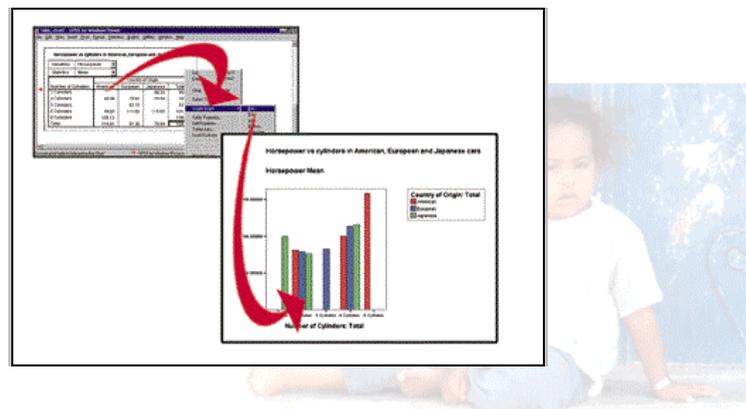


Poverty analysis with SPSS



Manual supporting the course

compiled by Klaus Röder - march 2002

Table of Contents

1. INTRODUCTION	1
1.1. CONVENTIONS OF TEXT STYLES	2
1.2. HOW TO CHOOSE OPTIONS FROM MENU	2
2. A GENERAL VIEW OF SPSS.....	3
2.1. HOW TO START AND STOP SPSS	3
2.2. SPSS WINDOWS	3
2.3. THE DATA FILE,	4
2.4. SAVE THE DATA FILE,	4
2.5. LISTING CASES,	4
2.6. THE ANALYSIS OF FREQUENCY	4
2.7. EXERCISE: THE CAMEROON HOUSEHOLD SURVEY:	5
2.8. THE TRANSFORMATION OF VARIABLES	6
2.9. DEFINING VARIABLES	6
2.10. VARIABLE NAMES IN SPSS	6
2.11. VARIABLE TYPES	6
2.12. MISSING VALUES	6
2.13. VARIABLE LABELS	6
2.14. COMPUTE VARIABLES	6
2.15. RECODE VARIABLES	6
2.16. TRANSPOSE VARIABLES	6
2.17. SORT CASES	6
2.18. SELECT CASES	6
2.19. EXERCISE: THE CAMEROON HOUSEHOLD SURVEY:	7
3. CONSIDERATIONS ABOUT POVERTY INDICES AND PRELIMINARY ANALYSIS IN SPSS .	8
3.1. THE TRANSFORMATION OF DATA FILES	8
3.2. MERGING FILES: GENERAL CONSIDERATIONS	8
3.3. MERGE FILES: ADD CASES	8
3.4. MERGE FILES: ADD VARIABLES	8
3.5. GENERAL CONSIDERATIONS ABOUT MEASUREMENT LEVELS:	8
3.6. FUNCTIONS FOR THE INITIAL ANALYSIS OF DATA	9
3.7. FREQUENCIES	9
3.8. EXPLORATIVE DATA ANALYSIS	9
3.9. CROSSTABS	9
3.10. EXERCISE : THE CAMEROON HOUSEHOLD SURVEY:	10
4. REGRESSION ANALYSIS.....	11
4.1. BACKGROUND:	11
4.2. SPSS - LINEAR REGRESSION	12
4.3. EXERCISE : THE CAMEROON HOUSEHOLD SURVEY:	13
5. CLUSTER ANALYSIS.....	14
5.1. BACKGROUND:	14
5.2. SPSS – CLUSTER ANALYSIS	15
5.3. EXERCISE : THE INTERNATIONAL DATA SET (WORLD DEVELOPMENT INDICATORS):	15
6. FACTOR ANALYSIS	16
6.1. BACKGROUND:	16
6.2. FACTOR ANALYSIS	17

6.3.	EXERCISE : THE INTERNATIONAL DATA SET (WORLD DEVELOPMENT INDICATORS):	17
7.	CURVE ESTIMATION	18
7.1.	BACKGROUND	18
7.2.	CURVE ESTIMATION	19
7.3.	EXERCISE : THE INTERNATIONAL DATA SET (WORLD DEVELOPMENT INDICATORS):	20

1. Introduction

The aim of this course is to introduce the participants briefly to the statistics program SPSS. This program is among the best known and most widely distributed statistics programs. For many years, since the days of the mainframe, where this program was originally developed, it stands for a very efficient symbiosis between computers and statistical analysis.

Since this course deals with poverty statistics, the special emphasis is on the use of SPSS for poverty statistics.

Since the participants of this course should be familiar with the use of EXCEL, a point of distinction is made between the use of EXCEL for statistical analysis and SPSS. The purpose is NOT to introduce SPSS as a system, but to understand the basic principals of handling this software package and to understand the benefits and advantages against more general software like EXCEL.

Since the course focuses on some statistical methods for analysis, it might be the side effect of this course for some participants to refresh old theory and gain new insight into some elementary statistical methods. The course addresses the beginner to SPSS as well as the experienced SPSS user, it assumes that the participant is equipped with a basic statistical background. The result should be that the participants are familiar with some basic concepts of SPSS and understands the use of some more sophisticated methods to analyze data for poverty statistics.

The development of computers has been dramatic over the recent years, so the software for analyzing and communication of statistical results has been developed as well. Although the statistical theory behind the software has not changed, if the focus remains on the less exotic and sophisticated methodology, the impact on user friendliness and "look and feel" of the software was tremendous.

The actual version 10 of SPSS is fully integrated into WINDOWS as well as network computing and eases the use and access notably for beginners. The Common User Access(CUA) of WINDOWS and the integrated help features facilitates the learning process and helps even experienced users handling the program. The data and information exchange between SPSS and other WINDOWS applications eases and speeds up the work of the analyst.

