjusted school base weights were used for both the eligible sample and the participating schools. The unweighted school response rate for TALIS was 58.4 percent, with 125 out of 214 schools participating. The weighted response rate was 60.1 percent.

3.1 Categorical Variables

The distribution of participating and eligible schools by the six characteristics is shown in table D-2. There are no statistically significant relationships between participation status and any of the characteristics shown in table D-1. However, the absolute value of the relative bias for private schools, schools in rural areas, schools in each of the four census regions, and small- and large-sized schools is greater than 10 percent, which indicates potential bias even though no statistically significant relationship was detected.

Table D-2. Percentage distribution of eligible and participating schools in the U.S. TALIS original sample, by school characteristic: 2018

School characteristic	Sample schools		Bias	Relative bias	Chi-square <i>p</i> value
	Eligible (percent) (N = 214)	Participating (percent) (N = 125)			
School control					0.437
Public	89.3	87.3	-1.93	-0.022	
Private	10.7	12.7	1.93	0.180	
Locale					0.218
Central city	31.3	29.8	-1.50	-0.048	
Suburb	37.8	34.3	-3.58	-0.094	
Town	9.7	8.9	-0.79	-0.082	
Rural	21.1	27.0	5.87	0.278	
Census region					0.088
Northeast	19.9	14.1	-5.87	-0.294	
Midwest	20.9	23.5	2.57	0.123	
South	41.6	46.8	5.24	0.126	
West	17.5	15.6	-1.94	-0.110	
Poverty level					0.936
High	37.2	36.9	-0.27	-0.007	
Low	62.8	63.1	0.27	0.004	
Grade structure					0.976
Grades 6–8	48.1	48.0	-0.12	-0.003	
Grades 9–12	25.6	25.1	-0.48	-0.019	
Other	26.3	26.9	0.60	0.023	
School size					0.077
Small	38.6	43.5	4.84	0.125	
Medium	32.6	33.9	1.21	0.037	
Large	28.7	22.7	-6.05	-0.211	

NOTE: Detail may not sum to totals because of rounding. Census region is the state-based region of the country (see technical notes for state listing). For public schools, a high poverty school is defined as one in which 50 percent or more of the students are eligible for free and reduced-price lunch; all private schools are treated as low-poverty schools. Small schools had less than or equal to 105 age-eligible students. Medium schools had more than 105 and less than or equal to 365 age-eligible students. Large schools had more than 365 age-eligible students. Eligible schools have at least one grade-eligible student. Participating schools agreed to have their teachers assessed. The relative bias is calculated as the bias divided by the estimate from the eligible sample. Schools were weighted by their size-adjusted school base weights that did not include a nonresponse adjustment factor.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

3.2 Continuous Variables

Summary means for each continuous variable for participating and eligible schools are shown in tables D-2 and D-3. No data on free and reduced-price lunch (FRPL) eligibility were available for private schools, so private schools are not included in the analysis shown in table D-3.

The *t* test statistics for total school and grade-eligible enrollments are significant and suggest that there is evidence of relationships with participation in the survey. In particular, participating schools had a lower mean total school enrollment than the eligible sample (812.6 versus 908.6, respectively; table D-3) and a lower mean grade-eligible enrollment than the eligible sample (374.5 versus 424.8, respectively; table D-3). There were no statistically significant differences between participating and eligible schools with respect to race/ethnicity percentage (table D-3). However, the absolute value of the relative bias for Asian, American Indian or Alaska Native, and Hawaiian/Pacific Islander is greater than 10 percent, although this is due mostly to the eligible percentage being less than 5.0 percent, as the bias is relatively small. There was no statistically significant difference between participating and eligible schools with respect to FRPL (table D-4).

Table D-3. Mean values of various characteristics for eligible and participating schools in the U.S.
TALIS original sample: 2018

Various characteristics	Sample schools		Bias	Relative bias	<i>t</i> test <i>p</i> value
	Eligible (mean) (N = 214)	Participating (mean) (N = 125)			
Enrollment					
Total school	908.6	812.6	-96.04	-0.106	0.044
Grade-eligible	424.8	374.5	-50.31	-0.118	0.010*
Race/ethnicity percentage					
White, non-Hispanic	55.1	56.1	1.30	0.024	0.547
Black, non-Hispanic	14.6	15.7	1.03	0.070	0.465
Hispanic	21.6	19.9	-1.73	-0.080	0.343
Asian	4.6	3.9	-0.71	-0.155	0.087
American Indian or Alaska Native	0.9	1.0	0.15	0.178	0.472
Hawaiian/Pacific Islander	0.2	0.2	-0.03	-0.151	0.194
Two or more races	3.0	3.0	-0.02	-0.005	0.916

* $p < .05$. Significantly different from the U.S. percentage at the .05 level of statistical significance.

