Statewide ★
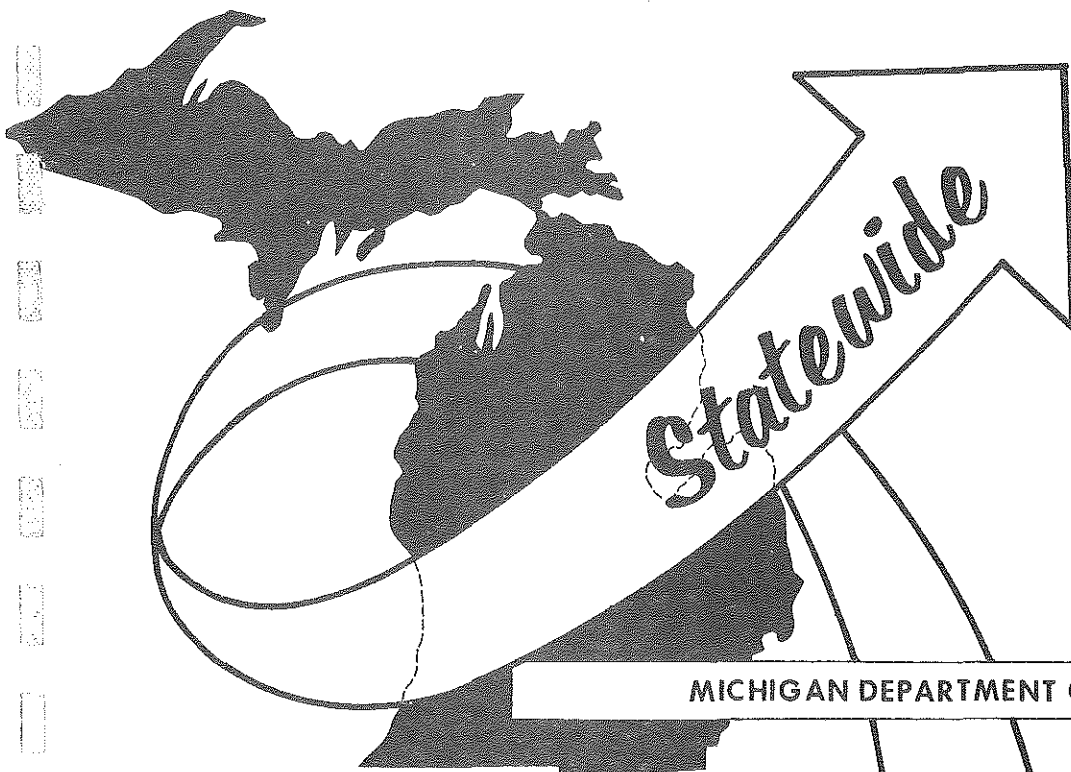
Transportation

Analysis &

Research

REVENUE AND EXPENDITURE INVENTORY
AND
RETRIEVAL PROCESS

FOR MICHIGAN COUNTIES
OR
INCORPORATED CITIES AND VILLAGES

I-R

Transportation Planning Procedures Section
June 1986

Statewide

MICHIGAN DEPARTMENT OF TRANSPORTATION

MICHIGAN DEPARTMENT OF TRANSPORTATION

BUREAU OF TRANSPORTATION PLANNING

REVENUE AND EXPENDITURE INVENTORY
AND
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I-R

Transportation Planning Procedures Section
June 1986

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REVENUE AND EXPENDITURE INVENTORY

AND

RETRIEVAL PROCESS

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BUREAU OF TRANSPORTATION PLANNING

TRANSPORTATION PLANNING PROCEDURES SECTION

JUNE 1986

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INTRODUCTION

Roadway receipts and expenditures for the 83 County Road Commissions and Incorporated Cities and Villages in Michigan are reported each year by the Michigan Department of Transportation (MDOT). They are found in Local Services Divisions Report No. 162 "Annual Progress Report". The Bureau of Transportation Planning, Transportation Planning Procedures Section has organized this information on the department computer and developed retriever programs to access the computer files. The purpose of this effort is to better utilize the data in the transportation planning process. In this report we will describe what the computer file looks like, the work that went into organizing the data on the computer, and the retriever programs that access the data files.

