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AUTOMATION OF PERIODIC REPORTS

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PRELIMINARY USER'S MANUAL

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16. Abstract

This manual is a user's quide to the automation of the "Summary of National Transportation Statistics." The System is stored on the in-house PDP-10 computer to provide ready access and retrieval of the data. The information stored in the system includes cost, inventory, and performance data describing the passenger and cargo operations of the following modes: air carrier, general aviation, automobile, bus, truck, local transit, rail, water and oil pipeline, as well as supplementary data on transportation and the economy.

Included in the user's guide is: an explanation of the coding system developed for the different transportation modes; sample outputs and instruction on the use of the reports and plots developed; a listing of the information contained in the system.

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PREFACE

This manual was prepared to provide the user with the information necessary to access data from System SNTS. Included are an explanation of the coding system, the commands to access the data, and a statistical package, as well as the programs used to display the data in table and graph form.

Acknowledgements go to William F. Gay and Betty Kwok of the Information Division at TSC and Gil Hicks of Urban Systems Lab for their help in developing and implementing the coding system developed to aid in computerizing the 1974 edition of "Summary of National Transportation Statistics."

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1. INTRODUCTION

In the Automation of Periodic Reports project a system has been developed that provides a user with a simple yet versatile means of accessing national time-series data. Included are cost, inventory and performance data describing the passenger and cargo operations of the following modes: air carrier, general aviation, automobile, bus, truck, local transit, rail, water, and oil pipeline. This system also includes data describing basic parameters of U.S. transportation, such as operating revenues and expenses, number of vehicles and employees, vehicle-miles and passenger-miles, etc. The system, based on the report entitled "Summary of National Transportation Statistics," is called SNTS.

SNTS uses: 1) System 1022* (a data base management system), high speed terminals, and 2) Tektronics Display** units to manipulate and display time-series tables, plots and bar graphs. Some of the features of this system include brief, easily learned commands that allow the user to interact immediately with SNTS. As his expertise grows so does his vocabulary, and an experienced user has many options which let him control the way he interacts with the system. SNTS can be used for simple on-line inquiry and reporting as well as graphic illustrations of the data selected.

1.1 EDITING CHARACTERS

SNTS allows two editing characters: Rubout and Control U. Rubout deletes the preceeding character typed; Control U deletes the entire command string.

1.2 SYMBOL CONVENTIONS

In all examples in this manual, everything typed by the user

---

*For information on System 1022, consult the Software House, Inc. System 1022 Reference Manual.

**Consult the Tektronics Plot-10 user's manual for illustrations on further plotting capabilities.

is underlined. A carriage return typed by the user is represented by the symbol ↵.

1.3 ENTERING AND LEAVING THE SYSTEM

The process for entering the system is called logging in. The log-in procedure requires three steps:

1. Put the computer terminal in the on-line mode.
2. Dial the computer access number.
3. Type in the proper Project Program Number, user name, and password.

```
.LOG 5Ø15,215↵
JOB 24 TSC DECSYSTEM-1Ø 5Ø7/ØØ TTY42
NAME:  PASSWORD:
Ø9Ø9      28-MAR-75      FRI
```

To log off the system a user types K/F ↵

```
.
.K/F↵
JOB 1, USER [5Ø15,215]  LOGGED OFF TTY42     Ø947   28-MAR-75
SAVED ALL FILES (2454 BLOCKS)
RUNTIME 3Ø.19 SEC
```

1.4 SAMPLE EXECUTION

In order to work with System SNTS, a user must first become familiar with the special coding system developed for transportation data as well as the basic System 1022 commands. Before proceeding with a summary of each, however, a few sample executions demonstrating the capabilities of System SNTS are given. If, for example, a user wished to retrieve the data and graph from Table 5 in the 1974 edition "Summary of National Transportation Statistics" he would simply proceed as shown in Figures 1 and 2.

```
.R 1022

12/16/74
SYSTEM 1022A (106-7)
*O DSKE:MACRO[5015,215]

                    "AUTOMATION OF PERIODIC REPORTS"
                              SYSTEM SNTS

* FIND TAB2 EQUALS 5.
* USE TABL2

YOUR DATA IS STORED IN OUTPUT FILE MAC2.  TO REPRODUCE IT SIMPLY
TYPE 'QUIT' WHICH WILL RETURN CONTROL TO THE MONITOR.  THEN SAY
'TYPE MAC2'.  THIS MUST BE DONE ON A 132-CHARACTER TERMINAL.

* QUIT

EXIT

.TYPE MAC2.
```

TABLE 5. VEHICLE-MILES
BILLIONS

CODE	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
AC41001	.877	.926	.998	1.134	1.237	1.538	1.779	2.080	2.065	2.045	2.042
AC41002	N	N	N	N	N	.042	.050	.043	.034	.036	.034
GA41001	1.965	2.049	2.181	2.562	3.336	3.440	3.700	3.926	3.207	3.143	3.571
AU41001	629.097 1	645.371 1	677.613 1	706.386	744.844	766.466	805.693	849.633	890.844	939.102	986.407
TR41001	133.289	155.569	164.271	171.436	173.905	182.456	196.651	206.680	214.670	227.037	259.735
BU41001	1.137	1.155	1.183	1.157	1.200	1.205	1.190	1.195	1.209	1.202	1.181
BU41002	1.610	1.642	1.724	1.763	1.884	1.870	1.937	2.203	2.100	2.212	2.359
LC41001	2.047	2.022	2.016	2.008	1.984	1.997	1.989	1.967	1.883	1.846	1.756
RA41001	.193	.189	.184	.172	.164	.150	.123	.107	.093	.053 2	.032 2
RA41002	.393	.400	.414	.421	.437	.420	.429	.433	.427	.430 2	.451 2

N=NOT AVAILABLE.
1=INCLUDES MOTORCYCLES.
2=EXCLUDES AMTRAK OPERATIONS

Figure 1. Sample Table Output from Systems SNTS

```
.R 1Ø22

12/16/74
SYSTEM 1Ø22A (1Ø6-7)
* O DSKE:MACRO[5Ø15,215]

                    "AUTOMATION OF PERIODIC REPORTS"
                            SYSTEM SNTS

* FIND TAB2 EQ 5.
* USE PROG1

          THE DATA YOU HAVE SELECTED IS STORED ON A FILE
          NAMED GDATA.  IF YOU WISH TO SEE THE DATA GRAPHED
          PLEASE TYPE 'QUIT', AT THE MONITOR LEVEL, TYPE
          'RUN GRAPH'.
          THE LEGEND FOR THE GRAPH WILL BE DISPLAYED FIRST
          ON THE SCREEN, GIVING THE TITLE OF THE GRAPH, THE
          APPROPRIATE UNITS, AND THE DESCRIPTIONS OF THE DATA
          TO BE GRAPHED.  A HARDCOPY WILL THEN BE TAKEN, THE
          SCREEN ERASED, AND THE GRAPH OF THE DATA WILL
          APPEAR.  A HARDCOPY OF THE GRAPH WILL BE TAKEN,
          AND AGAIN THE SCREEN ERASED.  AT THAT TIME,
          DRPRESS THE RETURN KEY

* QUIT

EXIT

RUN GRAPH

DATA POINT FILE= GDATA

DO YOU WANT THE DATA INDEXED(Y OR N)?Y
```

Figure 2. Sample Graphic Output from System SNTS

TABLE 5. VEHICLE-MILES
BILLIONS

——— AIR CARRIER CERTIFICATED DOMESTIC OPERATIONS.ALL SERVICES
—·——·— GENERAL AVIATION
— - - — HIGHWAY PASSENGER CAR AND TAXI
—··—·· HIGHWAY TRUCK
—— - - - HIGHWAY INTERCITY BUS
····· HIGHWAY SCHOOL BUS
—— — — LOCAL TRANSIT
——·· — CLASS I RAIL PASSENGER
- - - - - - CLASS I RAIL FREIGHT

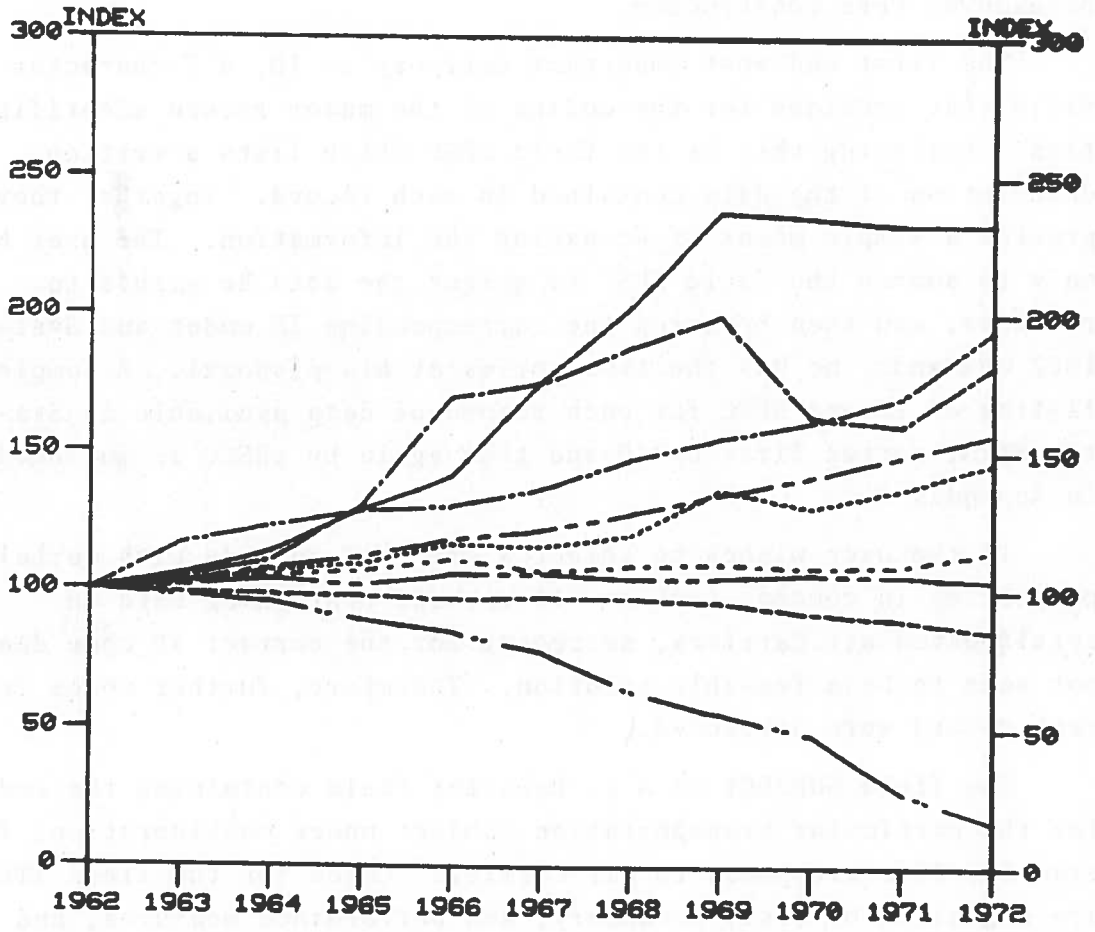

Figure 2. Sample Graphic Output from System SNTS (Continued)

2. EXPLANATION OF CODING SYSTEM AND RECORD STRUCTURE

The following section contains an explanation and listings of the coding system developed to aid in computerizing the 1974 edition of "Summary of National Transportation Statistics." Also included is a description of the individual record structure.

2.1 CODING SYSTEMS

In preparing for the automation of periodic reports, it was necessary to develop a coding system that would provide simple yet efficient user access to the data. Consequently, several major breakdowns were constructed.

The first and most important category is ID, a 7-character field that provides for the coding of the major record identification. Following this is the field DESC which lists a written description of the data contained in each record. Together they provide a simple means of accessing the information. The user has only to search the field DESC to select the data he wishes to retrieve, and then by using the corresponding ID codes and System 1022 commands, he has the time-series at his disposal. A complete listing of ID and DESC for each record of data available in System SNTS, sorted first by ID and then again by DESC, is included in Appendix A.

If the user wishes to select a group of records with certain properties in common, such as all records containing data on certificated air carriers, searching for the correct ID code does not seem to be a feasible solution. Therefore, further codes for each record were developed.

