National Accounts



Social Accounting Matrix

Final Social Accounting Matrix, 2005 (Updated Version)

> Report No. 04-03-02 (2005) November 2010



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Preface

Building various kinds of econometric models by using the information on the numerous variables contained in the social accounting matrix (SAM) is one of the main applications of a SAM. These econometric models are then used to design policies in order to address the key focus areas of government, the reduction of poverty being one example.

Since every economic model has its corresponding accounting framework, and since every such framework can be set out as a SAM, it follows that every economic model has a corresponding SAM. Implicitly, if not explicitly, all multi-sector economic models require a SAM for the country, or group of countries, to which they refer. The reliability of the policy experiments conducted using such models depends upon the reliability of the SAM used to calibrate the model. Consequently, there is an ongoing need to develop and keep current multi-sector databases consistent.

The advantage of using a SAM can be summarised in terms of increased relevance, reliability and efficiency. The SAM increases the relevance of economic and social indicators because they are derived from a meso-level information system. As a consequence, their interdependence can be studied, more insights into causes and consequences of 'best and worst practices' are gained and the interaction between socio-economic policies in various fields can be analysed. Reliability is enhanced because the more that data are confronted at a meso-level, the more logical identities can be checked: components must add to totals, accounts must balance and price and quantities must multiply to values. Efficiency is served by the application of uniform units, classifications and concepts throughout a statistical system. Among the advantages of such a harmonisation is a much easier matching of results from different surveys, which in turn yields more reliable outcomes.

This report contains the updated final SAM for the reference year 2005, constructed according to the recommendations of the 1993 System of National Accounts (1993 SNA). It is closely linked to the final 2005 supply and use tables (SU-tables), as well as the published (and unpublished) revised 2005 integrated economic accounts (IEA) compiled by the South African Reserve Bank (SARB). The previous SAM was for the reference year 2005, published in July 2009 as Report No 04-03-02 (2005).

The 1993 SNA defines a SAM as '.... the presentation of SNA accounts in a matrix which elaborates the linkages between SU-tables and institutional sector accounts'.

Gelste

PJ Lehohla Statistician-General Pretoria November 2010

List of abbreviations

COICOP	Classification of Individual Consumption According to Purpose				
CPI	Consumer Price Index				
CS	Community Survey				
GDP	Gross Domestic Product				
FISIM	Financial Services Indirectly Measured				
IEA	Integrated Economic Accounts				
IES	Income and Expenditure Survey				
LFS	Labour Force Survey				
NAM	National Accounting Matrix				
SAM	Social Accounting Matrix				
SARB	South African Reserve Bank				
SASCO	South African Standard Classification of Occupations				
1993 SNA	1993 System of National Accounts				
Stats SA	Statistics South Africa				
SIC	Standard Industrial Classification of all Economic Activities				
STC	Standard Trade Classification				
SU-tables	Supply and Use tables				
VAT	Value Added Tax				

Note

Rounding-off of figures	Figures have been rounded off to the nearest million. There may therefore be slight discrepancies between the sums of the constituent industries and the totals shown.
Updated 2005 SAM	The updated 2005 SAM is based on benchmark data.
Updated 2005 SAM tables	The detailed tables of the updated 2005 SAM and the external sub-matrices (generation of income, labour accounts, taxes on products and intermediate consumption expenditure of national and provincial government as well as imports and exports of goods) are available as MS Excel spreadsheets.
Percentile cut-off points	The percentile cut-off points were calculated using the consumer price index (CPI) cut-off points.

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1. Introduction

A social accounting matrix (SAM) integrates supply and use tables (SU-tables) and institutional sector accounts into a single matrix format. It is a presentation of the 1993 System of National Accounts (1993 SNA) in a matrix format focusing on issues that are of special interest in a country; for example, an analysis of interrelationships between structural features of an economy and the distribution of income and expenditure among households groups.

A SAM represents the link between two, often distinct, fields of statistics, namely, economic and social statistics. It reflects the economic relationship between the sectors of the economy by identifying monetary transactions (expenditure and receipts) between them. A complete set of capital flow variables for the various sectors of the economy is given. In general, social statistics lack a framework that ensures consistency across a range of statistics from different sources. SAMs provide this, ensuring consistency not only between social statistics in the matrix, but also between these social statistics and national accounts.

The main focus of the updated SAM for 2005 is on households and their income and expenditure patterns. The population is divided into four population groups (using self-perceptions based on the apartheid-based classifications of the people in South Africa) and twelve household final consumption expenditure groups, using percentile cut-off points based on total household final consumption expenditure.

The aim of this report is to give a brief analysis of the generation of income and household final consumption expenditure of the four population groups for the reference year 2005 and not to do any policy simulations. A theoretical background to the compilation of a SAM can be found in the report 'Final Social Accounting Matrix, 1998' (Report No 04-03-02 (1998)) on the Stats SA website (www.statssa.gov.za) as well as from the printing and distribution section of Stats SA (distribution@statssa.gov.za or (012) 310 8044/8161).

Figures 1 to 3 show the total salaries and wages earned in South Africa in 2005. Figure 1 indicates that, of the total salaries and wages earned in South Africa in 2005, 70,4% was earned in the 'tertiary industry', 22,0% in the 'secondary industry', and 7,5% in the 'primary industry'.





Source: Statistics South Africa, Income and Expenditure Survey, 2005 and Final Supply and Use tables, 2005; as well as South African Reserve Bank, revised Integrated Economic Accounts, 2005

Figure 2 shows that workers¹ with skill levels 1, 3 and 4 all earned less than 10,0% of their total salaries and wages in the 'primary industry' as compared with workers with skill level 2. A similar trend was observed in the 'tertiary industry', where workers with skill levels 1, 3 and 4 all earned more than two-thirds of their total salaries and wages in the 'tertiary industry' as compared with workers with skill level 2. Black African workers formed the major part (52,4%) of workers with skill level 2, followed by white workers (31,0%), coloured workers (10,9%) and Indian/Asian workers (5,6%) (see the updated SAM.xls). White workers (57,7%) formed the major part of workers with skill level 4, followed by black African (28,9%), Indian/Asian (6,9%) and coloured workers (6,6%) (see the updated SAM.xls).



Figure 2: Salaries and wages according to skill level and industry, 2005

Source: Statistics South Africa, Income and Expenditure Survey, 2005 and Final Supply and Use tables, 2005; as well as South African Reserve Bank, revised Integrated Economic Accounts, 2005

¹Workers include the self-employed, employers and employees.

Figure 3 shows that in 2005 all four population groups earned more than two-thirds of their total salaries and wages in the 'tertiary industry'. The majority of Indian/Asian workers, however, earned the majority of their salaries and wages in the 'tertiary industry' (73,6%). Indian/Asian workers earned only 1,7% of their total salaries and wages in the 'primary industry', as compared to black African (10,0%), coloured (4,2%) and white workers (6,8%). 'General government services' was where the majority of black African workers (50,9%) earned their salaries and wages in the 'tertiary industry', followed by coloured workers (44,6%) and white workers (31,1%) (see the updated SAM.xls).



Figure 3: Total salaries and wages according to population group and industry, 2005

Source: Statistics South Africa, Income and Expenditure Survey, 2005 and Final Supply and Use tables, 2005; as well as South African Reserve Bank, revised Integrated Economic Accounts, 2005

Figure 4 shows that the bottom 10%² of households spent only 23,1% of their total household final consumption expenditure on 'tertiary services', as compared to the top 10%³ of households who spent 50,7% on tertiary services. The majority of household final consumption expenditure for the bottom 10% of households was on 'secondary products' (66,2%). Of this amount, 41,8% was spent on 'food, beverages and tobacco products' and 8,5% on 'petroleum, chemical, rubber and plastic products' (see the updated SAM.xls).

The major portion of the amount spent on 'tertiary products' by the top 10% of households was spent on 'real estate' (12,3%) and 'financial intermediation and FISIM' (11,8%). The majority of expenditure on 'secondary products' by the top 10% of households was spent on 'food, beverages and tobacco products' (14,1%), 'transport equipment' (10,7%) and 'petroleum, chemical rubber and plastic products' (9,4%) (see the updated SAM.xls).

²The bottom 10% of households includes those households whose expenditure falls within percentile 1 and 2 (see Table 2, page 8)

³The top 10% of households includes those households whose expenditure falls within percentile 11 and 12 (see Table 2, page 8)

The top 10% of black African and coloured households spent most of their total expenditure on 'secondary products' (53,9% and 52,9% respectively). This is in contrast with the top 10% of white and Indian/Asian households who spent the largest proportion of their total expenditure on 'tertiary products' (52,9% and 49,8% respectively) (see the updated SAM.xls).



Figure 4: Total household expenditure on products, 2005

Source: Statistics South Africa, Income and Expenditure Survey, 2005 and Final Supply and Use tables, 2005; as well as South African Reserve Bank, revised Integrated Economic Accounts, 2005

The major contributor to total household expenditure on 'secondary products' by black African and coloured households in the top 10% of total households was 'food, beverages and tobacco products' (13,8% and 19,8% respectively). The second highest contributor to total household expenditure on 'tertiary products' by black African and coloured households was 'other activities or services' (8,7% and 5,9% respectively) and 'health and social work' (7,3% and 8,3% respectively) (see the updated SAM.xls).

The major contributor to total expenditure on 'secondary products' by the top 10% of white and Indian/Asian households was also 'food, beverages and tobacco products' (13,7% and 12,7% respectively), while the major contributor to total expenditure on 'tertiary products' by the top 10% of white and Indian/Asian households was 'real estate' (13,6% and 10,5% respectively) and 'financial intermediation and FISM' (12,4% and 15,0% respectively) (see the updated SAM.xls).

Please scroll down

2. Comparison of the South African social accounting matrices

Stats SA has compiled five SAMs so far. The first SAM was compiled for the reference year 1988 according to the recommendations of the 1968 SNA. The second, third, fourth and fifth SAMs were compiled for the reference years 1998, 2002, 2005 and the updated 2005 respectively, and all four SAMs were compiled in accordance with the recommendations of the 1993 SNA.

Stats SA implemented the 1993 SNA in conjunction with rebasing and benchmarking gross domestic product (GDP) estimates in 1999. The base year for the national accounts estimates at constant prices was changed from 1995 to 2000 in 2004, and from 2000 to 2005 in 2009. Stats SA undertook this exercise in cooperation with the South African Reserve Bank (SARB).

Developing a SAM is both difficult and time-consuming. The required data are collected from a number of different sources; for example, national accounts, income and expenditure surveys, integrated economic accounts, population censuses, etc. Table 1 illustrates the main data sources used to compile the 1988, 1998, 2002 and 2005 SAMs as well as the updated 2005 SAM.