Receipts and expenditures data that have been organized at present are for past years that are no longer stored on computer tape by MDOT'S Engineering and Scientific Data Center. Selected years were coded from the printed reports by the Transportation Planning Bureau and entered on magnetic computer tape by MDOT'S Engineering and Scientific Data Center. A natural division in the data files is by geographic level. This report will describe each levels file and retriever development separately.

County Level

The county receipts and county expenditures are stored in separate computer files. The data items or variables in the receipts file are different than the variables in the expenditure file (figure 1). Years 1974 thru 1979 are currently available for access with the retrieval programs. For each county there are four different record types. These are: county primary roads, county local roads, county road commission and the county total. State totals are included in county number eighty-four.

Several steps had to be completed in order to put the computer files in a form compatible to the retriever program process. An adjustment had to be made to several years due to incorrect blocking on the magnetic computer tape. This required recoding several missing columns every tenth record. Two years of data had to have their year number changed in order to have all data reported in calendar year. A short cobol program had to be run on all files to convert imbedded negative signs to a dash in front of the number. This was done so that fortran programs could be run on the files. Due to changes in reporting there is variation in the variables from year to year. These variations had to be clearly noted so that correct display of the data could be accomplished with the retriever programs. The files had to be sorted by first county number and second record type number. This allows direct reads when accessing the file. Finally the county receipts files for each year were merged together into one file and the county expenditures files for each year were merged into one file. At this point the county receipts and county expenditures computer files were ready to use.

The retriever programs that were created to run on the county receipts and expenditures files were developed to make access easy, even with a minimal knowledge of the data files. These programs can be run to produce three different types of output. The first type of output is a computer terminal screen display of selected data. The program prompts the user to enter county number, record type, year and variables desired before displaying the data (figure 2). A second way to run retriever is to create a disk file for input into the "TRAIN" line graph program. Once again the program prompts the user. A name for the output file, county number, record type, begin and end year, and yearly increment must be entered (figure 3). A copy of the disk file along with titles is automatically sent to the printer for the user (figure 4). Creating a disk file for input into the "CALFORM" mapping program is the third way to run the retriever programs. The user is prompted to enter a name for the output disk file, year, record type and the desired variable (figure 5).

FIGURE 1

COUNTY RECEIPTS

ENGINEERING
ALLOCATION
TRANSFER
SNOW REMOVAL
FEDERAL FUNDS
TRUNKLINE MAINTENANCE
COUNTY RAISED / TWP CONTRIBUTION
OTHER LOCAL
MISCELLANOUS
PROCEEDS OF SALES
BEGINNING BALANCE
TOTAL

COUNTY EXPENDITURES

CONSTRUCTION
MAINTENANCE
WINTER MAINTENANCE
TRAFFIC SERVICES
TRUNKLINE MAINTENANCE
ADMIN. EXPENSE
DEBT SERVICE
EQUIPMENT EXPENSE
CAPITAL OUTLAY
GAIN OR LOSS
ADJUSTMENT TO FUNDS
ENDING BALANCE
TOTAL

R P/ACT51/CNTY/REV/RETRIEVER;PT 60
;RUNNING 4071

This program will create the following OUTPUTS:

  1. SCREEN DISPLAY of ACT 51 data
  2. FILE of ACT 51 data for input into TRAIN
  3. FILE of ACT 51 data for input into CALFORM

ENTER 1,2 or 3 for output requested, 0 to QUIT
&?
☐ 1

    ..To Retrieve & Display ACT 51 data..

