



# Annex A

## TECHNICAL NOTES ON SAMPLING PROCEDURES AND RESPONSE RATES FOR TALIS 2013

### Notes regarding Cyprus

*Note by Turkey:* The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

*Note by all the European Union Member States of the OECD and the European Union:* The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

### A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

## ANNEX A

### TECHNICAL NOTES ON SAMPLING PROCEDURES AND RESPONSE RATES FOR TALIS 2013

#### Sampling procedures and response rates

The objective of the Teaching and Learning International Survey (TALIS) in 2013 was to obtain, in each participating country, a representative sample of teachers for each ISCED level in which the country participated. Moreover, a representative sample of teachers teaching students of the appropriate age in schools selected for Programme for International Student Assessment (PISA) in 2012 was required for each country that opted to participate in the TALIS-PISA link. TALIS 2013 identified policy issues that encompass the classroom, teachers, schools and school management, so the coverage of TALIS 2013 extends to all teachers of each concerned ISCED level and to the principals of the schools where they teach. The international sampling plan prepared for TALIS 2013 used a stratified two-stage probability sampling design. This means that teachers (second stage units, or secondary sampling units) were to be randomly selected from the list of in-scope teachers in each of the randomly selected schools (first stage units, or primary sampling units). A more detailed description of the survey design and its implementation can be found in the TALIS Technical Report (2014).

A teacher of ISCED level 1, 2 or 3 is one who, as part of his or her regular duties in their school, provides instruction in programmes at that ISCED level. Teachers who teach a mixture of programmes at different ISCED levels in the target school are included in the TALIS universe. There is no minimum cut-off for how much teaching these teachers need to be engaged in at any of the three ISCED levels.

The international target population of TALIS 2013 restricts the survey to those teachers who teach regular classes in ordinary schools and to the principals of those schools. Teachers teaching to adults and teachers working in schools exclusively devoted to children with special needs are not part of the international target population and are deemed out of scope. Unlike in TALIS 2008, however, teachers working with special-needs students in a regular school setting were considered in-scope in TALIS 2013. When a school is made up exclusively of these teachers, the school itself is said to be out of scope. Teacher aides, pedagogical support staff (e.g. guidance counsellors and librarians) and health and social support staff (e.g. doctors, nurses, psychiatrists, psychologists, occupational therapists and social workers) were not considered to be teachers and thus not part of the TALIS international target population.

For national reasons, participating countries could choose to restrict the coverage of their national implementation of TALIS 2013 to parts of the country. For example, a province or state experiencing civil unrest or an area struck by a natural disaster could be removed from the international target population to create a national target population. Participating countries were invited to keep these exclusions to a minimum.

TALIS 2013 recognised that attempting to survey teachers in very small schools can be inefficient and difficult. For each ISCED level, surveying teachers in schools with no more than three teachers at a specific ISCED level and those teaching in schools located in geographically remote areas could be a costly, time-consuming and statistically inefficient exercise. Therefore, participating countries were allowed to exclude those teachers for TALIS 2013 data collection, thus creating a national survey population different from the national target population. The National Project Manager (NPM) for each country was required to document the reasons for exclusion, the size, the location, the clientele and so on, of each excluded school. This documentation was required for each ISCED level in which a country participated. The school exclusions for the TALIS-PISA link were the same as those used in PISA 2012.

Within a selected in-scope school, the following categories of teachers were excluded from the sample:

- Teachers teaching in schools exclusively serving special-needs students. Teachers who also act as school principals: no teacher data collected, but school principal data collected.
- Substitute, emergency or occasional teachers.
- Teachers on long-term leave.
- Teachers teaching exclusively to adults.
- Teachers who had taken part in the TALIS 2013 field trial.

#### Sample size requirements

For each ISCED level, the same requirements for sample size and precision of estimates were established. To allow for reliable estimation and modelling, while allowing for some amount of non-response, the minimum sample size was set at 20 teachers within each participating school. A minimum sample of 200 schools was to be drawn from the population of in-scope schools. Thus, the nominal international sample size was a minimum of 4 000 teachers for each ISCED level in which a country participated. Participating countries could choose to augment their national sample by selecting more schools, by selecting more teachers within each selected school or by increasing both. Some countries were asked to increase the within-school sample to counterbalance the effect of selecting too many schools with fewer than 20 teachers. The sample size requirement was reduced for some participating countries because of the smaller number of schools available for sampling. In a few cases, because the average number of teachers in the schools was less than expected in the international plan, the number of schools sampled was increased to maintain a minimum total number of participating teachers.



