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**ABSTRACT**

This manual was developed as part of a cooperative project between the State Historical Society of Wisconsin and the Wisconsin Division of Corrections' Green Bay Correctional Institution. As part of a new training program involving computers at Green Bay, the Director of Education approached the State Historical Society about developing a program appropriate to the training needs of the inmates that would also produce something of permanent value of the State. Based on the Society's extensive experience with the 1905 Wisconsin Census Indexing Project and the many developments in the area of automation initiated by the archives, the Society developed a project in which students would help to create a database listing and index of the 1880 Census for Wisconsin. In developing the program they hoped to create a model that would have wide applicability not only for other states and censuses but for historical demographic data in general. The manual comprises six sections: (1) Introduction; (2) The 1880 Census; (3) A Few Definitions; (4) Using the Computer; (5) Census Data Entry; and (6) Hints for Solving Problems and Additional Information. Appendices include population totals for Wisconsin counties, 1880; population totals for towns, villages, and wards of cities, 1880; and a copy of the 1880 Census Program written in Applesoft BASIC. (THC)

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# 1880 CENSUS PROJECT USERS MANUAL

By

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and

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**State Historical Society of Wisconsin**

**Madison, Wisconsin**

**November, 1984**

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## PREFACE

This manual was developed by the Wisconsin Center for Historical Demography as part of a unique cooperative project between the State Historical Society of Wisconsin and the Wisconsin Division of Corrections' Green Bay Correctional Institution. As part of a new training program involving computers at Green Bay, Phil Slinger, the Director of Education, approached the Society about developing a program appropriate to the training needs of the inmates but would also produce something of permanent value to the state. Based on the Society's extensive experience with the 1905 Wisconsin Census Indexing Project and the many developments in the area of automation initiated by the Archives, the Society created a plan to create a data base of the 1880 Census for Wisconsin. In developing our program our hope is to create a model that will have wide applicability not only for other states and censuses but for historical demographic data in general. This document is a first step and we encourage anyone interested in this field to contact us.

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## 1. INTRODUCTION

In this project you will use a computer to help create a data base (listing and index) of the 1880 Census of Wisconsin. You will be responsible for entering into the computer a wide variety of information, which will eventually be put together with the work of others to form the complete data base.

Why create a census data base?

The United States Federal Censuses are taken every ten years, as mandated by the Constitution. Originally their only purpose was to "count noses" for the purpose of calculating the number of people each state sent to the House of Representatives, since this is based on population. Gradually, however, the census came to be seen as a way to collect all sorts of useful information about people. The fact that the census is taken at the same time everywhere makes it possible to produce a "snapshot" of the entire country each decade.

Therefore, people who are researching their family trees; historians interested in the way people lived, the kinds of occupations they had, and the way they moved about; and demographers who compile statistical tables about people who lived long ago, all can find much of interest in a census. Ever since the censuses from 1790 to 1880 were released to the public a generation ago, they have been among the most-used of historical records. However, the census takers listed people in the order they visited them, and, especially in big cities, this makes finding a particular individual or family a matter of a long and boring search. Indexes which list the names alphabetically can therefore save much time and frustration. The information in a computerized data base can be sorted in virtually any way imaginable, and questions like "Where was my great-grandfather living in 1880?", "How many Norwegians lived in Milwaukee?", and "Who was the oldest living resident of Wisconsin in 1880?" can be answered almost instantaneously. (The census information is kept private for 72 years; the data collected in 1980 won't be released to the public until 2052.)

The first census was taken in 1790; it only listed the name of the head of the household, and the number of people living with him or her, divided into a few sex/age categories. By 1880, however, more than 25 types of information were listed about each person. The computer program you will be using was written so that you can, with a little practice, copy all this information quickly and accurately.

Aren't the pages of the 1880 census a little fragile by now?

Frankly, yes. That's why the entire census has been photographed onto microfilm (familiar to those who like spy novels). You will be given the use of a microfilm reader, which enlarges the image on the film so you can read it, and a roll of film with part of the 1880 census on it.

## 2. THE 1880 CENSUS

Before learning about the computer equipment, it would be a good idea to look at a page of the 1880 census, and get a feel for the kinds of information you will be recording.

In 1880, each county was divided into several "enumeration districts." In the upper left-hand corner of each census page, you will see a line for "Enumeration Dist. No." followed by a written number. This number, and the name of the town and the county (after the words "Inhabitants in" at the top of the page) are what people need to know to find the general area of the census that a particular person was listed in.

Two lines above the enumeration district is the "Page No." Ignore this. The page numbers you will be entering into the computer are the ones stamped in ink (not written) in the upper right-hand corner of the page. Make a special note of this now; unfortunately, going back and correcting your computer entries, once you discover some are wrong, is a time-consuming and tedious process.

Actually, this number stamped in ink is a sheet number: both the front and back of a sheet have the same number. The front and back are distinguished by a printed letter, A, B, C, or D, in the upper right- or left-hand corner of each page. (A's and C's are on the right; B's and D's are on the left. Please see for yourself). Sometimes the letters are faint, or covered with tape, but they are always there. If you can't find it, you can figure out what it must be by looking at the pages before and after.

Usually, the first sheet in a volume (stamped "1") is a sheet with an A and a B, the second sheet ("2") has a C and a D, etc. So the normal sequence of pages is: 1A, 1B, 2C, 2D, 3A, 3B, 4C, 4D, 5A, and so on. In other words, odd sheet numbers have A's and B's, and even sheet numbers have C's and D's. It would be helpful if you get used to this system right away, so that when you sit down to enter the data, it will already be second nature and you can do it right, from the beginning.

In columns, on the far left and far right sides of the page, are the line numbers, 1 through 50. Each page starts over with line 1.

Now you can see that researchers, armed with the precise description of a location in the census (provided by you), can go directly to the exact line they want to see, even if they didn't know what county to look in before. You can also see the accuracy is very important here; if your "road map" directs the searcher to the wrong place, it won't matter if all the personal information you painstakingly recorded is correct or not. Fortunately, as you'll see, the computer takes care of most of the work.

### 3. A FEW DEFINITIONS

As with any occupation, computer data entry has its own language. Here are some words that are used frequently in the instructions that follow:

**Disk** - sometimes called "floppy disk" or "diskette", it looks like a thin, brown 45 rpm record tucked inside a protective jacket. (Be sure to follow the instructions on the jacket for handling the disk.) You will use two disks at a time: one contains the computer program you will be using, and the other will store the data you enter.

**Disk drive or just drive** - a cabinet-like device into which the disks are inserted, in order to read the information or instructions that are encoded on them. When disks are being used inside the disk drive they make a soft whirring sound as they spin. This is normal.

**Files and filenames** - a disk can be divided into files if there are several kinds of information on the same disk. Each file is given its own filename. Many files can go on the same disk, but in this project, there will be only one file on each disk; therefore the disk will have the same name as the file on it.

**Record** - all the information about one census person. Each disk can hold up to 686 records.

**Section** - not really a "computer word," but used here to describe the three main groupings of information within a record. Generally speaking, the first section contains general location; the second section specific location; and the third section personal information.

**Field** - the space set aside for each item of information you will record for each person. There are 32 fields per record in this project: 4 in the first section, 7 in the second section, and 21 in the third section.

**Monitor** - the screen on which your work is displayed.

**Cursor** - a rectangle that shows you where you are on the screen.

#### 4. USING THE COMPUTER

First set up the microfilm reader, and turn the reel to the first page you'll be indexing.

Your disk drive has two compartments, which should be labeled "Drive 1" and "Drive 2". To begin, insert the disk labeled "1880 Census Programs" in Drive 1, and close the door to the drive. (There are instructions on the disk jacket that will explain which way the disk goes in; it has to be a certain way or the program won't work). Insert your other disk in Drive 2, and close its door. Now turn the machine on (the switch is located on the back left of the keyboard unit). You will also need to turn the monitor on. Its switch is located above and to the right of the screen. After the disk stops spinning, the following will appear on your monitor:

1880 CENSUS PROGRAM

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ENTER FILENAME:

At this point type in the filename and then press RETURN. If you are using a disk that already has some information stored on it, and you have forgotten your filename, type a question mark (?) to get the filename you used before. Make sure that you use the same filename each time you use the same disk.

After you type RETURN the computer will give you a chance to insert the disk into Drive 2 if you haven't already done so, and ask you to make sure that the CAPS LOCK key is in the down position.

1880 CENSUS PROGRAM

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PLEASE MAKE SURE THAT <CAPS LOCK> IS DOWN

PLEASE INSERT FILENAME DISK IN DRIVE 2

OK TO CONTINUE (Y/N)?

When this is done type Y to tell the computer you are ready to continue.

If the file is a new one the computer will ask for a county code. (The computer program is set up to accept only a four-letter code for the names of the counties, not the whole name). Typing a question mark (?) will display the following list of county codes:

ADAM	Adams	JACK	Jackson
ASHL	Ashland	JEFF	Jefferson
BARR	Barron	JUNE	Juneau
BAYF	Bayfield	KENO	Kenosha
BROW	Brown	KEWA	Kewaunee
BUFF	Buffalo	LACR	La Crosse
BURN	Barnett	LAFI	Lafayette
CALU	Calumet.	LANG	Langlade
CHIP	Chippewa	LINC	Lincoln
CLAR	Clark	MANI	Manitowoc
COLU	Columbia	MARA	Marathon
CRAW	Crawford	MARI	Marinette
DANE	Dane	MARQ	Marquette
DODG	Dodge	MILW	Milwaukee
DOOR	Door	MONR	Monroe
DOUG	Douglas	OCON	Oconto
DUNN	Dunn	OUTA	Outagamie
EAUC	Eau Claire	OZAU	Ozaukee
FOND	Fond du Lac	PEPI	Pepin
GRAN	Grant	PIER	Pierce
GREE	Green	POLK	Polk
GRLA	Green Lake	PORT	Portage
IOWA	Iowa	PRIC	Price

RACI Racine  
 RICH Richland  
 ROCK Rock  
 STCR Saint Croix  
 SAUK Sauk  
 SHAW Shawano  
 SHEB Sheboygan  
 TAYL Taylor  
 TREM Trempealeau

VERN Vernon  
 WALW Walworth  
 WASH Washington  
 WAUK Waukesha  
 WAUP Waupaca  
 WAUS Waushara  
 WINN Winnebago  
 WOOD Wood

You may enter the county code in small letters and the computer will capitalize it (though you won't see this on the screen). After you enter the county code and type RETURN the following screen will appear:

```

Wisconsin 1880 Census
CODE County
File FILENAME Record 1
Subdivision: Class: Enumeration District: Ward:
Page: Line: Street Name: House #:
Dwelling #: Family #: Last Name:
First Name(s): Race: Sex: Age:
Relationship: Marital Status: Married Within Year:
Occupation: Months Unemployed:
Illness: Blind: Deaf/Dumb: Idiotic:
Insane: Disabled: Attended School: Cannot Read: Cannot Write:
Birthplace: Father's Birthplace: Mother's Birthplace:
Auxiliary:

Left arrow - Move left RETURN - Next field CONTROL-F - Next record
Right arrow - Move right TAB - Prev. field CONTROL-B - Prev. record
CONTROL-A - Insert space Down arrow - Next sect. CONTROL-G - Goto record x
DELETE - Del. character Up arrow - Prev. sect. ? - Help
CONTROL-D - Delete to end of field CONTROL-C - Quit
  
```

This is the screen on which all of your data entry will take place. If you are starting on a new disk, it should say "Record 1"; if you are working with an old disk, the last record from your previous session will appear. The records you enter are numbered automatically as you go.

When there is no more room on the disk, the computer will tell you "DISK FULL / PUT A NEW DISK IN DRIVE 2, TYPE ANY KEY WHEN READY." Be sure to get a new filename when you get a new disk. Once you have typed a key, it returns to the screen on page 4. Enter your new filename and proceed as before. The last record you entered on the old disk will become the first record on the new disk.

Ordinarily, you will move from one field to the next by typing RETURN. At the bottom of the screen is a list of various ways you can move the cursor from one place to another quickly, if you need to go back to make corrections. To use the functions with



the **CONTROL** key, hold **CONTROL** down while you type the letter (just like you hold **SHIFT** down on a typewriter to make a capital letter). Experiment with the various functions until you get used to them (review the definitions of "record," "section," and "field" in section 3 if needed).

**TAB** moves back one field at a time. Both the up arrow (↑) and the down arrow (↓) move up or down, respectively, one section at a time. They both work in a circular fashion (i.e. typing the down arrow while in the last section moves the cursor to the first section.)

Simple typing errors can be corrected just by typing over the mistakes. If, for example, you typed **Joens** for **Jones**, just back up using the left arrow (←) and type **ne** over the **en**. Typing the right arrow (→) will move the cursor forward if you backed up too far. If you typed **Joes**, you could type **nes** over the **es**. You could also position the cursor over the **e**, press **CONTROL-A** (in order to insert a space), and type **n**. If you typed **Jonnes**, position the cursor over one of the **n**'s and press **DELETE**. Notice how the **es** automatically moves over after the **n** is deleted.

Move the cursor to the Last Name field and try the above "Jones" examples.

