

Indicator	Year 2012	Year 2013	Year 2014	Year 2015	Year 2016
The percentage of public education expenditure to total government expenditure	22.0%	17.3%	14.9%	14.7%	14.9%
The percentage of public expenditure of non-tertiary education to total government expenditure	7.2%	10.4%	9.0%	9.1%	9.5%
The percentage of public education expenditure to gross domestic product ¹	3.3%	1.9%	1.9%	2.6%	2.5%
The percentage of public expenditure of non-tertiary education to gross domestic product ¹	1.1%	1.2%	1.2%	1.6%	1.6%
The public education expenditure per student of non-tertiary education (Patacas) ²	52,064	68,137	72,258	78,967	84,415

Background information: Free education was extended to Year 1 and Year 2 of infant education in the academic year 2005/2006, the expense of complementary services was included in free education in the academic year 2006/2007; free education was extended to senior secondary education in the academic year 2007/2008, and tuition subsidy was accordingly increased for students studying in non-free education school system.

Public education expenditure and gross domestic product³

Unit: 10⁶ Patacas

Type	Year 2012	Year 2013	Year 2014	Year 2015	Year 2016
Total government public expenditure	51,581	46,419	57,445	64,517	67,816
Public education expenditure	11,360	8,024	8,580	9,515	10,101
Public expenditure of non-tertiary education ⁴	3,739	4,841	5,168	5,887	6,430
Gross domestic product ¹	343,818	411,865	442,070	362,265	404,199

Public expenditure of non-tertiary education



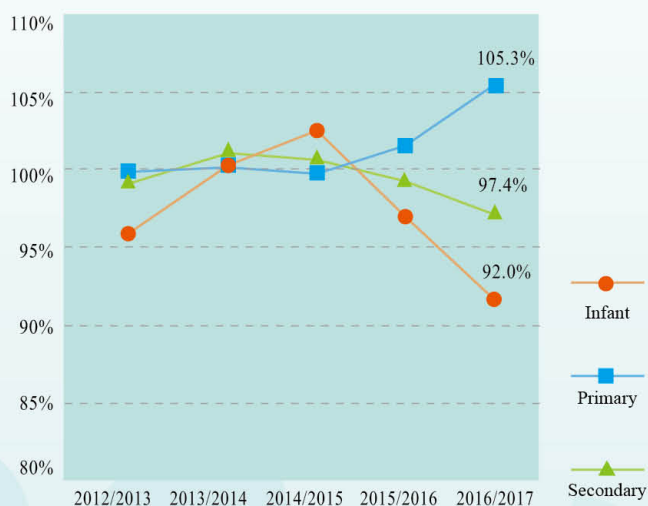
The percentage of public expenditure on non-tertiary education of the total government expenditure



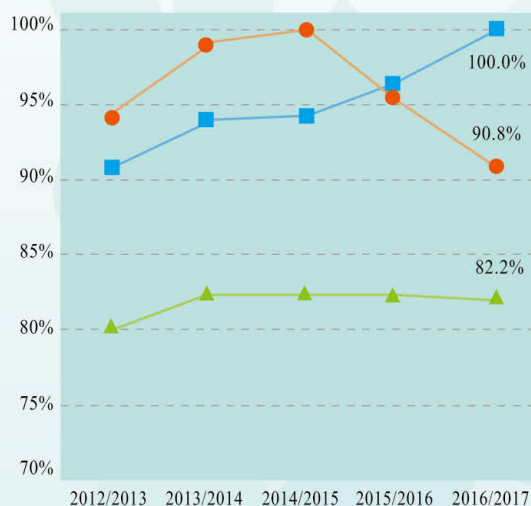
1. The figures will be adjusted in accordance with the gross domestic product revised by the Statistics and Census Bureau of the Macao SAR in the future. The latest gross domestic product was published in February 2018.
2. Students of formal education and recurrent education are included.
3. The public expenditure data are from the Finance Services Bureau of the Macao SAR, and the accounting system adopted is the national government finance statistical calculation established by the International Monetary Fund (IMF).
4. The Education and Youth Affairs Bureau, public schools, the Department of Youth, Maritime Training School of the Marine and Water Bureau, the Student Welfare Fund, the Correctional Services Fund, the Education Development Fund, Investment Plans (for non-tertiary education sector) are included.

