

# SHAPE 1998: Methodology Report

**Survey of the Health of Adults, the Population, and the Environment**

**Hennepin County Community Health Department**

**Minneapolis Department of Health and Family Support**

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**If you have any questions about this report, or would like more information, contact:**

Jim Mara  
Hennepin County Community Health Department  
612-348-6150  
[jim.mara@co.hennepin.mn.us](mailto:jim.mara@co.hennepin.mn.us)

David Rak  
Minneapolis Department of Health and Family Support  
612-673-3141  
[david.rak@ci.minneapolis.mn.us](mailto:david.rak@ci.minneapolis.mn.us)

**Visit our website at:**  
*[www.co.hennepin.mn.us/commhlth/reports/shape.htm](http://www.co.hennepin.mn.us/commhlth/reports/shape.htm)*

# Acknowledgements

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*This report was prepared by:*

**David Rak, MPH**

Health Analyst, Minneapolis Department of Health and Family Support

**Urban Landreman, MS, MBA**

Principal Planning Analyst, Hennepin County Community Health Department

*Individuals who provided support and direction for this report include:*

**Yingmei Ding, MD, MS**

Principal Planning Analyst, Hennepin County Community Health Department

**Michael Finch, PhD**

Research Program Director, Center for Health Care Policy and Evaluation, United HealthCare

**Ann Kinney, PhD**

Research Scientist, Minnesota Department of Health

**Jim Mara, BA**

Program Supervisor, Hennepin County Community Health Department

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## Introduction

The Hennepin County Community Health Department and the Minneapolis Department of Health and Family Support developed the Survey of the Health of Adults, the Population, and the Environment (SHAPE), with the support of the Minnesota Department of Health. A primary reason for conducting the SHAPE survey was to provide data on the health status and the determinants of health of adults in Hennepin County. These data will be useful for planning, programming, and policy development to government agencies, health plans, and other organizations. A second major reason was to establish baseline data for geographic areas within Hennepin County and the county as a whole to help measure changes in health indicators over time.

The SHAPE survey instrument included questions concerning chronic disease, injury, disability, behavioral risks, and health care access and use, as well as perceptions of community, personal safety, and discrimination. Questions about demographic characteristics such as income, employment, and race/ethnicity were also included.

Interviews with 10,745 persons were conducted between October 1997 and February 1998 by staff at the Survey Research Center of the Division of Health Services Research and Policy located in the School of Public Health, University of Minnesota. A total of 10,731 interviews were conducted by telephone, and 14 were done in-person with respondents who could not be interviewed by telephone because of hearing problems.

The purpose of this technical report is to provide background information about the survey and data collection methods.

## Questionnaire Design and Content

The design of the SHAPE questionnaire occurred over the course of one year, starting in 1996. Public health professionals from the Hennepin County Community Health Department (HCCHD), the Minneapolis Department of Health and Family Support (MDHFS), the Minnesota Department of Health (MDH), and a contracted consultant from the University of Minnesota School of Public Health developed the basic framework of survey contents – community support and social environment; chronic disease, physical disability, and injury; lifestyle and risk behavior; and health care. Representatives from HCCHD and MDHFS contacted community agencies, service providers, and other public health professionals to gain input from a wide range of public health understandings. With their input, a draft questionnaire was developed.

For many of the survey topics, questions from other sources were chosen to maximize comparability to other studies. For the remaining topics, questions were adapted from other sources or developed specifically for this study. After completion of the pretest and a review of the results, revisions to the questionnaire were made by HCCHD and MDHFS staffs, and the final version was created.

## Pretesting

Pretesting was conducted three weeks prior to the onset of data collection. During this time, three versions (including the final version) of the survey were pretested. Ten to 30 surveys were completed for each version. The pretest was designed to estimate the overall length of the survey and to identify any problem questions.

The question regarding sexual identity made many older-aged respondents uncomfortable. Therefore, in the final survey, sexual identity was asked of those 65 years of age or younger. In addition, some questions (such as marital status) were re-ordered.

The pretest determined that the initial version of the questionnaire was too long. Therefore, questions were eliminated to conserve time and money. The actual interviews averaged just over 30 minutes in length.

## Final Questionnaire

For certain questions / sets of questions, less than the full sample of respondents were asked to reply. Each subject had a 50% chance of being asked a particular set of questions. The probability of being asked any particular question / set of questions was independent of being asked some other question / set of questions. For each of the following questions, a different randomly selected group of approximately half the respondents was selected: chronic conditions list, injury list, seatbelt use, flu shot reception, and pneumonia vaccination reception. A randomly-selected half-sample of women was asked health screening questions (clinical breast exam, breast self exam, mammogram, Pap smear) and if they had had a hysterectomy. A half-sample of women aged less than 54 years was asked if they had given birth in the past three years. Respondents aged 65 years and younger were asked their sexual orientation. See Table 1 for a list of question topics, their sources, and approximate percentage of respondents asked the question. See the Appendix for the actual questionnaire.

**Table 1**  
**Survey Topics, Sources, and Respondents Asked**

Question #	Survey Topics	Source	Respondents Asked
Screening question	Age		Everyone
Screening question NOT ASKED, but INFERRED	Gender		Everyone
1	Number of times moved in past five years	United States Department of Justice, Bureau of Justice Statistics; National Criminal Victimization Study, 1997.	Everyone
2	Community Support	McCubbin, H.; Patterson, J.; Glynn, T.; Social Support Index. (1991) In H. McCubbin & A. Thompson (eds). <i>Family Assessment Inventories for Research and Practice</i> . Madison, Wisconsin: Family	Everyone

		Stress Coping and Health Project, University of Wisconsin-Madison.	
Question #	Survey Topics	Source	Respondents Asked
3	Health Insurance	Adapted from Call, K.T.; Jonk, Y.; Feldman, R.; Lurie, N.; Dowd, B.; Finch, M.; Minnesota Health Care Insurance and Access Survey, 1995: Final Report. Minneapolis MN: Institute for Health Service Research, 1996.	Everyone
4	Usual source for care	Centers for Disease Control and Prevention, National Center for Health Statistics; National Health Interview Survey, 1990.	Everyone
5	Medical care delay	Adapted from Bridge to Health Collaborative; Bridge to Health Survey, Duluth MN, 1995, and adapted from Centers for Disease Control and Prevention, National Center for Health Statistics; National Health Interview Survey, 1990.	Everyone
6	Mental health care	Adapted from Bridge to Health Collaborative; Bridge to Health Survey, Duluth MN, 1995, and adapted from Centers for Disease Control and Prevention, National Center for Health Statistics; National Health Interview Survey, 1990.	Everyone
7	Dental care	Adapted from Bridge to Health Collaborative; Bridge to Health Survey, Duluth MN, 1995, and adapted from Centers for Disease Control and Prevention, National Center for Health Statistics; National Health Interview Survey, 1990.	Everyone
8	Hospitalization in the past year	Minnesota Department of Health; Minnesota Behavioral Risk Factor Surveillance System, 1995.	Everyone
9-20	SF-12	Ware, J.E.; Kosinski, M.; Keller, S.D.; SF-12: How to Score the SF-12 Physical and Mental health Summary Scale, 2 <sup>nd</sup> Edition. Boston, MA: The Health Institute, New England Medical Center, 1995. The Health Institute at New England Medical Center	Everyone

Question #	Survey Topics	Source	Respondents Asked
21	Activities of daily living	Adapted from Bridge to Health Collaborative; Bridge to Health Survey, Duluth MN, 1995, and adapted from Centers for Disease Control and Prevention, National Center for Health Statistics; National Health Interview Survey, 1990.	Everyone
22	Instrumental activities of daily living	Adapted from Bridge to Health Collaborative; Bridge to Health Survey, Duluth MN, 1995, and adapted from Centers for Disease Control and Prevention, National Center for Health Statistics; National Health Interview Survey, 1990.	Everyone
23	Chronic conditions	Adapted from Minnesota Department of Health; Minnesota Behavioral Risk Factor Surveillance System, 1995, and adapted from The National Health Survey Report, 1995. Allentown, PA: Felix, Burdine Associates, Inc.	50% of respondents
24	Moderate activity	SHAPE Research Team	Everyone
25	Vigorous activity	SHAPE Research Team	Everyone
26	Injuries	SHAPE Research Team	50% of respondents
27	Family violence	Adapted from CDC and Group Health Puget Sound	Everyone
28	Cigarette smoking	Adapted from Health Risk Questionnaire	Everyone
29	Environmental tobacco smoke	Bridge to Health Collaborative; Bridge to Health Survey, Duluth MN, 1995.	Everyone
30-32	Drinking of alcohol	Minnesota Department of Health; Minnesota Behavioral Risk Factor Surveillance System, 1995.	Everyone
33	Seat belt use	Minnesota Department of Health; Minnesota Behavioral Risk Factor Surveillance System, 1995.	50% of respondents
34	Servings of fruits/vegetables	Adapted from Institute for Clinical Systems Integration, Buyer's Health Care Action Group, and HealthPartners. Adult Health Status and Health Risk Survey. Health Research Center, Institute for Research and Education, Minneapolis, MN, 1996.	Everyone



Question #	Survey Topics	Source	Respondents Asked
35	Servings of high fat foods	Adapted from Institute for Clinical Systems Integration, Buyer's Health Care Action Group, and HealthPartners. Adult Health Status and Health Risk Survey. Health Research Center, Institute for Research and Education, Minneapolis, MN, 1996.	Everyone
36	Overweight/underweight	Adapted from Institute for Clinical Systems Integration, Buyer's Health Care Action Group, and HealthPartners. Adult Health Status and Health Risk Survey. Health Research Center, Institute for Research and Education, Minneapolis, MN, 1996.	Everyone
37	Gave birth in past three years	SHAPE Research Team	50% of female respondents aged less than 54 years
38	Clinical breast exam	Adapted from Minnesota Department of Health; Minnesota Behavioral Risk Factor Surveillance System, 1995.	50% of female respondents
39	Breast self exam	Bridge to Health Collaborative; Bridge to Health Survey, Duluth MN, 1995.	50% of female respondents
40-42	Mammograms and Pap smears	Adapted from Minnesota Department of Health; Minnesota Behavioral Risk Factor Surveillance System, 1995.	50% of female respondents
43-44	Vaccinations	Minnesota Department of Health; Minnesota Behavioral Risk Factor Surveillance System, 1995.	50% of respondents
45	Skip meals	CAW and Associates, Framingham, MA and Just Harvest: A Center for Action Against Hunger, Homestead, PA; Community Childhood Hunger Identification Project Survey	Everyone
46	Homelessness	CAW and Associates, Framingham, MA and Just Harvest: A Center for Action Against Hunger, Homestead, PA; Community Childhood Hunger Identification Project Survey	Everyone
47	Every-day discrimination	Adapted from Williams, D.; Yu, Y.; Jackson, J.S.; Anderson, M.B.; Racial differences in physical and mental health: social economic status, stress and	Everyone

Question #	Survey Topics	Source	Respondents Asked
		discrimination. Journal of Health Psychology. 2:335-351, 1997.	
48	Social service utilization	Adapted from National Center for Health Statistics; State and Local Area Integrated Telephone Survey (SLAITS), 1997.	Everyone
49	Firearms	Adapted from Centers for Disease Control and Prevention; Behavioral Risk Factor Surveillance System, 1997.	Everyone
50	Activity restrictions due to safety	Bridge to Health Collaborative; Bridge to Health Survey, Duluth MN, 1995.	Everyone
51	Weight	Minnesota Department of Health; Minnesota Behavioral Risk Factor Surveillance System, 1995.	Everyone
52	Height	Minnesota Department of Health; Minnesota Behavioral Risk Factor Surveillance System, 1995.	Everyone
53	Sexual orientation		Everyone aged 65 years and younger
54	Marital status		Everyone
55	Race		Everyone
56	Ethnicity		Everyone
57	Education		Everyone
58	Employment		Everyone
59	Reason not in labor force		Everyone
60	Children/seniors in household		Everyone
61	Household income		Everyone

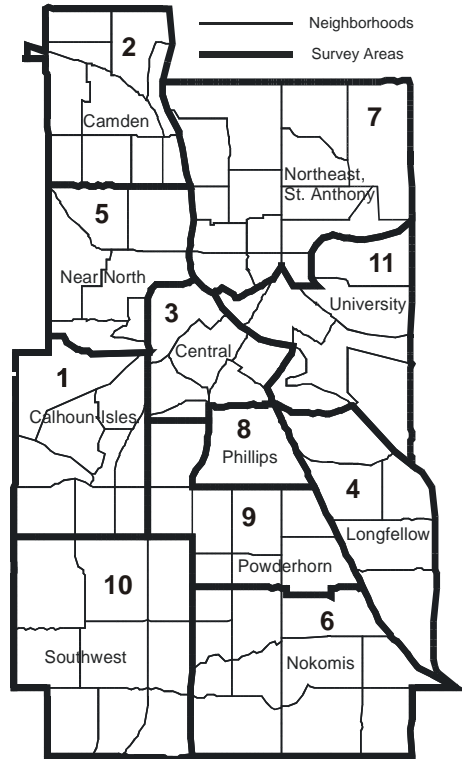
## Survey Design

A primary goal of this study was to identify differences in health status, health behaviors, social environment, and access to health care between residents of different communities in Minneapolis and suburban Hennepin County.

### Geographic Areas

A disproportionate stratified sampling method was used for this survey. Prior to sampling, Hennepin County was stratified into 19 geographic areas. Within the city of Minneapolis, the geographic areas were defined by 11 established communities, as seen in Map 1 and Table 2.

**Map 1**  
**Geographic Areas in Minneapolis**



**Table 2**  
**Geographic Areas in Minneapolis**

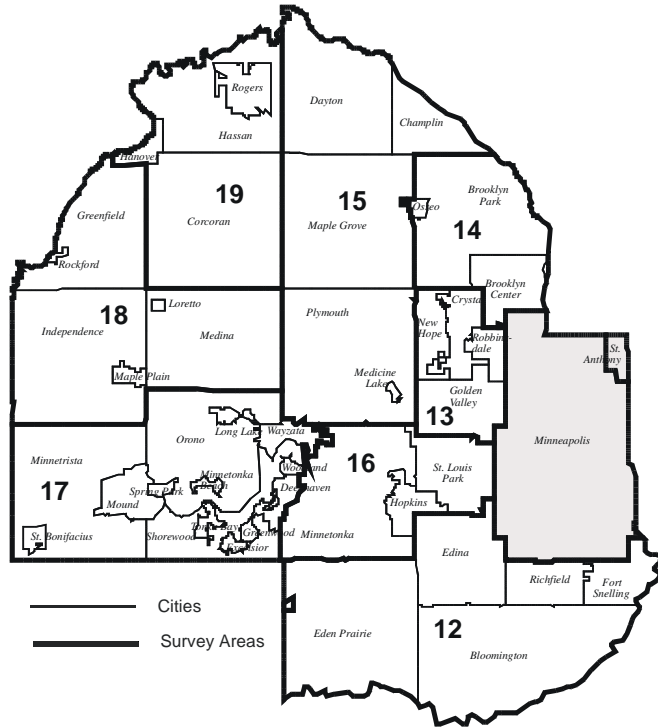
Area	Minneapolis Community	Adult (18 years+) population 1990 Census	Number of Households 1990 Census
1	Calhoun-Isles	27,259	16,478
2	Camden	21,675	11,862
3	Central	19,992	12,978
4	Longfellow	23,070	13,066
5	Near North	22,112	11,908
6	Nokomis	30,153	16,040
7	Northeast community of Minneapolis, and the Hennepin County portion of the City of St. Anthony	33,696	18,303
8	Phillips	11,831	6,307
9	Powderhorn	39,221	22,665
10	Southwest	39,946	21,376
11	University	27,818	11,713

Total Adult (18 years+) Population of Minneapolis from 1990 Census: 296,773

Total Adult (18 years+) Population of Total Hennepin County from 1990 Census: 793,622

In suburban Hennepin County, eight geographic areas were defined by combinations of cities or townships, as seen in Map 2 and Table 3.

**Map 2**  
**Geographic Areas in Hennepin County**



**Table 3**  
**Geographic Areas in Hennepin County**

Area	City or town in suburban Hennepin County	Adult (18 years+) population 1990 Census	Number of Households 1990 Census
12	Bloomington, Edina, Richfield, Eden Prairie, Fort Snelling	161,490	84,452
13	Crystal, Golden Valley, New Hope, Robbinsdale	63,669	32,056
14	Brooklyn Center, Brooklyn Park, Osseo	63,489	32,712
15	Champlin, Dayton, Maple Grove, Medicine Lake, Plymouth	76,630	37,681
16	Hopkins, Minnetonka, St. Louis Park	86,243	46,746
17	Deephaven, Excelsior, Greenwood, Long Lake, Minnetonka Beach, Minnetrista, Mound, Orono, St. Bonifacius, Shorewood, Spring Park, Tonka Bay, Wayzata, Woodland	32,836	16,900
18	Greenfield, Independence, Loretto, Maple Plain, Medina, Rockford	7,176	3,425
19	Corcoran, Hanover, Hassan, Rogers	5,316	2,450

Total Adult (18 years+) Population of suburban Hennepin County from 1990 Census: 496,849  
 Total Adult (18 years+) Population of Total Hennepin County from 1990 Census: 793,622

**Sampling Frame**

A list of telephone numbers within Hennepin County with corresponding addresses was obtained from Genesys Sampling Systems, a division of Marketing Systems Group of Fort Washington, Pennsylvania. The list did not include phone numbers from student dormitories within the University of Minnesota. The list was augmented with dormitory phone numbers to adjust for this. For the purposes of this study, each dormitory room was considered to be a household.