NOTE: Black includes African American, and Hispanic includes Latino. Racial categories exclude Hispanic origin. Eligible schools have at least one grade-eligible student. Participating schools agreed to have their teachers assessed. The relative bias is calculated as the bias divided by the estimate from the eligible sample. Schools were weighted by their size-adjusted school base weights that did not include a nonresponse adjustment factor.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

Table D-4. Mean percentage of students eligible for free or reduced-price lunch, in eligible and participating public schools in the U.S. TALIS original sample: 2018

Students	Sample schools		Bias	Relative bias	<i>t</i> test <i>p</i> value
	Eligible (percent) (N = 186)	Participating (percent) (N = 106)			
Percentage of students eligible for free or reduced-price lunch	48.0	50.5	2.54	0.053	0.270

NOTE: Eligible schools have at least one grade-eligible student. Participating schools agreed to have their teachers assessed. The relative bias is calculated as the bias divided by the estimate from the eligible sample. Schools were weighted by their size-adjusted school base weights that did not include a nonresponse adjustment factor.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

3.3 Logistic Regression Model

To examine the joint relationship of various characteristics to school nonresponse, the analysis used a logistic regression model with participation status as the binary dependent variable and frame characteristics as predictor variables. Since public and private schools were modeled together using the variables available for all schools, the percentage of students eligible for FRPL was not included in the main logistic regression analysis.

Standard errors and tests of hypotheses for the full model parameter estimates are presented in table D-5a (with six race/ethnicity variables) and table D-5b (with summed race/ethnicity percentage). Private schools are treated as low poverty for the categorical variable poverty level. Only town was a significant predictor of school participation in table D-5a. The negative parameter estimate indicates that relative to rural schools, schools in towns were somewhat underrepresented among the participating schools. The F test statistic to determine whether the race/ethnicity characteristics are simultaneously equal to 0 was 0.2400 with a p value of 0.9622, which indicates that no significant relationship with participation was detected. None of the coefficients on the parameter estimates are significant in table D-5b.

Because the percentage of students eligible for FRPL was not included in the main logistic regression analysis, a separate analysis with public schools only was conducted. To include FRPL eligibility in a model, public schools were modeled separately using a model with the summed race/ethnicity percentage and adding the percentage of students eligible for FRPL. Since poverty is derived from the percentage of students eligible for FRPL, an interaction term⁸ was also included in the model. Standard errors and tests of hypotheses for the full model parameter estimates are presented in table D-5c. None of the parameter estimates are significant.

⁸ The interaction term can be interpreted as indicating whether the marginal effect of a one percentage-point increase in FRPL is diminished or amplified for schools above the 50 percent cut point, relative to those below the cut point.

Table D-5a. Logistic regression model parameters (with six race/ethnicity variables) using the U.S. TALIS original school sample: 2018

Parameter	Parameter estimate	Standard error	<i>t</i> test for H ₀ : parameter = 0	<i>p</i> value
Intercept	1.426	1.2985	1.0980	0.2749
Private school	0.531	0.9880	0.5377	0.5920
Central city	-0.606	0.6928	-0.8745	0.3839
Suburb	-0.639	0.6061	-1.0548	0.2941
Town	-1.364	0.6850	-1.9909	0.0492
Northeast	-1.035	0.6344	-1.6316	0.1059
Midwest	-0.043	0.6224	-0.0684	0.9456
South	0.033	0.6251	0.0525	0.9582
High poverty	-0.283	0.4424	-0.6386	0.5246
Grades 6–8	0.675	0.6942	0.9731	0.3329
Grades 9–12	0.231	0.8108	0.2849	0.7763
Small	0.066	0.9302	0.0707	0.9438
Medium	0.319	0.5283	0.6047	0.5468
Total school enrollment	0.000 ¹	0.0007	0.1736	0.8625
Grade-eligible enrollment	-0.001	0.0014	-1.0688	0.2877
Black, non-Hispanic	0.003	0.0098	0.2691	0.7884
Hispanic	-0.005	0.0107	-0.4685	0.6404
Asian	-0.022	0.0265	-0.8196	0.4144
American Indian or Alaska Native	0.022	0.0503	0.4476	0.6554
Hawaiian/Pacific Islander	-0.315	0.5846	-0.5392	0.5909
Two or more races	-0.010	0.0799	-0.1300	0.8968

¹ Rounds to zero.

