

# Statistical release P7162

# Land transport survey (Preliminary)

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# **Summary of findings: Land transportation**

### Table A - Key figures as at the end of March 2010

Freight transportation estimates	March 2010 1/	% change between March 2009 and March 2010	% change between January to March 2009 and January to March 2010
Payload (000 tons)	55 117	6,4	4,2
Total income (R million)	6 269	13,6	12,2

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

Passenger transportation estimates	March 2010 1/	% change between March 2009 and March 2010	% change between January to March 2009 and January to March 2010
Number of passengers (000)	100 652	-5,5	-1,5
Total income (R million)	689	-3,4	-0,1

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

### Income from freight transportation

The income from freight transportation for the first quarter of 2010 increased by 12,2% compared with the first quarter of 2009. Income from freight transportation for March 2010 increased by 13,6% compared with March 2009. The volume of goods transported (payload) for March 2010 increased by 6,4% compared with March 2009.

The increase of 12,2% in income from freight transportation for the first quarter of 2010 compared with the first quarter of 2009 was mainly driven by primary mining and quarrying products (43,3% and contributing 10,7 percentage points), followed by basic metal and fabricated metal products (27,5% and contributing 1,4 percentage points) and containers (44,6% and contributing 1,1 percentage points) – see Table B on page 3.

### Income from passenger transportation

The income from passenger transportation for the first quarter of 2010 decreased by 0,1% compared with the first quarter of 2009. Income from passenger transportation for March 2010 decreased by 3,4% compared with March 2009. The number of passengers for March 2010 decreased by 5,5% compared with March 2009.

The main contributor to the decrease of 0,1% in income from passenger transportation for the first quarter of 2010 compared with the first quarter of 2009 was road passenger transportation (-0,6% and contributing -0,5 of a percentage point). However, this decrease was counteracted by an increase in railway passenger transportation (1,4% and contributing 0,4 of a percentage point) – 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	January to March 2009 (R million)	Weight 1/	January to March 2010 (R million))	Difference in income between January to March 2009 and January to March 2010 (R million)	Percentage change between January to March 2009 and January to March 2010	Contribution (percentage points) to the percentage change in total income 2/
Agriculture and forestry primary products	1 429	9,0	1 274	-155	-10,8	-1,0
Primary mining and quarrying products	3 924	24,7	5 622	1 698	43,3	10,7
Manufactured food, beverages and	0.024	Δ¬,,,	0 022	1 000	40,0	10,7
tobacco products	2 965	18,7	3 051	86	2,9	0,5
Textiles, clothing and leather goods	167	1,1	175	8	4,8	0,1
Chemicals, coke, petroleum, rubber, plastic and other mineral products	1 759	11,1	1 687	-72	-4,1	-0,5
Basic metals and fabricated metal products	824	5,2	1 051	227	27,5	1,4
Non-metallic products	610	3,8	776	166	27,2	1,0
Electrical machinery, transport machinery and equipment	482	3,0	321	-161	-33,4	-1,0
Motor vehicles, parts and accessories	336	2,1	337	1	0,3	0,0
Paper and paper products	308	1,9	381	73	23,7	0,5
Commercial products	356	2,2	454	98	27,5	0,6
Used household and office products	252	1,6	228	-24	-9,5	-0,2
Containers	404	2,5	584	180	44,6	1,1
Parcels	363	2,3	310	-53	-14,6	-0,3
Other freight	1 695	10,7	1 564	-131	-7,7	-0,8
Total income 3/	15 874	100,0	17 815	1 941	12,2	12,2

<sup>1/</sup> 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.

<sup>2/</sup> The contribution to the percentage change is calculated by multiplying the percentage change of each type of commodity with its corresponding weight, divided by 100.

<sup>3/</sup> 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

Type of service	January to March 2009 (R million)	Weight 1/	January to March 2010 (R million)	Difference in income between January to March 2009 and January to March 2010 (R million)	Percentage change between January to March 2009 and January to March 2010	Contribution (percentage points) to the percentage change in total income 2/
Railway passenger transportation	498	25,6	505	7	1,4	0,4
Road passenger transportation	1 445	74,4	1 436	-9	-0,6	-0,5
Total income 3/	1 943	100,0	1 941	-2	-0,1	-0,1

<sup>1/</sup> 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.