Using the record functions (**CONTROL-F** - next record, **CONTROL-B** - previous record, **CONTROL-G** - go to a record you specify) takes some time because the disk has to spin while it finds and displays the record you want. **CONTROL-G** allows you to go to any record on the disk, instead of moving backwards or forwards one record at a time. The computer will ask you for the number of the record you want; and you may have to guess a few times before you narrow it down.

Use **CONTROL-L** to delete the list of special functions at the bottom of the screen. Another **CONTROL-L** will make them reappear.

Each field has its own **HELP** message, which will explain briefly the sorts of things that are explained fully in this manual. Most questions you may have while typing will be answered in these messages. To get a **HELP** message, move the cursor to the field you have a question about, and type a question mark.

To end your session, type **CONTROL-C**. It is very important that you use only the **CONTROL-C** to end your session (don't just turn the machine off) because typing the **CONTROL-C** saves necessary information on the disk. You will then see the same screen that appears on page 4. To exit type **CONTROL-C** again and turn off both switches.

Any of the function keys can be typed in any field, and at any point within a field.

## 5. CENSUS DATA ENTRY

The computer program is set up so that a lot of the information that is the same from line to line in the census is automatically repeated on the screen. Once you type in the county name, community name, type of community, enumeration district, page number, street, house number, dwelling number, family number, and surname, these will remain constant until you change them. In addition the line number will automatically increase by one each time you start a new record.

In the Subdivision field enter the name of the community only. Do not include the type of community like City, Town, Township, or Village.

In the Class field enter the type of the community, using the following codes:

C - City  
T - Town/Township  
V - Village

In the Enumeration District field enter the Enumeration Dist. No. located at the top of the census page.

In the Ward field enter the name of the ward. Usually only the larger cities are divided into wards. This field will be blank when indexing rural areas. Wards will usually be numbered, but sometimes words will be used. Use a maximum of two characters to name a ward. If it says "East" enter "E", if "Southwest" enter "SW". See appendix B for a list of cities divided into wards.

In the Page field enter the page number. Do not enter the manuscript Page No. written in by the census taker. Enter the sheet number stamped in ink followed by the capital letter in the corner of the page. You may enter a small letter and the computer will capitalize it.

In the Line field enter the line number. As explained above, this will automatically increase by one, but you must remember to adjust this if the census taker left a blank line.

In the Street Name field enter the name of the street including the direction. For example: Enter "East Main St." not just "Main St." The street name is written, if at all, vertically in the leftmost column of the census page. Leave blank if there is no street name given.

In the House # field enter the house number. (Not all named streets had numbered houses.) Use "H" to mean "1/2"; for example, if it says "7454 1/2" enter "7454H".

In the Dwelling # field enter the dwelling number from column 1.

In the Family # field enter the family number from column 2.

In the Last Name field enter the surname from column 3. Often a new last name will be shown the previous one. A fast way to delete the remaining characters, once you've typed a new name, is to type CONTROL-D.

Enter last names beginning with Mc or Mac all in capitals with no spaces, and enter names beginning with O' without the apostrophe. Examples:

enter McDonald or Mc Donald as MCDONALD;  
enter O'Brian or OBrian or Obrian as O'BRIAN.

In the First Name(s) field enter the first name and middle initial(s) or name(s) from column 3. If the name is abbreviated (Chas.) you can spell it out (Charles) if you're sure what the abbreviation means. If in doubt, just type what it says. "Jno." is an old-fashioned abbreviation for "John". Do not enter periods after initials.

In the Race field enter color/race from column 4 according to the following codes:

W - White  
B - Black  
M - Mulatto (part black and part white)  
C - Chinese  
I - Indian/Native American

You can leave this field blank if the person is white, and the computer will automatically enter a "W" (although you won't see this on the screen).

In the Sex field enter sex of person from column 5 according to the following codes:

M - Male  
F - Female

In the Age field enter age from column 6. Enter ages less than a year as the letter "M" followed by the number of months. Ignore the months if over one year. Examples: If it says "7/12" you enter "M7"; if it says "1 9/12" you enter "1". Enter ages less than one month as "M0". You may type in a small "m" and the computer will capitalize it.

In the Relationship field enter the relationship to the head from column 8. Leave blank if it says "Head" or is blank. Use the following codes:

ADA	Adopted Daughter	GGS	Great-Grandson
ASN	Adopted Son	HUS	Husband
ANT	Aunt	INM	Inmate
BOA	Boarder	MOT	Mother
BRO	Brother	MOL	Mother-in-Law
BRL	Brother-in-Law	NEP	Nephew
COU	Cousin	NIE	Niece
DAU	Daughter	OTH	Other/Unknown
DAL	Daughter-in-Law	ROO	Roomer
FAT	Father	SER	Servant
FAL	Father-in-Law	SIS	Sister
GAT	Grand-Aunt	SIL	Sister-in-Law
GDA	Granddaughter	SON	Son
GFA	Grandfather	SOL	Son-in-Law
GMA	Grandmother	SDA	Stepdaughter
GNP	Grand-Nephew	SFA	Stepfather
GNI	Grand-Niece	SMA	Stepmother
GSN	Grandson	SSN	Stepson
GUC	Grand-Uncle	UNC	Uncle
GGD	Great-Granddaughter	WIF	Wife
GGF	Great-Grandfather	WOR	Worker
GGM	Great-Grandmother		

In the Marital Status field enter the marital status from columns 9-11 using the following codes:

S - Single  
M - Married  
W - Widowed  
D - Divorced  
Blank , None given

If the marital status of a person under 16 years old is not given, assume they are single. A mark in the widowed/divorced column means widowed; a capital D means divorced.

In the Married Within Year field indicate if married within the census year from column 12 using the following codes:

Y - Yes  
N or Blank - No

In the Occupation field enter the occupation from column 13: Omit the following occupations: **At school, At home, Keeping house, Housekeeper, and Boarder** (unless listed as "servant" in the relationship column). Leave blank if blank in census.

In the Months Unemployed field enter number of months unemployed from column 14. Leave blank if blank in census.

In the Illness field enter illness from column 15. Leave blank if blank in census.

In the Blind field indicate if blind from column 16 using the following codes:

Y - Yes  
N or Blank - No

In the Deaf/Dumb field indicate if deaf/dumb from column 17 using the following codes:

Y - Yes  
N or Blank - No

In the Idiotic field indicate if idiotic from column 18 using the following codes:

Y - Yes  
N or Blank - No

In the Insane field indicate if insane from column 19 using the following codes:

Y - Yes  
N or Blank - No

In the Disabled field indicate if disabled from column 20 using the following codes:

Y - Yes  
N or Blank - No

In the Attended School field indicate if attended school during census year from column 21 using the following codes:

Y - Yes  
N or Blank - No

In the Cannot Read field indicate if unable to read from column 22 using the following codes:

Y - Yes  
N or Blank - No

In the Cannot Write field indicate if unable to write from column 23 using the following codes:

Y - Yes

N or Blank - No

Birthplaces are coded with two letters for places within the United States and with three letters for foreign places. Sometimes the birthplaces are abbreviated, and so it will be up to you to figure them out as best you can. In addition Germany was, in the 19th century, divided into many small, semi-independent states. Each of these has its own code and it would be a good idea to read over the list below before you start to index. If the birthplace is not on the lists below, or is unreadable, enter "XXX". If the birthplace is Wisconsin, you can leave the field blank.

In the Birthplace, Father's Birthplace, and Mother's Birthplace fields enter the places of birth from columns 24, 25, and 26 using the following codes:

### STATE CODES:

AL	Alabama	MT	Montana Territory
AZ	Arizona Territory	NE	Nebraska
AR	Arkansas	NV	Nevada
CA	California	NH	New Hampshire
CO	Colorado	NJ	New Jersey
CT	Connecticut	NM	New Mexico Territory
DK	Dakota Territory	NY	New York
DE	Delaware	NC	North Carolina
DC	District of Columbia	OH	Ohio
FL	Florida	OR	Oregon
GA	Georgia	PA	Pennsylvania
ID	Idaho Territory	RI	Rhode Island
IL	Illinois	SC	South Carolina
IN	Indiana	TN	Tennessee
IA	Iowa	TX	Texas
KS	Kansas	UT	Utah Territory
KY	Kentucky	VT	Vermont
LA	Louisiana	VA	Virginia
ME	Maine	WA	Washington Territory
MD	Maryland	WV	West Virginia
MA	Massachusetts	WI	Wisconsin
MI	Michigan	WY	Wyoming Territory
MN	Minnesota	US	America or United States (unspecified)
MS	Mississippi		
MO	Missouri		

### COUNTRY CODES:

AFR	Africa	BER	Bermuda
ANT	Antigua	BOH	Bohemia
ASI	Asia (unspecified)	BAM	British America
ATL	Atlantic Islands	CAN	Canada
AUT	Australia	CNR	Canary Islands
AUS	Austria	CEN	Central America
AZO	Azores	CUB	Cuba
BAR	Barbados	DEN	Denmark
BEL	Belgium	ENG	England

EUR	Europe (unspecified)
FIN	Finland
FRA	France
GER	Germany
GIB	Gibraltar
GBR	Great Britain
GRE	Greece
GRN	Grenada
HOL	Holland
HUN	Hungary
IND	India
IRE	Ireland
IOM	Isle of Man
ITA	Italy
JAP	Japan
LEB	Lebanon
LUX	Luxembourg
MAL	Malta
MEX	Mexico
HOL	Netherlands
NBR	New Brunswick

NWF	Newfoundland
NOR	Norway
NSC	Nova Scotia
PAC	Pacific Islands
POL	Poland
POR	Portugal
PEI	Prince Edward Island
RUS	Russia
HI	Sandwich Islands (Hawaii)
SCO	Scotland
SAF	South Africa
SAM	South America
SPA	Spain
SWE	Sweden
SWI	Switzerland
SYR	Syria
TRI	Trinidad
TUR	Turkey
WAL	Wales
WIN	West Indies
SEA	At Sea

#### GERMAN STATE CODES:

ALS	Alsace
ALL	Alsace-Lorraine
ANH	Anhalt
BAD	Baden
BAV	Bavaria/Bayern/Biron
BRA	Brandenburg
BRU	Brunswick/Braunschweig
HAM	Hamburg
HAN	Hanover/Hannover
HES	Hesse/Hessen
HCA	Hesse-Cassel/Hesse-Kassel
HDA	Hesse-Darmstadt
HHO	Hesse-Homburg
HPH	Hesse-Philippsthal
HPB	Hesse-Philippsthal-Barchfeld
HOH	Hohenzollern
HHE	Hohenzollern-Hechingen
HSI	Hohenzollern-Sigmaringen
LIP	Lippe
LBI	Lippe-Biesterfeld
LWI	Lippe-Weissenfeld
LUE	Luebeck/Lubeck

MEC	Mecklenburg
MSC	Mecklenburg-Schwerin
MST	Mecklenburg-Strelitz
MOR	Moravia
NAS	Nassau
OLD	Oldenburg
POM	Pomerania/Pommern
PRU	Prussia/Preussen
SXA	Saxe-Altenburg
SXC	Saxe-Coburg
SXM	Saxe-Meiningen
SXW	Saxe-Weimar
SAX	Saxony/Sachsen
SLI	Schaumburg-Lippe
SHO	Schleswig-Holstein
SCR	Schwarzburg-Rudolstadt
SCS	Schwarzburg-Sondershausen
SIL	Silesia
WLD	Waldeck
WEI	Weimar
WUR	Wurttemberg/Wuerttemberg

Use the Auxiliary field to mark a record you're unsure about with an asterisk (\*); these records will be specially reviewed later.

## 6. HINTS FOR SOLVING PROBLEMS AND ADDITIONAL INFORMATION

### Problems:

There are several types of problems that may crop up: Accidentally turning the machine off while you are still running the program, a power failure, or the program aborting for some reason (see next paragraph). As mentioned before, typing **CONTROL-C** causes the computer to first put necessary information on the disk about the file before quitting. If the program is stopped in any unusual way, it will not have a chance to put that information on the disk. So if you tried to run it again with the same disk it may appear that all your hard work has just vanished into oblivion. However, there is good news: in most cases, all will not be lost. While you are at the screen pictured on page 4, type **CONTROL-C**. Then, at the Applesoft prompt, which is the right square bracket (**)** type **RUN FIX, D1** followed by a **RETURN**. When the computer asks "ENTER DATA FILENAME:" enter your filename followed by a **RETURN**. The computer will then look at your file and fix it if at all possible.

Should the program come across an error situation that it can't recover from, it will say "ERROR e IN LINE n / UNABLE TO CONTINUE, PROGRAM ABORTED", where "e" is the error number and "n" is the line it occurred in. Make a note of both the error and line numbers and what you had been doing before the error happened. Give this information to Phil Slinger to send to Madison so that we can fix the program so that it won't happen again. You may then run the census program again (see next paragraph).

### Additional information:

The program can be rerun without turning the computer off and then back on. If you have typed **CONTROL-C** twice to get out of the program and then wish to run it again, at the Applesoft prompt (**)** just type **RUN** followed by a **RETURN**. If you have been using some other program like "DISPLAY" or "FIX", you will have to type **RUN CENSUS, D1** followed by a **RETURN**.