Approximately 550 interviews were conducted within each area, although the areas themselves contain different numbers of households. A target of 550 completed interviews in each of the 19 areas was a compromise between the cost of data collection and the statistical precision deemed necessary to make meaningful comparisons at the local level. In keeping with statistical convention, the probability of a Type I Error at 5% and the probability of a Type II Error at 20% were set. Examination of the power curve for both proportions and for means was made. The target sample size provides the ability to make statements about percentages with an error of plus or minus 6% for the worst case (for questions with a full sample). For means, the error would be plus or minus 0.12 standard deviations. Examination of the tables in this report reveal that assumptions were conservative and the actual precision was typically much better than either of these estimates.

**Respondent Selection**

Survey respondents were selected at random through a two-stage process. In the first stage, households were contacted via telephone. Then, one adult from the household was selected to participate in the survey. To select the respondent, the person answering the phone was asked to identify the adult in the household who had most recently had a birthday. This individual became the designated respondent for that household. In the case of twins having the most recent birthday, the person answering the phone was asked to randomly select one twin.

**Households Without Phones**

Although the percentage of homes in Hennepin County with phones is quite high (see Table 4 for phone ownership rates), three areas in Minneapolis stood out as having low telephone ownership percentages. Because of this, in-person interviews were conducted in the communities of Central, Near North, and Phillips. Information from these interviews was not included in the SHAPE dataset, as a convenience sample was used to identify respondents.

**Table 4  
 Telephone Ownership**

SHAPE Area	Percentage of households with telephones 1990 Census
1 – Calhoun-Isles	99.06
2 – Camden	98.67
3 – Central	90.53
4 – Longfellow	98.83
5 – Near North	90.64

6 – Nokomis	99.56
7 – Northeast	97.36
<b>SHAPE Area</b>	<b>Percentage of households with telephones 1990 Census</b>
8 – Phillips	84.83
9 – Powderhorn	93.87
10 – Southwest	99.58
11 – University	97.33
12 – Bloomington, Edina, Richfield, Eden Prairie, Fort Snelling	99.45
13 – Crystal, Golden Valley, New Hope, Robbinsdale	99.69
14 – Brooklyn Center, Brooklyn Park, Osseo	99.02
15 – Champlin, Dayton, Maple Grove, Medicine Lake, Plymouth	99.64
16 – Hopkins, Minnetonka, St. Louis Park	99.42
17 – Deephaven, Excelsior, Greenwood, Long Lake, Minnetonka Beach, Minnetrista, Mound, Orono, St. Bonifacius, Shorewood, Spring Park, Tonka Bay, Wayzata, Woodland	98.98
18 – Greenfield, Independence, Loretto, Maple Plain, Medina, Rockford	99.42
19 – Corcoran, Hanover, Hassan, Rogers	99.11

## Data Collection

The SHAPE questionnaire was administered via the telephone between October 1, 1997 and February 15, 1998. The interviewing was contracted to the Survey Research Center of the Division of Health Services Research and Policy at the University of Minnesota School of Public Health.

### Interviewer Selection

Interviewers were professional interviewers employed by the University of Minnesota. They were selected for their communication skills, trained specifically for this project, and supervised closely in their work.

### Training of Interviewers

Training of the interviewers was conducted in three phases. In the first phase, new interviewers were required to attend an initial training session during which they received basic instructions in survey interviewing. In the second phase, the interviewers learned about this specific project, and how to apply general interview techniques to this project. In the third phase, interviewers practiced reading the questionnaire and using the computer equipment by role-playing with other interviewers.

### **Computer Assisted Telephone Interview**

This project used the Sawtooth Computer Assisted Telephone Interview (CATI) System. To conduct interviews using this system, each interviewer uses a microcomputer that displays questions on the computer screen in the proper order. The interviewer wears a headset and has both hands free for entering responses into the computer via the keyboard. Responses are generally entered as numbers, such as "1" for yes and "2" for no. The only circumstance that differs from this general procedure occurs when a pre-coded list of possible responses appears on the computer screen and the interviewer moves the cursor to highlight any response that is mentioned. Pressing the spacebar at a particular response highlights the selected item. Any number of pre-coded responses can be selected in this way, including an "other-specify" response that lets the interviewer enter any other response not on the pre-coded list.

### **Supervision**

Interviewers were supervised throughout the data collection process. Supervisory responsibilities included distributing new phone numbers and scheduled appointments, reviewing completed questionnaires for errors and omissions, maintaining a Master Log of completed interviews, and monitoring interviews. In addition, supervisors called individuals who had previously refused to answer the survey in an attempt to gain their participation.

### **Monitoring**

The "silent entry" monitoring system used enabled supervisors to listen to interviews and provide feedback immediately following the interview to interviewers regarding improvements in interviewing quality. This system allowed the monitor to hear both the interviewer and the respondent during the survey. Interviewers whose performance was not satisfactory were re-evaluated on subsequent shifts. During the duration of the data collection period, ten percent of all interviews were monitored.

### **Operations**

Interviews were conducted by telephone from the phone bank located at the Survey Research Center. The interviewing was organized into ten shifts conducted seven days per week, including weekend, evening and weekday hours. Monday through Friday, shifts were held from 9:00 a.m. to 9:00 p.m. On Saturdays, shifts were held from 9:00 a.m. – 3:00 p.m. On Sundays, shifts were held from 5:00 p.m. to 9:00 p.m.

Telephone numbers to be called were recorded on contact record forms and were distributed to interviewers at the beginning of each shift. The disposition for each attempt to complete an interview was recorded on these contact records. Each telephone number in the sample continued to be called until it had been attempted at least 30 times without success or until the data collection period ended.

The back of each contact record contained two forms: (1) a refusal form for recording relevant information about those respondents refusing to participate in the interview, and (2) a callback form for scheduling future interview appointments. For each call made, interviewers recorded the date, time, and disposition of the call as well as their interviewer ID number.

"Other-specify" responses were recorded verbatim using the CATI software. In addition, interviewers were instructed to use a comment sheet to record any incidents of repeating questions

or categories, miscellaneous ad-libs by respondents, and any problems they encountered during the interview.

### **Answering Machine Messages**

The sample for this study included many households with answering machines. Interviewers were instructed to leave a message stating that they were calling from the University of Minnesota and requesting the respondent call the Survey Research Center to be included in the study. Eight hundred and four (804) target households with answering machines who were part of the original sampling list were contacted 30 or more times on different days and times of day without success. This group was subsequently dropped from the sample, and the sample was refreshed with new names.

### **In-Person Interviews**

In-person interviews were conducted with 14 persons who were hard of hearing. In these cases, a supervisor went into the home of the person being interviewed.

## **Completion Status**

### **Completed Questionnaires**

A total of 10,745 telephone interviews was completed for the SHAPE project; 6,344 in the city of Minneapolis, and 4,401 in suburban Hennepin County. Table 5 lists the number of completed interviews within each of the 19 geographic areas. An additional 1,165 people contacted refused to participate. Table 6 lists the disposition codes for Hennepin County overall, and Table 7 details the final study dataset.

**Table 5**  
**Completed Interviews**

<b>Area</b>	<b>Number of completed Interviews</b>
1 – Calhoun-Isles	551
2 – Camden	575
3 – Central	576
4 – Longfellow	569
5 – Near North	550
6 – Nokomis	586
7 – Northeast	550
8 – Phillips	604
9 – Powderhorn	600
10 – Southwest	566
11 – University	617
12 – Bloomington, Edina, Richfield, Eden Prairie, Fort Snelling	550
13 – Crystal, Golden Valley, New Hope, Robbinsdale	550
14 – Brooklyn Center, Brooklyn Park, Osseo	551



15 – Champlin, Dayton, Maple Grove, Medicine Lake, Plymouth	550
16 – Hopkins, Minnetonka, St. Louis Park	550
<b>Area</b>	<b>Number of completed Interviews</b>
17 – Deephaven, Excelsior, Greenwood, Long Lake, Minnetonka Beach, Minnetrista, Mound, Orono, St. Bonifacius, Shorewood, Spring Park, Tonka Bay, Wayzata, Woodland	550
18 – Greenfield, Independence, Loretto, Maple Plain, Medina, Rockford	550
19 – Corcoran, Hanover, Hassan, Rogers	550
<b>Total</b>	<b>10,745</b>

<b>Table 6 Final Disposition</b>	
Telephone interviews	10,731
In-person interviews	<u>14</u>
<b>Total Completed Interviews</b>	<b>10,745</b>
Disconnected telephone number	3,024
Telephone number assigned to deceased person	17
Business phone	1,056
Did not meet age requirement	49
Out of Hennepin County Area	342
Duplicate telephone number	<u>361</u>
<b>Total Out of Sample</b>	<b>4,849</b>
<b>Refused</b>	<b>1,165</b>
<b>Not completed due to language/communication problems</b>	<b>399</b>
<b>Attempted without success due to telephone answering machines on more than 20 separate occasions</b>	<b>804</b>
<b>Not used</b>	<b>4,788</b>
<b>TOTAL SAMPLE</b>	<b>22,750</b>

**Table 7****Final Study Dataset**

Completed interviews	10,745
Completed interviews deleted from study dataset (due to no information about household size, or are, or gender)	128

**FINAL STUDY DATASET****10,617****Survey Response Rate**

The overall response rate for this survey was 90.1 percent. Response rates within the 19 geographic areas ranged from 85.5 to 97.7 percent. Table 8 lists the area-specific response rates. For this study, the number of persons the interviewers attempted to reach, or the total number of persons in the sample included persons who responded to the survey, persons who refused to participate in the survey, and persons who were in the process of being contacted when the survey ended. Phone numbers not included in the sample were business phones, disconnected numbers, and those located outside Hennepin County. Households not included were those in which the oldest resident was 17 years of age or under, where the calls were responded to by an answering machine 20 or more consecutive times, where the resident was deceased, and where the target person could not communicate coherently.

**Table 8****Completed Interviews and Response Rates**

Area	Response Rate (%)
1 – Calhoun-Isles	89.0
2 – Camden	96.6
3 – Central	85.5
4 – Longfellow	93.9
5 – Near North	94.7
6 – Nokomis	97.7
7 – Northeast	94.0
8 – Phillips	89.2
9 – Powderhorn	86.7
10 – Southwest	92.3
11 – University	85.7
12 – Bloomington, Edina, Richfield, Eden Prairie, Fort Snelling	85.8
13 – Crystal, Golden Valley, New Hope, Robbinsdale	90.0
14 – Brooklyn Center, Brooklyn Park, Osseo	87.7
15 – Champlin, Dayton, Maple Grove, Medicine Lake, Plymouth	87.2

16 – Hopkins, Minnetonka, St. Louis Park	91.2
<b>Area</b>	<b>Response Rate (%)</b>
17 – Deephaven, Excelsior, Greenwood, Long Lake, Minnetonka Beach, Minnetrista, Mound, Orono, St. Bonifacius, Shorewood, Spring Park, Tonka Bay, Wayzata, Woodland	86.9
18 – Greenfield, Independence, Loretto, Maple Plain, Medina, Rockford	86.9
19 – Corcoran, Hanover, Hassan, Rogers	95.2
<b>Total Hennepin County</b>	<b>90.1</b>

## Management of SHAPE data

### Data Cleaning

After the data collection was complete, the data were transferred from an ASCII file to an SPSS file. A systematic examination was conducted to remove data entry errors. Additional data cleaning involved using a computer program to evaluate each case for variables with out-of-range values. Finally, the file was examined manually to identify cases with inconsistent or inappropriate responses. Respondents with missing information were not re-contacted by an interviewer.

### Recoding of Data

Four responses of weight less than 60 pounds were recoded as missing. Five responses of height three feet or less were recoded as missing. One response indicating weight of 100 pounds and height of three feet was left in the dataset.

### Weighting of Sample Data

The SHAPE data were weighted in the analysis to account for differences in the 19 geographic areas by household size, adult population, gender, and age. Respondents reported the number of adults living in their household as part of the interview. The number of adults living in each of the 19 geographic areas was obtained from 1990 U.S. Census data. Additionally, the sample weights included a post-stratification adjustment that was based on 1990 U.S. Census figures for the age and gender distributions of the adult population within each of the 19 geographic areas.

In order to correctly weight the sample, information on age, gender, household size, and geographic area was needed for all respondents. There were 128 individuals for whom these data were not complete. These individuals were dropped from the final sample, making the size of the final research data set 10,617.

When the unit of analysis is a person, weighting is necessary due to:

- Unequal probabilities of adults being selected because of different number of adults in the households.

- Disproportionate sampling rates of adults living in geographic areas that are aggregated together into larger regions.
- Differences in the age/gender distribution of the actual survey respondents and the actual distribution as measured by the 1990 Census.

When the unit of analysis is a household, weighting is necessary due to:

- Disproportionate sampling rates of households found in geographic areas that are aggregated together in to larger regions.

Weights used in SHAPE data analysis include:

### **HhRegW2**

HhRegW2 is used to compute the survey response estimates for each of the 19 geographic areas, and takes into account the following factors:

- Unequal probability based on the number of adults in the household in the sample.
- Age and gender distribution of each of the 19 geographic areas, as measured by the 1990 Census, compared to the distribution of the survey respondents from those areas.

### **Weight19**

Weight19 is used to compute the survey response estimates for the city of Minneapolis, suburban Hennepin County, and Hennepin County as a whole. This weight takes into account the following:

- Unequal probability based on the number of adults in the household in the sample.
- Disproportionate sampling rates among the 19 geographic areas based on the number of adult residents.
- Age and gender distribution of each of the 19 geographic areas, as measured by the 1990 Census, compared to the distribution of the survey respondents from those areas.

### **Hsawgt**

Hsawgt is used to compute the survey response estimates for each of the four Human Service Areas (Minneapolis, South Suburban, West Suburban, and Northwest Suburban) within Hennepin County. This weight takes into account the following factors:

- Unequal probability based on the number of adults in the household in the sample.
- Disproportionate sampling rates among the four Human Service Areas based on the number of adult residents.
- Age and gender distribution of each of the 19 geographic areas, as measured by the 1990 Census, compared to the distribution of the survey respondents from those areas.

### **Housewgt**

Housewgt is used to compute the survey response estimates for households in each of the 19 geographic areas within Hennepin County, and takes into account:

- Disproportionate sampling rates among the 19 geographic areas based on the number of households.

Table 9 summarizes the appropriate weight variable to use for various geographic units of analysis.

**Table 9**  
**Data Weights**

Geographic Unit of Analysis	Unit of Analysis	Weight Variable to use
One of the 19 geographic areas	Person	HhRegW2
City of Minneapolis	Person	Weight19
Suburban Hennepin County	Person	Weight19
All of Hennepin County	Person	Weight19
One of the four Human Service Areas	Person	Hsawgt
Any	Households	Housewgt

For more information about weighting, see Appendix B, SHAPE Weighting.

# Appendix A

## SHAPE QUESTIONNAIRE

Intro. question:

AGE: What is your age?

\_\_\_\_ \_ years  
9 Refused

GENDER: Please enter gender

1 Male  
2 Female

1. Altogether, how many times have you moved in the last 5 years, that is, since 1992?

\_\_\_\_ \_ times  
97 Don't know  
99 Refused

2. I am going to ask you some questions about your community. All have the following responses: strongly agree, agree, disagree, strongly disagree

	Strongly Agree	Agree	Disagree	Strongly disagree	DK	RF
a. People can depend on each other in this community.	1	2	3	4	7	9
b. Living in this community gives me a secure feeling.	1	2	3	4	7	9
c. People here know they can get help from the community if they are in trouble.	1	2	3	4	7	9
d. This is not a very good community to bring children up in.	1	2	3	4	7	9
e. There is a feeling in this community that people should not get too friendly with each other.	1	2	3	4	7	9
f. If I had an emergency, even people I do not know in this community would be willing to help.	1	2	3	4	7	9

3. Do you currently have health insurance? (including Medicare)

1 Yes  
2 No (SKIP TO Q.4)  
7 Don't Know 7  
9 Refused

3b. Was there any time during the past 12 months that you did not have health insurance?

- 1 Yes
- 2 No
- 7 Don't Know
- 9 Refused

3c. Is that health insurance from Medical Assistance (MA), GAMC (General Assistance Medical Care), or MinnesotaCare (a State sponsored health insurance program)?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

4. Is there one particular person or place where you usually go when you are sick or need advice about your health?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

5. In the past 12 months, was there a time when you thought that you needed medical care but did not get it, or delayed getting it?

- 1 Yes
- 2 No (SKIP TO Q6A)
- 7 Don't know (SKIP TO Q6A)
- 9 Refused (SKIP TO Q6A)

5b. What was the main reason that you did not get medical care or delayed getting care:

- 01 Didn't know where to go
- 02 Don't like, trust, or believe doctors
- 03 Because of cost
- 04 Lack of insurance
- 05 Could not get an appointment when I had time to go
- 06 Had no one to take care of my children
- 07 Health of a family member interfered
- 08 Speak a different language
- 09 Transportation problems
- 10 Didn't think I could find help that would be respectful of my culture
- 11 Other (Specify) \_\_\_\_\_
- 97 Don't know
- 99 Refused

6. In the past 12 months, was there a time when you wanted to talk with a mental health professional about an emotional or mental health problem but did not do it?

