

# Singapore Standard Statistical Classifications 2010

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The Singapore Department of Statistics (DOS) completed the revision of three national standard statistical classifications in February 2010, namely the Singapore Standard Industrial Classification (SSIC), Singapore Standard Occupational Classification (SSOC) and Singapore Standard Educational Classification (SSEC). Stakeholder agencies and representative organisations of businesses were consulted widely to ensure that changes and developments in economic and industrial activities, the labour markets as well as the education and training systems would be taken account of in the revision of these classifications.

The classifications are used in data collection (e.g. censuses, surveys, administrative records) which requires the classification of economic activities, occupations or education programmes and qualifications. They are also used in the compilation, presentation and analyses of a wide range of statistics, including national income, production, demographic, social, labour and education statistics.

The major changes of each classification are highlighted in this article.

## Singapore Standard

### Industrial Classification 2010

The SSIC 2010 is the tenth edition of the classification. It adopts the basic framework of the International Standard Industrial Classification Revision 4 (ISIC Rev. 4) but with appropriate modifications made to take into account Singapore's unique economic circumstances while enhancing international comparability. The classification also incorporates recent changes in economic activities to better reflect the current structure of Singapore's economy.

The number of broad sections remains unchanged at 22 in SSIC 2010. One major change is the shift of the non-real estate rental and leasing activities from 'Real Estate, Rental and Leasing Activities' in SSIC 2005 to 'Administrative and Support Service Activities' in SSIC 2010. As a result, 'Real Estate, Rental and Leasing Activities' has been renamed as 'Real Estate Activities'. A comparison of the sections in SSIC 2010 and SSIC 2005 is shown in Table 1.

TABLE 1 COMPARISON OF SECTIONS IN SSIC 2010 AND SSIC 2005

SSIC 2010		SSIC 2005	
A	Agriculture and Fishing	A	Agriculture and Fishing
B	Mining and Quarrying	B	Mining and Quarrying
C	Manufacturing	C	Manufacturing
D	Electricity, Gas and Air-Conditioning Supply	D	Electricity and Gas Supply
E	Water Supply; Sewerage, Waste Management and Remediation Activities	E	Water Supply, Sewerage and Waste Management
F	Construction	F	Construction
G	Wholesale and Retail Trade	G	Wholesale and Retail Trade
H	Transportation and Storage	H	Transport and Storage
I	Accommodation and Food Service Activities	J	Hotels and Restaurants
J	Information and Communications	K	Information and Communications
K	Financial and Insurance Activities	L	Financial and Insurance Activities
L	Real Estate Activities	M	Real Estate, Rental and Leasing Activities
M	Professional, Scientific and Technical Activities	N	Professional, Scientific and Technical Activities
N	Administrative and Support Service Activities	O	Administrative and Support Service Activities
O	Public Administration and Defence	T	Public Administration and Defence
P	Education	P	Education
Q	Health and Social Services	Q	Health and Social Work
R	Arts, Entertainment and Recreation	R	Arts, Entertainment and Recreation
S	Other Service Activities	S	Other Service Activities
T	Activities of Households as Employers of Domestic Personnel	U	Domestic Work Activities
U	Activities of Extra-Territorial Organisations and Bodies	V	Extra-Territorial Organisations and Bodies
V	Activities Not Adequately Defined	W	Activities Not Adequately Defined

New divisions have also been created in some sections to classify economic activities at finer levels. Table 2 lists some of the more significant new divisions in SSIC 2010.

At the most detailed level, a number of five-digit codes have been introduced to identify new and emerging industries and better reflect those that have grown in

prominence. For instance, with increasing attention on environmental issues, codes have been introduced for a wide range of activities, including manufacturing (solar wafers, solar modules), engineering services (clean energy systems), research and development (environment and clean technologies), financial (carbon credit brokers) and consultancy services (carbon consultancy).

Unique codes have also been created for a variety of services in the media (animation production, development of software for interactive digital media), financial services (marine insurance, hedge fund management), intellectual property (patents brokerage), entertainment and recreation (casinos, theme parks), and charitable (philanthropic trusts and foundations) sectors.

TABLE 2 NEW DIVISIONS IN SSIC 2010

<b>Section</b>	<b>Division</b>
Section F Construction	41 Construction of Buildings
	42 Civil Engineering
	43 Specialised Construction Activities
Section G Wholesale and Retail Trade	45 Wholesale and Retail Trade of Motor Vehicles and Motorcycles
Section I Accommodation and Food Service Activities	55 Accommodation
	56 Food and Beverage Service Activities
Section J Information and Communications	60 Radio and Television Broadcasting Activities
Section K Financial and Insurance Activities	66 Activities Auxiliary to Financial Service and Insurance Activities
Section M Professional, Scientific and Technical Activities	69 Legal and Accounting Activities
	70 Activities of Head Offices; Management Consultancy Activities
	73 Advertising and Market Research
	75 Veterinary Activities
Section N Administrative and Support Service Activities	78 Employment Activities
	79 Travel Agencies, Tour Operators and Reservation Service Activities
	80 Security and Investigation Activities
	81 Cleaning and Landscape Maintenance Activities
Section R Arts, Entertainment and Recreation	91 Libraries, Archives, Museums and Other Cultural Activities
	92 Gambling and Betting Activities
	93 Sports Activities and Amusement and Recreation Activities

## Singapore Standard Occupational Classification 2010

The SSOC 2010 is the sixth version of the SSOC. It adopts the basic framework and principles of the International Standard Classification of Occupations 2008 (ISCO-08) developed by the International Labour Office (ILO) and reflects the latest developments in the labour market, particularly the emergence of new occupations.