Indicator	Type/Education Level		Academic Year 2012/2013		Academic Year 2013/2014		Academic Year 2014/2015		Academic Year 2015/2016		Academic Year 2016/2017	
	Gross enrolment rate ²	Infant	M	96.0%	95.1%	100.7%	99.8%	102.5%	101.4%	97.0%	96.0%	92.0%
F				97.0%		101.7%		103.7%		98.2%		93.4%
Primary		M	99.7%	99.9%	100.7%	99.8%	99.8%	98.0%	101.3%	100.5%	105.3%	103.4%
		F		99.4%		101.7%		101.8%		102.1%		107.5%
Secondary		M	98.6%	100.1%	101.8%	102.5%	101.0%	100.2%	99.5%	97.2%	97.4%	96.4%
F			97.1%		100.9%		101.8%		102.0%		98.5%	
Junior Secondary	M	112.2%	115.0%	114.1%	115.6%	109.1%	110.9%	106.8%	104.8%	102.1%	101.5%	
	F		109.1%		112.4%		107.2%		109.1%		102.7%	
Senior Secondary	M	88.4%	88.7%	92.5%	92.7%	94.7%	92.2%	93.9%	91.3%	93.7%	92.2%	
	F		88.0%		92.3%		97.6%		96.7%		95.3%	
Net enrolment rate ³	Infant	M	94.4%	93.3%	98.9%	97.8%	100.0%	99.4%	95.5%	94.4%	90.8%	89.4%
		F		95.6%		100.0%		100.0%		96.8%		92.3%
	Primary	M	91.1%	89.6%	93.8%	91.8%	94.5%	91.9%	96.5%	94.9%	100.0%	98.0%
		F		92.6%		96.1%		97.3%		98.3%		100.0%
	Secondary	M	80.4%	79.3%	83.0%	81.5%	83.0%	80.2%	82.5%	78.4%	82.2%	79.7%
F			81.6%		84.7%		86.1%		87.1%		84.9%	
Junior Secondary	M	77.7%	75.3%	81.3%	78.5%	80.7%	77.9%	79.8%	73.6%	79.0%	74.7%	
	F		80.2%		84.2%		83.7%		87.0%		83.9%	
Senior Secondary	M	57.9%	54.1%	61.3%	58.1%	64.2%	58.6%	64.5%	58.7%	66.6%	62.2%	
	F		61.7%		64.8%		70.4%		70.8%		71.2%	
School life expectancy	3 to 17 years		13.7		14.1		14.2		14.1		14.2	
	6 to 17 years		10.8		11.1		11.1		11.2		11.4	

Gross enrolment rate



Net enrolment rate



1. The scope of data only includes formal education; the reference date is 26th November of the academic year concerned.
2. Gross enrolment rate refers to the percentage of the total number of students of the respective education level in that age group of the residential population.
3. Net enrolment rate refers to the percentage of the total number of school age students of the respective education level in that age group of the residential population.