NOTE: Census region is the state-based region of the country (see technical notes for state listing). For public schools, a high poverty school is defined as one in which 50 percent or more of the students are eligible free and reduced-price lunch; all private schools are treated as low poverty schools. Small schools had less than or equal to 105 age-eligible students. Medium schools had more than 105 and less than or equal to 365 age-eligible students. Black includes African American, and Hispanic includes Latino. Racial categories exclude Hispanic origin. Schools were weighted by their size-adjusted school base weights that did not include a nonresponse adjustment factor. The number of eligible and participating sample schools is 214 and 125, respectively.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

Table D-5b. Logistic regression model parameters (with summed race/ethnicity percentage) using the U.S. TALIS original school sample: 2018

Parameter	Parameter estimate	Standard error	<i>t</i> test for H ₀ : parameter = 0	<i>p</i> value
Intercept	1.275	1.1483	1.1106	0.2694
Private school	0.284	0.9626	0.2954	0.7683
Central city	-0.666	0.6763	-0.9845	0.3273
Suburb	-0.634	0.6004	-1.0567	0.2932
Town	-1.206	0.6453	-1.8692	0.0645
Northeast	-0.838	0.5476	-1.5301	0.1292
Midwest	0.195	0.5001	0.3907	0.6968
South	0.345	0.4507	0.7663	0.4453
High poverty	-0.289	0.4013	-0.7208	0.4727
Grades 6–8	0.567	0.7319	0.7740	0.4407
Grades 9–12	0.366	0.7664	0.4773	0.6342
Small	0.014	0.8946	0.0155	0.9876
Medium	0.281	0.5088	0.5528	0.5816
Total school enrollment	0.000 ¹	0.0006	-0.1435	0.8862
Grade-eligible enrollment	-0.001	0.0014	-1.0203	0.3100
Summed race/ethnicity percentage	-0.001	0.0074	-0.1741	0.8621

¹ Rounds to zero

NOTE: Census region is the state-based region of the country (see technical notes for state listing). For public schools, a high poverty school is defined as one in which 50 percent or more of the students are eligible for free and reduced-price lunch all private schools are treated as low poverty schools. Small schools had less than or equal to 105 age-eligible students. Medium schools had more than 105 and less than or equal to 365 age-eligible students. Schools were weighted by their size-adjusted school base weights that did not include a nonresponse adjustment factor. The number of eligible and participating sample schools is 214 and 125, respectively.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

Table D-5c. Logistic regression model parameters (with summed race/ethnicity percentage) using the U.S. TALIS original public school sample: 2018

Parameter	Parameter estimate	Standard error	<i>t</i> test for H ₀ : parameter = 0	<i>p</i> value
Intercept	0.369	1.5420	0.2396	0.8111
Central city	-1.210	0.7364	-1.6434	0.1034
Suburb	-0.769	0.6580	-1.1689	0.2452
Town	-1.239	0.6899	-1.7958	0.0755
Northeast	-1.118	0.6164	-1.8137	0.0727
Midwest	0.007	0.5014	0.0147	0.9883
South	0.188	0.4427	0.4254	0.6715
High poverty	-1.395	2.2797	-0.6120	0.5419
Grades 6–8	0.570	0.8664	0.6573	0.5125
Grades 9–12	0.144	0.7779	0.1853	0.8533
Small	0.549	1.0484	0.5241	0.6014
Medium	0.552	0.5810	0.9497	0.3445
Free or reduced-price lunch eligibility	0.020	0.0189	1.0515	0.2956
High poverty * free or reduced-price lunch eligibility	0.004	0.0367	0.1066	0.9153
Total school enrollment	0.000 ¹	0.0006	0.2091	0.8348
Grade-eligible enrollment	-0.001	0.0015	-0.6355	0.5265
Summed race/ethnicity percentage	-0.001	0.0089	-0.0741	0.9411

¹ Rounds to zero

NOTE: Census region is the state-based region of the country (see technical notes for state listing). For public schools, a high poverty school is defined as one in which 50 percent or more of the students are eligible for free and reduced-price lunch. Black includes African American, and Hispanic includes Latino. Small schools had less than or equal to 105 age-eligible students. Medium schools had more than 105 and less than or equal to 365 age-eligible students. Schools were weighted by their size-adjusted school base weights that did not include a nonresponse adjustment factor. The number of eligible and participating sample schools is 186 and 106, respectively.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

4. Participating Final Sample With Substitutes

This section presents the nonresponse bias analysis based on the final sample of 214 eligible schools for the U.S. Teaching and Learning International Survey (TALIS) sample, including participating substitute schools. The distribution of the participating final sample of schools was compared to the schools in the total eligible final sample. The total eligible final sample includes the participating final sample plus those original nonrespondents who were not replaced by substitutes. Size-adjusted school base weights were used for both the eligible sample and the participating schools. Through the use of substitute schools, the unweighted school response rate for TALIS was 77.1 percent, with 165 out of 214 schools participating. The weighted response rate was 76.8 percent.

4.1 Categorical Variables

The distribution of participating and eligible schools by the six characteristics is shown in table D-6. The Chi-square statistic for census region is significant and suggests that there is evidence of a relationship between the census regions and participation in the survey. In particular, schools in the Northeast and the West were underrepresented among participating schools relative to eligible schools (15.8 percent versus 19.6 percent and 15.4 percent versus 17.5 percent, respectively), while schools in the South were overrepresented among participating schools (47.6 percent versus 43.1 percent, respectively). There are no statistically significant relationships between participation status and any of the other characteristics shown in table D-6. However, the absolute value of the relative bias for schools in towns and rural areas and large sized schools is greater than 10 percent, which indicates potential bias even though no statistically significant relationships were detected.