This introduction will not replace a SPSS reference manual, but the use this manual will accompany the participants through the set of guided exercises and together with the on-line tutorial and the on-line help should be sufficient for the aims of the course

1.1. Conventions of text styles

Throughout this manual we will follow certain conventions. We hope, that this will make the text easier to understand.

[Alt]	You are instructed to type the indicated key
[Alt] + [Shift]	You are instructed to type the indicated keys together
[End],[_]	You are instructed to type the indicated keys one after the other
[Files/Open/Data]	Menu choices, you can use mouse or keyboard to activate the menu choice



SPSS examples (sometimes refers to the document *"Hands on SPSS"* delivered previously)

1.2. How to choose options from menus

There are two methods of choosing items from a menu:

With a mouse: Click on the name of the menu that you want. The name of the menu is highlighted and the list of menu items drops down. You can then view the items and click on the particular item that you want. (Or click on the menu name, holding your finger on the mouse button. Without releasing the button, drag through the menu items in order. They become highlighted in succession as you drag through the list. When the item that you want is highlighted, release the mouse button.) To cancel: click outside the menu and menu bar.

With the keyboard: Press the [Alt] key and the underlined letter (often the first) in the menu name. When the menu drops down, press the underlined letter in the command name. To cancel: press [Esc]

2. A general view of SPSS

- ✓ The objective of this chapter is to give you a general view of the program. You should learn which are the main elements of SPSS, the types of windows and files SPSS uses

2.1. How to start and stop SPSS

- Click two times on the SPSS icon to start
- Choose File/Exit to leave the program

2.2. SPSS windows

SPSS uses the following most important types of window:

Data editor: A rectangular, spreadsheet-like display of the working data file. You can edit the data in the data window, add or delete variables, or change their attributes, except when the SPSS processor is modifying the data. Use File menu commands New and Open to clear data from the data editor, or to open an existing data file in the data editor. Use File menu commands Save or Save As when the data editor is active to save the data file. You cannot close the data editor, although you can minimize it. The file extension used by SPSS for this type of window is .sav.

Viewer. All statistical results, tables, and charts are displayed in the Viewer. You can edit the output and save it for later use. A Viewer window opens automatically the first time you run a procedure that generates output.

Results are displayed in the Viewer. You can use the Viewer to:

Browse results.

- Show or hide selected tables and charts.
- Change the display order of results by moving selected items.
- Move items between the Viewer and other applications.

The Viewer is divided into two panes:

The left pane of the Viewer contains an outline view of the contents.

The right pane contains statistical tables, charts, and text output.

You can use the scroll bars to browse the results, or you can click an item in the outline to go directly to the corresponding table or chart.

You can click and drag the right border of the outline pane to change the width of the outline pane.

Through the Viewer you can call various other editors

- **Pivot Table Editor.** Output displayed in pivot tables can be modified in many ways with the Pivot Table Editor. You can edit text, swap data in rows and columns, add color, create multidimensional tables, and selectively hide and show results.
- **Chart Editor.** You can modify high-resolution charts and plots in chart windows. You can change the colors, select different type fonts or sizes, switch the horizontal and vertical axes, rotate 3-D scatterplots, and even change the chart type.
- **Text Output Editor.** Text output not displayed in pivot tables can be modified with the Text Output Editor. You can edit the output and change font characteristics (type, style, color, size).

Syntax window with Syntax Editor: You can paste your dialog box choices into a syntax window, where your selections appear in the form of command syntax. You can then edit the command syntax to utilize special features of SPSS not available through dialog boxes. You can save these commands in a file for use in subsequent SPSS sessions.

If you have more than one open Viewer window, output is routed to the designated Viewer window. If you have more than one open Syntax Editor window, command syntax is pasted into the designated Syntax Editor window. The **designated** windows are indicated by an exclamation point (!) in the status bar. You can change the designated windows at any time. The designated window should not be confused with the **active** window, which is the currently selected window. If you have overlapping windows, the active window appears in the foreground. If you open a new Syntax Editor or Viewer window, that window automatically becomes the active window and the designated window.



"Hands on SPSS" Chapters:

- 2.3. The data file,
- 2.4. Save the data file,
- 2.5. Listing cases,
- 2.6. The Analysis of Frequency

2.7. Exercise: The Cameroon Household Survey:

In the annex you will find a description of the Cameroon Household Survey. The data file you will find under the name of CHS96_01.SAV. This file contains raw data of a sample of members of households.

Use SPSS to handle and analyze the data:

1. Start the read the data file. Count the number of variables and observations
2. List the content of 50 observations
3. Print the frequency count of men and women in the universe.
4. Rename variables, if necessary or appropriate (e.g. slq3 = sex)
5. Find out which variable contains the information about sex and print a bar graph of the variable.
6. Print a histogram of the variable *age* (this variable might not yet exist, see exercise 4.) and comment the differences of the distribution of this variable against a normal distribution.



"Hands on SPSS" Chapters:

- 2.8. The transformation of variables
- 2.9. Defining variables
- 2.10. Variable names in SPSS
- 2.11. Variable Types
- 2.12. Missing values
- 2.13. Variable labels
- 2.14. Compute variables
- 2.15. Recode variables
- 2.16. Transpose variables
- 2.17. Sort cases
- 2.18. Select cases

2.19. Exercise: The Cameroon Household Survey:

In the annex you will find a description of the Cameroon Household Survey. Use the data file you used before in the exercise of chapter 1 or use CHS96_02.SAV

Use SPSS to transform the data:

1. Add variable and value labels for some selected variables (*sex, relation to head of household* etc.).
2. Define missing values for at least one variable (candidates are *age* and *Why not attending School*).
3. Define a new variable *gr_age*
4. Compute values for *gr_age* for each group comprising 10 years (*gr_age*= 1 for *age* between 0 and 10 years, *gr_age* = 2 for *age* between 10 and 20 years etc).
5. Recode values for *sex* (1=0 and 2=1).
6. Select only respondents older than 20 years and count the frequency of *Attending School*.
7. Create a new variable BRID, which identifies exactly the household within the sample.

