



stats sa

Department:
Statistics South Africa
REPUBLIC OF SOUTH AFRICA

Private Bag X44, Pretoria, 0001, South Africa, ISibalo House, Koch Street, Salvokop, Pretoria, 0002
www.statssa.gov.za, info@statssa.gov.za, Tel +27 12 310 8911

STATISTICAL RELEASE

P7162

Land transport (Preliminary)

February 2023

Embargoed until:
24 April 2023
11:30

ENQUIRIES:
JP Terblanche
(072) 310 2965

FORTHCOMING ISSUE:
March 2023

EXPECTED RELEASE DATE:
22 May 2023



Contents

Freight transportation: results for February 2023.....	2
Table A – Year-on-year percentage change in freight transportation (income at current prices).....	2
Table B – Freight transportation income at current prices for the latest three months by type of commodity.....	2
Figure 1 – Freight transportation: year-on-year percentage change in payload.....	3
Table C – Seasonally adjusted payload for the latest three months by type of transport.....	3
Passenger transportation: results for February 2023.....	4
Table D – Year-on-year percentage change in passenger transportation (income at current prices).....	4
Figure 2 – Passenger transportation: year-on-year percentage change in passenger journeys.....	4
Table E – Seasonally adjusted passenger journeys for the latest three months by type of transport.....	4
Tables	5
Table 1 – Freight transportation (income at current prices).....	5
Table 2 – Year-on-year percentage change in freight transportation (income at current prices).....	5
Table 3 – Seasonally adjusted freight transportation (income at current prices).....	6
Table 4 – Month-on-month percentage change in seasonally adjusted freight transportation (income at current prices)	6
Table 5 – Freight transportation income at current prices by type of commodity (R million).....	7
Table 6 – Year-on-year percentage change in freight transportation income at current prices by type of commodity.....	7
Table 7 – Contribution of each type of commodity to the year-on-year percentage change in freight transportation income at current prices (percentage points)	7
Table 8 – Passenger transportation (income at current prices).....	8
Table 9 – Year-on-year percentage change in passenger transportation (income at current prices)	8
Table 10 – Seasonally adjusted passenger transportation (income at current prices).....	9
Table 11 – Month-on-month percentage change in seasonally adjusted passenger transportation (income at current prices)	9
Survey information	10
Technical notes.....	11
Glossary	12
Technical enquiries	13
General information.....	13

Freight transportation: results for February 2023

Table A – Year-on-year percentage change in freight transportation (income at current prices)

	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23
Freight payload	19,0	23,9	17,7	12,9	17,2	7,7
Freight income	22,1	19,7	20,2	15,1	19,9	11,5

The volume of goods transported (payload) increased by 7,7% in February 2023 compared with February 2022. The corresponding income increased by 11,5% over the same period.

Table B – Freight transportation income at current prices for the latest three months by type of commodity

Type of commodity	Dec 2021 – Feb 2022 (R million)	Weight (%)	Dec 2022 – Feb 2023 (R million)	% change between Dec 2021 – Feb 2022 and Dec 2022 – Feb 2023	Contribution (% points) to the total % change
Agriculture and forestry primary products	3 235	7,5	4 017	24,2	1,8
Primary mining and quarrying products	14 156	33,0	16 049	13,4	4,4
Manufactured food, beverages and tobacco products	5 255	12,2	6 210	18,2	2,2
Textiles, clothing and leather goods	1 022	2,4	1 040	1,8	0,0
Chemicals, coke, petroleum, rubber, plastic and other mineral products	3 410	7,9	3 770	10,6	0,8
Basic metals and fabricated metal products	586	1,4	637	8,7	0,1
Non-metallic products	383	0,9	400	4,4	0,0
Electrical machinery, transport machinery and equipment	498	1,2	594	19,3	0,2
Motor vehicles, parts and accessories	1 077	2,5	1 357	26,0	0,7
Paper and paper products	210	0,5	234	11,4	0,1
Commercial products	481	1,1	623	29,5	0,3
Used household and office products	1 282	3,0	1 583	23,5	0,7
Containers	1 800	4,2	1 762	-2,1	-0,1
Parcels	1 128	2,6	1 116	-1,1	0,0
Other freight	8 389	19,5	10 158	21,1	4,1
Total income	42 913	100,0	49 551	15,5	15,5

Income from freight transportation increased by 15,5% in the three months ended February 2023 compared with the three months ended February 2022. The main contributors to this increase were:

- primary mining and quarrying products (13,4% and contributing 4,4 percentage points);
- 'other' freight (21,1% and contributing 4,1 percentage points);
- manufactured food, beverages and tobacco products (18,2% and contributing 2,2 percentage points); and
- agriculture and forestry primary products (24,2% and contributing 1,8 percentage points) – see Table B.