The field SUBJECT is a 2-character field containing the code for the particular transportation subject under consideration; for example, AC corresponds to air carrier. Codes for the field ITEM are organized by cost, inventory, and performance measures, and by ratios of these measures. Thus, if the user wished to retrieve all available data on vehicle-miles, he would search the field

ITEM for the corresponding code. The field SEQ may take any value from 001 to 999, and is used solely to distinguish the records. This field together with the fields SUBJECT and ITEM constitute the unique record identification code or ID for each time series of information.

The 4-character field SMOD1 is intended for the coding of SUBJECT sublevels. For example, trucks can be grouped into 4 sublevels: Class I Intercity, Local, Intercity, and a combination of these three. Under each of these divisions a truck can be further classified as combination or single unit. Consequently, a new category was developed titled SMOD2, also 4-characters, to allow for these additional record subdivisions of SMOD1. It should be noted that not all the records need this further division. Sublevels of Local Transit, for instance, can be completely coded under SMOD1.

The field SERV was originally intended to accomodate air carrier data which are organized by scheduled and non-scheduled service. It has now been expanded to include codes for key words that do not fit logically in any of the other categories, yet are important to the record description. For example, trucks can be further classified as common or contract in addition to the codes previously stated.

The field GEO is intended for the coding of the primary geographical level. The statistics can be divided into domestic, international, and foreign operations.

Field TYPE allows the user to distinguish between data pertaining to passenger and cargo operations, non-transport items, fuel consumption items and combinations of these data types. Field STYPE allows for the coding of disaggregations of passenger and cargo operations pertaining mainly to air carriers and to fuel consumption items. For example, air carrier cargo can be further divided into freight, express, mail and excess baggage. In most instances, however, it would have been repititious to code, for example, TYPE as CARGO and STYPE as FREIGHT. In these instances the field STYPE was left blank.

The field FRM allows the user to distinguish data from different sources. If, for example, he wanted a printout of all the time-series data that came from the Association of American Railroads, he would search the field FRM for the value AAR.

Appendix A gives a complete listing of each of these divisions and the respective codes.

2.2 STRUCTURE

Throughout this manual emphasis has been placed on the individual record: how to retrieve a record of information. "Record" is defined below for the benefit of users unfamiliar with System 1022.

A record contains one or more related pieces of information forming a unit. Each piece of information is called an attribute. In SNTS each record consists of a number of attributes containing the codes discussed previously as well as the data from 1960 through 1973, any footnote information, references, and table headings applying to the specific piece of information under consideration.

With the aid of System 1022 commands, the user can print out a single attribute or any combination of attributes about each record.

In SNTS the structure of each record is as follows:

ID DESC SDESC TAB EXP

Contain the descriptive information about each record

SUB ITEM SEQ SMOD1 SMOD2 SERV
GEO TYPE STYPE

Contain codes for any key words or necessary information about each record

FRM TAB2 SCR

Contain the source information about each record

Y60 Y61 . . . Y73

Contain the data for the years 1960, ..., 1973

S60 S61 . . . S73

Contain any footnotes for the respective yearly data

FT1 FT2 FT3

Contain explanations of any footnotes occuring in the data or descriptions

A complete record format appears in Table 1.

TABLE 1. SNTS RECORD FORMAT

ATTRIBUTE	ABBREVIATION	CONTENTS	DESC-LENGTH
IDENTIFICATION	ID	ID Codes for each record	TEXT-LENGTH 7
SUBJECT	SUB	Codes for particular transportation subject under consideration	TEXT-LENGTH 2
ITEM	ITEM	Codes for cost inventory and performance measures and ratios of these measures	INTEGER-LENGTH 2
SEQUENCE	SEQ	Arbitrary sequencing numbers used to distinguish records	INTEGER-LENGTH 3
SMODE1	SMOD1	Codes for the sublevels of the transportation subject under consideration	TEXT-LENGTH 4
SMODE2	SMOD2	Codes for further divisions of SMOD1 sublevel	TEXT-LENGTH 4
SERVICE	SERV	Codes for any necessary aspect of the transportation subject not listed under SMOD1 or SMOD2	TEXT-LENGTH 4
GEOGRAPHY	GEO	Codes for the primary geographical level under consideration	TEXT-LENGTH 1
TYPE	TYPE	Codes for the kind of operation or item pertaining to the record	TEXT-LENGTH 1
STYPE	STYPE	Codes for any further breakdowns of the TYPE categories	TEXT-LENGTH 1
FROM	FRM	Codes for the data source	TEXT-LENGTH 5
EXPONENT	EXP	Units the data are in, e.g., millions	TEXT-LENGTH 10
DESCRIPTION	DESC	Written descriptions of the data contained in the record	TEXT-LENGTH 70
TABLE	TAB	The name of the table the data is taken from, e.g., Vehicle-Miles	TEXT-LENGTH 60
TAB2*	TAB2	The number of the table the data is taken from, e.g., 5	TEXT-LENGTH 5

TABLE 1. SNTS RECORD FORMAT (CONTINUED)

ATTRIBUTE	ABBREVIATION	CONTENTS	DESC-LENGTH
Y1960	Y60	Data for the year 1960, if applicable	TEXT-LENGTH 1
STATUS 1960	S60	Footnote for the year 1960, if applicable	TEXT-LENGTH 1
Y1961	Y61	Data for the year 1961	REAL-LENGTH 9
STATUS 1961	S61	Footnote for the year 1961	TEXT-LENGTH 1
. etc. .	. . .	. . .	. . .
Y1973	Y73	Data for the year 1973	REAL-LENGTH 9
STATUS 1973	S73	Footnote for the year 1973	TEXT-LENGTH 1
SDESCRIPTION	SDESC	Footnote for the description of data	TEXT-LENGTH 1
FOOT 1	FT1	Written description of first footnote encountered in the record	TEXT-LENGTH 30
FOOT 2	FT2	Written description of second footnote occurring in the data	TEXT-LENGTH 30
FOOT 3	FT3	Written description of any other footnote occuring in the data	TEXT-LENGTH 30
SOURCE**	SCR	Page numbers or references where data can be found	TEXT-LENGTH 6

* In most cases the data was taken from the 1974 edition of "Summary of National Transportation Statistics." If not, TAB 2 will contain the FRM code for source as well as the number of the table if applicable; e.g., ATA10.

** The data from the "Summary of National Transportation Statistics" contain further source references in an appendix. This appendix has been computerized, and the specific reference where the data source can be found is listed in this attribute. Explanations of how to proceed from there will appear later in the manual. For the data from other sources, the SCR attribute contains the specific page reference.

3. INSTRUCTIONS FOR USING SNTS AND LIST OF AVAILABLE OPTIONS

The following section contains descriptions of available programs in System SNTS, as well the basic System 1022 commands needed to access the data. Since it is assumed that most users have had previous experience with System 1022, very little explanation of the basic commands has been given. For any questions, the user should consult a System 1022 User's Manual.

3.1 ENTRY TO SNTS

In order to use SNTS the user must first enter System 1022 and then open the MACRO file. He does this by typing .R 1022↵ at the monitor level.

*O DSKE:MACRO[5015,215]↵

System 1022 will respond by typing an *, which is the command level prompt throughout execution. This indicates that SNTS is now available for use. If the user wishes a list of available commands and their use he types: *@DSKE:HELP[5015,215]. If he wishes to see further descriptions of an individual command he types: *@ Command Name. For example:

*@DSKE:FIND[5015,215]↵

FIND COMMAND

DESC: THE FIND COMMAND IS USED TO SELECT RECORDS FROM THE DATA BASE BY THEIR KEYED ATTRIBUTES.

SYNTAX: FIND SELECTOR LOGICAL SELECTOR LOGICAL

WHERE: SELECTOR IS: ATTRIBUTE RELATIONAL VALUE

EXAMPLE: SUB EQ AC

THE FOLLOWING RESERVED WORDS EXPRESS LOGICAL RELATIONS IN SYSTEM 1022, AND MAY BE USED WITH THE FIND COMMAND.

WORD	ABBREVIATION	DESCRIPTION
AND		PRODUCES THE LOGICAL AND OF TWO EXPRESSIONS.
EQUAL	EQ	EQUALS
NOT EQUAL	NE	NOT EQUAL TO

WORD	ABBREVIATION	DESCRIPTION
GT		GREATER THAN
GE		GREATER THAN OR EQUAL TO
LT		LESS THAN
LE		LESS THAN OR EQUAL TO
CONTAINS	CT	CONTAINS THE CHARACTER STRING
NOT CONTAINS	NCT	DOESN'T CONTAIN STRING
BETWEEN	BET	TAKES TWO ARGUMENTS AND DESCRIBES THE INCLUDED VALUES
NOT BETWEEN	NBET	TAKES TWO ARGUMENTS AND DESCRIBES THE NON-INCLUDED VALUES

EXAMPLES

FIND SUB EQ BU. (FINDS ALL RECORDS WITH SUB = BU).
FIND SEQ GT 5 AND SUB EQ AC. (THIS WOULD FIND ALL RECORDS WITH SUB EQUALING AC AND SEQ GREATER THAN 5)

SPECIAL SELECTOR CONDITIONS

FIND ALL. (THIS WILL SELECT ALL RECORDS FROM A DATA BASE).
FIND LAST. (THIS WILL FIND THE LAST GROUP OF RECORDS SELECTED BY A FIND OR SEARCH COMMAND).

the user may exit SNTS by typing

*QUIT ↵

These System 1022 commands in no way cover the broad range of options available in System 1022, but for a user who is interested in simple data retrieval they should be adequate. For any further questions on their use or on the options available, the user should consult a System 1022 Manual.

3.2 SNTS TABULAR REPORT PROGRAMS

To access any of the following programs, the user follows a simple procedure. First he selects the data he wishes to retrieve by a FIND or SEARCH command. Then at the command level he types:

*USE (program name)

SNTS will automatically put the data in the desired form and respond by telling the user the name of the output file his data is stored in and procedures for its retrieval.

A few of the programs are designed explicitly for a 132-character or a wide-carriage terminal but if a user has the standard terminal carriage printer of only 80 characters, it takes several pages of output to reproduce one table from the "Summary of National Transportation Statistics." The descriptions following each program name should be checked to determine if this is the case.

The user outputs his data by first quitting out of System 1022 and then saying:

.TYPE (output name)↵

The output name for each program is listed under the program name. The system will respond by typing the data in the desired form.

A series of programs have been developed to facilitate the user's work. The sample execution shows two of these programs and the output. The following is a complete list of the available programs with a description of each.

PROGRAM	OUTPUT FILE NAME	DESCRIPTION
TABL1.132	MAC1	Generates the selected data in table form as it appears in the "Summary of National Transportation Statistics" also gives a listing of the contents of each record's attributes. Must be generated on a 132-character terminal.
TABL1.80	MAC1	Same program as TABL1.132, except listing is set up for an 80-character width terminal.
TABL2.132	MAC2	Also generates the selected data in table form as it appears in the "Summary of National Transportation Statistics." Does not give any further information about the individual records as does TABL1. Must be generated on a 132-character terminal.
TABL2.80	MAC2	Same Program as TABL2.132, except

PROGRAM	OUTPUT FILE NAME	DESCRIPTION
		listing is set up for an 80-character width terminal.
TABL3.132	MAC3	Generates the coded information about each record without the data and must be generated on a 132-character terminal.
TABL3.80	MAC3	Same program as TABL3.132, except listing is set up for an 80-character width terminal.
TABL4.132	MAC4	Generates all the coded information as well as the data pertaining to each selected record. May be used on an 80-character terminal.
TABL4.80	MAC4	Same program as TABL4.132, except listing is set up for an 80-character width terminal.
TABL5.132	MAC5	Will generate the ID, DESC, EXP, TAB, 1962 and 1972 data for each selected record. Must be done on a 132- character terminal.
TABL5.80	MAC5	Same program as TABL5.132, except listing is set up for an 80-character width terminal.
DATA		Generates the selected time series of information directly to the terminal.

Initially the programs were developed to output the selected data on a wide-carriage 132-character terminal. Later, new versions of the same programs were constructed for use on a standard 80-character width terminal. For this reason each of the program names have an extension of 132 or 80 (e.g., TABL1.132, TABL2.80, etc.) dependent on which type of output is produced.

Each of the preceeding programs can be executed by following the procedure outlined below. For example, if the user desired to retrieve the information appearing in Table 5 of the "Summary of National Transportation Statistics" and wanted to print it in table form on a 132-character terminal, the user would begin by typing:

.R 1022↵ at which time SNTS is loaded.