Indicator	Education Level	Academic Year 2013/2014	Academic Year 2014/2015	Academic Year 2015/2016	Academic Year 2016/2017	Academic Year 2017/2018
Average class size	Infant	26.7	27.4	28.6	28.8	29.2
	Primary	27.1	27.9	28.7	28.8	29.1
	Secondary	31.2	29.6	28.6	27.6	26.8
	Junior Secondary	30.6	28.3	28.2	27.8	27.5
	Senior Secondary	31.8	30.9	28.9	27.5	26.1
Teacher-student ratio	Infant	1 : 16.0	1 : 15.9	1 : 16.2	1:14.7	1:14.5
	Primary	1 : 13.7	1 : 14.1	1 : 13.9	1:13.5	1:13.5
	Secondary	1 : 12.2	1 : 11.4	1 : 10.7	1:10.1	1:9.8
Class-teacher ratio	Infant	1 : 1.7	1 : 1.7	1 : 1.8	1:2.0	1:2.0
	Primary	1 : 2.0	1 : 2.0	1 : 2.1	1:2.1	1:2.2
	Secondary	1 : 2.6	1 : 2.6	1 : 2.7	1:2.7	1:2.7
Average weekly teaching periods of teachers	Infant	20.6	20.5	20.8	21.1	20.8
	Primary	16.5	16.3	16.5	16.2	16.2
	Secondary	14.8	14.6	14.5	14.4	14.3
Rate of teachers possessing pedagogical training	Infant	92.1%	98.0%	99.1%	99.3%	99.5%
	Primary	88.2%	96.2%	97.6%	98.2%	98.5%
	Secondary	81.8%	87.4%	89.1%	90.7%	91.3%

Background information: The Education and Youth Affairs Bureau implemented the “Subsidy scheme of optimisation of class-teacher ratio or teacher-student ratio” for non-profit private schools. The scope implemented in the academic year 2006/2007 was infant education; it was extended to primary education in the academic year 2007/2008 and extended to secondary education in the academic year 2008/2009. For infant education, the subsidy condition is that there should be no less than 1.5 teaching staff in a class or 1 teaching staff teaching in classes of no more than 25 students. For primary education, there should be no less than 1.8 teaching staff in a class or 1 teaching staff teaching in classes of no more than 25 students. For secondary education, there should be no less than 2.1 teaching staff in each class or 1 teaching staff teaching in classes of no more than 25 students. Starting from the academic year 2010/2011, if classes of infant, primary and secondary education levels can further be optimised to having no less than 1.7, 2.0 and 2.3 teaching staff per class respectively, extra Level 2 subsidy will be provided to each of such classes. Starting from the academic year 2012/2013, if secondary education can further be optimised to having no less than 2.5 teaching staff per class, each class can obtain the extra Level 3 subsidy; if classes of secondary education can be optimised to having no less than 2.7 teachers per class, then each of such class can obtain the extra Level 4 subsidy.

