

Private Education: Approach and Data Requirements

To measure the cost of private education across economies, the 2011 round of the International Comparison Program (ICP) implemented a special survey for private education. The approach used ensured comparability with the ICP 2005 results. Transparency was ensured by sharing and validating with the national and regional coordinating agencies all the data used and the computation undertaken. The costs of public education were collected by means of the government compensation survey. Table 8.1 summarizes the methods implemented to measure the two types of education, private and public.

This chapter is a guideline to the survey on *private education*. The costs of *public education* were collected through the government compensation survey, as described in table 8.1.

SURVEY FRAME

The average price of a private education is the national average price (capital city, rural, urban). Also, the prices collected are intended to represent all types of private schools in the economy (low-cost schools, high-cost schools, etc.).

The survey is conducted nationwide, in the capital city and also in several other areas (urban and rural). In ICP 2011, data were collected from at least five schools in the capital city and at least one school per area.

ITEM LIST AND SPECIFICATIONS

The global list for private education consists of the seven items shown in table 8.2. Prior to the survey, economies look carefully at the specifications in order to price the appropriate items. Items may be split into more specific levels if so deemed by the regional coordinating agencies.

DATA REQUIREMENTS

For the 2011 round of the ICP, data for the reference year 2011 were collected using the private education survey questionnaire prepared by the Global Office (see table 8.3). Annex B provides details for item 3 in table 8.3, and annexes C and D provide the details for items 1 and 2.

- If the academic year differed from the calendar year, tuition for the previous academic year and the number of school days of the academic year that fell in 2011 were needed to calculate the annual tuition for 2011 (for more information, see the last section of this chapter on pricing rules). In addition to data and metadata, the following information was needed, depending on the situation: If educational materials and educational support services were included in the collected tuition, an estimate of those costs was provided.

Table 8.1 ICP Survey Methods for Private and Public Education, ICP 2011

Private education	Public education
<ul style="list-style-type: none"> Private education is under household consumption: collection of private tuition fees. Method involves data collection by the participating economy. Regional purchasing power parities (PPPs) are computed by the regional coordinating agencies and are then linked to the global PPPs. 	<ul style="list-style-type: none"> Public education is under government: collection of compensation of employees working in the public education sector plus productivity adjustment. Nine government occupations are related to education, each with four levels of experience.^a

Source: ICP, <http://icp.worldbank.org/>.

a. For documentation on government occupations, refer to <http://icp.worldbank.org/>.

Table 8.2 Basic Heading, Private Education, ICP 2011

Code	Basic heading and product name
111011.1	Education
111011.11	Primary education (primary)
111011.12	Secondary education (lower secondary)
111011.13	Secondary education (upper secondary)
111011.14	Tertiary education (computer science degree)
111011.15	Tertiary education (degree in humanities or social science)
111011.16	Other education programs (foreign language course or lessons)
111011.17	Other education programs (private lessons in mathematics—outside school hours)

Source: ICP, <http://icp.worldbank.org/>.

Note: In ICP 2011, specifications for the recommended items were provided by the Global Office (see annex A). The private education items were mostly in line with the International Standard Classification of Education (ISCED) of the United Nations Education, Scientific, and Cultural Organization (UNESCO), although the coding system followed the ICP 2011 classification and so the items do not necessarily map one to one with the ISCED classification.

Table 8.3 Data Requirements and Collection Forms, Private Education, ICP 2011

	Data requirement	Data collection forms
1.	Average annual tuition or average hourly fees of private schools	Sheets 3.1–3.7
2.	All raw data and metadata	Sheets 3.1–3.7
3.	General education indicators: the number of private and public education institutions and the number of students enrolled at each level	Sheet 1, "General Indicators"

Source: ICP, <http://icp.worldbank.org/>.

- If the computation method differed from the instructions provided in this chapter, an explanatory note describing the way in which the prices were computed was submitted.
- Internet searches and telephone interviews with schools and other educational institutions were conducted if necessary.