He would then type

```
*O DSKE:MARCO[5015,215] ↵
*FIND  TAB2 EQUALS 5. ↵
*USE DSKE:TABL1.132[5015,215] ↵
```

System SNTS would respond with instructions on how to retrieve the data. In this case, the user would first type

```
*QUIT ↵
```

to leave System 1022. He would then say type the output file name, e.g.:

```
.TYPE MAC1 ↵
```

The information will then be printed in table format as seen in Figure 3.

If the user wished to display the same data in table form on an 80-character terminal he would follow the same procedure with one exception. In place of typing

*USE DSKE:TABL1.132[5015,215] the user types

*USE DSKE:TABL1.80[5015,215]

In this case MAC1 would be output in the following manner (see Figure 4).

In general, then, the user proceeds as follows:

1. Enter System 1022, at which time SNTS is automatically loaded.
2. Open the data base (MACRO). ON DSKE UNDER USER NAM 5015,215.
3. Use the FIND command to select the desired information.
4. Use the program which will output the data in the desired form. Specify whether 132- or 80-character output desired by means of the extension attached to each program name (e.g., TABL1.132, TABL1.80, etc.).
5. QUIT out of System 1022.
6. Type the output file by means of the TYPE command.

Examples of the type of report generated by the preceeding programs appear in Figures 3 through 9.

CODE	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
AC41001	.877	.926	.998	1.134	1.237	1.538	1.779	2.080	2.065	2.045	2.042
AC41002	N	N	N	N	N	.042	.050	.043	.034	.036	.034
GA41001	1.965	2.049	2.181	2.562	3.336	3.440	3.700	3.926	3.207	3.143	3.571
AU41001	629.097 1	645.371 1	677.613 1	706.386	744.844	766.466	805.693	849.633	890.844	939.102	986.407
TR41001	133.289	155.569	164.271	171.436	173.905	182.456	196.651	206.680	214.670	227.037	259.735
BU41001	1.137	1.155	1.183	1.157	1.200	1.205	1.190	1.195	1.209	1.202	1.181
BU41002	1.610	1.642	1.724	1.763	1.884	1.870	1.937	2.203	2.100	2.212	2.359
LC41001	2.047	2.022	2.016	2.008	1.984	1.997	1.989	1.967	1.883	1.846	1.756
RA41001	.193	.189	.184	.172	.164	.150	.123	.107	.093	.053 2	.032 2
RA41002	.393	.400	.414	.421	.437	.420	.429	.433	.427	.430 2	.451 2

N=NOT AVAILABLE.
1=INCLUDES MOTORCYCLES.
2=EXCLUDES AMTRAK OPERATIONS

SOURCES: SEE REF.5

CODE	DESCRIPTION
AC41001	AIR CARRIER CERTIFICATED DOMESTIC OPERATIONS.ALL SERVICES
AC41002	AIR CARRIER SUPPLEMENTAL DOMESTIC OPERATIONS
GA41001	GENERAL AVIATION
AU41001	HIGHWAY PASSENGER CAR AND TAXI
TR41001	HIGHWAY TRUCK
BU41001	HIGHWAY INTERCITY BUS
BU41002	HIGHWAY SCHOOL BUS
LC41001	LOCAL TRANSIT
RA41001	CLASS I RAIL PASSENGER
RA41002	CLASS I RAIL FREIGHT

*

SUBJ	ITEM	SEQ	SMOD1	SMOD2	SERV	GEO	TYPE	STYPE	FPM
AC	41	1	CERT	TOTL	ALLS	D	R		CAB
AC	41	2	SUPP	TOTL	CIMI	D	P		CAB
GA	41	1	TOTL			D	P		FAA
AU	41	1	PCTA		TOTL	D	P		FHWA
TR	41	1	TOTL	TOTL	TOTL	D	C		FHWA
BU	41	1	ITOT	TOTL	TOTL	D	P		NAM
BU	41	2	SCHL		TOTL	D	P		FHWA
LC	41	1	TOTL			D	P		ATA
RA	41	1	C001		TOTL	D	P		AAR
RA	41	2	C001		TOTL	D	C		AAR

Figure 3. MAC1 - Information from Table 5 of the "Summary of National Transportation Statistics" Complete with the Corresponding Codes - 132-Character

A

TABLE 5. VEHICLE-MILES
BILLIONS

CODE	1962	1963	1964	1965	1966
AC41001	.877	.926	.998	1.134	1.237
AC41002	N	N	N	N	N
GA41001	1.965	2.049	2.181	2.562	3.336
AU41001	629.097 1	645.371 1	677.613 1	706.386	744.844
TR41001	133.289	155.569	164.271	171.436	173.905
BU41001	1.137	1.155	1.183	1.157	1.200
BU41002	1.610	1.642	1.724	1.763	1.884
LC41001	2.047	2.022	2.016	2.008	1.984
RA41001	.193	.189	.184	.172	.164
RA41002	.393	.400	.414	.421	.437

B

1967	1968	1969	1970	1971	1972
1.538	1.779	2.020	2.065	2.045	2.042
.042	.050	.043	.034	.036	.034
3.440	3.700	3.926	3.207	3.143	3.571
766.466	805.693	849.633	890.644	939.102	986.407
182.456	196.051	206.980	214.570	227.037	259.735
1.205	1.190	1.195	1.209	1.202	1.181
1.870	1.937	2.203	2.100	2.212	2.359
1.997	1.984	1.967	1.883	1.846	1.756
.150	.123	.107	.093	.053 2	.032 2
.420	.429	.433	.427	.430 2	.451 2

Figure 4. MAC1 - Information from Table 5 of the "Summary of National Transportation Statistics," Complete with the Corresponding Codes - 80-Character

```
C

N=NOT AVAILABLE.
1=INCLUDES MOTORCYCLES.
2=EXCLUDES AMTRAK OPERATIONS

SOURCES: SEE REF.5
```

ID CODE	DESCRIPTION
AC41001	AIR CARRIER, CERTIFICATED, DOMESTIC OPERATIONS, ALL SERVICES
AC41002	AIR CARRIER, SUPPLEMENTAL, DOMESTIC OPERATIONS
GA41001	GENERAL AVIATION
AU41001	HIGHWAY, PASSENGER CAR AND TAXI
TR41001	HIGHWAY, TRUCK
BU41001	HIGHWAY, INTERCITY BUS
BU41002	HIGHWAY, SCHOOL BUS
LC41001	LOCAL TRANSIT
RA41001	CLASS I RAIL, PASSENGER
RA41002	CLASS I RAIL, FREIGHT

```
D
```

SUBJ	ITEM	SEQ	SMOD1	SMOD2	SERV	GEO	TYPE	STYPE	FRM
AC	41	1	CERT	TOTL	ALLS	D	R		CAB
AC	41	2	SUPP	TOTL	CIMI	D	R		CAB
GA	41	1	TOTL			D	R		FAA
AU	41	1	PCTA		TOTL	D	P		FHWA
TR	41	1	TOTL	TOTL	TOTL	D	C		FHWA
BU	41	1	ITOT	TOTL	TOTL	D	P		NAM
BU	41	2	SCHL		TOTL	D	P		FHWA
LC	41	1	TOTL			D	P		ATA
RA	41	1	C001		TOTL	D	P		AAR
RA	41	2	C001		TOTL	D	C		AAR

Figure 4. MAC1 - Information from Table 5 of the "Summary of National Transportation Statistics," Complete with the Corresponding Codes - 80-Character (Continued)

TABLE 5. VEHICLE-MILES
BILLIONS

CODE	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
AC41001	.877	.926	.998	1.134	1.237	1.538	1.779	2.080	2.065	2.045	2.042
AC41002	N	N	N	N	N	.042	.050	.043	.034	.036	.034
GA41001	1.965	2.049	2.181	2.562	3.336	3.440	3.700	3.926	3.207	3.143	3.571
AU41001	629.097 1	645.371 1	677.613 1	706.386	744.844	766.466	805.693	849.633	890.844	939.102	986.407
TR41001	133.289	155.569	164.271	171.436	173.905	182.456	196.651	206.680	214.670	227.037	259.735
BU41001	1.137	1.155	1.183	1.157	1.200	1.205	1.190	1.195	1.209	1.202	1.181
BU41002	1.610	1.642	1.724	1.763	1.884	1.870	1.937	2.203	2.100	2.212	2.359
LC41001	2.047	2.022	2.016	2.008	1.984	1.997	1.989	1.967	1.883	1.846	1.756
RA41001	.193	.189	.184	.172	.164	.150	.123	.107	.093	.053 2	.032 2
RA41002	.393	.400	.414	.421	.437	.420	.429	.433	.427	.430 2	.451 2

N=NOT AVAILABLE.
1=INCLUDES MOTORCYCLES.
2=EXCLUDES AMTRAK OPERATIONS

Figure 5. MAC2 - Information from Table 5 of the "Summary of National Transportation Statistics"

ID	DESCRIPTION	SUB	ITEM	SEQ	SMOD1	SMOD2	SERV	GEO	TYPE	STYPE	FRM
AC41001	AIR CARRIER CERTIFICATED DOMESTIC OPERATIONS,ALL SERVICES	AC	41	1	CERT	TOTL	ALLS	D	R		CAB
AC41002	AIR CARRIER SUPPLEMENTAL DOMESTIC OPERATIONS	AC	41	2	SUPP	TOTL	CIMI	D	R		CAB
GA41001	GENERAL AVIATION	GA	41	1	TOTL			D	R		FAA
AU41001	HIGHWAY PASSENGER CAR AND TAXI	AU	41	1	PCTA		TOTL	D	P		FHWA
TR41001	HIGHWAY TRUCK	TR	41	1	TOTL	TOTL	TOTL	D	C		FHWA
BU41001	HIGHWAY INTERCITY BUS	BU	41	1	ITOT	TOTL	TOTL	D	P		NAM
BU41002	HIGHWAY SCHOOL BUS	BU	41	2	SCHL		TOTL	D	P		FHWA
LC41001	LOCAL TRANSIT	LC	41	1	TOTL			D	P		ATA
RA41001	CLASS I RAIL PASSENGER	RA	41	1	C001		TOTL	D	P		AAR
RA41002	CLASS I RAIL FREIGHT	RA	41	2	C001		TOTL	D	C		AAR

*

Figure 6. MAC3 - Coding Information Contained in Each Record Appearing in Table 5 of the "Summary of National Transportation Statistics"

```
 ID       SUB  ITEM SEQ SMOD1 SMOD2 SERV GEO TYPE STYPE
 --       ---  ---- --- ----- ----- ---- --- ---- -----
AC41001   AC   41    1  CERT  TOTL  ALLS  D    R

DESCRIPTION: AIR CARRIER CERTIFICATED DOMESTIC OPERATIONS,ALL SERVICES
-----------
UNITS: VEHICLE-MILES
-----
EXPONENT: BILLIONS
--------
SOURCE: CAB  (FOR MORE SPECIFIC REFERENCE INFORMATION SEE REF.5 )
------
YEAR      VALUE FNOTE
----      ----- -----
1960
1961
1962       .877
1963       .926
1964       .998
1965      1.134
1966      1.237
1967      1.538
1968      1.779
1969      2.080
1970      2.065
1971      2.045
1972      2.042
1973


 ID       SUB  ITEM SEQ SMOD1 SMOD2 SERV GEO TYPE STYPE
 --       ---  ---- --- ----- ----- ---- --- ---- -----
AC41002   AC   41    2  SUPP  TOTL  CIMI  D    R

DESCRIPTION: AIR CARRIER SUPPLEMENTAL DOMESTIC OPERATIONS
-----------
UNITS: VEHICLE-MILES
-----
EXPONENT: BILLIONS
--------
SOURCE: CAB  (FOR MORE SPECIFIC REFERENCE INFORMATION SEE REF.5 )
------
YEAR      VALUE FNOTE
----      ----- -----
1960
1961
1962            N
1963            N
1964            N
1965            N
1966            N
1967      .042
1968      .050
1969      .043
1970      .034
1971      .036
1972      .034
1973


N=NOT AVAILABLE.
*
```

Figure 7. MAC4 - Complete Record Contents of the Selected Data

DESCRIPTION	CODE	UNITS	EXPONENT	1962	1972
CLASS 1 BUS, INTERCITY	BU78004	AVERAGE PASSENGER FARE	DOLLARS	2.430	4.300
CLASS I INTERCITY BUS	BU76003	AVERAGE PASSENGER REVENUE PER PASSENGER-MILE	CENTS	2.670	3.900
HIGHWAY DIESEL + GASOLINE,GALS X 10*6, COMMERCIAL BUSES	BU56008	FUEL CONSUMPTION BY MODE	THOUSANDS	.610	.561
HIGHWAY DIESEL + GASOLINE, GALS X 10*6, SCHOOL BUSES	BU56009	FUEL CONSUMPTION BY MODE	THOUSANDS	.227	.320
INTERCITY BUS	BU22006	NUMBER OF VEHICLES	THOUSANDS	21.160	22.700
HIGHWAY INTERCITY BUS	BU42007	PASSENGER-MILES	BILLIONS	21.800	25.600
CLASS I BUS, INTERCITY	BU01005	TOTAL OPERATING REVENUES	MILLION	588.600	772.500
HIGHWAY SCHOOL BUS	BU41002	VEHICLE-MILES	BILLIONS	1.610	2.359
HIGHWAY INTERCITY BUS	BU41001	VEHICLE-MILES	BILLIONS	1.137	1.181

*

Figure 8. MAC5 - Trend for Years 1962 and 1972 for the Selected Records

YEAR	BU41001	FNOTE
1960		
1961		
1962	1.137	
1963	1.155	
1964	1.183	
1965	1.157	
1966	1.200	
1967	1.205	
1968	1.190	
1969	1.195	
1970	1.209	
1971	1.202	
1972	1.181	
1973		

*

Figure 9. Data for Highway/Intercity Bus

Perhaps the user does not wish to use these programs to output selected data. With the aid of the System 1022 commands and attribute list he should be able to output it in any desired form.