- 1 Yes
- 2 No (SKIP TO Q7A)
- 7 Don't know (SKIP TO Q7A)
- 9 Refused (SKIP TO Q7A)

6b. What was the main reason that you did not get the mental health care:

- 01 Didn't know where to go
- 02 Because of cost
- 03 Lack of insurance
- 04 Speak a different language
- 05 Transportation problems
- 06 Afraid of being stigmatized or judged
- 07 Didn't think I could find help that would be respectful of my culture
- 08 Other (Specify) \_\_\_\_\_
- 97 Don't know
- 99 Refused

7. In the past year, have you postponed dental work?

- 1 Yes
- 2 No (SKIP TO Q8)
- 7 Don't know (SKIP TO Q8)
- 9 Refused (SKIP TO Q8)

7b. What was the main reason that you postponed dental work:

- 01 It costs too much
- 02 Lack of insurance
- 03 Could not get an appointment
- 04 Transportation problems
- 05 Too nervous or afraid
- 06 No teeth
- 07 Other (Specify) \_\_\_\_\_
- 97 Don't know
- 99 Refused

8. Have you been hospitalized during the past 12 months?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused



The next question is about your health now and your current daily activities. Please try to answer the question as accurately as you can.

9. In general, would you say your health is:

- 1 Excellent,
- 2 Very good
- 3 Good
- 4 Fair
- 5 Poor
- 7 Don't know
- 9 Refused

Now, I'm going to read a list of activities that you might do during a typical day. As I read each item, please tell me if your health now limits you a lot, limits you a little, or does not limit you at all in these activities.

10. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf:

- 1 Yes, limited a lot (skip to Q11A)
- 2 Yes, limited a little (skip to Q11A)
- 3 No, not limited at all (skip to Q11A)
- 4 Don't do these activities
- 7 Don't know (skip to Q11A)
- 9 Refused (skip to Q11A).

10b. Is that because of your health?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

11. Climbing several flights of stairs. Does your health now limit you a lot, limit you a little, or not limit you at all?

- 1 Yes, limited a lot (SKIP TO Q12)
- 2 Yes, limited a little (SKIP TO Q12)
- 3 No, not limited at all (SKIP TO Q12)
- 4 Don't do these activities
- 7 Don't know (SKIP TO Q12)
- 9 Refused (SKIP TO Q12)

11b. Is that because of your health?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

The following questions ask about your physical health and your daily activities.

12. During the past 4 weeks, have you accomplished less than you would like as a result of your physical health?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

13. During the past 4 weeks, were you limited in the kind of work or other regular daily activities you do as a result of your physical health?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

14. During the past 4 weeks, have you accomplished less than you would like as a result of any emotional problems, such as feeling depressed or anxious?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

15. During the past 4 weeks, did you not do work or other regular activities as carefully as usual as a result of any emotional problems, such as feeling depressed or anxious?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

16. During the past 4 weeks, how much did pain interfere with your normal work, including both work outside the home and housework? Did it interfere:

- 1 Not at all
- 2 A little bit
- 3 Moderately
- 4 Quite a bit
- 5 Extremely
- 7 Don't know
- 9 Refused

17. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities like visiting with friends or relatives? Has it interfered...

- 1 All of the time
- 2 Most of the time
- 3 Some of the time
- 4 A little of the time
- 5 None of the time
- 7 Don't know
- 9 Refused

The next questions are about how you feel and how things have been with you during the past 4 weeks.

As I read each statement, please give me the one answer that comes closest to the way you have been feeling; is it all of the time, most of the time, a good bit of the time, some of the time, a little of the time, or none of the time?

18. How much of the time during the past 4 weeks...have you felt calm and peaceful?

- 1 All of the time
- 2 Most of the time
- 3 A good bit of the time
- 4 Some of the time
- 5 A little of the time
- 6 None of the time
- 7 Don't know
- 9 Refused

19. How much of the time during the past 4 weeks, did you have a lot of energy?

- 1 All of the time
- 2 Most of the time
- 3 A good bit of the time
- 4 Some of the time
- 5 A little of the time
- 6 None of the time
- 7 Don't know
- 9 Refused

20. How much of the time during the past 4 weeks, have you felt downhearted and blue?

- 1 All of the time
- 2 Most of the time
- 3 A good bit of the time
- 4 Some of the time
- 5 A little of the time
- 6 None of the time
- 7 Don't know
- 9 Refused

21. Because of any impairment or health problem, do you need the help of other persons with personal care needs such as eating, bathing, dressing, or getting around this home?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

22. Because of any impairment or health problem, do you need the help of other persons in handling routine needs such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

23. Has a doctor or other health care provider ever told you that you had any of the following conditions?

	Yes	No	DK	RF
23.1 Asthma	1	2	7	9
23.2 Cancer – specify type _____	1	2	7	9
23.3 Chronic lung disease (including chronic bronchitis or emphysema)	1	2	7	9
23.4 Diabetes	1	2	7	9
23.5 Chronic digestive disease	1	2	7	9
23.6 Heart trouble or angina	1	2	7	9
23.7 High blood pressure or hypertension	1	2	7	9
23.8 High cholesterol or triglycerides	1	2	7	9
23.9 Arthritis or rheumatism	1	2	7	9
23.10 Osteoporosis	1	2	7	9
23.11 Stroke	1	2	7	9
23.12 Severe allergies	1	2	7	9
23.13 Migraine headaches	1	2	7	9
23.14 Chronic back pain	1	2	7	9
23.15 Depression	1	2	7	9

24. In an average week, how many days do you get at least 30 minutes of moderate physical activities? Examples of moderate activity include walking, swimming, or cycling.

- 0 None
- 1 1 day
- 3 2 days
- 4 3 days
- 4 4 days
- 5 5 days
- 6 6 days
- 7 7 days
- 97 Don't know
- 99 Refused

25. In an average week, how many days do you participate in vigorous physical activities that last at least 20 minutes? Examples of vigorous activity include stair-master, lap swimming, skiing machine, and jogging.

- 0 None
- 1 1 day
- 2 2 days
- 3 3 days
- 4 4 days
- 5 5 days
- 6 6 days
- 7 7 days
- 97 Don't know
- 99 Refused

26:

Now I'd like to read you a list of injuries. Please tell me if any of these happened to you in the past 12 months:		a: did any of these happened to you in last 12 months? 26A.1 - 26A.10				b Would you characterize this injury 26B.1 - 26B.16				c. Where did this happen? 26C.1 - 26C.16				
		DK	RF	No	Yes	On purpose	An accident	DK	RF	At home or in my yard	At work	Other (Specify)	DK	RF
.1*	Boating, snowmobiling, or other activity in a recreational vehicle	7	9	2	1									
.2*	Involved in a motor vehicle accident when you were not in a vehicle	7	9	2	1									
.3*	Involved in a motor vehicle accident when you were in a motor vehicle	7	9	2	1									
.4*	Sports-related injuries	7	9	2	1-->	2	1	7	9	1	2	3	7	9
.5*	Poisoning	7	9	2	1-->	2	1	7	9	1	2	3	7	9
.6*	Injury as a result of falling	7	9	2	1-->	2	1	7	9	1	2	3	7	9
.7*	Fire or burns, including scalding or chemical burns	7	9	2	1-->	2	1	7	9	1	2	3	7	9
.8*	Exposure to the elements (heatstroke, frostbite, etc.)	7	9	2	1-->	2	1	7	9					
.9*	Suffocation or near-drowning	7	9	2	1-->	2	1	7	9	1	2	3	7	9
.10*	Injury caused by machinery or equipment	7	9	2	1									
		26D.1 -26D.6				26E.1-26E.6				26F.1-26F.6				
.1	Injury caused by knives or other sharp objects	7	9	2	1									
.2	Injury caused by firearms	7	9	2	1-->	2	1	7	9	1	2	3	7	9
.3	Repetitive motion	7	9	2	1									
.4	Physically assault	7	9	2	1					1	2	3	7	9
.5	Sexual abuse/assault	7	9	2	1					1	2	3	7	9
.6	Animal bite	7	9	2	1									

27. Within the last 12 months, have you been hit, slapped, pushed, kicked or injured with an object or weapon by your spouse, partner, or other family member?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

28. How would you describe your cigarette smoking habits?

- 1 Never smoked (SKIP TO Q29)
- 2 Used to smoke, but don't anymore (SKIP TO Q28C )
- 3 Smoke now
- 7 Don't know (SKIP TO Q28C)
- 9 Refused (SKIP TO Q28C)

28b. On the average, about how many cigarettes a day do you now smoke?

- \_\_\_ number of cigarettes
- 997 Don't know
- 999 Refused

28c. During the past 12 months, have you quit smoking for 1 day or longer?

- 1 Yes
- 2 No
- 3 Quit more than 12 months ago
- 7 Don't know
- 9 Refused

29. Does anyone regularly smoke inside your home?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

30. During the past month, have you had at least one drink of any alcoholic beverage such as beer, wine, wine coolers, or liquor?

- 1 Yes
- 2 No (SKIP TO Q32AA)
- 3 Never drink /did not drink for last 12 months (skip to Q33)
- 7 Don't know (skip to Q31A)
- 9 Refused (skip to Q31A)

31. During the past month, how many days per week or per month did you drink any alcoholic beverages, on the average?

- 1 To enter days per week
- 2 To enter days per month
- 7 Don't know
- 9 Refused

WEEK     Days per week  
97 Don't know  
99 Refused

MONTH     Days per month  
97 Don't know  
99 Refused

32 A drink is 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail, or 1 shot of liquor. On the days when you drank, about how many drinks did you drink on the average?

- 1 To enter number of drinks in Q32AA
- 7 Don't know (skip to Q32B)
- 9 Refused (skip to Q32B)

32AA     Drinks per day  
97 Don't know  
99 Refused

32B Considering all types of alcoholic beverages, how many times during the past month did you have 5 or more drinks on an occasion?

- 1 To enter number of times in Q32BA
- 7 Don't know (skip to Q32C)
- 9 Refused (skip to Q32C)

Q32BA     number of times  
97 Don't know  
99 Refused

32C During the past month, how many times have you driven when you've had perhaps too much to drink?

- 1 To enter number of times in Q32CA
- 7 Don't know (skip to Q33)
- 9 Refused (skip to Q33)

32CA     number of times  
97 Don't know  
99 Refused

33. How often do you use seat belts when you drive or ride in a car? Would you say:
- 1 Always
  - 2 Nearly always
  - 3 Sometimes
  - 4 Seldom
  - 5 Never
  - 6 Never drive or ride in a car
  - 7 Don't know
  - 9 Refused
34. Yesterday, how many servings of fruits and vegetables did you eat?
- 0 None
  - 0.5 Less than one
  - 1 1 serving
  - 2 2 servings
  - 3 3 servings
  - 4 4 servings
  - 5 5 or more servings
  - 7 Don't know
  - 9 Refused
35. Yesterday, how many servings of foods high in cholesterol or fat, such as red meat, cheese, fried foods, or eggs did you eat?
- 0 None
  - 0.5 Less than one
  - 1 1 serving
  - 2 2 servings
  - 3 3 servings
  - 4 4 servings
  - 5 5 or more servings
  - 7 Don't know
  - 9 Refused
36. Do you consider yourself...
- 1 Overweight
  - 2 Underweight
  - 3 About average
  - 7 Don't know
  - 9 Refused
37. Have you given birth in the past 3 years?
- 1 Yes
  - 2 No
  - 7 Don't know
  - 9 Refused



38. A clinical breast exam is when a doctor, nurse, or other health professional feels the breast for lumps. How long has it been since you had a clinical breast exam?

- 1 Within the past year
- 2 Within the past 2 years
- 3 Within the past 3 years
- 4 Within the past 5 years
- 5 5 or more years ago
- 6 Never
- 7 Don't know
- 9 Refused

39. About how often do you examine your breasts for lumps?

- 1 Monthly
- 2 Every few months
- 3 Rarely
- 4 Never
- 7 Don't know
- 9 Refused

40. A mammogram is an x-ray of each breast to look for breast cancer. How long has it been since you had a mammogram?

- 1 Within the past year
- 2 Within the past 2 years
- 3 Within the past 3 years
- 4 Within the past 5 years
- 5 5 or more years ago
- 6 Never
- 7 Don't know
- 9 Refused

41. A Pap smear is a test for cancer of the cervix. How long has it been since you had a Pap smear?

- 1 Within the past year
- 2 Within the past 2 years
- 3 Within the past 3 years
- 4 Within the past 5 years
- 5 5 or more years ago
- 6 Never
- 7 Don't know
- 9 Refused

42. A hysterectomy is an operation to remove the uterus (womb). Have you had a hysterectomy?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

43. During the past 12 months, have you had a flu shot?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

44. Have you ever had a pneumonia vaccination?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

45. Do you or other members of your household ever cut the size of meals or skip meals because there is not enough money for food?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

46. In the last year was there 1 or more nights you spent on the street or in a homeless shelter?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

47. In your day-to-day life how often have any of the following things happened to you?

	Almost every day	At least once a week	A few times a month	A few times a year	Less than once a year	Never	DK	RF
a. 47.1. You are treated with less courtesy than other people	1	2	3	4	5	6	7	9
b. 47.2. You are treated with less respect than other people	1	2	3	4	5	6	7	9
c. 47.3 You receive poorer service than other people at restaurants or stores	1	2	3	4	5	6	7	9
d. 47.4 People act as if they think you are not smart	1	2	3	4	5	6	7	9
e. 47.5 People act as if they are afraid of you	1	2	3	4	5	6	7	9
f. 47.6 People act as if they think you are dishonest	1	2	3	4	5	6	7	9
g. 47.7 People as if they're better than you are	1	2	3	4	5	6	7	9
h. 47.8 You are called names or insulted	1	2	3	4	5	6	7	9
i. 47.9 You are threatened or harassed	1	2	3	4	5	6	7	9

48. Have you or anyone in your household received any of the following in the past 12 months?

	Yes	No	Don't know	Refused
a. 48.1 Subsidized or sliding fee child care	1	2	7	9
b. 48.2 SSI	1	2	7	9
c. 48.3 Home health care services	1	2	7	9
d. 48.4 Assisted living services	1	2	7	9
e. 48.5 Welfare, AFDC, GA, TANF ...	1	2	7	9
f. 48.6 Low income housing assistance	1	2	7	9
g. 48.7 GWIC (Women, Infants & Children)	1	2	7	9
h. 48.8 Food Stamps	1	2	7	9
i. 48.9 Food from food shelves	1	2	7	9

The next few questions are about firearms. This would include handguns, pistols, rifles, and automatic and semi-automatic weapons.

49 Are there any firearms in your home?

- 1 Yes
- 2 No (SKIP TO Q50)
- 7 Don't know (SKIP TO Q50)
- 9 Refused (SKIP TO Q50)

49b. Are they all stored in a locked place or stored with a trigger lock?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

50. During the past year, have you restricted your activities because you did not feel safe:

	Yes	No	Don't Know	Not applicable	Refused
a. 50.1 In your home?	1	2	7	8	9
b. 50.2 In your neighborhood?	1	2	7	8	9
c. 50.3 At school?	1	2	7	8	9
d. 50.4 Where you work?	1	2	7	8	9
e. 50.5 Traveling to and from work or school?	1	2	7	8	9

51a. How much do you weigh without shoes?

- 1 To enter the weight in Q51B
- 7 Don't know (skip to Q52A)
- 9 Refused (skip to Q52A)

51b.

\_\_\_ \_\_\_ \_\_\_ pounds (accept weights between 24 to 900)

52a. How tall are you without shoes?

- 1 To enter the height in Q52B
- 7 Don't know (skip to Q53)
- 9 Refused (skip to Q53)

52B \_\_\_ feet

52C \_\_\_ \_\_\_ inches

53. Which of the following best describes your sexual identity?

- 1 Heterosexual or straight
- 2 Bisexual
- 3 Homosexual, gay, or lesbian
- 4 Transgender
- 5 Not sure
- 9 Refused

54. Are you currently....
- 1 Married
  - 2 Separated
  - 3 Divorced
  - 4 Widowed
  - 5 Never been married
  - 6 A member of an unmarried couple (Living together but not married)
  - 7 Don't Know
  - 9 Refused
55. What is your race? Would you say you are...
- 1 White
  - 2 Black or African American
  - 3 Oriental/Asian or Pacific Islander
  - 4 American Indian, Alaska Native
  - 5 Multi-racial
  - 6 Other
  - 7 Don't know
  - 9 Refused
56. Are you of Hispanic, Latino, or Spanish origin?
- 1 Yes
  - 2 No
  - 7 Don't know
  - 9 Refused
57. What is the highest grade or year of school you completed?
- 1 Some high school or less (or never attended)
  - 2 Grade 12 or GED (high school graduate)
  - 3 Some college or trade school
  - 4 Associate degree
  - 5 Bachelor's degree
  - 6 Graduate or professional degree
  - 7 Don't know
  - 9 Refused
58. Are you currently:
- 1 Full time employed (SKIP TO Q60A)
  - 2 Part time employed (SKIP TO Q60A)
  - 3 Self-employed (SKIP TO Q60A)
  - 4 Not in labor force
  - 7 Don't know (SKIP TO Q60A)
  - 9 Refused (SKIP TO Q60A)

59. If not in labor force, what is the reason:
- 1 Disabled
  - 2 Retired
  - 3 Homemaker
  - 4 Student
  - 5 Looking, but haven't found work
  - 6 Not looking for work
  - 7 Don't Know
  - 9 Refused

- 60 How many people in your household are:
- 60A.1 Number of children under 6 years old      \_\_\_ \_\_\_
- 60A.2 Number of children 6-17 years old      \_\_\_ \_\_\_
- 60A.3 Number of adults from 18-64      \_\_\_ \_\_\_
- 60A.4 Number of adults 65 and older      \_\_\_ \_\_\_
- 60B I have a total of \_\_\_ \_\_\_ Is that correct?
- y Yes
  - n No      (SKIP TO Q60A)

In the following questions, we are going to ask some information on your household income. We know they are very personal and private. However, as with all the other questions, all your responses will be kept confidential.