Figure 1 – Freight transportation: year-on-year percentage change in payload

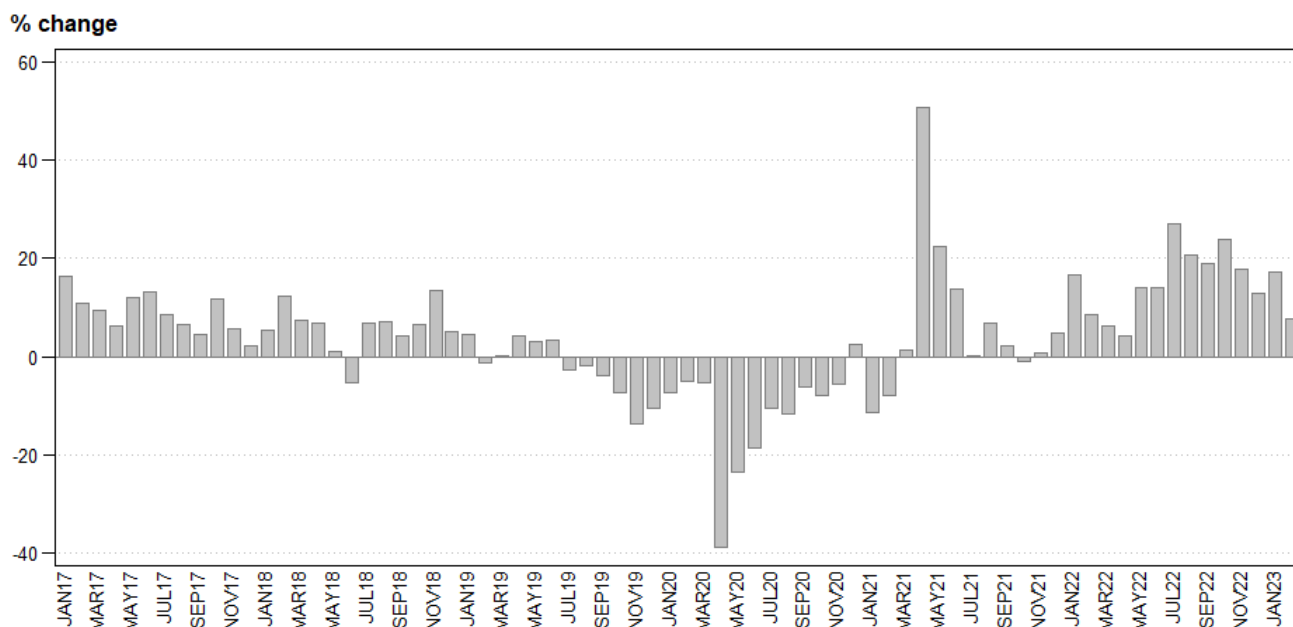


Table C – Seasonally adjusted payload for the latest three months by type of transport

Payload	Sep – Nov 2022 (000 tons)	Weight (%)	Dec 2022 – Feb 2023 (000 tons)	% change between Sep – Nov 2022 and Dec 2022 – Feb 2023	Contribution (% points) to the total % change
Rail	33 222	13,0	38 354	15,4	2,0
Road	221 998	87,0	223 067	0,5	0,4
Total	255 221	100,0	261 422	2,4	2,4

Seasonally adjusted payload increased by 2,4% in the three months ended February 2023 compared with the previous three months. Rail freight increased by 15,4% (contributing 2,0 percentage points) and road freight increased by 0,5% (contributing 0,4 of a percentage point) – see Table C.