Average class size



Teacher-student ratio ²

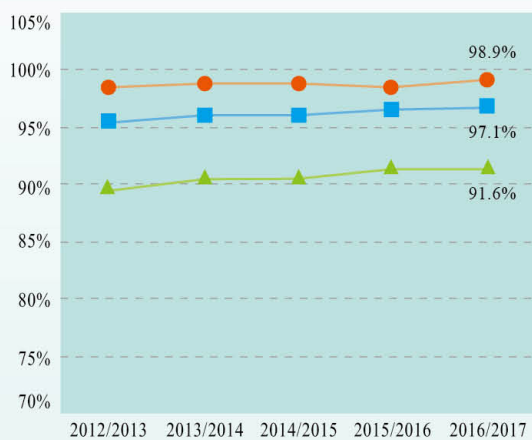


1. The scope of data only includes formal education; the reference date is 26th November of the academic year concerned.

2. The chart actually shows the student-teacher ratios.

Indicator	Education Level		Academic Year 2012/2013		Academic Year 2013/2014		Academic Year 2014/2015		Academic Year 2015/2016		Academic Year 2016/2017	
			M	F	M	F	M	F	M	F	M	F
Promotion rate	Infant	M	98.3%	98.4%	98.5%	98.5%	98.6%	98.5%	98.4%	98.4%	98.9%	98.9%
		F		98.2%		98.5%		98.7%		98.4%		98.9%
	Primary	M	95.4%	94.3%	96.1%	95.1%	96.1%	95.2%	96.5%	95.8%	97.1%	96.5%
		F		96.6%		97.1%		97.0%		97.2%		97.8%
	Secondary	M	89.6%	87.4%	90.2%	88.1%	90.1%	87.6%	91.6%	89.8%	91.6%	89.6%
F			92.1%		92.6%		92.8%		93.4%		93.8%	
Junior Secondary	M	86.8%	84.2%	87.4%	84.8%	87.1%	84.3%	89.3%	87.7%	89.3%	87.3%	
	F		89.6%		90.2%		90.3%		91.1%		91.5%	
Senior Secondary	M	92.4%	90.5%	92.9%	91.1%	92.7%	90.6%	93.5%	91.7%	93.6%	91.6%	
	F		94.3%		94.8%		94.9%		95.4%		95.7%	
Repetition rate	Infant	M	0.5%	0.4%	0.3%	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
		F		0.6%		0.3%		0.0%		0.1%		0.0%
	Primary	M	3.2%	4.3%	2.5%	3.3%	2.5%	3.3%	2.2%	2.9%	1.8%	2.2%
		F		2.1%		1.6%		1.8%		1.5%		1.4%
	Secondary	M	6.6%	8.5%	5.8%	7.3%	6.3%	8.3%	5.3%	6.5%	5.3%	6.6%
F			4.6%		4.2%		4.1%		3.9%		3.9%	
Junior Secondary	M	9.4%	11.7%	8.5%	10.3%	8.8%	11.1%	7.3%	8.7%	7.3%	8.8%	
	F		6.8%		6.5%		6.3%		5.8%		5.8%	
Senior Secondary	M	4.0%	5.4%	3.4%	4.5%	4.1%	5.7%	3.5%	4.6%	3.5%	4.6%	
	F		2.6%		2.2%		2.3%		2.3%		2.3%	

Promotion rate



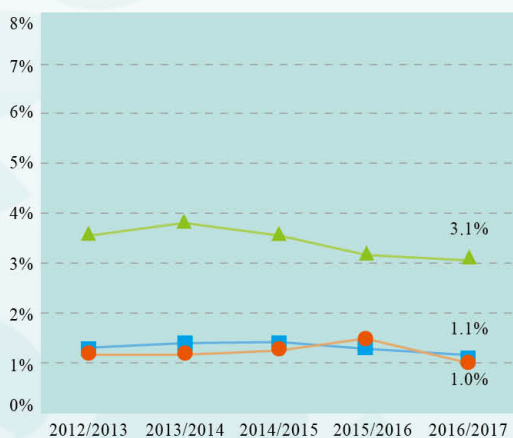
Repetition rate



1. The scope of data only includes formal education; the reference date is 26th November of the academic year concerned.

Indicator	Education Level	Academic Year 2012/2013	Academic Year 2013/2014	Academic Year 2014/2015	Academic Year 2015/2016	Academic Year 2016/2017
School leaving rate ²	Infant	1.2%	1.2%	1.3%	1.5%	1.0%
	Primary	1.3%	1.4%	1.4%	1.3%	1.1%
	Secondary	3.7%	3.9%	3.6%	3.2%	3.1%
	<i>Junior Secondary</i>	3.8%	4.2%	4.1%	3.3%	3.4%
	<i>Senior Secondary</i>	3.6%	3.7%	3.3%	3.1%	2.9%
Net school leaving rate ³	Infant	0.02%	0.01%	0.01%	0.04%	0.05%
	Primary	0.16%	0.11%	0.06%	0.04%	0.04%
	Secondary	0.76%	0.61%	0.45%	0.45%	0.48%
	<i>Junior Secondary</i>	1.14%	0.86%	0.62%	0.60%	0.59%
	<i>Senior Secondary</i>	0.40%	0.38%	0.29%	0.31%	0.39%
School dropout rate ⁴	Compulsory education level ⁵	0.18%	0.12%	0.08%	0.09%	0.08%

School leaving rate



Net School leaving rate



1. The scope of data only includes formal education; the reference date is 26th November of the academic year concerned.
2. School leavers refer to students studied in school in the academic year, but didn't enrol to study at the beginning of the following academic year; among them the senior secondary graduates are not included.
3. The related figures are estimated in accordance with the result of the "Survey of school dropouts and school leavers", which excludes senior secondary graduates, as well as the students who leave school due to overseas study, emigration, death or being kept in a reformatory.
4. School dropouts refer to students who studied in compulsory education in the academic year, but didn't enrol to study at the beginning of the following academic year, but the number of those who leave due to overseas study, death and emigration is excluded.
5. Compulsory Education means the popularisation education implemented compulsorily for minors aged between 5 and 15. The obligation of schooling is from the first academic year in which the student is 5 full years old till the academic year in which the student is 15 full years old or he/she has completed and passed junior secondary education.