61. Approximately what was your household's income from all sources last year before taxes? (If you are self-employed or own your own business, please report your net income after business deductions.)
- 1 To enter amount in INCOME
  - 7 Don't know (SKIP TO Q61A)
  - 9 Refused (SKIP TO Q61A)

INCOME

61A - 61I. How about if I give you some categories:

- Q61A** Household Size = 1
- 1 \$0 - \$7,700
  - 2 \$7,701 - \$11,600
  - 3 \$11,601 - \$15,500
  - 4 \$15,501 - \$23,200
  - 5 \$23,201 - \$31,000
  - 6 \$31,001 - \$38,700
  - 7 \$38,701 - \$46,400
  - 8 Greater than \$46,400
  - 9 Refused.

**Q61B** Household size = 2

- 1 \$0 - \$10,400
- 2 \$10,401 - \$15,500
- 3 \$15,501 - \$20,700
- 4 \$20,701 - \$31,100
- 5 \$31,101 - \$41,400
- 6 \$41,401 - \$51,800
- 7 \$51,801 - \$62,200
- 8 Greater than \$62,200
- 9 Refused.

**Q61C** Household size = 3

- 1 \$0 - \$13,000
- 2 \$13,001 - \$19,500
- 3 \$19,501 - \$26,000
- 4 \$26,001 - \$38,900
- 5 \$38,901 - \$51,900
- 6 \$51,901 - \$64,900
- 7 \$64,901 - \$77,900
- 8 Greater than \$77,900
- 9 Refused.

**Q61D** Household size = 4

- 1 \$0 - 15,600
- 2 \$15,601 - \$23,400
- 3 \$23,401 - 31,300
- 4 \$31,301 - \$46,800
- 5 \$46,801 - \$62,400
- 6 \$62,401 - \$78,000
- 7 \$78,001 - \$93,600
- 8 Greater than \$93,600
- 9 Refused.

**Q61E** Household size = 5

- 1 \$0 - \$18,200
- 2 \$18,201 - \$27,300
- 3 \$27,301 - \$36,400
- 4 \$36,401 - \$54,700
- 5 \$54,701 - \$72,900
- 6 \$72,901 - \$91,100
- 7 \$91,101 - \$109,300
- 8 Greater than \$109,300
- 9 Refused.

**Q61F** Household size = 6

- 1 \$0 - \$20,800
- 2 \$20,801 - \$31,300
- 3 \$31,301 - \$41,700
- 4 \$41,701 - \$62,500
- 5 \$62,501 - \$83,400
- 6 \$83,401 - \$104,200
- 7 \$104,201 - \$125,000
- 8 Greater than \$125,000
- 9 Refused.

**Q61G** Household size = 7

- 1 \$0 - \$23,500
- 2 \$23,501 - \$35,200
- 3 \$35,201 - \$46,900
- 4 \$46,901 - \$70,400
- 5 \$70,401 - \$93,800
- 6 \$93,801 - \$117,300
- 7 \$117,301 - \$140,800
- 8 Greater than \$140,800
- 9 Refused.

**Q61H** Household size = 8

- 1 \$0 - \$26,100
- 2 \$26,101 - \$39,100
- 3 \$39,101 - \$52,200
- 4 \$52,201 - \$78,200
- 5 \$78,201 - \$104,300
- 6 \$104,301 - \$130,400
- 7 \$130,401 - \$156,500
- 8 Greater than \$156,500
- 9 Refused.

**Q61I** Household size = 9

- 1 \$0 - \$28,700
- 2 \$28,701 - \$43,100
- 3 \$43,101 - \$57,400
- 4 \$57,401 - \$86,100
- 5 \$86,101 - \$114,800
- 6 \$114,801 - \$143,500
- 7 \$143,501 - \$172,200
- 8 Greater than \$172,200
- 9 Refused.



**Q61J** Household size =10

- 1 \$0 - \$31,300
- 2 \$31,301 - \$47,000
- 3 \$47,001 - \$62,600
- 4 \$62,601 - \$94,000
- 5 \$94,001 - \$125,300
- 6 \$125,301 - \$156,600
- 7 \$156,601 - \$187,900
- 8 Greater than \$187,900
- 9 Refused

**Q61K** Household size=11

- 1 \$0 - \$33,900
- 2 \$33,901 - \$50,900
- 3 \$50,901 - \$67,900
- 4 \$67,901 - \$101,800
- 5 \$101,801 - \$135,800
- 6 \$135,801 - \$169,700
- 7 \$169,701 - \$203,600
- 8 Greater than \$203,600
- 9 Refused.

**Q61L** Household size=12

- 1 \$0 - 36,600
- 2 \$36,601 - \$54,800
- 3 \$54,801 - \$73,100
- 4 \$73,101 - \$109,700
- 5 \$109,701 - \$146,200
- 6 \$146,201 - \$182,800
- 7 \$182,801 - \$219,400
- 8 Greater than \$219,400
- 9 Refused

On behalf of Hennepin County Community Health Department and the Minneapolis Department of Health and Family Support, thank you very much for your participation.

# Appendix B

## SHAPE Weighting

It was necessary to weight the SHAPE data as part of the analysis process. There is a need to weight data when the researcher needs to adjust how much weight to give the responses of each survey participant due to unequal probability of being selected as part of the sample, disproportionate sampling rates between areas, or when the distribution of the group sampled does not match the population.

In SHAPE, when the unit of analysis is a person, the need to weight was due to:

- unequal probabilities of adults being selected because of different number of adults in the households;
- disproportionate sampling rates (e.g., 539 respondents out of 161,490 adults in Area 12 compared to 545 respondents out of 5,316 adults in Area 19) of adults living in geographic areas which are aggregated together into larger regions (e.g., suburban Hennepin County); and
- differences in the age/gender distribution of the actual survey respondents and the actual distribution as measured by the 1990 Census.

When the unit of analysis is a household, the need to weight was due to:

- disproportionate sampling rates (e.g., 539 households responding out of 84,535 households in Area 12 compared to 545 households responding out of 2,471 households in Area 19) of households found in geographic areas which are aggregated together into larger regions (e.g., suburban Hennepin County)

Because of the need to weight the cases, cases that were missing any of the key fields were dropped from the analysis. There was a total of 128 cases dropped because they were missing any or all of the following:

- household size;
- age; and
- gender

Dropping the 128 cases brought the final number of cases analyzed to 10,617.

When the unit of analysis is a person, the weighting process is a three-phase process. In Phase One, weights are generated based on the number of adults living in the household to account for the unequal probability of an adult being selected.

In Phase Two, the weights are adjusted to account for the different adult population sizes (disproportionate sampling) of the geographic areas being aggregated. If some of the 19 geographic areas in SHAPE are not being aggregated for an analysis, this phase is skipped.

The final phase is to do post-stratification adjustments based on the age-gender distribution of the survey respondents in a geographic area compared to the population as measured by the 1990 Census. For the purpose of this weighting, the population was broken down into the following age groups: 18-24, 25-44, 45-64, 65-84, and 85 and older.

**There are seven different sets of weights, or weighting variables, used with the SHAPE data. A particular set is used for certain types of analyses.**

The following set of data was used to compute the weights:

Geographic Area	1990 Adult Population (Jan 20, 1998/OPD) <sup>1</sup>	1990 Adult Population (Feb 23, 1998/UL) <sup>2</sup>	Adults in SHAPE Sample	Adults in SHAPE Sample after cleaning	Sampling Rate and Fraction <sup>3</sup>
Calhoun-Isles	27,370	27,259	600	596	2.19%
Camden	21,859	21,675	551	540	2.49%
Central	20,172	19,992	569	561	2.81%
Longfellow	23,200	23,070	586	577	2.50%
Near North	22,020	22,112	576	567	2.56%
Nokomis	30,168	30,153	617	609	2.02%
Northeast/St. Anthony	33,533	33,696	575	569	1.69%
Phillips	11,509	11,831	550	544	4.60%
Powderhorn	39,298	39,221	604	600	1.53%
Southwest	39,961	39,946	566	562	1.41%
University	27,797	27,818	550	545	1.96%
Area 12	161,490	161,490	550	539	0.33%
Area 13	63,669	63,669	550	545	0.86%
Area 14	63,489	63,489	551	539	0.85%
Area 15	76,630	76,630	550	545	0.71%
Area 16	86,243	86,243	550	544	0.63%
Area 17	32,836	32,836	550	543	1.65%
Area 18	7,176	7,176	550	547	7.62%
Area 19	5,316	5,316	550	545	10.25%

<sup>1</sup> Source: Hennepin County Office of Planning and Development

<sup>2</sup> Source: Urban Landreman's computations from 1990 Census files

<sup>3</sup> Adults in SHAPE sample after cleaning data divided by the February 23, 1998 computation of 1990 adult population.

Geographic Area	1990 # of Households <sup>1</sup>	Households in SHAPE Sample (Unweighted)	Sampling Rate and Fraction <sup>2</sup>
Calhoun-Isles	16,478	596	3.62%
Camden	11,862	540	4.55%
Central	12,978	561	4.32%
Longfellow	13,066	577	4.42%
Near North	11,908	567	4.76%
Nokomis	16,040	609	3.80%
Northeast/St. Anthony	18,303	569	3.11%
Phillips	6,307	544	8.62%
Powderhorn	22,665	600	2.65%
Southwest	21,376	562	2.63%
University	11,713	545	4.65%
Area 12	84,452	539	0.64%
Area 13	32,056	545	1.70%
Area 14	32,712	539	1.65%
Area 15	37,681	545	1.45%
Area 16	46,746	544	1.16%
Area 17	16,900	543	3.21%
Area 18	3,425	547	15.97%
Area 19	2,450	545	22.24%

<sup>1</sup> Source: Hennepin County Office of Planning and Development

<sup>2</sup> Number of households in SHAPE sample after cleaning data divided by the 1990 Census count of households

The following tables show the data that was used to compute the post-stratification weights:

Geographic Area – Hennepin County				
Gender – Age Group	1997 Adult Population Projections <sup>1</sup>	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	45,689	5.54%	368	3.5%
Males – 25 to 44	192,017	23.30%	1786	16.8%
Males – 45 to 64	108,194	13.13%	1388	13.1%
Males – 65 to 84	44,010	5.34%	659	6.2%
Males – 85 and older	4,486	0.54%	38	0.4%
Females – 18 to 24	48,254	5.86%	418	3.9%
Females – 25 to 44	191,405	23.23%	2537	23.9%
Females – 45 to 64	113,916	13.82%	2143	20.2%
Females – 65 to 84	63,387	7.69%	1153	10.9%
Females – 85 and older	12,642	1.53%	126	1.2%

Geographic Area – Calhoun-Isles				
Gender – Age Group	1990 Adult Population <sup>2</sup>	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	1,872	6.87%	10.536	3.09%
Males – 25 to 44	7,744	28.41%	74.412	21.79%
Males – 45 to 64	1,986	7.29%	44.450	13.02%
Males – 65 to 84	905	3.32%	20.414	5.98%
Males – 85 and older	136	0.50%	0.329	0.10%
Females – 18 to 24	2,512	9.22%	13.500	3.95%
Females – 25 to 44	7,771	28.51%	93.838	27.48%
Females – 45 to 64	2,089	7.66%	50.705	14.85%
Females – 65 to 84	1,670	6.13%	29.962	8.78%
Females – 85 and older	574	2.11%	3.293	0.96%

<sup>1</sup> Source: 1990 Census Report #4 Hennepin County Population Projections, August 1992; Hennepin County Office of Planning and Development

<sup>2</sup> Source: 1990 Census data files, Hennepin County Office of Planning and Development  
The 1997 population projections are used for Fweight. The 1990 population counts are used for most of the other population-based weights.

Geographic Area – Camden				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	1,185	5.47%	12.026	4.13%
Males – 25 to 44	5,438	25.09%	36.366	12.49%
Males – 45 to 64	1,923	8.87%	34.361	11.80%
Males – 65 to 84	1,500	6.92%	16.322	5.60%
Males – 85 and older	144	0.66%	2.863	0.98%
Females – 18 to 24	1,206	5.56%	19.758	6.78%
Females – 25 to 44	5,247	24.21%	58.987	20.26%
Females – 45 to 64	2,258	10.42%	56.410	19.37%
Females – 65 to 84	2,396	11.05%	49.538	17.01%
Females – 85 and older	378	1.74%	4.582	1.57%

Geographic Area – Central				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	1,859	9.30%	11.770	5.68%
Males – 25 to 44	5,611	28.07%	51.433	24.81%
Males – 45 to 64	2,037	10.19%	22.262	10.74%
Males – 65 to 84	1,033	5.17%	12.794	6.17%
Males – 85 and older	137	0.69%	0.768	0.37%
Females – 18 to 24	1,974	9.87%	12.283	5.93%
Females – 25 to 44	3,231	16.16%	35.056	16.91%
Females – 45 to 64	1,575	7.88%	30.706	14.81%
Females – 65 to 84	1,947	9.74%	24.565	11.85%
Females – 85 and older	588	2.94%	5.630	2.72%

Geographic Area – Longfellow				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	1,514	6.56%	6.572	2.24%
Males – 25 to 44	5,619	24.36%	53.437	18.23%
Males – 45 to 64	2,145	9.30%	36.577	12.48%
Males – 65 to 84	1,501	6.51%	18.860	6.43%
Males – 85 and older	205	0.89%	0.857	0.29%
Females – 18 to 24	1,478	6.41%	14.002	4.78%
Females – 25 to 44	5,505	23.86%	66.582	22.71%
Females – 45 to 64	2,237	9.70%	60.867	20.76%
Females – 65 to 84	2,422	10.50%	32.005	10.92%
Females – 85 and older	444	1.92%	3.429	1.17%

Geographic Area – Near North				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	1,683	7.61%	18.212	6.35%
Males – 25 to 44	5,358	24.23%	44.701	15.58%
Males – 45 to 64	2,093	9.47%	36.699	12.79%
Males – 65 to 84	1,044	4.72%	11.037	3.85%
Males – 85 and older	108	0.49%	0.552	0.19%
Females – 18 to 24	1,881	8.51%	17.384	6.06%
Females – 25 to 44	5,781	26.14%	71.743	25.00%
Females – 45 to 64	2,399	10.85%	55.739	19.42%
Females – 65 to 84	1,487	6.72%	27.869	9.71%
Females – 85 and older	278	1.26%	3.035	1.06%

Geographic Area – Nokomis				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	1,396	4.63%	5.294	1.35%
Males – 25 to 44	7,631	25.31%	70.583	17.94%
Males – 45 to 64	2,738	9.08%	47.644	12.11%
Males – 65 to 84	2,146	7.12%	35.997	9.15%
Males – 85 and older	215	0.71%	6.705	1.70%
Females – 18 to 24	1,394	4.62%	8.823	2.24%
Females – 25 to 44	7,667	25.43%	79.759	20.27%
Females – 45 to 64	3,274	10.86%	75.524	19.19%
Females – 65 to 84	3,258	10.80%	56.820	14.44%
Females – 85 and older	434	1.44%	6.353	1.61%

Geographic Area – Northeast/St. Anthony				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	2,023	6.00%	11.365	2.70%
Males – 25 to 44	7,708	22.88%	73.243	17.42%
Males – 45 to 64	3,372	10.01%	49.670	11.81%
Males – 65 to 84	2,670	7.92%	31.570	7.51%
Males – 85 and older	188	0.56%	1.684	0.40%
Females – 18 to 24	2,100	6.23%	11.786	2.80%
Females – 25 to 44	7,224	21.44%	95.973	22.82%
Females – 45 to 64	3,751	11.13%	69.875	16.62%
Females – 65 to 84	4,070	12.08%	68.612	16.32%
Females – 85 and older	590	1.75%	6.735	1.60%

Geographic Area – Phillips				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	892	7.54%	10.422	7.58%
Males – 25 to 44	3,139	26.53%	32.322	23.52%
Males – 45 to 64	1,020	8.62%	19.484	14.18%
Males – 65 to 84	507	4.29%	6.193	4.51%
Males – 85 and older	83	0.70%	0.906	0.66%
Females – 18 to 24	918	7.76%	6.646	4.84%
Females – 25 to 44	2,599	21.97%	27.338	19.89%
Females – 45 to 64	995	8.41%	17.973	13.08%
Females – 65 to 84	1,109	9.37%	13.442	9.78%
Females – 85 and older	569	4.81%	2.719	1.98%