Passenger transportation: results for February 2023

Table D – Year-on-year percentage change in passenger transportation (income at current prices)

	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23
Passenger journeys	5,0	10,5	14,5	13,5	18,8	12,9
Passenger income	22,4	20,1	20,3	45,3	30,5	19,1

The number of passenger journeys increased by 12,9% in February 2023 compared with February 2022. The corresponding income increased by 19,1% over the same period.

Figure 2 – Passenger transportation: year-on-year percentage change in passenger journeys

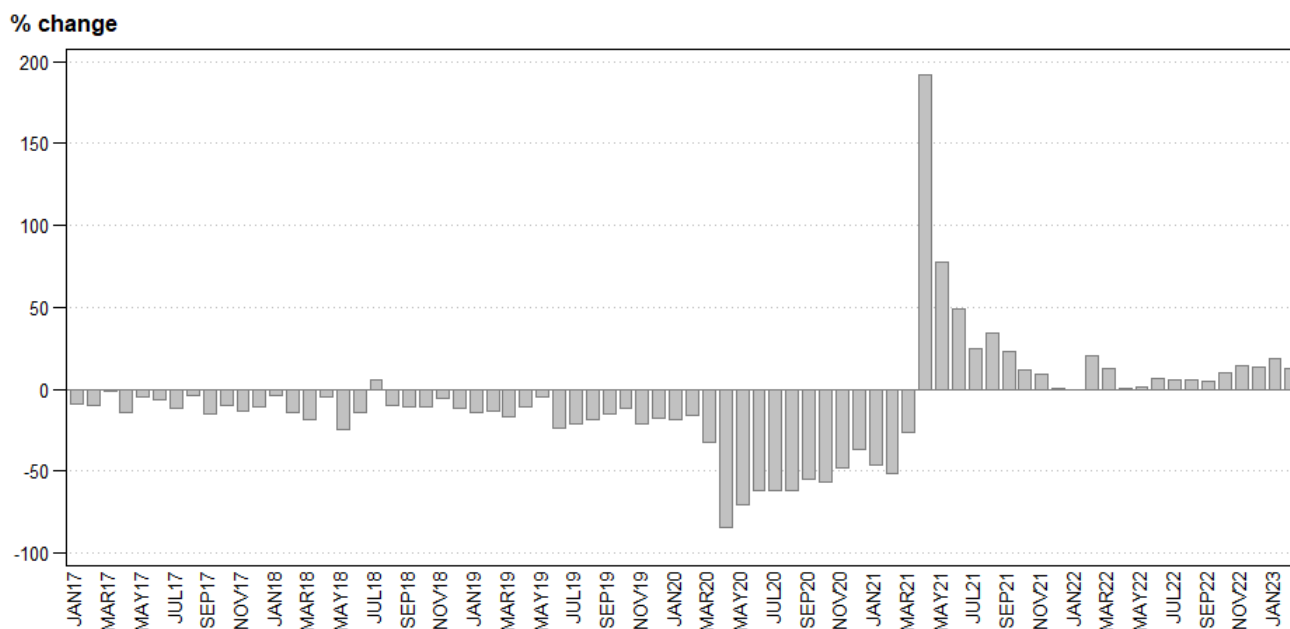


Table E – Seasonally adjusted passenger journeys for the latest three months by type of transport

Passenger journeys	Sep – Nov 2022 (000)	Weight (%)	Dec 2022 – Feb 2023 (000)	% change between Sep – Nov 2022 and Dec 2022 – Feb 2023	Contribution (% points) to the total % change
Rail	5 209	7,5	8 364	60,6	4,5
Road	64 674	92,5	64 270	-0,6	-0,6
Total	69 882	100,0	72 635	3,9	3,9

Seasonally adjusted passenger journeys increased by 3,9% in the three months ended February 2023 compared with the previous three months. Rail passenger journeys increased by 60,6% (contributing 4,5 percentage points) while road passenger journeys decreased by 0,6% (contributing -0,6 of a percentage point) – see Table E.