ENTER desired COUNTY # (1-84,84=state total) , 0 to QUIT
☐ 45

choose desired RECORD TYPE
        1= COUNTY PRIMARY
        2= COUNTY LOCAL
        3= COUNTY ROAD COMMISION
        4= COUNTY TOTAL
ENTER 1,2,3, or 4 , 0 to QUIT
☐ 1

ENTER desired YEAR 1974-1979 acceptable, 0 to QUIT
☐ 1977

REVENUE VARIABLES AVAILABLE

    1 - ENGINEERING
    2 - ALLOCATION
    3 - TRANSFER
    4 - SNOW REMOVAL
    5 - FEDERAL FUNDS
    6 - TRUNKLINE MAINTENANCE
    7 - COUNTY RAISED / TWP CONTRIBUTION
    8 - OTHER LOCAL
    9 - MISCELLANOUS
    10 - PROCEEDS OF SALES
    11 - BEGINNING BALANCE
    12 - TOTAL

ENTER range of desired Variables (X,X) 1-12 acceptable
☐ 1,12

ENTER "OK" to display data

☐ OK

ACT 51 REVENUE DATA

County #   45 x LEELANAU
Rec.Type#   1 x COUNTY PRIMARY
Year   #   . 1977 x

Variable#   1   . $6,400 ENGINEERING
Variable#   2   . $472,636 ALLOCATION
Variable#   3   . $-141,790 TRANSFER
Variable#   4   . $0 SNOW REMOVAL
Variable#   5   . $38,010 FEDERAL FUNDS
Variable#   6   . $0 TRUNKLINE MAINTENANCE
Variable#   7   . $0 COUNTY RAISED / TWP CONTRI
BUTION
Variable#   8   . $0 OTHER LOCAL
Variable#   9   . $551 MISCELLANOUS
Variable#   10   . $0 PROCEEDS OF SALES
Variable#   11   . $320,716 BEGINNING BALANCE
Variable#   12   . $696,523 TOTAL

    ..To Retrieve & Display ACT 51 data..

.PAGE.

ENTER desired COUNTY # (1-84,84=state total) , 0 to QUIT
☐ 0
SET=31.4 PT=1.1 IO=0.6 PRIME TIME MACHINE UNITS=5

FIGURE 2

```
R P/ACT51/CNTY/EXP/RETRIEVER;PT 60
;RUNNING 4138

This program will create the following OUTPUTS:


    1. SCREEN DISPLAY of ACT 51 data
    2. FILE of ACT 51 data for input into TRAIN
    3. FILE of ACT 51 data for input into CALFORM

ENTER 1,2 or 3 for output requested, 0 to QUIT
$?
┌─┐
│2│
└─┘

    ..To create a TRAIN data file..


ENTER name for output file
┌──────────────┐
│KRL/ACT51/TRAIN│
└──────────────┘

Outfile KRL/ACT51/TRAIN.
already exsists...if you wish to write over it ENTER Y
                        else N to re-enter
┌─┐
│Y│
└─┘


ENTER desired COUNTY # (1-84,84=state total) , 0 to QUIT
┌──┐
│67│
└──┘

choose desired RECORD TYPE
        1= COUNTY PRIMARY
        2= COUNTY LOCAL
        3= COUNTY ROAD COMMISION
        4= COUNTY TOTAL
ENTER 1,2,3, or 4 , 0 to QUIT
┌─┐
│1│
└─┘


ENTER desired begin & end YEAR (XXXX,XXXX) 1974-1979 acceptable, 0 to QUIT
┌──────────┐
│1974,1979 │
└──────────┘

ENTER Yearly Increment (X)
┌─┐
│1│
└─┘



disk file for input to TRAIN CREATED
        ID= (STWD)KRL/ACT51/TRAIN ON STATEWIDE.


DISK FILE VARIABLES and their COLUMNS
------------------------------------------------------------
Year                            T1  , I4
County Number                   T6  , I2
Record Type                     T9  , I1
CONSTRUCTION                    T10 , I14
MAINTENANCE                     T24 , I9
WINTER MAINTENANCE              T33 , I9
```

```
TRAFFIC SERVICES                T42 , I8
TRUNKLINE MAINTENANCE           T50 , I9
ADMIN. EXPENSE                  T59 , I9
DEBT SERVICE                    T68 , I9
EQUIPMENT EXPENSE               T77 , I8
CAPITAL OUTLAY                  T85 , I09
GAIN OR LOSS                    T94 , I09
ADJUSTMENT TO FUNDS             T103, I10
ENDING BALANCE                  T113, I10.PAGE.

TOTAL                           T123, I10


copy of disk file with titles sent to PRINTER


$ET=44.6 PT=2.1 IO=1.6 PRIME TIME MACHINE UNITS=10 (LINES PRI
NTED=41)
```