1988 SAM	1998 SAM	2002 SAM	2005 SAM	Updated 2005 SAM
1988 Input-output tables and national accounts statistics	1998 Supply and Use tables (unpublished) and national accounts statistics	2002 Supply and Use tables and national accounts statistics	2005 Supply and Use tables and national accounts statistics	Final 2005 Supply and Use tables and national accounts statistics
	1998 Integrated Economic Accounts (unpublished) (IEA)	2002 Integrated Economic Accounts (published and unpublished)	2005 Integrated Economic Accounts (published and unpublished)	Revised 2005 Integrated Economic Accounts (published and unpublished)
1991 Population Census for South Africa	1996 Population Census for South Africa	2001 Population Census for South Africa	2007 Community Survey (CS)	2007 Community Survey (CS)
1990 Household Income and Expenditure Survey (IES)	1995 Household Income and Expenditure Survey	2000 Household Income and Expenditure Survey	2005 Household Income and Expenditure Survey	2005 Household Income and Expenditure Survey
Published and unpublished data from the South African Reserve Bank, e.g. Remuneration of foreign and domestic workers	Published and unpublished data from the South African Reserve Bank, e.g. Remuneration of foreign and domestic workers	Published and unpublished data from the South African Reserve Bank, e.g. Remuneration of foreign and domestic workers	Published and unpublished data from the South African Reserve Bank, e.g. Remuneration of foreign and domestic workers	Revised published and unpublished data from the South African Reserve Bank, e.g. Remuneration of foreign and domestic workers
		September 2002 Labour Force Survey	September 2005 Labour Force Survey	September 2005 Labour Force Survey

Table 1: Main data sources of the 1988, 1998, 2002 and 2005 social accounting matrices as well as the updated 2005 social accounting matrix

Table 2 outlines the characteristics of the 1998, 2002 and 2005 SAMs and the updated 2005 SAM. The characteristics are compared in respect of the methodology and classification system used, as well as the level of detail available for various variables.

Table 2: Comparison of the most important characteristics of the 1998, 2002 and 2005 social accounting matrices as well as the updated 2005 social accounting matrix

1000 6444	0000 644	0005 5844	Undersed 0005 CAM
Compiled according to the 1993 SNA	Compiled according to the 1993 SNA	Compiled according to the 1993 SNA	Compiled according to the 1993 SNA
Compiled according to the Standard Industrial Classification of all Economic Activities (5 th Edition)	Compiled according to the Standard Industrial Classification of all Economic Activities (5 th Edition)	Compiled according to the Standard Industrial Classification of all Economic Activities (5 th Edition)	Compiled according to the Standard Industrial Classification of all Economic Activities (5 th Edition) and Central products classification (2 rd adition)
27 industries	27 industries	27 industries	27 industries
Agriculture, hunting, forestry and fishing	Agriculture, hunting, forestry and fishing	Agriculture, hunting, forestry and fishing	Agriculture, hunting, forestry and fishing
Mining of coal and lignite	Mining of coal and lignite	Mining of coal and lignite	Mining of coal and lignite
Mining of gold and uranium ore	Mining of gold and uranium ore	Mining of gold and uranium ore	Mining of gold and uranium ore
Other mining activities	Other mining activities	Other mining activities	Other mining activities
Manufacturing of food products, beverages and tobacco products	Manufacturing of food products, beverages and tobacco products	Manufacturing of food products, beverages and tobacco products	Manufacturing of food products, beverages and tobacco products
Manufacturing of textiles, clothing and leather products (except footwear)	Manufacturing of textiles, clothing and leather products (except footwear)	Manufacturing of textiles, clothing and leather products (except footwear)	Manufacturing of textiles, clothing and leather products (except footwear)
Manufacturing of footwear	Manufacturing of footwear	Manufacturing of footwear	Manufacturing of footwear
Manufacturing of wood and wood products including furniture, articles of straw and plaiting materials, paper and paper products, publishing, printing and reproduction of record media and recycling	Manufacturing of wood and wood products including furniture, articles of straw and plaiting materials, paper and paper products, publishing, printing and reproduction of record media and recycling	Manufacturing of wood and wood products including furniture, articles of straw and plaiting materials, paper and paper products, publishing, printing and reproduction of record media and recycling	Manufacturing of wood and wood products including furniture, articles of straw and plaiting materials, paper and paper products, publishing, printing and reproduction of record media and recycling
Manufacturing of other non- metallic mineral products	Manufacturing of other non-metallic mineral products	Manufacturing of other non-metallic mineral products	Manufacturing of other non-metallic mineral products
Manufacturing of petroleum, chemical, rubber and plastic products	Manufacturing of petroleum, chemical, rubber and plastic products	Manufacturing of petroleum, chemical, rubber and plastic products	Manufacturing of petroleum, chemical, rubber and plastic products
Manufacturing of metal products, machinery and office equipment	Manufacturing of metal products, machinery and office equipment	Manufacturing of metal products, machinery and office equipment	Manufacturing of metal products, machinery and office equipment
Manufacturing of transport equipment	Manufacturing of transport equipment	Manufacturing of transport equipment	Manufacturing of transport equipment
Electricity, gas, steam and hot	Electricity, gas, steam and hot water	Electricity, gas, steam and hot water	Electricity, gas, steam and hot water
Collection, purification and distribution of water	Collection, purification and distribution of water	Collection, purification and distribution of water	Collection, purification and distribution of water
Construction	Construction	Construction	Construction
Wholesale and retail trade	Wholesale and retail trade	Wholesale and retail trade	Wholesale and retail trade
Hotels and restaurants Transport and storage	Hotels and restaurants Transport and storage	Hotels and restaurants Transport and storage	Hotels and restaurants Transport and storage
Post and telecommunications	Post and telecommunications	Post and telecommunications	Post and telecommunications
Financial Intermediation and insurance	Financial Intermediation and insurance	Financial Intermediation and insurance	Financial Intermediation and insurance
Real estate activities	Real estate activities	Real estate activities	Real estate activities
Business services	Business services	Business services	Business services
General government Health and social work	General government Health and social work	General government Health and social work	General government Health and social work
Other community, social and personal services	Other community, social and personal services	Other community, social and personal services	Other community, social and personal services
	·		

1998 SAM	2002 SAM	2005 SAM	Updated 2005 SAM
Percentiles calculated on imputed	Percentiles calculated on imputed	Percentiles calculated using the CPI cut-off	Percentiles calculated using the CPI cut-off
household expenditure	household expenditure	points	points
The same cut-off points were used	The same cut-off points were used for	The same cut-off points were used for	The same cut-off points were used for
for percentiles in all the population	percentiles in all the population groups,	percentiles in all the population groups,	percentiles in all the population groups,
groups, namely:	namely:	namely:	namely:
All population groups	All population groups	All population groups	All population groups
P1 R1-R540	P1 R1-R3 496	P1 R1-R7 769	P1 R1-R7 769
P2 R541–R5 700	P2 R3 497–R7 538	P2 R7 770–R10 393	P2 R7 770–R10 393
P3 R5 701–R8 496	P3 R7 539–R9 070	P3 R10 394–R14 564	P3 R10 394–R14 564
P4 R8 497–R10 716	P4 R9 071-R11 307	P4 R14 565–R18 609	P4 R14 565–R18 609
P5 R10 717–R12 996	P5 R11 308–R12 933	P5 R18 610– R23 278	P5 R18 610– R23 278
P6 R12 997–R15 828	P6 R12 934–R14 802	P6 R23 279–R28 654	P6 R23 279–R28 654
P7 R15 829–R19 992	P7 R14 803-R17 930	P7 R28 655–R36 755	P7 R28 655–R36 755
P8 R19 993–R26 556	P8 R17 931-R23 364	P8 R36 756–R51 426	P8 R36 756-R51 426
P9 R26 557–R37 884	P9 R23 365–R33 340	P9 R51 427–R79 152	P9 R51 427-R79 152
P10 R37 885–R57 816	P10 R33 341-R56 699	P10 R79 153–R150 693	P10 R79 153-R150 693
P11 R57 817–R75 840	P11 R56 700-R70 118	P11 R150 694–R237 544	P11 R150 694-R237 544
P12 R75 841+	P12 R70 119+	P12 R237 545+	P12 R237 545+
12 Percentiles (calculated on	12 Percentiles (calculated on imputed	12 Percentiles (calculated on imputed	12 Percentiles (calculated on imputed
imputed total household	total household expenditure)	total household expenditure)	total household expenditure)
expenditure)	P1 0–5% of the population	PI 0–5% of the population	PI 0–5% of the population
PI 0–5% of the population	P2 6–10% of the population	P2 6–10% of the population	P2 6–10% of the population
P2 6–10% of the population	P3 11–20% of the population	P3 11–20% of the population	P3 II-20% of the population
P3 11–20% of the population			
P4 21 30% of the population	P4 21 30% of the population	P4 21 30% of the population	P4 21 30% of the population
P5 31 40% of the population	$P_5 = 31 \pm 40\%$ of the population	P5 31 40% of the population	P5 31 40% of the population
P6 41–50% of the population	P6 41–50% of the population	P6 41–50% of the population	P6 41–50% of the population
P7 51–60% of the population	P7 51–60% of the population	P7 51–60% of the population	P7 51–60% of the population
P8 61–70% of the population	P8 61–70% of the population	P8 61–70% of the population	P8 61–70% of the population
P9 71–80% of the population	P9 71–80% of the population	P9 71–80% of the population	P9 71–80% of the population
P10 81–90% of the population	P10 81–90% of the population	P10 81–90% of the population	P10 81–90% of the population
PTT 91–95% of the population	PII 91–95% of the population	PII 91–95% of the population	PII 91–95% of the population
P12 96–100% of the population	P12 96–100% of the population	P12 96–100% of the population	P12 96–100% of the population

Table 2: Comparison of the most important characteristics of the 1998, 2002 and 2005 social accounting matrices as well as the updated 2005 social accounting matrix⁴ (concluded)