Geographic Area – Powderhorn				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	3,135	7.99%	13.619	2.81%
Males – 25 to 44	11,265	28.72%	125.857	25.97%
Males – 45 to 64	2,923	7.45%	52.597	10.85%
Males – 65 to 84	1,490	3.80%	22.542	4.65%
Males – 85 and older	181	0.46%	2.348	0.48%
Females – 18 to 24	3,466	8.84%	8.453	1.74%
Females – 25 to 44	10,318	26.31%	127.266	26.26%
Females – 45 to 64	3,139	8.00%	79.835	16.47%
Females – 65 to 84	2,684	6.84%	45.553	9.40%
Females – 85 and older	620	1.58%	6.575	1.36%

Geographic Area – Southwest				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	1,687	4.22%	12,740	2.36%
Males – 25 to 44	9,942	24.89%	77,459	14.34%
Males – 45 to 64	3,781	9.47%	59,114	10.94%
Males – 65 to 84	2,216	5.55%	45,864	8.49%
Males – 85 and older	302	0.76%	2,038	0.38%
Females – 18 to 24	1,882	4.71%	19,874	3.68%
Females – 25 to 44	10,822	27.09%	131,477	24.34%
Females – 45 to 64	4,389	10.99%	119,247	22.08%
Females – 65 to 84	3,796	9.50%	61,662	11.42%
Females – 85 and older	1,129	2.83%	10,702	1.98%

Geographic Area – University				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	7,586	27.27%	63,474	17.33%
Males – 25 to 44	5,502	19.78%	72,229	19.72%
Males – 45 to 64	1,186	4.26%	22,981	6.27%
Males – 65 to 84	570	2.05%	11,309	3.09%
Males – 85 and older	53	0.19%	0,000	0.00%
Females – 18 to 24	6,541	23.51%	60,556	16.53%
Females – 25 to 44	4,078	14.66%	58,367	15.94%
Females – 45 to 64	1,173	4.22%	40,857	11.16%
Females – 65 to 84	945	3.40%	34,290	9.36%
Females – 85 and older	184	0.66%	2,189	0.60%

Geographic Area – Area 12				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	8,931	5.53%	5,294	1.35%
Males – 25 to 44	35,193	21.79%	70,583	17.94%
Males – 45 to 64	21,313	13.20%	47,644	12.11%
Males – 65 to 84	9,528	5.90%	35,997	9.15%
Males – 85 and older	629	0.39%	6,705	1.70%
Females – 18 to 24	9,371	5.80%	8,823	2.24%
Females – 25 to 44	37,579	23.27%	79,759	20.27%
Females – 45 to 64	23,457	14.53%	75,524	19.19%
Females – 65 to 84	13,451	8.33%	56,820	14.44%
Females – 85 and older	2,038	1.26%	6,353	1.61%



Geographic Area – Area 13				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	3,529	5.54%	25.902	2.98%
Males – 25 to 44	13,027	20.46%	136.196	15.67%
Males – 45 to 64	8,160	12.82%	138.702	15.96%
Males – 65 to 84	4,311	6.77%	46.791	5.38%
Males – 85 and older	383	0.60%	5.013	0.58%
Females – 18 to 24	3,637	5.71%	31.751	3.65%
Females – 25 to 44	13,541	21.27%	223.929	25.77%
Females – 45 to 64	9,287	14.59%	170.454	19.62%
Females – 65 to 84	6,400	10.05%	81.049	9.33%
Females – 85 and older	1,394	2.19%	9.191	1.06%

Geographic Area – Area 14				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	4,436	6.99%	34.099	3.79%
Males – 25 to 44	16,159	25.45%	147.208	16.34%
Males – 45 to 64	7,330	11.55%	128.079	14.22%
Males – 65 to 84	2,364	3.72%	33.267	3.69%
Males – 85 and older	121	0.19%	1.663	0.18%
Females – 18 to 24	4,981	7.85%	23.287	2.59%
Females – 25 to 44	16,789	26.44%	241.188	26.78%
Females – 45 to 64	7,844	12.35%	214.574	23.82%
Females – 65 to 84	3,089	4.87%	76.515	8.49%
Females – 85 and older	376	0.59%	0.832	0.09%

Geographic Area – Area 15				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	4,484	5.85%	29.164	2.62%
Males – 25 to 44	22,701	29.62%	218.226	19.64%
Males – 45 to 64	8,933	11.66%	150.847	13.57%
Males – 65 to 84	1,838	2.40%	39.220	3.53%
Males – 85 and older	79	0.10%	1.006	0.09%
Females – 18 to 24	4,627	6.04%	18.102	1.63%
Females – 25 to 44	23,357	30.48%	366.056	32.94%
Females – 45 to 64	8,405	10.97%	236.328	21.27%
Females – 65 to 84	2,095	2.73%	51.288	4.62%
Females – 85 and older	111	0.14%	1.006	0.09%

Geographic Area – Area 16				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	4,702	5.45%	26.032	2.20%
Males – 25 to 44	19,818	22.98%	165.244	13.97%
Males – 45 to 64	9,560	11.08%	164.112	13.88%
Males – 65 to 84	5,205	6.04%	91.676	7.75%
Males – 85 and older	416	0.48%	2.264	0.19%
Females – 18 to 24	5,441	6.31%	47.536	4.02%
Females – 25 to 44	21,464	24.89%	280.688	23.73%
Females – 45 to 64	10,903	12.64%	285.215	24.11%
Females – 65 to 84	7,498	8.69%	113.181	9.57%
Females – 85 and older	1,236	1.43%	6.791	0.57%

Geographic Area – Area 17				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	1,669	5.08%	15.082	3.25%
Males – 25 to 44	7,989	24.33%	60.760	13.08%
Males – 45 to 64	4,828	14.70%	73.688	15.86%
Males – 65 to 84	1,628	4.96%	21.977	4.73%
Males – 85 and older	139	0.42%	0.431	0.09%
Females – 18 to 24	1,493	4.55%	16.806	3.62%
Females – 25 to 44	7,959	24.24%	116.349	25.05%
Females – 45 to 64	4,515	13.75%	109.454	23.56%
Females – 65 to 84	2,240	6.82%	48.263	10.39%
Females – 85 and older	376	1.15%	1.724	0.37%

Geographic Area – Area 18				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	443	6.17%	3.296	3.11%
Males – 25 to 44	1,813	25.26%	14.879	14.03%
Males – 45 to 64	1,036	14.44%	14.409	13.59%
Males – 65 to 84	290	4.04%	5.368	5.06%
Males – 85 and older	28	0.39%	0.094	0.09%
Females – 18 to 24	397	5.53%	5.274	4.97%
Females – 25 to 44	1788	24.92%	29.947	28.24%
Females – 45 to 64	947	13.20%	26.180	24.69%
Females – 65 to 84	355	4.95%	6.027	5.68%
Females – 85 and older	79	1.10%	0.565	0.53%

Geographic Area – Area 19				
Gender – Age Group	1990 Adult Population	% of Total Population	SHAPE Survey Respondents (weighted by hhgeowgt)	Sampling Rate
Males – 18 to 24	377	7.09%	3.070	3.75%
Males – 25 to 44	1,497	28.16%	16.116	19.71%
Males – 45 to 64	711	13.37%	8.511	10.41%
Males – 65 to 84	160	3.01%	1.326	1.62%
Males – 85 and older	8	0.15%	0.140	0.17%
Females – 18 to 24	323	6.08%	3.418	4.18%
Females – 25 to 44	1,467	27.60%	30.000	36.69%
Females – 45 to 64	587	11.04%	15.348	18.77%
Females – 65 to 84	166	3.12%	3.767	4.61%
Females – 85 and older	20	0.38%	0.070	0.09%

The sets of weights are as follows:

### 1. HHGEOWGT

The weight variable, hhGeoWgt, is used to adjust for:

- the unequal probability of an adult being selected; and
- the disproportionate sampling rates within the 19 geographic areas in SHAPE.

This variable does not take into account any post-stratification effects. Because of this, this weight is NEVER used for the analysis of SHAPE data, but used only as a component in building other weights that do take post-stratification adjustments into account.

The weighting process is a two-step process. In Step One, weights are generated based on the factors listed above and the weights are summed for all the cases. In Step Two, the weights generated in Step One are standardized to sum to the number of cases in order to keep the size of the standard errors correct.

For example, the sum of the weights calculated in Step One equals 1470927.54. In Step Two, all the computed weights are divided by 1470927.54/10671 (AveWgt in the SPSS code), so that their revised sum is 10671 (the number of cases being analyzed).

The SPSS code used to generate hhGeoWgt is:

```
COMPUTE hhadult = q60a.3 + q60a.4.
```

- \* Exclude cases with:
- \* 1) no household size for adults; OR (26 cases)
- \* 2) age missing; OR (97 cases)
- \* 3) gender missing. (5 cases)
- \* because these are key variables for weighting.
- \* .

```
SELECT IF (hhsum <> 99).
```

```
IF (hhadult = 0) hhadult = 1.  
SELECT IF (ageGp5 <> 9 AND NOT SYSMIS(gender)).  
compute HHGeoWgt = -9999999.  
FORMAT HHGeoWgt (F18.5).
```

```
COMPUTE AveWgt = 1470927.54/(10745 - 26 - 97 - 5).  
*COMPUTE AveWgt = 1.
```

```
if (geocode = 1) pop90 = 21859.  
if (geocode = 2) pop90 = 33533.  
if (geocode = 3) pop90 = 22020.  
if (geocode = 4) pop90 = 20172.  
if (geocode = 5) pop90 = 27797.  
if (geocode = 6) pop90 = 23200.  
if (geocode = 7) pop90 = 11509.  
if (geocode = 8) pop90 = 39298.  
if (geocode = 9) pop90 = 27370.  
if (geocode = 10) pop90 = 39961.  
if (geocode = 11) pop90 = 30168.  
if (geocode = 12) pop90 = 161490.  
if (geocode = 13) pop90 = 63669.  
if (geocode = 14) pop90 = 63489.  
if (geocode = 15) pop90 = 76630.  
if (geocode = 16) pop90 = 86243.  
if (geocode = 17) pop90 = 32836.  
if (geocode = 18) pop90 = 7176.  
if (geocode = 19) pop90 = 5316.
```

```
COMPUTE populat = pop90.
```

```
if (geocode = 1) HHGeoWgt=(hhadult * populat/ 551)/AveWgt.  
if (geocode = 2) HHGeoWgt=(hhadult * populat/ 575)/AveWgt.  
if (geocode = 3) HHGeoWgt=(hhadult * populat/ 576)/AveWgt.  
if (geocode = 4) HHGeoWgt=(hhadult * populat/ 569)/AveWgt.  
if (geocode = 5) HHGeoWgt=(hhadult * populat/ 550)/AveWgt.  
if (geocode = 6) HHGeoWgt=(hhadult * populat/ 586)/AveWgt.  
if (geocode = 7) HHGeoWgt=(hhadult * populat/ 550)/AveWgt.  
if (geocode = 8) HHGeoWgt=(hhadult * populat/ 604)/AveWgt.  
if (geocode = 9) HHGeoWgt=(hhadult * populat/ 600)/AveWgt.  
if (geocode = 10) HHGeoWgt=(hhadult * populat/ 566)/AveWgt.  
if (geocode = 11) HHGeoWgt=(hhadult * populat/ 617)/AveWgt.  
if (geocode = 12) HHGeoWgt=(hhadult * populat/ 550)/AveWgt.  
if (geocode = 13) HHGeoWgt=(hhadult * populat/ 550)/AveWgt.  
if (geocode = 14) HHGeoWgt=(hhadult * populat/ 551)/AveWgt.  
if (geocode = 15) HHGeoWgt=(hhadult * populat/ 550)/AveWgt.  
if (geocode = 16) HHGeoWgt=(hhadult * populat/ 550)/AveWgt.  
if (geocode = 17) HHGeoWgt=(hhadult * populat/ 550)/AveWgt.
```

```
if (geocode = 18) HHGeoWgt=(hhadult * populat/ 550)/AveWgt.  
if (geocode = 19) HHGeoWgt=(hhadult * populat/ 550)/AveWgt.  
IF (hhsum = 99) HHGeoWgt = 0.
```

The first set of numbers used in the SPSS syntax file is the number of adults who live in each of the 19 geographic areas. The second set of numbers used in the SPSS syntax file is the number of survey respondents from each of the 19 geographic areas.

Note that hhGeoWgt used the Jan 20, 1998 census figures from the Office of Planning and Development (the figures were revised in February 1998) and the raw sample respondent figures before cases were deleted because of missing data.

## 2. FWEIGHT

FWeight takes into account the following factors:

- Unequal probability based on the number of adults in the household in the sample; and
- Disproportionate sampling rates among the 19 geographic areas based on the number of adult residents; and
- Age and gender distribution of Hennepin County as a whole, as measured by the 1990 Census, compared to the distribution of the survey respondents.

The weighting process is a four-step process. Steps One and Two are accomplished by taking the weights generated by hhGeoWgt. Steps Three and Four accomplish the post-stratification age and gender distribution adjustment. In Step Three, weights are generated based on the age and gender factors listed above and the weights are summed for all the cases. In Step Four, the weights generated in Step Three are standardized to sum to the number of cases in order to keep the size of the standard errors correct.

For example, the sum of the weights calculated in Step Three equals 10604.6622. In Step Four, all the computed weights are divided by 10604.6622/10671 (AveWgt in the SPSS code), so that their revised sum is 10671 (the number of cases being analyzed). It should be noted that the sum of the weights in Step Three should, in theory, equal the number of cases since this is only a post-stratification adjustment. The fact that the sum is off a bit is due only to mathematical round-off errors.

The technical staff on the SHAPE project determined that Fweight should be replaced with Weight19 to capture the age/gender distribution differences found within each of the 19 geographic areas. Thus, while Fweight was used initially, it should not be used in the future. Use Weight19 instead.

The SPSS code used to generate FWeight is:

```
** FWeight.sps **
```

```
WEIGHT OFF.
```

```
FILTER OFF.
```

```
COMPUTE ageSexWt = -9.
```

```
FORMAT ageSexWt(F18.5).
```

```
*
```

```
* AgeSexWt = 1997 Population Projection total percentage / Survey total percentage
```

```
*           for each Age/Sex cell
```

```
*
```

```
IF (agegp5 = 1 AND gender = 1) AgeSexWt = (5.54/3.5).
```

```
IF (agegp5 = 1 AND gender = 2) AgeSexWt = (5.86/3.9).
```

```
IF (agegp5 = 2 AND gender = 1) AgeSexWt = (23.30/16.8).
```

```
IF (agegp5 = 2 AND gender = 2) AgeSexWt = (23.23/23.9).
```

```
IF (agegp5 = 3 AND gender = 1) AgeSexWt = (13.13/13.1).
```

```
IF (agegp5 = 3 AND gender = 2) AgeSexWt = (13.82/20.2).
```

```
IF (agegp5 = 4 AND gender = 1) AgeSexWt = (5.34/6.2).
```

```
IF (agegp5 = 4 AND gender = 2) AgeSexWt = (7.69/10.9).
```

```
IF (agegp5 = 5 AND gender = 1) AgeSexWt = (0.54/0.4).
```

```
IF (agegp5 = 5 AND gender = 2) AgeSexWt = (1.53/1.2).
```

```
IF (agegp5 = 9 OR SYSMIS(gender)) AgeSexWt = 0.
```

```
COMPUTE AveWgt = 10604.6622/10617.
```

```
*COMPUTE AveWgt = 1.
```

```
COMPUTE FWeight = (HHGeoWgt * AgeSexWt)/AveWgt.
```

```
FORMAT FWeight(F18.5).
```

```
FREQUENCIES GENERAL=FWeight
```

```
/STATISTICS=SUM.
```

### 3. WEIGHT19

The weight variable, weight19, is used to compute the survey response estimates for the city of Minneapolis, suburban Hennepin County, and Hennepin County as a whole.

Weight19 takes into account the following factors:

- Unequal probability based on the number of adults in the household in the sample;
- Disproportionate sampling rates among the 19 geographic areas based on the number of adult residents; and
- Age and gender distribution of each of the 19 geographic areas, as measured by the 1990 Census, compared to the distribution of the survey respondents from those areas.

In other words, Weight19 takes the weights generated with hhGeoWgt and does a post-stratification adjustment to them to account for the age/gender distribution differences within each of the 19 geographic areas.

The weighting process is a four-step process. Steps One and Two are accomplished by taking the weights generated by hhGeoWgt. Steps Three and Four accomplish the post-stratification age and gender distribution adjustment. In Step Three, weights are generated based on the age and gender factors listed above. In Step Four, the weights generated in Step Three are standardized to sum to the total number of cases being analyzed in order to keep the size of the standard errors correct.

For example, the sum of the weights calculated in Step Three equals 10616.2037. In Step Four, all the computed weights are divided by 10616.2037/10671 (AveWgt in the SPSS code), so that their revised sum is 10671 (the number of cases being analyzed). It should be noted that the sum of the weights in Step Three should, in theory, equal the number of cases since this is only a post-stratification adjustment. The fact that the sum is off a bit is due only to mathematical round-off errors.

