**Imputation of Non-Response on Economic Variables in
the Mexican Health and Aging Study (MHAS/ENASEM) 2003**

Project Report

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by

Rebeca Wong
Maryland Population Research Center
University of Maryland
rwong@popcenter.umd.edu

and

Monica Espinoza
Population Studies Center
University of Pennsylvania
mespinoz@pop.upenn.edu

Abstract

The report describes the levels of non-response and the imputation procedure used in the Mexican Health and Aging Study (MHAS/ENASEM) 2003, to assign an exact amount to questions on economic value that had a non-response or a response using unfolding brackets. We used a multiple imputation technique, involving the regression sequencing method with a SAS-based software routine (IVEware) provided by the University of Michigan. We applied this to economic quantity variables such as income, assets, health care expenditures, and monetary help received.

For a more detailed description of the imputation methodology, the reader of this document can refer to the companion MHAS project document: "Imputation of Non-Response on Economic Variables in the Mexican Health and Aging Study 2001." Similar methodology was used to impute non-response in both MHAS 2001 and 2003 surveys.

The method implemented offers several appealing characteristics for the MHAS population: it allows for imputation of zero as a possible value for amounts, it takes into account other variables being imputed as regressors in the imputation of a particular variable, and the imputation method allows for the brackets that were used in the survey to recover the non-response on amounts.

The MHAS data files corresponding to each Section of the survey instrument contain the original variables as they were responded in the interview. All constructed variables on the monetary amounts (with missing values) and the corresponding imputed variables (without missing values) are provided to the user in separate data files. In addition, we have constructed a file at the individual level that contains a variable for total individual income, and a file at the household level with a variable for total (individual or couple) net worth. The table below provides a list of these data files, containing the imputed variables and constructed variables that are available to the user in the study website.

Section	Section Name	Record unit	No. of variables	No. of observations
Section D – imp	Health Care Services	Individual	18	13,701
Section F - imp	Parents and Help to Parents	Individual	10	13,681
Section G – imp	Help and Children	Individual/Couple	58	8,899
Section J – imp	Housing	Individual/Couple	17	8,898
Section K – imp	Pension, Income and Assets	Individual/Couple	164	8,895
INCOME	Total Individual Income	Individual	4	13,787
ASSETS	Total Net Worth	Individual/Couple	4	8,895

Introduction

The 2001 baseline survey of the Mexican Health and Aging Study (MHAS/ENASEM) is a national representative survey of individuals born prior to 1951, referred as the population aged 50 or older as of the year 2000. The baseline survey was conducted in the summer of 2001, and a follow-up visit to the same individuals was carried out in the summer of 2003. The sample for the MHAS baseline was selected from residents of both rural and urban areas, from the National Employment Survey (Encuesta Nacional de Empleo, ENE), carried out by the Mexican Statistical Bureau (Instituto Nacional de Estadística, Geografía e Informática, INEGI) in Mexico. The ENE survey covers both urban and rural areas and has sample in all 32 states of Mexico. The households with at least one resident of ages 50 or older were eligible to be part of the MHAS baseline sample. From this sample frame, there were 11,000 households selected with at least one person of eligible age. If more than one age-eligible person resided in the household, then one was randomly selected to be part of MHAS prior to the fieldwork. If the selected MHAS person was married or in a consensual union, with the spouse residing in the same household, then the spouse or partner was also interviewed as part of MHAS regardless of his/her age. Experienced personnel from INEGI conducted the surveys. The goal was to obtain direct interviews with the person of interest (selected or spouse). When it was not possible to obtain a direct interview due to illness, hospitalization, or temporary absence, a proxy interview was conducted.

For the 2003 re-visit, all age-eligible persons interviewed in 2001 were targeted for follow-up, as well as their spouse/partner. This was attempted even if the household had moved from its 2001 location. If couples had split from their 2001 situation to reside in two different households, a separate interview was attempted with each individual and their new spouse if applicable. In addition, if a baseline respondent had died, an interview was sought in 2003 with a next-of-kin or informed respondent. Thus MHAS/ENASEM 2003 included three types of questionnaires according to the type of interview: a) direct, b) proxy, or c) next-of-kin. Respondents were also classified by their status in the study: a) follow-up, for those who completed an interview in the 2001 baseline, or b) new person, for those who were interviewed in 2003 for the first time, either because they were new spouses of a 2001 respondent, or because, even though they were already a spouse/partner of a respondent in 2001, they failed to complete an interview at the baseline.

A household code was created to capture changes in the situation of the individual or couple interviewed in 2001, to reflect modifications by 2003 in the couple-composition of the target individual, and the spouse/partner if applicable. This is referred to as "updated household," and the codes reflect the type of change experienced, including divorce/separation, death, or new spouse. In the case of split couples as mentioned above, an interview was sought with both baseline respondents in their respective households and their new spouses if applicable. The updated-household codes capture also whether the household observed in 2003 contains the baseline *sampled* respondent, or the baseline *spouse* of the selected person. Thus in 2003, the unique household identifier CUNICAH used in 2001 is supplemented with ACTHOG to form the unique household identifier.

MHAS/ENASEM 2003 had a target of re-visiting 9,718 households. Of these, 37 households reported that they had split into two, and it was possible to have information on both households. Therefore, the total to visit was 9,755 households (9718 plus 37).

The MHAS instrument was designed with a common strategy to reduce non-response on questions that involved a monetary amount, using bracket questions as a follow-up to minimize non-response. This report describes the patterns of non-response obtained in MHAS 2003 for the economic variables, with emphasis on the questions used to calculate total income and net worth of an individual or couple. We first present a summary of the economic variables that were asked about in MHAS, followed by a description of the response rates obtained, the imputation methodology used, and a comparison of the distribution of the original variables and the imputed variables.

Economic Variables in MHAS

The questions to measure income and assets were asked in MHAS within three sections of the questionnaire: Family Help, Housing, and Income & Assets. In addition, there were questions on health care expenditures by the individuals and on economic help to parents. The survey instrument was designed to ask the help from children, housing, and financial sections only from *one* of the two respondents in couple-households, usually the first interviewed, although the individuals were offered the choice about who could best provide answers to the economic sections. The chosen financial respondent provided information on each of the spouses' labor income, pension income, and other public transfers. For couples, the questions on business income, real estate rents, financial assets income, and private transfers refer to the couple (jointly). For the cases of single-person households, these questions refer only to the individual respondent. For assets, the information was asked about the couple's net worth of assets in the form of homes, businesses, rental properties, capital, vehicles, other debts, and other assets.

Similar to the 2001 baseline survey, the 2003 survey included questions with unfolding brackets to recover non-response on the questions about income, assets and other variables that asked for monetary amounts. This technique has been applied in the U.S. Health and Retirement Survey (HRS) with random entry-point, and the advantages of the strategy to reduce non-response in financial questions has been reported in the literature (Hurd 1998, Hurd 1999). Hurd shows that the point of entry of the bracket questions affects the respondents' answers on income and may bias the distribution of the financial variables, thus a random entry point is recommended. In a paper-and-pencil instrument such as the one used in MHAS, a random entry point seemed impractical, thus we opted for a mid-point entry. According to the yes/no response to the initial bracket question, the instrument proceeded to ask about a lower or higher amount. See Diagram 1 for an example of the unfolding bracket questions. In the example, if the respondent provides no exact amount in K.88, then the series of questions in K.89 are asked. If an amount is given in K.88, then the interview proceeds to ask K.90.

[Diagram 1 about here]

MHAS 2003 included 43 different components of annual flows to measure total income of a person (and his/her spouse if applicable), and 19 different types of assets to calculate total net worth of the individual (or couple). Table 1 provides a list of items that were asked regarding income, and Table 2 provides the equivalent for assets.

Distribution of Non-Response

We summarize first the results for the components of income. The first column of Table 1 presents the 43 components of income and 3 components on pensions around the death of a person that were asked in the survey , and the number of cases that received each series of questions. The second column decomposes the total number of observations into those that stated that they *receive* the source of income, those that replied that they *do not receive* such source, and those *who refused or don't know* the answer. Column 3 of the table decomposes those who receive the source of income into: those that gave an exact value for the amount, those that provided an answer through brackets, and those that refuse/don't know the amount.

Among the components of income, from Column 2 it is evident that a relatively small proportion of respondents report receiving income from each type considered. The sources of income with more than 20% of cases stating that they receive it are: spouse's labor (29%), business income (24%), family help_1 (44%) and family help_2[1] (29%). The column of (No-Response/Don't Know) shows low prevalence, with a maximum of 2% for business expenditures. From the results in Column 3 about those that report receiving each source of income, we obtain high exact-amount response (84 to 95% of cases for the most important components), and relatively good recovery through the bracket questions as well (an additional 2 to 10% of cases for the most relevant components of income). The prevalence of (Refuse/Don't know) the amount conditional on receiving income exhibits low prevalence. For the main sources of income mentioned above, we obtain non-response rates as follows: own labor (1%), spouse's labor (4%), business income (6%), family help_1 (9%) and family help_2 (9%). These results reveal that non-response is low for the components of total income considered by the survey[2]. The overall distribution of non-response indicates that imputing the missing values can be a good strategy, since there are a relatively large number of cases that can be used in the imputation equations to assign a value for a relatively small number of cases.

[Table 1 about here]

Table 2 presents the distribution of responses for the components of total net worth considered in the study. Most respondents report that they have assets in the form of their home (76.8%). In addition to this type, relatively few cases report ownership of assets. Business (29%), vehicles (25%) and Other Assets (59%) were the next most-prevalent types reported by respondents. The non-response to the question about ownership (%DK&NR) shows low-prevalence (less than 1%), with one exception. The item in row number 18 refers to the net value of "Other Assets."

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[1] Family help_1 and family help_2 are the economic help received from Child 1 and Child 2 respectively.
[2] We find relatively high non-response rates only in cases in which the absolute number of observations is small. For example, Capital-assets-income-1 shows 18% of missing values conditional on receiving income, but this represent a total of 61 cases out of 342.

and 9.6% of the respondents refuse/don't know if they own this type of asset. This high-non response may be due to the lack of specificity (catch-all) of the question[3].

Conditional on ownership of the asset, we find low rates of non-response on the value. If we focus on the most commonly owned type of asset, the home, column number 6 shows that 60.6% provided an exact amount for their home value and for the debt on the home. Another 28% of the cases provided the value through the use of brackets, and 11% provided no value. Thus the combined non-response (DK whether own or not, and missing value of the asset) is around 12% for the respondent's home.

[Table 2 about here]

We conclude also from Table 2 that the number of cases that provided bracket information (column number 7) is small compared to those that provided an exact amount (column number 6).