Table D-6. Percentage distribution of eligible and participating schools in the U.S. TALIS final sample, by school characteristic: 2018

School characteristic	Sample schools		Bias	Relative bias	Chi-square <i>p</i> value
	Eligible (percent) (N = 214)	Participating (percent) (N = 165)			
School control					0.660
Public	89.7	89.1	-0.54	-0.006	
Private	10.3	10.9	0.54	0.053	
Locale					0.156
Central city	33.1	30.5	-2.61	-0.079	
Suburb	37.2	36.1	-1.04	-0.028	
Town	9.3	10.6	1.28	0.138	
Rural	20.4	22.8	2.37	0.116	
Census region					0.018*
Northeast	19.6	15.8	-3.72	-0.190	
Midwest	19.8	21.1	1.31	0.066	
South	43.1	47.6	4.54	0.105	
West	17.5	15.4	-2.14	-0.122	
Poverty level					0.698
High	40.6	41.3	0.68	0.017	
Low	59.4	58.7	-0.68	-0.011	
Grade structure					0.669
Grades 6–8	49.7	50.9	1.14	0.023	
Grades 9–12	24.6	23.1	-1.47	-0.060	
Other	25.7	26.0	0.33	0.013	
School size					0.078
Small	39.9	43.5	3.66	0.092	
Medium	31.4	31.1	-0.25	-0.008	
Large	28.8	25.4	-3.42	-0.119	

* $p < .05$. Significantly different from the U.S. percentage at the .05 level of statistical significance.

NOTE: Detail may not sum to totals because of rounding. Census region is the state-based region of the country (see technical notes for state listing). For public schools, a high poverty school is defined as one in which 50 percent or more of the students are eligible for free and reduced-price lunch; all private schools are treated as low poverty schools. Small schools had less than or equal to 105 age-eligible students. Medium schools had more than 105 and less than or equal to 365 age-eligible students. Large schools had more than 365 age-eligible students. Eligible schools have at least one grade-eligible student. Participating schools agreed to have their teachers assessed. The relative bias is calculated as the bias divided by the estimate from the eligible sample. Schools were weighted by their size-adjusted school base weights that did not include a nonresponse adjustment factor.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

4.2 Continuous Variables

Summary means for each continuous variable for participating and eligible schools are shown in tables D-7 and D-8. No data on free and reduce-price lunch (FRPL) eligibility were available for private schools, so private schools are not included in the analysis shown in table D-8.

The *t* test statistics for total school enrollment, grade-eligible enrollment, and Asian are significant and suggest that there is evidence of relationships between these factors and participation in the survey. In particular, participating schools had a lower mean total school enrollment than the eligible sample (767.3 versus 857.6, respectively; table D-7) and a lower mean grade-eligible enrollment than the eligible sample (373.8 versus 405.1, respectively; table D-7). Participating schools had a lower mean percentage of Asian students than the eligible sample (3.7 percent versus 4.3 percent, respectively; table D-7). There was also no statistically significant difference between participating and eligible schools with respect to FRPL (table D-8).

Table D-7. Mean values of various characteristics for eligible and participating schools in the U.S.
TALIS final sample: 2018

Characteristic	Sample schools		Bias	Relative bias	<i>t</i> test <i>p</i> value
	Eligible (mean) (N = 214)	Participating (mean) (N = 165)			
Enrollment					
Total school	857.6	767.3	-90.33	-0.105	0.002*
grade-eligible	405.1	373.8	-31.28	-0.077	0.006*
Race/ethnicity percentage					
White, non-Hispanic	53.2	55.0	1.88	0.035	0.163
Black, non-Hispanic	15.8	16.2	0.39	0.025	0.681
Hispanic	23.0	21.3	-1.71	-0.074	0.082
Asian	4.3	3.7	-0.59	-0.139	0.031*
American Indian or Alaska Native	0.8	0.8	0.02	0.023	0.845
Hawaiian/Pacific Islander	0.2	0.2	-0.02	-0.093	0.142
Two or more races	2.7	2.8	0.04	0.013	0.645

* $p < .05$. Significantly different from the U.S. percentage at the .05 level of statistical significance.

NOTE: Black includes African American, and Hispanic includes Latino. Racial categories exclude Hispanic origin. Eligible schools have at least one grade-eligible student. Participating schools agreed to have their teachers assessed. The relative bias is calculated as the bias divided by the estimate from the eligible sample. Schools were weighted by their size-adjusted school base weights that did not include a nonresponse adjustment factor.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

Table D-8. Mean percentage of students eligible for free or reduced-price lunch, in eligible and participating public schools in the U.S. TALIS final sample: 2018

Characteristic	Sample schools		Bias	Relative bias	<i>t</i> test <i>p</i> value
	Eligible (percent) (N = 186)	Participating (percent) (N = 142)			
Percentage of students eligible for free or reduced-price lunch	49.2	50.5	1.29	0.026	0.163

NOTE: Eligible schools have at least one grade-eligible student. Participating schools agreed to have their teachers assessed. The relative bias is calculated as the bias divided by the estimate from the eligible sample. Schools were weighted by their size-adjusted school base weights that did not include a nonresponse adjustment factor.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

4.3 Logistic Regression Model

To examine the joint relationship of various characteristics to school nonresponse, the analysis used a logistic regression model with participation status as the binary dependent variable and frame characteristics as predictor variables. Since public and private schools were modeled together using the variables available for all schools, the percentage of students eligible for FRPL was not included in the main logistic regression analysis.