If, for example, a user wished to see a listing of the 1963 and 1964 data for all buses, he would simply proceed as follows:

```
* FIND SUB EQUALS BU
* TYPE ID Y63 Y64
BU41ØØ1 1.155ØØØØØ 1.183ØØØØØ
BU41ØØ2 1.642ØØØØØ 1.724ØØØØØ
BU76ØØ3 2.78ØØØØØØ 2.8ØØØØØØØ
BU78ØØ4 2.52ØØØØØØ 2.55ØØØØØØ
BUØ1ØØ5 6Ø9.8ØØØØØ 655.1ØØØØØ
BU22ØØ6 21.1ØØØØØØ 21.5ØØØØØØ
BU42ØØ7 22.5ØØØØØØ 23.3ØØØØØØ
BU56ØØ8 .606ØØØØØØ .622ØØØØØØ
BU56ØØ9 .232ØØØØØØ .24199999Ø
```

In the following, the same information is listed in a better form with the aid of a format specification.

```
* TYPE ID Y63 Y64 FMT  A7 1X F5.3 1X F5.3 END.
BU41ØØ1     1.155      1.183
BU41ØØ2     1.642      1.724
BU76ØØ3     2.78Ø      2.8ØØ
BU78ØØ4     2.52Ø      2.55Ø
BUØ1ØØ5   6Ø9.8ØØ    655.1ØØ
BU22ØØ6     21.1ØØ     21.5ØØ
BU42ØØ7     22.5ØØ     23.3ØØ
BU56ØØ8        6Ø6        622
BU56ØØ9        232        242
*
```

The following also lists the same information format with an extra line between each line of data

```
* TYPE ID Y63 Y64 FMT / A7 1X F5.3 1X F5.3 END.
BU41ØØ1     1.155      1.183

BU41ØØ2     1.642      1.724

BU76ØØ3     2.78Ø      2.8ØØ

BU78ØØ4     2.52Ø      2.55Ø

BUØ1ØØ5   6Ø9.8ØØ    655.1ØØ

BU22ØØ6     21.6ØØ     21.5ØØ

BU42ØØ7     22.5ØØ     23.3ØØ

BU56ØØ8        6Ø6        622

BU56ØØ9        232        242

*
```

3.3 SNTS GRAPHICAL REPORT PROGRAMS

To access either of the two graphics programs, the user proceeds as follows.

GRAPHICS PROGRAMS

PROGRAM	DESCRIPTION
PROG1 (output to GDATA)	Selects out 1960 through 1972 dates from each of the chosen records in the appropriate form to be used by the GRAPH program.
PROG2 (output to BDATA)	Selects out 1960 through 1972 data from each of the chosen records in the appropriate form to be used by the BAR program.
GRAPH (See Sample Output shown in Figure 2.)	Creates a graph of the data for up to 15 different records previously selected out by PROG2.
BAR	Creates a bar chart that compares two years of data for up to ten (10) different records previously selected out by PROG2.

If he wishes to see the records from Table 5 graphed, he first selects out all the records from Table 5 by typing

```
* FIND TAB2 EQUALS 5
```

The user then types

```
* USE PROG1 ↵
```

which automatically selects the data for Table 5 from the records

and puts it in the correct form onto a file name GDATA. He then types

*QUIT ↵

which brings him back to the monitor level, and types

.USE GRAPH ↵

The system then responds with

DATA POINT FILE=

Here the user inserts GDATA

The system then asks

DO YOU WANT THE DATA INDEXED

(Y or N)?

Here the user answers Y or N ↵

The legends and graph then appear on the screen. When the graph has been erased, the user depresses the return key and the system returns to the monitor level.

If the user wishes to see a bar chart, he proceeds as before, but at the monitor he now types

. USE BAR ↵

The system responds with

DATA POINT FILE=

Again he inserts GDATA ↵

The system then asks

WHAT TWO YEARS OF DATA ARE YOU COMPARING? (e.g., 1962=1972)

Here the user inserts the two years of data he wants compared. The bar chart will then appear on the screen. When it has been erased, the user again depresses the return key, and control returns to the monitor level. See Figures 10 and 11.

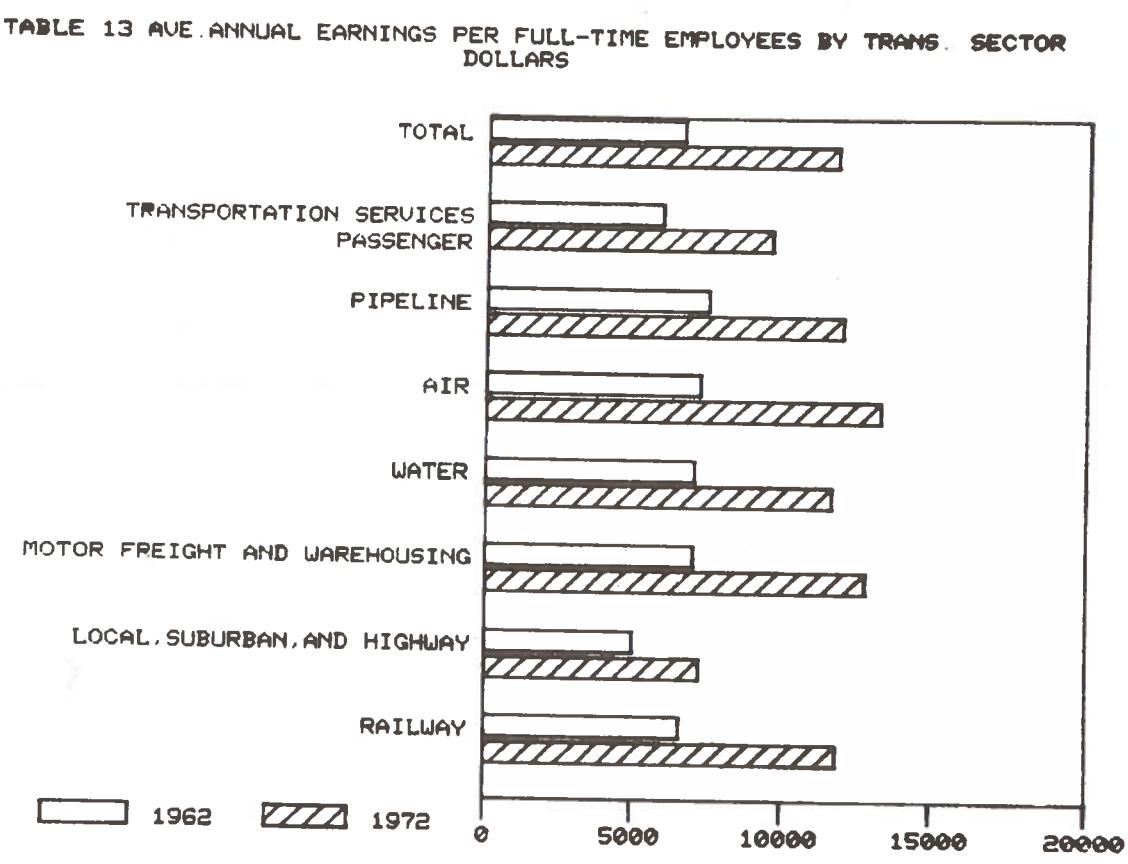

Figure 10. Output from BAR

TABLE 2. AVERAGE FREIGHT REVENUE PER TON-MILE
CENTS

AIR CARRIER, CERTIFICATED, DOMESTIC OPERATIONS, SCHEDULED SE
CLASS I RAIL
CLASS I INTERCITY MOTOR CARRIERS OF PROPERTY, COMMON
CLASS I INTERCITY MOTOR CARRIERS OF PROPERTY, CONTRACT
OIL PIPELINES
CLASS A AND B WATER CARRIERS

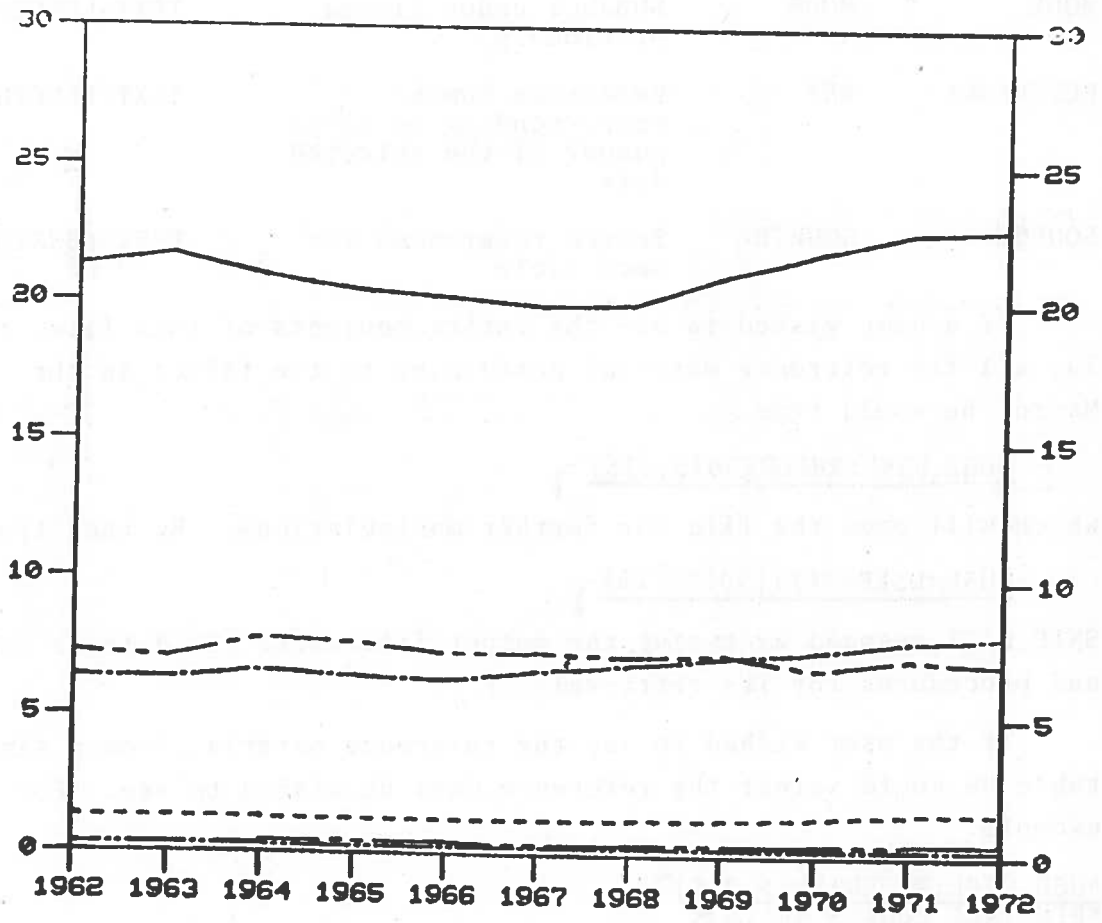

Figure 11. Output from Graph

4. REFERENCES

In the record structure section of this manual the attribute SOURCE was defined as containing further source references to tables from the "Summary of (Macro) National Transportation Statistics." These references have been computerized and the data stored in a separate file from the other-time series information. The record structure of this file is as follows:

ATTRIBUTE	ABBREV	CONTENTS	DESC-LENGTH
SEQUENCE	SEQ	Integers from 1 to 98 used to number the lines	INTEGER LENGTH 2
MODE	MODE	SUBJECT codes listed previously	TEXT-LENGTH 2
REFERENCE	REF	Reference number corresponding to table number of the selected data	TEXT-LENGTH 6
SOURCE	SOURCE	Source references for each table	TEST-LENGTH 80

If a user wished to see the entire contents of this file, that is, all the reference material pertaining to the tables in the Macro, he would type

```
*USE DSKE:REFER[5015,215]↵
```

which will open the file for further manipulations. By then typing

```
*USE DSKE:REF1[5015,215]↵
```

SNTS will respond by typing the output file where the data is stored and procedures for its retrieval.