The Impact of the Unfolding Brackets to Reduce Non-Response

As was indicated by the numbers provided in Tables 1 and 2, only a small proportion of the respondents receive or own most of the income sources or types of assets that were asked about in the survey. The results in Table 1 indicate, for example, that among those who report business income (in business income-1), the initial non-response was 16%, but two-thirds of these cases were recovered through the use of brackets (10% of the 16%). According to the results presented in Table 2, among those who own a home, the initial non-response on the value was 39%, but in more than two-thirds of these cases (28% of those who own a home) the value response was recovered through the use of follow-up brackets. Significant recovery of non-response was obtained also for the gross value of business, gross value of vehicles, and net value of other assets (see column number 7 of Table 2).

In conclusion, the impact of the use of brackets as a strategy to minimize non-response seems to be particularly beneficial for the variables measuring the total net worth of the individuals/couples in MHAS.

Imputation Methodology

The bracketed unfolding techniques to reduce item non-response were used extensively in the collection of amount data in MHAS, including not only economic quantity variables such as income and assets but also amount of help hours, health care expenditures, household rent and household consumption. Individuals unable or unwilling to provide an exact amount in response to such questions were asked a series of unfolding bracket questions.

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[3] The question (K44) asked: "In case of a family emergency for which you had to sell all the other assets that you have not mentioned, about how much they would give you?"

The non-response on amounts -- either complete non-response or when information was provided by the bracket questions -- was imputed in order to calculate income and assets by major categories, and to provide total income and total net worth estimates. We used a multiple imputation technique, involving the method of sequence of regressions with a SAS-based software routine (IVEware), distributed by the University of Michigan (Raghunathan et al. 2000; Raghunathan 2001). The method was selected because it offers several appealing characteristics for the MHAS respondents:

1) Allows for imputation of zero as a possible value for amounts. This is an important characteristic of the methodology, since we have a large proportion of cases with no-income or no-assets in most of the categories asked, and thus the value of zero needs to be one of the value options.

2) Takes into account other variables being imputed as regressors in the imputation of a particular variable. This is appealing since we have multiple variables that need to be imputed in order to derive a summary variable, e.g. total income.

3) Takes advantage of the brackets used to recover the non-response. This is a valuable attribute of the methodology, since there were an appreciable number of cases that although provided non-response initially, opted for a bracket response upon query.

4) Allows for transformations to the imputed variable, which is particularly important for variables with skewed distributions, such as those for income and assets[4].

For a more detailed description of the imputation methodology, the reader of this document can refer to the companion MHAS project document: "Imputation of Non-Response on Economic Variables in the Mexican Health and Aging Study 2001." Similar methodology was used to impute non-response in both MHAS 2001 and 2003 surveys.

The IVEware programs used in the imputation procedure are included in Appendix A.

We imputed separately the missing values for the sampled respondent's items and the spouse's. We grouped variables to be imputed together according to the list provided in Table 3. The table presents the groupings of the variables as well as the names of the original, derived, and imputed variables as they appear in the MHAS/ENASEM 2003 data files. The "original" variables refer to the question numbers as they appear in the questionnaire. The "derived" variables refer to the amount of income or value of an asset as it was derived from the answers to the corresponding questions on the survey, and these may contain missing values. Finally, the "imputed" variables contain no missing values.

[Table 3 about here]

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[4] For our purposes, we made no transformations to the variables, and used a linear regression. This is because the procedure imputes first if (yes/no) receives income or owns the item, and then proceeds to impute a value, using as limits the values provided by the brackets. Thus we considered that to impute on the non-zero part of the distribution and within the limits established by the brackets, the linear function would be adequate.

Comparison of Variables With- and Without-Imputed Values

Tables 4 contain the distribution of the original and imputed variables, for a select group of survey items. The tables show that the imputed values tend to shift the distributions to the right, as compared to the original variables containing missing values. Part of the reason for this shift, is that most non-response occurred among the cases that declared that the individual receives income from such source. Even among the cases that are greater than zero though, the imputation seems to be shifting the distribution rightwards. That is, most missing values are imputed a value towards the high end of the distribution. For example, in Table 4.2 for the variable of spouse's earned income, the derived variable contained 73.5% of the cases with 0, whereas the imputed variable contains 71.3% of cases with value 0. Among those with earned income greater than zero, the un-imputed variable contained 42.8% of the cases in the range of values 1-2,400, whereas the imputed variable contains 40.7% of the cases in such range. Of the values >0, the derived un-imputed variable contains 19.7% of cases with values >5,200, whereas the imputed variable contains 22.7% of the cases in such range.

Table 4.12 presents the distribution for the variable net value of other assets. The derived (un-imputed) variable contains a higher percentage of zero value compared to the imputed variable (40% versus 36%). In the derived variable, conditional on having a value >0, 19% of the cases were in the range >40,000 pesos. This is compared to 31% of the cases in the imputed variable.

[Tables 4 about here]

The descriptive statistics for all the variables that were imputed is presented in Appendix B. The description includes the number of cases, mean, standard deviation, minimum and maximum values, including and excluding the observations with value zero, for each derived variable followed by the corresponding imputed variable.

Construction of the Variables for Total Income at the Individual Level and Net Worth at the Household Level

The MHAS 2003 data files contain all the variables on amounts that were derived (with missing values) and the corresponding imputed variables (containing no missing values) for each observation. In the files, we also include a calculated value of total income and value of net worth at the individual and household level, respectively, after adding all the items needed to obtain total income and assets. Transformations were made to obtain all income in monthly terms. In the case of individuals who have no spouse or partner residing in the same household, we simply add all the variables that represent in-flows and subtract those measuring out-flows to calculate total income. For the case of total net worth, we add the gross value of all assets and subtract debts. Tables 5 present the list of variables that were used to calculate the total income and net worth variables, and whether each variable was added or subtracted for these calculations.

[Table 5 about here]

In the case of couples, the variables received different treatment. When a particular income source was asked referring to the two members of a couple, such as the bank accounts, the value amount was divided by two and assigned to each member of the couple. The variables that received such treatment are listed as "joint" in Tables 5. To determine whether an income source that was "joint" was to be divided by two or by one, we constructed the variable NUMBER (also included in the data files). This variable takes the value 1 if there is no information on the spouse-income variables, i.e. all information refers to one person; and takes the value 2 if there was information on the spouse-income variables in Section K.

The total net worth of the individual (or couple) was obtained by adding the reported gross value of all assets and deducting debts. This total is provided at the individual (or couple) level.

The survey instrument was designed so that the information on income and assets is asked only of one of two persons in a couple. Thus in order to assign the corresponding income to each of two persons in a couple household, we had to determine whom the questions on own-income and on spouse's income refer to[5]. We constructed the variable CLAVE3 (included in the files) to obtain an unambiguous answer on who the information on own income refers to, when there is a couple in the household. To construct this variable, we used three different criteria. First, we take the answer to K96a as the first possible answer. If the answer to K96a is 1, 2, 3 then the informant is identified (code 3 represents the individual codes 3 or 4 in ENT_2). If the answer to K96a was 5 (n=7 households), we assigned as the informant the person who provided the first interview in the household.

CLAVE3=1 if the own-income variables refer to the sampled person in the household (the person with intra-household identifier variable ENT_2=1);
CLAVE3=2 if the own-income variables refer to the spouse of the sampled person (the individual with ENT_2=2);
CLAVE3=3 if the own-income variables refers to the new spouse of the sampled person or the new spouse-of-the-spouse of the selected person (the individual with ENT_2=3, 4);

Depending on the value of CLAVE3, we assigned the own-income variables to this person, and the spouse's income variables to the other person in the household. There were 4 households in which the information provided by the variables NUMBER and CLAVE3 did not correspond to the records found in the file. In one case, NUMBER=1 but there were two records in the file for the household; in this case the own-income data was assigned to the person who provided the information according to CLAVE3, and the other person was assigned missing data on individual income. There were 73 households in which the financial respondent provided income information on two persons but the file contained only one interview in the household. In such cases, own-income was assigned to the informant, but the data on the spouse's income was not assigned to any individual.

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[5] Own-income questions are for example, K47, K48, K50 and K48. The corresponding spouse's income questions are K53, K54, K56 and K57. See Table 1 for a full list of the variables.

The MHAS 2003 files contain the total income variable at the individual level, and net worth at the individual/couple level constructed as mentioned above. MHAS users can easily obtain the total income of *a couple* by adding the corresponding totals for the two individuals in the couple.

Tables 6 present the distribution of the total individual income and total (individual or couple) net worth variables as they are obtained with- and without- imputation of missing values. The distributions are presented in absolute numbers and in percentage terms. The relative numbers present the proportion of cases that are <=0; and among the cases that are>0, the percentage of cases in each range of values. The tables indicate first, that the gain in available information through the use of imputation is substantial. According to Table 6.1, the number of cases for which a total income can be obtained without imputation is 11,519, compared to a total of 13,783 individuals when we use imputations. For the case of household (individual or couple) total net worth, the number of cases is 4,465 without imputed values and 8,893 with imputed values.

Second, the tables show that the distribution of both total income and total net worth is shifted towards the right with the imputed values. As was mentioned before, this is because prior to imputing, the cases with zero value represent a higher share of the total cases compared to their numerical relative importance after imputing. Another way of explaining this pattern is: a large proportion of the cases that have missing values and thus are imputed, fall in the values that are imputed to be >0. This is consistent with our initial results (see Tables 1 and 2), in which the vast majority of the non-response is found among those that declare that they receive a given source of income or own a certain type of asset but provided no value or amount (that is, the value is known to be positive but missing). For the total individual income, 20% of the cases have value=0 without imputation, compared to 17% after imputation. Around 20% of the observations with values>0 are found in the highest range (>4,450 pesos) without imputation, compared to 28% with imputations. Similarly, for total net worth, 13% of the cases have value <=0 without imputations, compared to 8.3% of cases with imputations. Of those with positive value for net worth, 20% report a value in the highest range (501,000 or more pesos) prior to imputing, compared to 28% of the cases after imputations.

[Table 6 about here]

List of Diagrams, Tables and Appendices

References

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DIAGRAM 1
Example of Bracket Questions used in MHAS

K.88 In total, about how much do you spend in a month for household expenditures? Exclude the value of what you produce for home consumption.

AMOUNT ....|__|__|__|__|__|__|__|

IF AMOUNT GIVEN, GO TO K.90

RF .... 8888888 ⎤
DK .... 9999999 ⎦ → Pass to K.89

K.89 Would you say it is ...

    K.89a more than $4,000 pesos per month?

        YES .... 1 → Go to K.89c
        NO .... 2 → Pass to K.89b
        DK .... 9 → Go to   K.90

    K.89b more than $2,000 pesos per month?

        YES .... 1 ⎤
        NO .... 2 ⎥ → Go to K.90
        DK .... 9 ⎦

    K.89c more than $7,000 pesos per month?