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<sup>2/</sup> The contribution to the percentage change is calculated by multiplying the percentage change of each type of service with its corresponding weight, divided by 100.

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

## **Detailed results**

Table 1 shows freight transportation estimates for the period January 2008 – March 2010.

Table 1 – Total freight transportation estimates

Year and month 1/		Ra	il	Ro	ad	Tota	l 2/
		Payload (000 tons)	Income (R million)	Payload (000 tons)	Income (R million)	Payload (000 tons)	Income (R million)
2008	January	13 918	1 204	34 107	3 741	48 025	4 945
	February	15 264	1 302	38 335	4 085	53 599	5 387
	March	14 788	1 255	37 970	4 089	52 758	5 344
	April	15 030	1 427	41 786	4 581	56 816	6 008
	May	14 321	1 344	41 304	4 577	55 625	5 921
	June	17 802	1 480	43 599	4 774	61 401	6 254
	July	15 373	1 461	45 067	5 131	60 440	6 592
	August	15 711	1 518	43 207	4 893	58 918	6 411
	September	15 625	1 528	43 001	4 802	58 626	6 330
	October	16 394	1 517	44 158	4 938	60 552	6 455
	November	16 468	1 473	41 881	4 724	58 349	6 197
	December	15 220	1 248	35 294	4 089	50 514	5 337
	Total	185 914	16 757	489 709	54 424	675 623	71 181
2009	January	14 557	1 171	33 871	3 856	48 428	5 027
	February	15 102	1 411	35 712	3 919	50 814	5 330
	March	15 426	1 369	36 371	4 148	51 797	5 517
	April	15 508	1 547	33 653	3 850	49 161	5 397
	May	13 536	1 365	35 862	4 147	49 398	5 512
	June	16 174	1 626	36 531	4 076	52 704	5 702
	July	15 363	1 549	38 717	4 384	54 079	5 933
	August	15 633	1 586	36 643	4 115	52 277	5 700
	September	17 254	1 754	37 576	4 240	54 830	5 994
	October	15 631	1 728	38 014	4 404	53 645	6 132
	November	16 432	1 804	38 920	4 383	55 352	6 187
	December	15 680	1 644	34 645	4 078	50 325	5 722
	Total	186 296	18 554	436 515	49 600	622 810	68 153
2010	January	15 573	1 654	34 045	3 949	49 617	5 603
	February	16 361	1 791	36 226	4 153	52 587	5 943
	March	15 797	1 795	39 321	4 474	55 117	6 269

<sup>1/ 2009</sup> and 2010 figures are preliminary.

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

Table 2 shows passenger transportation estimates for the period January 2008 – March 2010.

Table 2 – Total passenger transportation estimates

Year and month 1/		Ra	il	Ro	ad	Tota	I 2/
		Number of passengers (R million)		Number of passengers (000)	Income (R million)	Number of passengers (000)	Income (R million)
2008	January	63 559	185	19 911	417	83 470	602
	February	76 393	174	22 915	454	99 308	628
	March	70 334	153	24 117	495	94 451	648
	April	65 622	142	21 667	415	87 289	557
	May	70 168	156	21 944	413	92 112	569
	June	62 246	141	23 622	474	85 868	615
	July	69 821	147	22 955	471	92 776	618
	August	70 044	155	23 994	490	94 038	645
	September	72 612	176	26 163	534	98 775	710
	October	79 282	175	25 005	523	104 287	698
	November	70 545	158	23 839	503	94 384	661
	December	50 390	149	19 722	419	70 112	568
	Total	821 016	1 911	275 854	5 608	1 096 870	7 519
2009	January	65 561	160	20 147	410	85 708	570
	February	69 594	162	24 084	498	93 678	660
	March	79 264	176	27 272	537	106 536	713
	April	72 762	163	22 905	488	95 667	651
	May	75 634	175	24 678	497	100 313	673
	June	71 013	156	23 320	484	94 334	640
	July	75 707	172	23 272	507	98 979	680
	August	69 760	160	22 850	488	92 609	648
	September	71 781	167	23 816	508	95 597	675
	October	80 521	184	24 406	517	104 927	701
	November	72 544	168	23 225	490	95 768	658
	December	57 642	138	20 280	480	77 922	619
	Total	861 783	1 981	280 255	5 904	1 142 038	7 888
2010	January	62 674	158	21 097	449	83 771	607
	February	73 590	171	23 529	474	97 119	645
	March	75 503	176	25 149	513	100 652	689

 $<sup>1 \</sup>slash 2009$  and 2010 figures are preliminary.