3. Considerations about Poverty Indices and Preliminary Analysis in SPSS



"Hands on SPSS" Chapters:

3.1. The transformation of data files

3.2. Merging Files: General considerations

3.3. Merge Files: Add Cases

3.4. Merge Files: Add Variables

3.5. General considerations about measurement levels:

You can specify the level of measurement as scale (numeric data on an interval or ratio scale), ordinal, or nominal. Nominal and ordinal data can be either string (alphanumeric) or numeric. Measurement specification is relevant only for:

Chart procedures that identify variables as scale or categorical. Nominal and ordinal are both treated as categorical.

SPSS-format data files used with AnswerTree.

You can select one of three measurement levels:

Scale. Data values are numeric values on an interval or ratio scale (e.g., age, income). Scale variables must be numeric.

Ordinal. Data values represent categories with some intrinsic order (e.g., low, medium, high; strongly agree, agree, disagree, strongly disagree). Ordinal variables can be either string (alphanumeric) or numeric values that represent distinct categories (e.g., 1=low, 2=medium, 3=high). Note: for ordinal string variables, the alphabetic order of string values is assumed to reflect the true order of the categories. For example, for a string variable with the values of low, medium, high, the order of the categories is interpreted as high, low, medium -- which is not the correct order. In general, it is more reliable to use numeric codes to represent ordinal data.

Nominal. Data values represent categories with no intrinsic order (e.g., job category or company division). Nominal variables can be either string (alphanumeric) or numeric values that represent distinct categories (e.g., 1=Male, 2=Female).



"Hands on SPSS" Chapters:

3.6. Functions for the Initial Analysis of Data

3.7. Frequencies

3.8. Explorative data analysis

3.9. Crosstabs

3.10. Exercise : The Cameroon Household Survey:

In the annex you will find a description of the Cameroon Household Survey. Use the data file you used before in the exercise or use CHS96_04.SAV (the combined data file)

1. What do you know about the household income and expenditure of the sample? How can you use SPSS to attribute a measure of 'Standard of Living' to each household? Do this for the combined Data File.
2. Calculate a number of equivalent adults for each household. Discuss the factors applied first. Create this new variable.(Proposal for weight attributed to ages: Adult = weight 1, age 13-17 = weight 0.5, age 7-12 = weight 0.3, age below 7 = weight 0.2)
3. Calculate the expenditure per **EQ**(equivalent adult).
4. Calculate the expenditure per **EQ**(equivalent adult) per household
5. Derive three groups of 'Standard of Living' for the sample (High, Medium, Low)

4. Regression Analysis

4.1. BACKGROUND:

What is (Linear) Regression:

Calculates the statistics for a line by using the "least squares" method to calculate a straight line that best fits your data, and returns an array that describes the line. Because this function returns an array of values, it must be entered as an array formula.

The equation for the line is:

$y = m^*x + b$ or $y = m^1 * x^1 + m^2 * x^2 + \dots + b$ (if there are multiple ranges of x-values) where

x^n are the independent variables

y is the dependent variable

b is the constant or intercept

m^n are the regression coefficients

There are several statistical indicators illustrating the 'quality' of the relation between the variables

Remember EXCEL:

Menu:[Tools/Data Analysis/Regression]

This is the summary output table, which includes an

- anova table,
- coefficients,
- standard error of y estimate,
- r2 values,
- number of observations
- standard error of coefficients.

The main indicator for the quality , how well one (or many) variable(s) explains the dependent variable are

the R and R squared values

Close to zero means Little or no relation

Close to +1 means strong relation

The Question:

Are there any indications that here is a relation between infant mortality and poverty issues.

The Exercise:

Use the Cameroon Data Set to relate :

Infant Mortality (the dependent variable)
and
Household expenditure
and in the second step
What is your academic standard and further
Sex of Head of Household

4.2. SPSS - Linear Regression

Menu: [Analyze/ Regression]

Command Language: Regression

Select one numeric Dependent variable, and one or more numeric Independent variables.

You can control the entry of Independent variables into the analysis in two ways: by grouping them into blocks, and by choosing the method by which the variables in each block are processed. The available methods are Enter, Remove, Stepwise, Backward, and Forward. Starting with the first block, SPSS applies the selected method to all of the variables in the block, then proceeds to the next block if there is one.

Select **Statistics** for additional statistics.

Select **Plots** for residual scatterplots, histograms, outlier plots, or normal probability plots.

Select **Save** to create new variables containing predicted values, residuals, and related statistics.

Select **Options** to change the criteria used in the stepwise methods, to request regression through the origin, or to control the treatment of missing value

- Estimates are the coefficients themselves.
- Confidence intervals are 95% confidence intervals for the coefficients
- Covariance matrix gives the variances and covariances among the coefficient estimates.
- *Descriptives* provides the means and standard deviations of each variable in the analysis, plus a correlation matrix (with one-tailed significance level and number of cases for each correlation).
- Model fit statistics include multiple R, R squared and adjusted R squared, standard error of the estimate, and an analysis-of-variance table.

additionally

- Durbin Watson displays the Durbin-Watson test for serial correlation of the residuals.

