**Documentation for the Hamburger and Egg Consumption Diary, Hamburger File**

**Table of Contents**



## 1. About the Survey

The 1996 Hamburger and Egg Consumption Diary (HECD) was conducted by the Market Research Corporation of America as a supplement to its ongoing Menu Census Survey during March 1996 - February 1997. As part of the Menu Census Survey, respondents completed and mailed in a 2-week diary of all food consumption for themselves and their families. The supplement requested additional information when someone in the family ate a hamburger, eggs, or poultry. Only hamburgers are reported in this data set.

The supplement form is shown in Appendix A. For hamburgers and poultry, the supplement requested information on where the hamburger was eaten and, if at home, how it was prepared (freezing, thawing, cooking method) and the appearance of the cooked hamburger in the center: red, pink, light brown, dark brown, or other. For eggs, the supplement requested information similar information, and for appearance, asked whether the eggs were "runny", "runny yolk", "runny white", or "firm yolk and white".

The survey supplement covered 1,833 households, with a total of about 5,041 individuals. A total of 2,588 individuals recorded consuming hamburgers at least once during the 2-week diary period of which 2,306 (89 percent) provided sufficient demographic information for

weighting purposes. A total of 6,454 hamburgers were reported eaten during the period, of which 5,822 (90 percent) could be linked to demographic weights.

Weights were applied to each observation to match the 1990 Census proportions for categories based on sex, ethnicity, and education. These variables were chosen so that weights would be comparable to the weights used in the 1993 Food Safety Survey conducted by the Food and Drug Administration and USDA's Food Safety and Inspection Service. Weights were derived as the ratio of the Census cell proportion to the HECD respondent's cell proportion. Unfortunately, three cells were completely missing in the HECD responses: Black males with less than 12 years education, Black females with less than 12 years education, and other males with less than 12 years education. Thus, the sample provides no representation for these groups.

**2. How to Use the Data File**

The file hecdburg.dat contains an ASCII version of the data set, with each column separated by a space. Note that the list format of this data set differs from the format of other Federal public access data sets such as those available from USDA's Agricultural Research Service, the National Center for Health Statistics, and the Census Bureau, which use column format, ie. the variables are in the same column position on every record. The format of this file was chosen as appropriate for the file's relatively small size.

Each record gives information about a hamburger eaten by a household member, as well as household and personal characteristics of the individual that ate the hamburger. Researchers who use SAS can use the SAS program below to read the data into a SAS data set and check descriptive statistics against the values in Appendix A. Researchers using other statistics packages can modify the SAS program accordingly.

```
/* Here is a file to read the data into a SAS data set. Just fill in the correct directories in the
libname statement and the infile statement.  Note that some operating systems may require
special input statements or modifications of the INFILE statement to run SAS jobs */

Libname data 'FILL IN THE DIRECTORY WHERE YOU HAVE PUT hecdburg.dat';
Options obs=max;

data data.hecdburg;
infile 'DIRECTORY\hecdburg.dat';
input hhid indid wtburger year
age male censreg areasize hhsize agehmkr hhinc
children occhead educhead emplhmkr ethnic diet
date time ampm place food
defrost length method leftover appear prepid;
run;

proc means;
run;
```

The data in hecdburg.dat can be merged with the data from the Hamburger Preparation Quiz (HPQ), in hpq.dat by matching HHID. This creates a data set with one record for every hamburger eaten in the household. Each record will include the responses from one adult member of the hamburger eater's household to HPQ questions about usual hamburger cooking and ordering, attitudes about risks and palatability characteristics of hamburgers, and sources of food safety information. Since the responses of one household member may not reflect the attitudes of the hamburger eater, these additional variables provide limited information about the factors influencing the hamburger eater's choice of doneness.

A subset of the data set can be created by selecting records in which INDID = QUIZID, where QUIZID is the identification number of the individual in the household who completed the HPQ survey. This data set will have one record for every hamburger eaten by household members that answered the HPQ survey, together with information about the respondent's usual hamburger cooking and ordering, attitudes about risks and palatability characteristics of

hamburgers, and sources of food safety information. This would allow modeling of that individual's doneness choice as a function of attitudes toward foodborne illness risk and the palatability characteristics of hamburgers, but it is a fairly small subset of hecdburg.dat.