1998 SAM	2002 SAM	2005 SAM	Updated 2005 SAM
Population groups	Population groups	Population groups	Population groups
Black African	Black African	Black African	Black African
Coloured	Coloured	Coloured	Coloured
Indian/Asian	Indian/Asian	Indian/Asian	Indian/Asian
White	White	White	White
Unspecified group			
Emphasis on income distribution	Emphasis on income distribution	Emphasis on income distribution	Emphasis on income distribution
Gender dimension included in	Gender dimension included in external	Gender dimension included in external	Gender dimension included in external
external matrix	matrix	matrix	matrix
Rural/urban dimension included in	Rural/urban dimension included in	Rural/urban dimension included in	Rural/urban dimension included in
external matrix	external matrix	external matrix	external matrix
4 skill levels (linked to occupation	4 skill levels (linked to occupation group)	4 skill levels (linked to occupation group)	4 skill levels (linked to occupation group)
group) included:	Included:	Included:	Included:
managers (4)	managers (4)	managers (4)	managers (A)
Professionals (4)	Professionals (4)	Professionals (4)	Professionals (4)
Technicians and associate	Technicians and associate	Technicians and associate	Technicians and associate
professionals (3)	professionals (3)	professionals (3)	professionals (3)
Clerks (2)	Clerks (2)	Clerks (2)	Clerks (2)
Service workers and shop	Service workers and shop market	Service workers and shop market	Service workers and shop market
market sales workers (2)	sales workers (2)	sales workers (2)	sales workers (2)
Skilled agricultural and fishery	Skilled agricultural and fishery	Skilled agricultural and fishery workers	Skilled agricultural and fishery workers
workers (2)	workers (2)	(2)	(2)
Craft and related trade workers	Craft and related trade workers (2)	Craft and related trade workers (2)	Craft and related trade workers (2)
(2)	Plant and machine operators and	Plant and machine operators and	Plant and machine operators and
Plant and machine operators	assemblers (2)	assemblers (2)	assemblers (2)
and assemblers (2)	Elementary occupations (excluding	Elementary occupations (excluding	Elementary occupations (excluding
(avaluding domostic) (1)	Domestic worker (1)	domestic) (1)	Domestic worker (1)
Domestic worker (1)	Lindetermined (1)	Lindetermined (1)	Undetermined (1)
Occupation unspecified (1)	Ondelennined (T)	Sindelerinined (1)	Ondelermined (1)
Unspecified (population group)			
Income intervals (trom 1996	Income intervals (from 2001 population	Income intervals (trom 2007 community	Income intervals (trom 2007 community
population census)	census)	survey)	survey)
R1-R200	R1-R400	R1-R400	R1-R400
R201-R300		R401-R000 R901 R1 400	R401-R000 R801 R1 400
R1 001_R1 500	R1 601_R3 200	R1 601_R3 200	R1 601-R3 200
R1 501–R2 500	R3 201–R6 400	R3 201–R6 400	R3 201–R6 400
R2 501–R3 500	R6 401–R12 800	R6 401–R12 800	R6 401–R12 800
R3 501–R4 500	R12 801–R25 600	R12 801–R25 600	R12 801–R25 600
R4 501–R6 000	R25 600-R51 200	R25 600-R51 200	R25 600-R51 200
R6 001–R8 000	R51 201-R102 000	R51 201-R102 000	R51 201-R102 000
R8 001-R11 000	R102 001-R204 800	R102 001-R204 800	R102 001-R204 800
R11 001-R16 000	R204 801 or more	R204 801 or more	R204 801 or more
R16 001-R30 000			
R30 001 or more			
Unspecified			
	Labour accounts included in external	Labour accounts included in external	Labour accounts included in external
	matrix	matrix	matrix
		Taxes on products included in external matrix	Taxes on products included in external matrix
		National and provincial government expenditure included in external matrix	National and provincial government expenditure included in external matrix
			Imports and exports included in external
			matrix

Source: Statistics South Africa, Social Accounting Matrices

⁴In 1998, the occupational groups were divided into 11 occupational categories (including unspecified) and the population groups were divided into five population groups (including unspecified). For 2002 and 2005, the unspecified category was distributed across the eleven occupational categories and the four population groups (imputation done in the 2001 census).

The IES 2005/2006 based on the diary method was the first of its kind to be conducted by Stats SA. Previously, IESs were conducted by Stats SA every five years using the recall method. In the recall method, a single questionnaire was administered to a household at a selected dwelling unit in the sample⁵. Table 3 shows the difference between IES 2005/2006 and IES 2000.

Table 3: Main difference between the 2000 Income and Expenditure Survey and	l
2005/2006 Income and Expenditure Survey	

Distinguishing features	IES 2000	IES 2005/2006
Sample size	30 000 dwelling units	24 000 dwelling units
Methodology	Recall	Diary and recall
Main questionnaire	One questionnaire (one interview)	One questionnaire (five interviews)
Diaries	None	Four weekly diaries
Expenditure data collection approach		
Goods	Payment approach	Acquisition approach
Services	Payment approach	Payment approach
Own production	Consumption approach	Consumption approach
Survey period	Five weeks: mainly October 2000	One year: September 2005 to August 2006
Reference period: food expenditure	September 2000	September 2005 to August 2006
Visits per household	One	Minimum of six
Classification of expenditure items	Standard Trade Classification (STC)	Classification of Individual Consumption According to Purpose (COICOP)

Source: Statistics South Africa, Income and Expenditure Survey, 2005/2006

The IES 2005 dataset was originally coded to Classification of Individual Consumption According to Purpose (COICOP). The dataset contained 1 445 458 household records from a sample of 21 144 households. It recorded expenditure to the 7th digit COICOP. A conversion between COICOP and a product code linked to the SIC was established and formed into a SAS code sheet, and this allowed for a link between the COICOP and the product code (which is used in the updated 2005 SAM). This dataset was then transposed which allowed the product codes to be placed as rows and the households as columns. Household entries were aggregated; this reduced the dataset to 21 144 entries. Each household's expenditure was reflected per row whereas previously it was over multiple rows.

Population groups were then added to the new dataset, whereafter percentile cut-off points where applied (12 percentile cut-off points used). CPI cut-off points were chosen and used for the updated 2005 SAM⁶. This brings the SAM in line with the CPI regarding the percentile cut-off points. The dataset was then weighted and was used to create a distribution basis that was used in the SAM.

⁵Source: Statistics South Africa, Income and Expenditure Survey 2005/2006

⁶ This marks a departure from the 1998 and 2002 SAMs where the percentile cut-off points were calculated from imputed household final consumption expenditure from the population census.

Data from the 2007 CS and Censuses 2001 and 1996 were used as a distribution basis for the compilation of submatrix M(3,2)b (the generation of income submatrix (salaries and wages)) for the updated 2005 SAM, and the 2005, 2002 and 1998 SAMs respectively.

The occupational group classification 'undetermined' shows a decrease between the 1996 and 2001 population censuses across all four population groups and 27 industries. In the 2001 population census, the occupational group 'unspecified' and the population group 'unspecified' were distributed within the valid population groups and industries using imputation techniques. For the 1996 population census, this exercise was not done.

It is also important to note that there was a more detailed level classification of industry in the 2001 population census (5-digit Standard Industrial Classification of all Economic Activities (SIC) compared to the 3-digit SIC in the 1996 population census), improving accuracy in assigning a worker to the correct industry. It is also important to keep in mind the effects that migration as well as the change in the population profile among South Africans could have had on the income earned from different industries.

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3. Supply and Use tables

The SU-tables are sometimes referred to as 'rectangular input-output tables', 'make and use tables' or 'supply and disposition of commodities tables'. SU-tables are industry-by-product matrices and both industry and commodity classifications are used. The supply table shows the source or origin of goods and services produced within the economy or imported for a given year in a matrix format. The supply of products and services is measured at basic prices, which is the preferred method of valuing output in the 1993 SNA. The basic price is the amount receivable by the producer from the purchaser for a unit of goods or services produced as output, *minus* any tax payable, *plus* any subsidy receivable on that unit as a consequence of its production or sale. Basic prices exclude any transport charges invoiced separately by the producer.

The use table displays the demand of various goods and services, which may be used as intermediate inputs (products and services that are purchased by an industry from other industries to produce its outputs) or for final consumption by households, government, etc. The 1993 SNA recommends that intermediate and final consumption expenditure be valued at purchasers' prices. The purchasers' price is the amount paid by the purchaser, excluding any deductible value added tax (VAT) or similar deductible tax, in order to take delivery of a unit of goods or services at the time and place required by the purchaser. The purchasers' price of goods includes any transport charges paid separately by the purchaser to take delivery at the required time and place.

Stats SA has compiled six SU-tables so far. They were compiled for the reference years 1993, 1998, 1999, 2000, 2002 and the 2005 respectively, and all were compiled in accordance with the recommendations of the 1993 SNA. Table 4 shows the difference between the 2002 SU-tables and final 2005 SU-tables.

Table 4: Main difference between the 2005 supply and use tables and the final	
2005 supply and use tables	

Distinguishing features	SU-tables 2002	Final SU-tables 2005
Industries	94 industries	274 industries
Products	95 products	105 products
Methodology	Compiled according to recommendation of 1993 SNA	Compiled according to recommendation of 1993 SNA
	Compiled according to the Standard Industrial Classification of all Economic Activities (5 th Edition)	Compiled according to Central Product Classification (2 nd Edition)
Benchmarking	Drafted before benchmarking	Benchmarked and includes non-observed activities (e.g. illegal and underground activities and water fetching)
Rebasing	The base year for national accounts estimates at constant prices is 2000	The base year for national accounts estimates at constant prices changed to 2005

Source: Statistics South Africa, Final Supply and Use tables, 2005

In the rows of the SU-tables, the various types of products are presented according to a product classification (see Tables 5 and 6). Additional rows are added for the adjustment of direct purchases by South African residents abroad and direct purchases in the domestic market by non-South African residents. In the columns of the supply table, information is shown on the output of each industry according to an industrial classification (see Table 5), as well as imports, taxes less subsidies on products and trade and transport margins. In the columns of use table, information is shown on the intermediate consumption, value added and output of each industry according to an industrial classification (see Table 6), as well as the remaining components of final demand, e.g. exports.

	Column No.	SC1	SC2	SC3	SC4	SC5	SC6	SC7	SC8	SC9	SC10
		(SC2+SC3+SC4)			(SC8+SC9+SC10)		0	utput of industries	(SC5+SC6+SC7)		
Row		Total supply at	Taxes less subsidies	Trade and	Total supply at		Secondary				c.i.f./ f.o.b. adjustment
No.	Supply of products	purchasers' prices	on products	transport margins	basic prices	Primary industry	industry	Tertiary industry	Total industry	Imports	on imports
SR1	Primary products	347 250	8 158	16 955	322 137	265 907	1 666		267 573	54 564	
SR2	Secondary products	1 862 373	118 927	262 738	1 480 708	1 028	1 163 432	4 422	1 168 882	311 826	
SR3	Tertiary products	1 624 005	42 930	(279 693)	1 860 768	7 084	76 991	1 727 622	1 811 696	76 891	(27 819)
SR4	c.i.f./f.o.b. adjustment on imports	-								(27 819)	27 819
SR5	Direct purchases residents	22 097			22 097					22 097	
SR6	Total output at basic prices	3 855 725	170 015		3 685 710	274 019	1 242 088	1 732 044	3 248 151	437 559	

Table 5: Framework of the supply of products at basic prices, 2005 (R million)

Source: Statistics South Africa, Final Supply and Use tables, 2005

Table 6: Framework of the use of products at purchasers' prices, 2005 (R million)

	Column No.	UC1	UC2	UC3	UC4	UC5	UC6	UC7	UC8	UC9
		(UC7+UC9)				Intermediate co	onsumption by industries	(UC4+UC5+UC6)	(UC2+UC3+UC7)	
Row		Total supply at	Taxes on							Components of final
No.	Supply of products	purchasers' prices	products	Subsidies on products	Primary industry	Secondary industry	Tertiary industry	Total industry	Total economy	demand
UR1	Primary products	347 250			3 899	170 844	3 284	178 027		169 226
UR2	Secondary products	1 862 372			74 607	543 139	258 011	875 758		986 615
UR3	Tertiary products	1 624 003			52 119	197 437	543 745	793 302		830 703
UR4	Direct purchases residents	22 097								22 097
UR5	Direct purchases non-residents	-								-
UR7	Gross value added/GDP		175 667	(5 652)	143 394	330 669	927 004	1 401 067	1 571 082	
UR8	Total output at basic prices				274 019	1 242 088	1 732 044	3 248 151		
UR6	Total uses at purchasers' prices	3 855 724			130 625	911 419	805 039	1 847 084		2 008 641

Source: Statistics South Africa, Final Supply and Use tables, 2005

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4. Integrated Economic Accounts

The Integrated Economic Accounts (IEA) compiled by the SARB is at the centre of the accounting framework, and contain three groups of accounts, namely (see Annexure 3):

- transaction accounts with the goods and services accounts being of importance;
- a full sequence of accounts for institutional sectors and the total economy which are divided into the current accounts, accumulation accounts and balance sheets; and
- a full sequence of accounts for the rest of the world which are divided into the current accounts, accumulation accounts and balance sheets.