There is a speedy way to look at a condensed version of the information on the disk. To do this type in at the Applesoft prompt **RUN DISPLAY, D1**. When the computer asks "ENTER DATA FILENAME:" enter the filename. It will then ask you "ENTER RECORD TO START WITH:" and "ENTER NUMBER OF RECORDS TO DISPLAY:". Once you have entered the record number to start with and the number of records to display, the computer will display them, breaking each record up into three lines. Each line will be prefixed with its record number, a period, and a one, two, or three. The number following the period tells which third of the record is on that line. Use **CONTROL-S** to temporarily stop the display. Another **CONTROL-S** will start it up again.

## APPENDIX A

### Population totals for Wisconsin counties, 1880.

Adams	6,741	Manitowoc	37,505
Ashland	1,559	Marathon	17,121
Barron	7,024	Marinette	8,929
Bayfield	564	Marquette	8,908
Brown	34,078	Milwaukee	138,537
Buffalo	15,528	Monroe	21,607
Burnett	3,140	Oconto	9,740
Calumet	16,632	Outagamie	28,646
Chippewa	15,491	Ozaukee	15,461
Clark	10,715	Pepin	6,225
Columbia	28,085	Pierce	17,663
Crawford	15,644	Polk	9,775
Dane	53,233	Portage	17,720
Dodge	45,931	Price	777
Door	11,645	Racine	30,761
Douglas	655	Richland	18,143
Dunn	16,817	Rock	38,607
Eau Claire	19,993	Saint Croix	18,926
Fond du Lac	46,859	Sauk	28,688
Grant	37,852	Shawano	10,079
Green	21,729	Sheboygan	34,203
Green Lake	14,483	Taylor	2,296
Iowa	23,628	Trempealeau	17,169
Jackson	13,285	Vernon	23,105
Jefferson	32,156	Walworth	26,194
Juneau	15,582	Washington	23,440
Kenosha	13,550	Waukesha	28,893
Kewaunee	15,807	Waupaca	20,935
La Crosse	27,073	Waushara	12,655
Lafayette	21,279	Winnebago	42,652
Langlade	685	Wood	8,961
Lincoln	2,011		

## APPENDIX B

Population totals for towns, villages, and wards of cities, 1880.

### ADAMS

Adams town	447
Big Flats town	158
Dell Prairie town	500
Easton town	450
Jackson town	482
Leola town	238
Lincoln town	434
Monroe town	448
New Chester town	304
New Haven town	836
Preston town	136
Quincy town	397
Richfield town	308
Rome town	219
Springville town	437
Strong's Prairie town	947

### ASHLAND

Ashland town	951
Butternut town	608

### BARRON

Barron town	353
Cedar Lake town	351
Clinton town	203
Cumberland town	642
Dallas town	694
Lakeland town	77
Maple Grove town	505
Prairie Farm town	828
Rice Lake town	454
Shetek (Chetek) town	1,286
Stamford town	926
Sumner town	479
Turtle Lake town	226

### BAYFIELD

Bayfield town	564
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### BROWN

Allouez town	259
Ashwaubenon town	404
Bellevue town	777
Depere town	817
Depere village	1,954
Eaton town	686
Fort Howard city	3,083
Glenmore town	1,070
Green Bay city	7,464
Ward 1	1,207
2	2,950

### BROWN (Continued)

Green Bay city (continued)	
Ward 3	3,307
Green Bay town	1,085
Holland town	1,448
Howard town	1,171
Humboldt town	1,060
Lawrence town	837
Morrison town	1,543
New Denmark town	1,386
Pittsfield town	712
Preble town	1,153
Rockland town	803
Scott town	1,352
Suamico town	948
West Depere village	1,870
Wrightstown town	2,196

### BUFFALO

Alma town	731
Alma village	1,244
Belvidere town	723
Buffalo city	248
Buffalo town	655
Canton town	738
Cross town	700
Dover town	722
Fountain City village	963
Gilmanton town, including Gilmanton village	540
Gilmanton village	58
Glencoe town	852
Lincoln town	673
Maxville town	414
Milton town	441
Modena town	811
Montana town	847
Naples town	1,625
Nelson town	1,651
Waumandee town	950

### BURNETT

Bashaw town	160
Grantsburg town	1,613
Marshland town	302
Trade Lake town	580
Wood Lake town	485

### CALUMET

Brillion town	1,492
Brothertown town	1,752
Charlestown town	1,354
Chilton city	1,132
Chilton town	1,361

**CALUMET (Continued)**

Harrison town	2,036
New-Holstein town	2,059
Rantoul town	1,761
Stockbridge town	2,172
Woodville town	1,513

**CHIPPEWA**

Anson town	723
Auburn town	1,232
Big Bend town	231
Bloomer town	1,582
Chippewa Falls city	3,982
Ward 1	1,202
2	1,248
3	777
4	755
Eagle Point town	2,564
Edson town	882
Flambeau town	251
La Fayette town	1,903
Sigel town	856
Wheaton town	1,285

**CLARK**

Beaver town	263
Colby town	813
Eaton town	453
Fremont town	203
Grant town	881
Hewitt town	156
Hixon town	500
Lewis town	266
Loyal town	550
Lynn town	247
Mayville town	1,249
Mentor town	754
Pine Valley town	1,732
Sherman town	300
Sherwood Forest town	115
Thorp town	257
Unity town	381
Warner town	435
Washburn town	153
Weston town	530
York town	477

**COLUMBIA**

Arlington town	1,022
Caledonia town	1,297
Columbus city	1,876
Columbus town	805
Courtland town, incl. part of Cambria vill.	1,321
Cambria village (part of)	409
Dekorra town	1,278
Fort Winnebago town	689
Fountain Prairie town	1,300
Hampden town	944
Leeds town	1,157

**COLUMBIA (Continued)**

Lewiston town	993
Lodi town, including Lodi village	1,462
Lodi village	723
Lowville town	818
Marcellon town	835
Newport town, incl. Kilbourn city village	1,520
Kilbourn City village	945
Otsego town	1,442
Pacific town	249
Portage city	4,346
Ward 1	644
2	800
3	897
4	891
5	1,114
Randolph town incl. part of Cambria village	1,057
Cambria village (part of)	95
Randolph village (part of)	64
Scott town	830
Springvale town	680
West Point town	852
Wyocena town	1,228

**CRAWFORD**

Bridgeport town	448
Clayton town	1,976
Eastman town	1,459
Freeman town	1,544
Haney town	636
Marietta town	1,037
Prairie du Chien city	2,777
Ward 1	689
2	953
3	723
4	412
Prairie du Chien town	724
Scott town	1,046
Seneca town	1,446
Utica town	1,496
Wauzeka town	1,055

**DANE**

Albion town	1,351
Berry town	1,066
Black Earth town	902
Blooming Grove town	927
Blue Mounds town	1,009
Bristol town	1,139
Burke town	1,002
Christiana town	1,859
Cottage Grove town	1,159
Cross Plains town	1,331
Dane town	1,161
Deerfield town	972
Dunkirk town	1,283
Dunn town, including McFarland village	1,140
McFarland village	168
Fitchburg town	978

DANE (Continued)

DODGE (Continued)

Madison city	10,324
Ward 1	2,248
2	2,003
3	2,516
4	2,010
5	1,547
Madison town	735
Mazomanie town	1,646
Medina town	1,406
Middleton town	1,513
Montrose town	1,108
Oregon town, including Oregon village	1,514
Oregon village	527
Perry town	924
Pleasant Springs town	1,278
Primrose town	888
Roxbury town	1,157
Rutland town	1,133
Springdale town	1,006
Springfield town	1,240
Stoughton village	1,353
Sun Prairie town	923
Sun Prairie village	597
Vermont town	961
Verona town	1,017
Vienna town	1,051
Westport town	1,987
Windsor town	1,210
York town	983

DODGE

Ashippun town	1,369
Beaver Dam city	3,416
Ward 1	584
2	850
3	1,009
4	973
Beaver Dam town	1,405
Burnett town incl. Burnett Junction village	1,117
Burnett Junction village	113
Calamus town	1,166
Chester town	750
Clyman town	1,235
Elba town	1,341
Emmett town	1,263
Fox Lake town, including Fox Lake village	1,791
Fox Lake village	955
Herman town	1,641
Hubbard town incl. part of Horicon village	3,249
Horicon village (part of)	1,194
Hustisford town	1,666
Lebanon town	1,580
Le Roy town	1,588
Lomira town	1,845
Lowell town	2,580
Oak Grove town incl. the following villages	2,227
Horicon village (part of)	56
Juneau village	454
Portland town	1,271
Randolph village (part of)	357

Rubicon town	1,660
Shields town	1,025
Theresa town	2,018
Trenton town	1,624
Watertown city (part of)	2,092
Ward 5	721
6	1,371
Waupun city (south ward)	1,314
Westford town	1,093
Williamstown town incl. Mayville village	2,243
Mayville village	1,051

DOOR

Bailey's Harbor town	540
Brussels town	999
Clay Banks town	653
Egg Harbor town	730
Forestville town	1,042
Gardner town	603
Gibraltar town	832
Jacksonport town	432
Liberty Grove town	1,092
Nasewaupee town	762
Sevastopol town	865
Sturgeon Bay town, incl. Sturgeon Bay vill.	2,049
Sturgeon Bay village	1,199
Union town	610
Washington town	427

DOUGLAS

Superior town	655
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DUNN

Colfax town	460
Dunn town	1,115
Eau Galle town	1,154
Elk Mound town	588
Grant town	457
Hay River town	340
Lucas town	497
Menomonie town	4,177
New Haven town	269
Otter Creek town	219
Peru town	296
Red Cedar town	786
Rock Creek town	613
Sand Creek town	667
Sheridan town	687
Sherman town	548
Spring Brook town	1,304
Stanton town	967
Tainter town	754
Tiffany town	413
Weston town	506

EAU CLAIRE

Bridge Creek town, incl. Augusta village	1,894
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**EAU CLAIRE (Continued)**

Augusta village	1,116
Brunswick town	898
Drammén town	401
Eau Claire city	10,119
Ward 1	1,356
2	1,027
3	1,070
4	988
5	1,255
6	1,568
7	1,283
8	1,572
Fairchild town, including Fairchild village	887
Fairchild village	304
Lincoln town	1481
Ludington town	212
Otter Creek town	1,060
Pleasant Valley town	941
Seymour town	515
Union town	631
Washington town	954

**FOND DU LAC**

Alto town	1,335
Ashford town	2,038
Auburn town	1,651
Bryon town	1,284
Calumet town	1,447
Eden town	1,404
Eldorado town	1,617
Empire town	1,065
Fond du Lac city	13,094
Ward 1	1,765
2	2,446
3	1,939
4	2,455
5	884
6	1,221
7	1,068
8	1,316
Fond du Lac town	1,354
Forest town	1,388
Friendship town	1,013
Lamartine town	1,378
Marshfield town	2,044
Metomen town, including Brandon village	1,808
Brandon village	601
Oakfield town	1,304
Osceola town	1,363
Ripon town, including Ripon city	4,274
Ripon city	3,117
Ward 1	1,593
2	1,524
Rosendale town	1,193
Springvale town	1,158
Taychedah town	1,376
Waupun city (North ward)	1,039
Waupun town	1,232

**GRANT**

Beetown town	1,530
Bloomington town	1,229
Boscobel town, including Boscobel city	1,616
Boscobel city	1,428
Cassville town, including Cassville village	1,301
Cassville village	610
Castle Rock town	770
Clifton town	1,078
Ellenboro town	777
Fennimore town	1,126
Glen Haven town	1,022
Harrison town	1,090
Hazel Green town, incl. Hazel Green village	1,821
Hazel Green village	598
Hickory Grove town	771
Jamestown town	1,215
Lancaster town, including Lancaster city	2,810
Lancaster city	1,069
Liberty town	895
Lima town	1,154
Little Grant town	718
Marion town	639
Millville town	204
Mount Hope town	742
Mount Ida town	871
Muscoda town	1,226
Paris town	876
Patch Grove town	826
Platteville town, including Platteville city	3,813
Platteville city	2,687
Potosi town	2,375
Smelser town	1,283
Waterloo town	1,029
Watterstown town	595
Wingville town	1,178
Woodman town	553
Wyalusing town	719

**GREEN**

Adams town	930
Albany town	1,133
Brooklyn town	1,176
Cadiz town	1,358
Clarno town	1,422
Decatur town, including Brodhead village	1,920
Brodhead village	1,254
Exeter town	893
Jefferson town	1,437
Jordan town	1,094
Monroe town, including Monroe village	4,195
Monroe village	3,293
Mount Pleasant town	1,086
New Glarus town	1,060
Spring Grove town	1,166
Sylvester town	928
Washington town	882
York town	1,049

**GREEN LAKE**

7 Berlin city	3,353
Ward 1	1,511
2	742
3	1,100
Berlin town	791
Brooklyn town, including Dartford village	1,364
Dartford village	241
Green Lake town	1,407
Kingston town	825
Mackford town, including Markesan village	1,382
Markesan village	361
Manchester town	1,199
Marquette town	938
Princeton town, including Princeton village	2,074
Princeton village	961
Sainte Marie town	705
Sensca town	445