4.3. Exercise : The Cameroon Household Survey:

1. Use SPSS for the univariate regression and the Cameroon Data Set to relate :
Poverty Level / Household Expenditure (the dependent variable)
and
Sex of Head of Household, then
What is your academic standard and then
Size of Household

Continue as you like

Use predictors for infant mortality based on poverty indicators.

Use predictors for *Poverty Level / Household Expenditure* based on social indicators

Discuss the validity of these results

2. Calculate a poverty line. Discuss first the criteria to establish this measurement. Which expenditures should be regarded and to which extent?.
3. Calculate the three indices of poverty (Foster, Green, Thorbecke) and discuss the results.
4. Calculate these indices for various subsamples (e.g. Households with female heads, choose various professional groups of HH)

5. Cluster Analysis

5.1. BACKGROUND:

The goal of cluster analysis is to identify relatively homogeneous groups of cases based on selected characteristics. For example, you can group television shows into homogeneous categories based on viewer characteristics. This can be used to identify segments for marketing. Or you can group countries into homogeneous clusters so that comparable countries can be selected to test various political strategies.

K-Means Cluster Analysis

This procedure attempts to identify relatively homogeneous groups of cases based on selected characteristics, using an algorithm that can handle large numbers of cases. However, the algorithm requires you to specify the number of clusters. You can specify initial cluster centers if you know this information. You can select one of two methods for classifying cases, either updating cluster centers iteratively or classifying only. You can save cluster membership, distance information, and final cluster centers. Optionally, you can specify a variable whose values are used to label casewise output. You can also request analysis of variance F statistics. While these statistics are opportunistic (the procedure tries to form groups that do differ), the relative size of the statistics provides information about each variable's contribution to the separation of the groups.

The k-means cluster analysis command is efficient primarily because it does not compute the distances between all pairs of cases, as do many clustering algorithms, including that used by the hierarchical clustering command.

For maximum efficiency, take a sample of cases and use the Iterate and classify method to determine cluster centers. Click Centers and select Write final as File. Then restore the entire data file and select Classify only as the method. Click Centers and Read initial from File to classify the entire file using the centers estimated from the sample.

Hierarchical Cluster Analysis

This procedure attempts to identify relatively homogeneous groups of cases (or variables) based on selected characteristics, using an algorithm that starts with each case (or variable) in a separate cluster and combines clusters until only one is left. You can analyze raw variables or you can choose from a variety of standardizing transformations. Distance or similarity measures are generated by the Proximities procedure. Statistics are displayed at each stage to help you select the best solution.

5.2. SPSS – Cluster Analysis

Menu: [Analyze/ Classify]

Command Language: Cluster, Proximities

If you are clustering cases, select at least one numeric variable. If you are clustering variables, select at least three numeric variables.

You may select a string variable to identify cases. Move the variable into Label Cases by.

The alternatives in the Cluster group allow you to form clusters either of cases or of variables. The controls in the Display group allow you to select Statistics and Plots. When these are selected, the corresponding Pushbuttons allow you to request additional statistics or plots.

Click on **Statistics** to request statistics.

Click on **Plots** to request plots.

Click on **Method** to determine the clustering method and the distance measure used in the analysis.

Click on **Save** to save cluster memberships as new variables. This option is not available if you have selected to perform the cluster analysis on variables.

The Problem:

Find the resemblance between countries using the statistical data set concerning poverty indicators

The Exercise:

International Data Set of 55 Series for 18 countries related to poverty topics

Use GDP and GNP indicators to cluster counties:

1. How many clusters
2. Which method to use
3. Use different presentation methods to follow the process of clustering

5.3. Exercise : The International Data Set (World Development Indicators):

Use the International Data Set to Form Clusters using Series according to

2. Health indicators,
3. Life Expectancy,
4. Other Poverty Indicators

6. Factor Analysis

6.1. BACKGROUND:

Factor analysis attempts to identify underlying variables, or factors, that explain the pattern of correlations within a set of observed variables. Factor analysis is often used in data reduction to identify a small number of factors that explain most of the variance observed in a much larger number of manifest variables. Factor analysis can also be used to generate hypotheses regarding causal mechanisms or to screen variables for subsequent analysis (for example, to identify collinearity prior to performing a linear regression analysis).

The factor analysis procedure offers a high degree of flexibility:

Seven methods of factor extraction are available.

Five methods of rotation are available, including direct oblimin and promax for nonorthogonal rotations.

Three methods of computing factor scores are available, and scores can be saved as variables for further analysis.

Example. What underlying attitudes lead people to respond to the questions on a political survey as they do? Examining the correlations among the survey items reveals that there is significant overlap among various subgroups of items--questions about taxes tend to correlate with each other, questions about military issues correlate with each other, and so on. With factor analysis, you can investigate the number of underlying factors and, in many cases, you can identify what the factors represent conceptually. Additionally, you can compute factor scores for each respondent, which can then be used in subsequent analyses. For example, you might build a logistic regression model to predict voting behavior based on factor scores.

Factor is used to identify underlying constructs or factors that explain the correlations among a set of variables.

Factor analysis is often used to summarize a large number of variables with a smaller number of derived variables, called factors. For example, factor analysis can be used to explain the correlations in a battery of tests on the basis of factors that measure overall intelligence and mathematical and verbal skills. Or it can be used to determine the dimensions on which consumers rates coffees. These might be heartiness, body, and freshness.