Risenga Maluleke
Statistician-General

Tables

Table 1 – Freight transportation (income at current prices)

Year and month 1/		Rail		Road		Total	
		Payload (000 tons)	Income (R million)	Payload (000 tons)	Income (R million)	Payload (000 tons)	Income (R million)
2022	Jan	13 861	2 868	57 819	11 329	71 680	14 197
	Feb	14 638	3 028	57 303	11 419	71 941	14 447
	Mar	13 101	2 741	64 602	12 920	77 703	15 661
	Apr	14 292	3 100	60 374	12 229	74 665	15 329
	May	13 619	2 950	71 273	14 196	84 892	17 146
	Jun	13 134	3 034	70 961	14 247	84 094	17 282
	Jul	12 154	2 825	76 165	15 326	88 319	18 150
	Aug	14 370	3 274	79 548	15 894	93 918	19 168
	Sep	14 659	3 467	74 754	14 934	89 413	18 401
	Oct	9 901	2 058	79 188	15 316	89 088	17 374
	Nov	9 047	2 276	78 998	15 849	88 045	18 125
	Dec	11 903	2 761	68 233	13 661	80 136	16 422
	Total	154 679	34 382	839 218	167 320	993 894	201 702
2023	Jan	13 113	2 960	70 880	14 063	83 993	17 023
	Feb	12 832	2 950	64 666	13 156	77 498	16 106

1/ Figures for the latest month are preliminary.

Table 2 – Year-on-year percentage change in freight transportation (income at current prices)

Year and month		Rail		Road		Total	
		Payload	Income	Payload	Income	Payload	Income
2022	Jan	7,1	4,0	19,1	21,0	16,6	17,1
	Feb	-1,5	-3,1	11,3	12,6	8,5	8,9
	Mar	-13,4	-16,5	11,2	14,8	6,1	7,7
	Apr	-7,6	-6,9	7,4	12,4	4,1	7,9
	May	-6,9	-5,1	19,3	22,8	14,1	16,9
	Jun	-18,4	-10,6	23,2	28,6	14,1	19,4
	Jul	-0,2	9,4	32,9	39,5	27,1	33,7
	Aug	-11,5	-4,6	29,0	32,5	20,6	24,2
	Sep	-8,4	1,8	26,4	28,1	19,0	22,1
	Oct	-23,0	-27,4	34,2	31,1	23,9	19,7
	Nov	-37,0	-24,2	30,7	31,2	17,7	20,2
	Dec	-20,6	-10,5	21,8	22,2	12,9	15,1
	Total	-12,0	-7,9	22,5	25,0	15,4	17,8
2023	Jan	-5,4	3,2	22,6	24,1	17,2	19,9
	Feb	-12,3	-2,6	12,8	15,2	7,7	11,5

Table 3 – Seasonally adjusted freight transportation (income at current prices)

Year and month		Rail		Road		Total	
		Payload (000 tons)	Income (R million)	Payload (000 tons)	Income (R million)	Payload (000 tons)	Income (R million)
2022	Jan	14 158	2 987	65 103	12 717	79 261	15 704
	Feb	14 429	3 066	63 045	12 436	77 474	15 502
	Mar	13 363	2 928	64 261	12 880	77 624	15 809
	Apr	13 893	2 998	63 406	12 785	77 299	15 782
	May	13 560	2 999	68 579	13 691	82 140	16 690
	Jun	12 929	2 908	70 317	14 150	83 246	17 058
	Jul	13 618	3 092	74 271	14 990	87 889	18 082
	Aug	13 099	3 033	73 247	14 715	86 346	17 748
	Sep	13 226	3 157	71 658	14 378	84 884	17 535
	Oct	11 195	2 166	75 822	14 805	87 018	16 971
	Nov	8 801	2 223	74 518	14 822	83 319	17 045
	Dec	12 387	2 789	73 674	14 641	86 062	17 429
2023	Jan	13 373	3 086	78 108	15 489	91 481	18 575
	Feb	12 594	2 984	71 285	14 356	83 879	17 340

Table 4 – Month-on-month percentage change in seasonally adjusted freight transportation (income at current prices)