The detailed explanation of the IEA can be found in the report 'Final Social Accounting Matrix, 1998' (Report No. 04-03-02 (1998)) on the Stats SA website (www.statssa.gov.za), as well as from the printing and distribution section of Stats SA (distribution@statssa.gov.za or (012) 310 8044/8161).

4.1. Structure of the Integrated Economic Accounts

Each account in the IEA has entries for total resources and total uses that must be equal by definition, and each of the accounts contains a balancing item. The balancing item encapsulates a great deal of information and includes some of the most important entries in the 1993 SNA; for example, value added, operating surplus, disposable income, saving, net lending/borrowing and net worth. In the aggregate, many balancing items play an important role as macroeconomic indicators for the total economy; for example, the total value added plus net taxes on products is equal to the GDP, and the total of the balance of primary incomes is equal to gross national income.

4.1.1. Goods and services account

The goods and services account shows, for the total economy, how the total amount of products available (resources) is equal to the total amount of products used. Resources are shown on the left-hand side and uses are shown on the right-hand side of the T-account. The goods and services account records output, taxes less subsidies on the product and imports of goods and services on the resources side and intermediate consumption, final consumption expenditure, gross capital formation and exports of goods and services on the use side (see Table 7).

Т	Resources	R million	T	Uses	R million
P.1	Output	3 248 151	P.2	Intermediate consumption	1 847 084
D.21	Taxes on products	175 667	P.3/P.4	Final consumption expenditure	1 296 506
D.31	Subsidies on products	(5 652)	P.3	Private consumption expenditure	1 114 455
				Government consumption	
P.7	Imports of goods and services	437 559	P.4	expenditure	182 051
			P.51/P.5		
			2/P.53	Gross capital formation	282 130
			P.51	Gross fixed capital formation	263 754
			P.52/P.5		
			3	Changes in inventories	18 376
			P.6	Exports of goods and services	430 169
				Residual item	(164)
	Total resources	3 855 725		Total uses	3 855 725

Table 7: Goods and services account (Account 0), 2005

Sources: Statistics South Africa, Final Supply and Use tables, 2005; South African Reserve Bank, revised Integrated Economic Accounts, 2005

Note: T = Transaction code

4.1.2. Production account (Account I)

The production account is the first account in the sequence of current accounts recording the production (output) of goods and services, as a resource, and the utilisation of goods and services (intermediate consumption), as a use, to establish as the difference, the gross value added. The depreciation of fixed capital in the production process is recorded as a separate item (consumption of fixed capital (K.1)). Production accounts record intermediate consumption, gross value added, consumption of fixed capital and net value added on the use side and output and taxes less subsidies on products on the resources side (see Table 8).

Table 8: Production account (Account I), 2005

Т	Uses	R million	Т	Resources	R million
P.2	Intermediate consumption	1 847 084	P.1	Output	3 248 151
			D.21	Taxes on products	175 667
			D.31	Subsidies on products	(5 652)
	Gross value added/				
B.1	Gross domestic product	1 401 067			
K.1	Consumption of fixed capital	(187 790)			
	Net value added/				
B.1	Net domestic product	1 213 277			

Sources: Statistics South Africa, Final Supply and Use tables, 2005; South African Reserve Bank, revised Integrated Economic Accounts, 2005

Note: T = Transaction code

4.1.3. Generation of income account (Account II.1.1)

The generation of income account records distributive transactions resulting from the production process. Distributive transactions consist of transactions by which the value added generated by production is distributed to, for example, labour.

Т	Uses	R million	Т	Resources	R million
				Gross value added /Gross	
D.1	Compensation of employees	699 018	B.1	domestic product	1 401 067
D.2	Taxes on production and imports	208 594			
D.21	Taxes on products	175 667			
D.29	Other taxes on production	32 927			
D.3	Subsidies	(10 081)			
D.31	Subsidies on products	(5 652)			
D.39	Other subsidies on production	(4 429)			
B.2/B.	Gross operating surplus/mixed				
3	income	673 551			

Tuble 9. Generation of income account (Account in 1.1), 200	Table 9	: Generation	of income	account	(Account	11.1.1)	, 2005
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Source: South African Reserve Bank, revised Integrated Economic Accounts, 2005 Note: $T\,=\,Transaction\;code$

4.1.4. Allocation of primary income account (Account II.1.2)

The allocation of primary income account focuses on the distribution of primary incomes to resident institutional sectors. Transactions in primary incomes also occur with the rest of the world. The households sector is the only resident institutional sector receiving compensation of employees. Likewise, the general government sector is the only resident institutional sector receiving taxes on production.

Table 10: Allocation of	primar	y income account	(Account II.1.2), 2005
-------------------------	--------	------------------	------------------------

Т	Uses	R million	Т	Resources	R million
				Gross operating surplus/mixed	
D.4	Property income paid	534 583	B.2/B.3	income	673 551
			D.1	Compensation of employees	696 302
			D.2	Taxes on production and imports	208 594
			D.21	Taxes on products	175 667
			D.29	Other taxes on production	32 927
			D.3	Subsidies	(10 081)
			D.31	Subsidies on products	(5 652)
			D.39	Other subsidies on production	(4 429)
			D.4	Property income received	505 874
	Gross balance of primary incomes				
B.5	/ Gross national income	1 539 657			

Source: South African Reserve Bank, revised Integrated Economic Accounts, 2005 Note: $\mathsf{T}=\mathsf{Transaction\ code}$

4.1.5. Secondary distribution of income account (Account II.2)

The secondary distribution of income account shows how the balance of primary incomes is further redistributed by transactions in current transfers among resident institutional sectors and between them and the rest of the world. Current taxes on income, wealth, etc. consist mainly of taxes levied on incomes, capital gains and profits of households and corporations. Pay-as-you-earn taxes, deducted by the employer, are included.

Т	Uses	R million	Т	Resources	R million
	Current taxes on income, wealth,			Gross balance of primary incomes/	
D.5	etc. paid	223 292	B.5	Gross national income	1 539 657
				Current taxes on income, wealth,	
D.61	Social contributions paid	117 855	D.7	etc received	223 292
	Social benefits other than social				
D.62	transfer in kind paid	111 950	D.61	Social contributions received	117 855
				Social benefits other than social	
D.7	Other current transfers	168 341	D.61	transfer in kind received	111 950
			D.7	Other current transfer received	152 661
B.6	Gross disposable income	1 523 977			

Table 11: Secondary distribution income account (Account II.1.2), 2005

Source: South African Reserve Bank, revised Integrated Economic Accounts, 2005 Note: $T\,=\,Transaction\;code$

4.1.6. Use of income accounts (Account II.4)

The purpose of the use of income account is to show how households and general government allocate their disposal income between final consumption and saving. Non-financial and financial corporations cannot incur any final consumption.

Table 12: Use of income account (Account II.4), 2005

Т	Uses	R million	Т	Resources	R million
P.3/P.4	Final consumption expenditure	1 296 506	B.6	Gross disposable income	1 523 977
				Adjustment for the change in net equity of households on pension	
P.3	Private consumption expenditure	1 114 455	D.8	tunds received	57 031
	Government consumption				
P.4	expenditure	182 051			
	Adjustment for the change in net				
	equity of households on pension				
D.8	funds paid	57 031			
	Residual item	(164)			
B.8	Gross savings	227 635			
B.8	Net savings	39 845			

Source: South African Reserve Bank, revised Integrated Economic Accounts, 2005 Note: $T\,=\,Transaction\;code$

4.1.7. Capital account (Account III.1)

The capital account is the first in the sequence of accumulation accounts, and records transactions in non-financial assets and receipts and payment of capital transfer, i.e. those transfers that are regarded as affecting wealth rather than income by at least one party to the transaction. Examples of capital accounts include gifts of fixed assets.

Table 13:	Capital	account	(Account	III.1),	2005
-----------	---------	---------	----------	---------	------

	Changes in assets	R million	Т	Changes in liabilities	R million
P.51/					
P.52/					
P.53	Gross capital formation	282 130	B.8	Net savings	227 635
P.51	Gross fixed capital formation	263 754	D.9	Capital transfers, receivable	22 195
P.52/					
P.53	Changes in inventories	18 376	D.9	Capital transfers, payable	(22 002)
	Consumption of fixed capital	(187 790)			
				Changes in net worth due to saving	
B.9	Net lending (+)/Net borrowing (-)	(54 302)	B.10.1	and capital transfers	

Source: South African Reserve Bank, revised Integrated Economic Accounts, 2005 Note: $T=\mbox{Transaction code}$

4.1.8. Financial account (Account III.2)

The financial account records transactions in financial instruments, such as securities, bank deposits, or accounts receivable and net incurrence of liabilities, such as mortgages, securities, or accounts payable.

Table 14: Financial account (Account III.2), 2005

Т	Changes in assets	R million	Т	Changes in liabilities	R million
F	Net acquisition of financial assets	654 566	B.9	Net lending (+)/Net borrowing (-)	(54 302)
			F	Net incurrence of liabilities	708 868

Source: South African Reserve Bank, revised Integrated Economic Accounts, 2005 Note: $\mathsf{T}=\mathsf{Transaction}\ \mathsf{code}$

4.1.9. Rest of the world (Account V)

The rest of the world account is presented from the point of view of the rest of the world so that a resource for the rest of the world is a use for the home economy and vice versa. A positive balancing item indicates a surplus for the rest of the world and a deficit for the home economy, and vice versa if the balancing item is negative. The rest of the world account is divided into two accounts, namely external goods and services, and external account of primary income and current transfer (see Tables 15 and 16).

Table 15: External account of goods and services (Account V.I), 2005

Т	Uses	R million	Т	Resources	R million
P.6	Exports of goods and services	430 169	P.7	Imports of goods and services	437 559
	External balance of goods and				
B.11	services	7 390			

Source: South African Reserve Bank, revised Integrated Economic Accounts, 2005 Note: $\mathsf{T}=\mathsf{Transaction}\ \mathsf{code}$

Table 16: External account of primary income and current transfers (Account V.II), 2005

Т	Uses	R million	Т	Resources	R million
				External balance of goods and	
D.1	Compensation of employees	3 902	B.11	services	7 390
D.4	Property income	25 648	D.1	Compensation of employees	6 618
D.7	Other current transfers	4 542	D.4	Property income	54 357
			D.7	Other current transfers	20 222
B.12	Current external balance	54 495			

Source: South African Reserve Bank, revised Integrated Economic Accounts, 2005 Note: $T\,=\,Transaction\;code$

The external capital account covering transactions involving capital transfers and acquisitions less disposals of non-produced non-financial assets (see Table 17).