5

FIGURE 3

ACT 51 COUNTY LEVEL EXPENDITURE DATA

COUNTY: ST JOSEPH
COUNTY PRIMARY

CAL YEAR	CONSTRUCTION	MAINTENANCE	WINTER * MAINTENANCE	TRAFFIC SERVICES	TRUNKLINE * MAINTENANCE	ADMIN. EXPENSE	DEBT SERVICE	EQUIPMENT EXPENSE	CAPITAL * OUTLAY	GAIN OR LOSS	ADJUSTMENT TO FUNDS	ENDING BALANCE	TOTAL
1974	$466,330	$253,918	$0	$56,577	$0	$37,007	$0	$0	$0	$0	$0	$396,481	$1,210,313
1975	$408,430	$229,727	$69,672	$21,051	$0	$39,147	$0	$26,891	$0	$0	$0	$435,446	$1,230,364
1976	$340,504	$315,680	$0	$120,511	$0	$37,106	$0	$38,904	$0	$0	$0	$371,358	$1,224,143
1977	$819,626	$246,939	$139,348	$31,780	$0	$53,100	$0	$27,789	$0	$0	$0	$256,656	$1,575,238
1978	$394,521	$334,441	$131,055	$19,663	$0	$46,461	$0	$18,460	$0	$0	$0	$241,935	$1,186,536
1979	$236,264	$322,743	$85,684	$22,257	$0	$15,406	$0	$25,021	$0	$0	$0	$525,819	$1,263,254

* These categories have some variation from year to year due to changes in reporting.

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FIGURE 4

```
? P/ACT51/CNTY/REV/RETRIEVER;PT 60
;RUNNING 4159

This program will create the following OUTPUTS:


   1. SCREEN DISPLAY of ACT 51 data
   2. FILE of ACT 51 data for input into TRAIN
   3. FILE of ACT 51 data for input into CALFORM

ENTER 1,2 or 3 for output requested, 0 to QUIT
?
┌───┐
│ 3 │
└───┘



   ..To create a CALFORM data file..


ENTER name for output file
┌─────────────────────────┐
│ KRL/ACT51/REV/CALFORM    │
└─────────────────────────┘

ENTER desired YEAR 1974-1979 acceptable, 0 to QUIT
┌───────┐
│ 1975  │
└───────┘

choose desired RECORD TYPE
         1= COUNTY PRIMARY
         2= COUNTY LOCAL
         3= COUNTY ROAD COMMISION
         4= COUNTY TOTAL
ENTER 1,2,3, or 4 , 0 to QUIT
┌───┐
│ 3 │
└───┘



REVENUE VARIABLES AVAILABLE


   1 - ENGINEERING
   2 - ALLOCATION
   3 - TRANSFER
   4 - SNOW REMOVAL
   5 - FEDERAL FUNDS
   6 - TRUNKLINE MAINTENANCE
   7 - COUNTY RAISED / TWP CONTRIBUTION
   8 - OTHER LOCAL
   9 - MISCELLANOUS
   10 - PROCEEDS OF SALES
   11 - BEGINNING BALANCE
   12 - TOTAL


ENTER desired VARIABLE # (X) 1-12 acceptable
┌───┐
│ 4 │
└───┘



disk file for input into CALFORM CREATED
```

ID= (STUD)KRL/ACTS1/REV/CALFORM ON STATEWIDE.

disk file format

```
   T1,I4    = YEAR
   T5,I4    = RECORD TYPE  (3) - COUNTY ROAD COMMISION
   T9,I4    = COUNTY NO.
   T13,I10  = VARIABLE CHOOSEN - SNOW REMOVAL
$ET=33.5 PT=1.8 IO=2.3 PRIME TIME MACHINE UNITS=10
```

FIGURE 5

City Level

City receipts and city expenditures are stored in separate computer files. Currently years 1971 thru 1979 are available for access with the retrieval programs. Receipts have fourteen data items on each file and expenditures have fifteen data items on each file (figure 6). The cities and villages, which are included each year, may vary based on changes in status of incorporation. Also, in 1976 there were fewer cities which had receipts and expenditures data reported. For each city there are three different record types. These are: major streets, local streets, and total.