Data. The variables should be quantitative at the interval or ratio level. Categorical data (such as religion or country of origin) are not suitable for factor analysis. Data for which Pearson correlation coefficients can sensibly be calculated should be suitable for factor analysis. Assumptions. The data should have a bivariate normal distribution for each pair of variables, and observations should be independent. The factor analysis model specifies that variables are determined by common factors (the factors estimated by the model) and unique factors (which do not overlap between observed variables); the computed estimates are based on the

assumption that all unique factors are uncorrelated with each other and with the common factors.

6.2. Factor Analysis

Menu [Analyze/Data Reduction/Factor...]

Command Language: Factor

Select the variables for the factor analysis.

Click on **Descriptives** to request univariate statistics, a correlation matrix, or the initial (principal-components) solution.

Click on **Extraction** to specify the method of factor extraction and the criterion determining how many factors should be extracted.

Click on **Rotation** to specify a method for factor rotation.

Click on **Scores** to save factor scores as new variables or display the factor score coefficient matrix.

Click on **Options** to specify the display format of the factor loading and structure matrices.

The Problem:

Find Indicators for what you can call Poverty quality, Poverty measures , Economical and Social well being

The Exercise:

National Data Set related to poverty topics

Use FACTOR to find out for the chosen country:

1. Are there any factors
2. How can they be called
3. Are there factors which can be related to Economical and Social well being

6.3. Exercise : The International Data Set (World Development Indicators):

Use the International Data Set to Form Clusters using Series according to

1. Poverty Indicators
2. Social and Economical Well Being,
3. Health indicators,
4. Life Expectancy,

7. Curve Estimation

7.1. Background

The Curve Estimation procedure produces curve estimation regression statistics and related plots for 11 different curve estimation regression models. A separate model is produced for each dependent variable. You can also save predicted values, residuals, and prediction intervals as new variables.

Example. A fire insurance company conducts a study to relate the amount of damage in serious residential fires to the distance between the closest fire station and the residence. A scatterplot reveals that the relationship between fire damage and distance to the fire station is linear. You might fit a linear model to the data and check the validity of assumptions and the goodness of fit of the model.

Data. The dependent and independent variables should be quantitative. If you select Time instead of a variable from the working data file as the independent variable, the Curve Estimation procedure generates a time variable where the length of time between cases is uniform. If Time is selected, the dependent variable should be a time-series measure. Time-series analysis requires a data file structure in which each case (row) represents a set of observations at a different time and the length of time between cases is uniform.

Assumptions. Screen your data graphically to determine how the independent and dependent variables are related (linearly, exponentially, etc.). The residuals of a good model should be randomly distributed and normal. If a linear model is used, the following assumptions should be met. For each value of the independent variable, the distribution of the dependent variable must be normal. The variance of the distribution of the dependent variable should be constant for all values of the independent variable. The relationship between the dependent variable and the independent variable should be linear, and all observations should be independent.

You can choose one or more curve estimation regression models. To determine which model to use, plot your data. If your variables appear to be related linearly, use a simple linear regression model. When your variables are not linearly related, try transforming your data. When a transformation does not help, you may need a more complicated model. View a scatterplot of your data; if the plot resembles a mathematical function you recognize, fit your data to that type of model. For example, if your data resemble an exponential function, use an exponential model. The following models are available in the Curve Estimation procedure: linear, logarithmic, inverse, quadratic, cubic, power, compound, S-curve, logistic, growth, and exponential. If you are unsure which model best fits your data, try several models and select among them.

Save Variables. For each selected model you can save predicted values, residuals (observed value of the dependent variable minus the model predicted value), and prediction intervals

(upper and lower bounds). The new variable names and descriptive labels are displayed in a table in the output window.

Predict Cases. If you select Time instead of a variable in the working data file as the independent variable, you can specify a forecast period beyond the end of the time series. You can choose one of the following alternatives:

Predict from estimation period through last case. Predicts values for all cases in the file, based on the cases in the estimation period. The estimation period, displayed at the bottom of the dialog box, is defined with the Range subdialog box of the Select Cases option on the Data menu. If no estimation period has been defined, all cases are used to predict values.

Predict through. Predicts values through the specified date, time, or observation number, based on the cases in the estimation period. This can be used to forecast values beyond the last case in the time series. The available text boxes for specifying the end of the prediction period are dependent on the currently defined date variables. If there are no defined date variables, you can specify the ending observation (case) number.

7.2. Curve Estimation

Menu [Analyze/Regression/Curve Estimation...]

Select one or more dependent variables. A separate model is produced for each dependent variable.

Select an independent variable (either a variable in the working data file or Time).

Optionally, you can:

Select a variable for labeling cases in scatterplots. For each point in the scatterplot, you can use the Point Selection tool to display the value of the Case Label variable.

Click Save to save predicted values, residuals, and prediction intervals as new variables.

The following options are also available:

Include constant in equation. Estimates a constant term in the regression equation. The constant is included by default.

Plot models. Plots the values of the dependent variable and each selected model against the independent variable. A separate chart is produced for each dependent variable.

Display ANOVA table. Displays a summary analysis-of-variance table for each selected model.