The validity of the information was checked with the related ministries.

DATA SOURCES

For ICP 2011, the data were collected from various sources:

- Information on annual tuition and its metadata were collected at the school level.
- Information on the general indicators for the number of students and schools in the economy was collected at the ministry level.

PRICING RULES

Average Annual Tuition for "Primary, Secondary, and Tertiary Private Education"

Annual Tuition for Primary and Secondary Education

The actual cost of private education for calendar year 2011 was required. Therefore, if the 2011

academic year began and ended in 2011, the tuition fee for calendar year 2011 was as provided and did not require any further calculation or adjustment.

If the academic year differed from the calendar year, the tuition for calendar year 2011 was estimated according to the total number of school days in 2011. In this case, the tuition for an average school day was calculated and multiplied by the number of school days in calendar year 2011 (see figure 8.1).

In figure 8.1, academic year 2010/2011 runs from calendar year 2010 into 2011, and academic year 2011/2012 runs from a later time in 2011 into 2012. In the formula, a_2 is the number of school days from January 1, 2011, to the end of the first academic year, and b_1 is the number of school days from the beginning of the second academic year to December 2011. The respective tuition fees for the two academic years are A and B . The actual cost of education for calendar year 2011 is estimated by adding the portions of tuition fees A and B that correspond respectively to a_2 and b_1 . Therefore, tuition fees for 2011 would be equal to C :

$$C = \frac{a_2}{a_1 + a_2} A + \frac{b_1}{b_1 + b_2} B. \quad (8.1)$$

This approach is consistent with national accounts valuations of relevant expenditures.

What follows is a description of the process used for data collection. Each data collection form has two main parts: box A, national standard information for all the observations, and box B, information for each observation (see annex C).

The following steps are taken to estimate the tuition fees for calendar year 2011 for each educational level. First, complete box A:

- Obtain and enter the national standard number of school days for the first academic year and the part of it that falls under (or intersects with) calendar year 2011; any vacations, holidays, and breaks should be excluded from counting.
- Obtain and enter the national standard number of school days for the second academic year and the part of it that falls under (or intersects with) calendar year 2011.
- Enter the start and end dates of each academic year.

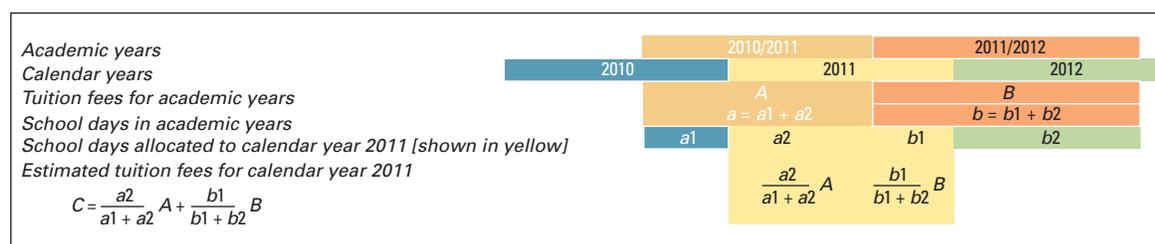
The number of school days is reported directly in box B in the appropriate cells for each observation. If for a particular school the

Example of Box A Entry: Number of School Days in the School Year and in Calendar Year 2011

Academic year 1		Academic year 2	
(5) Number of school days ^a	(6) Number of school days that fall in calendar year 2011	(7) Number of school days ^a	(8) Number of school days that fall in calendar year 2011
202	85	200	112

a. Excluding all vacations and holidays. The number of school days should be the national standard number. It is automatically reflected in each observation in the table for observations. If the number is different for some observations, change items 5 and 6 of each observation (see example of box B entry that follows).

