

# Statistical release P7162

# Land transport survey (Preliminary)

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Freight transportation estimates	ht transportation estimates June 2009 % change between 1/ and June 2009 June 2008		% change between April to June 2008 and April to June 2009	% change between January to June 2008 and January to June 2009		
Payload ('000 tons)	46 054	-11,0	-10,3	-7,6		
Total income (R million)	4 827	-9,2	-9,4	-5,5		

1/ Units of measurement can be found next to the respective variables in the previous column.

Passenger transportation estimates	June 2009 1/	% change between June 2008 and June 2009	% change between April to June 2008 and April to June 2009	% change between January to June 2008 and January to June 2009
Number of passengers ('000)	85 534	11,1	9,1	5,9
Total income (R million)	618	2,8	10,6	6,9

1/ Units of measurement can be found next to the respective variables in the previous column.

### Income from freight transportation decreases

The income from freight transportation for the second quarter of 2009 decreased by 9,4% compared to the second quarter of 2008. The payload decreased by 10,3% for the second quarter of 2009 compared to the second quarter of 2008. Income from freight transportation for June 2009 decreased by 9,2% compared to June 2008.

The main contributors to the decrease of 9,4% in income from freight transportation for the second quarter of 2009 compared to the second quarter of 2008 were other freight (-13,0% and contributing -1,9 percentage points), containers (-30,9% and contributing -1,6 percentage points) and primary mining and quarrying products (-5,0% and contributing -1,3 percentage points) – see Table B on page 3.

### Income from passenger transportation increases

The income from passenger transportation for the second quarter of 2009 increased by 10,6% compared to the second quarter of 2008. The number of passengers for the second quarter of 2009 increased by 9,1% compared to the second quarter of 2008. Income from passenger transportation for June 2009 increased by 2,8% compared to June 2008.

The main contributor to the increase of 10,6% in income from passenger transportation for the second quarter of 2009 compared to the second quarter of 2008 was road passenger transportation (9,8% and contributing 7,4 percentage points) – see Table C on page 4.

# Table B – Contribution of each type of commodity to the percentage change in freight transportation income

Type of commodity	April to June 2008 (R million)	April April to Weight to June 2008 1/ June 2009		Difference in income between April to June 2008 and April to June 2009 (R million)	Percentage change between April to June 2008 and April to June 2009	Contribution (percentage points) to the percentage change in total income 2/
Agriculture and forestry primary products	1 254	8,1	1 114	-140	-11,2	-0,9
Primary mining and quarrying products	4 064	26,3	3 859	-205	-5,0	-1,3
Manufactured food, beverages and tobacco products	1 061	6,9	1 141	80	7,5	0,5
Textiles, clothing and leather goods	205	1,3	173	-32	-15,6	-0,2
Chemicals, coke, petroleum, rubber, plastic and other mineral products	1 711	11,1	1 545	-166	-9,7	-1,1
Basic metals and fabricated metal products	1 197	7,7	1 055	-142	-11,9	-0,9
Non-metallic products	888	5,7	824	-64	-7,2	-0,4
Electrical, transport machinery and equipment	315	2,0	298	-17	-5,4	-0,1
Motor vehicles, parts and accessories	310	2,0	214	-96	-31,0	-0,6
Paper and paper products	257	1,7	258	1	0,4	0,0
Commercial products	392	2,5	390	-2	-0,5	0,0
Used household and office products	342	2,2	332	-10	-2,9	-0,1
Containers	818	5,3	565	-253	-30,9	-1,6
Parcels	412	2,7	295	-117	-28,4	-0,8
Other freight	2 253	14,6	1 960	-293	-13,0	-1,9
Total income 3/	15 479	100,0	14 022	-1 457	-9,4	-9,4

1/ Weight is the percentage contribution of each type of commodity to the total income for the three months up to the current month of the previous year.

2/ The contribution to the percentage change is calculated by multiplying the percentage change of each type of commodity with its corresponding weight.

3/ The figures have been rounded off. Therefore, discrepancies may occur between the sums of the component items and the totals.

# Table C – Contribution of each type of service to the percentage change in passenger transportation income

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Type of service	April to June 2008 (R million)	Weight 1/	April to June 2009 (R million)	Difference in income between April to June 2008 and April to June 2009 (R million)	Percentage change between April to June 2008 and April to June 2009	Contribution (percentage points) to the percentage change in total income 2/
Railway passenger transportation	424	24,9	479	55	13,0	3,2
Road passenger transportation	1 277	75,1	1 402	125	9,8	7,4
Total income 3/	1 700	100,0	1 880	180	10,6	10,6

1/ Weight is the percentage contribution of each type of service to the total income for the three months up to the current month of the previous year.