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

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	nd month 1/	Type A	Type B	Type C	Type D	Type E	Type F	Type G	Type H	Type I	Type J	Type K	Type L	Type M	Type N	Type O	Total 2/
2008	January	425	1 169	828	43	535	375	205	90	137	97	132	71	190	123	525	4 945
	February	478	1 354	839	52	591	365	224	102	132	97	113	95	226	124	595	5 387
	March	448	1 334	818	44	601	375	214	112	142	91	122	80	255	125	583	5 344
	April	546	1 465	940	57	685	406	251	118	156	102	132	84	259	135	672	6 008
	May	533	1 480	924	58	675	386	218	128	129	105	156	85	234	137	673	5 921
	June	547	1 558	945	53	717	399	217	166	132	110	158	78	225	131	818	6 254
	July	570	1 619	1 032	67	753	408	237	176	149	170	170	112	231	136	762	6 592
	August	556	1 649	1 038	72	708	409	221	168	134	125	170	117	203	121	720	6 411
	September	557	1 628	1 006	62	663	416	234	121	124	120	188	111	207	149	744	6 330
	October	603	1 520	1 067	82	721	395	227	148	129	181	162	137	195	171	717	6 455
	November	535	1 438	1 143	69	641	376	230	196	121	111	171	140	170	173	683	6 197
	December	515	1 237	1 080	67	556	228	193	168	107	133	116	114	159	125	539	5 337
	Total	6 313	17 451	11 660	726	7 846	4 538	2 671	1 693	1 592	1 442	1 790	1 224	2 554	1 650	8 031	71 181
2009	January	516	1 186	956	62	539	237	215	165	114	91	105	103	113	119	506	5 027
	February	442	1 457	971	43	596	259	192	146	102	104	96	80	137	131	574	5 330
	March	471	1 281	1 038	62	624	328	203	171	120	113	155	69	154	113	615	5 517
	April	441	1 497	922	34	584	279	205	136	85	116	154	70	157	94	623	5 397
	May	482	1 377	1 009	39	631	272	234	127	108	123	181	68	162	95	603	5 512
	June	518	1 645	894	49	621	282	239	114	99	123	154	76	168	91	628	5 702
	July	539	1 612	1 084	64	658	279	254	102	122	124	155	78	163	81	619	5 933
	August	495	1 618	910	84	636	285	228	131	114	128	157	73	186	71	584	5 700
	September	486	1 807	911	69	635	341	243	118	109	142	162	74	238	98	559	5 994
	October	479	1 831	1 038	67	587	335	241	128	113	148	197	80	248	104	537	6 132
	November	434	1 927	889	76	615	333	269	134	135	151	195	86	263	123	556	6 187
	December	424	1 648	1 058	65	579	323	213	107	100	131	146	100	183	95	548	5 722
	Total	5 727	18 886	11 680	714	7 305	3 553	2 736	1 579	1 321	1 494	1 857	957	2 172	1 215	6 952	68 153
2010	January	405	1 728	1 034	43	552	336	232	90	99	125	118	69	181	88	502	5 603
	February	424	1 871	991	59	549	363	259	115	109	128	169	78	210	105	514	5 943
	March	445	2 023	1 026	73	586	352	285	116	129	128	167	81	193	117	548	6 269

<sup>1/ 2009</sup> and 2010 figures are preliminary.