Figure 8.1 Calculating Average Private School Tuition, 2010/2011 and 2011/2012, ICP 2011



Source: ICP, <http://icp.worldbank.org/>.

number of school days differs from the national standard, the actual number of school days for that observation is entered in box B.

Second, complete box B:

- Confirm that for a particular school the number of school days for the first or second academic year is the same as the national standard entered in box A. If it is different, enter the actual number of school days for that observation in the appropriate cell related
- For each observation, enter the number of school days of each academic year that intersects with calendar year 2011 if it is different from the national standard entered in box A.
- Enter the tuition for the first and the second academic years in the relevant cells.

Example of Box B Entry: Sample Observation (Primary or Secondary)

Item #	Observation	Example	
1	Location (city, village, etc.)	Timber City (capital)	
2	School surveyed (name)	Oak Junior High	
3	Date of data collection (mm/dd/yyyy)	01/24/2012	
	Cost of private school	Academic year 1	Academic year 2
4	Tuition (course fee only)	11,600	12,200
5	Number of school days	202	200
6	Number of days that fall in calendar year 2011	85	115
7	Annual tuition	11,896	

Note: Suppose:

- The annual tuition for the 2010/2011 school year is 11,600 local currency units.
- The 2010/2011 school year has 202 school days of which 85 days fall in 2011.
- The 2011/2012 school year has 200 school days of which 115 days fall in 2011.
- The annual tuition for the 2011/2012 school year is 12,200 local currency units.

Thus the annual tuition for 2011 = $(11,600/202) \times 85 + (12,200/200) \times 115 = 11,896$.

The estimated tuition for calendar year 2011 is calculated automatically and reported by the system.

As explained in the data requirements section, if the method of calculating the annual tuition differs from the instruction provided here, an explanatory note is required in the box at the bottom of the survey forms.

If tuition is paid on a monthly basis, which could be the case in a high-inflation economy, the payments are added up to obtain the annual tuition, but the raw data (monthly data) should also be provided in the explanatory note:

Example of Explanatory Note

Explanatory note (if any):	Tuition is on a monthly basis. We added up all the monthly tuitions in 2011 to get annual tuition. Feb: 1,300 Mar: 1,400 Apr: 1,500 May: 1,600 Aug: 1,700 Sep: 1,800 Oct: 1,900 Nov: 2,000 Dec: 2,100
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Annual Tuition for Tertiary Education

University tuition could be on an annual basis, a semester basis, or a credit basis. Therefore, it is much more difficult to measure the cost in the same unified way as that for a primary or secondary education. Because the purpose of data collection is to estimate the annual cost for 2011, if the academic system is organized on a semester basis the relevant tuitions would have to be added to obtain the annual cost. If tuition is based on the number of credits or

courses taken, one would have to estimate the average number of credits or courses taken by a standard student and then calculate an annual cost. If it is hard to estimate the average number of credits or courses, the minimum requirement needed for a full-time student should be used.

The forms also provide space to enter the number of days for which tuition is applied. This information is used to estimate tuition for the calendar year in an alternative way.

Example of Observation for Tertiary 1, Case of Annual Tuition

Item #	Observation	Example	
1	Location (city, village, etc.)	Ocean district	
2	School surveyed (name)	Ocean Tech College	
3	Date of data collection (mm/dd/yyyy)	01/24/2012	
	Cost of private school	Academic year 1	Academic year 2
4	Tuition (course fee only)	15,800	
5	Number of school days	168	
6	Number of days that fall in calendar year 2011	168	
7	Annual tuition	15,800	

Example of Observation for Tertiary 2, Case of Semester-Based Tuition

Item #	Observation	Example	
1	Location (city, village, etc.)	Timber City (capital)	
2	School surveyed (name)	Ebony University	
3	Date of data collection (mm/dd/yyyy)	01/24/2012	
	Cost of private school	Academic year 1	Academic year 2
4	Tuition (course fee only)	10,500	11,000
5	Number of school days	82	84
6	Number of days that fall in calendar year 2011	82	84
7	Annual tuition	21,500	

Note: Suppose:

- The first semester in 2011 lasts four months (82 days without holidays and weekends).
- The tuition for the first semester is 10,500 local currency units.
- The second semester in 2011 lasts four months (84 days without holidays and weekends).
- The tuition for the first semester is 11,000 local currency units.