Indicator	Education Level		Academic Year 2012/2013		Academic Year 2013/2014		Academic Year 2014/2015		Academic Year 2015/2016		Academic Year 2016/2017	
Survival rate (repeaters included) ²	Infant	M	97.7%	97.6%	98.2%	98.2%	97.9%	98.1%	97.9%	97.9%	97.8%	97.4%
		F		97.9%		98.2%		97.7%		97.9%		98.3%
	Primary	M	95.2%	95.0%	96.0%	95.8%	96.8%	96.5%	96.9%	96.7%	96.5%	96.5%
		F		95.4%		96.2%		97.2%		97.0%		96.5%
	Secondary	M	79.0%	76.1%	80.2%	77.9%	81.0%	78.8%	81.2%	78.9%	81.9%	79.2%
	F		82.4%		82.7%		83.6%		83.8%		85.0%	
Survival rate (repeaters excluded) ³	Infant	M	96.0%	95.6%	96.8%	96.6%	96.7%	97.1%	97.2%	97.2%	97.7%	97.1%
		F		96.5%		97.1%		96.2%		97.2%		98.2%
	Primary	M	79.7%	76.0%	82.4%	79.4%	84.8%	81.1%	84.8%	82.2%	86.7%	85.0%
		F		83.7%		85.6%		88.8%		87.7%		88.4%
	Secondary	M	47.2%	39.9%	50.7%	44.8%	52.2%	46.1%	54.5%	49.8%	57.0%	50.2%
	F		55.6%		57.6%		59.5%		59.9%		64.5%	
School completion rate ⁴	Junior Secondary	M	69.0%	65.7%	73.5%	68.9%	75.2%	70.6%	76.1%	70.9%	78.3%	75.1%
		F		72.9%		78.6%		80.5%		82.3%		81.9%
	Senior Secondary	M	79.4%	75.9%	80.4%	76.1%	81.3%	77.6%	82.9%	79.7%	82.0%	76.7%
		F		83.1%		85.0%		85.4%		86.6%		87.3%
	Infant		96.5%		96.7%		96.2%		96.1%		96.5%	
Primary		89.5%		90.6%		92.3%		92.7%		93.1%		
Secondary		77.3%		77.8%		79.4%		79.8%		80.5%		
Tertiary education enrolment rate of senior secondary graduates ⁵			91.1%		93.0%		94.0%		94.2%		95.6%	
University entrance rate of senior secondary graduates ⁶			87.8%		90.2%		91.7%		91.2%		91.6%	

Background information: Starting from the academic year 2008/2009, aside from continuing to provide “Tertiary Grants”, the “Student Welfare Fund” has been implementing the “Interest Subsidy Loan Scheme” to encourage more Macao students to continue to take programmes of tertiary education.

1. The scope of data only includes formal education; the reference date is 26th November of the academic year concerned.
2. Survival rate (repeaters included) refers to the percentage of students in the first year of each education level to those who are still studying in the last year of the same education level.
3. Survival rate (repeaters excluded) refers to the percentage of students in the first year of each education level to those who are promoted to the last years of that education level after studying the related number of years.
4. School completion rate refers to the percentage of students in the first year of each education level to those who successfully completed and passed that education level.
5. Tertiary education enrolment rate of senior secondary graduates refers to the percentage of graduates of Senior 3 (Form 6) of formal education taking programmes organised by tertiary institutes.
6. University entrance rate of senior secondary graduates refers to the percentage of graduates of Senior 3 (Form 6) of formal education taking programmes of higher diploma or Bachelor’s degree.