Standard errors and tests of hypotheses for the full model parameter estimates are presented in table D-9a (with six race/ethnicity variables) and table D-9b (with summed race/ethnicity percentage). None of the coefficients on the predictors are significant in table D-9a. The *F* test statistic to determine whether the race/ethnicity characteristics are simultaneously equal to 0 was 0.6177 with a *p* value of 0.7157, which indicates no significant relationship was detected with participation. None of the coefficients on the predictors are significant in table D-9b.

Because the percentage of students eligible for FRPL was not included in the main logistic regression analysis, a separate analysis with public schools only was conducted. To include FRPL eligibility in a model, public schools were modeled separately using a model with the summed race/ethnicity percentage and adding the percentage of students eligible for free or reduced-price lunch. Since poverty is derived from the percentage of students eligible for free or reduced-price lunch, an interaction term was also included in the model. Standard errors and tests of hypotheses for the full model parameter estimates are presented in table D-9c (with public schools only). The South region, high poverty, high poverty and free or reduced price lunch eligibility interaction term, and the summed race/ethnicity percentage were a

significant predictor of school participation among public schools only. The positive parameter estimate for the South indicates that relative to public schools in the West, public schools in the South were overrepresented among the participating public schools. The negative parameter estimate for high poverty indicates that relative to low poverty public schools, high poverty public schools were underrepresented among the participating public schools. The positive coefficient on the interaction term indicates the larger the percentage of students eligible for FRPL the more likely public schools above 50 percent poverty will respond relative to public schools below 50 percent poverty. The F test statistic to determine whether the sum of the parameter estimates for FRPL and the interaction term is equal to 0 was 7.8212 with a p value of 0.0062, which indicates a significant relationship with participation was detected. Thus, the positive coefficient on the interaction term indicates the larger the percentage of students eligible for FRPL the more likely schools are to respond among high poverty public schools. The coefficient on FRPL eligibility is not significant indicating that it has no impact on response status among low poverty schools.

Table D-9a. Logistic regression model parameters (with six race/ethnicity variables) using the U.S. TALIS final school sample: 2018

Parameter	Parameter estimate	Standard error	<i>t</i> test for H ₀ : parameter = 0	<i>p</i> value
Intercept	3.746	1.5893	2.3573	0.0204*
Private school	-0.579	0.9030	-0.6416	0.5226
Central city	-0.530	0.7636	-0.6938	0.4894
Suburb	0.047	0.7382	0.0636	0.9494
Town	-0.137	0.9944	-0.1380	0.8905
Northeast	-0.620	0.7047	-0.8801	0.3809
Midwest	0.270	0.8010	0.3373	0.7366
South	1.017	0.7055	1.4417	0.1525
High poverty	0.105	0.6306	0.1660	0.8685
Grades 6–8	0.232	0.7053	0.3286	0.7431
Grades 9–12	0.846	1.0521	0.8041	0.4232
Small	-0.915	1.1524	-0.7937	0.4293
Medium	-0.651	0.6900	-0.9432	0.3478
Total school enrollment	-0.001	0.0008	-1.1317	0.2605
Grade-eligible enrollment	-0.002	0.0022	-1.1190	0.2658
Black, non-Hispanic	-0.011	0.0139	-0.7776	0.4386
Hispanic	-0.008	0.0117	-0.6852	0.4948
Asian	-0.025	0.0306	-0.8332	0.4067
American Indian or Alaska Native	-0.065	0.0472	-1.3776	0.1714
Hawaiian/Pacific Islander	0.029	0.5403	0.0540	0.9570
Two or more races	0.087	0.0806	1.0775	0.2839

* $p < .05$. Significantly different from the U.S. percentage at the .05 level of statistical significance.