Several steps were completed to put the computer files in a form compatible to the retriever program process. Some data items were larger than the columns allocated on the computer files for the state total records. Each file was checked and such problems noted for adjustment later. Using a city number - county number equivalence disk file, county number was added to each record. For cities that are located in more than one county, the county with the largest portion of the city population was the factor used to decide which county number to assign to that city. Due to changes in reporting there is variation in the variables from year to year. These variations had to be clearly noted so that correct display of the data could be accomplished with the retriever programs. The files were then sorted by first county number, second city number and third record type. The city data was summed up to county level for each field - each record type. A new separate file was created that has for each county - each record type the total of all cities within the county. In the summed file the number of characters in a data item were increased when necessary. A manual fix was done on state total records that needed adjustment. The city level receipts files for each year were merged together into one file and the city level expenditures files for each year were merged together into one file. In the same manner the summed city receipts files were merged together into one file and the summed city expenditure files were merged together into one file. At this point the computer files are ready for use.

The retriever programs that were created to run on the city receipts and expenditures files were developed to make access easy, even with a minimal knowledge of the data files. These programs can be run to produce three different types of output. The first type of output is a computer terminal screen display of selected data. The program prompts the user to first enter county number. The program then displays for the user the cities within that county along with their city numbers. The user enters the desired city number or 9999 for the total of all the cities within the county. Then record type and year must be entered before the data is displayed (figure 7). A second way to run the retriever programs is to create a disk file for input into the "TRAIN" line graph program. Once again the program prompts the user. A name for the output file and county number

FIGURE 6

CITY RECEIPTS

PAYMENTS   - MVHF
TRANSFERS - MVHF
TAX LEVIES   - LOCALLY RAISED
SPECIAL ASSESS - LOCALLY RAISED
GENERAL FUND   - LOCALLY RAISED
G.O. BONDS   - LOCALLY RAISED
ACT 175 BOND FUNDS
FEDERAL GRANTS
COUNTIES & ADJ. CITIES
INTEREST ON MVHF
CONTRACTUAL SERVICES
TEMPORARY ADVANCES
BEGINNING BALANCE
TOTAL FUNDS