Year and month		Rail		Road		Total	
		Payload	Income	Payload	Income	Payload	Income
2022	Jan	-9,2	-4,8	9,3	7,0	5,5	4,6
	Feb	1,9	2,6	-3,2	-2,2	-2,3	-1,3
	Mar	-7,4	-4,5	1,9	3,6	0,2	2,0
	Apr	4,0	2,4	-1,3	-0,7	-0,4	-0,2
	May	-2,4	0,0	8,2	7,1	6,3	5,8
	Jun	-4,7	-3,0	2,5	3,4	1,3	2,2
	Jul	5,3	6,3	5,6	5,9	5,6	6,0
	Aug	-3,8	-1,9	-1,4	-1,8	-1,8	-1,8
	Sep	1,0	4,1	-2,2	-2,3	-1,7	-1,2
	Oct	-15,4	-31,4	5,8	3,0	2,5	-3,2
	Nov	-21,4	2,6	-1,7	0,1	-4,3	0,4
	Dec	40,7	25,5	-1,1	-1,2	3,3	2,3
2023	Jan	8,0	10,6	6,0	5,8	6,3	6,6
	Feb	-5,8	-3,3	-8,7	-7,3	-8,3	-6,6

Table 5 – Freight transportation income at current prices by type of commodity (R million)

Type of commodity	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23 1/
Agriculture and forestry primary products	1 492	1 464	1 521	1 435	1 322	1 260
Primary mining and quarrying products	6 184	5 272	5 300	5 227	5 609	5 213
Manufactured food, beverages and tobacco products	2 208	2 149	2 248	2 190	2 121	1 899
Textiles, clothing and leather products	419	449	513	360	323	357
Chemicals, coke, petroleum, rubber, plastic and other mineral products	1 406	1 429	1 406	1 226	1 349	1 195
Basic metals and fabricated metal products	251	196	263	226	190	221
Non-metallic products	185	154	189	134	127	139
Electrical machinery, transport machinery and equipment	203	211	258	176	208	210
Motor vehicles, parts and accessories	468	468	497	482	439	436
Paper and paper products	88	93	105	78	71	85
Commercial products	260	255	288	213	203	207
Used household and office products	560	520	618	566	498	519
Containers	654	590	718	600	604	558
Parcels	450	443	574	359	364	393
Other freight	3 574	3 680	3 629	3 148	3 596	3 414
Total	18 401	17 374	18 125	16 422	17 023	16 106

1/ Figures are preliminary.

Table 6 – Year-on-year percentage change in freight transportation income at current prices by type of commodity

Type of commodity	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23
Agriculture and forestry primary products	31,2	32,5	38,7	35,5	26,5	11,4
Primary mining and quarrying products	21,7	13,4	11,0	9,7	20,5	10,1
Manufactured food, beverages and tobacco products	24,5	24,2	25,8	21,9	22,8	9,7
Textiles, clothing and leather products	23,2	19,1	14,0	0,0	1,3	4,1
Chemicals, coke, petroleum, rubber, plastic and other mineral products	15,6	16,7	14,2	6,6	18,3	6,7
Basic metals and fabricated metal products	-10,0	-18,7	11,4	29,1	-13,2	15,1
Non-metallic products	7,6	17,6	28,6	19,6	1,6	-4,8
Electrical machinery, transport machinery and equipment	9,7	13,4	14,7	5,4	38,7	16,0
Motor vehicles, parts and accessories	37,2	26,8	34,7	43,9	26,9	10,1
Paper and paper products	20,5	29,2	43,8	18,2	2,9	13,3
Commercial products	79,3	30,8	47,7	35,7	28,5	24,7
Used household and office products	64,2	42,1	54,5	38,4	19,7	13,6
Containers	4,8	-6,9	17,3	8,1	-3,5	-9,9
Parcels	5,1	5,0	13,9	-3,5	-3,7	4,0
Other freight	22,0	30,8	21,8	12,9	27,4	22,9
Total	22,1	19,7	20,2	15,1	19,9	11,5

Table 7 – Contribution of each type of commodity to the year-on-year percentage change in freight transportation income at current prices (percentage points)