        YES 1
        NO 2
        DK 9

Table 1. MHAS/ENASEM 2003
 Total (Individual or Couple) Income Components: Distribution of Responses by Type

(1)		(2)			(3)			
Individual (or Couple) Source of Income (*)	Total n	Receives Income			If (yes) Receives Income			
						% Actual	% Bracketed	
		% Yes	% No	% NR/DK	n	Value	Value	% Missing
1. Own earned income-1 (K47)	8,895	17.9	82.0	0.0	1,593	96.9	2.0	1.1
2. Own earned income-2 (K48)	8,895	9.5	90.5	0.0	846	96.0	2.2	1.8
3. Own earned income-3 (K50)	8,895	0.3	99.7	0.0	31	96.8	0.0	3.2
4. Own earned income-4 (K51)	8,895	0.1	99.9	0.0	12	100.0	0.0	0.0
5. Spouse's earned income-1 (K53)	4,961	28.7	71.2	0.2	1,422	89.4	6.2	4.4
6. Spouse's earned income-2 (K54)	4,961	14.3	85.5	0.2	711	81.4	10.8	7.7
7. Spouse's earned income-3 (K56)	4,961	0.6	99.2	0.2	29	89.7	10.3	0.0
8. Spouse's earned income-4 (K57)	4961	0.2	99.6	0.2	11	81.8	18.2	0.0
9. Business income-1 (K10_1)	8,895	23.8	75.7	0.5	2,116	84.4	10.0	5.6
10. Business income-2 (K10_2)	8,895	2.6	96.8	0.6	231	88.3	7.8	3.9
11. Business expenditures-1 (K13_1)	8,895	22.9	74.9	2.3	2,035	91.1	9.0	0.0
12. Business expenditures-2 (K13_2)	8,895	2.2	97.1	0.7	192	91.7	8.3	0.0
13. Business profits-1 (K15_1)	8,895	22.4	75.5	2.2	1,989	92.2	7.8	0.0
14. Business profits-2 (K15_2)	8,895	2.5	96.8	0.7	222	92.8	7.2	0.0
15. Property rent income-1 (K26_1)	8,895	3.9	96.0	0.1	344	92.4	4.1	3.5
16. Property rent income-2 (K26_2)	8,895	0.2	99.6	0.3	16	87.5	0.0	12.5
17. Property expenditures-1 (K29_1)	8,895	2.3	97.2	0.5	208	89.4	10.6	0.0
18. Property expenditures-2 (K29_2)	8,895	0.1	99.6	0.3	9	100.0	0.0	0.0
19. Capital assets income-1 (K35_1)	8,895	3.8	95.2	0.9	342	59.9	21.9	18.1
20. Capital assets income-2 (K35_2)	8,895	0.1	99.9	0.0	12	100.0	0.0	0.0
21. Capital assets income-3 (K35_3)	8,895	0.1	99.9	0.0	5	20.0	80.0	0.0
22. Own Pension income - retirement (K58a)	8,895	13.6	86.4	0.0	1,214	96.9	1.6	1.5
23. Spouse's pension income – retirement (K64c)	4,961	13.3	85.4	1.4	658	92.9	4.3	2.9
25. Own pension income – widow (K58b)	8,895	5.0	95.0	0.0	446	97.8	1.4	0.9
26. Spouse's pension income – widow (K64d)	4,961	0.1	98.5	1.4	5	100.0	0.0	0.0
27. Own pension income – disability (K58c)	8,895	0.7	99.3	0.0	63	98.4	1.6	0.0
28. Spouse's pension income – disability (K64e)	4,961	0.8	97.9	1.4	38	100.0	0.0	0.0
29. Own other pension income (K58d)	8,895	0.6	99.4	0.0	51	100.0	0.0	0.0
30. Spouse's other pension income (K64f)	4,961	0.3	98.3	1.4	16	100.0	0.0	0.0
31. Family help income_1 (G17_1)	8,899	44.0	55.9	0.1	3,919	85.7	5.5	8.9
32. Family help income_2 (G17_2)	8,899	28.8	71.2	0.0	2,559	84.6	6.0	9.4
33. Family help income_3 (G17_3)	8,899	17.2	82.8	0.0	1,529	82.9	6.1	11.1
34. Family help income_4 (G17_4)	8,899	9.2	90.8	0.0	820	79.3	7.4	13.3
35. Family help income_5 (G17_5)	8,899	5.0	95.0	0.0	447	76.1	9.0	15.0
36. Family help income_6 (G17_6)	8,899	3.0	97.0	0.0	263	72.2	12.6	15.2
37. Family help income_7 (G17_7)	8,899	1.7	98.3	0.0	150	71.3	14.0	14.7
38. Own transfer income from institutions (K79a)	8,895	12.2	87.8	0.0	1,087	93.8	0.0	6.2
39. Spouse's transfer income from institutions (K82c)	4,961	10.1	88.6	1.4	499	91.0	0.0	9.0
40. Own transfer income from individuals (K79b)	8,895	0.3	99.7	0.0	28	100.0	0.0	0.0
41. Spouse's transfer income from individuals (K82d)	4,961	0.1	98.6	1.4	3	100.0	0.0	0.0
42. Own transfer income from properties (K79c)	8,895	0.6	99.4	0.0	52	88.5	0.0	11.5
43. Spouse's transfer income from properties (K82e)	4,961	0.0	98.6	1.4	2	100.0	0.0	0.0
44. Pensions income before death (K101)	258	5.0	94.2	0.8	13	84.6	7.7	7.7
45. Pensions income after death (K103)	258	21.7	77.5	0.8	56	92.9	5.4	1.8
46. Death expenditures (K111)	258	84.9	3.9	11.2	219	84.5	15.5	0.0

(*) Numbers in parentheses are the corresponding question numbers in the MHAS/ENASEM 2003 questionnaire.

Table 2. MHAS/ENASEM 2003
Total (Individual or Couple) Net Worth Components -- Distribution of Reponses by Type

Individual (or Couple) Type of Asset (*)	Total	Owns Type of Asset			If (yes) Owns Asset, Response to Value				
	n	%Yes	%No	%DK&NR	Total	n	% Actual Value	% Bracketed Value	% Missing Value
1. Gross value houses/apartments (J31)	8,896	76.8	22.5	0.7	6,831		60.6	28.1	11.4
2. Total debt houses/apartments (J28)	8,896	2.3	96.9	0.8	203		60.6	16.8	22.7
3. Total debt mortgages/loans (J26)	8,896	2.3	96.9	0.8	203		82.3	5.4	12.3
4. Net value other houses/apartments (J33)	8,896	8.2	91.5	0.3	734		71.0	18.9	10.1
5. Gross value business_1 (K8_1)	8,895	29.3	70.7	0.0	2,607		65.2	20.4	14.4
6. Gross value business_2 (K8_2)	8,895	3.6	96.4	0.0	316		64.2	12.0	23.7
7. Total debt business_1 (K3_1)	8,895	1.8	97.9	0.3	156		83.3	8.3	8.3
8. Total debt business_1 (K3_2)	8,895	0.1	99.4	0.5	10		60.0	10.0	30.0
9. Gross value other real estate properties (K24_1)	8,895	7.1	92.6	0.1	628		68.6	22.3	9.1
10. Gross value other real estate properties (K24_2)	8,895	0.4	99.5	0.1	39		41.0	18.0	41.0
11. Total debt other real estate properties_1 (K19_1)	8,895	0.2	99.7	0.1	21		76.2	14.3	9.5
12. Total debt other real estate properties_2 (K19_2)	8,895	0.0	99.8	0.2	2		50.0	0.0	50.0
13. Net value capital assets_1 (K31_1)	8,895	9.8	90.2	0.0	870		77.8	13.1	9.1
14. Net value capital assets_2 (K31_2)	8,895	0.4	99.6	0.0	37		91.9	5.4	2.7
15. Net value capital assets_3 (K31_3)	8,895	0.2	99.8	0.0	15		60.0	33.3	6.7
16. Gross value vehicles (K38)	8,895	25.2	74.8	0.0	2238		88.2	7.6	4.2
17. Total debt vehicles (K39)	8,895	2.0	98.0	0.1	174		87.4	8.0	4.6
18. Net value other assets (K44)	8,895	59.2	31.0	9.6	5,262		76.9	23.1	0.0
19. Other debts (K85)	8,895	10.5	89.2	0.3	938		94.7	4.4	1.0

(*) Numbers in parentheses refer to the question number in the MHAS/ENASEM 2003 questionnaire.

TABLE 3. Groups of Variables and Names Used in the Imputation Procedure

GROUP 1. Respondent's Total Income Components (Own or Joint Income)

	Income Component	Question Number	Derived Variable	Imputed Variable
1	Own earned income-1	K47	am47	imam47
2	Own earned income-2	K48	am48	imam48
3	Own earned income-3	K50	am50	imam50
4	Own earned income-4	K51	am51	imam51
5	Business income-1	K10_1	am10_1	imam10_1
6	Business income-2	K10_2	am10_2	imam10_2
7	Business expenditures-1	K13_1	am13_1	imam13_1
8	Business expenditures-2	K13_2	am13_2	imam13_2
9	Business profits-1	K15_1	am15_1	imam15_1
10	Business profits-2	K15_2	am15_2	imam15_2
11	Family help income_1	G17_1	am17_1	imam17_1
12	Family help income_2	G17_2	am17_2	imam17_2
13	Family help income_3	G17_3	am17_3	imam17_3
14	Family help income_4	G17_4	am17_4	imam17_4
15	Family help income_5	G17_5	am17_5	imam17_5
16	Family help income_6	G17_6	am17_6	imam17_6
17	Family help income_7	G17_7	am17_7	imam17_7
18	Property rent income-1	K26_1	am26_1	imam26_1
19	Property rent income-2	K26_2	am26_2	imam26_2
20	Property expeditures-1	K29_1	am29_1	imam29_1
21	Property expeditures-2	K29_2	am29_2	imam29_2
22	Capital assets income-1	K35_1	am35_1	imam35_1
23	Capital assets income-2	K35_2	am35_2	imam35_2
24	Capital assets income-3	K35_3	am35_3	imam35_3
25	Own pension income -retirement	K58a	am58a	imam58a
26	Own pension income -widow	K58b	am58b	imam58b
27	Own pension income -disability	K58c	am58c	imam58c
28	Own other pension income	K58d	am58d	imam58d
29	Own transfer income from institutions	K79a	am79a	imam79a
30	Own transfer income from individuals	K79b	am79b	imam79b
31	Own transfer income from properties	K79c	am79c	imamk9c