**3. Variable Definitions**

| | |
|---|---|
| hhid | Household identifier (110 – 100063) |
| indid | Individual identifier |
| wtburger | Weight to match proportions of respondents who reported eating hamburgers in the Hamburger and Egg Consumption Diary in categories by ethnicity, gender, and education of household head to proportions according to the 1990 U.S. Census |
| year | Year |
| age | Age of respondent |
| male | 1=yes 0=no |
| censreg | Census region:<br><br>1 = New England<br>2 = Mid Atlantic<br>3 = West North Central<br>4 = East North Central<br>5 = West South Central<br>6 = East South Central<br>7 = South Atlantic<br>8 = Pacific<br>9 = Mountain<br><br>(These can be used to create 4 dummy variables for regions:<br>1 plus 2 = New England, 3 plus 4 = Midwest, 5,6, and 7 = South, 8 and 9 = West) |
| areasize | Size of respondent's metropolitan area:<br><br>1 = Farm<br>2 = Under 2,500<br>3 = 2,500-9,999 |

4 = 10,000-49,999
5 = 50,000-99,999
6 = 100,000-249,000
7 = 250,000-499,999
8 = 500,000-999,999
9 = 1million - 2 million
0 = more than 2 million

hhsize Household size: number of persons

agehmkr Age of homemaker:

2 = Under 29
3 = 30 – 34
4 = 35 - 39
5 = 40 - 49
6 = 45 - 49
7 = 50 - 54
8 = 55 - 59
9 = 60 - 64
0 = 65 and over

hhinc Household income, in thousands

children Presence of children:

0 = No children
2 = Under 6 years only
3 = 6-12 years only
4 = 13-17 years only
5 = All under 12 only
6 = Under 6 or 13-17 only
7 = All three ages

occhead Occupation of household head:

1 = White collar
2 = Blue collar
3 = Farm
4 = Not a worker

educhead Education of household head:

1 = Completed grammar school (0-8 years)
2 = Completed high school (9-12 years)

3 = Completed some college (over 12 years)

emplhmkr Employment of homemaker:

1 = employed
2 = not employed

ethnic Ethnicity of respondent:

1=White
2=Black
3=Other

diet Special diet of respondent

0 = Not on diet
1 = Diet for medical/health
2 = Diet to gain weight
3 = Diet to maintain weight
4 = Diet to reduce weight
5 = Diet for other reasons

date Date expressed as 3 or 4 digit number (e.g. April 12 = 412, October 7 = 1007)

time Time expressed as 3 or 4 digit number (e.g. 7:15 = 715, 10:20 = 1020)

ampm Morning or Afternoon/evening

1 = AM
2 = PM

place Place where food was consumed

0 = Not reported
1 = At home
2 = Other homes
3 = Fast food place
4 = Restaurant
5 = In transit (e.g. drive through)
6 = Other

food Type of food recorded (Note: data in this file include only hamburger, so food = 1)

0 = Not reported

1 = Hamburger
2 = Chicken
3 = Turkey
4 = Other poultry
5 = Eggs

defrost How item was defrosted

0 = No answer
1 = In refrigerator
2 = At room temp
3 = Microwave
4 = Warm water
5 = Not frozen/does not apply
6 = Don't know

length How long item was defrosted

0 = No answer
1 = More than 6 hours
2 = More than 4 hours, up to 6 hours
3 = More than 2 hours, up to 4 hours
4 = 2 hours or less
5 = Don't know

method Cooking method

0 = not reported
1 = Outdoor grill/BBQ
2 = Indoor grill/broil
3 = Fried/Deep fried
4 = Baked/roasted
5 = Steamed/braised
6 = Other cooked (hamburger/poultry)
7 = Don't know (hamburger/poultry)

leftover Was the item a leftover?

0 = Not reported
1 = Yes
2 = No

appear Appearance of cooked item in the center

0 = Not reported

1 = Red
2 = Pink
3 = Light brown
4 = Dark brown
5 = Other

prepid Individual identification number of individual who prepared that food (0=not applicable or not reported)

# Food Preparation Diary for Hamburger, Poultry and Eggs

Finalized: 11/6/95

*Please make a separate diary entry for each differently prepared food item!*

## CODE TABLES

| Place of eating<br>Enter code below | How was Item defrosted?<br>Please enter code below | How long did Item take to defrost?<br>Please enter code below | Cooking Method | | Appearance of cooked item | | Identification of eaters and food preparer |
|---|---|---|---|---|---|---|---|
| | | | Hamburger and Poultry | Eggs | Hamburger/Poultry in the center | Eggs | |
| 1 = At home | 1 = In the refrigerator | 1 = More than 6 hours | 1 = Outdoor Grill/BBQ | 11 = Poached | 1 = Red | 11 = Runny | 1 = Tony Smith |
| 2 = Other homes | 2 = At room temperature | 2 = More than 4 hours, up to 6 | 2 = Indoor Grill/Broil | 12 = Scrambled | 2 = Pink | 12 = Runny yolk | 2 = Joan Smith |
| 3 = Fast food place | 3 = In the microwave | 3 = More than 2 hours, up to 4 | 3 = Fried/Deep Fried | 13 = Sunny side up | 3 = Light brown | 13 = Runny white | 3 = Sue Smith |
| 4 = Restaurant | 4 = In warm water | 4 = 2 hours or less | 4 = Baked/Roasted | 14 = Easy over | 4 = Dark brown | 14 = Firm yolk and white | 4 = David Smith |
| 5 = In transit | 5 = Not frozen/Doesn't apply | 5 = Don't know | 5 = Steamed/Braised | 15 = Hard Boiled | 5 = Other | | 5 = Nancy Smith |
| 6 = Other | 6 = Don't Know/Away-from-home | 6 = Doesn't apply | 6 = Other Cooked | 16 = Soft Boiled | Enter code below which best describes the item after cooking | | |
| | | | 7 = Don't Know | 17 = Don't Know | | | |
| | | | Enter code below to describe the cooking method | | | | |