If the user wished to see the reference material from a single table he would select the reference data he wished to see. For example:

```
*USE DSKE:REFER[5015,215]↵
*FIND REF EQUALS REF.5↵
*USE DSKE:REF2[5015,215]↵
Table 5:  Vehicles-Mile
```

Air carriers:
Certificated-CAB, Handbook of Airline Statistics, 1971, p.106. Aircraft revenue miles in scheduled service (line 35) plus nonscheduled service (line 56); 1971: CAB, Air Carrier Traffic Statistics, December 1972, p. 1. Aircraft revenue miles in scheduled service (line 31) plus nonscheduled service (line 50). Supplemental-CAB, Handbook of Airline Statistics, 1971, p. 199; 1972: CAB, Air Carrier Traffic Statistics, (line 21), p. 43, Dec. 1972.

General Aviation:
FAA, Statistical Handbook of Aviation, Table 9.10, 1972.

Highway:
Passenger car and taxi-FHWA, Highway Statistics, annual, editions, table UM-1, p. 52. Truck-Same source as passenger car and taxi.
School bus-Same source as passenger car and taxi.
Intercity bus-NAMBRO, Bus Facts, 1972, p. 24, and equivalent table in 1970 edition.

Local Transit:
ATA, Transit Fact Book, 1973-74, p. 15

Class I rail:
AAR, Yearbook of Railroad Facts, 1973. Freight train-miles, p. 37; passenger train-miles, p. 39.

If the user wishes to retrieve just the references for Local Transit from Table he would type:

```
* USE  DSKE:REFER[5015,215]
* FIND REF EQ REF.5 AND MODE EQ LC.
* USE  DSKE:REF2[5015,215]
Local Transit:
     ATA, Transit Fact Book, 1973-74, p. 15.
*
```

5. SNTS STATISTICAL PROGRAM

5.1 PROGRAM EXECUTION

In order to run the statistical program a user must first select the records desired with the FIND command and then use a program named GETDAT to format the data for the program.

```
.R 1022
3/20/75
SYSTEM 1022A (106-7)

*  O DSKE:MACRO[5015,215]
*  FIND DESC EQ "OIL PIPELINE"
4  RECS FOUND.
*  USE GETDAT

EXIT
```

To execute the statistics program a user types the command RUN DSKE:MACSTA[5015,215]. The program first prints the users data as specified by the FIND command. Output contains: variable number, record descriptions, and record identification number.

```
.RUN DSKE:MACSTA[5015,215]
LOADING

MACSTA 5K CORE
EXECUTION

YOUR FILE CONTAINS THE FOLLOWING RECORDS:

     1.  AVERAGE FREIGHT REVENUE PER TON-MILE
         OIL PIPELINE

         ID=P77001

     2.  TOTAL OPERATING REVENUES
         OIL PIPELINE

         ID=PL01002

     3.  CARGO TON-MILES
         OIL PIPELINE

         ID=43003
```

4. BASIC INTERCITY MILEAGE WITHIN THE CONTINENTAL U.S. OIL PIPELINE

ID=PL24004

5.2 DESCRIPTIVE STATISTICS

The program then requests a record ID number from the user's data file. Twelve descriptive statistics are computed. An example is as follows. (Note also if the data file contains missing data, program will notify the user, and all missing data will be ignored in the calculations.) Computation of statistics for different records will continue until such capability is nullified by the user.

```
DESCRIPTIVE STATISTICS AVAILABLE:
MEAN,VARIANCE,STANDARD DEVIATION, STANDARD ERROR, MAXIMUM,
MINIMUM, ETC.

DESCRIPTIVE STATISTICS FOR WHAT MODE OF TRANSPORTATION ?
PLEASE ENTER ID NUMBER, E.G. AC41001, CONSULT YOUR FILE IF NEED
REFERENCE

PL01002 ↘

THE DESCRIPTIVE STATISTICS FOR
TOTAL OPERATING REVENUES
OIL PIPELINE
ARE AS FOLLOWS:

THE AVERAGE OVER THE YEARS=    945.071
VAIRANCE=          298965.461
STANDARD DEVIATION=    546.777
COEFFICIENT OF VARIATION=      0.579
STANDARD ERROR=    146.132
MAXIMUM=  1593.000     MINIMUM=      0.000     RANGE= 1593.000

10TH PERCENTILE=  244.267
1ST QUARTILE=  576.270
3RD QUARTILE= 1313.873
90TH PERCENTILE= 1645.876

ANOTHER SET OF DESCRIP. STATISTICS? Y OR N
N ↘
```

5.3 REGRESSION AND CORRELATION

At this preliminary stage only correlation and multiple regression routines are available. When the user requests a correlation to be done, a correlation matrix of all the variables in the data file will be printed. For example, an entry in the first row - second column of the matrix will represent the correlation between variable one and two. For this reason, the matrix is always symmetric with all "1's" in the diagonal. (Each variable is in perfect correlation with itself.)

The program will also print a correlation matrix when the user requests a regression routine. Due to the fact that the MACRO file contains only a small number of data points (up to 14) any regression containing more than three independent variables may not allow meaningful interpretation of the results.

User first enters the number of independent (or exogenous) variables in the intended regression equation. Then the variable numbers as referenced in the data file are inputed. Note that for the independent variables, the numbers should be entered in ascending order. All missing data in the file will be considered zero in the correlation and regression statistical computation.

Output of the regression routine includes an ANOVA (analysis of variance) table as presented below, and regression coefficients for the independent variables with their corresponding standard errors and T-values. Any variable whose computed T-value is near o (e.g., -1.6749 or 1.9749) could be considered insignificant to the regression.

```
SIMPLE STAT. ROUTINE AVAILABLE.
PLEASE ENTER CORR FOR CORRELATION, OR REGR FOR CORRELATION &
MULTIPLE REGRESSION.  IF NEITHER, ENTER NONE.

REGR

CORRELATION MATRIX
 1    1.00000    0.90536    0.85294    0.98193
 2    0.90536    1.00000    0.99149    0.95674
 3    0.85294    0.99149    1.00000    0.92651
 4    0.98193    0.95674    0.92651    1.00000
```

```
FOR A MULTIPLE REGRESSION, A MAXIMUM OF 3 INDEPENDENT VARIABLES IS
POSSIBLE. ENTER THE VARIABLES NO. AS THEY APPEAR IN THE FILE

NO. OF INDEPENDENT VARIABLES=3 ↵

DEPENDENT=2 ↵

INDEPENDENT=1 ↵

INDEPENDENT=3 ↵

INDEPENDENT=4 ↵

              ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION          DF SUM OF SQUARE MEAN SQUARE F-VALUE
ATTRIBUTABLE TO REGRESSION   3.    -943.5071    -314.5024  2010.5279
DEVIATION FROM REGRESSION    10.     -1.5643      -0.1564

INTERCEPT=    -1.228
MULTIPLE CORR. COEFF.=.99917
STANDARD ERROR OF ESTIMATE=    0.396

VARIABLE        REGR. COEFF.        STD. ERROR        COMPUTED
                                    OF COEFF.         T-VALUE

    1           2775.8022             7.3383         378.2630
    3              3.2277             0.1043          30.9388
    4             -3.4214             0.3705          -9.2335

ANOTHER REGRESSION ?
```

APPENDIX A
SNTS CODES

SUBJECT		ITEM		SEQ	
AC	Air Carrier		Cost	001	
AR	Airways	01	Operating Revenues	002	
AU	Automobile	02	Operating Expenses	003	Arbitrary
BU	Bus	03	Taxes	004	Sequencing
FF	Freight Forwarders	04	Gov't Expenditures	.	Numbers
GA	General Aviation	05	Investment, Income, Equity	.	
HW	Highway	06	Net Revenue	.	
LC	Local Transit	07	Passenger Revenue	etc.	
PL	Pipeline	08	Freight Revenue		
RA	Rail	09	Net Income(Avg. Annual Earnings)		
TE	Transportion and the Economy	10	Revenue Carloadings		
		11	Personal Consumption Expenditures		
TR	Truck	12	National Income		
WA	Water				
			Inventory		
		21	Number of Companies		
		22	Number of Vehicles		
		23	Number of Employees		
		24	Mileage		
		25	Wages and Salaries		
			Performance		
		41	Vehicle-Miles		
		42	Passenger-Miles		
		43	Ton-Miles		
		44	Passengers Carried		
		45	Tons Hauled		
		46	Available Seats		
		47	Available Tons		
		48	Available Seat-Miles		
		49	Available Ton-Miles		
		50	Number of Fatalities		
		51	Number of Hours		
		52	Number of Accidents		
		53	Number of Injuries		
		56	Fuel Consumption		
			Cost/Cost Ratio		
		71	Operating Ratio		
			Cost/Performance Ratio		
		76	Rev/Pass-Mile		
		77	Rev/Ton-Mile		
		78	Rev/Passenger (Average Fare)		
		79	Rev/Ton		
		80	Avg Annual Earnings/Full-Time Employees		
		86	Vehicle-Miles/Hour (Average Speed)		
		87	Ton-Miles/Vehicle-Mile(Average Load)		
		88	Pass-Mile/Vehicle-Mile (Average Occupancy)		
		89	Pass-Mile/Passenger (Av. Pass Trip Length)		
		90	Ton-Miles/Ton (Avg. Length Freight Haul)		
		91	Pass-Miles/Available Seat-Mile (Avg. Pass. Load Factor)		
		92	Ton-Miles/Available Ton-Mile (Avg. Frg. Load Factor)		

SERV

AIR CARRIER
SCHD Scheduled Service
NONS Non-scheduled service
ALLS All Services
CIMI Total-Civilian and Military

AUTOMOBILE
MRRD Main Rural Roads
LLRD Local Rural Roads
URST Urban Street
RURL Total Rural Roads
TOTL Total Travel

BUS
ICCR ICC-Regulated
NICC Non ICC-Regulated
TOTL Total

GENERAL AVIATION
INTY Intercity
INTR Intracity
TOTL Total

HIGHWAY
RURL Rural
MUNL Municipal
TOTL Total

PIPELINE
INTY Intercity
INTS Interstate
GATH Gathering Lines
TOT1 Total-Intercity lines
plus gathering lines

WATER
DOMS Total Domestic
INLD Inland
COAS Coastal
INAC Inland+Coastal
INTY Intercity
NAMI Commercially navigable miles
COST Coastwise and Intercoastal

RAIL
COMM Commutation
INTY Intercity
TOTL Total-COMM+INTY
FRTR Freight train
PASS Passenger train
TOT1 Total-FRTR+PASS

TRANSPORTATION AND THE ECONOMY
NCAR New cars and net purchases of used cars
TTAP Tires,Tubes, Accessories and Parts
MAIN Maintenance
GASO Gas and Oil
TOLL Tolls
INSU Insurance
TOT1 Total-NCAR+TTAP +MAIN+GASO+TOLL+INSU
SERL Street, Electric,Railway, and Local Bus
TAXI Taxi
RAIL Railway(Commutation)
TOT2 Total-SERL+TAXI+RAIL
RAL2 Railway(Non-Comm)
INTB Intercity Bus
AIRL Airline
OTHR Other
TOT3 TOTL-RAL2+INTB+AIRL+OTHR