CITY EXPENDITURES

CONSTRUCTION - STREETS & BRIDGES
CONSTRUCTION - NONMOTORIZED
MAINTENANCE - STREETS & BRIDGES
MAINTENANCE - NONMOTORIZED
TRAFFIC SERVICES - WINTER
TRAFFIC SERVICES - SIGNS & SIGNALS
ROADSIDE PARKS
ADM. ENG. & REC. KEEP.
OTHER SYSTEM CONTRIBUTION - ST HIGHWAY
OTHER STSTEM CONTRIBUTION - CITY & CNTY.
CONTRACTUAL SERVICES
REPAY OF TEMPORARY ADVANCES
TRANSFER TO DEBT RETIREMENT
ENDING BALANCE
TOTAL FUNDS

```
.P/ACT51/CITY/REV/RETRIEVER;PT 60
RUNNING 4235

This program will create the following OUTPUTS:


    1. SCREEN DISPLAY of ACT 51 data
    2. FILE of ACT 51 data for input into TRAIN
    3. FILE of ACT 51 data for input into CALFORM

ENTER 1,2 or 3 for output requested, 0 to QUIT
*?
┌───┐
│ 1 │
└───┘


..To Retrieve & Display ACT 51 CITY REVENUE data..


ENTER desired COUNTY NUMBER (XX) 84=state total , 0 to QUIT
┌────┐
│ 22 │
└────┘

COUNTY # 22  DICKINSON


    CITY # 3410   IRON MOUNTAIN
    CITY # 3640   KINGSFORD
    CITY # 4876   NORWAY

ENTER desired city # or 9999 for the total cities within DICKINSON
┌──────┐
│ 3410 │
└──────┘

choose desired RECORD TYPE
        1= CITY MAJOR
        2= CITY LOCAL
        3= CITY TOTAL
ENTER 1,2 or 3 , 0 to QUIT
┌───┐
│ 3 │
└───┘


ENTER desired YEAR (XXXX) 1972 thru 1979 acceptable, 0 TO QUIT
┌──────┐
│ 1974 │
└──────┘

ENTER "OK" to display data

┌────┐
│ OK │
└────┘

    ACT 51 REVENUE DATA

County  X       22 X DICKINSON
City    X     3410 X IRON MOUNTAIN
Rec.TypeX        3 X CITY TOTAL
Year    X     1974 X

VariableX       1  =       $183,861 PAYMENTS FROM MTF

VariableX  ·    2  =            $0 TRANSFERS - MTF
VariableX       3  =            $0 TAX LEVIES       - LOCALLY RAISED
VariableX       4  =            $0 SPECIAL ASSESS - LOCALLY RAISED
```

```
VariableX       5  =       $169,297 GENERAL FUND    - LOCALLY R
AISED
VariableX       6  =            $0 G.O. BONDS       - LOCALLY R
AISED
VariableX       7  =            $0 ACT175 BOND FUNDS
VariableX       8  =            $0 FEDERAL GRANTS
VariableX       9  =            $0 COUNTIES & ADJ. CITIES
VariableX      10  =            $0 INTEREST ON MVHF
VariableX      11  =       $38,333 CONTRACTUAL SERVICES
VariableX      12  =            $0 TEMPORARY ADVANCES
VariableX      13  =        $7,295 BEGINNING BALANCE
VariableX      14  =       $398,786 TOTAL FUNDS

.PAGE.

..To Retrieve & Display ACT 51 CITY REVENUE data..

ENTER desired COUNTY NUMBER (XX) 84=state total , 0 to QUIT
┌───┐
│ 0 │
└───┘
SET=37.2 PT=1.9 IO=1.0 PRIME TIME MACHINE UNITS=9
```

FIGURE 7

must be entered. The program then displays the cities within the selected county. The user enters the desired city number or 9999 for all cities within the county. Next record type, begin and end year, and yearly increment must be entered (figure 8). A copy of the disk file along with titles is automatically sent to the printer for the user (figure 9). Creating a disk file for input into the "CALFORM" mapping program is the third way to run the retriever programs. It can only create an output file from the summed file which has the city totals for each county. The user is prompted to enter a name for the output disk file, year, record type and desired variable (figure 10).

Four additional files were created for use with the city retriever programs.

1) The first file contains 83 records. Each record has a county number and lists all the city numbers that are within that county (figure 11).

2) The second file contains 8000 records. A record contains city number and city name. The city number is used as the record number to allow for direct reads by the retriever programs. Not every record in this file has data due to the fact that there are gaps in city number.

3) File three also contains 8000 records. City number is used as the record number to allow for direct reads. Again not every record in this file has data in it. Along with city number, a record contains the beginning record number of the receipts data file for each year (figure 13).

4) The forth file is similar to the third file, except it corresponds to the expenditure data file. It contains 8000 records. City number is used as the record number to allow for direct reads. Not every record in the file has data due to gaps in city numbers. Each record with data contains city number and the beginning record number of the expenditure data file for each year (Figure 14).

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```
R P/ACT51/CITY/REV/RETRIEVER;PT 60
;RUNNING 4249

This program will create the following OUTPUTS:


     1. SCREEN DISPLAY of ACT 51 data
     2. FILE of ACT 51 data for input into TRAIN
     3. FILE of ACT 51 data for input into CALFORM

ENTER 1,2 or 3 for output requested, 0 to QUIT
$?
[2]


     ..To create a TRAIN data file..