**IOWA**

Arena town, including Arena village	1,796
Arena village	266
Clyde town	715
Dodgeville town, incl. Dodgeville village	3,540
Dodgeville village	1,547
Eden town	909
Highland town, including Highland village	2,436
Highland village	668
Linden town	1,996
Mifflin town	1,529
Mineral Point city	2,915
Mineral Point town	1,490
Moscow town	921
Pulaski town	1,402
Ridgeway town	2,348
Waldwick town	896
Wyoming town	735

**JACKSON**

Albion town incl. Black River Falls village	2,889
Black River Falls village	1,427
Alma town	1,802
Franklin town	531
Garden Valley town	1,111
Hixton town	1,353
Irving town	898
Manchester town	505
Melrose town	1,320
Milston town	463
Northfield town	1,175
Springfield town	838
Sullivan town	400

**JEFFERSON**

Aztalan town, including part of Johnson's Creek village	1,332
Johnson's Creek village (part of)	69
Cold Spring town	588
Concord town	1,457

**JEFFERSON (Continued)**

Farmington town, incl. part of Johnson's Creek village	2,039
Johnson's Creek village (part of)	139
Hebron town, including Hebron village	1,118
Hebron village	142
Ixonia town	1,597
Jefferson town, including Jefferson city	3,788
Jefferson city	2,115
Ward 1	532
2	864
3	719
Koshkonong town, incl. Fort Atkinson city	3,406
Fort Atkinson city	1,969
Lake Mills town, incl. Lake Mills village	1,568
Lake Mills village	671
Milford town, including Milford village	1,460
Milford village	138
Oakland town	1,043
Palmyra town, including Palmyra village	1,361
Palmyra village	598
Sullivan town	1,357
Sumner town	532
Waterloo town, including Waterloo village	1,768
Waterloo village	719
Watertown city (part of)	5,791
Ward 1	1,850
2	1,553
3	921
4	541
7	926
Watertown town	1,951

**JUNEAU**

Armenia town	296
Clearfield town	283
Fountain town	815
Germantown town	681
Kildare town	557
Kingston town	111
Lemonweir town	1,011
Lindina town	1,062
Lisbon town	491
Lyndon town	460
Marion town	372
Mauston village	1,013
Necedah town, including Necedah village	1,855
Necedah village	1,475
New Lisbon village	1,024
Orange town	538
Plymouth town, including Elroy village	1,503
Elroy village	663
Seven Mile Creek town	785
Summit town	1,014
Wonewoc town, including Wonewoc village	1,711
Wonewoc village	635

**KENOSHA**

Brighton town	1,024
Bristol town	1,069

**KENOSHA (Continued)**

Kenosha city	5,039
Ward 1	1,777
2	1,192
3	1,098
4	972
Paris town	1,002
Pleasant Prairie town	1,336
Randall town	451
Salem town including Wilmot village	1,286
Wilmot village	190
Somers town	1,458
Wheatland town incl. New Munster village	835
New Munster village	87

**KEWAUNEE**

Ahnapee city	948
Ahnapee town	1,430
Carlton town	1,604
Casco town	1,659
Franklin town	1,601
Kewaunee town, incl. Kewaunee village	1,352
Kewaunee village	1,050
Lincoln town	1,147
Montpelier town	1,405
Pierce town	1,743
Red River town	1,582
West Kewaunee town	1,336

**LA CROSSE**

Bangor town	1,196
Barre town	656
Burns town	1,021
Campbell town	885
Farmington town	1,686
Greenfield town	869
Hamilton town	1,661
Holland town	874
La Crosse city	14,505
Ward 1	3,168
2	1,958
3	5,112
4	1,342
5	2,925
Onalaska town	1,916
Shelby town	796
Washington town	1,008

**LA FAYETTE**

Argyle town	1,225
Belmont town	1,244
Benton town	1,519
Blanchard town	622
Darlington town, including Darlington city	2,599
Darlington city	1,372
Elk Grove town	959
Fayette town	1,148
Gratiot town	1,634
Kendall town	849

**LA FAYETTE (Continued)**

Monticello town	413
New Diggings town	1,641
Seymour town	898
Shullsburg town, incl. Shullsburg village	2,245
Shullsburg village	1,168
Wayne town	1,056
White Oak Springs town	451
Willow Springs town	1,089
Wiota town	1,687

**LANGLADE**

Carpenter town	44
Langlade town	368
Springbrook town	273

**LINCOLN**

Ackley town	184
Corning town	112
Jenny town	1,336
Pine River town	278
Rock Falls town	101

**MANITOWOC**

Cato town	1,875
Centreville town	1,560
Cooperstown town	1,700
Eaton town	1,524
Franklin town	1,875
Gibson town	1,739
Kossuth town	2,168
Liberty town	1,387
Manitowoc city	6,367
Manitowoc town	1,282
Manitowoc Rapids town	2,077
Maple Grove town	1,523
Meeme town	1,684
Mishicot town	1,568
Newton town	1,867
Rockland town	1,234
Schleswig town	2,069
Two Creeks town	630
Two Rivers city	2,052
Two Rivers town	1,324

**MARATHON**

Bergen town	450
Berlin town	1,000
Brighton town	726
Easton town	186
Hamburg town	563
Holton town	490
Hull town	720
Knowlton town	379
Maine town	880
Marathon town	871
Mosinee town, including Mosinee village	882
Mosinee village	201

**MARATHON (Continued)**

Rib Falls town	574
Ristbrock town	409
Spencer town	1,091
Stettin town	684
Texas town	458
Wausau city	4,277
Wausau town	1,061
Weston town	968
Wien town	452

**MARINETTE**

Marinette town	5,412
Peshtigo town	3,517

**MARQUETTE**

Buffalo town	750
Crystal Lake town	644
Douglas town	657
Harris town	534
Mecan town	621
Montello town, including Montello village	950
Montello village	394
Moundville town	334
Neshkoro town	589
Newton town	724
Oxford town	532
Packwaukee town	691
Shields town	620
Springfield town	428
Westfield town	834

**MILWAUKEE**

Franklin town	1,819
Granville town	2,370
Greenfield town	2,674
Lake town, including Bay View village	5,430
Bay View Village	2,852
Milwaukee city	115,587
Ward 1	11,016
2	14,406
3	6,891
4	12,491
5	8,641
6	9,639
7	7,192
8	7,908
9	10,006
10	8,895
11	8,881
12	5,448
13	4,172
Milwaukee town	3,472
Oak Creek town	2,097
Wauwatosa town	5,088

**MONROE**

Adrian town	715
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**MONROE (Continued)**

Angelo town	469
Byron town	415
Clifton town	884
Glendale town	1,401
Greenfield town	586
Jefferson town	1,087
La Fayette town	402
La Grange town	839
Leon town	748
Lincoln town	975
Little Falls town	705
New Lyme town	140
Northdale town	733
Northland town	1,056
Northville town	1,286
Sheldon town	794
Sparta town, including Sparta village	3,459
Sparta village	2,387
Tomah town, including Tomah village	2,106
Tomah village	1,245
Wellington town	1,050
Wells town	658
Wilton town	1,099

**OCONTO**

Gillett town	637
Howe town	178
Little River town	695
Little Suamico town	942
Maple Valley town	589
Oconto city	4,171
Ward 1 (north)	785
2 (west)	810
3 (south)	1,519
4 (east)	1,057
Oconto town	893
Pensaukee town	1,420
Stiles town	323

**OUTAGAMIE**

Appleton city	8,005
Ward 1	1,273
2	2,662
3	1,616
4	870
5	859
6	725
Black Creek town	1,285
Bovina town	690
Buchanan town	1,010
Center town	1,596
Cicero town	777
Dale town	1,123
Deer Creek town	653
Ellington town	1,377
Freedom town	1,663
Grand Chute town	1,578
Greenville town	1,326
Hortonia town	1,193

**OUTAGAMIE (Continued)**

Kaukauna town	2,235
Liberty town	504
Maine town	403
Maple Creek town	818
New London city (part of)	256
Osborn town	612
Seymour city	850
Seymour town	762

**OZAUKEE**

Belgium town	1,948
Cedarburg town	2,536
Frederonia town	1,839
Grafton town	1,570
Mequon town	3,023
Port Washington town	2,604
Saukville town	1,941

**PEPIN**

Albany town	431
Durand town, including Durand village	879
Durand village	642
Frankfort town	639
Lima town	605
Pepin town	1,515
Stockholm town	763
Waterville town	1,197
Waubek town	197

**PIERCE**

Clifton town	703
Diamond Bluff town	534
El Paso town	690
Ellsworth town	1,502
Gilman town	888
Hartland town	1,215
Isabelle town	250
Maiden Rock town	1,375
Martel town	1,284
Oak Grove town	973
Prescott city	975
River Falls town	2,516
Rock Elm town	899
Salem town	478
Spring Lake town	843
Trenton town	737
Trimbelle town	1,148
Union town	734

**POLK**

Alden town	1,274
Apple River town	412
Balsam Lake town	357
Black Brook town	722
Clam Falls town	115
Clayton town	546
Clear Lake town	809

**POLK (Continued)**

Eureka town	595
Farmington town	968
Georgetown town	123
Laketown town	461
Lincoln town	557
Lorraine town	109
Luck town	270
Milltown town	282
Osceola town	1,297
Saint Croix Falls town	542
Sterling town	406
West Sweden town	173

**PORTAGE**

Alban town	310
Almond town	872
Amherst town	1,375
Belmont town	535
Buena Vista town	830
Carson town	426
Eau Plaine town	598
Grant town	309
Hull town	1,044
Lanark town	663
Linwood town	406
New Hope town	801
Pine Grove town	339
Plover town	1,220
Sharon town	1,639
Stevens Point city	4,449
Ward 1	1,020
2	1,378
3	1,063
4	988
Stevens Point town	569
Stockton town	1,346

**PRICE**

Brannan town	278
Fifield town	230
Worcester town	277

**RACINE**

Burlington town	2,738
Caledonia town	2,654
Dover town	927
Mount Pleasant town	2,166
Norway town	981
Racine city	16,031
Ward 1	1,414
2	1,796
3	2,892
4	3,916
5	3,740
6	2,273
Raymond town	1,667
Rochester town	775
Waterford town	1,451

RACINE (Continued)

SAINT CROIX (Continued)

Yorkville town 1,532

**RICHLAND**

Akan town 841  
 Bloom town 1,358  
 Buena Vista town 1,075  
 Dayton town 1,109  
 Eagle town 1,303  
 Forest town 950  
 Henrietta town 1,005  
 Ithaca town 1,110  
 Marshall town 989  
 Orion town 733  
 Richland town, incl. Richland Center village 2,048  
     Richland Center village 1,227  
 Richwood town 1,515  
 Rockbridge town 1,200  
 Sylvan town 1,035  
 Westford town 1,002  
 Willow town 901

**ROCK**

Avon town 815  
 Beloit city 4,790  
     Ward 1 1,304  
         2 1,006  
         3 1,229  
         4 1,251  
 Beloit town 707  
 Bradford town 979  
 Center town 1,105  
 Clinton town 2,126  
 Fulton town 2,244  
 Harmony town 1,085  
 Janesville city 9,018  
     Ward 1 2,313  
         2 1,778  
         3 1,415  
         4 2,495  
         5 1,017  
 Janesville town 900  
 Johnstown town 1,217  
 La Prairie town 819  
 Lima town 1,094  
 Magnolia town 1,143  
 Milton town 1,794  
 Newark town 1,130  
 Plymouth town 1,245  
 Porter town 1,224  
 Rock town 1,006  
 Spring Valley town 1,172  
 Turtle town 1,133  
 Union town, including Evansville village 2,077  
     Evansville village 1,068

**SAINT CROIX**

Baldwin town, including Baldwin village 1,228  
     Baldwin village 591

Cady town 516  
 Cylon town 716  
 Eau Galle town 846  
 Emerald town 619  
 Erin Prairie town 1,013  
 Hammond town 1,418  
 Hudson city 2,298  
     Ward 1 455  
         2 1,061  
         3 782  
 Hudson town 665  
 Kinnickinnic town 778  
 New Richmond town, including part of New  
     Richmond village 1,386  
     New Richmond village (part of) 573  
 Pleasant Valley town 593  
 Rush River town 677  
 Saint Joseph town 642  
 Somerset town 968  
 Springfield town 1,372  
 Stanton town 752  
 Star Prairie town, including part of New  
     Richmond village 944  
     New Richmond village (part of) 156  
 Troy town 979  
 Warren town 746

**SAUK**

Baraboo town, including Baraboo village 4,594  
     Baraboo village 3,266  
 Bear Creek town 808  
 Dellona town 580  
 Delton town 857  
 Excelsior town 1,109  
 Fairfield town 744  
 Franklin town 1,010  
 Freedom town 1,332  
 Greenfield town 792  
 Honey Creek town 1,248  
 Ironton town 1,310  
 Lavelle town 1,364  
 Merrimack town 829  
 Prairie du Sac town, incl. Sauk City village 1,963  
     Sauk City village 917  
 Reedsburg town, incl. Reedsburg village 2,546  
     Reedsburg village 1,331  
 Spring Green town, incl. Spring Green vill. 1,090  
     Spring Green village 450  
 Sumpter town 746  
 Troy town 1,029  
 Washington town 1,175  
 Westfield town 1,462  
 Winfield town 773  
 Woodland town 1,368