GROUP 2. Spouse's Total Income Components

	Income Component	Question Number	Derived Variable	Imputed Variable
1	Spouse's earned income-1	K53	am53	imam53
2	Spouse's earned income-2	K54	am54	imam54
3	Spouse's earned income-3	K56	am56	imam56
4	Spouse's earned income-4	K57	am57	imam57
5	Spouse's pension income - retirement	K64c	am64c	imam64c
6	Spouse's pension income - widow	K64d	am64d	imam64d
7	Spouse's pension income - disability	K64e	am64e	imam64e
8	Spouse's other pension income	K64f	am64f	imam64f
9	Spouse's transfer income from institutions	K82c	am82c	imam82c
10	Spouse's transfer income from individuals	K82d	am82d	imam82d
11	Spouse's transfer income from properties	K82e	am82e	imam82e

GROUP 3.   Components of Individual (or Couple) Total Net Worth and Household Consumption

	Concept	Question Number	Derived Variable	Imputed Variable
1	Other debts	K85	amk85	imamk85
2	Total cost household consumption	K88	amk88	imamk88
3	Gross value houses/apartments	J31	amj31	imamj31
4	Total debt mortgages/loans	J26	amj26	imamj26
5	Total debt houses/apartments	J28	amj28	imamj28
6	Net value other houses/apartments	J33	amj33	imamj33
7	Gross value vehicles	K38	amk38	imamk38
8	Total debt vehicles	K39	amk39	imamk39
9	Net value other assets	K44	amk44	imamk44
10	Total debt other real estate properties_1	K19_1	amk19_1	imamk19_1
11	Total debt other real estate properties_2	K19_2	amk19_2	imamk19_2
12	Gross value other real estate properties_1	K24_1	amk24_1	imamk24_1
13	Gross value other real estate properties_2	K24_2	amk24_2	imamk24_2
14	Net value capital assets_1	K31_1	amk31_1	imamk31_1
15	Net value capital assets_2	K31_2	amk32_2	imamk32_2
16	Net value capital assets_3	K31_3	amk31_3	imamk31_3
17	Total debt business_1	K3_1	amk3_1	imamk3_1
18	Total debt business_2	K3_2	amk3_2	imamk3_2
19	Gross value business_1	K8_1	amk8_1	imamk8_1
20	Gross value business_2	K8_2	amk8_2	imamk8_2

GROUP 4. Hospitalizations and other utilization of services – D13, D16

	Variable Names	Question Number	Constructed Variable	Imputed Variable
1	Total hospitalization costs	D13	amd13	imamd13
2	Total "curandero"/ homeopath costs	D16_1	amd16_1	imamd16_1
3	Total dentist costs	D16_2	amd16_2	imamd16_2
4	Total outpatient procedure costs	D16_3	amd16_3	imamd16_3
5	Total medical visits costs	D16_4	amd16_4	imamd16_4

GROUP 5. Household Monthly Rent – J20

	Variable Names	Question Number	Derived Variable	Imputed Variable
1	Total cost of monthly rent	J20	amj20	imamj20

GROUP 6. Pensions Income – K101, K103, K111

	Variable Names	Question Number	Derived Variable	Imputed Variable
1	Pensions income before death	K101	amk101	imamk101
2	Pensions income after death	K103	amk103	imamk103
3	Death expenditures[6]	K111	amk111	imamk111

GROUP 7. Help Given – G7

	Variable Names	Question Number	Derived Variable	Imputed Variable
1	Financial assistance given_1	G7_1	am7_1	imam7_1
2	Financial assistance given_2	G7_2	am7_2	imam7_2
3	Financial assistance given_3	G7_3	am7_3	imam7_3
4	Financial assistance given_4	G7_4	am7_4	imam7_4
5	Financial assistance given_5	G7_5	am7_5	imam7_5
6	Financial assistance given_6	G7_6	am7_6	imam7_6
7	Financial assistance given_7	G7_7	am7_7	imam7_7

GROUP 8. Economic Help – F40, F47

	Variable Names	Question Number	Derived Variable	Imputed Variable
1	Economic Help to Parents	F40	amf40	imamf40
2	Economic Help to Parents from Siblings	F47	amf47	imamf47

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[6] Expenditures associated with the death of the spouse such as funeral costs, legal fees, etc.., medical costs are excluded.

TABLES 4. Distribution of Select Derived and Imputed Variables by Range of Amount

SELECT INCOME SOURCES

Table 4.1

Own earned Income-1

Amount	Derived Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 1,230	313	20.3	319	20.0
1,231 – 2,060	318	20.6	326	20.5
2,061 – 3,240	329	21.3	334	20.9
3,241 – 5,100	285	18.5	291	18.3
>5,100	299	19.4	323	20.3
Sub-total	1,544	100.0	1593	100.0
0	7,302	82.6	7,302	82.1
Total	8,846		8895	

Table 4.2

Spouse's earned income-1

Amount	Original Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 1,600	281	22.1	304	21.3
1,601 – 2,400	263	20.7	277	19.4
2,401 – 3,200	221	17.4	232	16.3
3,201 – 5,200	257	20.2	290	20.3
>5,200	250	19.7	323	22.7
Sub-total	1,272	100.0	1,426	100.0
0	3,530	73.5	3,535	71.3
Total	4,802		4,961	

Table 4.3

Business income-1

Amount	Derived Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 800	377	21.1	384	17.9
801 – 2,000	396	22.1	410	19.1
2,001 – 4,100	304	17.0	337	15.7
4,101 – 9,600	355	19.9	417	19.4
>9,600	353	19.8	599	27.9
Sub-total	1,785	100.0	2,147	100.0
0	6,731	79.0	6,798	75.9
Total	8,516		8,895	

Table 4.4

Business expenditures-1

Amount	Derived Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 300	417	22.5	418	19.0
301 – 1,000	432	23.3	441	20.1
1,001 – 2,056	273	14.7	286	13.0
2,057 – 5,400	368	19.9	411	18.8
>5,400	363	19.6	634	28.9
Sub-total	1,853	100.0	2,190	100.0
0	6,658	78.23	6,705	75.4
Total	8,511		8,895	

Table 4.5

Own pension income retirement

Amount	Derived Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 1,410	437	37.2	447	36.8
1,411 – 2,600	348	29.6	353	29.0
>2,600	391	33.3	414	34.1
Sub-total	1,176	100.0	1,214	100.0
0	7,681	86.7	7,681	86.4
Total	8,511		8,895	

Table 4.6

Family help income-1

Amount	Derived Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 4,000	705	20.9	777	19.8
4,001 – 10,000	672	20.0	695	17.7
10,001 – 19,200	649	19.3	662	16.9
19,201 – 31,200	768	22.9	789	20.1
>31,200	564	16.8	998	25.5
Sub-total	3,358	100.0	3,921	100.0
0	4,972	59.7	4,978	56.0
Total	8,330		8,899	

Table 4.7

Family help income-2

Amount	Derived Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 2,600	456	21.1	485	18.9
2,601 – 7,200	496	22.9	544	21.3
7,201 – 12,000	425	19.6	426	16.7
12,001 – 20,800	279	12.9	289	11.3
>20,800	510	23.6	815	31.9
Sub-total	2,166	100.0	2,559	100.0
0	6,340	74.5	6,340	71.2
Total	8,506		8,899	

SELECT NET WORTH COMPONENTS

Table 4.8

Gross value houses

Amount	Derived Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 68,500	828	20.0	1,164	17.0
68,501 – 120,000	832	20.1	1,117	16.4
120,001 – 250,000	822	19.9	1,319	19.3
250,001 – 400,000	869	21.0	1,487	21.8
>400,000	789	19.1	1,745	25.5
Sub-total	4,140	100.0	6,832	100.0
0	2,000	32.6	2,064	23.2
Total	6,140		8,896	

Table 4.9

Gross value business-1

Amount	Derived Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 3,000	362	22.4	396	15.7
3,001 – 15,000	329	20.3	439	17.4
15,001 – 50,000	372	22.9	542	21.5
50,001 – 120,000	243	15.0	360	14.3
>120,000	312	19.3	788	31.2
Sub-total	1,618	100.0	2,525	100.0
0	6,368	79.7	6,370	71.6
Total	7,986		8,895	

Table 4.10

Net value capital assets

Amount	Derived Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 5,000	142	20.9	149	17.1
5,001 – 20,000	148	21.9	182	20.9
20,001 – 50,000	126	18.6	159	18.3
50,001 – 200,000	131	19.4	157	18.0
>200,000	130	19.2	223	25.6
Sub-total	677	100.0	870	100.0
0	8,025	92.2	8,025	90.2
Total	8,702		8,895	

Table 4.11

Gross value vehicles

Amount	Derived Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 13000	395	20.0	427	19.0
13,001 – 25,000	484	24.5	506	22.6
25,001 – 40,000	376	19.0	401	17.9
40,001 – 80,000	375	19.0	432	19.3
>80,000	344	17.4	473	21.1
Sub-total	1,974	100.0	2,239	100.0
0	6,654	77.1	6,656	74.8
Total	8,620		8,895	

Table 4.12

Net value other assets

Amount	Derived Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 2,000	848	20.9	869	15.2
2,001 – 5,000	812	20.1	864	15.1
5,001 – 10,000	768	18.9	847	14.8
10,001 – 40,000	848	20.9	1339	23.4
>40,000	771	19.1	1799	31.5
Sub-total	4,047	100.0	5,718	100.0
0	2,757	40.5	3,177	35.7
Total	6,804		8,895	

Tables 5. Variables Used in the Calculation of Total Income and Total Net Worth

Table 5.1   Total (Individual or Couple) Income Components

    List of variables according to treatment given for the calculation of total income

Variable Name	Question Number	Derived Variable	Imputed Variable	Treatment
Added variables				
Own earned income-1	K47	am47	imam47	individual
Own earned income-2	K48	am48	imam48	individual
Own earned income-3	K50	am50	imam50	individual
Own earned income-4	K51	am51	imam51	individual
Business profits-1	K15_1	am15_1	imam15_1	joint
Business profits-2	K15_2	am15_2	imam15_2	joint
Family help income_1	G17_1	am17_1	imam17_1	joint
Family help income_2	G17_2	am17_2	imam17_2	joint
Family help income_3	G17_3	am17_3	imam17_3	joint
Family help income_4	G17_4	am17_4	imam17_4	joint
Family help income_5	G17_5	am17_5	imam17_5	joint
Family help income_6	G17_6	am17_6	imam17_6	joint
Family help income_7	G17_7	am17_7	imam17_7	joint
Property rent income-1	K26_1	am26_1	imam26_1	joint
Property rent income-2	K26_2	am26_2	imam26_2	joint
Capital assets income-1	K35_1	am35_1	imam35_1	joint
Capital assets income-2	K35_2	am35_2	imam35_2	joint
Capital assets income-3	K35_3	am35_3	imam35_3	joint
Own pension income -retirement	K58a	am58a	imam58a	individual
Own pension income -widow	K58b	am58b	imam58b	individual
Own pension income -disability	K58c	am58c	imam58c	individual
Own other pension income	K58d	am58d	imam58d	individual
Own transfer income from institutions	K79a	am79a	imam79a	individual
Own transfer income from individuals	K79b	am79b	imam79b	individual
Own transfer income from properties	K79c	am79c	imam79c	individual
Spouse's earned income-1	K53	am53	imam53	individual
Spouse's earned income-2	K54	am54	imam54	individual
Spouse's earned income-3	K56	am56	imam56	individual
Spouse's earned income-4	K57	am57	imam57	individual
Spouse's pension income - retirement	K64c	am64c	imam64c	individual
Spouse's pension income - widow	K64d	am64d	imam64d	individual
Spouse's pension income - disability	K64e	amk64e	imam64e	individual
Spouse's other pension income	K64f	am64f	imam64f	individual
Spouse's transfer income from institutions	K82c	am82c	imam82c	individual
Spouse's transfer income from individuals	K82d	am82d	imam82d	individual
Spouse's transfer income from properties	K82e	am82e	imam82e	individual
Deducted variables				
Property expenditures-1	K29_1	am29_1	imam29_1	joint
Property expenditures-2	K29_2	am29_2	imam29_2	joint