The number of major groups in SSOC 2010 remains at 10. The descriptions of a few of these groups have however been amended to better reflect existing norms. A comparison of the major groups in SSOC 2010 and SSOC 2005 is shown in Table 3.

New two-digit sub-major groups have been created to allow for more detailed identification of occupational groups. Table 4 shows some

of the more significant sub-major groups created in SSOC 2010.

The number of sub-major, minor and unit groups has increased as well, which provides for a higher level of disaggregation at each of these levels. At the most detailed level, more occupations have been assigned unique five-digit codes.

Apart from the creation of new unique codes, there is also a consolidation or re-classification of codes. For example, the five-digit codes for general managers, which were previously differentiated by industry, have been consolidated into a single code, similar to other senior management occupations like managing director and chief executive officer which are not classified based on industry. Similarly, the sub-major group of working proprietors has been removed in SSOC 2010.

TABLE 3 COMPARISON OF MAJOR GROUPS IN SSOC 2010 AND SSOC 2005

SSOC 2010		SSOC 2005	
1	Legislators, Senior Officials and Managers	1	Legislators, Senior Officials and Managers
2	Professionals	2	Professionals
3	Associate Professionals and Technicians	3	Associate Professionals and Technicians
4	Clerical Support Workers	4	Clerical Workers
5	Service and Sales Workers	5	Service Workers and Shop and Market Sales Workers
6	Agricultural and Fishery Workers	6	Agricultural and Fishery Workers
7	Craftsmen and Related Trades Workers	7	Production Craftsmen and Related Workers
8	Plant and Machine Operators and Assemblers	8	Plant and Machine Operators and Assemblers
9	Cleaners, Labourers and Related Workers	9	Cleaners, Labourers and Related Workers
X	Workers not Classifiable by Occupation	X	Workers not Classifiable by Occupation

TABLE 4 NEW SUB-MAJOR GROUPS IN SSOC 2010

<b>Major Group</b>	<b>Sub-Major Group</b>
1 Legislators, Senior Officials and Managers	12 Administrative and Commercial Managers
	13 Production and Specialised Services Managers
	14 Hospitality and Related Services Managers
2 Professionals	22 Health Professionals
	25 Information and Communications Technology Professionals
3 Associate Professionals and Technicians	32 Health Associate Professionals
	35 Information and Communications Technicians
4 Clerical Support Workers	41 General and Keyboard Clerks
	43 Numerical and Material Recording Clerks
5 Service and Sales Workers	51 Personal Service Workers
	53 Personal Care Workers
	54 Protective Service Workers
7 Craftsmen and Related Trades Workers	74 Electrical and Electronic Trades Workers

The various five-digit codes for working proprietors have instead been regrouped with managers whose job duties are relatively similar e.g. construction working proprietor and building and construction project manager are now classified within the same four-digit group.

To better reflect the increasing variety of health, and information and communication (ICT) occupations, certain minor groups have been elevated to sub-major groups for both professionals as well as associate

professionals in these fields. This allows for more detailed breakdown, for example, having three distinct unit groups of specialist medical practitioners - viz. medical, surgical and other specialisations.

Lastly, new unique codes have been created under several sub-major groups to identify specific occupations. For instance, sports centre manager is listed under other services managers while environment research scientist is listed under science and engineering professionals.

## **Singapore Standard Educational Classification 2010**

The SSEC 2010 is the second edition of the SSEC. It makes reference to and is consistent with the basic framework and principles of the International Standard Classification of Education 1997 (ISCED 97). To ensure the relevance of the SSEC, the classification has been revised to take into account developments in the education system as well as initiatives in workforce education and upgrading.

Unlike the SSIC and SSOC which are each designed as one single classification, the SSEC comprises three sub-classifications:

- Classification of Level of Education Attending
- Classification of Educational Qualification Attained
- Classification of Field of Study

### ***Classification of Level of Education Attending***

This classification categorises the level of education attending, which refers to the grade or standard of formal education that a full-time student is attending.

The number of one-digit groups in SSEC 2010 has been reduced to 8 from 10 in SSEC 2000. This is due to the re-classification of general and vocational educational programmes of similar educational level to the same one-digit group. The term "Upper Secondary" has also been replaced by "Post-Secondary" to further align with the terminology used in ISCED 97.