ENTER name for output file
[KRL/ACT51/CITY/REV/TRAIN]


ENTER desired COUNTY NUMBER (XX) 84=state total , 0 to QUIT
[56]

COUNTY # 56  MIDLAND


     CITY # 1452   COLEMAN
     CITY # 4406   MIDLAND
     CITY # 6010   SANFORD

ENTER desired city # or 9999 for the total cities within MIDLAND
[4406]

choose desired RECORD TYPE
         1= CITY MAJOR
         2= CITY LOCAL
         3= CITY TOTAL
ENTER 1,2 or 3 , 0 to QUIT
[2]


ENTER desired begin & end YEAR (XXXX,XXXX)  1972 thru 1979 acceptable, 0 to QUIT
[1972,1979]

ENTER Yearly Increment (X)
[1]



disk file for input to TRAIN CREATED
        ID= (STWD)KRL/ACT51/CITY/REV/TRAIN ON STATEWIDE.


DISK FILE VARIABLES and their COLUMNS
--------------------------------------------------------
Year                              T1  , I4
County Number                     T11 , I2
```

```
Record Type                        T10 , I1
Code 1= Receipts                   T5  , I1
City Number                        T6  , I4
PAYMENTS FROM MTF                  T13 , I10
TRANSFERS - MTF                    T23 , I9
TAX LEVIES        - LOCALLY RAISED  T32 , I9
SPECIAL ASSESS - LOCALLY RAISED    T41 , I9
GENERAL FUND     - LOCALLY RAISED  T50 , I9
G.O. BONDS       - LOCALLY RAISED  T59 , I9
ACT175 BOND FUNDS                  T68 , I9
FEDERAL GRANTS                     T77 , I9
COUNTIES & ADJ. CITIES             T86 , I9
INTEREST ON MVHF                   T95 , I9.PAGE.

CONTRACTUAL SERVICES               T104, I9
TEMPORARY ADVANCES                 T113, I9
BEGINNING BALANCE                  T122, I10
TOTAL FUNDS                        T132, I10
```

copy of disk file with titles sent to PRINTER

$ET=1:30.5 PT=2.9 IO=2.6 PRIME TIME MACHINE UNITS=16 (LINES P
RINTED=48)

FIGURE 8

ACT 51 CITY REVENUE DATA

COUNTY: MIDLAND
CITY : MIDLAND
ROADS : CITY LOCAL

CAL YEAR	PAYMENTS FROM MTF	MTF TRANSFERS	TAX * LEVIES	SPECIAL + ASSESS	GENERAL * FUND	G. O. + BONDS	ACT 175 + BOND FUNDS	FEDERAL + GRANTS	COUNTIES & + ADJ. CITIES	INTEREST + ON MVHF	CONTRACTUAL SERVICES	TEMPORARY + ADVANCES	BEGINNING BALANCE	TOTAL FUNDS
1972	$149,683	$51,938	$658,903	$0	$168	$0	$0	$0	$0	$0	$0	$0	$3,722	$864,414
1973	$171,106	$0	$0	$189,622	$385,562	$0	$0	$0	$0	$2,148	$0	$152,460	$5,984	$906,832
1974	$176,903	$149,706	$0	$181,209	$0	$0	$0	$0	$236,617	$6,619	$0	$0	$221,378	$971,432
1975	$174,899	$155,258	$0	$79,710	$152,692	$0	$0	$0	$-6,497	$9,082	$0	$69,261	$197,635	$832,040
1976	$101,706	$149,900	$0	$75,604	$0	$0	$0	$0	$34	$-1,777	$0	$0	$-24,750	$300,717
1977	$184,549	$153,500	$0	$59,379	$237,970	$0	$0	$0	$13,132	$-1,921	$0	$0	$3,581	$643,028
1978	$193,396	$150,245	$235,373	$0	$306,136	$0	$0	$0	$256,917	$0	$0	$0	$-443,884	$706,183
1979	$221,499	$165,545	$0	$-11,576	$371,596	$0	$0	$0	$-20,145	$-15,227	$0	$0	$-96,189	$615,503

* These categories vary in 1972 — tax levies is locally raised funds
                                    — general fund is other sources
+ These categories are not available for 1972

SOURCE: Michigan Department of Transportation
              Local Government Division
              Annual Progress Report
PREPARED BY: Michigan Department of Transportation
              Planning Procedures Section
              04/02/86

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FIGURE 9