2/ The contribution to the percentage change is calculated by multiplying the percentage change of each type of service with its corresponding weight.

3/ The figures have been rounded off. Therefore, discrepancies may occur between the sums of the component items and the totals.

P J Lehohla Statistician-General

# **Detailed results**

Table 1 shows land transportation estimates over the period January 2008 – June 2009.

Table 1 – Total freight and passenger transportation estimates

		Freig	ght	Pass	engers
Year and month 1/		Payload ('000 tons)	Income (R million)	Number of passengers ('000)	Income (R million)
2008	January	40 622	4 180	75 600	588
	February	45 553	4 602	90 145	613
	March	45 006	4 565	85 136	633
	April	48 161	5 125	78 842	544
	Мау	46 904	5 040	83 435	555
	June	51 762	5 314	76 962	601
	July	50 761	5 591	83 817	604
	August	49 459	5 431	84 769	630
	September	49 221	5 402	88 791	694
	October	50 591	5 478	94 422	682
	November	48 757	5 209	85 144	646
	December	41 786	4 413	62 727	555
	Total	568 583	60 350	989 790	7 345
2009	January	40 063	4 199	77 705	557
	February	42 163	4 448	84 398	646
	March	43 030	4 576	96 012	696
	April	42 210	4 535	85 510	618
	Мау	43 421	4 660	90 050	644
	June	46 054	4 827	85 534	618

1/ Preliminary.

Table 2 shows passenger transportation income by type of service.

Year and	month 1/	Rail	Road	Total 2/
2008	January	179	408	588
	February	168	444	613
	March	148	483	633
	April	137	407	544
	Мау	151	404	555
	June	136	466	601
	July	142	462	604
	August	150	481	630
	September	170	525	694
	October	169	511	682
	November	153	494	646
	December	144	411	555
	Total	1 847	5 496	7 345
2009	January	155	402	557
	February	157	489	646
	March	170	525	696
	April	158	460	618
	Мау	170	474	644
	June	151	468	618

1/ Preliminary.

2/ The figures have been rounded off. Therefore, discrepancies may occur between the sums of the component items and the totals.

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Table 3 shows freight transportation income by type of commodity (see description of type of commodity on page 8).

## Table 3 – Total income according to the type of commodity for freight transportation (R million)

Year a	and month 1/	Type A	Type B	Type C	Type D	Type E	Type F	Type G	Туре Н	Type I	Type J	Туре К	Type L	Туре М	Type N	Туре О	Total 2/
2008	January	328	1 055	313	52	441	377	265	69	102	79	116	98	217	126	541	4 180
	February	369	1 222	317	63	487	367	290	78	98	79	99	131	257	127	617	4 602
	March	346	1 204	309	54	495	377	277	86	106	74	107	110	290	128	602	4 565
	April	421	1 322	355	69	564	408	325	90	116	83	116	116	295	138	707	5 125
	Мау	411	1 336	349	71	556	388	282	98	96	85	137	118	267	140	706	5 040
	June	422	1 406	357	65	591	401	281	127	98	89	139	108	256	134	840	5 314
	July	440	1 461	390	82	620	410	307	135	111	138	149	155	263	139	790	5 591
	August	429	1 488	392	88	583	411	286	129	100	101	149	162	231	124	759	5 431
	September	430	1 469	380	76	546	418	303	93	92	97	165	154	236	152	790	5 402
	October	465	1 372	403	100	594	397	294	113	96	147	142	189	222	175	771	5 478
	November	413	1 298	432	84	528	378	298	150	90	90	150	194	194	177	734	5 209
	December	397	1 116	408	81	458	229	250	129	80	108	102	158	181	128	589	4 413
	Total	4 871	15 749	4 405	885	6 463	4 561	3 458	1 297	1 185	1 170	1 571	1 693	2 909	1 688	8 446	60 350
2009	January	398	1 070	361	76	444	238	278	126	85	74	92	142	129	121	565	4 199
	February	341	1 315	367	52	491	260	249	112	76	84	84	110	156	134	615	4 448
	March	363	1 156	392	76	514	329	263	131	89	92	136	95	175	115	651	4 576
	April	358	1 269	367	54	484	340	261	102	73	88	128	106	186	99	620	4 535
	Мау	365	1 244	383	55	526	346	278	100	79	94	145	104	185	101	656	4 660
	June	391	1 346	391	64	535	369	285	96	62	76	117	122	194	95	684	4 827

1/ Preliminary.