| Date<br>Month & Date | Time of Day<br>Hour | Place of eating | Menu Item Description<br>Write in name of food item such as Hamburger, Chicken, Turkey, Eggs | Was item defrosted?<br>Enter code from table<br>How? | <br><br>How long? | Cooking Method<br>Please enter code from table above | Description of the cooked item<br>Was item a leftover? Enter YES or NO | <br>Enter code from table above | Eaters<br>Enter ID number from table for each person who ate this item as prepared | Preparer<br>Enter ID number |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| **Examples:** | | | | | | | | | | |
| 11/18 | 8 AM | 1 | Eggs | 5 | 4 | 13 | NO | 12 | 1, 3, 4 and 5 | 2 |
| 11/18 | 5 PM | 1 | Hamburger | 2 | 3 | 2 | NO | 2 | 1 and 2 | 1 |
| 11/18 | 5 PM | 1 | Hamburger | 2 | 3 | 2 | NO | 3 | 4 | 1 |

**Appendix B. Descriptive Statistics for hecdburg.dat**

The following descriptive statistics were estimated from hecdburg.dat using SAS proc means, as illustrated in the sample program in Section 2. Note that these are UNWEIGHTED means, referring only to the raw data. Check descriptive statistics against the values presented here to make sure that you have downloaded the data correctly. To obtain weighted means, you must specify wtburger as the weighting variable in the program you will use to analyze these data.

| Variable | N | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| HHID | 5822 | 49658.73 | 28740.55 | 17 | 100101 |
| INDID | 5822 | 1.917554 | 1.105532 | 1 | 7 |
| WTBURGER | 5822 | 0.947627 | 1.092496 | 0.403 | 14.7986 |
| YEAR | 5822 | 96.16283 | 0.369243 | 96 | 97 |
| AGE | 5822 | 43.91463 | 20.82709 | 1 | 81 |
| MALE | 5822 | 0.495191 | 0.50002 | 0 | 1 |
| CENSREG | 5822 | 4.989351 | 2.287502 | 1 | 9 |
| AREASIZE | 5822 | 4.900721 | 2.868133 | 0 | 9 |
| HHSIZE | 5822 | 3.045517 | 1.329365 | 1 | 7 |
| AGEHMKR | 5822 | 4.439368 | 2.922997 | 0 | 9 |
| HHINC | 5822 | 32.6819 | 20.08861 | 1 | 99 |
| CHILDREN | 5822 | 2.172793 | 2.280463 | 0 | 8 |
| OCCHEAD | 5822 | 2.405359 | 1.178266 | 1 | 4 |
| EDUCHEAD | 5822 | 2.387324 | 0.669299 | 1 | 3 |
| EMPLHMKR | 5822 | 0.502405 | 0.500037 | 0 | 1 |
| ETHNIC | 5822 | 1.084679 | 0.371473 | 1 | 3 |
| DIET | 5822 | 0.65012 | 1.410948 | 0 | 5 |
| DATE | 5822 | 662.2178 | 344.9424 | 101 | 1231 |
| TIME | 5822 | 667.2269 | 346.7916 | 100 | 1245 |
| AMPM | 5822 | 1.946238 | 0.225566 | 1 | 2 |
| PLACE | 5822 | 1.989179 | 1.257741 | 1 | 6 |
| FOOD | 5822 | 1 | 0 | 1 | 1 |
| DEFROST | 5822 | 3.98729 | 2.09535 | 1 | 6 |
| LENGTH | 5822 | 4.420989 | 1.338779 | 1 | 6 |
| METHOD | 5822 | 2.507729 | 1.197629 | 1 | 7 |
| LEFTOVER | 5822 | 1.846616 | 0.413654 | 0 | 2 |
| APPEAR | 5822 | 3.629681 | 0.600005 | 1 | 5 |
| PREPID | 5822 | 0.868774 | 0.864436 | 0 | 3 |