

Statistical release

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Land transport survey (Preliminary)

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Contents

Summary of findings: Land transportation 2

 Table A – Key figures for February 2011..... 2

 Table B – Contribution of each type of commodity to the percentage change in freight transportation income... 3

 Table C – Contribution of each type of service to the percentage change in passenger transportation income . 3

Detailed results 4

 Table 1 – Total freight transportation estimates..... 4

 Table 2 – Total passenger transportation estimates..... 5

 Table 3 – Total income according to the type of commodity for freight transportation (R million)..... 6

 Table 4 – Three-monthly estimates and annual cumulative estimates and percentage changes for freight transportation..... 7

 Table 5 – Three-monthly estimates and annual cumulative estimates and percentage changes for passenger transportation..... 7

Explanatory notes 8

Technical note..... 10

Class limits 10

Glossary 10

General information 11

Summary of findings: Land transportation

Table A – Key figures for February 2011

Freight transportation estimates	February 2011 1/	% change between February 2010 and February 2011	% change between December 2009 to February 2010 and December 2010 to February 2011	% change between January to February 2010 and January to February 2011
Payload (000 tons)	53 510	3,8	0,7	0,9
Total income (R million)	6 579	11,2	5,6	5,9

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

Passenger transportation estimates	February 2011 1/	% change between February 2010 and February 2011	% change between December 2009 to February 2010 and December 2010 to February 2011	% change between January to February 2010 and January to February 2011
Number of passengers (000)	66 832	-15,6	-16,0	-16,1
Total income (R million)	648	10,8	14,5	14,0

1/ 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 three months ended February 2011 increased by 5,6% compared with the three months ended February 2010. Income from freight transportation for February 2011 increased by 11,2% compared with February 2010. The volume of goods transported (payload) for February 2011 increased by 3,8% compared with February 2010.

The increase of 5,6% in income from freight transportation for the three months ended February 2011 compared with the three months ended February 2010 was driven mainly by primary mining and quarrying products (17,4% and contributing 5,2 percentage points) – see Table B on page 3.

Income from passenger transportation

The income from passenger transportation for the three months ended February 2011 increased by 14,5% compared with the three months ended February 2010. Income from passenger transportation for February 2011 increased by 10,8% compared with February 2010. The number of passengers for February 2011 decreased by 15,6% compared with February 2010.

The main contributor to the increase of 14,5% in income from passenger transportation for the three months ended February 2011 compared with the three months ended February 2010 was road passenger transportation (21,7% and contributing 16,1 percentage points). However, this increase was counteracted by a decrease in railway passenger transportation (-6,2% and contributing -1,6 percentage points) – see Table C on page 3.

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

Type of commodity	December 2009 to February 2010 (R million)	Weight 1/	December 2010 to February 2011 (R million)	Difference in income between December 2009 to February 2010 and December 2010 to February 2011 (R million)	% change between December 2009 to February 2010 and December 2010 to February 2011	Contribution (percentage points) to the % change in total income 2/
Agriculture and forestry primary products	1 369	8,0	1 411	42	3,1	0,2
Primary mining and quarrying products	5 152	30,0	6 048	896	17,4	5,2
Manufactured food, beverages and tobacco products	2 945	17,1	2 766	-179	-6,1	-1,0
Textiles, clothing and leather goods	276	1,6	225	-51	-18,5	-0,3
Chemicals, coke, petroleum, rubber, plastic and other mineral products	1 577	9,2	1 579	2	0,1	0,0
Basic metals and fabricated metal products	1 074	6,3	1 086	12	1,1	0,1
Non-metallic products	655	3,8	608	-47	-7,2	-0,3
Electrical machinery, transport machinery and equipment	270	1,6	354	84	31,1	0,5
Motor vehicles, parts and accessories	288	1,7	429	141	49,0	0,8
Paper and paper products	324	1,9	327	3	0,9	0,0
Commercial products	377	2,2	466	89	23,6	0,5
Used household and office products	210	1,2	207	-3	-1,4	0,0
Containers	592	3,4	696	104	17,6	0,6
Parcels	222	1,3	200	-22	-9,9	-0,1
Other freight	1 850	10,8	1 733	-117	-6,3	-0,7
Total income 3/	17 182	100,0	18 136	954	5,6	5,6

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, divided by 100.

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

Type of service	December 2009 to February 2010 (R million)	Weight 1/	December 2010 to February 2011 (R million)	Difference in income between December 2009 to February 2010 and December 2010 to February 2011 (R million)	% change between December 2009 to February 2010 and December 2010 to February 2011	Contribution (percentage points) to the % change in total income 2/
Railway passenger transportation	437	25,8	410	-27	-6,2	-1,6
Road passenger transportation	1 259	74,2	1 532	273	21,7	16,1
Total income 3/	1 696	100,0	1 942	246	14,5	14,5

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, divided by 100.