The SPSS code used to generate Weight19 is as follows:

\* Computes Weight19 - post-stratification for each of the 19 SHAPE analysis areas.

\*

WEIGHT OFF.

FILTER OFF.

COMPUTE AgSx19Wt = -9.

FORMAT AgSx19Wt(F18.5).

\*

\* AgSx19Wt = 1990 Census Population total percentage / Survey total percentage  
\* for each Age/Sex cell for each of the 19 GEOCODE areas

\*

\* Camden.

IF (geocode = 1 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (5.47/4.13).

IF (geocode = 1 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (5.56/6.78).

IF (geocode = 1 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (25.09/12.49).

IF (geocode = 1 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (24.21/20.26).

IF (geocode = 1 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (8.87/11.80).

IF (geocode = 1 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (10.42/19.37).

IF (geocode = 1 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (6.92/5.60).

IF (geocode = 1 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (11.05/17.01).

IF (geocode = 1 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.66/0.98).

IF (geocode = 1 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (1.74/1.57).

\* Northeast.

IF (geocode = 2 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (6.15/2.70).

IF (geocode = 2 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (6.54/2.80).

IF (geocode = 2 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (24.03/17.42).  
IF (geocode = 2 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (22.30/22.82).  
IF (geocode = 2 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (9.24/11.81).  
IF (geocode = 2 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (10.18/16.62).  
IF (geocode = 2 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (7.36/7.51).  
IF (geocode = 2 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (11.77/16.32).  
IF (geocode = 2 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.58/0.40).  
IF (geocode = 2 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (1.85/1.60).

\* Near North.

IF (geocode = 3 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (7.61/6.35).  
IF (geocode = 3 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (8.51/6.06).  
IF (geocode = 3 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (24.23/15.58).  
IF (geocode = 3 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (26.14/25.00).  
IF (geocode = 3 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (9.47/12.79).  
IF (geocode = 3 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (10.85/19.42).  
IF (geocode = 3 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (4.72/3.85).  
IF (geocode = 3 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (6.72/9.71).  
IF (geocode = 3 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.49/0.19).  
IF (geocode = 3 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (1.26/1.06).

\* Central.

IF (geocode = 4 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (9.30/5.68).  
IF (geocode = 4 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (9.87/5.93).  
IF (geocode = 4 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (28.07/24.81).  
IF (geocode = 4 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (16.16/16.91).  
IF (geocode = 4 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (10.19/10.74).  
IF (geocode = 4 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (7.88/14.81).  
IF (geocode = 4 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (5.17/6.17).  
IF (geocode = 4 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (9.74/11.85).  
IF (geocode = 4 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.69/0.37).  
IF (geocode = 4 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (2.94/2.72).

\* University.

IF (geocode = 5 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (27.27/17.33).  
IF (geocode = 5 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (23.51/16.53).  
IF (geocode = 5 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (19.78/19.72).  
IF (geocode = 5 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (14.66/15.94).  
IF (geocode = 5 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (4.26/6.27).  
IF (geocode = 5 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (4.22/11.16).  
IF (geocode = 5 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (2.05/3.09).  
IF (geocode = 5 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (3.40/9.36).  
\*IF (geocode = 5 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.19/0.0).  
IF (geocode = 5 AND agegp5 = 5 AND gender = 1) AgSx19Wt = 0.  
IF (geocode = 5 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (0.66/0.60).



\* Longfellow.

IF (geocode = 6 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (6.56/2.24).  
IF (geocode = 6 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (6.41/4.78).  
IF (geocode = 6 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (24.36/18.23).  
IF (geocode = 6 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (23.86/22.71).  
IF (geocode = 6 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (9.30/12.48).  
IF (geocode = 6 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (9.70/20.76).  
IF (geocode = 6 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (6.51/6.43).  
IF (geocode = 6 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (10.50/10.92).  
IF (geocode = 6 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.89/0.29).  
IF (geocode = 6 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (1.92/1.17).

\* Phillips.

IF (geocode = 7 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (7.54/7.58).  
IF (geocode = 7 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (7.76/4.84).  
IF (geocode = 7 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (26.53/23.52).  
IF (geocode = 7 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (21.97/19.89).  
IF (geocode = 7 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (8.62/14.18).  
IF (geocode = 7 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (8.41/13.08).  
IF (geocode = 7 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (4.29/4.51).  
IF (geocode = 7 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (9.37/9.78).  
IF (geocode = 7 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.70/0.66).  
IF (geocode = 7 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (4.81/1.98).

\* Powderhorn.

IF (geocode = 8 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (7.99/2.81).  
IF (geocode = 8 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (8.84/1.74).  
IF (geocode = 8 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (28.72/25.97).  
IF (geocode = 8 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (26.31/26.26).  
IF (geocode = 8 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (7.45/10.85).  
IF (geocode = 8 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (8.00/16.47).  
IF (geocode = 8 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (3.80/4.65).  
IF (geocode = 8 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (6.84/9.40).  
IF (geocode = 8 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.46/0.48).  
IF (geocode = 8 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (1.58/1.36).

\* Calhoun-Isles.

IF (geocode = 9 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (6.87/3.09).  
IF (geocode = 9 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (9.22/3.95).  
IF (geocode = 9 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (28.41/21.79).  
IF (geocode = 9 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (28.51/27.48).  
IF (geocode = 9 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (7.29/13.02).  
IF (geocode = 9 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (7.66/14.85).  
IF (geocode = 9 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (3.32/5.98).  
IF (geocode = 9 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (6.13/8.78).  
IF (geocode = 9 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.50/0.10).  
IF (geocode = 9 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (2.11/0.96).

\* Southwest.

IF (geocode = 10 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (4.22/2.36).  
IF (geocode = 10 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (4.71/3.68).  
IF (geocode = 10 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (24.89/14.34).  
IF (geocode = 10 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (27.09/24.34).  
IF (geocode = 10 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (9.47/10.94).  
IF (geocode = 10 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (10.99/22.08).  
IF (geocode = 10 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (5.55/8.49).  
IF (geocode = 10 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (9.50/11.42).  
IF (geocode = 10 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.76/0.38).  
IF (geocode = 10 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (2.83/1.98).

\* Nokomis.

IF (geocode = 11 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (4.63/1.35).  
IF (geocode = 11 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (4.62/2.24).  
IF (geocode = 11 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (25.31/17.94).  
IF (geocode = 11 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (25.43/20.27).  
IF (geocode = 11 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (9.08/12.11).  
IF (geocode = 11 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (10.86/19.19).  
IF (geocode = 11 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (7.12/9.15).  
IF (geocode = 11 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (10.80/14.44).  
IF (geocode = 11 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.71/1.70).  
IF (geocode = 11 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (1.44/1.61).

\* Area 12 - Bloomington, etc.

IF (geocode = 12 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (5.53/2.58).  
IF (geocode = 12 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (5.80/3.67).  
IF (geocode = 12 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (21.79/14.77).  
IF (geocode = 12 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (23.27/18.83).  
IF (geocode = 12 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (13.20/13.28).  
IF (geocode = 12 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (14.53/20.02).  
IF (geocode = 12 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (5.90/8.72).  
IF (geocode = 12 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (8.33/15.36).  
IF (geocode = 12 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.39/0.40).  
IF (geocode = 12 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (1.26/2.38).

\* Area 13 - Crystal, Golden Valley, etc.

IF (geocode = 13 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (5.54/2.98).  
IF (geocode = 13 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (5.71/3.65).  
IF (geocode = 13 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (20.46/15.67).  
IF (geocode = 13 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (21.27/25.77).  
IF (geocode = 13 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (12.82/15.96).  
IF (geocode = 13 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (14.59/19.62).  
IF (geocode = 13 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (6.77/5.38).  
IF (geocode = 13 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (10.05/9.33).  
IF (geocode = 13 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.60/0.58).  
IF (geocode = 13 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (2.19/1.06).

\* Area 14 - Brooklyn Center, Brooklyn Park, etc.

IF (geocode = 14 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (6.99/3.79).  
IF (geocode = 14 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (7.85/2.59).  
IF (geocode = 14 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (25.45/16.34).  
IF (geocode = 14 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (26.44/26.78).  
IF (geocode = 14 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (11.55/14.22).  
IF (geocode = 14 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (12.35/23.82).  
IF (geocode = 14 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (3.72/3.69).  
IF (geocode = 14 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (4.87/8.49).  
IF (geocode = 14 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.19/0.18).  
IF (geocode = 14 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (0.59/0.09).

\* Area 15 - Champlin, Dayton, Maple Grove, etc.

IF (geocode = 15 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (5.85/2.62).  
IF (geocode = 15 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (6.04/1.63).  
IF (geocode = 15 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (29.62/19.64).  
IF (geocode = 15 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (30.48/32.94).  
IF (geocode = 15 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (11.66/13.57).  
IF (geocode = 15 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (10.97/21.27).  
IF (geocode = 15 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (2.40/3.53).  
IF (geocode = 15 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (2.73/4.62).  
IF (geocode = 15 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.10/0.09).  
IF (geocode = 15 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (0.14/0.09).

\* Area 16 - Hopkins, Minnetonka, Saint Louis Park.

IF (geocode = 16 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (5.45/2.20).  
IF (geocode = 16 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (6.31/4.02).  
IF (geocode = 16 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (22.98/13.97).  
IF (geocode = 16 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (24.89/23.73).  
IF (geocode = 16 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (11.08/13.88).  
IF (geocode = 16 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (12.64/24.11).  
IF (geocode = 16 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (6.04/7.75).  
IF (geocode = 16 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (8.69/9.57).  
IF (geocode = 16 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.48/0.19).  
IF (geocode = 16 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (1.43/0.57).

\* Area 17 - Deephaven, Excelsior, Greenwood, Long Lake, etc.

IF (geocode = 17 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (5.08/3.25).  
IF (geocode = 17 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (4.55/3.62).  
IF (geocode = 17 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (24.33/13.08).  
IF (geocode = 17 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (24.24/25.05).  
IF (geocode = 17 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (14.70/15.86).  
IF (geocode = 17 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (13.75/23.56).  
IF (geocode = 17 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (4.96/4.73).  
IF (geocode = 17 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (6.82/10.39).  
IF (geocode = 17 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.42/0.09).  
IF (geocode = 17 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (1.15/0.37).

\* Area 18 - Greenfield, Independence, Loretto, Maple Plain, etc.  
 IF (geocode = 18 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (6.17/3.11).  
 IF (geocode = 18 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (5.53/4.97).  
 IF (geocode = 18 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (25.26/14.03).  
 IF (geocode = 18 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (24.92/28.24).  
 IF (geocode = 18 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (14.44/13.59).  
 IF (geocode = 18 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (13.20/24.69).  
 IF (geocode = 18 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (4.04/5.06).  
 IF (geocode = 18 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (4.95/5.68).  
 IF (geocode = 18 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.39/0.09).  
 IF (geocode = 18 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (1.10/0.53).

\* Area 19 - Corcoran, Hanover, Hassan, Rogers.  
 IF (geocode = 19 AND agegp5 = 1 AND gender = 1) AgSx19Wt = (7.09/3.75).  
 IF (geocode = 19 AND agegp5 = 1 AND gender = 2) AgSx19Wt = (6.08/4.18).  
 IF (geocode = 19 AND agegp5 = 2 AND gender = 1) AgSx19Wt = (28.16/19.71).  
 IF (geocode = 19 AND agegp5 = 2 AND gender = 2) AgSx19Wt = (27.60/36.69).  
 IF (geocode = 19 AND agegp5 = 3 AND gender = 1) AgSx19Wt = (13.37/10.41).  
 IF (geocode = 19 AND agegp5 = 3 AND gender = 2) AgSx19Wt = (11.04/18.77).  
 IF (geocode = 19 AND agegp5 = 4 AND gender = 1) AgSx19Wt = (3.01/1.62).  
 IF (geocode = 19 AND agegp5 = 4 AND gender = 2) AgSx19Wt = (3.12/4.61).  
 IF (geocode = 19 AND agegp5 = 5 AND gender = 1) AgSx19Wt = (0.15/0.17).  
 IF (geocode = 19 AND agegp5 = 5 AND gender = 2) AgSx19Wt = (0.38/0.09).

IF (agegp5 = 9 OR SYSMIS(gender)) AgSx19Wt = 0.

COMPUTE AveWgt = 10616.2037/10617.  
 \*COMPUTE AveWgt = 1.  
 COMPUTE Weight19 = (HHGeoWgt \* AgSx19Wt)/AveWgt.  
 FORMAT Weight19(F18.5).

The ratios used in the SPSS syntax file for Weight19 are the percent of total adults in a specific geographic area (based on the 1990 Census) who are in a particular age group/sex class (e.g., Women aged 45-64) divided by the percent of total survey respondents in that geographic area who are in that age group/sex class.

#### 4. HHREGWGT

The weight variable, hhRegWgt, is used to compute the survey response estimates for each of the 19 geographic areas.

**HHRegWgt was replaced, after it was computed, by the weight variable, HHRegW2, to correct for the population estimate in the Northeast/St. Anthony SHAPE area. HHRegWgt used only the population estimate for the Northeast community. HHRegW2 included the additional population from St. Anthony to correct the oversight.**

The section on HHRegW2 describes how HHRegWgt was computed with the only difference the population estimate for Northeast/St. Anthony.

## 5. HHREGW2

The weight variable, hhRegW2, is used to compute the survey response estimates for each of the 19 geographic areas.

HhRegW2 takes into account the following factors:

- Unequal probability based on the number of adults in the household in the sample; and
- Age and gender distribution of each of the 19 geographic areas, as measured by the 1990 Census, compared to the distribution of the survey respondents from those areas.

In other words, hhRegW2 takes the weights generated by just looking at the unequal probability weighting and does a post-stratification adjustment to them to account for the age/gender distribution differences within each of the 19 geographic areas.

The weighting process is a four-step process. In Step One, weights are generated for the number of adults living in the households of the survey respondents.

In Step Two, the weights (hhWgt) generated in Step One are standardized to sum to the total number of cases being analyzed in order to keep the size of the standard errors correct.

For example, the sum of the weights calculated in Step One equals 10608.57. In Step Two, all the computed weights are divided by 19708/10671 (AveWgt in the SPSS code), so that their revised sum is 10671 (the number of cases being analyzed).

Steps Three and Four accomplish the post-stratification age and gender distribution adjustment. In Step Three, weights are generated by multiplying hhWgt by the post-stratification adjustment to account for the age/gender distribution differences within each of the 19 geographic areas between the survey respondents and the distribution found within that geographic area as measured by the 1990 Census..

In Step Four, the weights (hhRegW2) generated in Step Three are standardized to sum to the total number of cases being analyzed in order to keep the size of the standard errors correct.

For example, the sum of the weights calculated in Step Three equals 10608.57. In Step Four, all the computed weights are divided by 10608.57/10671 (AveWgt2 in the SPSS code), so that their revised sum is 10671 (the number of cases being analyzed). It should be noted that the sum of the weights in Step Three should, in theory, equal the number of cases since this is only a post-stratification adjustment. The fact that the sum is off a bit is due only to mathematical round-off errors.

The SPSS code used to generate hhRegW2 is as follows:

WEIGHT OFF.

FILTER OFF.

COMPUTE hhadult = q60a.3 + q60a.4.

\* Exclude cases with:

\* 1) no household size for adults; OR (26 cases)

\* 2) age missing; OR (97 cases)

\* 3) gender missing. (5 cases)

\* because these are key variables for weighting.

.\*

SELECT IF (hhsum <> 99).

IF (hhadult = 0) hhadult = 1.

SELECT IF (ageGp5 <> 9 AND NOT SYSMIS(gender)).

compute HHWgt = -9999999.

FORMAT HHWgt (F18.5).

COMPUTE AveWgt = 19708/(10617).

\*COMPUTE AveWgt = 1.

COMPUTE HHWgt = hhadult/AveWgt.

IF (hhsum = 99) HHWgt = 0.

FREQUENCIES GENERAL=HHWgt

/statistics=sum.

\* Computes HHRagW2 - post-stratification for each of the 19 SHAPE analysis areas after weighting by the household size.

.\*

WEIGHT OFF.

FILTER OFF.

COMPUTE Wt = -9.

.\*

\* HHRagSxWt = 1990 Census Population total percentage / Survey total percentage

\* for each Age/Sex cell for each of the 19 GEOCODE areas after weighting by the household size.

.\*

\* Camden.

IF (geocode = 1 AND agegp5 = 1 AND gender = 1) HHRagSxWt = (5.47/4.2).

IF (geocode = 1 AND agegp5 = 1 AND gender = 2) HHRagSxWt = (5.56/6.8).

IF (geocode = 1 AND agegp5 = 2 AND gender = 1) HHRagSxWt = (25.09/12.4).

IF (geocode = 1 AND agegp5 = 2 AND gender = 2) HHRagSxWt = (24.21/20.3).

IF (geocode = 1 AND agegp5 = 3 AND gender = 1) HHRagSxWt = (8.87/11.9).

IF (geocode = 1 AND agegp5 = 3 AND gender = 2) HHRagSxWt = (10.42/19.3).