TRUCK
COMM Common
CONT Contract
TOTL Total

SMOD1

AIR CARRIER

CERT Certificated
SUPP Supplemental
TOTL Total

AUTOMOBILE

TAXI Taxi
PCAR Passenger Car
MOCY Motorcycle
PCTA Pass. Car and Taxi
TOTL Total-TAXI + PCAR + MOCY

BUS

IØØ1 Class I Intercity
ITOT Total Intercity
SCHL School
COMM Commercial

FREIGHT FORWARDERS

CØØA Class A
CØØB Class B
CØAB Class A and B

GENERAL AVIATION

BUSI Business
COMM Commercial
INST Instructional
PERS Personal
OTHR Other
TOTL Total

HIGHWAY

SCON State Control
LCON Local Control
FCON Federal Control
SFCN State & Federal Control
TOTL Total

LOCAL TRANSIT

SURA Surface Rail
SBEL Subway and Elevated
TOT1 Total- SURA+SBEL
TRCH Trolley Coach
TOT2 Total-TOT1+TRCH
MOBU Motorbus

AIRWAYS

INTY Intercity miles

PIPELINE

ICCR ICC-Regulated
NICC Non ICC-Regulated
TOTL Total

RAIL

CØØ1 Class I Rail
OTHR Other Railroads
CCAS Car Companies and Shippers
TOTL All Railroads

TRANSPORTATION AND THE ECONOMY

TRSE By transportation sector
TYPR By type of Product

TRUCK

TØØ1 Class I Intercity
LØØ1 Local
INTY Intercity
TOTL Total

WATER

CØAB Class A&B Carriers
CØØA Class A Carriers
CØØB Class B Carriers
NSPV Nonself-propelled vessels
TTUG Towboats & Tug
TOT1 Total-NSPV+TTUG
BUNK Vessels Bunkering (Inc. tankers)
PSFE Passenger ferry
MARI Maritime
WATE Inland waterways

SMOD 2

AIR CARRIER
PAAM Pan American
EAST Eastern etc.
TOTL Total

BUS
GREY Greyhound
TRAI Trailways etc.
TOTL Total

FREIGHT FORWARDERS
AIR Air
SURF Surface

HIGHWAY
SPSM State Primary System
SSRD State Secondary Roads
OTSR Other State Roads
COUR Country Roads
TTRD Town and Township Roads
OTLR Other Local Roads
LCST Local City Streets
TOTL Total

RAIL
FRGT Freight Cars
LOCO Locomotives
PCAP Pass. Cars and Pullman
TOTL Total - FRGT+LOCO+PCAP
MOTO Motorcar
PASC Pass. Car
INCO In Coaches
IPSC In Parlor and Sleeping Cars

TRUCK
ICCR ICC-Regulated
NICC Non ICC-Regulated
COMB Combinations
SUNI Single Unit
TOTL Total-COMB+SUNI

WATER
USFL U.S. FLAG
PROW Privately-owned
GOOW Government-owned
TOT1 Total-USFL+PROW+GOOW
DCBS Dry Cargo Barges and Scows
TANK Tank Barges
TOT2 Total-DCBS and TANK
COMM Commercial
ICCR ICC-Regulated

TRANSPORTATION AND THE ECONOMY

RAIL Railway
LSHP Local, suburban, and highway passenger
MFRW Motor freight and warehousing
WATR Water
AIR Air
PIPE Pipeline
TSER Transp. Services
TOT1 Total-RAIL+SHIP+MFRW+WATR +AIRT+PIPE
UOTR User-oriented transportation
PLTR Purchased Local Transp.
PITR Purchased Intercity Transp.
TOT2 Total-UTOR+PLTR+PITR
FOTO Food and Tobacco
CAJJ Clothing accessories and jewelry
PERC Personal Care
HOUS Housing
HSEO Household Operation
MCEX Medical Care Expenses
PERB Personal Business
TRAN Transportation
RECR Recreation
PEAR Private education and research
RWAC Religious and welfare activities
FOTR Foreign travel
TOT3 Total FOTO+CAAJ+PERC+HOUS +HSEO+MCEX+PERB+TRAN+PECR +PEAR+RWAC+FOTR

GEO

D Domestic Operations
I International Operations
T Domestic + International Operation
F Foreign

TYPE

P Passenger
C Cargo
N Non-transport
S Transport
T Total Transport and Non-Transport
O Oil
R Passenger and Cargo
F Fuel
X Not Applicable

STYLE

F Freight
E Express
M Mail
C First Class
Y Coach and Economy Class
A All Classes-First+Coach-Economy
D Diesel Oil
U Fuel Oil
Z Electricity
O Coal
S Gasoline
V Aviation Gasoline
J Jet Fuel
R Residual Fuel Oil
L Distillate Fuel Oil
Q Propane
W Natural Gas
K Diesel Oil and Gasoline

APPENDIX B

LISTING OF
ID AND DESCRIPTION
FOR ALL AVAILABLE
RECORDS IN SYSTEM SNTS,
SORTED BY DESCRIPTION

ID	DESCRIPTION
TE09022	AIR
TE25060	AIR
TE23052	AIR
TE12044	AIR
AC41001	AIR CARRIER, CERTIFICATED, DOMESTIC OPERATIONS, ALL SERVICES
AC43010	AIR CARRIER, CERTIFICATED, DOMESTIC OPERATIONS, ALL SERVICES
AC42015	AIR CARRIER, CERTIFICATED, DOMESTIC OPERATIONS, ALL SERVICES
AC78007	AIR CARRIER, CERTIFICATED, DOMESTIC OPERATIONS, SCHEDULED SERVICE
AC77006	AIR CARRIER, CERTIFICATED, DOMESTIC OPERATIONS, SCHEDULED SERVICE
AC01008	AIR CARRIER, DOMESTIC AND INTERNATIONAL, CERTIFICATED, ALL SERVICES
AC22012	AIR CARRIER, DOMESTIC AND INTERNATIONAL, CERTIFICATED, ALL SERVICES
AC22013	AIR CARRIER, DOMESTIC AND INTERNATIONAL, SUPPLEMENTAL
AC01009	AIR CARRIER, DOMESTIC AND INTERNATIONAL, SUPPLEMENTAL
AC42016	AIR CARRIER, SUPPLEMENTAL, DOMESTIC OPERATIONS
AC41002	AIR CARRIER, SUPPLEMENTAL, DOMESTIC OPERATIONS
AC43011	AIR CARRIER, SUPPLEMENTAL, DOMESTIC OPERATIONS
AC22014	AIR CARRIER, TOTAL
AC56017	AIR, CERTIFICATED CARRIERS, AVIATION GASOLINE, GALS X 10*6
AC56018	AIR, CERTIFICATED CARRIERS, JET FUEL, GALS X 10*6
GA56004	AIR, GENERAL AVIATION, AVIATION GASOLINE, GALS X 10*6
GA56005	AIR, GENERAL AVIATION, JET FUEL, GALS X 10*6
AR24001	AIRWAYS
RA22047	CAR COMPANIES AND SHIPPERS, FREIGHT CARS IN SERVICE
AC76005	CERTIFICATED AIR CARRIER, DOMESTIC OPERATIONS, COACH PLUS ECONOMY
AC76004	CERTIFICATED AIR CARRIER, DOMESTIC OPERATIONS, FIRST CLASS
AC76003	CERTIFICATED AIR CARRIER, DOMESTIC OPERATIONS, TOTAL
WA77001	CLASS A AND B WATER CARRIERS
FF01001	CLASS A FREIGHT FORWARDERS
BU01005	CLASS I BUS, INTERCITY
BU78004	CLASS I BUS, INTERCITY
BU76003	CLASS I INTERCITY BUS
TR01004	CLASS I INTERCITY MOTOR CARRIERS OF PROPERTY

ID	DESCRIPTION
TR77002	CLASS I INTERCITY MOTOR CARRIERS OF PROPERTY, COMMON
TR77003	CLASS I INTERCITY MOTOR CARRIERS OF PROPERTY, CONTRACT
RA43010	CLASS I RAIL
RA77006	CLASS I RAIL
RA01009	CLASS I RAIL
RA78008	CLASS I RAIL, COMMUTATION
RA76004	CLASS I RAIL, COMMUTATION
RA42017	CLASS I RAIL, COMMUTATION
RA41002	CLASS I RAIL, FREIGHT
RA41040	CLASS I RAIL, FREIGHT CAR MILES
RA22012	CLASS I RAIL, FREIGHT CARS
RA08026	CLASS I RAIL, FREIGHT REVENUE
RA41039	CLASS I RAIL, FREIGHT TRAIN MILES
RA42037	CLASS I RAIL, IN COACHES
RA42038	CLASS I RAIL, IN PARLORS AND SLEEPING CARS
RA22013	CLASS I RAIL, LOCOMOTIVES
RA22043	CLASS I RAIL, LOCOMOTIVES IN SERVICE
RA09031	CLASS I RAIL, NET INCOME
RA05030	CLASS I RAIL, NET RAILWAY OPERATING INCOME
RA02028	CLASS I RAIL, OPERATING EXPENSES
RA45033	CLASS I RAIL, ORIGINATED TONNAGE
RA78007	CLASS I RAIL, OTHER THAN COMMUTATION
RA42018	CLASS I RAIL, OTHER THAN COMMUTATION
RA76005	CLASS I RAIL, OTHER THAN COMMUTATION
RA41001	CLASS I RAIL, PASSENGER
RA22014	CLASS I RAIL, PASSENGER CAR AND PULLMAN
RA07027	CLASS I RAIL, PASSENGER REVENUE
RA41042	CLASS I RAIL, PASSENGER TRAIN CAR MILES
RA41041	CLASS I RAIL, PASSENGER TRAIN MILES
RA10032	CLASS I RAIL, REVENUE CARLOADING
RA42036	CLASS I RAIL, REVENUE PASSENGER MILES
RA44035	CLASS I RAIL, REVENUE PASSENGERS CARRIED
RA43034	CLASS I RAIL, REVENUE TON MILES
RA03029	CLASS I RAIL, TAXES
RA42016	CLASS I RAIL, TOTAL
RA76003	CLASS I RAIL, TOTAL
RA22015	CLASS I RAIL, TOTAL
RA22045	CLASS I RAILROADS, FREIGHT CARS IN SERVICE
RA56022	CLASS I RAILROADS, LOCOMOTIVES, COAL, TONS
RA56019	CLASS I RAILROADS, LOCOMOTIVES, DIESEL OIL, GALS X 10*6
RA56021	CLASS I RAILROADS, LOCOMOTIVES, ELECTRICITY, KWH X 10*6
RA56020	CLASS I RAILROADS, LOCOMOTIVES, FUEL OIL, GALS X 10*6

ID	DESCRIPTION
RA56023	CLASS I RAILROADS, MOTOR CARS, DIESEL OIL, GALS X 10*6
RA56024	CLASS I RAILROADS, MOTOR CARS, ELECTRICITY, KWH X 10*6
RA56025	CLASS I RAILROADS, MOTOR CARS, GASOLINE, GALS
TE11027	CLOTHING ACCESSORIES AND JEWELRY
WA42012	DOMESTIC WATER, INTERCITY
TE11026	FOOD AND TOBACCO
TE11037	FOREIGN TRAVEL
GA41001	GENERAL AVIATION
GA22002	GENERAL AVIATION
GA42003	GENERAL AVIATION, INTERCITY
TR56010	HIGHWAY, DIESEL + GASOLINE, GALS X 10*6, COMBINATION TRUCKS
BU56008	HIGHWAY, DIESEL + GASOLINE, GALS X 10*6, COMMERCIAL BUSES
BU56009	HIGHWAY, DIESEL + GASOLINE, GALS X 10*6, SCHOOL BUSES
TR56009	HIGHWAY, DIESEL + GASOLINE, GALS X 10*6, SINGLE-UNIT TRUCKS
AU56006	HIGHWAY, GASOLINE, GALS X 10*6, MOTORCYCLES
AU56005	HIGHWAY, GASOLINE, GALS X 10*6, PASSENGER CARS AND TAXIS
BU41001	HIGHWAY, INTERCITY BUS
BU42007	HIGHWAY, INTERCITY BUS
AU42004	HIGHWAY, PASSENGER CAR AND TAXI
AU41001	HIGHWAY, PASSENGER CAR AND TAXI
BU41002	HIGHWAY, SCHOOL BUS
TR41001	HIGHWAY, TRUCK
HW24007	HIGHWAYS
TE11030	HOUSEHOLD OPERATION
TE11029	HOUSING
WA24006	INLAND WATERWAYS
BU22006	INTERCITY BUS
LC41001	LOCAL TRANSIT
LC01008	LOCAL TRANSIT
LC03023	LOCAL TRANSIT, ALL TAXES
LC07041	LOCAL TRANSIT, GRAND TOTAL
LC78007	LOCAL TRANSIT, GRAND TOTAL
LC44030	LOCAL TRANSIT, GRAND TOTAL
LC07040	LOCAL TRANSIT, MOTOR BUS
LC01035	LOCAL TRANSIT, MOTOR BUS
LC78006	LOCAL TRANSIT, MOTOR BUS
LC41046	LOCAL TRANSIT, MOTOR BUS
LC44029	LOCAL TRANSIT, MOTORBUS