NOTE: Census region is the state-based region of the country (see technical notes for state listing). For public schools, a high poverty school is defined as one in which 50 percent or more of the students are eligible for free and reduced-price lunch; all private schools are treated as low poverty schools. Small schools had less than or equal to 105 age-eligible students. Medium schools had more than 105 and less than or equal to 365 age-eligible students. Black includes African American, and Hispanic includes Latino. Racial categories exclude Hispanic origin. Schools were weighted by their size-adjusted school base weights that did not include a nonresponse adjustment. The number of eligible and participating sample schools is 214 and 165, respectively.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

Table D-9b. Logistic regression model parameters (with summed race/ethnicity percentage) using the U.S. TALIS final school sample: 2018

Parameter	Parameter estimate	Standard error	<i>t</i> test for H ₀ : parameter = 0	<i>p</i> value
Intercept	4.197	1.5740	2.6665	0.0089*
Private school	-0.453	0.8832	-0.5125	0.6095
Central city	-0.474	0.7645	-0.6201	0.5366
Suburb	0.075	0.7302	0.1032	0.9180
Town	-0.243	1.0351	-0.2343	0.8152
Northeast	-0.753	0.5918	-1.2716	0.2064
Midwest	0.130	0.6878	0.1896	0.8500
South	0.924	0.5544	1.6672	0.0986
High poverty	0.176	0.5536	0.3181	0.7511
Grades 6–8	0.295	0.7048	0.4189	0.6762
Grades 9–12	0.578	0.9852	0.5867	0.5587
Small	-1.095	1.1423	-0.9585	0.3401
Medium	-0.689	0.6635	-1.0378	0.3019
Total school enrollment	-0.001	0.0007	-0.9892	0.3249
Grade-eligible enrollment	-0.003	0.0021	-1.3705	0.1736
Summed race/ethnicity percentage	-0.012	0.0106	-1.1658	0.2465

* $p < .05$. Significantly different from the U.S. percentage at the .05 level of statistical significance.

NOTE: Census region is the state-based region of the country (see technical notes for state listing). For public schools, a high poverty school is defined as one in which 50 percent or more of the students are eligible for free and reduced-price lunch; all private schools are treated as low poverty schools. Small schools had less than or equal to 105 age-eligible students. Medium schools had more than 105 and less than or equal to 365 age-eligible students. Schools were weighted by their size-adjusted school base weights that did not include a nonresponse adjustment factor. The number of eligible and participating sample schools is 214 and 165, respectively.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

Table D-9c. Logistic regression model parameters (with summed race/ethnicity percentage) using the U.S. TALIS final public school sample: 2018

Parameter	Parameter estimate	Standard error	<i>t</i> test for H ₀ : parameter = 0	<i>p</i> value
Intercept	4.426	2.1934	2.0178	0.0463
Central city	-0.072	0.8084	-0.0885	0.9296
Suburb	0.366	0.8108	0.4512	0.6528
Town	0.673	1.3665	0.4922	0.6237
Northeast	-1.121	0.7303	-1.5351	0.1279
Midwest	0.187	0.7608	0.2464	0.8059
South	1.249	0.5832	2.1409	0.0347*
High poverty	-5.077	1.9193	-2.6452	0.0095*
Grades 6–8	0.427	0.8019	0.5322	0.5958
Grades 9–12	0.129	1.2752	0.1010	0.9197
Small	-0.710	1.5359	-0.4621	0.6450
Medium	-0.710	0.7914	-0.8968	0.3720
Free or reduced-price lunch eligibility	-0.007	0.0244	-0.2855	0.7758
High poverty * free or reduced-price lunch eligibility	0.082	0.0339	2.4154	0.0175*
Total school enrollment	0.000 ¹	0.0009	-0.4120	0.6812
Grade-eligible enrollment	-0.003	0.0025	-1.3424	0.1825
Summed race/ethnicity percentage	-0.025	0.0118	-2.1253	0.0360*

¹ Rounds to zero.

* $p < .05$. Significantly different from the U.S. percentage at the .05 level of statistical significance.

NOTE: Census region is the state-based region of the country (see technical notes for state listing). For public schools, a high poverty school is defined as one in which 50 percent or more of the students are eligible for free and reduced-price lunch. Small schools had less than or equal to 105 age-eligible students. Medium schools had more than 105 and less than or equal to 365 age-eligible students. Schools were weighted by their size-adjusted school base weights that did not include a nonresponse adjustment factor. The number of eligible and participating sample schools is 186 and 142, respectively.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

5. Nonresponse-Adjusted Final Sample With Substitutes

This section presents the nonresponse bias analysis based on the final sample of 214 eligible schools for the U.S. Teaching and Learning International Survey (TALIS) sample. The distribution of the participating final sample, including participating substitute schools, was compared to the schools in the total eligible final sample, just like the previous section. However, in the analyses that follow, size-adjusted school base weights were used for the eligible sample of schools, and nonresponse-adjustments were applied to the size-adjusted school base weights for the participating schools.

5.1 Categorical Variables

The distribution of participating and eligible schools by the six characteristics is shown in table D-10. The Chi-square statistic for census region is significant and suggests that there is evidence of relationships with participation in the survey. In particular, schools in the Northeast were underrepresented among participating schools relative to eligible schools (15.6 percent versus 19.6 percent, respectively), while schools in the South were overrepresented among participating schools (47.7 percent versus 43.1 percent, respectively). There are no statistically significant relationships between participation status and any of the other characteristics shown in table D-10. However, the absolute value of the relative bias for schools in towns and rural areas and large sized schools is greater than 10 percent, which indicates potential bias even though no statistically significant relationships were detected.