Type of commodity	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23
Agriculture and forestry primary products	2,4	2,5	2,8	2,6	2,0	0,9
Primary mining and quarrying products	7,3	4,3	3,5	3,2	6,7	3,3
Manufactured food, beverages and tobacco products	2,9	2,9	3,1	2,8	2,8	1,2
Textiles, clothing and leather products	0,5	0,5	0,4	0,0	0,0	0,1
Chemicals, coke, petroleum, rubber, plastic and other mineral products	1,3	1,4	1,2	0,5	1,5	0,5
Basic metals and fabricated metal products	-0,2	-0,3	0,2	0,4	-0,2	0,2
Non-metallic products	0,1	0,2	0,3	0,2	0,0	0,0
Electrical machinery, transport machinery and equipment	0,1	0,2	0,2	0,1	0,4	0,2
Motor vehicles, parts and accessories	0,8	0,7	0,8	1,0	0,7	0,3
Paper and paper products	0,1	0,1	0,2	0,1	0,0	0,1
Commercial products	0,8	0,4	0,6	0,4	0,3	0,3
Used household and office products	1,5	1,1	1,4	1,1	0,6	0,4
Containers	0,2	-0,3	0,7	0,3	-0,2	-0,4
Parcels	0,1	0,1	0,5	-0,1	-0,1	0,1
Other freight	4,3	6,0	4,3	2,5	5,5	4,4
Total	22,1	19,7	20,2	15,1	19,9	11,5

Table 8 – Passenger transportation (income at current prices)

Year and month 1/		Rail		Road		Total	
		Passenger journeys (000)	Income (R million)	Passenger journeys (000)	Income (R million)	Passenger journeys (000)	Income (R million)
2022	Jan	1 367	35	16 634	663	18 001	698
	Feb	1 974	59	19 389	690	21 363	749
	Mar	2 218	68	22 372	831	24 590	899
	Apr	1 441	76	18 401	721	19 842	797
	May	1 285	77	19 814	716	21 099	793
	Jun	1 021	64	20 538	790	21 559	854
	Jul	1 056	91	19 528	780	20 584	871
	Aug	1 335	96	21 145	757	22 480	853
	Sep	1 400	104	23 049	859	24 449	963
	Oct	1 824	110	21 080	738	22 904	848
	Nov	2 311	104	22 689	786	25 000	890
	Dec	1 886	61	19 848	907	21 734	968
	Total	19 118	945	244 487	9 238	263 605	10 183
2023	Jan	2 483	125	18 905	786	21 388	911
	Feb	3 124	122	20 994	770	24 118	892

1/ Figures for the latest month are preliminary.

Table 9 – Year-on-year percentage change in passenger transportation (income at current prices)

Year and month		Rail		Road		Total	
		Passenger journeys	Income	Passenger journeys	Income	Passenger journeys	Income
2022	Jan	21,2	45,8	-1,5	4,9	0,0	6,4
	Feb	36,1	103,4	18,6	11,8	20,1	15,9
	Mar	25,2	65,9	12,0	7,1	13,1	10,0
	Apr	-11,7	85,4	2,2	15,7	1,0	20,0
	May	-26,7	79,1	4,2	4,1	1,6	8,5
	Jun	-30,1	113,3	9,9	17,9	7,0	22,0
	Jul	-26,2	378,9	8,5	18,9	6,0	29,0
	Aug	-42,4	182,4	11,9	9,7	6,0	17,8
	Sep	-45,1	121,3	11,2	16,1	5,0	22,4
	Oct	-30,5	107,5	16,5	13,0	10,5	20,1
	Nov	1,0	108,0	16,0	13,9	14,5	20,3
	Dec	38,9	84,8	11,6	43,3	13,5	45,3
	Total	-12,1	112,8	10,1	14,5	8,2	19,6
2023	Jan	81,6	257,1	13,7	18,6	18,8	30,5
	Feb	58,3	106,8	8,3	11,6	12,9	19,1

Table 10 – Seasonally adjusted passenger transportation (income at current prices)

Year and month		Rail		Road		Total	
		Passenger journeys (000)	Income (R million)	Passenger journeys (000)	Income (R million)	Passenger journeys (000)	Income (R million)
2022	Jan	1 553	34	17 971	672	19 524	705
	Feb	1 885	57	19 111	737	20 996	794
	Mar	2 009	64	20 273	786	22 282	849
	Apr	1 476	79	19 518	785	20 994	864
	May	1 274	78	19 507	720	20 780	799
	Jun	1 007	70	20 237	795	21 244	865
	Jul	1 057	91	19 505	752	20 562	843
	Aug	1 277	92	20 637	752	21 914	844
	Sep	1 341	98	21 790	834	23 131	932
	Oct	1 649	98	20 406	721	22 054	820
	Nov	2 219	103	22 478	787	24 697	890
	Dec	2 553	79	23 116	894	25 669	973
2023	Jan	2 821	120	20 451	796	23 273	916
	Feb	2 990	119	20 703	822	23 693	941