The comparison of the one-digit categories between SSEC 2010 and SSEC 2000 is shown in Table 5.

At the two-digit level, the number of educational level categories has been reduced by 2 to 34 in SSEC 2010. This is the result of a more streamlined New ITE Certification System which groups the level of training into three categories only.

### ***Classification of Educational Qualification Attained***

The level of educational qualification attained refers to the grade or standard of formal education passed or the highest level of education where a certificate, diploma or degree is awarded by a formal educational institution. The educational qualification may be attained through full-time or part-time study in a structured educational programme.

In the classification of educational qualification attained, the number of one-digit categories remains unchanged while the number of two-digit categories increased from 31 in SSEC 2000 to 44 in SSEC 2010. Table 6 compares the one-digit categories of SSEC 2010 and 2000.

A new category "Other Education (Non-Award Courses/Degree)" has been added to classify educational attainment based on the Singapore Workforce Skills Qualifications System (WSQ) framework. At the two-digit level, full qualifications awarded based on the WSQ system have also been classified to the equivalent benchmarked qualifications of full-time education system.

TABLE 5 COMPARISON OF ONE-DIGIT CATEGORIES IN SSEC 2010 AND SSEC 2000  
(LEVEL OF EDUCATION ATTENDING)

SSEC 2010		SSEC 2000	
0	Pre-Primary	0	Pre-Primary
1	Primary	1	Primary
2	Secondary: General & Vocational	2	Secondary: General
		3	Secondary: Vocational
3	Post-Secondary (Non-Tertiary): General & Vocational	4	Upper Secondary: General
		5	Upper Secondary: Vocational
4	Polytechnic Diploma Course	6	Polytechnic Diploma Course
5	Other Courses Leading to Award of Professional Qualification and Other Diploma	7	Other Courses Leading to Award of Professional Qualification and Other Diploma
6	University First Degree	8	University First Degree
7	University Postgraduate Diploma/Degree	9	University Postgraduate Diploma/Degree

 TABLE 6 COMPARISON OF ONE-DIGIT CATEGORIES IN SSEC 2010 AND SSEC 2000  
(EDUCATIONAL QUALIFICATION ATTAINED)

SSEC 2010		SSEC 2000	
0	No Formal Qualification/Lower Primary	0	No Formal Qualification/Lower Primary
1	Primary	1	Primary
2	Lower Secondary	2	Lower Secondary
3	Secondary	3	Secondary
4	Post-Secondary (Non-Tertiary): General & Vocational	4	Upper Secondary: General
		5	Upper Secondary: Vocational
5	Polytechnic Diploma Course	6	Polytechnic Diploma Course
6	Professional Qualification and Other Diploma	7	Professional Qualification and Other Diploma
7	University First Degree	8	University First Degree
8	University Postgraduate Diploma/Degree	9	University Postgraduate Diploma/Degree
9	Other Education (Non-Award Courses/ Miscellaneous)		NA

### Classification of Field of Study

The field of study refers to the principal discipline, branch or subject matter of study that leads to the award of the qualification attained at polytechnic or university levels. Vocational qualifications at post-secondary level may also be classified by field of study. The number of two-digit fields remains unchanged at 14 in the SSEC 2010 field of study classification. These are listed in Table 7.

TABLE 7 LIST OF BROAD FIELDS IN SSEC 2010

Code	Description
01	Education
02	Fine & Applied Arts
03	Humanities & Social Sciences
04	Mass Communication & Information Science
05	Business & Administration
06	Law
07	Natural, Physical, Chemical & Mathematical Sciences
08	Health Sciences
09	Information Technology
10	Architecture & Building
11	Engineering Sciences
12	Engineering, Manufacturing & Related Trades
13	Services
99	Other Fields

The number of three-digit narrow fields has increased from 57 in SSEC 2000 to 59 in SSEC 2010, due to the addition of Trainer Training and Complementary Therapies as unique

fields of study. Apart from the addition of new narrow fields, the existing field of social work has also expanded in scope. "Social, Sports and Community Services" now includes more detailed fields of study in social and community services as well as sports and recreation. Another change in the SSEC is the re-classification of Actuarial Science from the narrow field of Mathematics & Statistics to Banking, Insurance and Financial Services. This is in response to the orientation of the curriculum content of insurance, finance and banking towards applications.

The number of four-digit detailed fields has risen by 8 to 238 in SSEC 2010. The list of new detailed fields in SSEC 2010 is shown in Table 8. For example, Auditing and Tax Accounting have been identified from the broader field of Accountancy and added while Infocomm Security Management has been included as a field within Information Technology.

TABLE 8 LIST OF NEW DETAILED FIELDS IN SSEC 2010

Code	Description
0130	Adult & Continuing Education and Training
0342	Student/Youth Care
0343	Counselling
0344	Sports and Recreation
0522	Auditing
0542	Tax Accounting
0870	Complementary Therapies
0917	Infocomm Security Management

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