Table 17: Capital account (Account V.III.1), 2005

Т	Changes in assets	R million	Т	Changes in liabilities	R million
			B.12	Current external balance	54 495
			D.9	Capital transfers, receivable (+)	(283)
			D.9	Capital transfers, payable (-)	90
B.9	Net lending (+)/Net borrowing	54 302	B.10.1	Changes in net worth due to saving and capital transfers	54 302

Source: South African Reserve Bank, revised Integrated Economic Accounts, 2005 Note: $T\,=\,Transaction\;code$

The transactions in the financial account for resident sectors contain transactions in financial instruments *vis-à-vis* non-residents that have their counterpart entries in the financial account component of the external accumulation account. Viewed from this perspective, the various components of the rest of the world account are indeed complementary to the sequence of accounts for the resident institutional sectors (see Table 18).

Table 18: Financial account (Account V.III.2), 2005

Т	Changes in assets	R million	Т	Changes in liabilities	R million
F	Net acquisition of financial assets	136 158	B.9	Net lending (+)/Net borrowing (-)	54 302
			B.9	Net lending (+)/Net borrowing	81 856

Source: South African Reserve Bank, Unpublished revised Flow of Funds, 2005 Note: $\mathsf{T}=\mathsf{Transaction\ code}$

4.2. National Accounting Matrix

The National Accounting Matrix (NAM)⁷ is a matrix presentation that distinguishes between different kinds of accounts at the highest level of aggregation (see Table 19). This presentation can be elaborated by expanding the individual cells to show the kinds of transactions between the different economic subjects involved in each account. The units (product group, industry, sector) used to break down each cell will vary according to the nature of the account. The detailed NAM can be turned into a SAM by further expanding the cells by introducing more detailed classifications of household income and consumption expenditure.

The construction and interpretation of a NAM can be found in the report 'Final Social Accounting Matrix, 1998' (Report No. 04-03-02 (1998)) on the Stats SA website (www.statssa.gov.za) as well as from the printing and distribution section of Stats SA (distribution@statssa.gov.za or (012) 310 8044/8161). The latest NAM time-series was published in May 2010 in the GDP release.

⁷Taxes on production and imports form part of both the generation of income account and the allocation of primary income account. It does not explicitly form part of the NAM (due to the structure of the NAM), because of the need for rows and columns to balance. In this case it forms part of the balancing items in these accounts. The information is available in the final supply and use tables.

	Goods and	Production	Generation of income (value	Allocation of	Secondary distribution of			Fixed capital		Rest of the world	Rest of the world		
Account	services (products)	(industries	added)	primary income	income	Use of income	Capital	formation	Financial	current	capital	Residual	Total
Goods and	Trade and	Intermediate				Final consumption	Changes inventories	Gross fixed capital		Exports of goods			
services (products)	transport margin	consumption				expenditure		formation		and services			
	0	1 847 084				1 296 506	18 376	263 754		430 169		(164)	3 855 725
Production	Output												
(industries)	3 248 151												3 248 151
Generation of	0210101	Net value added, at								Compensation of			0210101
income (value		basic prices								employees from			
added)										ROW			
		1 010 077								2,000			1 017 170
Alleretterer	T 1.1	1 213 277	NLI II	D I I						3 902			1 217 179
Allocation of	laxes on products		income at basic	Property income						Property Income			
printery income	1000 000010100		prices										
	170 015		1 210 561	480 226						25 648			1 886 450
Secondary				Net national	Current taxes on					Current taxes on			
income				income	curr transfer					current transfers			
incomo					cont nanoior					from ROW			
				1 351 867	601 216					4 542			1 957 625
Use of income					Net disposable	Adj. for the change				Adj. for the			
					income	nension funds				equity bh on			
						ponoion ionao				pension funds			
										from ROW			
Carallal					1 336 187	5/ 031	C h h f		D :	0	C N LL C	164	1 393 382
Capiral						iver saving	Capital transfers		borrowing		from ROW		
											101111011		
						39 845	0		708 868		283		748 996
Fixed capital		Consumption of					Net fixed capital						
tormation		tixea capital					tormation						
		187 790					75 964						263 754
Financial							Lending				Net lending of		
											ROW		
							654 566				54 302		708 868
Rest of the world	Imports of goods		Compensation	Property income	Current taxes on	Adj for the change							
current	and services		of employees to		income etc. and	in net equity hh on							
			ROW		curr. transf. to	pension funds from							
					ROW	ROW							
	437 559		6 618	54 357	20 222	0							518 756
Rest of the world	.2. 507		2.510	2.507		Ŭ	Capital transfers to			Current external			
capital							ROW			balance			
										F.4.105			
Total	2 955 705	2 040 151	1 017 170	1 004 450	1 057 (05	1 202 200	748.00/	040 754	709.049	54 495	E4 505		54 585
10101	3 600 /25	3 240 151	121/1/9	1 000 450	1 957 625	1 373 382	/40 990	203/54	700 868	510/50	34 385	0	
5. External Matrices

This section discusses the external submatrices included in the updated 2005 SAM, namely, labour accounts, taxes on products, and intermediate consumption expenditure of national and provincial government. For future improvements, Stats SA is considering to compile the external matrix for the intermediate consumption expenditure of general government (general government comprises national government, provincial government, extra-budgetary accounts and funds, universities, universities of technology and technikons, and the non-trading services of municipalities) in the forthcoming SAM.

5.1. Labour Accounts

Labour accounts can be described as a statistical system of core variables (for example, gender, number of employees, educational qualification, etc.) regarding the labour force, acquired through the integration of different datasets. The accounts consist of a set of tables providing a systematic and consistent overview, mutually and over time, of the dynamics of these core variables and therefore include all economic activities, jobs and work as well as the entire labour force.

Labour accounts offer a framework to integrate labour market data from all kinds of data sources. The principal characteristics of this framework are labour input aggregates (persons, jobs, hours, educational qualification, etc.), which describe supply and demand in the labour market as well as labour payment (as income and as costs), both categorised by relevant characteristics.

The development of labour accounts has many benefits. The most important of these are as follows:

- **Optimality with respect to definitions**: The definitions used in various data sources (especially administrative data sources) often do not coincide with the statistical concepts needed by national users and for international comparison. The construction of labour accounts allows for transforming inadequate definitions from available data sources into standardised definitions. For example, breaks in concepts in administrative data and questionnaire changes can be substantially remedied by making use of an accounting framework.
- **Reduction of data collection costs**: With the help of labour accounts, one can reduce the need for asking the same question in different surveys to a minimum; taking into account quality control and inter-linkages.
- Improvement in data quality checks: Relations between variables play a prominent role within labour accounts. For example, supply of labour (by personal characteristics) should be equal on the account to demand identified through filled positions (in all industries); wages and salaries in a certain industry should be equal to total employment in that industry multiplied by the average wage rate; and the combination of flows and previous stocks should lead to closing stocks for the period within the account.
- **Increased timeliness**: Although initially the integration of data in an accounting system may be time-consuming, eventually more reliable, timely indicators may be estimated by using the accounting system to extrapolate more accurate information based on less complete information than is available for a more recent period.

• **Greater flexibility**: Although the core variables of accounting systems will remain quite stable over time, introducing additional detail within an accounting system has the advantage that the consistency with different standard classifications remains intact.

The core variables of labour accounts are educational qualification, jobs, number of employees, hours, gender, population group and urban and non-urban areas, etc. For this report, the focus is more on educational qualification, population group, gender and the employment in different sectors. A detailed explanation of the compilation of labour accounts can be found in the discussion paper 'Labour accounts for South Africa' ((D0403) (2005)) on the Stats SA website (www.statssa.gov.za).

5.1.1. Educational profile of the South African labour force

Figures 5 to 7 show the educational profile of the labour force⁸ of South Africa in 2005 (12 300 910 workers). Figure 5 shows the South African labour force by population group and highest level of education. In 2005, the highest level of education of black African, coloured, Indian/Asian and white workers was 'secondary school' education (± 4 736 889, ± 881 526 workers, ± 332 426 workers and ± 1 162 756 workers respectively). In 2005, the total labour force of South Africa consisted of 57,4% (or ± 7 056 438) male workers and 42,6% (or ± 5 244 472) female workers (see the updated SAM xls).

Figure 5: The South African labour force by population group and highest level of education, 2005



⁸All employed and unemployed persons of working age between 15 and 65.

Figure 6 shows the South African labour force by population group and highest level of education in 2005. Black African workers constituted ± 651 291 workers of the South African labour force with 'no schooling' (± 690 713 workers). Black African female workers constituted 96,0% or ± 316 108 workers of the total South African female labour force with 'no schooling' (± 329 169 workers). There was a similar trend for the South African male labour force, where Black African male workers constituted 92,7% or ± 335 183 workers of the total South African male labour force with 'no schooling' (± 361 544 workers) (see the updated SAM xls).

Figure 6: The South African labour force by highest level of education and population group, 2005



Figure 7 shows the South African labour force by highest level of education and industry for 2005. The majority of the South African labour force with 'no schooling' (± 690713 workers) was employed in the 'tertiary industry' (± 37862 workers) and the 'primary industry' (± 181487 workers). The majority of the South African labour force with 'higher' education (± 2028947 workers) was employed in the 'tertiary industry', (83,0% or ± 1684313 workers). This trend was also observed for both the male and female South African labour force (see the updated SAM xls).

Figure 7: The South African labour force by highest level of education and industry, 2005



Highest level of education

5.1.2. Field of study of the South African labour force with diploma, degree and postgraduate degree

Figures 8 to 11 show the field of study of the South African labour force with a diploma, degree or postgraduate degree (2 028 947 workers) in 2005. Figure 8 indicates that 82,9% or ± 1 682 213 workers of the South African labour force with a diploma, degree or postgraduate degree were employed in the 'tertiary industry'.

Figure 8: The South African labour force with diploma, degree or postgraduate degree by industry, 2005



Figure 9 shows the South African labour force with a diploma, degree or postgraduate degree by population group and field of study in 2005. Workers with a diploma, degree or postgraduate degree who mainly studied in the field of 'business, commerce and management studies' consisted of white workers (± 202 149 workers), black African workers (± 189 570 workers), Indian/Asian workers (± 28 930 workers) and coloured workers (± 28 136 workers). This is in contrast with workers with a diploma, degree or postgraduate degree who mainly studied in the field of 'education, training and development', which consisted of more than two-thirds of black African workers (70,4% or ± 378 642 workers). The South African labour force with a diploma, degree or postgraduate degree consisted of 52,2% (± 1 059 151) male workers and 47,8% (± 969 797) female workers.