In many countries, the separation of grades in ISCED levels does not correspond to a physical separation of school buildings or administrations: Schools that offer grades 8 to 12 could straddle ISCED levels 2 and 3, but all of ISCED level 2 would not be covered by those schools. In countries that participated in more than one ISCED level, arrangements were made with the NPM and their team to optimise the selection of the school sample by either minimising the overlap of the respective samples (one school is selected for participation in only one ISCED level) or maximising the sample overlap (a selected school contributes to all concerned ISCED levels). However, in the case of maximised overlap, teachers who taught at more than one level would be asked to participate in only one. In all countries that participated in the TALIS-PISA link, the strategy was to minimise the overlap of the TALIS sample and the PISA 2012 sample.

## Participation rates

The quality requirements for TALIS 2013 translate into participation rates (response rates) for schools and for teachers. Reaching these levels of participation does not preclude that some amount of bias may be present in the results, but it should minimise the negative effect of non-response biases. As TALIS 2013 built on the knowledge gained during TALIS 2008, some assumptions of “reasonable” response rates for the populations of teachers can be formulated. Thus, for the sake of continuity, the participation requirements for TALIS 2013 were kept at the 2008 level even though most participating countries far exceed those requirements.

For each ISCED level, the minimum school participation rate was set at 75% after replacement. Though replacement schools could be called upon as substitutes for non-responding schools, NPMs were encouraged to do all they could to obtain the participation of the schools in the original sample. Responding schools that yielded at least 50% of responding teachers were considered to be participating schools; schools that failed to meet that threshold were considered to be non-participating, even though the number of responding teachers may have been enough to contribute to some of the analyses.

The minimum teacher participation rate was 75% of the selected teachers in participating schools (original sample or replacement schools). Teacher participation was calculated over all participating schools, whether the schools were in the original sample or used as a replacement, and thus the participation rate for teachers is a requirement at the national level but not at the school level. The overall unweighted and weighted participation rates are the product of the respective school and teacher participation rates. Tables A.1 to A.4 present the unweighted school participation rates before and after replacement of non-participating schools, the unweighted teacher participation rate, the unweighted overall participation rates by country, and a weighted estimated size of the teacher population for ISCED level 1, ISCED level 2, ISCED level 3 and the TALIS-PISA link, respectively. Nearly 108 000 ISCED level 2 teachers participated from 34 countries, which corresponds to 82% of all teachers sampled.

## Definition of teachers

TALIS 2013 followed the INES (International Indicator of Educational System) data collection definition of a teacher for sampling and analysis:

*The formal definition of a classroom teacher is a person whose professional activity involves the planning, organising and conducting of group activities whereby students’ knowledge, skills and attitudes develop as stipulated by educational programmes. In short, it is one whose main activity is teaching (OECD, 2004).*

## Notes regarding the interpretation of the data

This section lists issues to be noted regarding the sampling or field operations that should be considered when interpreting the data reported for these countries.


- Flanders (Belgium): The ISCED level 2 sampling was done based on “administrative units” rather than on schools; users should therefore be careful when comparing “school-level” estimates.
- Israel: The sampling excluded Ultra-Orthodox schools.
- Japan: In a number of schools, some teachers who should have been included were mistakenly excluded (e.g. part time, special needs).
- Korea: The data collection occurred in the early part of the year following the TALIS reference year.
- Mexico: In the ISCED 3 sample, six schools were rejected because of unapproved teacher sampling procedures.
- Malaysia: Many issues were discovered with coverage (established at about 90%), reconciliation of the sampled schools with the sampling frame, teacher sampling, data inconsistencies and deviations from the prescribed protocols of the survey. Schools where information could not be corrected or confirmed were rejected.
- Portugal: Azores and Madeira were excluded from data collection.
- Singapore: The ISCED 2 and ISCED 3 coverage falls below 95% after the exclusion of 27 private schools.
- Serbia: Users should use caution because not all school listings could be confirmed and differences between school listings and sampling frame information could not be explained.
- United States: Data from the United States are located below the line in selected tables in this report and not included in the calculations for the international average. This is because the United States did not meet the international standards for participation rates, as shown in Table A.2. As mentioned previously, to maintain a minimum level of reliability, the TALIS Technical Standards require that at least 75% of schools (after replacement) and at least 75% of teachers within the selected schools participate in the survey.

[Part 1/1]

Table A.1 Participation and estimated size of teacher population – ISCED 1

	Number of participating schools	Responding teachers in participating schools	School participation before replacement	School participation after replacement	Teacher participation in participating schools	Overall participation	Weighted estimated size of teacher population
			%	%	%	%	
Denmark	161	2 088	52	82	79	65	35 946
Finland	193	2 922	89	100	93	92	25 425
Mexico	183	1 291	95	96	96	92	458 616
Norway	144	2 450	52	75	85	64	42 459
Poland	169	3 151	78	87	98	85	211 617
<b>Sub-national entities</b>							
Flanders (Belgium)	198	2 681	52	83	91	75	29 149

Source: OECD, TALIS 2013 Database.