**SHAWANO**

Almon town 303  
 Angelica town 335  
 Belle Plain town 735

**SHAWANO (Continued)**

Fairbanks town	191
Grant town	757
Green Valley town	392
Hartland town	1,196
Herman town	462
Hutchinson town	280
Lessor town	465
Maple Grove town	600
Milltown town	485
Navarino town	189
Pella town	585
Richmond town	706
Seneca town	346
Shawano city	890
Washington town	809
Waukechon town	645

**SHEBOYGAN**

Greenbush town, incl. Glenbeulah village	1,977
Glenbeulah village	375
Herman town	2,133
Holland town	3,012
Lima town	2,126
Lyndon town	1,704
Mitchell town	1,178
Mosel town	1,011
Plymouth city	1,052
Plymouth town	1,482
Rhine town	1,542
Russell town	557
Scott town	1,584
Sheboygan city	7,314
Ward 1	1,278
2	2,310
3	769
4	2,125
5	832
Sheboygan town	1,616
Sheboygan Falls town	1,810
Sheboygan Falls village	1,148
Sherman town	1,750
Wilson town	1,210

**TAYLOR**

Chelsea town	298
Little Black town	763
Medford town	1,020
Westboro town	230

**TREMPEALEAU**

Albion town	666
Arcadia town, including Arcadia village	3,167
Arcadia village	665
Burnside town	1,591
Caledonia town	446
Dodge town	569
Etrick town	1,656
Gale town	1,786

**TREMPEALEAU (Continued)**

Hale town	1,301
Lincoln town	863
Pigeon town	793
Preston town	1,530
Sumner town	693
Trempealeau town, incl. Trempealeau vill.	1,567
Trempealeau village	615
Unity town	561

**VERNON**

Bergen town	1,014
Christiana town	1,305
Clinton town	1,008
Coon town	983
Forest town	889
Franklin town	1,319
Genoa town	919
Greenwood town	1,050
Hamburg town	1,156
Harmony town	1,062
Hillsborough town	1,218
Jefferson town	1,284
Kickapoo town	1,233
Liberty town	543
Stark town	954
Sterling town	1,382
Union town	741
Viroqua town, including Viroqua village	2,368
Viroqua village	762
Webster town	1,060
Wheatland town	917
Whitestown town	830

**WALWORTH**

Bloomfield town	1,097
Darien town	1,394
Delavan town, including Delavan village	2,560
Delavan village	1,798
East Troy town, including East Troy village	1,407
East Troy village	368
Elkhorn village	1,122
Geneva town, including Geneva village	2,899
Geneva village	1,969
La Fayette town	1,028
La Grange town	921
Linn town	823
Lyons town	1,312
Richmond town	882
Sharon town	1,956
Spring Prairie town	1,107
Sugar Creek town	980
Troy town	964
Walworth town	1,278
Whitewater town, incl. Whitewater village	4,519
Whitewater village	3,617

**WASHINGTON**

Addison town	1,774
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WASHINGTON (Continued)

Barton town	1,275
Erin town	1,273
Farmington town	1,770
Germanton town	1,979
Hartford town	2,739
Jackson town	1,844
Kewaskum town	1,436
Polk town, incl. Schleisingerville village	2,037
Schleisingerville village	358
Richfield town	1,708
Trenton town	1,890
Wayne town	1,594
West Bend town	850
West Bend village	1,273

WAUKESHA

Brookfield town	2,096
Delafield town	1,451
Eagle town	1,155
Genesee town	1,368
Lisbon town	1,437
Menomonee town	2,258
Merton town	1,577
Mukwonago town	1,084
Muskego town	1,422
New Berlin town	1,620
Oconomowoc city	2,174
Oconomowoc town	1,336
Ottawa town	841
Pewaukee town, incl. Pewaukee village	2,192
Pewaukee village	566
Summit town	1,138
Vernon town	1,195
Waukesha town	4,613

WAUPACA

Bear Creek town	984
Caledonia town	902
Dayton town	801
Dupont town	654
Farmington town	764
Fremont town	879
Helvetia town	243
Iola town	979
Larrabee town, incl. Clintonville village	1,385
Clintonville village	573
Lebanon town	843
Lind town	978
Little Wolf town	1,342
Matteson town	520
Mukwa town	1,022
New London city (part of)	1,552
Royalton town	1,086
Saint Lawrence town	874
Scandinavia town	987
Union town	684
Waupaca city	1,392
Waupaca town	841

WAUPACA (Continued)

Weyauwega town, incl. Weyauwega village	1,243
Weyauwega village	722

WAUSHARA

Aurora town	1,081
Bloomfield town	1,384
Coloma town	443
Dakota town	537
Deerfield town	307
Hancock town	575
Leon town	768
Marion town	582
Mount Morris town	665
Oasis town	628
Plainfield town	1,109
Poysippi town	1,031
Richford town	449
Rose town	464
Saxville town	719
Spring Water town	577
Warren town	660
Wautoma town	708

WINNEBAGO

Algoma town	791
Black Wolf town	888
Clayton town	1,270
Menasha city	3,144
Menasha town	631
Neenah city	4,202
Ward 1	1,305
2	1,343
3	1,141
4	413
Neenah town	588
Nekimi town	1,226
Nepeuskun town	1,050
Omro town, including Omro village	2,694
Omro village	1,476
Oshkosh city	15,748
Ward 1	2,965
2	2,518
3	2,679
4	3,696
5	1,702
6	2,188
Oshkosh town	1,384
Poygan town	925
Rushford town	2,059
Utica town	1,045
Vinland town	1,069
Winchester town	1,176
Winneconne town	1,910
Wolf River town	940

WOOD

Auburndale town	809
Centralia city	806

**WOOD (Continued)**

Dexter town	209
Grand Rapids city	1,350
Grand Rapids town	656
Lincoln town	532
Marshfield town	1,001
Port Edwards town	348
Remington town	196

**WOOD (Continued)**

Rock town	261
Rudolph town	908
Saratoga town	316
Seneca town	567
Sigel town	656
Wood town	366

## APPENDIX C

For those interested in computer programming, a copy of the 1880 Census Program, written in Applesoft BASIC, is included below.

```
10 REM                                1880 CENSUS PROGRAM
20 REM
30 REM                                CREATED BY
40 REM                                CLIFFORD W. BASS
50 REM
60 REM                                FOR USE BY
70 REM                                GREEN BAY CORRECTIONAL INSTITUTION
80 REM
90 REM  COPYRIGHT 1984 BY THE STATE HISTORICAL SOCIETY OF WISCONSIN
100 REM  ALL RIGHTS RESERVED
110 DIM X(35),Y(35),L(35),I$(31),IS(35)
120 FOR I = 0 TO 35: READ Y(I),X(I),L(I): NEXT I
130 DATA 6,17,30,5,14,14,5,38,1,5,64,3,5,76,2,7,7,4,7,20,3,7,39,14,7,65
140 DATA 5,8,13,4,8,30,4,8,48,20,10,16,20,10,45,1,10,54,1,10,63,3,11,15
150 DATA 3,11,37,1,11,62,1,12,13,15,12,50,2,13,10,20,13,40,1,13,55,1
160 DATA 13,68,1,14,9,1,14,23,1,14,44,1,14,61,1,14,79,1,15,13,3,15,40,3
170 DATA 15,67,3,16,12,1,23,22,5,10,20,4
180 REM CHANGE 'HP = 1' TO 'HP = -1' TO MAKE THE PROGRAM START OUT NOT
    DISPLAYING THE SPECIAL KEY HELP MENU
190 HP = 1
200 SP$ = "                                ": PRINT CHR$(4);"PR #3": PRINT CHR$(4);"MAXFILES
    -1":E2 = 0
210 ONERR GOTO 5910
220 HE = 0: HOME : PRINT TAB(31);"1880 CENSUS PROGRAM"
230 PRINT : PRINT TAB(11);"COPYRIGHT 1984 BY THE STATE HISTORICAL SOCIETY OF
    WISCONSIN"
240 PRINT TAB(31);"ALL RIGHTS RESERVED"
250 VTAB 6: HTAB 19: CALL - 958
260 VTAB 5: PRINT : PRINT "ENTER FILENAME: ";
270 IE = 0: PRINT IS(0): GOTO 750
280 IF IS(0) = "" THEN 270
290 FOR I = 1 TO LEN (IS(0)):F1$ = MID$(IS(0),I,1)
300 IF F1$ < > "." AND F1$ < > " " AND (F1$ < "A" OR F1$ > "Z") AND (F1$ < "0" OR
    F1$ > "9") THEN 330
310 NEXT I
320 GOTO 340
330 VTAB 6: HTAB 18: CALL - 868:IS(0) = "": GOTO 270
340 PRINT
350 VTAB 6: CALL - 868: HTAB 19: PRINT "PLEASE MAKE SURE THAT <CAPS LOCK> IS
    DOWN"
360 VTAB 8: HTAB INT ((50 - LEN (IS(0))) / 2): PRINT "PLEASE INSERT ";IS(0);" DISK IN
    DRIVE 2"
370 CALL - 958
380 VTAB 23: HTAB 30: PRINT "OK TO CONTINUE (Y/N)? ";; GET A$
390 IF A$ < > "Y" AND A$ < > "y" THEN 250
400 TR = 0
410 PRINT : PRINT CHR$(4);"UNLOCK ";IS(0);" , D2"
420 PRINT CHR$(4);"OPEN ";IS(0);" , L61"
430 PRINT CHR$(4);"READ ";IS(0);" , R0"
440 INPUT R$:TR = VAL ( LEFT$(R$,3))
450 IF TR > 0 THEN 540
460 VTAB 23: HTAB 30: CALL - 868; VTAB 9: PRINT : PRINT "ENTER COUNTY CODE:
    ";IS(35);
470 PRINT CHR$(4):IE = 35: GOTO 750
480 IF LEN (IS(35)) < 4 THEN 470
```

```

490 I$(35) = ""
500 FOR I = 0 TO 3: J = ASC (I$(I)): IF J > 96 AND J < 123 THEN J = J - 32
510 IF J < 65 OR J > 90 THEN 470
520 I$(35) = I$(35) + CHR$( J): NEXT I
530 GOTO 560
540 I$(35) = MID$( R$,4,4)
550 PRINT CHR$( 4)
560 HOME : PRINT TAB( 29);"Wisconsin 1880 Census": PRINT TAB( 34);I$(35);" County"
570 PRINT "File ";I$(0); TAB( 64 - LEN (I$(0)));"Record"
580 PRINT : PRINT "Subdivision:"; TAB( 19);"Class:"; TAB( 6);"Enumeration District:"; TAB(
8);"Ward:"
590 PRINT : PRINT "Page:"; TAB( 9);"Line:"; TAB( 8);"Street Name:"; TAB( 19);"House #:"
600 PRINT "Dwelling #:"; TAB( 9);"Family #:"; TAB( 9);"Last Name:"
610 PRINT : PRINT "First Name(s):"; TAB( 25);"Race:" TAB( 6);"Sex:"; TAB( 6);"Age:"
620 PRINT "Relationship:"; TAB( 8);"Marital Status:"; TAB( 6);"Married Within Year:"
630 PRINT "Occupation:"; TAB( 20);"Months Unemployed:"
640 PRINT "Illness:"; TAB( 25);"Blind:"; TAB( 6);"Deaf/Dumb:"; TAB( 6);"Idiotic:"
650 PRINT "Insane:"; TAB( 6);"Disabled:"; TAB( 6);"Attended School:"; TAB( 6);"Cannot Read:";
TAB( 6);"Cannot Write:"
660 PRINT "Birthplace:"; TAB( 8);"Father's Birthplace:"; TAB( 8);"Mother's Birthplace:"
670 PRINT "Auxiliary:"; HE = 1
680 IF TR > 0 THEN 720
690 VTAB 3: POKE 36,75: PRINT "1";
700 IE = 1: CR = 1: IF E2 = 0 THEN 750
710 E2 = 0: GOTO 740
720 CR = TR: GOSUB 4520: IE = 12
730 VTAB 23: HTAB 26: CALL - 868
740 FOR I = 1 TO 33: VTAB Y(I): POKE 36,X(I) - 1: PRINT I$(I);: NEXT I
750 IF HE = 0 THEN 840: REM L > THIS LINE FOR E = 8
760 IF HE = 1 THEN 780
770 HE = 0: VTAB 17: PRINT : CALL - 868: GOTO 840
780 GOSUB 5780: HE = 0: PRINT : PRINT: IF HP = - 1 THEN 840
790 PRINT "Left arrow - Move left      RETURN - Next field      CONTROL-F - Next record"
800 PRINT "Right arrow - Move right   TAB - Prev. field      CONTROL-B - Prev. record"
810 PRINT "CONTROL-A - Insert space  Down arrow - Next sect. CONTROL-G - Goto record x"
820 PRINT "DELETE - Del. character    Up arrow - Prev. sect. ? - Help"
830 PRINT "CONTROL-D - Delete to end of field CONTROL-C - Quit";
840 VTAB Y(IE): POKE 36, X(IE) - 1
850 LI = LEN (I$(IE)): IF LI = 0 THEN 890
860 FOR I = 1 TO LI: I2$(I - 1) = MID$( I$(IE),I,1): NEXT I
870 IF I2$(LI - 1) < > " " THEN 890
880 LI = LI - 1: IF LI > 0 THEN 870
890 CP = 0
900 GET A$
910 K = PEEK ( - 16384)
920 IF K = 63 THEN 1820
930 IF K > 31 AND K < 127 THEN 980
940 IF K = 127 THEN 1110
950 IF K = 21 THEN 1050
960 IF K > 13 THEN 900
970 ON K GOTO 1070,1170,1710,1150,900,1170,1170,1030,1170,1170,1170,1020,1170
980 IF CP = L(IE) THEN 900
990 I2$(CP) = A$: PRINT A$;: IF CP = LI THEN LI = LI + 1
1000 CP = CP + 1
1010 GOTO 900
1020 HP = - HP: HE = 1: GOTO 750
1030 IF CP = 0 THEN 900
1040 PRINT CHR$( 8);: CP = CP - 1: GOTO 900
1050 IF CP = LI THEN 900
1060 PRINT I2$(CP);: CP = CP + 1: GOTO 900
1070 IF LI = L(IE) OR CP = LI THEN 900
1080 FOR I = LI - 1 TO CP STEP - 1: I2$(I + 1) = I2$(I): NEXT I