Table 5.2   Total (Individual or Couple) Net Worth Components

       List of variables according to treatment given for the calculation of total net worth

Variable Name	Question Number	Derived Variable	Imputed Variable	Treatment
Added variables				
Gross value houses/apartments	J31	amj31	imamj31	joint
Net value other houses/apartments	J33	amj33	imamj33	joint
Gross value vehicles	K38	amk38	imamk38	joint
Net value other assets	K44	amk44	imamk44	joint
Gross value other real estate properties_1	K24_1	amk24_1	imamk24_1	joint
Gross value other real estate properties_2	K24_2	amk24_2	imamk24_2	joint
Net value capital assets_1	K31_1	amk31_1	imamk31_1	joint
Net value capital assets_2	K31_2	amk31_2	imamk31_2	joint
Net value capital assets_3	K31_3	amk31_3	imamk31_3	joint
Gross value business_1	K8_1	amk8_1	imamk8_1	joint
Gross value business_2	K8_2	amk8_2	imamk8_2	joint
Deducted variables				
Other debts	K85	amk85	imamk85	joint
Total debt houses/apartments	J28	amj28	imamj28	joint
Total debt vehicles	K39	amk39	imamk39	joint
Total debt other real estate properties_1	K19_1	amk19_1	imamk19_1	joint
Total debt other real estate properties_2	K19_2	amk19_2	imamk19_2	joint
Total debt business_1	K3_1	amk3_1	imamk3_1	joint
Total debt business_2	K3_2	amk3_2	imamk3_2	joint

TABLES 6. Distribution of Income and Assets (Derived and Imputed)

by Range of Amount

Table 6.1

Total Individual Income

Amount	Derived Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 650	1,899	20.6	2,059	17.9
651 – 1420	1,869	20.2	2,009	17.6
1,421 – 2,450	1,803	19.5	1,998	17.5
2,451 – 4,450	1,846	19.9	2,162	18.9
>=4,450	1,823	19.7	3,217	28.1
Sub-total	9,240	100.0	11,445	100.0
<=0	2,279	19.8	2,342	17.0
Total	11,519		13,783	

Table 6.2

Total (Individual or Couple) Net Worth

Amount	Derived Variable		Imputed Variable	
	Freq.	%	Freq.	%
1 – 40,500	796	20.6	1,063	13.0
40,501 – 121,500	780	20.2	1,371	16.8
121,501 – 250,300	781	20.2	1,504	18.4
250,301 – 501,000	757	19.6	1,935	23.7
>=501,000	753	19.5	2,284	28.0
Sub-total	3,867	100.0	8,157	100.0
<=0	598	13.39	736	8.28
Total	4,465		8,893	

Appendix A

Appendix A– IVEWare Programs Used for Imputation

Appendix A.1
IVEware Program for Respondent's Income Components

```
options set = SRCLIB "e:\sas\srclib" sasautos = (SRCLIB sasautos) mautosource;
LIBNAME mylib1 "I:\imputations 2003\data\imputed\myindir";
LIBNAME mylib2 "I:\imputations 2003\data\imputed\myoutdir";
%IMPUTE(NAME=IMPSETUP, DIR=I:\imputations 2003\data\imputed\myoutdir,
SETUP=new);
DATAIN      dum1_s1;
DATAOUT  imp1_s;
mixed        am47 am48 am50 am51
              am10_1 am10_2
               am13_1 am13_2
              am15_1 am15_2
              am29_1 am29_2
              am26_1 am26_2
              am35_1 am35_2 am35_3
              am58a am58b am58c am58d
              am79a am79b am79c
              am17_1 am17_2 am17_3 am17_4 am17_5 am17_6 am17_7
               escola1;
CATEGORICAL      sexot ;
COUNT              edad1;
TRANSFER          cunicah acthog
                    LOW47 UP47 DUM47
                    LOW48 UP48 DUM48
                    LOW50 UP50 DUM50
                    low51 up51 dum51
                    LOW10_1 UP10_1 DUM10_1 LOW10_2 UP10_2 DUM10_2
                    LOW13_1 UP13_1 DUM13_1 LOW13_2 UP13_2 DUM13_2
                    LOW15_1 UP15_1 DUM15_1 LOW15_2 UP15_2 DUM15_2
                    LOW29_1 UP29_1 DUM29_1
                    LOW29_2 UP29_2 DUM29_2
                    LOW26_1 UP26_1 DUM26_1
                    LOW26_2 UP26_2 DUM26_2
                    LOW35_1 up35_1 dum35_1
                    LOW35_2 up35_2 dum35_2
                    low35_3 up35_3 dum35_3
                    low58a up58a dum58a
                    low58b up58b dum58b
                    low58c up58c dum58c
                    low58d up58d dum58d
                    low79a up79a dum79a
                    low79b up79b dum79b
                    low79c up79c dum79c
                    low17_1 up17_1 dum17_1
                    low17_2 up17_2 dum17_2
                    low17_3 up17_3 dum17_3
                    low17_4 up17_4 dum17_4
                    low17_5 up17_5 dum17_5
                    low17_6 up17_6 dum17_6
                    low17_7 up17_7 dum17_7;
```

```
BOUNDS      AM47 (<=UP47, >=LOW47)
            AM45 (<=UP48, >=LOW48)
            AM50 (<=UP50, >=LOW50)
            AM51 (<=UP51, >=LOW51)
            AM10_1 (<=UP10_1, >=LOW10_1)
            AM10_2 (<=UP10_2, >=LOW10_2)
            AM13_1 (<=UP13_1, >=LOW13_1)
            AM13_2 (<=UP13_2, >=LOW13_2)
            AM15_1 (<=UP15_1, >=LOW15_1)
            AM15_2 (<=UP15_2, >=LOW15_2)
            AM29_1 (<=UP29_1, >=LOW29_1)
            AM29_2 (<=UP29_2, >=LOW29_2)
            AM26_1 (<=UP26_1, >=LOW26_1)
            AM26_2 (<=UP26_2, >=LOW26_2)
            AM35_1 (<=UP35_1, >=LOW35_1)
            AM35_2 (<=UP35_2, >=LOW35_2)
            AM35_3 (<=UP35_3, >=LOW35_3)
            AM58a (<=UP58a, >=LOW58a)
            AM58b (<=UP58b, >=LOW58b)
            AM58c (<=UP58c, >=LOW58c)
            AM58d (<=UP58d, >=LOW58d)
            AM79a (<=UP79a, >=LOW79a)
            AM79b (<=UP79b, >=LOW79b)
            AM79c (<=UP79c, >=LOW79c)
            AM17_1 (<=UP17_1, >=LOW17_1)
            AM17_2 (<=UP17_2, >=LOW17_2)
            AM17_3 (<=UP17_3, >=LOW17_3)
            AM17_4 (<=UP17_4, >=LOW17_4)
            AM17_5 (<=UP17_5, >=LOW17_5)
            AM17_6 (<=UP17_6, >=LOW17_6)
            AM17_7 (<=UP17_7, >=LOW17_7);
INTERACT    edad1*sexot  edad1*edad1 sexot*escola1 escola1*escola1;
Iterations  5;
SEED        2003;
RUN;
```

Appendix A.2
IVEware Program for Spouse's Income Components

```
options set = SRCLIB "e:\sas\srclib" sasautos = (SRCLIB sasautos)
mautosource;
LIBNAME mylib1 "I:\imputations 2003\data\imputed\myindir";
LIBNAME mylib2 "I:\imputations 2003\data\imputed\myoutdir";

%IMPUTE(NAME=IMPSETUP, DIR=I:\imputations 2003\data\imputed\myoutdir,
SETUP=new);

DATAIN      dum1_p1;
DATAOUT   imp1_p;

mixed        am53 am54 am56 am57
             am64c am64d am64e am64f
             am82c am82d am82e escola1;
CATEGORICAL      sexot;
COUNT             edad1;

TRANSFER cunicah acthog
             low53 up53 dum53
             low54 up54 dum54
             low56 up56 dum56
             low57 up57 dum57
             low64c up64c dum64c
             low64d up64d dum64d
             low64e up64e dum64e
             low64f up64f dum64f
             low82c up82c dum82c
             low82d up82d dum82d
             low82e up82e dum82e;

BOUNDS     AM54 (<=UP54, >=LOW54)
             AM56 (<=UP56, >=LOW56)
             AM57 (<=UP57, >=LOW57)
             AM53 (<=UP53, >=LOW53)
             AM64c (<=UP64c, >=LOW64c)
             AM64d (<=UP64d, >=LOW64d)
             AM64e (<=UP64e, >=LOW64e)
             AM64f (<=UP64f, >=LOW64f)
             AM82c (<=UP82c, >=LOW82c)
             AM82d (<=UP82d, >=LOW82d)
             AM82e (<=UP82e, >=LOW82e);

INTERACT edad1*sexot  edad1*edad1 sexot*escola1 escola1*escola1;
Iterations    5;
SEED        2003;
RUN;
```