7.3. Exercise : The International Data Set (World Development Indicators):

Use the International Data Set to Predict Curve Behaviour for a chosen country using Series according to

1. Poverty Indicators
2. Social and Economical Well Being,
3. Health indicators,
4. Life Expectancy,

8. Workshop on Poverty

1. What do you know about the household income and expenditure of the sample? How can you use SPSS to attribute a measure of 'Standard of Living' to each household? Do this for the combined Data File.
2. Calculate a number of equivalent adults for each household. Discuss the factors applied first. Create this new variable.
3. Calculate the expenditure per **EQ**(equivalent adult) and derive three groups of 'Standard of Living' for the sample.
4. Calculate a poverty line. Discuss first the criteria to establish this measurement. Which expenditures should be regarded and to which extent?.
5. Calculate the three indices of poverty (Foster, Green, Thorbecke) and discuss the results.
6. Calculate these indices for various subsamples (e.g. Households with female heads, choose various professional groups of HH)

Annex

CHS96_02.SAV

Personal File

List of variables on the working file

```

Name
Position
STRATUM  Stratum
  1
  Measurement Level: Ordinal
  Column Width: 8 Alignment: Right
  Print Format: F1
  Write Format: F1
  Value   Label
    1     YAOUNDE
    2     DOUALA
    3     AUTRES VILLES
    4     RURAL FORET
    5     RURAL HT-PLATEAUX
    6     RURAL SAVANE
NUMENUM  Enumeration Area
  2
  Measurement Level: Scale
  Column Width: 8 Alignment: Right
  Print Format: F3
  Write Format: F3
NUMHHOLD Household Nr.
  3
  Measurement Level: Scale
  Column Width: 8 Alignment: Right
  Print Format: F3
  Write Format: F3
SERIAL_N Serial ID
  4
  Measurement Level: Scale
  Column Width: 8 Alignment: Right
  Print Format: F2
  Write Format: F2
S1Q3     Sex
  5
  Measurement Level: Ordinal

```

```

  Column Width: 8 Alignment: Right
  Print Format: F1
  Write Format: F1
S1Q4     Relation to HH
  6
  Measurement Level: Ordinal
  Column Width: 8 Alignment: Right
  Print Format: F2
  Write Format: F2
S1Q5     Residence Status
  7
  Measurement Level: Ordinal
  Column Width: 8 Alignment: Right
  Print Format: F1
  Write Format: F1
S1Q6A    Age in Years
  8
  Measurement Level: Scale
  Column Width: 8 Alignment: Right
  Print Format: F2
  Write Format: F2
S1Q6B    Age in Months
  9
  Measurement Level: Ordinal
  Column Width: 8 Alignment: Right
  Print Format: F2
  Write Format: F2
S1Q7     Were you sick during past 2 weeks?
  10
  Measurement Level: Ordinal
  Column Width: 8 Alignment: Right
  Print Format: F1
  Write Format: F1
S1Q8     Visited a doctor during past 2 weeks?
  11
  Measurement Level: Ordinal
  Column Width: 8 Alignment: Right
  Print Format: F1
  Write Format: F1
S1Q9     Reason for this visit?
  12
  Measurement Level: Ordinal
  Column Width: 8 Alignment: Right
  Print Format: F1
  Write Format: F1
S1Q10    Who performed last consultation?
  13

```

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q11 Cost of last consultation
14
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8
Write Format: F8

S1Q12 Type of health center ?
15
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q13 How long have you been living here?
16
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q14 Where were you living 12 months ago?
17
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q15 What was the main reason for moving?
18
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q16 Can you read and write?
19
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q17 Have you ever attended school?
20
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q18 Are you attending school now?
21
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q19 Type of school?
22
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q20 as?
23
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q21 Why are you not attending school now?
24
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q22 Did you attend school last academic year?
25
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q23 What is your academic standard?
26
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S1Q24 During the past 12 months did you have an economic activity?
27
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q25 Main Occupation the last 12 months?
28
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S1Q26
29 Sector of activity?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S1Q27
30 Why did you not work during the last 12 months?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q28
31 Did You work during last 7 Days
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q29
32 In the last 7 days, have you been looking for work?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q30
33 How long have you been working at this job?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q31A
34 Revenue bracket?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S1Q31B
35 Time Unit
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q32A
36 Duration?
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S1Q32B
37 Time Unit
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q33
38 Change in Revenue?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q34
39 Did you have a secondary employment?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q35
40 Which one?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S1Q36
41 Sector of activity?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S1Q37
42 How many years have you been working at this secondary emplo
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q38A
43 Revenue bracket?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S1Q38B
44 Time Unit
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q39 Any other employment prior to your current main employment?
45

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q40 Which one?
46

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S1Q41 Sector of activity?
47

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S1Q42 Main reason for changing this job?
48

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q2A Childs year of birth
49

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F4
Write Format: F4

S10Q2B Childs month of birth
50

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S10Q3 Childs year of birth
51

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S10Q4 sexe
52

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q5 vaccination card
53

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q6 vaccination against measles
54

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q7 vaccination against le BCG
55

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q8 accination against la polio
56

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q9 vaccination against la DTC OQ
57

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q10 Serial number of mother
58

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S10Q11 Serial number of mother
59

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S10Q12 Child's weight
60

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F5
Write Format: F5

S10Q13 Child's height
61
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F3
Write Format: F3

S10Q14 Child sick during past 2 weeks
62
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q15 If the child was not weighed or measured, why?
63
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

CHS96_03.SAV

Household File

List of variables on the working file

Name	Position
STRATUM	Stratum
1	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F7 Write Format: F7
NUMENUM	Enumeration Area
2	Measurement Level: Scale Column Width: 8 Alignment: Right Print Format: F7 Write Format: F7
NUMHHOLD	Household Nr.
3	Measurement Level: Scale Column Width: 8 Alignment: Right Print Format: F8 Write Format: F8
TAILM	HHold size
4	Measurement Level: Scale Column Width: 8 Alignment: Right Print Format: F7 Write Format: F7
EQADU	Equ.nr of adults
5	Measurement Level: Scale Column Width: 8 Alignment: Right Print Format: F8.2 Write Format: F8.2
CONJ	Nr of spouses
6	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F8.2 Write Format: F8.2
ENFT	Children of H of HHold
7	

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

AUTP 8 Other members
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

ACTOCC 9 Act.employed
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

MULTIAC 10 Act.second
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

TDEP 11 Rate of depend.
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

TPLUR 12 Rate of multiactivity
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