```

```

1090 LI = LI + 1:I2$(CP) = " ": FOR I = CP TO LI - 1: PRINT I2$(I):: NEXT I
1100 POKE 36,X(IE) + CP - 1: GOTO 900
1110 IF CP = LI THEN 900
1120 IF CP = LI - 1 THEN 1140
1130 FOR I = CP TO LI - 2:I2$(I) = I2$(I + 1): PRINT I2$(I):: NEXT I
1140 PRINT " " :: POKE 36,X(IE) + CP - 1:LI = LI - 1: GOTO 900
1150 IF CP = LI THEN 900
1160 PRINT LEFT$(SP$,LI - CP)::LI = CP: POKE 36,X(IE) + CP - 1: GOTO 900
1170 I$(IE) = " ": IF LI = 0 THEN 1190
1180 FOR I = 0 TO LI - 1:I$(IE) = I$(IE) + I2$(I): NEXT I
1190 IF IE = 0 AND K = 13 THEN 280
1200 IF IE = 35 AND K = 13 THEN 480
1210 IF IE = 34 AND K = 13 THEN 1540
1220 IF IE = 0 OR IE > 33 THEN 900
1230 ON K GOTO 970,1270,970,970,1390,1460,970,1240,1580,1630,970,1680
1240 IF IE = 1 THEN 1260
1250 IE = IE - 1: GOTO 750
1260 IE = 33: GOTO 750
1270 IF CR > 1 THEN 1300
1280 GOSUB 5780
1290 VTAB 22: PRINT : PRINT "NO PREVIOUS RECORD": VTAB Y(IE): POKE 36,X(IE) + CP - 1:HE = 1:GOTO 900
1300 IF CR < = TR THEN 1350
1310 GOSUB 5780
1320 VTAB 22: PRINT : PRINT "OK TO SAVE CURRENT RECORD (Y/N)? " :: GET A$:HE = 1
1330 IF A$ = "Y" OR A$ = "y" THEN 1360
1340 GOTO 1370
1350 IF CR < TR THEN 4750
1360 GOSUB 3960
1370 CR = CR - 1: GOSUB 4520
1380 IE = 12: GOTO 750
1390 GOTO 4750
1400 GOSUB 3960:CR = CR + 1
1410 IF CR > TR THEN 1440
1420 GOSUB 4520
1430 GOTO 1450
1440 GOSUB 5790
1450 IE = 12: GOTO 750
1460 IF CR < = TR THEN 1500
1470 GOSUB 5780
1480 VTAB 22: PRINT : PRINT "OK TO SAVE CURRENT RECORD (Y/N)? " :: GET A$: IF A$ = "Y" OR A$ = "y" THEN 1510
1490 GOTO 1530
1500 IF CR < TR THEN 4750
1510 GOSUB 3960
1520 GOSUB 5780
1530 VTAB 22: PRINT : PRINT "ENTER RECORD NUMBER:" :: CALL - 868:IE = 34:HE = 1:I$(34) = " ": GOTO 840
1540 IE = 12: IF I$(34) = " " THEN 750
1550 CR = INT ( VAL (I$(34))): IF CR < = 0 THEN CR = 1
1560 IF CR > TR THEN CR = TR
1570 GOSUB 4520:IE = 12: GOTO 750
1580 IF IE > 4 THEN 1600
1590 IE = 5: GOTO 750
1600 IF IE > 11 THEN 1620
1610 IE = 12: GOTO 750
1620 IE = 1: GOTO 750
1630 IF IE < 12 THEN 1650
1640 IE = 5: GOTO 750
1650 IF IE < 5 THEN 1670
1660 IE = 1: GOTO 750
1670 IE = 12: GOTO 750

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1680 IF IE = 33 THEN 1700
1690 IE = IE + 1: GOTO 750
1700 IE = 1: GOTO 750
1710 IF IE = 0 THEN 6340
1720 IF IE = 34 THEN 750
1730 PRINT : PRINT CHR$(4); "WRITE "; IS(0); ", R0"
1740 R$ = STR$(TR): IF TR < 100 THEN R$ = "0" + R$
1750 IF TR < 10 THEN R$ = "0" + R$
1760 R$ = R$ + IS(35) + SP$ + LEFT$(SP$,22)
1770 PRINT R$
1780 PRINT CHR$(4); "CLOSE"
1790 IF IE = 35 THEN 250
1800 FOR I = 0 TO 35: IS(I) = "": NEXT I
1810 GOTO 220
1820 CH = PEEK(36): CV = PEEK(37): REM L < THIS LINE FOR I/O ERROR
1830 IF IE = 0 THEN 1880
1840 GOSUB 5780: HE = 1
1850 IF IE > 18 THEN 1870
1860 ON IE GOTO
    1900,1930,1960,1970,2010,2040,2050,2070,2080,2090,2100,2110,2120,2150,2170,
    2200,2490,2510
1870 ON IE - 18 GOTO
    2520,2540,2550,2560,2570,2580,2590,2600,2610,2620,2630,2640,2650,2660,
    3700,900,3720
1880 VTAB 7: PRINT : CALL - 958: PRINT CHR$(4); "CATALOG, D2"
1890 IS(0) = "": FOR I = 0 TO LI - 1: IS(0) = IS(0) + I2$(I): NEXT I: GOTO 260: REM IF L <
    THIS LINE FOR I/O ERROR
1900 PRINT "Enter the name of the community only"
1910 PRINT "Do not include the TYPE of community: City, Town/Township, or Village"
1920 GOTO 3950
1930 PRINT "Enter the TYPE of community": PRINT "C - City"
1940 PRINT "T - Town/Township": PRINT "V - Village"
1950 GOTO 3950
1960 PRINT "Enter the Enumeration Dist. No. at the top of the census page": GOTO 3950
1970 PRINT "Enter the name of the ward": PRINT "Usually only the larger cities are divided into
    wards"
1980 PRINT "This field will be blank when indexing rural areas"
1990 PRINT "Wards will usually be numbered, but sometimes words will be used": PRINT "Use a
    maximum of two characters to name a ward"
2000 PRINT "If it says 'East' enter 'E', if 'Southwest' enter 'SW': GOTO 3950
2010 PRINT "Enter the page number": PRINT "Do NOT enter the manuscript 'Page No.'"
2020 PRINT "Enter the sheet number stamped in ink followed by the capital letter in the"
2030 PRINT "corner of the page": GOTO 3950
2040 PRINT "Enter the line number": GOTO 3950
2050 PRINT "Enter the name of the street including the direction": PRINT "For example: Enter
    'East Main St.' not just 'Main St.'"
2060 PRINT "The street name is welling number from column 1": GOTO 3950
2090 PRINT "Enter the family number from column 2": GOTO 3950
2100 PRINT "Enter the surname from column 3": GOTO 3950
2110 PRINT "Enter the first name and middle initial or name from column 3": GOTO 3950
2120 PRINT "Enter color/race from column 4": PRINT "W - White", "B - Black"
2130 PRINT "M - Mulatto", "C - Chinese": PRINT "I - Indian/Native American"
2140 GOTO 3950
2150 PRINT "Enter sex of person from column 5": PRINT "M - Male"
2160 PRINT "F - Female": GOTO 3950
2170 PRINT "Enter age from column 6": PRINT "Enter ages less than a year as the letter 'M'
    followed by the number of months"
2180 PRINT "Ignore the months if over one year"
2190 PRINT "Examples: If it says '7/12' you enter 'M7': PRINT " If it says '1 9/12' you
    enter '1': GOTO 3950
2200 PRINT "Leave blank if column 8 says 'Head' or is blank, otherwise": PRINT "enter the
    relationship to the head from column 8"

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2210 PRINT : PRINT : PRINT : PRINT : PRINT "TYPE 'R' TO SEE RELATIONSHIP CODES,  
 ANY OTHER KEY TO RETURN ";; GET A\$  
 2220 IF A\$ < > "R" AND A\$ < > "r" THEN 3950  
 2230 GOSUB 5780  
 2240 PRINT "ADA - Adopted Daughter    BRL - Brother-in-Law    FAL - Father-in-Law"  
 2250 PRINT "ASN - Adopted Son    COU - Cousin    GAT - Grand-Aunt"  
 2260 PRINT "ANT - Aunt    DAU - Daughter    GDA - Granddaughter"  
 2270 PRINT "BOA - Boarder    DAL - Daughter-in-Law    GFA - Grandfather"  
 2280 PRINT "BRO - Brother    FAT - Father    GMA - Grandmother"  
 2290 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, ANYTHING ELSE TO RETURN ";; GET  
 A\$  
 2300 IF A\$ < > "N" AND A\$ < > "n" THEN 3950  
 2310 GOSUB 5780  
 2320 PRINT "GNP - Grand-Nephew    GGF - Great-Grandfather    MOT - Mother"  
 2330 PRINT "GNI - Grand-Niece    GGM - Great-Grandmother    MOL - Mother-in-Law"  
 2340 PRINT "GSN - Grandson    GGS - Great-Grandson    NEP - Nephew"  
 2350 PRINT "GUC - Grand-Uncle    HUS - Husband    NIE - Niecc"  
 2360 PRINT "GGD - Great-Granddaughter    INM - Inmate    OTH - Other/Unknown"  
 2370 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY  
 OTHER KEY TO RETURN ";; GET A\$  
 2380 IF A\$ = "P" OR A\$ = "p" THEN 2230  
 2390 IF A\$ < > "N" AND A\$ < > "n" THEN 3950  
 2400 GOSUB 5780  
 2410 PRINT "ROO - Roomer    SOL - Son-in-Law    SSN - Stepson"  
 2420 PRINT "SER - Servant    SDA - Stepdaughter    UNC - Uncle"  
 2430 PRINT "SIS - Sister    SFA - Stepfather    WIF - Wife"  
 2440 PRINT "SIL - Sister-in-Law    SMA - Stepmother    WOR - Worker"  
 2450 PRINT "SON - Son"  
 2460 PRINT : PRINT "TYPE 'P' FOR PREVIOUS SCREEN, ANY OTHER KEY TO RETURN ";;  
 GET A\$  
 2470 IF A\$ = "P" OR A\$ = "p" THEN 2310  
 2480 GOTO 3950  
 2490 PRINT "Enter the marital status from columns 9-11": PRINT "S - Single", "M - Married"  
 2500 PRINT "W - Widowed", "D - Divorced": PRINT "Blank - None given": GOTO 3950  
 2510 PRINT "Indicate if married within the census year from column 12": GOTO 3940  
 2520 PRINT "Enter occupation from column 13": PRINT "Omit these occupations:"  
 2530 PRINT "At school", "At home": PRINT "Keeping house", "Housekeeper (unless a paid servant)":  
 GOTO 3950  
 2540 PRINT "Enter number of months unemployed from column 14": GOTO 3950  
 2550 PRINT "Enter illness from column 15": GOTO 3950  
 2560 PRINT "Indicate if blind from column 16": GOTO 3940  
 2570 PRINT "Indicate if deaf/dumb from column 17": GOTO 3940  
 2580 PRINT "Indicate if idiotic from column 18": GOTO 3940  
 2590 PRINT "Indicate if insane from column 19": GOTO 3940  
 2600 PRINT "Indicate if disabled from column 20": GOTO 3940  
 2610 PRINT "Indicate if attended school during census year from column 21": GOTO 3940  
 2620 PRINT "Indicate if unable to read from column 22": GOTO 3940  
 2630 PRINT "Indicate if unable to write from column 23": GOTO 3940  
 2640 PRINT "Enter the place of birth from column 24": GOTO 2670  
 2650 PRINT "Enter father's place of birth from column 25": GOTO 2670  
 2660 PRINT "Enter mother's place of birth from column 26"  
 2670 PRINT "If the place of birth is not in the following lists, or is unreadable,": PRINT "enter  
 'XXX'"  
 2680 PRINT : PRINT "TYPE 'S' FOR STATE CODES, 'C' FOR COUNTRY CODES, 'G' FOR  
 GERMAN STATE CODES": PRINT "ANY OTHER KEY TO RETURN ";; GET A\$  