```
R P/ACT51/CITY/EXP/RETRIEVER;PT 60
.RUNNING 4676

Tnis program will create the following OUTPUTS:


    1. SCREEN DISPLAY of ACT 51 data
    2. FILE of ACT 51 data for input into TRAIN
    3. FILE of ACT 51 data for input into CALFORM

ENTER 1,2 or 3 for output requested, 0 to QUIT
  *?
 ┌─────┐
 │ 3   │
 └─────┘



A county level CALFORM data file can be created for
the total Expenditures for all cities within each county



ENTER name for output file
┌────────────────────────┐
│ KRL/ACT51/CITY/CALFORM  │
└────────────────────────┘

ENTER desired YEAR (XXXX) 1971-1978 acceptable, 0 TO QUIT
┌────────┐
│  1974  │
└────────┘

choose desired RECORD TYPE
        1= CITY MAJOR
        2= CITY LOCAL
        3= CITY TOTAL
ENTER 1,2 or 3 , 0 to QUIT
┌─────┐
│  2  │
└─────┘



EXPENDITURE VARIABLES AVAILABLE


    1 - CONSTRUCTION - STREETS & BRIDGES
    2 - CONSTRUCTION - NONMOTORIZED
    3 - MAINTENANCE - STREETS & BRIDGES
    4 - MAINTENANCE - NONMOTORIZED
    5 - TRAFFIC SERVICES - WINTER
    6 - TRAFFIC SERVICES - SIGNS & SIGNALS
    7 - ROADSIDE PARKS
    8 - ADM. ENG. & REC. KEEP.
    9 - OTHER SYSTEM CONTRIB. - ST HIGHWAY
   10 - OTHER SYSTEM CONTRIB. - CITY & CNTY
   11 - CONTRACTUAL SERVICES
   12 - REPAY OF TEMPORARY ADVANCES
   13 - TRANSFER TO DEBT RETIREMENT
   14 - ENDING BALANCE
   15 - TOTAL FUNDS


ENTER desired VARIABLE # (X) 1-15 acceptable
┌─────┐
│  7  │
└─────┘
```

```
disk file for input into CALFORM CREATED
        ID= (STUD)KRL/ACT51/CITY/CALFORM ON STATEWIDE.


disk file format

    T1,I4   = YEAR
    T6,I1   = CODE - 2 FOR EXPENDITURES
    T8,I4   = CITY NUMER
    T13,I1  = RECORD TYPE  (2) - CITY LOCAL
    T15,I2  = COUNTY NO.
    T18,I13 = VARIABLE CHOOSEN - ROADSIDE PARKS


#ET=55.4 PT=2.2 IO=2.6 PRIME TIME MACHINE UNITS=12
```

14

FIGURE 18

FIGURE 11

COUNTY # , CITY # , CITY # , ETC

FIGURE 12

CITY #   CITY NAME

FIGURE 13

```
            BEGIN RECORD #      BEGIN RECORD #
CITY # , OF RECEIPTS DATA , OF RECEIPTS DATA , ETC
            FILE FOR YR(1)       FILE FOR YR(2)
```


FIGURE 14

```
            BEGIN RECORD #          BEGIN RECORD #
CITY # , OF EXPENDITURE DATA , OF EXPENDITURE DATA , ETC
            FILE FOR YR(1)          FILE FOR YR(2)
```

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CONCLUSION

In the future it is our intention to add additional years to the receipts and expenditures data files. These additional years of receipts and expenditures information will come from MDOT Local Services Division's computer tapes. A new process will have to be developed to extract the data and convert it to the format necessary for the retriever programs. Each new years data would be merged with the existing data files. In case of the city data files, the summed files would need to be updated. Also the file which contains data file record number by year would have to be updated each time the data file is changed.