TYPMEN 13 Type of HHold
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPALI 14 Food
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPHAB 15 Cloths
Measurement Level: Scale

Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPMAI 16 Hshould maintenace
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPSAN 17 Health
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPTRA 18 Transport and Communication
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPEDU 19 Education
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPSOP 20 Personal expenditure
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPLOI 21 Leisure
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPLOY 22 Rent
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

INDALT 23 Adults
Measurement Level: Ordinal

Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

INDNAL
24 Non-adults
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPLOG
25 Lodging
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPTOT
26 Total expenditures
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

LOCAT
27 Lodgers
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DLOYIMP
28 Imputed cost of lodging
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPTET
29 Expenditures per head
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPEAD
30 Expenditures per equiv.adult
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F15.2
Write Format: F15.2

STANVIE
31 Standard of living
Measurement Level: Ordinal

Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

TYPREV
32 Type of revenue
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

REVM
33 HHold revenue
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11
Write Format: F11

SERIAL_N
34 Serial ID
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8
Write Format: F8

ZONE
35
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F4.1
Write Format: F4.1

CHS96_04.SAV

Combined File

List of variables on the working file

Name	Position
STRATUM	Stratum
1	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F7 Write Format: F7
NUMENUM	Enumeration Area
2	Measurement Level: Scale Column Width: 8 Alignment: Right Print Format: F7 Write Format: F7
NUMHHOLD	Household Nr.
3	Measurement Level: Scale Column Width: 8 Alignment: Right Print Format: F8 Write Format: F8
TAILM	HHold size
4	Measurement Level: Scale Column Width: 8 Alignment: Right Print Format: F7 Write Format: F7
EQADU	Equ.nr of adults
5	Measurement Level: Scale Column Width: 8 Alignment: Right Print Format: F8.2 Write Format: F8.2
CONJ	Nr of spouses
6	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F8.2 Write Format: F8.2

ENFT	Children of H of HHold
7	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F8.2 Write Format: F8.2
AUTP	Other members
8	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F8.2 Write Format: F8.2
ACTOCC	Act.employed
9	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F8.2 Write Format: F8.2
MULTIAC	Act.second
10	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F8.2 Write Format: F8.2
TDEP	Rate of depend.
11	Measurement Level: Scale Column Width: 8 Alignment: Right Print Format: F8.2 Write Format: F8.2
TPLUR	Rate of multiactivity
12	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F8.2 Write Format: F8.2
TYPMEN	Type of HHold
13	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F8.2 Write Format: F8.2
DEPALI	Food
14	Measurement Level: Scale Column Width: 8 Alignment: Right Print Format: F8.2 Write Format: F8.2

DEPHAB Cloths
15
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPMAI Hshould maintenace
16
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPSAN Health
17
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPTRA Transport and Communication
18
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPEDU Education
19
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPSOP Personal expenditure
20
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPLOI Leisure
21
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPLOY Rent
22
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

INDALT Adults
23
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

INDNAL Non-adults
24
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPLOG Lodging
25
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPTOT Total expenditures
26
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

LOCAT Lodgers
27
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DLOYIMP Imputed cost of lodging
28
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPTET Expenditures per head
29
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

DEPEAD Expenditures per equiv.adult
30
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F15.2
Write Format: F15.2

STANVIE Standard of living
31
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

TYPREV Type of revenue
32
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

REVM HHold revenue
33
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11
Write Format: F11

SERIAL_N Serial ID
34
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F8
Write Format: F8

ZONE
35
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F4.1
Write Format: F4.1

BRID
36
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8
Write Format: F8

BRID_I
37
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F10
Write Format: F10

SIQ3
38
Sex
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

	Value	Label
	1	Male
	2	Female
SIQ4 39	Relation to HH	
	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F2 Write Format: F2	
-		
SIQ5 40	Residence Status	
	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F1 Write Format: F1	
SIQ6A 41	Age in Years	
	Measurement Level: Scale Column Width: 8 Alignment: Right Print Format: F2 Write Format: F2	
SIQ6B 42	Age in Months	
	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F2 Write Format: F2	
SIQ7 43	Were you sick during past 2 weeks?	
	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F1 Write Format: F1	
SIQ8 44	Visited a doctor during past 2 weeks?	
	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F1 Write Format: F1	
SIQ9 45	Reason for this visit?	
	Measurement Level: Ordinal Column Width: 8 Alignment: Right Print Format: F1	

Write Format: F1

S1Q10 Who performed last consultation?
46
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q11 Cost of last consultation
47
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8
Write Format: F8

S1Q12 Type of health center ?
48
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q13 How long have you been living here?
49
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q14 Where were you living 12 months ago?
50
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q15 What was the main reason for moving?
51
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q16 Can you read and write?
52
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

Value	Label
1	Yes
2	No

S1Q17 Have you ever attended school?
53
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

Value	Label
1	Yes
2	No

S1Q18 Are you attending school now?
54
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

Value	Label
1	Yes
2	No

S1Q19 Type of school?
55
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

Value	Label
1	Public
2	Private

S1Q20 as?
56
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q21 Why are you not attending school now?
57
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

Value	Label
1	End of Studies
2	Work
3	Close down of School
4	Lack of means

- 5 High school fees
- 6 Technical quality
- 7 School dismissal
- 8 School dropping
- 9 Illness