In 2005, black African male and female workers and coloured male and female workers in the South African labour force with a diploma, degree or postgraduate degree mainly studied in the field of 'education, training and development'. White female and male workers with a diploma, degree or postgraduate degree mainly studied in the field of 'business, commerce and management studies'.

Figure 9: The South African labour force with diploma, degree or postgraduate degree by field of study and population group, 2005



Figure 10 shows that black African workers with a diploma, degree or postgraduate degree mainly studied in the field of 'education, training and development' (\pm 378 642 workers), while white workers with a diploma, degree or postgraduate degree mainly studied in the field of 'business, commerce and management studies' (\pm 202 149 workers). Black African female workers with a diploma, degree or postgraduate degree constituted 68,1% (\pm 227 186 workers) of the South African female labour force who studied in the field of 'education, training and development' (\pm 333 813 workers). White male workers with a diploma, degree constituted 52,7% (\pm 128 232 workers) in the South African male labour force with a diploma, degree or postgraduate degree who studied 'business, commerce and management studies' (\pm 243 340 workers).



Figure 10: The South African labour force with diploma, degree or postgraduate degree by population group and field of study, 2005

Figure 11 shows the South African labour force with a diploma, degree or postgraduate degree by industry of employment and area of study. The 'tertiary industry' mainly employed workers in the South African labour force with a diploma, degree or postgraduate degree who studied in the field of 'education, training and development' (\pm 516 238 workers) and 'business, commerce and management studies' (\pm 372 792 workers). This is in contrast with the 'secondary industry' which mainly employed workers in the South African labour force with a diploma, degree or postgraduate degree who studied in the field of 'education' (\pm 100 841 workers) and 'business, commerce and technology' (\pm 100 841 workers) and 'business, commerce and management studies' (\pm 60 068 workers).

Figure 11: South African labour force with diploma, degree or postgraduate degree by field of study and industry, 2005



5.1.3. Compensation of employees in the South African labour force

Figures 12 to 15 show the compensation of employees by highest level of education, industry, gender and population group. Figure 12 indicates that more than half (R424 437,3 million) of total salaries and wages was earned by workers with 'secondary school' education, followed by those workers with 'higher' education (R190 575,9 million).



Figure 12: Compensation of employees by highest level of education⁹, 2005

Source: Statistics South Africa, Community Survey, 2007; Final Supply and Use tables, 2005; and South African Reserve Bank, Integrated Economic Accounts, 2005

⁹Highest level of education for compensation of employees is divided into six categories, and it excludes the 'unspecified' category. In the 2007 Community Survey, 'unspecified' was already distributed across the six categories (imputation) while for the labour accounts matrix, the highest level of education (total number of employees), 'unspecified' was not distributed across the six categories (it is kept as a separate category on advice of the SAM Advisory Committee).

Figure 13 shows the compensation of employees by population group and highest level of education. In 2005, black African workers and coloured workers with 'secondary school' education earned the majority of salaries and wages (R158 523,4 million and R46 578,6 million respectively) of workers within the population group. For white workers, the majority of salaries and wages within the population group was earned by workers with 'secondary school' education (R188 188,1 million) and 'higher' education (R128 947,2 million).





Sources: Statistics South Africa, Community Survey, 2007 and Final Supply and Use tables, 2005; as well as South African Reserve Bank, revised Integrated Economic Accounts, 2005

Black African female workers, white female workers and Indian/Asian female workers in the South African female labour force with 'higher' education earned the majority of the total salaries and wages of the black African, white and Indian/Asian female South African labour force. White male workers and Indian/Asian male workers in the South African male labour force with 'higher' education earned the majority of the total salaries and wages of the white and Indian/Asian male South African labour force. Figure 14 shows compensation of employees by population group and highest level of education. Of the total South African labour force with 'no schooling', black African workers earned R15 686,9 million of the total salaries and wages (R16 932,5 million), followed by coloured workers (R1 007,4 million).



Figure 14: Compensation of employees by population group and highest level of education, 2005

Source: Statistics South Africa, Community Survey, 2007; Final Supply and Use tables, 2005; and South African Reserve Bank, revised Integrated Economic Accounts, 2005

Figure 15 shows the compensation of employees by industry and highest level of education. The South African labour force with 'higher' education earned the major part of their total salaries and wages from the 'tertiary industry' (R144 022,0 million), followed by the 'secondary industry' (R35 768,3 million). The South African female and male labour force with 'higher' education also earned the majority of their salaries and wages in the 'tertiary industry' (see the updated SAM xls).





Source: Statistics South Africa, Community Survey, 2007; Final Supply and Use tables, 2005; and South African Reserve Bank, revised Integrated Economic Accounts, 2005

5.2. Taxes on products

Taxes on products consist of taxes payable on goods and services when they are produced, delivered, sold or otherwise disposed of by their producers. Furthermore, they are payable per unit of a good or service produced. Important examples of taxes on products are excise and import duties and VAT.

In the updated 2005 SAM, taxes on products are divided into six taxes on products, which are further disaggregated by 27 products and services, namely:

- Value added tax (VAT);
- Custom duties;
- Excise duties;
- Levies on fuel;
- Provincial taxes, and
- Transfer duties.

Figure 16 shows the breakdown of the total taxes on products for 2005. 'Value added tax' accounted for 62,2% or R109 274,0 million of the total taxes on products, followed by 'excise duties' (11,6% or R20 459,0 million), 'levies on fuel' (11,2% or R19 716,1 million) and 'custom duties' (9,6% or R16 945, 2 million).

Figure 16: Taxes on products, 2005



Source: Statistics South Africa, Final Supply and Use tables, 2005

5.3. Intermediate consumption expenditure of national and provincial government

General government includes the national and provincial governments (including national and provincial extra-budgetary accounts and funds), universities, universities of technology and technikons, and the non-trading services of municipalities. Consolidation involves the elimination of all transactions (i.e. grants between different levels of government, professional and special services payments between levels of government, etc.) between these levels of the general government¹⁰. The updated 2005 SAM includes intermediate consumption expenditure of both national and provincial government.

5.3.1. Intermediate consumption expenditure of national government

The South African government comprises 34 national government departments (see Annexure 9). In the updated 2005 SAM, the national governments are grouped into ten main categories of functional classification of cash payments for operating activities and purchases of non-financial assets, namely:

- General public service;
- Defence;
- Public order and safety;
- Economic affairs;
- Environmental protection;
- Housing and community amenities;
- Health;
- Recreation, culture and religion;
- Education, and
- Social protection.

The above-mentioned categories of functional classification of cash payments for operating activities and purchases of non-financial assets are further disaggregated by 27 products and services.

¹⁰Source: Financial statistics of consolidated general government, P9119.4, 2005/2006

Figure 17 shows the breakdown of intermediate consumption expenditure of national government in 2005. 'Public order and safety' (38,6%) accounted the largest share of the total intermediate consumption expenditure by national government. The second largest share was 'general public services' (26,0%), followed by 'defence' (21,6%) and 'economic affairs' (7,2%).



Figure 17: Intermediate consumption expenditure of national government, 2005

Source: Statistics South Africa, Financial statistics of consolidated general government, P9119.4, 2005/2006 and Final Supply and Use tables, 2005

Figure 18 shows intermediate consumption expenditure of national government by products in 2005. Economic affairs spent the majority of their intermediate consumption expenditure on 'tertiary products' (83,8%), followed by 'secondary products' (10,2%) and 'primary products' (6,1%). Housing and community amenities spent the major portion of their intermediate consumption expenditure on 'tertiary products' (70,1%), followed by 'primary products' (22,3%) and 'secondary products' (6,2%).

Figure 18: Intermediate consumption expenditure of national government by products, 2005



Source: Statistics South Africa, Financial statistics of consolidated general government, P9119.4, 2005/2006 and Final Supply and Use tables, 2005

5.3.2. Intermediate consumption expenditure of provincial government

The South African government comprises nine provinces. In the updated 2005 SAM, the provincial governments are grouped into nine main categories of functional classification of cash payments for operating activities and purchases of non-financial assets, namely:

- General public service;
- Public order and safety;
- Economic affairs;
- Environmental protection;
- Housing and community amenities;
- Health;
- Recreation, culture and religion;
- Education, and
- Social protection.

The above-mentioned categories of functional classification of cash payments for operating activities and purchases of non-financial assets are further disaggregated by 27 products and services.

Figure 19 shows the breakdown of intermediate consumption expenditure of provincial government in 2005. 'Health' (36,8%) accounted the largest share of the total intermediate consumption expenditure by provincial government. The second largest share was 'education' (23,1%), followed by 'general public services' (12,0%), 'social protection' (13,2%) and 'economic affairs' (9,6%).





Source: Statistics South Africa, Financial statistics of consolidated general government, P9119.4, 2005/2006 and Final Supply and Use tables, 2005

Figure 20 shows intermediate consumption expenditure of provincial government by products in 2005. Health spent the majority of their intermediate consumption expenditure on 'tertiary products' (65,6%), followed by 'secondary products' (34,1%) and 'primary products' (0,3%). Education spent the major portion of their intermediate consumption expenditure on 'tertiary products' (55,6%), followed by 'secondary products' (44,1%) and 'primary products' (0,3%).

Figure 20: Intermediate consumption expenditure of provincial government by products, 2005



Source: Statistics South Africa, Financial statistics of consolidated general government, P9119.4, 2005/2006 and Final Supply and Use tables, 2005

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Glossary	
Balancing item	An accounting construct obtained by subtracting the total value of the entries on one side of an account from the total value of the entries on the other side. Balancing items are not simply devices introduced by the 1993 SNA to ensure that accounts balance. They encapsulate a great deal of information and include some of the most important entries in the accounts, for example value added and operating surplus.
Basic price	The amount receivable by the producer from the purchaser for a unit of goods or services produced as output, <i>minus</i> any tax payable, <i>plus</i> any subsidy receivable on that unit as a consequence of its production or sale. Basic prices exclude any transport charges invoiced separately by the producer. Basic price is the preferred method of valuing output.
Compensation of employees	The total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during the accounting period. It is recorded on a gross basis, i.e. before any deduction for income taxes, pensions, unemployment insurance and other social insurance schemes. It also includes other forms of compensation, namely commissions, tips, bonuses, directors' fees and allowances such as those for holidays and sick leave, as well as military pay and allowances. It excludes employers' social contributions.
Generation of income account	It provides for the distribution of primary incomes to the various institutional sectors. Primary incomes are incomes that accrue to institutional sectors and industries as a consequence of their involvement in processes of production or ownership of assets that may be needed for purposes of production.
Goods and services account	It shows the total resources (output and imports) and uses of goods and services (intermediate consumption, final consumption, gross capital formation and exports). Taxes on products (less subsidies) are also included on the resource side of the accounts.
Gross domestic product	A measure of the total value of production of all resident institutional units in the economic territory of a country in a specified period.
Gross operating surplus/Mixed income	The balancing item in the generation of income account, i.e. the value added, <i>minus</i> compensation of employees payable, <i>minus</i> taxes on production payable, <i>plus</i> subsidies receivable.
Gross value added at basic prices	Output valued at basic prices, <i>less</i> intermediate consumption valued at purchasers' prices.
Gross value added at producers' prices	Output valued at producers' prices, less intermediate consumption valued at purchasers' prices.