Table 11 – Month-on-month percentage change in seasonally adjusted passenger transportation (income at current prices)

Year and month		Rail		Road		Total	
		Passenger journeys	Income	Passenger journeys	Income	Passenger journeys	Income
2022	Jan	-15,5	-20,9	-13,2	7,7	-13,4	5,7
	Feb	21,4	67,6	6,3	9,7	7,5	12,6
	Mar	6,6	12,3	6,1	6,6	6,1	6,9
	Apr	-26,5	23,4	-3,7	-0,1	-5,8	1,8
	May	-13,7	-1,3	-0,1	-8,3	-1,0	-7,5
	Jun	-21,0	-10,3	3,7	10,4	2,2	8,3
	Jul	5,0	30,0	-3,6	-5,4	-3,2	-2,5
	Aug	20,8	1,1	5,8	0,0	6,6	0,1
	Sep	5,0	6,5	5,6	10,9	5,6	10,4
	Oct	23,0	0,0	-6,4	-13,5	-4,7	-12,0
	Nov	34,6	5,1	10,2	9,2	12,0	8,5
	Dec	15,1	-23,3	2,8	13,6	3,9	9,3
2023	Jan	10,5	51,9	-11,5	-11,0	-9,3	-5,9
	Feb	6,0	-0,8	1,2	3,3	1,8	2,7

Survey information

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 paragraph 4 below). This survey is based on a sample drawn from the 2022 business sampling frame (BSF) that contains businesses registered for value-added tax (VAT) and income tax.
	2	In order to improve timeliness, some information for the latest month had to be estimated due to late response. These estimates will be revised in future statistical releases as soon as 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 type of transportation: <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	Passenger transportation excludes: <ul style="list-style-type: none"> • minibus taxis; • metropolitan buses (including the Bus Rapid Transport 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	The 1993 edition of the <i>Standard Industrial Classification of All Economic Activities</i> (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 <i>International Standard Industrial Classification of All Economic Activities</i> (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.
Collection rate	7	The preliminary collection rate for the survey on land transportation for February 2023 was 75,9%. The improved collection rate for January 2023 was 80,1%.
Statistical unit	8	The statistical unit for which information is compiled and published is an 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. The statistical units are derived from and linked to the South African Revenue Service (SARS) administrative data.
Revised figures	9	Revised figures are mainly due to late submission of data to Stats SA, or respondents reporting revisions or corrections to their figures. Preliminary figures, as indicated in the relevant tables, are subject to change and when revised will not be indicated as such.
Related publications	10	Users may also wish to refer to the following publication available from Stats SA – <ul style="list-style-type: none"> • <i>Stats in Brief</i> issued annually.

- Rounding-off of figures** 11 Where figures have been rounded off, discrepancies may occur between sums of the component items and the totals.
- Historical data** 12 Historical land transport data are available on the Stats SA website. To access the data electronically, use the following link:
[Click to download historical data](#)
- Past publications** 13 Past land transport releases are available on the Stats SA website. To access the releases electronically, use the following link:
[Click to download past releases](#)

Technical notes

- Survey methodology and design** 1 The survey is conducted on a monthly basis. Questionnaires are sent to a sample of 769 enterprises from a population of 4 695 enterprises. Completed questionnaires are required to be returned to Stats SA within 10 days after the end of the reference month. Email and telephone reminders are used to follow up on non-respondents.
- 2 A stratified random sample was drawn at the SIC four-digit level in April 2022 from Stats SA's business sampling frame (BSF). Strata were formed using a combination of Standard Industrial Classification and the measure of size classes for enterprises (see paragraph 3 below).

The Neyman optimal allocation formula given below was used to allocate samples to each stratum:

$$n_h = n * (N_h * S_h) / [\sum (N_i * S_i)].$$

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 was 0,8%.

- Sample design and class limits** 3 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 medium sized (size group two) and to small (size group three and four) 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.