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

PJ Lehohla
Statistician-General

Detailed results

Table 1 – Total freight transportation estimates

Year and month 1/	Rail		Road		Total 2/		
	Payload (000 tons)	Income (R million)	Payload (000 tons)	Income (R million)	Payload (000 tons)	Income (R million)	
2009	January	14 337	1 185	33 119	3 809	47 456	4 994
	February	14 874	1 428	34 919	3 871	49 793	5 299
	March	15 193	1 385	35 563	4 098	50 756	5 483
	April	15 274	1 565	32 906	3 803	48 180	5 368
	May	13 332	1 381	35 066	4 097	48 398	5 478
	June	15 930	1 645	35 720	4 026	51 650	5 671
	July	15 131	1 567	37 857	4 331	52 988	5 898
	August	15 397	1 605	35 829	4 065	51 226	5 670
	September	16 993	1 775	36 742	4 188	53 735	5 963
	October	15 395	1 749	37 170	4 350	52 565	6 099
	November	16 184	1 825	38 056	4 330	54 240	6 155
	December	15 443	1 664	33 876	4 028	49 319	5 692
	Total	183 483	18 774	426 823	48 996	610 306	67 770
2010	January	15 338	1 674	33 289	3 901	48 627	5 575
	February	16 114	1 812	35 422	4 103	51 536	5 915
	March	15 558	1 816	38 586	4 429	54 144	6 245
	April	15 595	1 790	35 008	4 064	50 603	5 854
	May	11 683	1 372	38 510	4 355	50 193	5 727
	June	14 653	1 771	39 431	4 500	54 084	6 271
	July	16 102	1 896	39 731	4 611	55 833	6 507
	August	15 039	1 886	38 940	4 543	53 979	6 429
	September	16 968	1 902	38 274	4 458	55 242	6 360
	October	16 794	1 883	39 028	4 616	55 821	6 500
	November	16 568	1 880	39 693	4 725	56 262	6 605
	December	15 574	1 770	33 853	4 196	49 427	5 967
	Total	185 986	21 452	449 765	52 501	635 751	73 955
2011	January	14 247	1 632	33 270	3 958	47 517	5 590
	February	17 158	2 330	36 352	4 248	53 510	6 579

1/ 2010 and 2011 figures are preliminary.

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

Table 2 – Total passenger transportation estimates

Year and month 1/	Rail		Road		Total 2/		
	Number of passengers (000)	Income (R million)	Number of passengers (000)	Income (R million)	Number of passengers (000)	Income (R million)	
2009	January	48 985	150	20 689	368	69 674	518
	February	51 998	151	24 732	447	76 730	598
	March	59 223	165	28 006	482	87 229	647
	April	54 365	152	23 521	438	77 886	590
	May	56 511	164	25 342	446	81 853	610
	June	53 058	146	23 948	434	77 006	580
	July	56 566	161	23 898	455	80 464	616
	August	52 122	150	23 465	438	75 587	588
	September	53 632	156	24 457	456	78 089	612
	October	60 163	172	25 063	464	85 226	636
	November	54 202	157	23 850	440	78 052	597
	December	43 068	129	20 826	431	63 894	560
	Total	643 893	1 853	287 797	5 299	931 690	7 152
2010	January	46 828	148	21 665	403	68 493	551
	February	54 984	160	24 162	425	79 146	585
	March	56 440	165	26 300	467	82 740	632
	April	50 601	184	22 804	468	73 405	652
	May	23 877	98	25 347	480	49 225	578
	June	33 491	132	23 509	508	57 000	640
	July	42 409	160	24 508	523	66 917	684
	August	42 053	145	24 482	492	66 535	637
	September	43 854	143	24 680	531	68 535	674
	October	46 707	155	24 962	521	71 670	676
	November	45 193	152	24 774	516	69 967	668
	December	33 364	121	20 576	526	53 940	647
	Total	519 801	1 763	287 769	5 860	807 573	7 624
2011	January	35 024	148	21 971	499	56 995	647
	February	41 102	141	25 730	506	66 832	648

1/ 2010 and 2011 figures are preliminary.