Industries	These consist of groups of establishments engaged in the same or similar kinds of activity. The definition of industries is based on the 1993 SNA and is in line with that contained in the Standard Industrial Classification of all Economic Activities, Fifth Edition, Report No. 09-90-02 of January 1993 (SIC).	
Intermediate consumption	It consists of the value of the goods and services consumed as inputs by a process of production, excluding fixed assets. Consumption of fixed assets is recorded as consumption of fixed capital.	
Labour accounts	A statistical system of core variables on consists of a set of tables providing a systematic and consistent overview, mutually and over time, of the core variables.	
Other taxes on production	These consist of taxes on the ownership of land, buildings or other assets used in production or on labour employed, etc. Important examples of other taxes on production are taxes on payroll or work force, business or professional licences.	
Output	This consists of those goods or services that are produced within an establishment that become available for use outside the establishment, plus any goods and services produced for own final use.	
Population group	It describes the racial classification of a particular group of South African citizens. The previous government used legislation to impose this type of classification, to divide the South African population into distinct groupings on which to base apartheid policies. For quite a different reason it remains important for Stats SA to continue to use this classification wherever possible. It clearly indicates the effects of discrimination of the past, and permits monitoring of policies to alleviate discrimination. Note that, in the past, population group was based on a legal definition, but it is now based on self-perceptions and self- classification. An black African person is someone who classifies him/herself as such. The same applies to a coloured, Indian or Asian and white person.	
Primary sector	These include the agriculture, forestry and fishing, mining and quarrying industries.	
Producers' price	The amount receivable by the producer from the purchaser for a unit of goods or services produced as output, <i>minus</i> any VAT, or similar deductible tax, invoiced to the purchaser. It excludes any transport charges invoiced separately by the producer.	
Production account for the total economy	The first in the sequence of accounts compiled for institutional sectors, industries and the total economy. The production account contains three items apart from the balancing item, namely output, intermediate consumption, and taxes, <i>less</i> subsidies on products. The output is recorded under resources on the right-hand side of the account. Intermediate consumption and taxes, <i>less</i> subsidies on products is recorded under uses on the left-hand side of the account.	

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rurchasers price	VAT or similar deductible tax, in order to take delivery of a unit of goods or services at the time and place required by the purchaser. The purchasers' price of goods includes any transport charges paid separately by the purchaser to take delivery at the required time and place.	
Secondary sector	These include the manufacturing, electricity, gas, water and construction industries.	
Other subsidies on production	Subsidies are transfers from the government to the business sector toward current cost of production. These transfers represent additions to the income of producers from current production.	
Subsidies on products	These are payable per unit of goods or services.	
Supply and use tables	They are sometimes referred to as rectangular input-output tables, Supply and use tables, supply and disposition of commodities tables.	
Supply table	It gives information about the resources of goods and services.	
Symmetric tables	These tables use similar classifications or units, i.e. the same groups of products for both the rows and the columns.	
System of National Accounts	An internationally agreed standard system for macro-economic accounts. The latest version is described in the 1993 System of National Accounts (1993 SNA).	
Taxes on production and imports	Taxes which add to the cost of production and are likely to be reflected in market prices paid by the purchaser, such as sales and excise taxes, import duties and property taxes. Taxes on production and imports include taxes on products and other taxes on production.	
Taxes on products	They consist of taxes payable on goods and services when they are produced, delivered, sold or otherwise disposed of by their producers. Furthermore, they are payable per unit of goods or services produced. Important examples of taxes on products are excise and import duties and VAT.	
Tertiary sector	These include the wholesale and retail trade and motor trade; catering and accommodation; transport and communication; finance, real estate and business services; community, social and personal services; general government services; and other producers.	
Transfer in kind	It consists of the transfer of the ownership of goods or assets, other than cash or the provision of a service.	
Use table	It gives information on the uses of goods and services, and also on cost structures of the industries.	

Value added components	The use table distinguishes three different components of value added, i.e. compensation of employees, other taxes less subsidies on production, and gross operating surplus/mixed income.
Value added by industry	Value added measures the value created by production and may be calculated either before or after deducting the consumption of fixed capital on the fixed assets used. Gross value added is defined as the value of output, <i>less</i> the value of intermediate consumption. Value added is the balancing item in the production account for an institutional unit or sector, or establishment or industry.

Annexures

Annexure 1 provides a link between the description of the 27 products used in the SAM and the description of the 105 products used in the SU-tables (Tables 3 and 4).

SAM product code	CPC product code	Product category in SAM	SU-tables product description
P1100	CPC 01-04	Agriculture	Agricultural, forestry and fishing products
P2100	CPC 11	Coal	Coal and lignite products
P2300	CPC 13	Gold	Gold and uranium ore products
P2500	CPC 14, 16	Other mining	Other mining products
P301-6	CPC 15, 21- 25	Food	Meat products; Fish products; Fruit and vegetables products; Oils and fats products; Dairy products; Grain mill products; Animal feeds; Bakery products; Sugar products; Sugar confectionery; Other food products; Beverages and tobacco products
P311-316	CPC 26-29	Textiles	Textile products; Made-up textile products; Carpets and rugs; Other textiles products; Wearing apparel; Leather products; Handbags
P317	CPC 293	Footwear	Footwear
P331-338	CPC 33-363	Petroleum	Fuel products; Basic chemical products; Fertilizers; Primary plastic products; Pesticides; Paints; Pharmaceutical products; Soap products; Other rubber products; Plastic products
P341-342	CPC 371- 375, 379	Other non-metallic mineral products	Glass products; Non-structural ceramics; Structural ceramic products; Cement; Other non-metallic products
P351-359	CPC 41-45	Basic iron/steel	Iron and steel products; Non-ferrous metals; Structural metal products; Treated metal products; General hardware products; Other fabricated metal products; Engines; Pumps; Gears; Lifting equipment; General machinery; Agricultural machinery; Machine tools; Mining machinery; Other special machinery; Household appliances; Office machinery
P36	CPC 46	Electrical machinery	Electric motors; Electricity apparatus; Wire and cable products; Accumulators; Lighting equipment; Other electrical products
P371-376	CPC 47-48	Radio	Radio and television products; Optical instruments

Annexure 1: Description of products used in the SAM

SAM product code	CPC product code	Product category in SAM	SU-tables product description
P381-387	CPC 491, 493-496, 499	Transport equipment	Motor vehicles; Motor vehicle parts; Other transport products
P321-6, 391-5	CPC 31-32, 89, 381, 389, 39	Other manufacturing	Wood products; Paper products; Containers of paper; Other paper products; Published and printed products; Recorded media products; Furniture; Jewellery; Manufactured products n.e.c.
P4100	CPC 17, 691	Electricity	Electricity
P4200	CPC 18, 692	Water	Water
P5	CPC 53-54	Construction	Building construction; Other construction
P6100	CPC 61	Trade	Trade services
P64	CPC 631- 633	Hotels and restaurants	Hotel and restaurant services
P7100	CPC 64-66	Transport services	Transport services
P7500	CPC 681, 84	Communications	Communications
P81-83	CPC 711, 713	Financial intermediation	FISIM; Insurance services
P84	CPC 72, 73	Real estate	Real estate services
P85-88	CPC 81, 715	Business activities	Other business services
P91&94	CPC 91	General government	General government services
P9300	CPC 93	Health and social work	Health and social work
P92/5/6/9	CPC 82, 83, 85, 92, 95	Other activities/services	Other activities/services

Annexure 1: Description of products used in the SAM (concluded)

Annexure 2 provides the corresponding SIC for each industry description used in the SAM.

Industry code	Industry category in SAM	SU-tables industry description
11100	Agriculture	1110; 1120; 1130; 1140; 1150; 1160; 1210; 1220; 1310; 1320
12100	Coal	2100
12300	Gold	2300
12500	Other mining	2210; 2410; 2420; 2510; 2520; 2530; 2900
1301-6	Food	3011; 3012; 3013; 3014; 3020; 3031; 3032; 3033; 3041; 3042; 3043; 3044; 3049; 3051; 3052; 3053; 3060
1311-316	Textiles	3111; 3112; 3121; 3122; 3123; 3129; 3130; 3140; 3150; 3161; 3162
1317	Footwear	3170
1331-338	Petroleum	3310; 3321; 3322; 3323; 3324; 3325; 3329; 3330; 3341; 3342; 3343; 3360; 3351; 3352; 3353; 3354; 3359; 3371; 3379; 3380
1341-342	Other non-metallic mineral industries	3411; 3421; 3422; 3423; 3424; 3425; 3426; 3429
1351-359	Basic iron/steel	3510; 3531; 3520; 3532; 3541; 3542; 3543; 3551; 3552; 3553; 3559; 3561; 3562; 3563; 3565; 3564; 3569; 3571; 3572; 3574; 3575; 3573; 3576; 3577; 3579; 3580; 3590
136	Electrical machinery	3610; 3620; 3630; 3640; 3650; 3660
1371-376	Radio	3710; 3720; 3730; 3741; 3742; 3743; 3750; 3760
1381-387	Transport equipment	3810; 3820; 3830; 3841; 3842; 3850; 3860; 3871; 3872; 3879
I321-6, 391-5	Other manufacturing	3210; 3221; 3222; 3223; 3229; 3231; 3232; 3239; 3241; 3242; 3249; 3251; 3252; 3243; 3260; 3910; 3921; 3922; 3923; 3924; 3929; 3951; 3952
14100	Electricity	4110; 4120; 4130

Annexure 2: Link between SAM industries and SIC.

Industry code	Industry category in SAM	SU-tables industry description
14200	Water	4200
15	Construction	5021; 5024; 5031; 5032; 5033; 5039; 5041; 5049; 5010; 5022; 5023; 5050
16100	Trade	6110; 6120; 6130; 6140; 6150; 6190; 6210; 6220; 6230; 6240; 6250; 6260; 6310; 6320; 6330; 6340; 6350
164	Hotels and restaurants	6410; 6420
17100	Transport services	7110; 7120; 7130; 7210; 7220; 7300; 7410
17500	Communications	7510; 7520
181-83	Financial intermediation	FISM; 8110; 8190; 8210; 8310; 8320
184	Real estate	8410; 8420
185-88	Business activities	8510; 8520; 8530; 8610; 8620; 8630; 8640; 8650; 8690; 8710; 8720; 8810; 8820; 8830; 8890
191&94	General government	9110; 9120; 9130; 9400
19300	Health and social work	9311; 9312; 9319; 9320; 9330
192/5/6/9	Other activities/services	9200; 9500; 9600; 9900; 0200; 0900

Annexure 2: Link between SAM industries and SIC (concluded)

Annexure 3 provides the list of integrated economic accounts.