Appendix A.3
IVEware Program for Assets

```
options set = SRCLIB "e:\sas\srclib" sasautos = (SRCLIB sasautos) mautosource;
LIBNAME mylib1 "I:\imputations 2003\data\imputed\myindir";
LIBNAME mylib2 "I:\imputations 2003\data\imputed\myoutdir";
%IMPUTE(NAME=IMPSETUP, DIR=I:\imputations 2003\data\imputed\myoutdir,
SETUP=new);


DATAIN      dum1_a1;
DATAOUT  imp_a;
Default CONTINUOUS;
Mixed       escola1 amj31 amj28 amj26 amj33
            amk8_1 amk8_2 amk3_1 amk3_2
            amk24_1 amk24_2 amk19_1 amk19_2
            amk31_1 amk31_2 amk31_3
            amk38 amk39 amk44 am85 am88;
CATEGORICAL      sexot;
COUNT             edad1;

TRANSFER cunicah acthog
            lowj31 upj31 dumj31
            lowj28 upj28 dumj28
            lowj26 upj26 dumj26
            lowj33 upj33 dumj33
            lowk8_1 upk8_1 dumk8_1
            lowk8_2 upk8_2 dumk8_2
            lowk3_1 upk3_1 dumk3_1
            lowk3_2 upk3_2 dumk3_2
            lowk24_1 upk24_1 dumk24_1
            lowk24_2 upk24_2 dumk24_2
            lowk19_1 upk19_1 dumk19_1
            lowk19_2 upk19_2 dumk19_2
            lowk31_1 upk31_1 dumk31_1
            lowk31_2 upk31_2 dumk31_2
            lowk31_3 upk31_3 dumk31_3
            lowk38 upk38 dumk38
            lowk39 upk39 dumk39
            lowk44 upk44 dumk44
            low85 up85 dum85
            low88 up88 dum88;
```

```
BOUNDS     amj31 (>=lowj31, <=upj31)
           amj28 (>=lowj28, <=upj28)
           amj26 (>=lowj26, <=upj26)
           amj33 (>=lowj33, <=upj33)
           amk8_1 (>=lowk8_1, <=upk8_1)
           amk8_2 (>=lowk8_2, <=upk8_2)
           amk3_1 (>=lowk3_1, <=upk3_1)
           amk3_2 (>=lowk3_2, <=upk3_2)
           amk24_1 (>=lowk24_1, <=upk24_1)
           amk24_2 (>=lowk24_2, <=upk24_2)
           amk19_1 (>=lowk19_1, <=upk19_1)
           amk19_2 (>=lowk19_2, <=upk19_2)
           amk31_1 (>=lowk31_1, <=upk31_1)
           amk31_2 (>=lowk31_2, <=upk31_2)
           amk31_3 (>=lowk31_3, <=upk31_3)
           amk38 (>=lowk38, <=upk38)
           amk39 (>=lowk39, <=upk39)
           amk44 (>=lowk44, <=upk44)
           am85 (>=low85, <=up85)
           am88 (>=low88, <=up88);
INTERACT   edad1*sexot  edad1*edad1 sexot*escola1 escola1*escola1;
Iterations 5;
SEED       2003;
RUN;
```

Appendix A.4
IVEware Program for Help Given – G7

```
options set = SRCLIB "e:\sas\srclib" sasautos = (SRCLIB sasautos)
mautosource;
LIBNAME mylib1 "I:\imputations 2003\data\imputed\myindir";
LIBNAME mylib2 "I:\imputations 2003\data\imputed\myoutdir";

%IMPUTE(NAME=IMPSETUP2, DIR=I:\imputations 2003\data\imputed\myoutdir,
SETUP=new);
DATAIN      dum_g6e;
DATAOUT  imp_g6;

mixed       am7_1 am7_2 am7_3 am7_4 am7_5 am7_6 am7_7 escola1;

CATEGORICAL      sexot;
COUNT               edad1;

TRANSFER cunicah acthog
            low7_1 up7_1 dum7_1
            low7_2 up7_2 dum7_2
            low7_3 up7_3 dum7_3
            low7_4 up7_4 dum7_4
            low7_5 up7_5 dum7_5
            low7_6 up7_6 dum7_6
            low7_7 up7_7 dum7_7;

BOUNDS     AM7_1 (>=LOW7_1, <=UP7_1)
            AM7_2 (>=LOW7_2, <=UP7_2)
            AM7_3 (>=LOW7_3, <=UP7_3)
            AM7_4 (>=LOW7_4, <=UP7_4)
            AM7_5 (>=LOW7_5, <=UP7_5)
            AM7_6 (>=LOW7_6, <=UP7_6)
            AM7_7 (>=LOW7_7, <=UP7_7);

INTERACT edad1*sexot  edad1*edad1 sexot*escola1 escola1*escola1;
Iterations    5;
SEED         2003;
RUN;
```

Appendix A.5
IVEware Program for Hospitals and other utilization – D13, D16

```
options set = SRCLIB "e:\sas\srclib" sasautos = (SRCLIB sasautos)
mautosource;

LIBNAME mylib1 "I:\imputations 2003\data\imputed\myindir";
LIBNAME mylib2 "I:\imputations 2003\data\imputed\myoutdir";

%IMPUTE(NAME=IMPSETUP, DIR=I:\imputations 2003\data\imputed\myoutdir,
SETUP=new);

DATAIN      dum_d3;
DATAOUT   imp_d1;

mixed       amd13 amd16_1 amd16_2 amd16_3 amd16_4 escola1;

CATEGORICAL      sexot;
COUNT             edad1;
TRANSFER ID
          LOWd13 UPd13 DUMd13
          LOW16_1 UP16_1 DUMd16_1
          LOW16_2 UP16_2 DUMd16_2
          LOW16_3 up16_3 dumd16_3
          LOW16_4 UP16_4 DUMd16_4;

BOUNDS    AMd13 (<=UPd13, >=LOWd13)
          AMd16_1 (<=UP16_1, >=LOW16_1)
          AMd16_2 (<=UP16_2, >=LOW16_2)
          AMd16_3 (<=UP16_3, >=LOW16_3)
          AMd16_4 (<=UP16_4, >=LOW16_4);

INTERACT  edad1*sexot  edad1*edad1 sexot*escola1 escola1*escola1;
Iterations    5;
SEED        2003;
RUN;
```

Appendix A.6
IVEware Program for Household Monthly Rent – J20

```
options set = SRCLIB "e:\sas\srclib" sasautos = (SRCLIB sasautos)
mautosource;
LIBNAME mylib1 "I:\imputations 2003\data\imputed\myindir";
LIBNAME mylib2 "I:\imputations 2003\data\imputed\myoutdir";

%IMPUTE(NAME=IMPSETUP, DIR=I:\imputations 2003\data\imputed\myoutdir,
SETUP=new);

DATAIN      dum_j3;
DATAOUT  imp_j1;

mixed         amj20 escola1;

CATEGORICAL       sexot;
COUNT               edad1;
TRANSFER cunicah acthog LOWj20 UPj20 DUMj20;

BOUNDS     AMj20 (<=UPj20, >=LOWj20);

INTERACT edad1*sexot  edad1*edad1 sexot*escola1 escola1*escola1;
Iterations     5;
SEED          2003;
RUN;
```

Appendix A.7.a
IVEware Program for Economic Help to Parents – F44, F47

```
options set = SRCLIB "e:\sas\srclib" sasautos = (SRCLIB sasautos)
mautosource;
LIBNAME mylib1 "i:\imputations 2003\data\imputed\myindir";
LIBNAME mylib2 "i:\imputations 2003\data\imputed\myoutdir";

%IMPUTE(NAME=IMPSETUP, DIR=i:\imputations 2003\data\imputed\myoutdir,
SETUP=new);

DATAIN        dum_f2c;
DATAOUT       imp_f2;

mixed         amf40 amf47 escola1;

CATEGORICAL       sexot;
COUNT             edad1;
TRANSFER      ID LOWf40 UPf40 DUMf40
              LOWf47 UPf47 DUMf47;

BOUNDS        AMf40 (<=UPf40, >=LOWf40)
              AMf47 (<=UPf47, >=LOWf47);

INTERACT      edad1*sexot  edad1*edad1 sexot*escola1 escola1*escola1;
Iterations    5;
SEED          2003;
RUN;
```

Appendix A.7.b
IVEware Program for Economic Help to Parents – F44, F47

```
options set = SRCLIB "e:\sas\srclib" sasautos = (SRCLIB sasautos)
mautosource;
LIBNAME mylib1 "i:\imputations 2003\data\imputed\myindir";
LIBNAME mylib2 "i:\imputations 2003\data\imputed\myoutdir";

%IMPUTE(NAME=IMPSETUP, DIR=i:\imputations 2003\data\imputed\myoutdir,
SETUP=new);

DATAIN      dum_f3c;
DATAOUT    imp_f3;

mixed       amf40 escola1;

CATEGORICAL     sexot;
COUNT           edad1;

TRANSFER    ID LOWf40 UPf40 DUMf40;

BOUNDS      AMf40 (<=UPf40, >=LOWf40);

INTERACT    edad1*sexot  edad1*edad1 sexot*escola1 escola1*escola1;
Iterations  5;
SEED        2003;
RUN;
```

Appendix A.8
IVEware Program for Pension Income and Death Expenditures – K101, K103, K111

```
options set = SRCLIB "e:\sas\srclib" sasautos = (SRCLIB sasautos)
mautosource;
LIBNAME mylib1 "i:\imputations 2003\data\imputed\myindir";
LIBNAME mylib2 "i:\imputations 2003\data\imputed\myoutdir";

%IMPUTE(NAME=IMPSETUP, DIR=i:\imputations 2003\data\imputed\myoutdir,
SETUP=new);


DATAIN      dum_kaaa;
DATAOUT     imp_kaa;


mixed       amk101 amk103 amk111 escola1;

CATEGORICAL    sexot;
COUNT          edad1;
TRANSFER    ID LOWK101 UPK101 DUMK101
            LOWK103 UPK103 DUMK103
            LOWK111 UPK111 DUMK111;

BOUNDS      AMK101 (<=UPK101, >=LOWK101)
            AMK103 (<=UPK103, >=LOWK103)
            AMK111 (<=UPK111, >=LOWK111);

INTERACT    edad1*sexot  edad1*edad1 sexot*escola1 escola1*escola1;
Iterations  5;
SEED        2003;
RUN;
```

Appendix B

APPENDIX B- DESCRIPTIVE STATISTICS OF ORIGINAL AND IMPUTED VARIABLES

Appendix B1 MHAS/ENASEM 2003
Total Sampled's Income Components:
(Including zeros)