ID	DESCRIPTION
LC22010	LOCAL TRANSIT, MOTORBUS
LC06022	LOCAL TRANSIT, NET REVENUE
LC02021	LOCAL TRANSIT, OPERATING EXPENSES
LC05024	LOCAL TRANSIT, OPERATING INCOME
LC78003	LOCAL TRANSIT, RAILWAY, SUBWAY AND ELEVATED
LC78002	LOCAL TRANSIT, RAILWAY, SURFACE RAIL
LC78004	LOCAL TRANSIT, RAILWAY, TOTAL
LC01033	LOCAL TRANSIT, RAILWAY, TOTAL
LC07038	LOCAL TRANSIT, RAILWAY, TOTAL
LC44027	LOCAL TRANSIT, RAILWAY, TOTAL
LC22047	LOCAL TRANSIT, RAILWAY, TOTAL
LC56048	LOCAL TRANSIT, RAILWAY, TOTAL
LC41044	LOCAL TRANSIT, RAILWAY, TOTAL
LC41043	LOCAL TRANSIT, SUBWAY AND ELEVATED
LC44026	LOCAL TRANSIT, SUBWAY AND ELEVATED
LC01032	LOCAL TRANSIT, SUBWAY AND ELEVATED
LC22011	LOCAL TRANSIT, SUBWAY AND ELEVATED
LC07037	LOCAL TRANSIT, SUBWAY AND ELEVATED
LC01031	LOCAL TRANSIT, SURFACE RAIL
LC22013	LOCAL TRANSIT, SURFACE RAIL
LC07036	LOCAL TRANSIT, SURFACE RAIL
LC41042	LOCAL TRANSIT, SURFACE RAIL
LC44025	LOCAL TRANSIT, SURFACE RAIL
LC22012	LOCAL TRANSIT, TOTAL
LC22014	LOCAL TRANSIT, TROLLEY COACH
LC44028	LOCAL TRANSIT, TROLLEY COACH
LC01034	LOCAL TRANSIT, TROLLEY COACH
LC41045	LOCAL TRANSIT, TROLLEY COACH
LC07039	LOCAL TRANSIT, TROLLEY COACH
LC78005	LOCAL TRANSIT, TROLLEY COACH
TE09019	LOCAL,SUBURBAN, AND HIGHWAY PASSENGER
TE23049	LOCAL,SUBURBAN, AND HIGHWAY PASSENGER
TE25057	LOCAL,SUBURBAN, AND HIGHWAY PASSENGER
TE12041	LOCAL,SUBURBAN, AND HIGHWAY PASSENGER
TE11031	MEDICAL CARE EXPENSES
TE09020	MOTOR FREIGHT AND WAREHOUSING
TE12042	MOTOR FREIGHT AND WAREHOUSING
TE23050	MOTOR FREIGHT AND WAREHOUSING
TE25058	MOTOR FREIGHT AND WAREHOUSING
TR43005	MOTOR VEHICLES, INTERCITY
AU22002	MOTORCYCLE
WA22007	NON-SELF PROPELLED VESSELS, DRY CARGO BARGES AND SCOWS

ID	DESCRIPTION
WA22011	NON-SELF PROPELLED VESSELS, TANK BARGES
WA22008	NON-SELF PROPELLED VESSELS, TOTAL
PL77001	OIL PIPELINE
PL43003	OIL PIPELINE
PL24004	OIL PIPELINE
PL01002	OIL PIPELINE
RA22046	OTHER RAILROADS, FREIGHT CARS IN SERVICE
AU22003	PASSENGER CAR AND TAXI
TE11032	PERSONAL BUSINESS
TE11028	PERSONAL CARE
TE09023	PIPELINE
TE25061	PIPELINE
TE12045	PIPELINE
TE23053	PIPELINE
PL56005	PIPELINE(GAS & OIL), NATURAL GAS, CU.FT. X 10*6
TE11035	PRIVATE EDUCATION AND RESEARCH
TE11016	PURCHASED INTERCITY TRANSPORTATION, AIRLINE
TE11015	PURCHASED INTERCITY TRANSPORTATION, INTERCITY BUS
TE11017	PURCHASED INTERCITY TRANSPORTATION, OTHER
TE11014	PURCHASED INTERCITY TRANSPORTATION, RAILWAY(NON-COMMUTATION)
TE11013	PURCHASED INTERCITY TRANSPORTATION, TOTAL
TE11012	PURCHASED LOCAL TRANSPORTATION, RAILWAY(COMMUTATION)
TE11010	PURCHASED LOCAL TRANSPORTATION, STREET,ELECTRIC,RAILWAY AND LOCAL BUS
TE11011	PURCHASED LOCAL TRANSPORTATION, TAXICAB
TE11009	PURCHASED LOCAL TRANSPORTATION, TOTAL
RA24011	RAILROAD, ALL LINE HAUL
TE09018	RAILWAY
TE23048	RAILWAY
TE12040	RAILWAY
TE00056	RAILWAY
TE11034	RECREATION
TE11036	RELIGIOUS AND WELFARE ACTIVITIES
TE25062	SERVICES
TE23054	SERVICES
TE11038	TOTAL
TE12039	TOTAL
TE09025	TOTAL
TE23047	TOTAL
TE00055	TOTAL
RA22044	TOTAL FREIGHT CARS IN SERVICE

ID	DESCRIPTION
WA22010	TOTAL VESSELS
WA22009	TOWBOATS & TUG
LC56015	TRANSIT, ELECTRICITY, KWH X 10*6, RAPID TRANSIT
LC56016	TRANSIT, ELECTRICITY, KWH X 10*6, SURFACE RAIL
LC56017	TRANSIT, ELECTRICITY, KWH X 10*6, TROLLEY
LC56019	TRANSIT, GALLONS OF MOTOR FUEL, GALS X 10*6, DIESEL OIL
LC56018	TRANSIT, GALLONS OF MOTOR FUEL, GALS X 10*6, GASOLINE
LC56020	TRANSIT, GALLONS OF MOTOR FUEL, GALS X 10*6, PROPANE
TE11033	TRANSPORTATION
TE09024	TRANSPORTATION SERVICES
TE12046	TRANSPORTATION SERVICES
TE11001	TRANSPORTATION TOTAL
TR22006	TRUCK, COMBINATIONS
TR22007	TRUCK, SINGLE UNITS
TR22008	TRUCK, TOTAL
TE11006	USER-OPERATED TRANSPORTATION, GASOLINE AND OIL
TE11008	USER-OPERATED TRANSPORTATION, INSURANCE
TE11005	USER-OPERATED TRANSPORTATION, MAINTENANCE
TE11003	USER-OPERATED TRANSPORTATION, NEW CARS AND NET PURCHASES OF USED CARS
TE11004	USER-OPERATED TRANSPORTATION, TIRES,TUBES,ACCESSORIES,AND PARTS
TE11007	USER-OPERATED TRANSPORTATION, TOLLS
TE11002	USER-OPERATED TRANSPORTATION, TOTAL
TE25059	WATER
TE09021	WATER
TE12043	WATER
TE23051	WATER
WA01002	WATER TRANSPORT, CLASSES A AND B CARRIERS, INLAND AND COASTAL
WA43004	WATER TRANSPORT, INLAND WATERWAYS, INCLUDING GREAT LAKES
WA01003	WATER TRANSPORT, MARITIME CARRIERS
WA43005	WATER TRANSPORT, TOTAL DOMESTIC SYSTEM
WA56013	WATER VESSELS, RESIDUAL FUEL OIL, GALS X 10*6
WA56014	WATER, DISTILLATE FUEL OIL, GALS X 10*6
WA56015	WATER, GASOLINE, GALS X 10*6

APPENDIX C

LISTING OF ID
AND DESCRIPTION
FOR ALL AVAILABLE RECORDS
IN SYSTEM SNTS, SORTED
BY ID

ID	DESCRIPTION
AC01008	AIR CARRIER, DOMESTIC AND INTERNATIONAL, CERTIFICATED, ALL SERVICES
AC01009	AIR CARRIER, DOMESTIC AND INTERNATIONAL, SUPPLEMENTAL
AC22012	AIR CARRIER, DOMESTIC AND INTERNATIONAL, CERTIFICATED, ALL SERVICES
AC22013	AIR CARRIER, DOMESTIC AND INTERNATIONAL, SUPPLEMENTAL
AC22014	AIR CARRIER, TOTAL
AC41001	AIR CARRIER, CERTIFICATED, DOMESTIC OPERATIONS, ALL SERVICES
AC41002	AIR CARRIER, SUPPLEMENTAL, DOMESTIC OPERATIONS
AC42015	AIR CARRIER, CERTIFICATED, DOMESTIC OPERATIONS, ALL SERVICES
AC42016	AIR CARRIER, SUPPLEMENTAL, DOMESTIC OPERATIONS
AC43010	AIR CARRIER, CERTIFICATED, DOMESTIC OPERATIONS, ALL SERVICES
AC43011	AIR CARRIER, SUPPLEMENTAL, DOMESTIC OPERATIONS
AC56017	AIR, CERTIFICATED CARRIERS, AVIATION GASOLINE, GALS X 10*6
AC56018	AIR, CERTIFICATED CARRIERS, JET FUEL, GALS X 10*6
AC76003	CERTIFICATED AIR CARRIER, DOMESTIC OPERATIONS, TOTAL
AC76004	CERTIFICATED AIR CARRIER, DOMESTIC OPERATIONS, FIRST CLASS
AC76005	CERTIFICATED AIR CARRIER, DOMESTIC OPERATIONS, COACH PLUS ECONOMY
AC77006	AIR CARRIER, CERTIFICATED, DOMESTIC OPERATIONS, SCHEDULED SERVICE
AC78007	AIR CARRIER, CERTIFICATED, DOMESTIC OPERATIONS, SCHEDULED SERVICE
AR24001	AIRWAYS
AU22002	MOTORCYCLE
AU22003	PASSENGER CAR AND TAXI
AU41001	HIGHWAY, PASSENGER CAR AND TAXI
AU42004	HIGHWAY, PASSENGER CAR AND TAXI
AU56005	HIGHWAY, GASOLINE, GALS X 10*6, PASSENGER CARS AND TAXIS
AU56006	HIGHWAY, GASOLINE, GALS X 10*6, MOTORCYCLES
BU01005	CLASS I BUS, INTERCITY
BU22006	INTERCITY BUS
BU41001	HIGHWAY, INTERCITY BUS
BU41002	HIGHWAY, SCHOOL BUS
BU42007	HIGHWAY, INTERCITY BUS
BU56008	HIGHWAY, DIESEL + GASOLINE, GALS X 10*6, COMMERCIAL