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

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

Year and 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/	
2010	January	442	1 698	989	71	519	353	216	78	93	106	103	59	188	68	592	5 575
	February	465	1 837	949	98	516	382	241	100	102	108	147	66	216	81	606	5 915
	March	515	1 970	980	124	540	374	268	103	121	119	146	72	200	92	620	6 245
	April	512	1 767	856	77	528	395	240	120	114	119	131	68	234	89	605	5 854
	May	560	1 597	862	80	556	353	242	123	120	119	159	66	176	86	626	5 727
	June	596	1 776	929	73	596	411	258	129	127	120	181	71	256	85	661	6 271
	July	620	1 985	925	77	538	422	238	119	147	121	190	71	263	81	711	6 507
	August	613	1 871	926	76	599	430	246	124	146	112	177	72	261	71	705	6 429
	September	603	1 917	916	72	573	397	239	133	121	123	178	68	250	69	701	6 360
	October	553	1 921	1 022	75	574	419	239	139	140	125	191	70	251	71	711	6 500
	November	534	1 965	982	89	605	394	244	147	155	128	218	73	264	84	724	6 605
	December	465	1 791	1 052	69	544	341	211	121	135	108	169	72	225	61	603	5 967
Total	6 478	22 095	11 388	981	6 688	4 671	2 882	1 436	1 521	1 408	1 990	828	2 784	938	7 865	73 955	
2011	January	456	1 846	788	69	522	343	181	104	138	108	143	66	227	65	535	5 590
	February	490	2 411	926	87	513	402	216	129	156	111	154	69	244	74	595	6 579

1/ Preliminary.

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

Table 4 – Three-monthly estimates and annual cumulative estimates and percentage changes for freight transportation

Freight transportation estimates	December 2009 to February 2010	December 2010 to February 2011	% change between December 2009 to February 2010 and December 2010 to February 2011	January to February 2010	January to February 2011	% change between January to February 2010 and January to February 2011
Payload (000 tons)	149 482	150 454	0,7	100 163	101 027	0,9
Total income (R million)	17 182	18 136	5,6	11 490	12 169	5,9

Table 5 – Three-monthly estimates and annual cumulative estimates and percentage changes for passenger transportation

Passenger transportation estimates	December 2009 to February 2010	December 2010 to February 2011	% change between December 2009 to February 2010 and December 2010 to February 2011	January to February 2010	January to February 2011	% change between January to February 2010 and January to February 2011
Number of passengers (000)	211 533	177 767	-16,0	147 639	123 827	-16,1
Total income (R million)	1 696	1 942	14,5	1 136	1 295	14,0

Explanatory notes

Introduction	1	<p>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 2010 Business Sampling Frame (BSF) that contains businesses registered for value added tax (VAT).</p> <p>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.</p>
Purpose of the survey	3	<p>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.</p>
Scope of the survey	4	<p>This survey covers enterprises involved in land transportation according to the following types of transportation:</p> <ul style="list-style-type: none"> • 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.
Exclusions	5	<p>Passenger transportation excludes:</p> <ul style="list-style-type: none"> • Minibus taxis; • Gautrain; • Metropolitan buses (including the Bus Rapid System – BRT); and • Rental of private cars/buses without drivers. <p>Freight transportation excludes:</p> <ul style="list-style-type: none"> • Renting of trucks without drivers; and • In-house transportation.
Classification	6	<p>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 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.</p>
Response rate	7	<p>The preliminary response rate for the survey on land transportation for February 2011 was 94,3%. The improved response rate for January 2011 was 98,0%.</p>
Statistical unit	8	<p>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.</p>
Survey methodology and design	9	<p>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 4 400 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.</p>

Sample design	10	The value of income is obtained monthly from the sample of about 700 enterprises (which was drawn in April 2010 at the SIC four-digit level) from a population of about 4 400 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	11	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	12	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.																				
	13	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	14	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	15	Users may also wish to refer to the following publications available from Stats SA - <ul style="list-style-type: none"> • <i>Bulletin of Statistics</i> issued quarterly; and • <i>SA Statistics</i> issued annually. 																				
Rounding-off of figures	16	Where figures have been rounded off discrepancies may occur between sums of the component items and the totals.																				
Pre-release policy	17	Stats SA's pre-release policy may be inspected at its website, www.statssa.gov.za .																				
Symbols and abbreviations	18	<table border="0" style="width: 100%;"> <tr> <td style="width: 100px;">BR</td> <td>Business register</td> </tr> <tr> <td>BSF</td> <td>Business sampling frame</td> </tr> <tr> <td>GDP</td> <td>Gross domestic product</td> </tr> <tr> <td>ISIC</td> <td>International Standard Industrial Classification</td> </tr> <tr> <td>SIC</td> <td>Standard Industrial Classification of all Economic Activities</td> </tr> <tr> <td>SARS</td> <td>South African Revenue Service</td> </tr> <tr> <td>Stats SA</td> <td>Statistics South Africa</td> </tr> <tr> <td>VAT</td> <td>Value added tax</td> </tr> <tr> <td>*</td> <td>Revised</td> </tr> <tr> <td>-</td> <td>Figures not available</td> </tr> </table>	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
BR	Business register																					
BSF	Business sampling frame																					
GDP	Gross domestic product																					
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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.

$$n_h = \frac{N_h S_h}{\sum N_h S_h}$$

N_h and S_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 1,0%.

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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