2/ The figures have been rounded off. Therefore, discrepancies may occur between the sums of the component items and the totals.

Group type	Type of commodity included in group type
Туре А	Transportation of agriculture and forestry primary products
Туре В	Transportation of primary mining and quarrying products
Туре С	Transportation of manufactured food, beverages and tobacco products
Туре D	Transportation of textiles, clothing and leather products
Туре Е	Transportation of chemicals, coke, petroleum, rubber, plastic and other mineral products
Туре F	Transportation of basic metals and fabricated metal products
Type G	Transportation of non-metallic products
Туре Н	Transportation of electrical machinery, transport machinery and equipment
Туре І	Transportation of motor vehicles, parts and accessories
Type J	Transportation of paper and paper products
Туре К	Transportation of commercial products
Type L	Transportation of used household and office products
Туре М	Transportation of containers
Туре N	Transportation of parcels
Туре О	Transportation of other freight

# Description of type of commodity included in indicated group type in Table 3

Outlined below in Tables 4.1 and 4.2 are the estimates and percentage changes in freight and passenger transportation.

## Table 4 – Estimates and percentage changes in land transportation

## Table 4.1 – Quarterly and cumulative estimates and percentage changes for freight transportation

Freight transportation estimates	April to June 2008	April to June 2009	% change between April to June 2008 and April to June 2009	January to June 2008	January to June 2009	% change between January to June 2008 and January to June 2009
Payload ('000 tons)	146 827	131 685	-10,3	278 008	256 941	-7,6
Total income (R million)	15 479	14 022	-9,4	28 826	27 245	-5,5

## Table 4.2 – Quarterly and cumulative estimates and percentage changes for passenger transportation

Passenger transportation estimates	April to June 2008	April to June 2009	% change between April to June 2008 and April to June 2009	January to June 2008	January to June 2009	% change between January to June 2008 and January to June 2009
Number of passengers ('000)	239 239	261 094	9,1	490 120	519 209	5,9
Total income (R million)	1 700	1 880	10,6	3 534	3 779	6,9

Explanatory notes					
Introduction	1	Statistics South Africa (Stats SA) conducts a monthly survey of the land transportation industry, covering passenger and freight transportation by rail and road (see 4 below). This survey is based on a sample drawn from the 2007 Business Sampling Frame (BSF) that contains businesses registered for value-added tax (VAT).			
	2	As is usual, information for the latest month had to be estimated for respondents who have not reported by the cut-off date for production of results. These estimates will be revised in future statistical releases when their reported information becomes available. Published land transportation income estimates exclude VAT.			
Purpose of the survey	3	The results of the monthly land transport survey are used to compile estimates of the Gross Domestic Product (GDP) and its components, which are used in monitoring the state of the economy and formulation of economic policy. These statistics are also used in the analysis of comparative business and industry performance.			
Scope of the survey	4	This survey covers enterprises involved in land transportation according to the following types of transportation:			
		<ul> <li>Railway transport (including passenger and freight transportation);</li> <li>Other scheduled passenger land transport – urban, suburban and inter-urban bus and coach passenger lines and school buses;</li> <li>Other non-scheduled passenger land transport – safaris and sightseeing bus tours, metered taxis and other passenger transport including renting of motor cars with drivers; and</li> <li>Freight transport by road.</li> <li>Note: This survey excludes passenger transportation by minibus taxis.</li> </ul>			
Classification	5	The 1993 edition of the <i>Standard Industrial Classification of all Economic Activities (SIC)</i> , Fifth Edition, Report No. 09-90-02, was used to classify the statistical units in the survey. The SIC is based on the 1990 <i>International Standard Industrial Classification of all</i> <i>Economic Activities (ISIC)</i> with suitable adaptations for local conditions. Statistics in this publication are presented at SIC division (two digit) level. Each enterprise is classified to the industry which reflects its predominant activity.			
Response rate	6	The overall response rate for the second quarter of 2009 was 83,7%.			
Statistical unit	7	The statistical unit for which information is compiled and published is the enterprise, defined as a legal unit or a combination of legal units that includes and directly controls all functions necessary to carry out its income activities.			
Survey methodology and design	8	Questionnaires are collected monthly and the results are published on a quarterly basis. Questionnaires are sent to a sample of about 700 enterprises from a population of about 4 000 enterprises. Completed questionnaires are required to be returned to Stats SA within 10 days after the end of the reference month. Fax and telephone reminders are used to follow up non-respondents.			
Sample design	9	The value of income is obtained monthly from the sample of about 700 enterprises (which was drawn in April 2007 at the SIC four-digit level) from a population of about 4 000 land transportation enterprises. The land transportation industry is divided into four size groups. All large enterprises (size group one) are completely enumerated. Simple random sampling is applied to size groups two (medium sized), three and four (small) enterprises. The total value of income of the large enterprises (size group one) is added to the weighted totals of size groups two, three and four to reflect the total value of income.			