 2690 IF A\$ = "S" OR A\$ = "s" THEN 3470  
 2700 IF A\$ = "G" OR A\$ = "g" THEN 3060  
 2710 IF A\$ < > "C" AND A\$ < > "c" THEN 3950  
 2720 GOSUB 5780  
 2730 PRINT "AFR - Africa    AUS - Austria    BOH - Bchemia"  
 2740 PRINT "ANT - Antigua    AZO - Azores    BAM - British America"  
 2750 PRINT "ASI - Asia (unspecified)    BAR - Barbados    CAN - Canada"

2760 PRINT "ATL - Atlantic Islands      BEL - Belgium      CNR - Canary Islands"  
 2770 PRINT "AUT - Australia      BER - Bermuda      CEN - Central America"  
 2780 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, ANY OTHER KEY TO RETURN ";; GET  
 A\$: IF A\$ < > "N" AND A\$ < > "n" THEN 3950  
 2790 GOSUB 5780  
 2800 PRINT "CUB - Cuba      FRA - France      GRN - Grenada"  
 2810 PRINT "DEN - Denmark      GER - Germany      HOL - Holland"  
 2820 PRINT "ENG - England      GIB - Gibraltar      HUN - Hungary"  
 2830 PRINT "EUR - Europe (unspecified) GBR - Great Britain      IND - India"  
 2840 PRINT "FIN - Finland      GRE - Greece      IRE - Ireland"  
 2850 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY  
 OTHER KEY TO RETURN ";; GET A\$  
 2860 IF A\$ = "P" OR A\$ = "p" THEN 2720  
 2870 IF A\$ < > "N" AND A\$ < > "n" THEN 3950  
 2880 GOSUB 5780  
 2890 PRINT "IOM - Isle of Man      MAL - Malta      NOR - Norway"  
 2900 PRINT "ITA - Italy      MEX - Mexico      NSC - Nova Scotia"  
 2910 PRINT "JAP - Japan      HOL - Netherlands      PAC - Pacific Islands"  
 2920 PRINT "LEB - Lebanon      NBR - New Brunswick      POL - Poland"  
 2930 PRINT "LUX - Luxembourg      NWF - Newfoundland      POR - Portugal"  
 2940 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY  
 OTHER KEY TO RETURN ";; GET A\$  
 2950 IF A\$ = "P" OR A\$ = "p" THEN 2790  
 2960 IF A\$ < > "N" AND A\$ < > "n" THEN 3950  
 2970 GOSUB 5780  
 2980 PRINT "PEI-Prince Edward Island      SAM - South America      TRI - Trinidad"  
 2990 PRINT "RUS - Russia      SPA - Spain      TUR - Turkey"  
 3000 PRINT "HI - Sandwich Islands      SWE - Sweden      WAL - Wales"  
 3010 PRINT "SCO - Scotland      SWI - Switzerland      WIN - West Indies"  
 3020 PRINT "SAF - South Africa      SYR - Syria      SEA - At Sea"  
 3030 VTAB 23: PRINT : PRINT "TYPE 'P' FOR PREVIOUS SCREEN, ANY OTHER KEY TO  
 RETURN ";; GET A\$  
 3040 IF A\$ = "P" OR A\$ = "p" THEN 2880  
 3050 GOTO 3950  
 3060 GOSUB 5780  
 3070 PRINT "ALS - Alsace      BRA - Brandenburg"  
 3080 PRINT "ALL - Alsace-Lorraine      BRU - Brunswick/Braunschweig"  
 3090 PRINT "ANH - Anhalt      HAM - Hamburg"  
 3100 PRINT "BAD - Baden      HAN - Hanover/Hannover"  
 3110 PRINT "BAV - Bavaria/Bayern/Biron      HES - Hesse/Hessen"  
 3120 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, ANY OTHER KEY TO RETURN ";; GET  
 A\$  
 3130 IF A\$ < > "N" AND A\$ < > "n" THEN 3950  
 3140 GOSUB 5780  
 3150 PRINT "HCA - Hesse-Cassel/Hesse-Kassel      HOH - Hohenzollern"  
 3160 PRINT "HDA - Hesse-Darmstadt      HHE - Hohenzollern-Hechingen"  
 3170 PRINT "HHO - Hesse-Homburg      HSI - Hohenzollern-Sigmaringen"  
 3180 PRINT "HPH - Hesse-Philippsthal      LIP - Lippe"  
 3190 PRINT "HPB - Hesse-Philippsthal-Barchfeld      LBI - Lippe-Biesterfeld"  
 3200 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY  
 OTHER TO RETURN ";; GET A\$  
 3210 IF A\$ = "P" OR A\$ = "p" THEN 3060  
 3220 IF A\$ < > "N" AND A\$ < > "n" THEN 3950  
 3230 GOSUB 5780  
 3240 PRINT "LWI - Lippe-Weissenfeld      MOR - Moravia"  
 3250 PRINT "LUE - Luebeck/Lubeck      NAS - Nassau"  
 3260 PRINT "MEC - Mecklenburg      OLD - Oldenburg"  
 3270 PRINT "MSC - Mecklenburg-Schwerin      POM - Pomerania/Pommern"  
 3280 PRINT "MST - Mecklenburg-Strelitz      PRU - Prussia/Preussen"  
 3290 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY  
 OTHER TO RETURN ";; GET A\$  
 3300 IF A\$ = "P" OR A\$ = "p" THEN 3140

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3310 IF A$ < > "N" AND A$ < > "n" THEN 3950
3320 GOSUB 5780
3330 PRINT "SXA - Saxe-Altenburg"
3340 PRINT "SXC - Saxe-Coburg"
3350 PRINT "SXM - Saxe-Meiningen"
3360 PRINT "SXW - Saxe-Weimar"
3370 PRINT "SAX - Saxony/Sachsen"
3380 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY
      OTHER KEY TO RETURN ";; GET A$
3390 IF A$ = "P" OR A$ = "p" THEN 3230
3400 IF A$ < > "N" AND A$ < > "n" THEN 3950
3410 GOSUB 5780
3420 PRINT "WLD - Waldeck"
3430 PRINT "WEI - Weimar": PRINT : PRINT : PRINT
3440 PRINT : PRINT "TYPE 'P' FOR PREVIOUS SCREEN, ANY OTHER KEY TO RETURN ";;
      GET A$
3450 IF A$ = "P" OR A$ = "p" THEN 3320
3460 GOTO 3950
3470 GOSUB 5780
3480 PRINT "AL - Alabama"
3490 PRINT "AZ - Arizona Terr."
3500 PRINT "AR - Arkansas"
3510 PRINT "CA - California"
3520 PRINT "CO - Colorado"
3530 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, ANY OTHER KEY TO RETURN ";; GET
      A$
3540 IF A$ < > "N" AND A$ < > "n" THEN 3950
3550 GOSUB 5780
3560 PRINT "MA - Massachusetts"
3570 PRINT "MI - Michigan"
3580 PRINT "MN - Minnesota"
3590 PRINT "MS - Mississippi"
3600 PRINT "MO - Missouri"
3610 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, 'P' FOR PREVIOUS SCREEN, ANY
      OTHER KEY TO RETURN ";; GET A$
3620 IF A$ = "P" OR A$ = "p" THEN 3470
3630 IF A$ < > "N" AND A$ < > "n" THEN 3950
3640 GOSUB 5780
3650 PRINT "UT - Utah Territory"
3655 PRINT "VT - Vermont"
3660 PRINT "VA - Virginia"
3670 PRINT : PRINT : PRINT : PRINT "TYPE 'P' FOR PREVIOUS SCREEN, ANY OTHER KEY
      TO RETURN ";; GET A$
3680 IF A$ = "P" OR A$ = "p" THEN 3550
3690 GOTO 3950
3700 PRINT "Use this field to mark a record you're unsure about with an asterisk (*)"
3710 PRINT "These records will be specially reviewed later": GOTO 3950
3720 VTAB 11: PRINT : CALL - 958 "
3730 PRINT "ADAM - Adams"
3740 PRINT "ASHL - Ashland"
3750 PRINT "BARR - Barron"
3760 PRINT "BAYF - Bayfield"
3770 PRINT "BROW - Brown"
3780 PRINT "BUFF - Buffalo"
3790 PRINT "BURN - Burnett"
3800 PRINT "CALU - Calumet"
3810 PRINT "CHIP - Chippewa"
3820 PRINT "CLAR - Clark"
3830 PRINT "COLU - Columbia"
3840 PRINT : PRINT "TYPE 'N' FOR NEXT SCREEN, ANY OTHER KEY TO RETURN ";; GET
      A$: IF A$ < > "N" AND A$ < > "n" THEN 3950
3850 VTAB 11: PRINT : CALL - 958 "

SLI - Schaumburg-Lippe"
SHO - Schleswig-Holstein"
SCR - Schwarzburg-Rudolstadt"
SCS - Schwarzburg-Sondershausen"
SIL - Silesia"

WUR - Wurttemberg/Wuerttemberg"

CT - Connecticut
DK - Dakota Terr.
DE - Delaware
DC - Dist. Columbia
FL - Florida
GA - Georgia
ID - Idaho Terr.
IL - Illinois
IN - Indiana
IA - Iowa
KS - Kansas"
KY - Kentucky"
LA - Louisiana"
ME - Maine"
MD - Maryland"

MT - Montana Terr.
NM - New Mexico Terr.
PA - Pennsylvania"
NE - Nebraska
NY - New York
RI - Rhode Island"
NV - Nevada
NC - North Carolina
SC - South Carolina"
NH - New Hampshire
OH - Ohio
TN - Tennessee"
NJ - New Jersey
OR - Oregon
TX - Texas"

WA - Washington Territory
WV - West Virginia
WI - Wisconsin
WY - Wyoming Territory
US - America & United"
      States (unspecified)"

CRAW - Crawford
DANE - Dane
DODG - Dodge
DOOR - Door
DOUG - Douglas
DUNN - Dunn
EAUC - Eau Claire
FOND - Fond du Lac
GRAN - Grant
GREE - Green
GRLA - Green Lake
IOWA - Iowa
JACK - Jackson
JEFF - Jefferson
JUNE - Juneau
KENO - Kenosha
KEWA - Kewaunee
LACR - La Crosse
LAF - Lafayette
LANG - Langlade
LINC - Lincoln
MANI - Manitowoc
MARA - Marathon"
MARI - Marinette"
MARQ - Marquette"
MILW - Milwaukee"
MONR - Monroe"
OCON - Oconto"
OUTA - Outagamie"
OZAU - Ozaukee"
PEPI - Pepin"
PIER - Pierce"
POLK - Polk"

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3860 PRINT "PORT - Portage      STCR - Saint Croix  TREM - Trempealeau  WAUP - Waupaca"
3870 PRINT "PRIC - Price       SAUK - Sauk        VERN - Vernon      WAUS - Waushara"
3880 PRINT "RACI - Racine     SHAW - Shawano    WALW - Walworth    WINN - Winnebago"
3890 PRINT "RICH - Richland   SHEB - Sheboygan  WASH - Washington  WOOD - Wood"
3900 PRINT "ROCK - Rock      TAYL - Taylor     WAUK - Waukesha"
3910 VTAB 23: PRINT : PRINT "TYPE 'P' FOR PREVIOUS SCREEN, ANY OTHER KEY TO
      RETURN "": GET A$
3920 IF A$ = "P" OR A$ = "p" THEN 3720
3930 GOTO 3950
3940 PRINT "Y - Yes": PRINT "N or blank - No"
3950 VTAB Y(IE): POKE 36,X(IE) + CP - 1: GOTO 900
3960 REM SAVE CURRENT RECORD AND UPDATE TR IF NECESSARY
3970 VTAB 17
3980 PRINT : PRINT CHR$(4);"OPEN " ;IS(0);" , L61"
3990 PRINT CHR$(4);"WRITE " ;IS(0);" , R";CR * 3 - 2
4000 PRINT "1880WI";IS(35);
4010 FOR I = 1 TO 33
4020 IF I < > 10 THEN 4050
4030 PRINT : PRINT CHR$(4);"WRITE " ;IS(0);" , R";CR * 3 - 1
4040 GOTO 4070
4050 IF I < > 19 THEN 4080
4060 PRINT " " : PRINT CHR$(4);"WRITE " ;IS(0);" , R";CR * 3
4070 PRINT " " ;
4080 IF I = 3 OR I = 5 OR I = 6 OR (I > 7 AND I < 11) OR I = 15 OR I = 20 THEN 4100