StatLink  <http://dx.doi.org/10.1787/888933048280>


[Part 1/1]

Table A.2 Participation and estimated size of teacher population – ISCED 2

	Number of participating schools	Responding teachers in participating schools	School participation before replacement	School participation after replacement	Teacher participation in participating schools	Overall participation	Weighted estimated size of teacher population
			%	%	%	%	
Australia	123	2 059	58	81	87	70	106 225
Brazil	1 070	14 291	97	97	94	91	594 874
Bulgaria	197	2 975	95	99	97	96	26 501
Chile	178	1 676	88	91	93	85	51 632
Croatia	199	3 675	99	99	96	95	16 714
Cyprus*	98	1 867	99	99	95	95	3 754
Czech Republic	220	3 219	99	100	98	98	37 419
Denmark	148	1 649	53	81	77	62	25 125
Estonia	197	3 129	93	100	99	99	7 728
Finland	146	2 739	91	99	91	90	18 386
France	204	3 002	79	82	75	61	198 232
Iceland	129	1 430	95	95	80	76	1 901
Israel	195	3 403	98	98	86	85	33 065
Italy	194	3 337	76	98	90	88	178 382
Japan	192	3 484	88	96	99	95	222 809
Korea	177	2 933	68	89	88	78	85 184
Latvia	116	2 126	77	80	96	77	12 894
Malaysia	150	2 984	75	75	97	73	92 735
Mexico	187	3 138	95	96	91	87	250 831
Netherlands	127	1 912	54	81	75	61	58 190
Norway	145	2 981	56	73	80	58	22 631
Poland	195	3 858	83	100	97	97	132 502
Portugal	185	3 628	91	93	92	86	44 496
Romania	197	3 286	100	100	98	98	68 810
Serbia	191	3 857	80	96	97	92	23 179
Singapore	159	3 109	100	100	99	99	9 583
Slovak Republic	193	3 493	87	99	96	95	27 163
Spain	192	3 339	97	97	91	88	204 508
Sweden	186	3 319	93	96	87	84	30 043
<b>Sub-national entities</b>							
Abu Dhabi (United Arab Emirates)	166	2 433	89	89	83	74	7 919
Alberta (Canada)	182	1 773	76	94	93	87	10 208
England (United Kingdom)	154	2 496	56	75	83	63	216 131
Flanders (Belgium)	168	3 129	68	84	89	75	19 184
United States	122	1 926	39	62	83	51	1 052 144

\* See notes at the beginning of this Annex.


Source: OECD, TALIS 2013 Database.

StatLink  <http://dx.doi.org/10.1787/888933048299>

[Part 1/1]  
**Table A.3 Participation and estimated size of teacher population – ISCED 3**

	Number of participating schools	Responding teachers in participating schools	School participation before replacement	School participation after replacement	Teacher participation in participating schools	Overall participation	Weighted estimated size of teacher population
			%	%	%	%	
Australia	124	1 982	60	81	84	68	76 666
Denmark	113	1 514	64	77	75	58	19 914
Finland	146	2 412	92	96	90	87	22 527
Iceland	29	1 104	94	94	78	73	1 504
Italy	210	3 659	75	97	89	86	273 498
Mexico	190	2 940	93	96	91	88	232 835
Norway	106	2 658	55	73	73	53	22 727
Poland	162	3 289	75	84	96	81	174 108
Singapore	159	3 131	100	100	99	99	12 047
<b>Sub-national entities</b>							
Abu Dhabi (United Arab Emirates)	165	2 472	88	88	80	71	6 414


Source: OECD, TALIS 2013 Database.

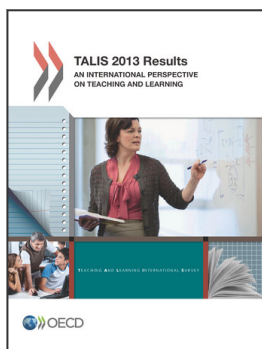
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[Part 1/1]  
**Table A.4 Participation and estimated size of teacher population – TALIS-PISA link**

	Number of participating schools	Responding teachers in participating schools	School participation before replacement	School participation after replacement	Teacher participation in participating schools	Overall participation	Weighted estimated size of teacher population
			%	%	%	%	
Australia	122	2 719	58	82	84	69	85 750
Finland	147	3 326	97	98	94	92	18 254
Latvia	118	2 123	82	85	97	82	10 228
Mexico	152	2 167	97	99	90	90	378 222
Portugal	141	3 152	93	93	93	87	52 101
Romania	147	3 275	98	98	98	96	86 051
Singapore	166	4 130	100	100	99	99	12 052
Spain	310	6 130	99	99	93	92	173 216

Source: OECD, TALIS 2013 Database.

StatLink  <http://dx.doi.org/10.1787/888933048337>



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