ID	DESCRIPTION
	BUSES
BU56009	HIGHWAY, DIESEL + GASOLINE, GALS X 10*6, SCHOOL BUSES
BU76003	CLASS I INTERCITY BUS
BU78004	CLASS I BUS, INTERCITY
FF01001	CLASS A FREIGHT FORWARDERS
GA22002	GENERAL AVIATION
GA41001	GENERAL AVIATION
GA42003	GENERAL AVIATION, INTERCITY
GA56004	AIR, GENERAL AVIATION, AVIATION GASOLINE, GALS X 10*6
GA56005	AIR, GENERAL AVIATION, JET FUEL, GALS X 10*6
HW24007	HIGHWAYS
LC01008	LOCAL TRANSIT
LC01031	LOCAL TRANSIT, SURFACE RAIL
LC01032	LOCAL TRANSIT, SUBWAY AND ELEVATED
LC01033	LOCAL TRANSIT, RAILWAY, TOTAL
LC01034	LOCAL TRANSIT, TROLLEY COACH
LC01035	LOCAL TRANSIT, MOTOR BUS
LC02021	LOCAL TRANSIT, OPERATING EXPENSES
LC03023	LOCAL TRANSIT, ALL TAXES
LC05024	LOCAL TRANSIT, OPERATING INCOME
LC06022	LOCAL TRANSIT, NET REVENUE
LC07036	LOCAL TRANSIT, SURFACE RAIL
LC07037	LOCAL TRANSIT, SUBWAY AND ELEVATED
LC07038	LOCAL TRANSIT, RAILWAY, TOTAL
LC07039	LOCAL TRANSIT, TROLLEY COACH
LC07040	LOCAL TRANSIT, MOTOR BUS
LC07041	LOCAL TRANSIT, GRAND TOTAL
LC22010	LOCAL TRANSIT, MOTORBUS
LC22011	LOCAL TRANSIT, SUBWAY AND ELEVATED
LC22012	LOCAL TRANSIT, TOTAL
LC22013	LOCAL TRANSIT, SURFACE RAIL
LC22014	LOCAL TRANSIT, TROLLEY COACH
LC22047	LOCAL TRANSIT, RAILWAY, TOTAL
LC41001	LOCAL TRANSIT
LC41042	LOCAL TRANSIT, SURFACE RAIL
LC41043	LOCAL TRANSIT, SUBWAY AND ELEVATED
LC41044	LOCAL TRANSIT, RAILWAY, TOTAL
LC41045	LOCAL TRANSIT, TROLLEY COACH
LC41046	LOCAL TRANSIT, MOTOR BUS
LC44025	LOCAL TRANSIT, SURFACE RAIL
LC44026	LOCAL TRANSIT, SUBWAY AND ELEVATED
LC44027	LOCAL TRANSIT, RAILWAY, TOTAL

ID	DESCRIPTION
LC44028	LOCAL TRANSIT, TROLLEY COACH
LC44029	LOCAL TRANSIT, MOTORBUS
LC44030	LOCAL TRANSIT, GRAND TOTAL
LC56015	TRANSIT, ELECTRICITY, KWH X 10*6, RAPID TRANSIT
LC56016	TRANSIT, ELECTRICITY, KWH X 10*6, SURFACE RAIL
LC56017	TRANSIT, ELECTRICITY, KWH X 10*6, TROLLEY
LC56018	TRANSIT, GALLONS OF MOTOR FUEL, GALS X 10*6, GASOLINE
LC56019	TRANSIT, GALLONS OF MOTOR FUEL, GALS X 10*6, DIESEL OIL
LC56020	TRANSIT, GALLONS OF MOTOR FUEL, GALS X 10*6, PROPANE
LC56048	LOCAL TRANSIT, RAILWAY, TOTAL
LC78002	LOCAL TRANSIT, RAILWAY, SURFACE RAIL
LC78003	LOCAL TRANSIT, RAILWAY, SUBWAY AND ELEVATED
LC78004	LOCAL TRANSIT, RAILWAY, TOTAL
LC78005	LOCAL TRANSIT, TROLLEY COACH
LC78006	LOCAL TRANSIT, MOTOR BUS
LC78007	LOCAL TRANSIT, GRAND TOTAL
PL01002	OIL PIPELINE
PL24004	OIL PIPELINE
PL43003	OIL PIPELINE
PL56005	PIPELINE(GAS & OIL), NATURAL GAS, CU.FT. X 10*6
PL77001	OIL PIPELINE
RA01009	CLASS I RAIL
RA02028	CLASS I RAIL, OPERATING EXPENSES
RA03029	CLASS I RAIL, TAXES
RA05030	CLASS I RAIL, NET RAILWAY OPERATING INCOME
RA07027	CLASS I RAIL, PASSENGER REVENUE
RA08026	CLASS I RAIL, FREIGHT REVENUE
RA09031	CLASS I RAIL, NET INCOME
RA10032	CLASS I RAIL, REVENUE CARLOADING
RA22012	CLASS I RAIL, FREIGHT CARS
RA22013	CLASS I RAIL, LOCOMOTIVES
RA22014	CLASS I RAIL, PASSENGER CAR AND PULLMAN
RA22015	CLASS I RAIL, TOTAL
RA22043	CLASS I RAIL, LOCOMOTIVES IN SERVICE
RA22044	TOTAL FREIGHT CARS IN SERVICE
RA22045	CLASS I RAILROADS, FREIGHT CARS IN SERVICE
RA22046	OTHER RAILROADS, FREIGHT CARS IN SERVICE
RA22047	CAR COMPANIES AND SHIPPERS, FREIGHT CARS IN SERVICE
RA24011	RAILROAD, ALL LINE HAUL
RA41001	CLASS I RAIL, PASSENGER
RA41002	CLASS I RAIL, FREIGHT
RA41039	CLASS I RAIL, FREIGHT TRAIN MILES

ID	DESCRIPTION
RA41040	CLASS I RAIL, FREIGHT CAR MILES
RA41041	CLASS I RAIL, PASSENGER TRAIN MILES
RA41042	CLASS I RAIL, PASSENGER TRAIN CAR MILES
RA42016	CLASS I RAIL, TOTAL
RA42017	CLASS I RAIL, COMMUTATION
RA42018	CLASS I RAIL, OTHER THAN COMMUTATION
RA42036	CLASS I RAIL, REVENUE PASSENGER MILES
RA42037	CLASS I RAIL, IN COACHES
RA42038	CLASS I RAIL, IN PARLORS AND SLEEPING CARS
RA43010	CLASS I RAIL
RA43034	CLASS I RAIL, REVENUE TON MILES
RA44035	CLASS I RAIL, REVENUE PASSENGERS CARRIED
RA45033	CLASS I RAIL, ORIGINATED TONNAGE
RA56019	CLASS I RAILROADS, LOCOMOTIVES, DIESEL OIL, GALS X 10*6
RA56020	CLASS I RAILROADS, LOCOMOTIVES, FUEL OIL, GALS X 10*6
RA56021	CLASS I RAILROADS, LOCOMOTIVES, ELECTRICITY, KWH X 10*6
RA56022	CLASS I RAILROADS, LOCOMOTIVES, COAL, TONS
RA56023	CLASS I RAILROADS, MOTOR CARS, DIESEL OIL, GALS X 10*6
RA56024	CLASS I RAILROADS, MOTOR CARS, ELECTRICITY, KWH X 10*6
RA56025	CLASS I RAILROADS, MOTOR CARS, GASOLINE, GALS
RA76003	CLASS I RAIL, TOTAL
RA76004	CLASS I RAIL, COMMUTATION
RA76005	CLASS I RAIL, OTHER THAN COMMUTATION
RA77006	CLASS I RAIL
RA78007	CLASS I RAIL, OTHER THAN COMMUTATION
RA78008	CLASS I RAIL, COMMUTATION
TE00055	TOTAL
TE00056	RAILWAY
TE09018	RAILWAY
TE09019	LOCAL,SUBURBAN, AND HIGHWAY PASSENGER
TE09020	MOTOR FREIGHT AND WAREHOUSING
TE09021	WATER
TE09022	AIR
TE09023	PIPELINE
TE09024	TRANSPORTATION SERVICES
TE09025	TOTAL
TE11001	TRANSPORTATION TOTAL
TE11002	USER-OPERATED TRANSPORTATION, TOTAL
TE11003	USER-OPERATED TRANSPORTATION, NEW CARS AND NET PURCHASES OF USED CARS
TE11004	USER-OPERATED TRANSPORTATION, TIRES,TUBES,ACCESSORIES,AND PARTS

ID	DESCRIPTION
TE11005	USER-OPERATED TRANSPORTATION, MAINTENANCE
TE11006	USER-OPERATED TRANSPORTATION, GASOLINE AND OIL
TE11007	USER-OPERATED TRANSPORTATION, TOLLS
TE11008	USER-OPERATED TRANSPORTATION, INSURANCE
TE11009	PURCHASED LOCAL TRANSPORTATION, TOTAL
TE11010	PURCHASED LOCAL TRANSPORTATION, STREET,ELECTRIC,RAILWAY AND LOCAL BUS
TE11011	PURCHASED LOCAL TRANSPORTATION, TAXICAB
TE11012	PURCHASED LOCAL TRANSPORTATION, RAILWAY(COMMUTATION)
TE11013	PURCHASED INTERCITY TRANSPORTATION, TOTAL
TE11014	PURCHASED INTERCITY TRANSPORTATION, RAILWAY(NON-COMMUTATION)
TE11015	PURCHASED INTERCITY TRANSPORTATION, INTERCITY BUS
TE11016	PURCHASED INTERCITY TRANSPORTATION, AIRLINE
TE11017	PURCHASED INTERCITY TRANSPORTATION, OTHER
TE11026	FOOD AND TOBACCO
TE11027	CLOTHING ACCESSORIES AND JEWELRY
TE11028	PERSONAL CARE
TE11029	HOUSING
TE11030	HOUSEHOLD OPERATION
TE11031	MEDICAL CARE EXPENSES
TE11032	PERSONAL BUSINESS
TE11033	TRANSPORTATION
TE11034	RECREATION
TE11035	PRIVATE EDUCATION AND RESEARCH
TE11036	RELIGIOUS AND WELFARE ACTIVITIES
TE11037	FOREIGN TRAVEL
TE11038	TOTAL
TE12039	TOTAL
TE12040	RAILWAY
TE12041	LOCAL,SUBURBAN, AND HIGHWAY PASSENGER
TE12042	MOTOR FREIGHT AND WAREHOUSING
TE12043	WATER
TE12044	AIR
TE12045	PIPELINE
TE12046	TRANSPORTATION SERVICES
TE23047	TOTAL
TE23048	RAILWAY
TE23049	LOCAL,SUBURBAN, AND HIGHWAY PASSENGER
TE23050	MOTOR FREIGHT AND WAREHOUSING
TE23051	WATER
TE23052	AIR

ID	DESCRIPTION
TE23053	PIPELINE
TE23054	SERVICES
TE25057	LOCAL,SUBURBAN, AND HIGHWAY PASSENGER
TE25058	MOTOR FREIGHT AND WAREHOUSING
TE25059	WATER
TE25060	AIR
TE25061	PIPELINE
TE25062	SERVICES
TR01004	CLASS I INTERCITY MOTOR CARRIERS OF PROPERTY
TR22006	TRUCK, COMBINATIONS
TR22007	TRUCK, SINGLE UNITS
TR22008	TRUCK, TOTAL
TR41001	HIGHWAY, TRUCK
TR43005	MOTOR VEHICLES, INTERCITY
TR56009	HIGHWAY, DIESEL + GASOLINE, GALS X 10*6, SINGLE-UNIT TRUCKS
TR56010	HIGHWAY, DIESEL + GASOLINE, GALS X 10*6, COMBINATION TRUCKS
TR77002	CLASS I INTERCITY MOTOR CARRIERS OF PROPERTY, COMMON
TR77003	CLASS I INTERCITY MOTOR CARRIERS OF PROPERTY, CONTRACT
WA01002	WATER TRANSPORT, CLASSES A AND B CARRIERS, INLAND AND COASTAL
WA01003	WATER TRANSPORT, MARITIME CARRIERS
WA22007	NON-SELF PROPELLED VESSELS, DRY CARGO BARGES AND SCOWS
WA22008	NON-SELF PROPELLED VESSELS, TOTAL
WA22009	TOWBOATS & TUG
WA22010	TOTAL VESSELS
WA22011	NON-SELF PROPELLED VESSELS, TANK BARGES
WA24006	INLAND WATERWAYS
WA42012	DOMESTIC WATER, INTERCITY
WA43004	WATER TRANSPORT, INLAND WATERWAYS, INCLUDING GREAT LAKES
WA43005	WATER TRANSPORT, TOTAL DOMESTIC SYSTEM
WA56013	WATER VESSELS, RESIDUAL FUEL OIL, GALS X 10*6
WA56014	WATER, DISTILLATE FUEL OIL, GALS X 10*6
WA56015	WATER, GASOLINE, GALS X 10*6
WA77001	CLASS A AND B WATER CARRIERS