4090 GOTO 4120
4100 IF LEN (IS(I)) = L(I) THEN 4120
4110 PRINT LEFT$( SP$,L(I) - LEN (IS(I)));IS(I):: GOTO 4150
4120 PRINT IS(I);
4130 IF LEN (IS(I)) = L(I) THEN 4150
4140 PRINT LEFT$( SP$,L(I) - LEN (IS(I)));
4150 NEXT I
4480 PRINT "?????"
4490 IF CR > TR THEN TR = TR + 1
4500 PRINT CHR$(4)
4510 RETURN
4520 REM RETRIEVE CURRENT RECORD INTO IS; L < THIS LINE FOR I/O ERROR
4530 VTAB 17
4540 PRINT : PRINT CHR$(4);"OPEN " ;IS(0);" , L61"
4550 PRINT CHR$(4);"READ " ;IS(0);" , R";CR * 3 - 2
4560 INPUT R$
4570 PRINT CHR$(4);"READ " ;IS(0);" , R";CR * 3 - 1
4580 INPUT R8$
4590 PRINT CHR$(4);"READ " ;IS(0);" , R";CR * 3
4600 INPUT R9$
4610 R$ = R$ + MID$( R8$,2,54) + RIGHT$( R9$,59)
4620 PRINT CHR$(4)
4630 IS(35) = MID$( R$,7,4)
4640 VTAB 3: POKE 36,75: PRINT CR:: IF CR > 99 THEN 4660
4650 PRINT " " : IF CR < 10 THEN PRINT " " ;
4660 J = 11
4670 FOR I = 1 TO 33
4680 IS(I) = MID$( R$,J,L(I))
4690 J = J + L(I)
4700 VTAB Y(I): POKE 36,X(I) - 1: PRINT IS(I);
4710 IF LEN (IS(I)) = L(I) THEN 4730
4720 PRINT LEFT$( SP$,L(I) - LEN (IS(I)));
4730 NEXT I
4740 RETURN
4750 REM CHECK FOR VALID VALUES; L < THIS LINE FOR I/O ERROR
4760 VTAB 17: PRINT : CALL - 868
4770 IF HE = 1 THEN CALL - 958
4780 I = LEN (IS(1)): IF I = 0 THEN 4810

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4790 FOR J = 1 TO I: IF MID$(I$(1),J,1) < > " " THEN 4820
4800 NEXT J
4810 PRINT "Subdivision must be filled in":IE = 1:HE = 2: GOTO 840
4820 IF I$(2) = "" THEN 4850
4830 I = ASC (I$(2)): IF I > 96 AND I < 123 THEN I = I - 32
4840 IF I = 67 OR I = 84 OR I = 86 OR I = 88 THEN 4880
4850 PRINT "Enter classification of community"
4860 IE = 2:HE = 2: GOTO 840
4870 IE = 2:HE = 2: GOTO 840
4880 I$(2) = CHR$(I): IF VAL (I$(3)) > 0 THEN 4900
4890 PRINT "Enumeration district must be filled in":IE = 3:HE = 2: GOTO 840
4900 I$(3) = STR$( VAL (I$(3))): IF LEN (I$(4)) = 0 THEN 4930
4910 T$ = "": FOR I = 1 TO LEN (I$(4)):J = ASC ( MID$( I$(4),I,1)): IF J > 96 AND J < 123
THEN J = J - 32
4920 T$ = T$ + CHR$( J): NEXT I:I$(4) = T$: IF LEN (I$(4)) = 1 AND VAL (I$(4)) > 0
THEN I$(4) = " " + I$(4)
4930 IF VAL (I$(5)) > 0 THEN 4950
4940 PRINT "Page number must be filled in":IE = 5:HE = 2: GOTO 840
4950 I = ASC ( RIGHTS$( I$(5),1)): IF I > 96 AND I < 123 THEN I = I - 32
4960 IF I < 65 OR I > 90 THEN 4940
4970 I$(5) = STR$( VAL (I$(5))) + CHR$( I): IF VAL (I$(6)) > 0 THEN 4990
4980 PRINT "Line number must be filled in":IE = 6:HE = 2: GOTO 840
4990 IF LEN (I$(8)) = 0 THEN 5020
5000 T$ = "": FOR I = 1 TO LEN (I$(8)):J = ASC ( MID$( I$(8),I,1)): IF J > 96 AND J < 123
THEN J = J - 32
5010 T$ = T$ + CHR$( J): NEXT I:I$(8) = T$
5020 IF VAL (I$(9)) > 0 THEN 5040
5030 PRINT "Dwelling number must be filled in":IE = 9:HE = 2: GOTO 840
5040 I$(9) = STR$( VAL (I$(9))): IF VAL (I$(10)) > 0 THEN 5060
5050 PRINT "Family number must be filled in":IE = 10:HE = 2: GOTO 840
5060 I$(10) = STR$( VAL (I$(10))):I = LEN (I$(11)): IF I = 0 THEN 5090
5070 FOR J = 1 TO I: IF MID$( I$(11),J,1) < > " " THEN 5130
5080 NEXT J
5090 PRINT "Last name of person not entered, is this what you want (Y/N)? ";; GET A$
5100 IF A$ = "Y" OR A$ = "y" THEN 5120
5110 IE = 11:HE = 2: GOTO 840
5120 VTAB 17: PRINT : CALL - 868
5130 I = LEN (I$(12)): IF I = 0 THEN 5160
5140 FOR J = 1 TO I: IF MID$( I$(12),J,1) < > " " THEN 5200
5150 NEXT J
5160 PRINT "First name(s) of person not entered, is this what you want (Y/N)? ";; GET A$
5170 IF A$ = "Y" OR A$ = "y" THEN 5190
5180 IE = 12:HE = 2: GOTO 840
5190 VTAB 17: PRINT : CALL - 868
5200 IF I$(13) = "" OR I$(13) = " " THEN I$(13) = "W"
5210 I = ASC (I$(13)): IF I > 96 AND I < 123 THEN I = I - 32
5220 IF I < 91 AND I > 64 THEN 5250
5230 PRINT "Invalid race code, re-enter"
5240 IE = 13:HE = 2: GOTO 840
5250 I$(13) = CHR$( I): IF I$(14) = "" THEN 5280
5260 I = ASC (I$(14)): IF I > 96 AND I < 123 THEN I = I - 32
5270 IF I = 70 OR I = 77 THEN 5290
5280 PRINT "Enter sex of person":IE = 14:HE = 2: GOTO 840
5290 I$(14) = CHR$( I): IF LEN (I$(15)) = 0 THEN 5320
5300 IF LEFT$( I$(15),1) = "v" OR LEFT$( I$(15),1) = "M" THEN 5330
5310 IF VAL (I$(15)) > 0 AND VAL (I$(15)) < 111 THEN 5390
5320 PRINT "Enter a valid age":IE = 15:HE = 2: GOTO 840
5330 IF LEN (I$(15)) = 1 THEN 5320
5340 I = VAL ( RIGHTS$( I$(15), LEN (I$(15)) - 1))
5350 IF I > 11 OR I < 0 THEN 5320
5360 IF I < 10 THEN 5380
5370 I$(15) = "M" + STR$( I): GOTO 5400

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5380 I$(15) = "M0" + STR$(I): GOTO 5400
5390 I$(15) = STR$( VAL (I$(15)))
5400 IF LEN (I$(16)) = 0 THEN 5450
5410 T$ = "": FOR I = 1 TO LEN (I$(16)):J = ASC ( MID$( I$(16),I,1))
5420 IF J > 96 AND J < 123 THEN J = J - 32
5430 T$ = T$ + CHR$( J): NEXT I
5440 I$(16) = T$
5450 IF I$(17) = "" THEN I$(17) = " "
5460 I = ASC (I$(17)): IF I > 96 AND I < 123 THEN I = I - 32
5470 IF I = 68 OR I = 77 OR I = 83 OR I = 87 OR I = 32 THEN 5490
5480 PRINT "Invalid code for marital status, re-enter":IE = 17:HE = 2: GOTO 840
5490 I$(17) = CHR$( I): IF I$(18) = "" OR I$(18) = " " THEN I$(18) = "N"
5500 I = ASC (I$(18)): IF I > 96 AND I < 123 THEN I = I - 32
5510 IF I = 78 OR I = 89 THEN 5530
5520 PRINT "Invalid value, re-enter":IE = 18:HE = 2: GOTO 840
5530 I$(18) = CHR$( I): IF VAL (I$(20)) < 13 AND VAL (I$(20)) > = 0 THEN 5550
5540 PRINT "Months unemployed must be between 0 and 12 inclusive":IE = 20:HE = 2: GOTO
840
5550 I$(20) = STR$( VAL (I$(20)))
5560 FOR I = 22 TO 29: IF I$(I) = " " OR I$(I) = "" THEN I$(I) = "N"
5570 J = ASC (I$(I)): IF J > 96 AND J < 123 THEN J = J - 32
5580 IF J = 78 OR J = 89 THEN 5600
5590 PRINT "Invalid value, re-enter":IE = 1:HE = 2: GOTO 840
5600 I$(I) = CHR$( J): NEXT I
5610 I = 30
5620 IF LEN (I$(I)) = 0 THEN 5700
5630 T$ = "": FOR J = 1 TO LEN (I$(I))
5640 K1 = ASC ( MID$( I$(I),J,1)): IF K1 = 32 THEN 5670
5650 IF K1 > 96 AND K1 < 123 THEN K1 = K1 - 32
5660 T$ = T$ + CHR$( K1)
5670 NEXT J
5680 IF LEN (T$) = 0 THEN 5700
5690 I$(I) = T$: GOTO 5710
5700 I$(I) = "WI"
5710 IF LEN (I$(I)) > 1 THEN 5730
5720 PRINT "Invalid birthplace code, re-enter":IE = 1:HE = 2: GOTO 840
5730 IF LEN (I$(I)) = 2 THEN I$(I) = " " + I$(I)
5740 I = I + 1: IF I < 33 THEN 5620
5750 IF K = 2 THEN 1360
5760 IF K = 6 THEN 1400
5770 GOTO 1510
5780 VTAB 17: PRINT : CALL - 958: RETURN
5790 REM SET UP VARIABLES FOR NEXT ENTRY, INCLUDING CR
5800 VTAB 3: POKE 36,75: PRINT CR;
5810 I = VAL (I$(6)) + 1: IF I < 51 THEN 5860
5820 I = 1:J = VAL (I$(5)):J1 = ASC ( RIGHT$( I$(5),1)): IF INT (J1 / 2) * 2 = J1 THEN J =
J + 1
5830 J1 = J1 + 1: IF J1 > 68 THEN J1 = 65
5840 I$(5) = STR$( J) + CHR$( J1): VTAB 7: HTAB 7: PRINT I$(5); LEFT$( SP$,5 - LEN
(I$(5));
5850 VTAB 3: POKE 36,75: PRINT CR;
5860 I$(6) = STR$( I)
5870 VTAB 7: HTAB 20: PRINT I$(6); LEFT$( SP$,4 - LEN (I$(6)));
5880 I$(12) = "": VTAB 10: HTAB 16: PRINT LEFT$( SP$,20);
5890 FOR I = 14 TO 33:I$(I) = "": VTAB Y(I): POKE 36,X(I) - 1: PRINT LEFT$( SP$,L(I));:
NEXT I
5900 RETURN
5910 E1 = E:L1 = L
5920 E = PEEK (222)
5930 L = PEEK (218) + PEEK (219) * 256
5940 VTAB 17: PRINT : PRINT CHR$( 4): VTAB 17: PRINT
5950 IF E = 4 THEN 6040

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5960 IF E = 5 THEN 460
5970 IF E = 6 THEN 420
5980 IF E = 8 THEN 6070
5990 IF E = 9 THEN 6260
6000 IF E = 255 THEN RESUME
6010 PRINT CHR$(4);"CLOSE"
6020 PRINT "ERROR #";E;" IN LINE ";L
6030 GOTO 6250
6040 PRINT "DISK WRITE PROTECTED": PRINT "PLEASE REMOVE WRITE PROTECT TAB"
6050 PRINT "TYPE ANY KEY WHEN READY ";; GET A$
6060 GOTO 220
6070 IF L > 750 THEN 6100
6080 VTAB 23: HTAB 30: PRINT " INITIALIZING DISK ";
6090 PRINT : PRINT CHR$(4);"INIT DUMMY, D2": PRINT CHR$(4);"DELETE DUMMY":
GOTO 420: REM L = THIS LINE FOR I/O ERROR
6100 PRINT "I/O ERROR, PUT DISK IN DRIVE 2, AND CLOSE DOOR"
6110 PRINT "TYPE 'C' TO CANCEL FUNCTION, ANY OTHER KEY WHEN READY ";; GET A$
6120 IF A$ < > "C" AND A$ < > "c" THEN 6170
6130 IF L < 1890 THEN 250
6140 IF L < 4750 THEN 750
6150 IF L = 6090 THEN 250
6160 GOTO 6250
6170 VTAB 17: CALL - 958
6180 IF L < 1820 THEN 420
6190 IF L < 1890 THEN 1880
6200 IF L < 4520 THEN 3980
6210 IF L < 4750 THEN 4540
6220 IF L < > 6090 THEN 6250
6230 IF L1 = 6090 THEN 6080
6240 GOTO 250
6250 PRINT : PRINT "ERROR ";E;" IN LINE ";L
6255 PRINT "UNABLE TO CONTINUE, PROGRAM ABORTED": PRINT : GOTO 6350
6260 CALL - 958: PRINT "DISK FULL": IF IE = 0 THEN 6320
6270 PRINT CHR$(4);"WRITE ";I$(0);", R0"
6280 R$ = STR$(TR): IF TR < 100 THEN R$ = "0" + R$
6290 IF TR < 10 THEN R$ = "0" + R$
6300 R$ = R$ + I$(35) + SP$ + LEFT$(SP$,22)
6310 PRINT R$: PRINT CHR$(4);"CLOSE"
6320 PRINT "PUT A NEW DISK IN DRIVE 2, TYPE ANY KEY WHEN READY ";; GET A$
6330 TR = 0:E2 = 1: GOTO 220
6340 HOME
6350 END

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