IF (geocode = 1 AND agegp5 = 4 AND gender = 1) HHAgSxWt = (6.92/5.7).  
IF (geocode = 1 AND agegp5 = 4 AND gender = 2) HHAgSxWt = (11.05/17.0).  
IF (geocode = 1 AND agegp5 = 5 AND gender = 1) HHAgSxWt = (0.66/0.9).  
IF (geocode = 1 AND agegp5 = 5 AND gender = 2) HHAgSxWt = (1.74/1.6).

\* Northeast.

IF (geocode = 2 AND agegp5 = 1 AND gender = 1) HHAgSxWt = (6.00/2.8).  
IF (geocode = 2 AND agegp5 = 1 AND gender = 2) HHAgSxWt = (6.23/2.8).  
IF (geocode = 2 AND agegp5 = 2 AND gender = 1) HHAgSxWt = (22.88/17.4).  
IF (geocode = 2 AND agegp5 = 2 AND gender = 2) HHAgSxWt = (21.44/22.8).  
IF (geocode = 2 AND agegp5 = 3 AND gender = 1) HHAgSxWt = (10.01/11.9).  
IF (geocode = 2 AND agegp5 = 3 AND gender = 2) HHAgSxWt = (11.13/16.5).  
IF (geocode = 2 AND agegp5 = 4 AND gender = 1) HHAgSxWt = (7.92/7.4).  
IF (geocode = 2 AND agegp5 = 4 AND gender = 2) HHAgSxWt = (12.08/16.3).  
IF (geocode = 2 AND agegp5 = 5 AND gender = 1) HHAgSxWt = (0.56/0.4).  
IF (geocode = 2 AND agegp5 = 5 AND gender = 2) HHAgSxWt = (1.75/1.7).

\* Near North.

IF (geocode = 3 AND agegp5 = 1 AND gender = 1) HHAgSxWt = (7.61/6.4).  
IF (geocode = 3 AND agegp5 = 1 AND gender = 2) HHAgSxWt = (8.51/6.1).  
IF (geocode = 3 AND agegp5 = 2 AND gender = 1) HHAgSxWt = (24.23/15.5).  
IF (geocode = 3 AND agegp5 = 2 AND gender = 2) HHAgSxWt = (26.14/25.0).  
IF (geocode = 3 AND agegp5 = 3 AND gender = 1) HHAgSxWt = (9.47/12.8).  
IF (geocode = 3 AND agegp5 = 3 AND gender = 2) HHAgSxWt = (10.85/19.4).  
IF (geocode = 3 AND agegp5 = 4 AND gender = 1) HHAgSxWt = (4.72/3.9).  
IF (geocode = 3 AND agegp5 = 4 AND gender = 2) HHAgSxWt = (6.72/9.6).  
IF (geocode = 3 AND agegp5 = 5 AND gender = 1) HHAgSxWt = (0.49/0.2).  
IF (geocode = 3 AND agegp5 = 5 AND gender = 2) HHAgSxWt = (1.26/1.1).

\* Central.

IF (geocode = 4 AND agegp5 = 1 AND gender = 1) HHAgSxWt = (9.30/5.7).  
IF (geocode = 4 AND agegp5 = 1 AND gender = 2) HHAgSxWt = (9.87/5.9).  
IF (geocode = 4 AND agegp5 = 2 AND gender = 1) HHAgSxWt = (28.07/24.7).  
IF (geocode = 4 AND agegp5 = 2 AND gender = 2) HHAgSxWt = (16.16/16.9).  
IF (geocode = 4 AND agegp5 = 3 AND gender = 1) HHAgSxWt = (10.19/10.7).  
IF (geocode = 4 AND agegp5 = 3 AND gender = 2) HHAgSxWt = (7.88/14.8).  
IF (geocode = 4 AND agegp5 = 4 AND gender = 1) HHAgSxWt = (5.17/6.2).  
IF (geocode = 4 AND agegp5 = 4 AND gender = 2) HHAgSxWt = (9.74/11.9).  
IF (geocode = 4 AND agegp5 = 5 AND gender = 1) HHAgSxWt = (0.69/0.5).  
IF (geocode = 4 AND agegp5 = 5 AND gender = 2) HHAgSxWt = (2.94/2.7).

\* University.

IF (geocode = 5 AND agegp5 = 1 AND gender = 1) HHAgSxWt = (27.27/17.4).  
IF (geocode = 5 AND agegp5 = 1 AND gender = 2) HHAgSxWt = (23.51/16.5).  
IF (geocode = 5 AND agegp5 = 2 AND gender = 1) HHAgSxWt = (19.78/19.8).  
IF (geocode = 5 AND agegp5 = 2 AND gender = 2) HHAgSxWt = (14.66/15.9).  
IF (geocode = 5 AND agegp5 = 3 AND gender = 1) HHAgSxWt = (4.26/6.3).

IF (geocode = 5 AND agegp5 = 3 AND gender = 2) HHAgsxWt = (4.22/11.1).  
IF (geocode = 5 AND agegp5 = 4 AND gender = 1) HHAgsxWt = (2.05/3.1).  
IF (geocode = 5 AND agegp5 = 4 AND gender = 2) HHAgsxWt = (3.40/9.4).  
\*IF (geocode = 5 AND agegp5 = 5 AND gender = 1) HHAgsxWt = (0.19/0.0).  
IF (geocode = 5 AND agegp5 = 5 AND gender = 1) HHAgsxWt = 0.  
IF (geocode = 5 AND agegp5 = 5 AND gender = 2) HHAgsxWt = (0.66/0.6).

\* Longfellow.

IF (geocode = 6 AND agegp5 = 1 AND gender = 1) HHAgsxWt = (6.56/2.2).  
IF (geocode = 6 AND agegp5 = 1 AND gender = 2) HHAgsxWt = (6.41/4.7).  
IF (geocode = 6 AND agegp5 = 2 AND gender = 1) HHAgsxWt = (24.36/18.3).  
IF (geocode = 6 AND agegp5 = 2 AND gender = 2) HHAgsxWt = (23.86/22.8).  
IF (geocode = 6 AND agegp5 = 3 AND gender = 1) HHAgsxWt = (9.30/12.5).  
IF (geocode = 6 AND agegp5 = 3 AND gender = 2) HHAgsxWt = (9.70/20.8).  
IF (geocode = 6 AND agegp5 = 4 AND gender = 1) HHAgsxWt = (6.51/6.5).  
IF (geocode = 6 AND agegp5 = 4 AND gender = 2) HHAgsxWt = (10.50/10.8).  
IF (geocode = 6 AND agegp5 = 5 AND gender = 1) HHAgsxWt = (0.89/0.4).  
IF (geocode = 6 AND agegp5 = 5 AND gender = 2) HHAgsxWt = (1.92/1.1).

\* Phillips.

IF (geocode = 7 AND agegp5 = 1 AND gender = 1) HHAgsxWt = (7.54/7.6).  
IF (geocode = 7 AND agegp5 = 1 AND gender = 2) HHAgsxWt = (7.76/4.9).  
IF (geocode = 7 AND agegp5 = 2 AND gender = 1) HHAgsxWt = (26.53/23.5).  
IF (geocode = 7 AND agegp5 = 2 AND gender = 2) HHAgsxWt = (21.97/20.0).  
IF (geocode = 7 AND agegp5 = 3 AND gender = 1) HHAgsxWt = (8.62/14.1).  
IF (geocode = 7 AND agegp5 = 3 AND gender = 2) HHAgsxWt = (8.41/13.1).  
IF (geocode = 7 AND agegp5 = 4 AND gender = 1) HHAgsxWt = (4.29/4.5).  
IF (geocode = 7 AND agegp5 = 4 AND gender = 2) HHAgsxWt = (9.37/9.8).  
IF (geocode = 7 AND agegp5 = 5 AND gender = 1) HHAgsxWt = (0.70/0.6).  
IF (geocode = 7 AND agegp5 = 5 AND gender = 2) HHAgsxWt = (4.81/2.0).

\* Powderhorn.

IF (geocode = 8 AND agegp5 = 1 AND gender = 1) HHAgsxWt = (7.99/2.9).  
IF (geocode = 8 AND agegp5 = 1 AND gender = 2) HHAgsxWt = (8.84/1.8).  
IF (geocode = 8 AND agegp5 = 2 AND gender = 1) HHAgsxWt = (28.72/25.9).  
IF (geocode = 8 AND agegp5 = 2 AND gender = 2) HHAgsxWt = (26.31/26.2).  
IF (geocode = 8 AND agegp5 = 3 AND gender = 1) HHAgsxWt = (7.45/10.8).  
IF (geocode = 8 AND agegp5 = 3 AND gender = 2) HHAgsxWt = (8.00/16.5).  
IF (geocode = 8 AND agegp5 = 4 AND gender = 1) HHAgsxWt = (3.80/4.7).  
IF (geocode = 8 AND agegp5 = 4 AND gender = 2) HHAgsxWt = (6.84/9.3).  
IF (geocode = 8 AND agegp5 = 5 AND gender = 1) HHAgsxWt = (0.46/0.5).  
IF (geocode = 8 AND agegp5 = 5 AND gender = 2) HHAgsxWt = (1.58/1.4).

\* Calhoun-Isles.

IF (geocode = 9 AND agegp5 = 1 AND gender = 1) HHAgsxWt = (6.87/3.0).  
IF (geocode = 9 AND agegp5 = 1 AND gender = 2) HHAgsxWt = (9.22/3.9).  
IF (geocode = 9 AND agegp5 = 2 AND gender = 1) HHAgsxWt = (28.41/21.8).



IF (geocode = 9 AND agegp5 = 2 AND gender = 2) HHAgSxWt = (28.51/27.5).  
IF (geocode = 9 AND agegp5 = 3 AND gender = 1) HHAgSxWt = (7.29/13.1).  
IF (geocode = 9 AND agegp5 = 3 AND gender = 2) HHAgSxWt = (7.66/14.8).  
IF (geocode = 9 AND agegp5 = 4 AND gender = 1) HHAgSxWt = (3.32/5.9).  
IF (geocode = 9 AND agegp5 = 4 AND gender = 2) HHAgSxWt = (6.13/8.8).  
IF (geocode = 9 AND agegp5 = 5 AND gender = 1) HHAgSxWt = (0.50/0.2).  
IF (geocode = 9 AND agegp5 = 5 AND gender = 2) HHAgSxWt = (2.11/0.9).

\* Southwest.

IF (geocode = 10 AND agegp5 = 1 AND gender = 1) HHAgSxWt = (4.22/2.3).  
IF (geocode = 10 AND agegp5 = 1 AND gender = 2) HHAgSxWt = (4.71/3.7).  
IF (geocode = 10 AND agegp5 = 2 AND gender = 1) HHAgSxWt = (24.89/14.4).  
IF (geocode = 10 AND agegp5 = 2 AND gender = 2) HHAgSxWt = (27.09/24.4).  
IF (geocode = 10 AND agegp5 = 3 AND gender = 1) HHAgSxWt = (9.47/10.9).  
IF (geocode = 10 AND agegp5 = 3 AND gender = 2) HHAgSxWt = (10.99/22.1).  
IF (geocode = 10 AND agegp5 = 4 AND gender = 1) HHAgSxWt = (5.55/8.4).  
IF (geocode = 10 AND agegp5 = 4 AND gender = 2) HHAgSxWt = (9.50/11.4).  
IF (geocode = 10 AND agegp5 = 5 AND gender = 1) HHAgSxWt = (0.76/0.4).  
IF (geocode = 10 AND agegp5 = 5 AND gender = 2) HHAgSxWt = (2.83/1.9).

\* Nokomis.

IF (geocode = 11 AND agegp5 = 1 AND gender = 1) HHAgSxWt = (4.63/1.3).  
IF (geocode = 11 AND agegp5 = 1 AND gender = 2) HHAgSxWt = (4.62/2.2).  
IF (geocode = 11 AND agegp5 = 2 AND gender = 1) HHAgSxWt = (25.31/18.0).  
IF (geocode = 11 AND agegp5 = 2 AND gender = 2) HHAgSxWt = (25.43/20.3).  
IF (geocode = 11 AND agegp5 = 3 AND gender = 1) HHAgSxWt = (9.08/12.1).  
IF (geocode = 11 AND agegp5 = 3 AND gender = 2) HHAgSxWt = (10.86/19.1).  
IF (geocode = 11 AND agegp5 = 4 AND gender = 1) HHAgSxWt = (7.12/9.2).  
IF (geocode = 11 AND agegp5 = 4 AND gender = 2) HHAgSxWt = (10.80/14.5).  
IF (geocode = 11 AND agegp5 = 5 AND gender = 1) HHAgSxWt = (0.71/1.7).  
IF (geocode = 11 AND agegp5 = 5 AND gender = 2) HHAgSxWt = (1.44/1.7).

\* Area 12 - Bloomington, etc.

IF (geocode = 12 AND agegp5 = 1 AND gender = 1) HHAgSxWt = (5.53/2.6).  
IF (geocode = 12 AND agegp5 = 1 AND gender = 2) HHAgSxWt = (5.80/3.7).  
IF (geocode = 12 AND agegp5 = 2 AND gender = 1) HHAgSxWt = (21.79/14.7).  
IF (geocode = 12 AND agegp5 = 2 AND gender = 2) HHAgSxWt = (23.27/18.8).  
IF (geocode = 12 AND agegp5 = 3 AND gender = 1) HHAgSxWt = (13.20/13.3).  
IF (geocode = 12 AND agegp5 = 3 AND gender = 2) HHAgSxWt = (14.53/20.1).  
IF (geocode = 12 AND agegp5 = 4 AND gender = 1) HHAgSxWt = (5.90/8.7).  
IF (geocode = 12 AND agegp5 = 4 AND gender = 2) HHAgSxWt = (8.33/15.5).  
IF (geocode = 12 AND agegp5 = 5 AND gender = 1) HHAgSxWt = (0.39/0.4).  
IF (geocode = 12 AND agegp5 = 5 AND gender = 2) HHAgSxWt = (1.26/2.4).

\* Area 13 - Crystal, Golden Valley, etc.

IF (geocode = 13 AND agegp5 = 1 AND gender = 1) HHAgSxWt = (5.54/3.0).  
IF (geocode = 13 AND agegp5 = 1 AND gender = 2) HHAgSxWt = (5.71/3.6).

IF (geocode = 13 AND agegp5 = 2 AND gender = 1) HHAgsxWt = (20.46/15.7).  
IF (geocode = 13 AND agegp5 = 2 AND gender = 2) HHAgsxWt = (21.27/25.8).  
IF (geocode = 13 AND agegp5 = 3 AND gender = 1) HHAgsxWt = (12.82/15.9).  
IF (geocode = 13 AND agegp5 = 3 AND gender = 2) HHAgsxWt = (14.59/19.7).  
IF (geocode = 13 AND agegp5 = 4 AND gender = 1) HHAgsxWt = (6.77/5.4).  
IF (geocode = 13 AND agegp5 = 4 AND gender = 2) HHAgsxWt = (10.05/9.3).  
IF (geocode = 13 AND agegp5 = 5 AND gender = 1) HHAgsxWt = (0.60/0.5).  
IF (geocode = 13 AND agegp5 = 5 AND gender = 2) HHAgsxWt = (2.19/1.1).

\* Area 14 - Brooklyn Center, Brooklyn Park, etc.

IF (geocode = 14 AND agegp5 = 1 AND gender = 1) HHAgsxWt = (6.99/3.8).  
IF (geocode = 14 AND agegp5 = 1 AND gender = 2) HHAgsxWt = (7.85/2.6).  
IF (geocode = 14 AND agegp5 = 2 AND gender = 1) HHAgsxWt = (25.45/16.3).  
IF (geocode = 14 AND agegp5 = 2 AND gender = 2) HHAgsxWt = (26.44/26.7).  
IF (geocode = 14 AND agegp5 = 3 AND gender = 1) HHAgsxWt = (11.55/14.2).  
IF (geocode = 14 AND agegp5 = 3 AND gender = 2) HHAgsxWt = (12.35/23.8).  
IF (geocode = 14 AND agegp5 = 4 AND gender = 1) HHAgsxWt = (3.72/3.8).  
IF (geocode = 14 AND agegp5 = 4 AND gender = 2) HHAgsxWt = (4.87/8.6).  
IF (geocode = 14 AND agegp5 = 5 AND gender = 1) HHAgsxWt = (0.19/0.2).  
IF (geocode = 14 AND agegp5 = 5 AND gender = 2) HHAgsxWt = (0.59/0.2).

\* Area 15 - Champlin, Dayton, Maple Grove, etc.

IF (geocode = 15 AND agegp5 = 1 AND gender = 1) HHAgsxWt = (5.85/2.7).  
IF (geocode = 15 AND agegp5 = 1 AND gender = 2) HHAgsxWt = (6.04/1.7).  
IF (geocode = 15 AND agegp5 = 2 AND gender = 1) HHAgsxWt = (29.62/19.6).  
IF (geocode = 15 AND agegp5 = 2 AND gender = 2) HHAgsxWt = (30.48/32.8).  
IF (geocode = 15 AND agegp5 = 3 AND gender = 1) HHAgsxWt = (11.66/13.6).  
IF (geocode = 15 AND agegp5 = 3 AND gender = 2) HHAgsxWt = (10.97/21.3).  
IF (geocode = 15 AND agegp5 = 4 AND gender = 1) HHAgsxWt = (2.40/3.5).  
IF (geocode = 15 AND agegp5 = 4 AND gender = 2) HHAgsxWt = (2.73/4.5).  
IF (geocode = 15 AND agegp5 = 5 AND gender = 1) HHAgsxWt = (0.10/0.2).  
IF (geocode = 15 AND agegp5 = 5 AND gender = 2) HHAgsxWt = (0.14/0.2).