Variable	N	Mean	Std Dev	Minimum	Maximum
am47	8846	730.93	3371.71	0	176500.00
imam47	8895	759.75	3404.36	0	176500.00
am48	8861	626.43	4043.67	0	120000.00
imam48	8895	671.40	4184.54	0	120000.00
am50	8894	19.99	1078.21	0	100000.00
imam50	8895	20.56	1079.51	0	100000.00
am51	8895	5.62	200.01	0	10000.00
imam51	8895	5.62	200.01	0	10000.00
am10_1	8516	3412.35	78891.09	0	6000000.00
imam10_1	8895	6340.84	80851.31	0	6000000.00
am10_2	8815	820.95	63956.83	0	6000000.00
imam10_2	8895	868.46	63684.71	0	6000000.00
am13_1	8511	1975.66	44447.52	0	3000000.00
imam13_1	8895	3923.30	46468.48	0	3000000.00
am13_2	8815	526.31	42633.26	0	4000000.00
imam13_2	8895	545.65	42456.29	0	4000000.00
am15_1	8545	1223.52	28753.32	0	2500000.00
imam15_1	8895	1961.67	28947.55	0	2500000.00
am15_2	8815	295.26	21331.98	0	2000000.00
imam15_2	8895	345.98	21262.85	0	2000000.00
am29_1	8831	108.07	4122.85	0	350000.00
imam29_1	8895	143.75	4380.99	0	350000.00
am29_2	8869	0.53	24.26	0	2000.00
imam29_2	8895	1.33	39.50	0	2000.00
am26_1	8859	260.95	5220.66	0	400000.00
imam26_1	8895	326.54	5606.51	0	400000.00
am26_2	8871	6.49	253.46	0	20000.00
imam26_2	8895	10.15	341.55	0	20000.00
am35_1	8675	14.34	199.68	0	7776.00
imam35_1	8895	29.32	252.30	0	7776.00
am35_2	8894	2.28	96.50	0	7776.00
imam35_2	8895	2.27	96.50	0	7776.00
am35_3	8890	0.67	63.64	0	6000.00
imam35_3	8895	4.05	155.79	0	6000.00
am58a	8857	439.03	1816.94	0	56000.00
imam58a	8895	452.29	1832.23	0	56000.00
am58b	8885	77.77	427.92	0	12000.00
imam58b	8895	80.22	434.90	0	12000.00
am58c	8894	14.67	282.09	0	16000.00
imam58c	8895	14.79	282.27	0	16000.00
am58d	8895	15.79	353.88	0	20000.00
imam58d	8895	15.79	353.88	0	20000.00
am79a	8828	212.63	8495.62	0	777776.00
imam79a	8895	371.67	8784.56	0	777776.00
am79b	8895	7.50	190.29	0	12600.00
imam79b	8895	7.50	190.29	0	12600.00

Appendix B1 MHAS/ENASEM 2003
Total Sampled's Income Components:
(Including zeros)

Variable	N	Mean	Std Dev	Minimum	Maximum
am79c	8889	361.67	9254.03	0	500000.00
imam79c	8895	519.84	12197.99	0	500000.00
am17_1	8330	11429.48	134035.68	0	10399896.00
imam17_1	8899	23784.93	146609.99	0	10399896.00
am17_2	8506	5115.41	61630.78	0	5200000.00
imam17_2	8899	14493.50	86475.15	0	5200000.00
am17_3	8637	2098.58	18607.10	0	1560000.00
imam17_3	8899	4336.05	24999.22	0	1560000.00
am17_4	8729	6999.58	571404.47	0	53384448.00
imam17_4	8899	29627.40	613832.38	0	53384448.00
am17_5	8792	399.03	3660.62	0	208000.00
imam17_5	8899	2198.74	19040.05	0	208000.00
am17_6	8826	175.33	1878.58	0	72000.00
imam17_6	8899	620.09	5871.04	0	72000.00
am17_7	8856	124.02	1826.67	0	72000.00
imam17_7	8899	262.12	3402.42	0	72000.00

Appendix B2 MHAS/ENASEM 2003
Total Spouse's Income Components:
(Including zeros)

Variable	N	Mean	Std Dev	Minimum	Maximum
am53	4802	1107.83	3022.01	0	48000.00
imam53	4961	1242.48	3141.34	0	48000.00
am54	4820	877.81	14746.35	0	1000150.00
imam54	4961	1561.16	18316.75	0	1000150.00
am56	4949	23.17	514.27	0	20000.00
imam56	4961	25.06	520.17	0	20000.00
am57	4950	7.31	231.83	0	10000.00
imam57	4961	17.68	386.49	0	10000.00
am64c	4846	385.23	1623.77	0	34000.00
imam64c	4961	423.14	1665.50	0	34000.00
am64d	4893	1.30	40.84	0	1400.00
imam64d	4961	8.77	104.40	0	1400.00
am64e	4893	19.88	341.05	0	14000.00
imam64e	4961	19.78	338.91	0	14000.00
am64f	4893	11.14	256.96	0	8000.00
imam64f	4961	30.13	410.89	0	8000.00
am82c	4848	88.93	1423.56	0	80000.00
imam82c	4961	141.99	1523.32	0	80000.00
am82d	4893	103.15	7148.11	0	500000.00
imam82d	4961	1012.52	19231.30	0	500000.00
am82e	4893	69.49	4326.62	0	300000.00
imam82e	4961	68.53	4296.86	0	300000.00

Appendix B3 MHAS/ENASEM 2003
Total Assets and Household Consumption:
(Including zeros)

Variable	N	Mean	Std Dev	Minimum	Maximum
amj31	6140	198155.63	388872.48	0	7777776.00
imamj31	8896	244296.82	367990.31	0	7777776.00
amj28	8745	1443.76	22756.60	0	1500000.00
imamj28	8896	3653.83	32833.48	0	1500000.00
amj26	8789	28.80	772.16	0	70000.00
imamj26	8896	47.50	854.45	0	70000.00
amj33	8660	20266.54	174045.74	0	7777776.00
imamj33	8896	29773.90	193191.31	0	7777776.00
amk8_1	7986	30570.15	252945.65	0	7777776.00
imamk8_1	8895	56466.93	276553.73	0	7777776.00
amk8_2	8779	3901.59	112485.59	0	7777776.00
imamk8_2	8895	10164.73	148879.77	0	777776.00
amk3_1	8840	866.51	23899.97	0	1000060.00
imamk3_1	8895	1315.44	27235.78	0	1000060.00
amk3_2	8850	2.64	119.83	0	8000.00
imamk3_2	8895	127.71	2884.87	0	250000.00
amk24_1	8690	18242.56	192338.23	0	7777776.00
imamk24_1	8895	27560.86	218676.18	0	7777776.00
amk24_2	8864	942.58	54368.41	0	5000000.00
imamk24_2	8895	2045.89	66585.06	0	5000000.00
amk19_1	8880	166.67	6579.17	0	400000.00
imamk19_1	8895	340.71	9840.59	0	400000.00
amk19_2	8875	28.17	2653.72	0	250000.00
imamk19_2	8895	590.22	12133.55	0	250000.00
amk31_1	8702	16949.81	181343.45	0	7777776.00
imamk31_1	8895	24314.86	196839.83	0	7777776.00
amk31_2	8892	486.14	23443.74	0	2000000.00
imamk31_2	8895	566.79	24581.60	0	2000000.00
amk31_3	8889	427.04	17875.56	0	1000000.00
imamk31_3	8895	623.46	21753.86	0	1000000.00
amk38	8628	13278.78	56069.79	0	2500000.00
imamk38	8895	15687.51	58631.58	0	2500000.00
amk39	8865	952.47	11759.06	0	500000.00
imamk39	8895	1109.71	12325.75	0	500000.00
amk44	6804	28931.05	150070.39	0	5000000.00
imamk44	8895	41228.92	143512.96	0	5000000.00
amk85	8822	1691.35	20194.59	0	1600000.00
imamk85	8895	1862.97	20346.56	0	1600000.00
amk88	8039	3056.17	18000.81	0	1500212.00
imamk88	8895	3579.28	17445.74	0	1500212.00

Appendix B4 MHAS/ENASEM 2003
Help Given –G7:
(Including Zeros)

Variable	N	Mean	Std Dev	Minimum	Maximum
am7_1	8703	10014.90	391128.48	0	31200000.00
imam7_1	8899	17195.72	395935.24	0	31200000.00
am7_2	8796	7780.42	389297.96	0	31200000.00
imam7_2	8899	14880.62	397383.46	0	31200000.00
am7_3	8848	547.07	11212.12	0	728000.00
imam7_3	8899	1865.16	27437.66	0	728000.00
am7_4	8878	237.18	9408.83	0	832000.00
imam7_4	8899	1100.54	26578.84	0	832000.00
am7_5	8886	35.13	830.63	0	46800.00
imam7_5	8899	78.98	1605.62	0	46800.00
am7_6	8896	16.18	500.80	0	20800.00
imam7_6	8899	18.86	548.01	0	20800.00
am7_7	8897	6.61	325.76	0	20800.00
imam7_7	8899	7.66	333.21	0	20800.00

Appendix B5 MHAS/ENASEM 2003
Hospitals and other utilization of services –D13, D16:
(Including zeros)

Variable	N	Mean	StdDev	Minimum	Maximum
amd13	13583	496.20	7091.88	0	500000.00
imamd13	13701	561.78	7227.74	0	500000.00
amd16_1	13670	46.76	429.27	0	25000.00
imamd16_1	13701	49.84	447.76	0	25000.00
amd16_2	13583	324.16	1669.38	0	100000.00
imamd16_2	13701	341.25	1691.82	0	100000.00
amd16_3	13681	102.14	2044.19	0	120000.00
imamd16_3	13701	111.30	2129.02	0	120000.00
amd16_4	13465	540.03	4273.16	0	300000.00
imamd16_4	13701	598.07	4301.72	0	300000.00

Appendix B6 MHAS/ENASEM 2003
Economic Help to parents –F40, F47:
(Including zeros)

Variable	N	Mean	StdDev	Minimum	Maximum
amf40	3337	3046.04	20176.44	0	800000.00
imamf40	3801	4463.54	20392.66	0	800000.00
amf47	2062	5257.27	17997.11	0	400000.00
imamf47	3716	10980.81	18664.23	0	400000.00

Appendix B7 MHAS/ENASEM 2003
Pensions Income and Death Expenditures –K101, K103, K111:
(Including zeros)

Variable	N	Mean	StdDev	Minimum	Maximum
amk101	254	123.65	775.16	0	10000.00
imamk101	258	193.50	1032.33	0	10000.00
amk103	252	332.15	816.73	0	6943.00
imamk103	258	346.48	841.22	0	6943.00
amk111	195	14492.34	18809.06	0	100000.00
imamk111	258	14678.74	18169.46	0	100000.00

Appendix B8 MHAS/ENASEM 2003
Total Sampled's Income Components:
(Without zeros)