Measure of size classes (Rand)

Enterprise size	Size group	Lower limit	Upper limit
Very small	4	1 192 270	9 000 000
Small	3	9 000 001	39 000 000
Medium	2	39 000 001	78 000 000
Large	1	78 000 001	

- Sample weighting** 4 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 are in line with international best practice.
- Reliability of estimates** 5 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.
- 6 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.

- Relative standard error** 7 One measure is the standard error (SE), which indicates the extend to which an estimate might have varied by chance because only a sample of enterprises was used. The relative standard error (RSE) provides an immediate indication of the percentage errors likely to have occurred due to sampling, and thus avoids the need to refer to the size of the estimate.

Estimates of land transport within 95% confidence limits – February 2023

	Lower limit (R million)	Estimate (R million)	Upper limit (R million)	Relative standard error (RSE) %
Freight income	15 094	16 106	17 117	3,2
Passenger income	803	892	979	5,0

- Year-on-year percentage change** 8 The year-on-year percentage change in a variable for any given period is the change between that period and the corresponding period of the previous year, expressed as a percentage of the latter.

- Contribution (percentage points)** 9 The contribution (percentage points) to the annual percentage change for any given period is calculated by multiplying the percentage change of each type of commodity/service by its corresponding weight, divided by 100. The weight is the percentage contribution of each type of commodity/service to total income in the corresponding period of the previous year.

- Seasonal adjustment** 10 Seasonally adjusted estimates are generated each month using the X-12-ARIMA Seasonal Adjustment Program developed by the United States Census Bureau. Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series can be recognised more clearly. Seasonal adjustment does not aim to remove irregular or non-seasonal influences which may be present in any particular month. Influences that are volatile or unsystematic can still make it difficult to interpret the movement of the series even after adjustment for seasonal variations. Therefore, the month-to-month movements of seasonally adjusted estimates may not be reliable indicators of trend behaviour. The X-12-ARIMA procedure for land transportation is described in more detail on the Stats SA website at:

[Click to download seasonal adjustment land transport February 2022](#)

- Trend cycle** 11 The trend is the long-term pattern or movement of a time series. The X-12-ARIMA Seasonal Adjustment Program is used for smoothing seasonally adjusted estimates to estimates of the underlying trend cycle.

Glossary

- Enterprise** An enterprise is a legal entity or a combination of legal units that includes and directly controls all functions necessary to carry out its 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* (SIC), Fifth Edition, Report No. 09-90-02 of January 1993.

- Symbols and abbreviations**
- | | |
|----------|---|
| 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 |

Technical enquiries

Kagisho Mathabatha Telephone number: (012) 310 2153
Email: kagishoma@statssa.gov.za

JP Terblanche Telephone number: (012) 310 2965
Email: juan-pierret@statssa.gov.za

General information

Stats SA publishes approximately 300 different statistical releases each year. It is not economically viable to produce them in more than one of South Africa's eleven official languages. Since the releases are used extensively, not only locally but also by international economic and social-scientific communities, Stats SA releases are published in English only.

Stats SA has copyright on this publication. Users may apply the information as they wish, provided that they acknowledge Stats SA as the source of the basic data wherever they process, apply, utilise, publish or distribute the data: and also that they specify that the relevant application and analysis (where applicable) result from their own processing of the data.

Advance release calendar

A release calendar is disseminated on www.statssa.gov.za

Stats SA products

A complete set of Stats SA publications is available at the Stats SA Library and the following libraries:

National Library of South Africa, Pretoria Division
National Library of South Africa, Cape Town Division
Natal Society Library, Pietermaritzburg
Library of Parliament, Cape Town
Bloemfontein Public Library
Johannesburg Public Library
Eastern Cape Library Services, Qonce
Central Regional Library, Polokwane
Central Reference Library, Mbombela
Central Reference Collection, Kimberley
Central Reference Library, Mmabatho

Stats SA also provides a subscription service.

Electronic services

A large range of data is available via online services. For more detail about our electronic services, contact Stats SA's user information service at (012) 310 8600.

You can visit us on the internet at: www.statssa.gov.za

General enquiries

User information services Telephone number: (012) 310 8600
Email: info@statssa.gov.za

Orders/subscription services Telephone number: (012) 310 8619
Email: millies@statssa.gov.za

Postal address Private Bag X44, Pretoria, 0001

Produced by Stats SA