\* Area 16 - Hopkins, Minnetonka, Saint Louis Park.

IF (geocode = 16 AND agegp5 = 1 AND gender = 1) HHAgsxWt = (5.45/2.1).  
IF (geocode = 16 AND agegp5 = 1 AND gender = 2) HHAgsxWt = (6.31/4.1).  
IF (geocode = 16 AND agegp5 = 2 AND gender = 1) HHAgsxWt = (22.98/14.0).  
IF (geocode = 16 AND agegp5 = 2 AND gender = 2) HHAgsxWt = (24.89/23.8).  
IF (geocode = 16 AND agegp5 = 3 AND gender = 1) HHAgsxWt = (11.08/13.8).  
IF (geocode = 16 AND agegp5 = 3 AND gender = 2) HHAgsxWt = (12.64/24.1).  
IF (geocode = 16 AND agegp5 = 4 AND gender = 1) HHAgsxWt = (6.04/7.8).  
IF (geocode = 16 AND agegp5 = 4 AND gender = 2) HHAgsxWt = (8.69/9.6).  
IF (geocode = 16 AND agegp5 = 5 AND gender = 1) HHAgsxWt = (0.48/0.2).  
IF (geocode = 16 AND agegp5 = 5 AND gender = 2) HHAgsxWt = (1.43/0.5).

\* Area 17 - Deephaven, Excelsior, Greenwood, Long Lake, etc.

IF (geocode = 17 AND agegp5 = 1 AND gender = 1) HHAgsxWt = (5.08/3.3).

IF (geocode = 17 AND agegp5 = 1 AND gender = 2) HHAgSxWt = (4.55/3.6).  
 IF (geocode = 17 AND agegp5 = 2 AND gender = 1) HHAgSxWt = (24.33/13.1).  
 IF (geocode = 17 AND agegp5 = 2 AND gender = 2) HHAgSxWt = (24.24/25.0).  
 IF (geocode = 17 AND agegp5 = 3 AND gender = 1) HHAgSxWt = (14.70/15.9).  
 IF (geocode = 17 AND agegp5 = 3 AND gender = 2) HHAgSxWt = (13.75/23.6).  
 IF (geocode = 17 AND agegp5 = 4 AND gender = 1) HHAgSxWt = (4.96/4.7).  
 IF (geocode = 17 AND agegp5 = 4 AND gender = 2) HHAgSxWt = (6.82/10.3).  
 IF (geocode = 17 AND agegp5 = 5 AND gender = 1) HHAgSxWt = (0.42/0.2).  
 IF (geocode = 17 AND agegp5 = 5 AND gender = 2) HHAgSxWt = (1.15/0.3).

\* Area 18 - Greenfield, Independence, Loretto, Maple Plain, etc.

IF (geocode = 18 AND agegp5 = 1 AND gender = 1) HHAgSxWt = (6.17/3.1).  
 IF (geocode = 18 AND agegp5 = 1 AND gender = 2) HHAgSxWt = (5.53/5.0).  
 IF (geocode = 18 AND agegp5 = 2 AND gender = 1) HHAgSxWt = (25.26/14.0).  
 IF (geocode = 18 AND agegp5 = 2 AND gender = 2) HHAgSxWt = (24.92/28.2).  
 IF (geocode = 18 AND agegp5 = 3 AND gender = 1) HHAgSxWt = (14.44/13.5).  
 IF (geocode = 18 AND agegp5 = 3 AND gender = 2) HHAgSxWt = (13.20/24.8).  
 IF (geocode = 18 AND agegp5 = 4 AND gender = 1) HHAgSxWt = (4.04/5.1).  
 IF (geocode = 18 AND agegp5 = 4 AND gender = 2) HHAgSxWt = (4.95/5.6).  
 IF (geocode = 18 AND agegp5 = 5 AND gender = 1) HHAgSxWt = (0.39/0.2).  
 IF (geocode = 18 AND agegp5 = 5 AND gender = 2) HHAgSxWt = (1.10/0.5).

\* Area 19 - Corcoran, Hanover, Hassan, Rogers.

IF (geocode = 19 AND agegp5 = 1 AND gender = 1) HHAgSxWt = (7.09/3.8).  
 IF (geocode = 19 AND agegp5 = 1 AND gender = 2) HHAgSxWt = (6.08/4.1).  
 IF (geocode = 19 AND agegp5 = 2 AND gender = 1) HHAgSxWt = (28.16/19.6).  
 IF (geocode = 19 AND agegp5 = 2 AND gender = 2) HHAgSxWt = (27.60/36.7).  
 IF (geocode = 19 AND agegp5 = 3 AND gender = 1) HHAgSxWt = (13.37/10.4).  
 IF (geocode = 19 AND agegp5 = 3 AND gender = 2) HHAgSxWt = (11.04/18.8).  
 IF (geocode = 19 AND agegp5 = 4 AND gender = 1) HHAgSxWt = (3.01/1.6).  
 IF (geocode = 19 AND agegp5 = 4 AND gender = 2) HHAgSxWt = (3.12/4.6).  
 IF (geocode = 19 AND agegp5 = 5 AND gender = 1) HHAgSxWt = (0.15/0.2).  
 IF (geocode = 19 AND agegp5 = 5 AND gender = 2) HHAgSxWt = (0.38/0.2).

IF (agegp5 = 9 OR SYSMIS(gender)) HHAgSxWt = 0.

COMPUTE AveWgt2 = 10608.57/10617.

\*COMPUTE AveWgt2 = 1.

COMPUTE HHRRegW2 = (HHWgt \* HHAgSxWt)/AveWgt2.

FORMAT HHRRegW2(F18.5).

FREQUENCIES GENERAL=HHRRegW2

/STATISTICS=SUM.

The ratios used in the SPSS syntax file for hhRegW2 are the percent of total adults in a specific geographic area (based on the 1990 Census) who are in a particular age group/sex class (e.g., Women aged 45-64) divided by the percent of total survey respondents in that geographic area who are in that age group/sex class (weighted by HHWgt).

## 6. HSAWGT

The weight variable, hsaWgt, is used to compute the survey response estimates for each of the four Human Service Areas (Minneapolis, South Suburban, West Suburban, and Northwest Suburban) within Hennepin County.

Since the survey responses for the city of Minneapolis (one of the four Human Service Areas) uses weight19 and Area 12 (the South Human Service Area) uses hhRegW2 for weighting purposes, hsaWgt has to match those weights for those areas to keep the results consistent. The main processing is for the West and the Northwest Human Service Areas.

HSAWgt takes into account the following factors:

- Unequal probability based on the number of adults in the household in the sample; and
- Disproportionate sampling rates among the four Human Service Areas based on the number of adult residents; and
- Age and gender distribution of each of the 19 geographic areas, as measured by the 1990 Census, compared to the distribution of the survey respondents from those areas.

The weighting process is a four-step process. Steps One and Two are accomplished by taking the weights generated by hhGeoWgt. Steps Three and Four accomplish the post-stratification age and gender distribution adjustment. In Step Three, weights are generated for the survey respondents. For residents in Minneapolis, the weights match weight19. For residents in Area 12, the weights match hhRegW2. The weights are summed for residents in each of the West and Northwest Suburban Human Service Areas.

In Step Four, the weights (hsaWgt) generated in Step Three are standardized to sum to the total number of cases being analyzed within that Human Service Area in order to keep the size of the standard errors correct.

For example, the sum of the weights for the West Suburban Human Service Area calculated in Step Three equals 1753.29819. In Step Four, all the computed weights are divided by 1753.29819/1753 (AveWgt4 in the SPSS code), so that their revised sum is 1753 (the number of cases being analyzed from the West Suburban Human Service Area). A similar process is used for the cases from the Northwest Suburban Human Service Area.

It should be noted that the sum of the weights for all the cases does not equal the total of 10617 normally found with the other weighting processes. That difference is due to the multiple weights used in this calculation.



\*IF (geocode = 12 AND agegp5 = 5 AND gender = 1) AgSxHSAW = (0.39/0.40).

\*IF (geocode = 12 AND agegp5 = 5 AND gender = 2) AgSxHSAW = (1.26/2.38).

\* Northwest.

IF ((geocode = 13 OR geocode = 14 OR geocode = 15 OR geocode = 19)  
AND agegp5 = 1 AND gender = 1) AgSxHSAW = (6.134/3.113).

IF ((geocode = 13 OR geocode = 14 OR geocode = 15 OR geocode = 19)  
AND agegp5 = 1 AND gender = 2) AgSxHSAW = (6.489/2.584).

IF ((geocode = 13 OR geocode = 14 OR geocode = 15 OR geocode = 19)  
AND agegp5 = 2 AND gender = 1) AgSxHSAW = (25.530/17.475).

IF ((geocode = 13 OR geocode = 14 OR geocode = 15 OR geocode = 19)  
AND agegp5 = 2 AND gender = 2) AgSxHSAW = (26.376/29.067).

IF ((geocode = 13 OR geocode = 14 OR geocode = 15 OR geocode = 19)  
AND agegp5 = 3 AND gender = 1) AgSxHSAW = (12.020/14.384).

IF ((geocode = 13 OR geocode = 14 OR geocode = 15 OR geocode = 19)  
AND agegp5 = 3 AND gender = 2) AgSxHSAW = (12.493/21.491).

IF ((geocode = 13 OR geocode = 14 OR geocode = 15 OR geocode = 19)  
AND agegp5 = 4 AND gender = 1) AgSxHSAW = (4.148/4.071).

IF ((geocode = 13 OR geocode = 14 OR geocode = 15 OR geocode = 19)  
AND agegp5 = 4 AND gender = 2) AgSxHSAW = (5.619/7.177).

IF ((geocode = 13 OR geocode = 14 OR geocode = 15 OR geocode = 19)  
AND agegp5 = 5 AND gender = 1) AgSxHSAW = (0.283/0.264).

IF ((geocode = 13 OR geocode = 14 OR geocode = 15 OR geocode = 19)  
AND agegp5 = 5 AND gender = 2) AgSxHSAW = (0.909/0.375).

\* West.

IF ((geocode = 16 OR geocode = 17 OR geocode = 18)  
AND agegp5 = 1 AND gender = 1) AgSxHSAW = (5.397/2.533).

IF ((geocode = 16 OR geocode = 17 OR geocode = 18)  
AND agegp5 = 1 AND gender = 2) AgSxHSAW = (5.807/3.971).

IF ((geocode = 16 OR geocode = 17 OR geocode = 18)  
AND agegp5 = 2 AND gender = 1) AgSxHSAW = (23.460/13.739).

IF ((geocode = 16 OR geocode = 17 OR geocode = 18)  
AND agegp5 = 2 AND gender = 2) AgSxHSAW = (24.721/24.353).

IF ((geocode = 16 OR geocode = 17 OR geocode = 18)  
AND agegp5 = 3 AND gender = 1) AgSxHSAW = (12.217/14.385).

IF ((geocode = 16 OR geocode = 17 OR geocode = 18)  
AND agegp5 = 3 AND gender = 2) AgSxHSAW = (12.962/24.003).

IF ((geocode = 16 OR geocode = 17 OR geocode = 18)  
AND agegp5 = 4 AND gender = 1) AgSxHSAW = (5.642/6.788).

IF ((geocode = 16 OR geocode = 17 OR geocode = 18)  
AND agegp5 = 4 AND gender = 2) AgSxHSAW = (7.994/9.552).

IF ((geocode = 16 OR geocode = 17 OR geocode = 18)  
AND agegp5 = 5 AND gender = 1) AgSxHSAW = (0.462/0.159).

IF ((geocode = 16 OR geocode = 17 OR geocode = 18)  
AND agegp5 = 5 AND gender = 2) AgSxHSAW = (1.339/0.518).

IF (agegp5 = 9 OR SYSMIS(gender)) AgSxHSAW = 0.

```

*COMPUTE AveWgt = 4712.09625/4716.55612.
COMPUTE AveWgt3 = 1.
COMPUTE AveWgt4 = 1.
COMPUTE AveWgt3 = 2962.704659/2369.
COMPUTE AveWgt4 = 1753.29819/1753.
IF (region = 1 ) HSAWgt = weight19.
IF (geocode = 12) HSAWgt = hhRegW2.
IF (geocode = 13 OR geocode = 14 OR geocode = 15 OR geocode = 19) HSAWgt = (HHGeoWgt
* AgSxHSAW)/AveWgt3.
IF (geocode = 16 OR geocode = 17 OR geocode = 18) HSAWgt = (HHGeoWgt *
AgSxHSAW)/AveWgt4.
FORMAT HSAWgt(F18.5).

```

```

IF (region = 1) HSA = 1.
IF (geocode = 12) HSA = 2.
IF (geocode = 13 OR geocode = 14 OR
geocode = 15 OR geocode = 19) HSA = 3.
IF (geocode = 16 OR geocode = 17 OR geocode = 18) HSA = 4.

```

```

VAR LABELS HSA "Human Service Area".
VALUE LABELS HSA 1 'Minneapolis' 2 'South' 3 'Northwest' 4 'West'.
MEANS
  TABLES=weight19,hhRegWgt,HSAWgt BY HSA
  /CELLS MEAN COUNT STDDEV SUM .

```

```

*FREQUENCIES GENERAL=HSAWgt
  /STATISTICS=SUM.

```

The ratios used in the SPSS syntax file for HSAWgt are the percent of total adults in a specific Human Service Area (based on the 1990 Census) who are in a particular age group/sex class (e.g., Women aged 45-64) divided by the percent of total survey respondents in that geographic area who are in that age group/sex class (weighted by HHGeoWgt).

## 7. HOUSEWGT

The weight variable, houseWgt, is used to compute the survey response estimates for households in each of the 19 geographic areas within Hennepin County.

HouseWgt takes into account the following factor:

- Disproportionate sampling rates among the 19 geographic areas based on the number of households.

The weighting process is a two-step process. In Step One, weights are generated based on the factor listed above. In Step Two, the weights generated in Step One are standardized to sum to the total number of cases being analyzed in order to keep the size of the standard errors correct.

For example, the sum of the weights calculated in Step One equals 419118. In Step Two, all the computed weights are divided by 419118/10671 (AveWgt in the SPSS code), so that their revised sum is 10671 (the number of cases being analyzed).

The SPSS code used to generate houseWgt is as follows:

```
** housewgt.sps, revised on Oct. 16, 1998 **.
```

```
WEIGHT OFF.  
FILTER OFF.  
COMPUTE hhadult = q60a.3 + q60a.4.
```

```
compute HouseWgt = -9999999.  
FORMAT HouseWgt (F18.5).
```

```
* Computes HouseWgt - for each of the 19 SHAPE analysis areas after weighting by the household size.
```

```
*
```

```
WEIGHT OFF.  
FILTER OFF.
```

```
*
```

```
* NumHH = 1990 Census total number of households
```

```
*
```

```
RECODE geocode (1=11862)
```

```
(2=18303)
```

```
(3=11908)
```

```
(4=12978)
```

```
(5=11713)
```

```
(6=13066)
```

```
(7=6307)
```

```
(8=22665)
```

```
(9=16478)
```

```
(10=21376)
```

```
(11=16040)
```

```
(12=84452)
```

```
(13=32056)
```

```
(14=32712)
```

```
(15=37681)
```

```
(16=46746)
```

```
(17=16900)
```

```
(18=3425)
```

```
(19=2450)
```

```
(ELSE=-9)
```

```
INTO NumHH.
```



FORMAT NumHH(F18.5).

RECODE geocode(1=540)

(2=569)

(3=567)

(4=561)

(5=545)

(6=577)

(7=544)

(8=600)

(9=596)

(10=562)

(11=609)

(12=539)

(13=545)

(14=539)

(15=545)

(16=544)

(17=543)

(18=547)

(19=545)

(ELSE=-9)

INTO sampSize.

COMPUTE AveWgt = 419118/10617.

\*COMPUTE AveWgt = 1.

COMPUTE HouseWgt = (NumHH/ sampSize)/AveWgt.

FORMAT HouseWgt(F18.5).

FREQUENCIES GENERAL=sampSize,HouseWgt  
/STATISTICS=SUM.

## Summary

The following table summarizes which weight variable is the appropriate one to use for various geographic units of analysis.

Geographic Unit of Analysis	Unit of Analysis	Weight Variable to Use
One of the 19 geographic areas	Person	hhRegW2
City of Minneapolis	Person	weight19
Suburban Hennepin County	Person	weight19
All of Hennepin County	Person	weight19
One of the 4 Human Service Areas	Person	Hsaweight
Any	Households	Housewgt

Because of the use of multiple weights, one needs to compute manually any statistical test between different levels of geographic areas (e.g., comparing one of the 19 geographic areas with the city of Minneapolis) when people are the unit of analysis.

Finally, to repeat what was stated earlier, the weights HHGeoWgt, Fweight, and HHRegWgt should NOT be used for any analysis for reasons stated in the section describing each of those weights.