Variable	N	Mean	Std Dev	Minimum	Maximum
am47	1544	4187.68	7119.18	50.00	176500.00
imam47	1593	4242.29	7068.55	50.00	176500.00
am48	812	6835.96	11667.64	50.00	120000.00
imam48	846	7059.22	11796.52	50.00	120000.00
am50	30	5925.37	17896.97	166.00	100000.00
imam50	31	5899.36	17596.76	166.00	100000.00
am51	12	4162.50	3670.22	600.00	10000.00
imam51	12	4162.50	3670.22	600.00	10000.00
am10_1	1785	16279.88	171745.46	13.00	6000000.00
imam10_1	2147	26270.02	162997.67	1.00	6000000.00
am10_2	204	35473.76	419961.78	6.00	6000000.00
imam10_2	234	33012.59	392108.12	6.00	6000000.00
am13_1	1853	9074.40	94938.98	1.00	3000000.00
imam13_1	2190	15935.04	92638.61	1.00	3000000.00
am13_2	176	26360.32	301429.25	5.00	4000000.00
imam13_2	195	24890.16	286406.80	5.00	4000000.00
am15_1	1834	5700.62	61871.92	10.00	2500000.00
imam15_1	2143	8142.34	58557.89	10.00	2500000.00
am15_2	206	12634.57	139314.09	6.00	2000000.00
imam15_2	267	11526.21	122423.02	1.00	2000000.00
am29_1	186	5130.80	28024.90	1.00	350000.00
imam29_1	216	5919.73	27561.18	1.00	350000.00
am29_2	9	521.67	588.89	20.00	2000.00
imam29_2	18	655.20	602.33	20.00	2000.00
am26_1	318	7269.58	26655.01	50.00	400000.00
imam26_1	344	8443.58	27318.89	50.00	400000.00
am26_2	14	4114.29	5062.66	300.00	20000.00
imam26_2	18	5016.05	5868.96	300.00	20000.00
am35_1	205	606.99	1154.91	2.00	7776.00
imam35_1	346	753.68	1045.72	2.00	7776.00
am35_2	12	1686.33	2105.00	150.00	7776.00
imam35_2	12	1686.33	2105.00	150.00	7776.00
am35_3	1	6000.00	.	6000.00	6000.00
imam35_3	6	6000.00	0	6000.00	6000.00
am58a	1176	3306.57	3923.25	80.00	56000.00
imam58a	1214	3313.94	3888.90	80.00	56000.00
am58b	436	1584.80	1160.15	209.00	12000.00
imam58b	446	1599.99	1158.94	209.00	12000.00
am58c	62	2105.48	2669.65	200.00	16000.00
imam58c	63	2087.94	2651.70	200.00	16000.00
am58d	51	2755.45	3817.82	250.00	20000.00
imam58d	51	2755.45	3817.82	250.00	20000.00
am79a	1020	1840.33	24944.27	20.00	777776.00
imam79a	1087	3041.42	24977.15	20.00	777776.00
am79b	28	2383.57	2460.71	200.00	12600.00
imam79b	28	2383.57	2460.71	200.00	12600.00

Appendix B8 MHAS/ENASEM 2003
Total Sampled's Income Components:
(Without zeros)

Variable	N	Mean	Std Dev	Minimum	Maximum
am79c	46	69888.17	109303.34	50.00	500000.00
imam79c	52	88923.21	133913.14	50.00	500000.00
am17_1	3358	28352.47	209986.01	1.00	10399896.00
imam17_1	3921	53981.66	217163.10	1.00	10399896.00
am17_2	2166	20088.51	120915.46	1.00	5200000.00
imam17_2	2559	50401.59	155568.36	1.00	5200000.00
am17_3	1267	14305.77	46765.28	1.00	1560000.00
imam17_3	1529	25236.46	55781.16	1.00	1560000.00
am17_4	650	93999.00	2093501.28	1.00	53384448.00
imam17_4	820	321529.58	1999913.89	1.00	53384448.00
am17_5	340	10318.39	15647.42	1.00	208000.00
imam17_5	447	43773.13	73543.62	1.00	208000.00
am17_6	190	8144.76	9976.45	24.00	72000.00
imam17_6	263	20981.58	27235.79	24.00	72000.00
am17_7	107	10264.82	13178.25	300.00	72000.00
imam17_7	150	15550.90	21259.72	1.00	72000.00

Appendix B9 MHAS/ENASEM 2003
Total Spouse's Income Components:
(Without zeros)

Variable	N	Mean	Std Dev	Minimum	Maximum
am53	1272	4182.23	4650.67	38.00	48000.00
imam53	1426	4322.54	4585.27	38.00	48000.00
am54	579	7307.51	42023.02	80.00	1000150.00
imam54	716	10816.94	47192.66	80.00	1000150.00
am56	26	4410.04	5676.68	150.00	20000.00
imam56	30	4143.61	5350.08	150.00	20000.00
am57	9	4022.22	3883.23	700.00	10000.00
imam57	15	5846.31	4051.13	700.00	10000.00
am64c	611	3055.37	3573.55	150.00	34000.00
imam64c	684	3069.02	3465.84	41.18	34000.00
am64d	5	1276.00	82.95	1200.00	1400.00
imam64d	38	1144.71	354.45	234.19	1400.00
am64e	38	2559.71	2949.86	200.00	14000.00
imam64e	39	2515.80	2923.67	200.00	14000.00
am64f	16	3406.25	3033.03	400.00	8000.00
imam64f	38	3933.54	2619.68	400.00	8000.00
am82c	454	949.55	4567.75	10.00	80000.00
imam82c	517	1362.57	4543.05	10.00	80000.00
am82d	3	168233.33	287318.37	2300.00	500000.00
imam82d	20	251155.00	174405.64	2300.00	500000.00
am82e	2	170000.00	183847.76	40000.00	300000.00
imam82e	2	170000.00	183847.76	40000.00	300000.00

Appendix B10 MHAS/ENASEM 2003
Total Assets:
(Without zeros)

Variable	N	Mean	Std Dev	Minimum	Maximum
amj31	4140	293882.98	442892.80	1000.00	7777776.00
imamj31	6832	318100.77	390963.95	1.00	7777776.00
amj28	123	102647.72	163226.27	500.00	1500000.00
imamj28	272	119501.64	146591.97	500.00	1500000.00
amj26	167	1515.57	5412.69	2.00	70000.00
imamj26	204	2071.43	5270.42	2.00	70000.00
amj33	520	337515.92	630957.67	500.00	7777776.00
imamj33	734	360856.42	577303.40	500.00	7777776.00
amk8_1	1618	150885.82	545697.31	1.00	7777776.00
imamk8_1	2525	198920.12	491077.35	1.00	7777776.00
amk8_2	188	182191.77	749193.13	1.00	7777776.00
imamk8_2	302	299388.19	753699.51	1.00	7777776.00
amk3_1	130	58922.95	188921.89	50.00	1000060.00
imamk3_1	156	75005.45	192357.58	50.00	1000060.00
amk3_2	6	3891.67	2692.66	350.00	8000.00
imamk3_2	30	37865.36	32774.99	1.00	8000.00
amk24_1	431	367814.10	786549.73	1000.00	7777776.00
imamk24_1	632	387901.70	730765.68	1000.00	7777776.00
amk24_2	16	522187.50	1206740.75	10000.00	5000000.00
imamk24_2	43	423212.93	869697.64	1.00	5000000.00
amk19_1	16	92500.00	128498.51	3000.00	400000.00
imamk19_1	25	121223.25	143603.37	1.00	400000.00
amk19_2	1	250000.00	.	250000.00	250000.00
imamk19_2	21	250000.00	0	250000.00	250000.00
amk31_1	677	217868.96	615986.78	100.00	7777776.00
imamk31_1	870	248598.51	583724.37	100.00	7777776.00
amk31_2	34	127139.71	362611.82	100.00	2000000.00
imamk31_2	37	136259.96	360945.25	100.00	2000000.00
amk31_3	9	421777.67	393793.47	16000.00	1000000.00
imamk31_3	15	369709.87	392982.03	1.00	1000000.00
amk38	1974	58039.18	105580.67	100.00	2500000.00
imamk38	2239	62322.65	103700.69	100.00	2500000.00
amk39	152	55550.09	71162.20	200.00	500000.00
imamk39	174	56729.28	68095.36	200.00	500000.00
amk44	4047	48640.19	192115.67	20.00	5000000.00
imamk44	5718	64136.28	174848.30	20.00	5000000.00
amk85	888	16803.02	61656.11	50.00	1600000.00
imamk85	943	17572.74	60268.61	50.00	1600000.00
amk88	8038	3056.55	18001.90	1.00	1500212.00
imamk88	8894	3579.68	17446.68	1.00	1500212.00

Appendix B11 MHAS/ENASEM 2003
Help Given-G7:
(Without zeros)

Variable	N	Mean	Std Dev	Minimum	Maximum
am7_1	1204	72391.72	1049802.32	2.00	31200000.00
imam7_1	1400	109303.39	993473.23	2.00	31200000.00
am7_2	525	130355.46	1589876.80	100.00	31200000.00
imam7_2	628	210864.05	1483112.10	100.00	31200000.00
am7_3	215	22514.03	68557.90	100.00	728000.00
imam7_3	266	62398.62	146582.50	100.00	728000.00
am7_4	79	26654.66	96756.31	100.00	832000.00
imam7_4	100	97937.17	232193.47	100.00	832000.00
am7_5	29	10764.14	9965.91	200.00	46800.00
imam7_5	42	16734.91	16551.80	200.00	46800.00
am7_6	15	9597.33	7799.16	200.00	20800.00
imam7_6	18	9324.95	8081.20	1.000	20800.00
am7_7	7	8400.00	8664.87	1000.00	20800.00
imam7_7	9	7573.72	7682.68	1000.00	20800.00

Appendix B12 MHAS/ENASEM 2003
Hospitalizations and other utilization of services –D13, D16
(Without zeros)

Variable	N	Mean	Std Dev	Minimum	Maximum
amd13	445	15145.69	36278.72	10.00	500000.00
imamd13	509	15121.82	34470.7	10.00	500000.00
amd16_1	898	711.82	1527.78	5.00	25000.00
imamd16_1	917	744.71	1574.99	5.00	25000.00
amd16_2	2559	1720.62	3520.41	5.00	100000.00
imamd16_2	2643	1768.98	3509.36	5.00	100000.00
amd16_3	172	8124.13	16393.46	1.00	120000.00
imamd16_3	181	8424.96	16569.88	1.00	120000.00
amd16_4	3887	1870.73	7795.89	5.00	300000.00
imamd16_4	4064	2016.27	7715.96	5.00	300000.00

Appendix B13 MHAS/ENASEM 2003
Economic Help to parents –F40, F47:
(Excluding zeros)

Variable	N	Mean	Std Dev	Minimum	Maximum
amf40	1333	7625.39	31378.50	40.008	800000.00
imamf40	1793	9462.31	28888.08	9.58	800000.00
amf47	848	12783.60	26302.22	100.00	400000.00
imamf47	2407	16952.50	20894.98	10.098	400000.00

Appendix B14 MHAS/ENASEM 2003
Pensions Income and Death Expenditures –K101, K103, K111:
(Excluding zeros)

Variable	N	Mean	StdDev	Minimum	Maximum
amk101	11	2855.18	2573.52	1257.00	10000.00
imamk101	15	3328.14	2895.77	1257.00	10000.00
amk103	52	1609.67	1089.15	300.00	6943.00
imamk103	55	1625.29	1118.47	300.00	6943.00
amk111	185	15275.71	18999.38	11.00	100000.00
imamk111	245	15457.61	18320.19	11.00	100000.00