PISA Test Results¹

Average Scores of PISA Test Results ²	Mathematical Literacy	Scientific Literacy	Reading Literacy	Problem-solving Competence ³
Macao PISA 2003	527 (500)	525 (500)	498 (494)	Written: 532 (500)
Macao PISA 2006	525 (498)	511 (500)	492 (492)	-
Macao PISA 2009	525 (496)	511 (501)	487 (493)	-
Macao PISA 2012	538 (494)	521 (501)	509 (496)	Digital: 540 (500)
Macao PISA 2015	544 (490)	529 (493)	509 (493)	Collaborative: 534 (500)

Percentage of Students' Proficiency Levels in PISA Tests

Mathematical Literacy Proficiency Level	Below Level 1	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	
Macao PISA 2003	2.3%	8.8%	19.6%	26.8%	23.7%	13.8%	4.8%	
Macao PISA 2006	2.6%	8.3%	20.0%	27.3%	24.4%	13.6%	3.8%	
Macao PISA 2009	2.8%	8.2%	19.6%	27.8%	24.5%	12.8%	4.3%	
Macao PISA 2012	3.2%	7.6%	16.4%	24.0%	24.4%	16.8%	7.6%	
Macao PISA 2015	1.3%	5.3%	15.1%	27.3%	29.1%	16.9%	5.0%	
Scientific Literacy Proficiency Level	Below Level 1b	Level 1b	Level 1a	Level 2	Level 3	Level 4	Level 5	Level 6
Macao PISA 2003	1.6%	8.4%	22.2%	31.5%	25.8%	9.1%	1.4%	
Macao PISA 2006	1.4%	8.8%	25.9%	35.7%	22.9%	5.1%	0.3%	
Macao PISA 2009	1.5%	8.1%	25.2%	37.8%	22.7%	4.5%	0.2%	
Macao PISA 2012	1.4%	7.4%	22.2%	36.2%	26.2%	6.2%	0.4%	
Macao PISA 2015	0.1%	1.1%	6.9%	20.6%	34.2%	28.0%	8.3%	0.9%
Reading Literacy Proficiency Level	Below Level 1b	Level 1b	Level 1a	Level 2	Level 3	Level 4	Level 5	Level 6
Macao PISA 2003	1.0%	8.7%	27.8%	41.4%	19.4%	1.7%		
Macao PISA 2006	2.9%	10.1%	28.9%	36.6%	18.5%	3.0%		
Macao PISA 2009	0.3%	2.6%	12.0%	30.6%	34.8%	16.9%	2.8%	0.1%
Macao PISA 2012	0.3%	2.1%	9.0%	23.3%	34.3%	24.0%	6.4%	0.6%
Macao PISA 2015	0.3%	2.1%	9.3%	23.1%	34.2%	24.4%	6.2%	0.5%
Written Problem-solving Competency Proficiency Level ³	Below Level 1	Level 1	Level 2	Level 3				
Macao PISA 2003	6%	27%	42%	24%				
Digital Problem-solving Competency Proficiency Level ³	Below Level 1	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	
Macao PISA 2012	1.6%	6.0%	17.5%	29.5%	28.9%	13.8%	2.8%	
Collaborative Problem-solving Competency Proficiency Level ³	Below Level 1	Level 1	Level 2	Level 3	Level 4			
Macao PISA 2015	2.2%	12.7%	35.6%	38.4%	11.1%			

1. Programme for International Student Assessment (PISA) is organised by the Organisation for Economic Co-operation and Development (OECD), the purpose is to assess students aged 15 who are going to complete basic education, see if they are able to master sufficient knowledge and skills for social participation. The data are from the Organisation for Economic Co-operation and Development (OECD).
2. The figures are the average scores of Macao's participation in the tests. The average scores of the OECD member countries are shown in brackets for comparison.
3. Macao participated in the written assessment of (individual) problem-solving competence in PISA 2003; participated in the digital assessment of (individual) problem-solving competence in PISA 2012; and participated in the digital assessment of collaborative problem-solving competence (individual and others) in PISA 2015.