Weighting methodology	10	For those strata not completely enumerated, the weights to produce estimates are the inverse ratio of the sampling fraction, modified to take account of non-response in the survey. Stratum estimates are calculated and then aggregated with the completely enumerated stratum to form division estimates. These procedures, which are in line with international best practice, are described in more detail on the Stats SA website at http://www.statssa.gov.za/publications/publicationsearch.asp.			
Reliability of estimates	11	Data presented in this publication are based on information obtained from a sample and are, therefore, subject to sampling variability; that is, they may differ from the figures that would have been produced if the data had been obtained from all enterprises in the land transport industry in South Africa. Estimates are subject to sampling and non-sampling errors. Preliminary figures are indicated in the tables.			
	12	made in the to as non-sa careful desig implementing	may occur because of imperfections in reporting by enterprises and errors collection and processing of the data. Inaccuracies of this kind are referred ampling errors. Every effort is made to minimise non-sampling errors by in of questionnaires, testing them in pilot studies, editing reported data and g efficient operating procedures. Fluctuations may occur in consecutive result of seasonal and economic factors.		
Revised figures	13	Revised figures are due to respondents reporting revisions or corrections to their figures and late submission of their data to Stats SA. Preliminary figures are indicated in the relevant tables. Data are edited at the enterprise level.			
Related publications	14	Users may a	lso wish to refer to the following publications available from Stats SA -		
publications		<ul> <li>Bulletin of Statistics issued quarterly.</li> <li>SA Statistics issued annually.</li> </ul>			
Rounding of figures	15	Where figures have been rounded-off discrepancies may occur between sums of the component items and the totals.			
Pre-release policy	19	Stats SA's pr	e-release policy may be inspected at its Website, www.statssa.gov.za.		
Symbols and abbreviations	20	BSF GDP ISIC SIC SARS Stats SA VAT *	Business Sampling Frame Gross Domestic Product International Standard Industrial Classification Standard Industrial Classification of all Economic Activities South African Revenue Service Statistics South Africa Value-added tax Revised Figures not available		
Change in the	21	The results published in the next publication (September 2009) will be based on a new sample drawn in April 2009. The periodic introduction of a new sample is a part of Stats			

- next publication
- sample drawn in April 2009. The periodic introduction of a new sample is a part of Stats SA's strategic approach in improving the basis from which surveys are conducted.

#### **Technical note**

# Neyman optimal allocation

A stratified random sample was drawn from the population of enterprises on the business sampling frame (BSF). Strata were formed using a combination of Standard Industrial Classification and the measure of size classes for enterprises. The Neyman optimal allocation formula given below was used to allocate samples to each stratum.

$$n_{h} = \frac{N_h S_h}{\sum N_h S_h}$$

where  $N_{\text{h}}$  and  $S_{\text{h}}$  are the stratum population size and the stratum variance, respectively.

Neyman allocation formula not only allocates sample sizes to each stratum but also calculates the relative precision for each stratum as well as the relative precision for all strata. The relative precision for these strata did not exceed 4,8%.

### **Class limits**

Enterprise size	Size Group	Lower limits	Upper limits
Very small	4	0	3 000 000
Small	3	3 000 001	13 000 000
Medium	2	13 000 001	26 000 000
Large	1	26 000 001	

### Glossary

Enterprise	The enterprise is a legal entity or a combination of legal units that includes and directly controls all functions necessary to carry out its sales activities.
Industry	An industry is made up of enterprises engaged in the same or similar kinds of economic activity. Industries are defined in the <i>System of National Accounts (SNA)</i> in the same way as in the <i>Standard Industrial Classification of all Economic Activities, Fifth Edition, Report No. 09-90-02 of March 1993 (SIC).</i>
Statistical unit	A statistical unit is a unit about which statistics are tabulated, compiled or published. The statistical units are derived from and linked to the South African Revenue Service (SARS) administrative data.
Number of passengers	The number of passengers refers to the passenger journeys.

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