Thus the tuition for the 2011 academic year is $10,500 + 10,000 = 21,500$.

Example of Observation for Tertiary 3, Case of Tuition Based on Number of Credits or Courses

Item #	Observation	Example	
1	Location (city, village, etc.)	Ocean district	
2	School surveyed (name)	Ocean Tech College	
3	Date of data collection (mm/dd/yyyy)	01/24/2012	
	Cost of private school	Academic year 1	Academic year 2
4	Tuition (course fee only)	21,000	
5	Number of school days	160	
6	Number of days that fall in calendar year 2011	160	
7	Annual tuition	21,000	

Note: Suppose:

- One course (equal to three credits) costs 2,100 local currency units.
- The average number of courses taken by a student per year is 10 (equal to 30 credits).

Thus the tuition for the 2011 academic year is $2,100 \times 10 = 21,000$.

The explanatory note is fairly important in this case in order to validate the data.

Average Annual Tuition

After the data collection is finished and each observation has been adjusted and validated as

annual tuition, the simple arithmetic mean of all the observations for the item is calculated to obtain the average annual tuition. Each data collection sheet automatically counts the number of observations and calculates the average (see example).

Example of Average Annual Tuition

(1) Number of observations	(2) Name of economy	(3) Average annual tuition	(4) Reported currency
68	Cedar Republic	15,825	Cedar dollar

Average Hourly Fee for "Other Education Programs"

Hourly Fee

If a lesson lasts two hours at a cost of 80 local currency units, the hourly fee is $(80/2 =) 40$.

It is important to obtain the total number of hours for which the total fee is applied. The relevant calculation is carried out automatically on sheet 3 of the data collection form (*hourly*)—see annex D.

Example of Observation for Other Educational Programs

Observation	1	2
Location (city, village, etc.)	Timber City	Ocean district
School surveyed (name)	John's Language School	Not applicable (home business)
Date of data collection (mm/dd/yyyy)	01/28/2012	01/28/2012
Cost of private school		
Fee (course fee only)	600	80
Number of class hours	12	2
Hourly fee	50	40

Average Hourly Fee

After each observation is adjusted to be an hourly cost, the simple arithmetic mean of all the observations for the item should be calculated. On each data collection sheet, one can automatically count the number of observations and calculate the average.

Cost for Education Only (Not Including Any Related Costs)

Both the average annual tuition and average hourly fee should not include payments for (1) educational materials such as textbooks and stationery and (2) educational support services such as health care services (e.g., vaccination),

transport services (e.g., school bus), catering services (e.g., meal fee), and accommodation services (e.g., boarding fee).

If and only if the total cost, including educational materials and educational support services, is available, one can estimate the cost of educational materials and support services and subtract them from the total cost in order to obtain the cost of the education.

As discussed earlier in the section on average annual tuition, the costs of educational materials and educational support services should be subtracted from the tuition of the appropriate school year before calculating annual tuition. These costs are also automatically calculated on each sheet of the data collection form.