Annexure 3: List of integrated economic accounts

Number and name of accounts		Balancing item		
Transo	iction accounts			
0	Goods and services account			
Full sequence of accounts for institutional sectors				
Currer	nt accounts			
1	Production account	B.1	Value added	
11.1	Primary distribution of income			
	account			
11.1.1	Generation of income	B.2/3	Operating surplus/mixed income	
	account			
II.1.2	Allocation of primary income	B.5	Balance of primary incomes	
	account			
II.2	Secondary distribution of	B.6	Disposable income	
	income account			
II.3	Redistribution of income in	B.7	Adjusted disposable income	
	kind account			
11.4	Use of income account			
11.4.1	Use of disposable income	B.8	Saving	
	account			
II.4.2	Use of adjusted disposable	B.8	Saving	
	income account			
Accum	ulation accounts			
111.1	Capital account	B.9	Net lending/borrowing	
111.2	Financial account	B.9	Net lending/borrowing	
111.3	Other changes in assets	B.10	Other changes in net worth	
	account			
Balanc	e sheets			
IV.1	Opening balance sheet	B.90	Net worth	
IV.2	Changes in balance sheet	B.10	I otal changes in net worth	
IV.3	Closing balance sheet	B.90	Net worth	
Rest of the world account				
Currer	nt accounts			
V.I	External account of goods	B.11	External balance of goods and services	
	and services	5.1.0		
V.II	External account of primary	B.12	Current external balance	
	income and current transfers			
Accum	ulation accounts	D O		
V.III. I	External capital account	B.9	Net lending/borrowing	
V.III.2	External financial account	В.У	INet lending/borrowing	
v.III.3	External account for other			
changes in assets				
Balanc			National Constants of Col	
V.IV. I	External opening balance	B.A0	INET external financial position of the	
	sneet	D 10	nation	
V.IV.Z	External changes in balance	D.IU	changes in her external financial position	
1/11/2	Sheet	R OO	OF THE NATION	
V.IV.O	External closing balance sheet	D.7U	netion	
			nation	

The abbreviated description of occupations used in the SAM and the corresponding SASCO-group codes are shown in Annexure 4.

SAM description (skill level)	Corresponding South African Standard Classification of Occupation (SASCO) groups
Legislators (4)	Legislators; senior government officials; traditional chiefs and heads of villages; senior officers of special- interest organisations; legislators and senior officers not elsewhere classified; corporate managers, directors and chief executives; production and operation managers/department managers; other managers/department managers; corporate managers not elsewhere classified; general managers; general managers not elsewhere classified.
Professionals (4)	Physicists, chemists and related professionals; mathematicians, statisticians and related professionals; computing professionals; architects, engineers and related professionals; physical sciences technologists; physical, mathematical and engineering science professionals not elsewhere classified; life science professionals; health professionals; nursing and midwifery professionals; life science and health professionals not elsewhere classified; college, university and higher education institutions teaching professionals; secondary education institutions teaching professionals; primary and pre-primary education teaching professionals; other teaching institutions teaching professionals; other teaching institutions teaching professionals; other education professionals not elsewhere classified; business professionals; legal professionals; archivists, librarians and related information professionals; social science and related professionals; writers and creative or performing artists; religious professionals; other professionals not elsewhere classified.

Annexure 4: Key between occupation descriptions and SASCO groups

SAM description (skill level)	Corresponding SASCO groups
Technicians (3)	Natural and engineering science technicians; optical and electronic equipment operators, ship and aircraft controllers and technicians; physical engineering science associate professionals not elsewhere classified; life science technicians and related associate professionals; modern health associate professionals (except nursing); nursing and midwifery associate professionals; traditional medicine practitioners and faith healers; life science and health professionals not elsewhere classified; primary education teaching associated professionals; pre- primary education teaching associate professionals; special education teaching associate professionals; other teaching associate professionals; teaching associate professionals not elsewhere classified; finance and sales associate professionals; business services agents and trade brokers; administrative associate professionals; customs; tax and related government associate professionals; police inspectors and detectives; social work associate professionals; artistic, entertainment and sports associate professionals; other associate professionals not elsewhere classified.
Clerks (2)	Secretaries and keyboard operating clerks; numerical clerks; material-recording and transport clerks; library, mail and related clerks; other office clerks and clerks not elsewhere classified (except customer services clerks); cashiers, tellers and related clerks; client information clerks; customer services clerks not elsewhere classified.
Service workers (2)	Travel attendants and related workers; housekeeping and restaurant services workers; personal care and related workers; other personal services workers; astrologers, fortune tellers and related workers; protective services workers; personal and protective service workers not elsewhere classified; fashion and other models; shop salespersons and demonstrators; stall and market salespersons; models, salespersons and demonstrators not elsewhere classified.

Annexure 4: Key between occupation descriptions and SASCO groups (continued)

SAM description (skill level)	Corresponding SASCO groups
Skilled agricultural workers (2)	Market gardeners and crop growers; market-oriented animal producers and related workers; market- oriented crop and animal producers; forestry and related workers; fishery workers, hunters and trappers; market-oriented skilled agricultural and fishery workers not elsewhere classified; subsistence agricultural and fishery workers.
Craft workers (2)	Miners, shot-firers, stone cutters and carvers; building frame and related trades workers; building finishers and related trades workers; painters, building structure cleaners and related trades workers; extraction and building trades workers not elsewhere classified; metal moulders, welders, sheet-metal workers, structural metal preparers and related trades workers; blacksmiths, tool-makers and related trades workers (excluding apprentices/ trainees); machinery mechanics and fitters; electrical and electronic equipment mechanics and fitters; metal, machinery and related trades workers not elsewhere classified; precision workers in metal and related trades workers; botters, glass-makers and related trades workers; handicraft workers in wood, textile, leather and related materials; printing and related trades workers; precision, handicraft, printing and related trades workers not elsewhere classified; food processing and related trades workers; textile, garment and related trades workers; textile, garment and related trades workers; pelt, leather and shoemaking trades workers; other craft and related trades workers not elsewhere classified.

Annexure 4: Key between occupation descriptions and SASCO groups (continued)

SAM description (skill level)	Corresponding SASCO groups
Plant and machine operators (2)	Mining and mineral processing plant operators; metal processing plant operators; glass, ceramics and related plant operators; wood-processing and papermaking plant operators; chemical processing plant operators; power-production and related plant operators; automated assembly-line and industrial- robot operators; stationary-plant and related operators not elsewhere classified; metal and mineral- products machine operators; chemical-products machine operators; rubber and plastic products machine operators; wood products machine operators; printing, binding and paper products machine operators; textile, fur and leather products machine operators; assemblers; other machine operators and assemblers not elsewhere classified; locomotive engine drivers and related workers; motor vehicle drivers and related workers; agricultural and other mobile plant operators; ships' deck crews and related workers; drivers and mobile plant operators not elsewhere classified.
Elementary occupations (1)	Street vendors and related workers; shoe-cleaning and other elementary street services occupations; cleaners and launderers; building caretakers and window and related cleaners; messengers, porters, doorkeepers and related workers; garbage collectors and related workers; elementary sales and services occupations not elsewhere classified; agricultural, fishery and related labourers; agricultural, fishery and related labourers not elsewhere classified; mining and construction labourers; manufacturing labourers; transport labourers and freight handlers; labourers in mining, construction, manufacturing and transport not elsewhere classified.
Domestic workers (1)	Domestic and related helpers.
Occupation unspecified (1)	Armed forces, occupations unspecified; unemployed persons, occupations unspecified; occupations in the informal sector not elsewhere classified; occupations not elsewhere classified; occupations not adequately defined; homemakers; children, not scholars or students (less than 15 years old); scholars, students; pensioners and other not economically active (65 years and older) and labour-disabled (15 to 64 years old) persons; not economically active persons not elsewhere classified; foreign visitors.

Annexure 4: Key between occupation descriptions and SASCO groups (concluded)

The abbreviated description of household expenditure range used in the 2005 SAM is shown in Annexure 5.

Percentile	Annual household expenditure R	% of population
P1	1–7 769	0–5%
P2	7 770–10 393	6–10%
РЗ	10 394–14 564	11–20%
Р4	14 565–18 609	21–30%
Р5	18 610–23 278	31–40%
Рб	23 279–28 654	41–50%
Р7	28 655–36 755	51–60%
P8	36 756–51 426	61–70%
Р9	51 427–79 152	71–80%
P10	79 153–150 693	81–90%
P11	150 694–237 544	91–95%
P12	237 545+	96–100%

Annexure 5: Ke	y between	percentiles and	annual	household	expenditure
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The abbreviated population groups used in the 2005 SAM are shown in Annexure 6.

Population code	Population group
A	Black African
С	Coloured
1	Indian/Asian
W	White
Т	Total

Annexure 6: Population codes used in the SAM

The skill levels used in the SAM are shown in Annexure 7.

Major group	Skill level	Description
Legislators	4	Education which begins at the age of 18 or 19, lasts about three, four or more years, and leads to a university or post-graduate university degree.
Professionals	4	
Technicians	3	Education which begins at the age of 17 or 18, lasts about one to four years, and leads to an award not equivalent to a first university degree.
Clerks	2	
Service workers	2	Secondary education which begins at the age of 13 or 14 and lasts about five years. A period of on-the-job-training and experience may be necessary.
Skilled agricultural workers	2	
Craft workers	2	
Plant and machine operators	2	
Elementary occupations	1	Primary education which generally begins at the age of 6 or 7 and lasts about 7 years. Including persons without any formal primary education, or with incomplete primary education
Domestic workers	1	
Occupation unspecified	1	

Annexure	7:	Major	οςςυ	pational	groups	and	skill	levels
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Highest levels of education used in a SAM were grouped into seven categories and are shown in Annexure 8.

SAM category	Highest level of education
No schooling	No schooling
Primary school	Grade 1, grade 2, grade 3, grade 4, grade 5, grade 6 and grade 7
Secondary school	Grade 8, grade 9, grade 10, grade 11, grade 12, NTC I, NTC II and NTC III
Higher	Certificate without grade 12, certificate with grade 12, diploma without grade 12 and diploma with grade 12, degree and postgraduate degree
Unspecified	Labour force who did not specify their highest level of education

Annexure 8: Highest level of education

The functional classification of cash payments for operating activities and purchases of non-financial assets of government is shown in Annexure 9.

Annexure 9: Functional classification of cash payments for operatir	١g
activities and purchases of non-financial assets	

Functional classification	Government department
General public services	Foreign Affairs
	Home Affairs
	National Treasury
	Parliament
	Provincial and local government
	Public services and administration
	Public services commission
	Public works
	South African Management Development Institute (SAMDI)
	Statistics South Africa
	The Presidency
Defence	Defence
Public order and safety	Correctional Services
	Independent Complaint Directorate
	Justice and Constitutional Development
	South African Police Services
Economic affairs	Agriculture
	Communications
	Government Communication Information Systems
	Minerals and Energy
	Labour
	Land Affairs
	Science and Technology
	Public Enterprise
	Trade and Industry
	Transport
Environmental protection	Environmental Affairs and Tourism
	Water Affairs
Housing and community amenities	Housing
Health	Health
Recreation, culture and religion	Arts and Culture
	Sports and Recreation
Education	Education
Social protection	Social Development