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

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

Group type	Type of commodity included in group type
Type A	Transportation of agriculture and forestry primary products
Type B	Transportation of primary mining and quarrying products
Type C	Transportation of manufactured food, beverages and tobacco products
Type D	Transportation of textiles, clothing and leather products
Type E	Transportation of chemicals, coke, petroleum, rubber, plastic and other mineral products
Type F	Transportation of basic metals and fabricated metal products
Type G	Transportation of non-metallic products
Type H	Transportation of electrical machinery, transport machinery and equipment
Type I	Transportation of motor vehicles, parts and accessories
Type J	Transportation of paper and paper products
Type K	Transportation of commercial products
Type L	Transportation of used household and office products
Туре М	Transportation of containers
Type N	Transportation of parcels
Type O	Transportation of other freight

# Estimates and percentage changes in land transportation

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

Table 4.1 – Quarterly estimates and percentage changes for freight transportation

Freight transportation estimates	January to March 2009	January to March 2010	% change between January to March 2009 and January to March 2010
Payload (000 tons)	151 039	157 321	4,2
Total income (R million)	15 874	17 815	12,2

Table 4.2 – Quarterly estimates and percentage changes for passenger transportation

Passenger transportation estimates	January to March 2009	January to March 2010	% change between January to March 2009 and January to March 2010
Number of passengers (000)	285 922	281 542	-1,5
Total income (R million)	1 943	1 941	-0,1

## **Explanatory notes**

### Introduction

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 2009 Business Sampling Frame (BSF) that contains businesses registered for value added tax (VAT).

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

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:

- Railway transport (including passenger and freight transportation);
- Other scheduled passenger land transport urban, suburban and inter-urban bus and coach passenger lines and school buses;
- 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
- · Freight transport by road.

Note: This survey excludes passenger transportation by minibus taxis.

#### Classification

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The 1993 edition of the Standard Industrial Classification of all Economic Activities (SIC), Fifth Edition, Report No. 09-90-02, was used to classify the statistical units in the survey. The SIC is based on the 1990 International Standard Industrial Classification of all Economic Activities (ISIC) 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

The preliminary response rate for the survey on land transportation for March 2010 was 94,9%. The improved response rate for February 2010 was 98,3%.

# Statistical unit

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

Questionnaires are collected monthly and the results are published on a monthly basis. Questionnaires are sent to a sample of about 700 enterprises from a population of about 4 500 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

The value of income is obtained monthly from the sample of about 700 enterprises (which was drawn in April 2009 at the SIC four-digit level) from a population of about 4 500 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.

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# 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 Inaccuracies may occur because of imperfections in reporting by enterprises and errors made in the collection and processing of the data. Inaccuracies of this kind are referred to as non-sampling errors. Every effort is made to minimise non-sampling errors by careful design of questionnaires, testing them in pilot studies, editing reported data and implementing efficient operating procedures. Fluctuations may occur in consecutive months as a result of seasonal and economic factors.

### **Revised figures**

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 also wish to refer to the following publications available from Stats SA -
  - Bulletin of Statistics issued quarterly.
    - SA Statistics issued annually.

# Rounding-off of figures

Where figures have been rounded off discrepancies may occur between sums of the component items and the totals.

# Pre-release policy

16 Stats SA's pre-release policy may be inspected at its Website, www.statssa.gov.za.

# Symbols and abbreviations

17

BR Business Register

BSF Business Sampling Frame GDP Gross domestic product

ISIC International Standard Industrial Classification

SIC Standard Industrial Classification of all Economic Activities

SARS South African Revenue Service

Stats SA Statistics South Africa VAT Value added tax

\* Revised

Figures not available

#### **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.

$$n_{\text{h}} = \frac{N_{\text{h}}S_{\text{h}}}{\sum N_{\text{h}}S_{\text{h}}}$$

N<sub>h</sub> and S<sub>h</sub> 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 4,0%.

#### **Class limits**

Enterprise size	Size Group	Lower limits	Upper limits
Very small	4	0	9 000 000
Small	3	9 000 001	39 000 000
Medium	2	39 000 001	78 000 000
Large	1	78 000 001	

### 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 *System of National Accounts (SNA)* in the same way as in the *Standard Industrial Classification of all Economic Activities, Fifth Edition, Report No. 09-90-02 of January 1993 (SIC)*.

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.

### **General information**

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#### Advance release calendar

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