Example of Tuition, Including Educational Materials and Support Services

Item #	Observation	1	
1	Location (city, village, etc.)	Timber City (capital)	
2	School surveyed (name)	Oak Junior High	
3	Date of data collection (mm/dd/yyyy)	01/24/2012	
	Cost of private school	Academic year 1	Academic year 2
4	Tuition (course fee only)	19,200	21,600
5	Number of days in school	200	200
6	Number of days that fall in calendar year 2011	45	135
7	Annual tuition	12,709	
	Annual tuition should <i>exclude educational materials and support services</i> . If and only if they are included in the tuition, indicate (estimate) the amount below.	Estimate below only when the tuition includes educational materials and support services.	
8	Educational materials (books, stationery, etc.)		
9	Educational materials (books, stationery, etc.)	200	220
10	Educational support services		
11	Catering services (e.g., meal fee)	240	255
12	Accommodation services (e.g., boarding fee)	6,000	6,100
13	Transport services	200	220
14	Health care services	120	70
15	Other costs (e.g., association fee)	40	40
16	Total for materials and services	6,800	6,905

Annex A

Product Specifications, Education, ICP 2011

Structured product description						
Education						
Core list code	Product name	Number of units	Unit of measurement	Characteristic		
				Age of student	Type	Level of education
111011.11	Primary education	1	Year	6	Day school	
111011.12	Secondary education (lower secondary)	1	Year	11	Day school	Entry after completion of primary education
111011.13	Secondary education (upper secondary)	1	Year	15	Day school	General school leaving certificate giving access to university-level education
111011.14	Tertiary education (computer science degree)	1	Year	18–22	Full-time study	First degree (bachelor's, license, diploma, etc.)
111011.15	Tertiary education (humanities or social science degree)	1	Year	18–22	Full-time study	First degree (bachelor's, license, diploma, etc.)
111011.16	Other educational programs (foreign language course or lessons)	1	Hour	Any (not for small children)	Class lesson (10–20 students in a class)	Intermediate level at a language school
111011.17	Other educational programs (private lessons in mathematics—tutoring outside school hours)	1	Hour	15–16	Private tutoring (one student with one tutor)	Tutoring (secondary education level)

Education				
Core list code	Product name	Characteristic		Student
		Field of study	Language in class	
111011.11	Primary education		Official language	A resident (national of the economy concerned)
111011.12	Secondary education (lower secondary)		Official language	A resident (national of the economy concerned)
111011.13	Secondary education (upper secondary)		Official language	A resident (national of the economy concerned)
111011.14	Tertiary education (computer science degree)	Computer science	Official language	A resident (national of the economy concerned)
111011.15	Tertiary education (humanities or social science degree)	Humanities or social science (sociology recommended)	Official language	A resident (national of the economy concerned)
111011.16	Other educational programs (foreign language course or lessons)	English or French language (for non-native student)	English or French language (for nonnative student)	
111011.17	Other educational programs (private lessons in mathematics—tutoring outside school hours)	Mathematics	Official language	

Annex A (Continued)

Education				
Core list code	Product name	Characteristic		Comments
		Fee	Excluding	
111011.11	Primary education	Average annual tuition per student	Payments for educational materials and educational support services	
111011.12	Secondary education (lower secondary)	Average annual tuition per student	Payments for educational materials and educational support services	
111011.13	Secondary education (upper secondary)	Average annual tuition per student	Payments for educational materials and educational support services	
111011.14	Tertiary education (computer science degree)	Average annual tuition per student	Payments for educational materials and educational support services	
111011.15	Tertiary education (humanities or social science degree)	Average annual tuition per student	Payments for educational materials and educational support services	
111011.16	Other educational programs (foreign language course or lessons)	Average hourly fee per student	Payments for educational materials and educational support services	
111011.17	Other educational programs (private lessons in mathematics—tutoring outside school hours)	Average hourly fee per student	Payments for educational materials and educational support services	Qualified tutor

Source: ICP, <http://icp.worldbank.org/>.