Table D-10. Percentage distribution of eligible and participating schools in the U.S. TALIS nonresponse-adjusted sample, by school characteristic: 2018

School characteristic	Sample schools		Bias	Relative bias	Chi-square <i>p</i> value
	Eligible (percent) (N = 214)	Participating (percent) (N = 165)			
School control					0.855
Public	89.7	89.9	0.22	0.002	
Private	10.3	10.1	-0.22	-0.021	
Locale					0.161
Central city	33.1	30.3	-2.78	-0.084	
Suburb	37.2	36.4	-0.76	-0.020	
Town	9.3	10.6	1.36	0.147	
Rural	20.4	22.6	2.18	0.107	
Census region					0.015*
Northeast	19.6	15.6	-3.94	-0.201	
Midwest	19.8	21.2	1.38	0.070	
South	43.1	47.7	4.61	0.107	
West	17.5	15.5	-2.05	-0.117	
Poverty level					0.627
High	40.6	41.5	0.85	0.021	
Low	59.4	58.5	-0.85	-0.014	
Grade structure					0.980
Grades 6–8	49.7	50.1	0.38	0.008	
Grades 9–12	24.6	24.3	-0.25	-0.010	
Other	25.7	25.5	-0.13	-0.005	
School size					0.108
Small	39.9	42.9	3.04	0.076	
Medium	31.4	31.8	0.41	0.013	
Large	28.8	25.3	-3.44	-0.120	

* $p < .05$. Significantly different from the U.S. percentage at the .05 level of statistical significance.

NOTE: Detail may not sum to totals because of rounding. Census region is the state-based region of the country (see technical notes for state listing). For public schools, a high poverty school is defined as one in which 50 percent or more of the students are eligible for free and reduced-price lunch; all private schools are treated as low poverty schools. Small schools had less than or equal to 105 age-eligible students. Medium schools had more than 105 and less than or equal to 365 age-eligible students. Large schools had more than 365 age-eligible students. Eligible schools have at least one grade-eligible student. Participating schools agreed to have their teachers assessed. The relative bias is calculated as the bias divided by the estimate from the eligible sample. Participating schools were weighted by their size-adjusted school nonresponse adjusted weight. The eligible sample respondents were weighted by their size-adjusted school base weights.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

5.2 Continuous Variables

Summary means for each continuous variable for participating and eligible schools are shown in tables D-11 and D-12. No data on FRPL eligibility were available for private schools, so private schools are not included in the analysis shown in table D-12.

The *t* test statistic for total school enrollment, grade-eligible enrollment, and Asian are significant and suggests that there is evidence of relationships with participation in the survey. In particular, participating schools had a lower mean total school enrollment than the eligible sample (785.9 versus 857.6, respectively; table D-11) and a lower mean grade-eligible enrollment than the eligible sample (375.6 versus 405.1, respectively; table D-11). Participating schools had a lower mean percentage of Asian students than the eligible sample (3.7 percent versus 4.3 percent, respectively; table D-11). There was also no statistically significant difference between participating and eligible schools with respect to FRPL (table D-12).

Table D-11. Mean values of various characteristics for eligible and participating schools in the U.S. TALIS nonresponse-adjusted sample: 2018

Characteristic	Sample schools		Bias	Relative bias	<i>t</i> test <i>p</i> value
	Eligible (mean) (N = 214)	Participating (mean) (N = 165)			
Enrollment					
Total school	857.6	785.9	-71.72	-0.084	0.020*
Grade-eligible	405.1	375.6	-29.44	-0.073	0.010*
Race/ethnicity percentage					
White, non-Hispanic	53.2	54.9	1.77	0.033	0.183
Black, non-Hispanic	15.8	16.2	0.41	0.026	0.662
Hispanic	23.0	21.3	-1.66	-0.072	0.091
Asian	4.3	3.7	-0.60	-0.141	0.028*
American Indian or Alaska Native	0.8	0.9	0.06	0.078	0.588
Hawaiian/Pacific Islander	0.2	0.2	-0.02	-0.081	0.208
Two or more races	2.7	2.8	0.04	0.013	0.647

* $p < .05$. Significantly different from the U.S. percentage at the .05 level of statistical significance.

NOTE: Black includes African American, and Hispanic includes Latino. Racial categories exclude Hispanic origin. Eligible schools have at least one grade-eligible student. Participating schools agreed to have their teachers assessed. The relative bias is calculated as the bias divided by the estimate from the eligible sample. Participating schools were weighted by their size-adjusted school nonresponse adjusted weight. The eligible sample respondents were weighted by their size-adjusted school base weights.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

Table D-12. Mean percentage of students eligible for free or reduced-price lunch, in eligible and participating public schools in the U.S. TALIS nonresponse-adjusted sample: 2018

Students	Sample schools		Bias	Relative bias	<i>t</i> test <i>p</i> value
	Eligible (percent) (N = 186)	Participating (percent) (N = 142)			
Percentage of students eligible for free or reduced-price lunch	49.2	50.3	1.15	0.023	0.212

NOTE: Eligible schools have at least one grade-eligible student. Participating schools agreed to have their teachers assessed. The relative bias is calculated as the bias divided by the estimate from the eligible sample. Participating schools were weighted by their size-adjusted school nonresponse adjusted weights. The eligible sample respondents were weighted by their size-adjusted school base weights.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

6. Summary

Since the U.S. Teaching and Learning Survey (TALIS) weighted school response rates are below 85 percent, the National Center for Education Statistics (NCES) requires an investigation into the potential magnitude of nonresponse bias at the school level in the U.S. sample. The U.S. TALIS weighted teacher response rate is above 85 percent; therefore a nonresponse bias analysis at the teacher level is not required. The investigation into nonresponse bias at the school level for the U.S. TALIS effort shows statistically significant relationships between response status and some of the available school characteristics that were examined in the analyses.

For original sample schools, two variables were found to be statistically significantly related to participation in the bivariate analysis: total school and grade-eligible enrollments (table D-3). Additionally, the absolute value of the relative bias for private schools (table D-2); schools in rural areas (table D-2); schools in each of the four census regions (table D-2); small- and large-sized schools (table D-2); the percentage of students who were Asian (table D-3); American Indian or Alaska Native (table D-3); and Hawaiian/Pacific Islander (table D-3) is greater than 10 percent, which indicates potential bias even though no statistically significant relationship was detected. Although each of these findings indicates some potential for nonresponse bias, when all of these factors were considered simultaneously in a regression analysis, only town was a significant predictor of school participation (table D-5a, with individual race/ethnicity percentages). None of the parameter estimates in the second and third models were significant predictors of school participation (table D-5b, with summed race/ethnicity percentage, and table D-5c, among public schools only, respectively).

For the final sample of schools (with substitutes), four variables were found to be statistically significantly related to participation in the bivariate analysis: census region (table D-6), total school enrollment (table D-7), grade-eligible enrollment (table D-7), and percentage of Asian students (table D-7). Additionally, the absolute value of the relative bias for schools in towns and rural areas and large-sized schools is greater than 10 percent (table D-6). When all of these factors were considered simultaneously in a regression analysis, none of the parameter estimates are significant predictors of participation (tables D-9a, with individual race/ethnicity percentages, and D-9b, with summed race/ethnicity percentage). The third model showed that South region, high poverty, high poverty and FRPL eligibility interaction term, and summed race/ethnicity were significant predictors of school participation among public schools only (table D-9c among public schools only).

For the final sample of schools (with substitutes) with school nonresponse adjustments applied to the weights, census region (table D-10), total school enrollment (table D-11), grade-eligible enrollment (table D-11), and percentage of Asian students (table D-11) were again found to be statistically significantly related to participation in the bivariate analysis. Additionally, the absolute value of the relative bias for schools in towns and rural areas and large sized schools is again greater than 10 percent (table D-10). The multivariate regression analysis could not be conducted after the school nonresponse adjustments were applied to the weights. The concept of nonresponse-adjusted weights does not apply to the nonresponding units, and, thus, we could not conduct analysis that compares respondents with nonrespondents using nonresponse-adjusted weights. The results of the analyses are summarized in table D-13.

Table D-13. Characteristics with p values less than 0.05 and absolute relative bias greater than 10 percent, U.S. TALIS schools: 2018

Analysis	Characteristics with p values less than 0.05	Additional characteristics with absolute relative bias greater than 10 percent
Original sample	Total school enrollment, Grade-eligible enrollment	Private, Rural, Northeast region, Midwest region, South region, West region, Small sized, Large sized, Asian, American Indian or Alaska Native, Hawaiian/Pacific Islander
Regression model a	Town	†
Regression model b	None	†
Regression model c	None	†
Sample with substitutes	Census region, Total school enrollment, Grade-eligible enrollment, Asian	Town, Rural, Large sized
Regression model a	None	†
Regression model b	None	†
Regression model c	South region, High poverty, High poverty and free or reduced price lunch eligibility interaction term, Summed race/ethnicity	†
Nonresponse adjusted	Census region, Total school enrollment, Grade-eligible enrollment, Asian	Town, Rural, Large sized

† Not applicable.

SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2018.

In sum, the investigation into nonresponse bias at the school level in the U.S. TALIS 2018 provides evidence that there is some potential for nonresponse bias in the TALIS participating original sample based on the characteristics studied. It also suggests that there is no evidence that the use of substitute schools reduced the potential for bias and added to the potential bias. Moreover, the application of school nonresponse adjustments did not reduce the potential for bias and thus, there is some evidence of resulting potential bias in the available frame variables in the final sample with the largest relative bias in census region.