Annex B

General Education Indicators, Private and Public Education, ICP 2011

	General education indicator (country level)	(thousands)
1	School-age population	
2	<i>Number of students in private school</i>	
3	Primary education	
4	Secondary education	
5	Lower secondary ^a	
6	Upper secondary ^a	
7	Tertiary education	
8	<i>Number of students in public school</i>	
9	Primary education	
10	Secondary education	
11	Lower secondary ^a	
12	Upper secondary ^a	
13	Tertiary education	
14	<i>Number of private schools</i>	
15	Primary education	
16	Secondary education	
17	Lower secondary ^a	
18	Upper secondary ^a	
19	Tertiary education	
20	<i>Number of public schools</i>	
21	Primary education	
22	Secondary education	
23	Lower secondary ^a	
24	Upper secondary ^a	
25	Tertiary education	
26	<i>Source of information</i>	

Source: ICP, <http://icp.worldbank.org/>.

a. If available.

Annex C

Data Collection Form, Private Education (Average Annual Tuition), ICP 2011

Data Collection Form 1 (Primary education)			
Box A: National standard information for primary education			
ICP code	ICP item name		Reference year
111011.1	Primary education		2011
(1) Number of observations	(2) Name of country	(3) Average annual tuition	(4) Reported currency
Academic year 1		Academic year 2	
(5) Number of school days ^a	(6) Number of school days that fall in calendar year 2011	(7) Number of school days ^a	(8) Number of school days that fall in calendar year 2011
(9) Start date (mm/dd/yyyy)	(10) End date (mm/dd/yyyy)	(11) Start date (mm/dd/yyyy)	(12) End date (mm/dd/yyyy)

a. Excluding all vacations and holidays. The number should be the national standard number. It will automatically be reflected in each observation below. If the number is different for certain observations, change items 5 and 6 for each observation. Any changes made will be highlighted.

Box B: Information for each observation					
Item #	Observation	Example		1	
1	Location (city, village, etc.)	Timber City (capital)			
2	School surveyed (name)	Forest Elementary			
3	Date of data collection (mm/dd/yyyy)	01/24/2012			
	Cost of private school	Academic year 1	Academic year 2	Academic year 1	Academic year 2
4	Tuition (course fee only)	19,200	21,600		
5	Number of school days	200	200		
6	Number of school days that fall in calendar year 2011	85	115		
7	Annual tuition	20,580			
Annual tuition should <i>exclude educational materials and educational support services</i> . If and only if they are included in the above tuition, please indicate (estimate) the amount below.				Only when the tuition above includes educational materials and educational support services, estimate below.	
8	Educational materials				
9	Educational materials (books, stationery, etc.)				
10	Educational support services				
11	Catering services (meal fee)				
12	Accommodation services (boarding fee)				
13	Transport services				
14	Health care services				
15	Other cost (e.g., association fee)				
16	Total for materials and services				
17	Explanatory note (if any):				

Source: ICP, <http://icp.worldbank.org/>.

Annex D

Data Collection Form, Private Education (Average Hourly Fee), ICP 2011

Data Collection Form 6 (Other education—foreign language—hourly fee)			
Box A: National standard information for other education—foreign language			
ICP code	ICP item name		Reference year
111011.16	Other educational programs (foreign language course or lessons)		2011
(1) Number of observations	(2) Name of country	(3) Average hourly fee	(4) Reported currency
Box B: Information for each observation			
	Observation	Example	1
1	Location (city, village, etc.)	Timber City (capital)	
2	School surveyed (name)	John's Language School	
3	Date of data collection (mm/dd/yyyy)	01/28/2012	
	Cost of private school		
4	Fee (course fee only)	600	
5	Number of class hours	12	
6	Hourly fee	50.0	
Hourly educational fees should exclude <i>educational materials and educational support services</i> . If and only if they are included in the above tuition, please indicate (estimate) the amount below.			Estimate the amount below only when the fee above includes educational materials and educational support services.
7	Educational materials		
8	Educational materials (books, stationery, etc.)		
9	Educational support services		
10	Catering services (e.g., meal fee)		
11	Accommodation services (e.g., boarding fee)		
12	Transport services		
13	Health care services		
14	Other costs (e.g., association fee)		
15	Total for materials and services		
16	Explanatory note (if any):		

Source: ICP, <http://icp.worldbank.org/>.