S1Q22 Did you attend school last academic year?
58

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

Value Label

- 1 Yes
- 2 No

S1Q23 What is your academic standard?
59

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

Value Label

- 1 Primary School
- 2 Training School with CEPE as ER
- 3 First C.of Sec.Grammar School
- 4 Second C.of Sec.Grammar School
- 5 First C.of Technical Secondary School
- 6 Second C.of Technical Secondary School
- 7 Training School with BEPC as ER
- 8 BA, MA
- 9 PhD
- 10 Higher Studies with GCEAL as ER
- 11 Higher Studies with BA, MA as ER

S1Q24 During the past 12 months did you have an economic activity?
60

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

Value Label

- 1 Yes
- 2 No

S1Q25 Main Occupation the last 12 months?
61

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

Value Label

- 1 Self-Employed with Employees
- 2 Self-Employed without Employees
- 3 Worker
- 4 Handicraftman
- 5 Important trader
- 6 Shopkeeper
- 7 Seller of Foodstuffs
- 8 Seller of other Products
- 9 Senior Officer
- 10 Skilled worker
- 11 Unskilled worker
- 12 Housekeeper
- 13 Religious
- 14 Trainee
- 15 Apprentice
- 16 Family helper
- 17 Other

S1Q26 Sector of activity?
62

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

Value Label

- 1 Agriculture
- 2 Mines
- 3 Food and Agr.Industries
- 4 Textile Industries
- 5 Wood Industries
- 6 Chemical Industries
- 7 Building Industries
- 8 Metal Industries
- 9 Electricitz, Gas,Water
- 10 Building Trade
- 11 Transport
- 12 General Trading
- 13 Spezialized Fodstuff Trade
- 14 OtherTrade
- 15 Hotel Trade
- 16 Public Sector
- 17 Bank Sector
- 18 Other

S1Q27
63 Why did you not work during the last 12 months?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q28
64 Did You work during last 7 Days
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q29
65 In the last 7 days, have you been looking for work?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q30
66 How long have you been working at this job?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q31A
67 Revenue bracket?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S1Q31B
68 Time Unit
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q32A
69 Duration?
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S1Q32B
70 Time Unit
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q33
71 Change in Revenue?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q34
72 Did you have a secondary employment?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S1Q35
73 Which one?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

Value	Label
1	Self-Employed with Employees
2	Self-Employed without Employees
3	Worker
4	Handicraftman
5	Important trader
6	Shopkeeper
7	Seller of Foodstuffs
8	Seller of other Products
9	Senior Officer
10	Skilled worker
11	Unskilled worker
12	Housekeeper
13	Religious
14	Trainee
15	Apprentice
16	Family helper
17	Other

S1Q36
74 Sector of activity?
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

Value	Label
1	Agriculture
2	Mines
3	Food and Agr. Industries

	4	Textile Industries
	5	Wood Industries
	6	Chemical Industries
	7	Building Industries
	8	Metal Industries
	9	Electricity, Gas, Water
	10	Building Trade
	11	Transport
	12	General Trading
	13	Specialized Foodstuff Trade
	14	Other Trade
	15	Hotel Trade
	16	Public Sector
	17	Bank Sector
	18	Other
S1Q37	75	How many years have you been working at this secondary employment?
		Measurement Level: Ordinal
		Column Width: 8 Alignment: Right
		Print Format: F1
		Write Format: F1
S1Q38A	76	Revenue bracket?
		Measurement Level: Ordinal
		Column Width: 8 Alignment: Right
		Print Format: F2
		Write Format: F2
S1Q38B	77	Time Unit
		Measurement Level: Ordinal
		Column Width: 8 Alignment: Right
		Print Format: F1
		Write Format: F1
S1Q39	78	Any other employment prior to your current main employment?
		Measurement Level: Ordinal
		Column Width: 8 Alignment: Right
		Print Format: F1
		Write Format: F1
S1Q40	79	Which one?
		Measurement Level: Ordinal
		Column Width: 8 Alignment: Right
		Print Format: F2
		Write Format: F2
		Value Label
	1	Self-Employed with Employees
	2	Self-Employed without Employees

	3	Worker
	4	Handicraftman
	5	Important trader
	6	Shopkeeper
	7	Seller of Foodstuffs
	8	Seller of other Products
	9	Senior Officer
	10	Skilled worker
	11	Unskilled worker
	12	Housekeeper
	13	Religious
	14	Trainee
	15	Apprentice
	16	Family helper
	17	Other
S1Q41	80	Sector of activity?
		Measurement Level: Ordinal
		Column Width: 8 Alignment: Right
		Print Format: F2
		Write Format: F2
		Value Label
	1	Agriculture
	2	Mines
	3	Food and Agr. Industries
	4	Textile Industries
	5	Wood Industries
	6	Chemical Industries
	7	Building Industries
	8	Metal Industries
	9	Electricity, Gas, Water
	10	Building Trade
	11	Transport
	12	General Trading
	13	Specialized Foodstuff Trade
	14	Other Trade
	15	Hotel Trade
	16	Public Sector
	17	Bank Sector
	18	Other
S1Q42	81	Main reason for changing this job?
		Measurement Level: Ordinal
		Column Width: 8 Alignment: Right
		Print Format: F1
		Write Format: F1
S1Q2A	82	Child's year of birth
		Measurement Level: Ordinal
		Column Width: 8 Alignment: Right
		Print Format: F4

Write Format: F4

S10Q2B Childs month of birth
83
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S10Q3 Childs year of birth
84
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S10Q4 sexe
85
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q5 vaccination card
86
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q6 vaccination against measles
87
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q7 vaccination against le BCG
88
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q8 accination against la polio
89
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q9 vaccination against la DTC OQ
90
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1

Write Format: F1

S10Q10 Serial number of mother
91
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S10Q11 Serial number of mother
92
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F2
Write Format: F2

S10Q12 Child's weight
93
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F5
Write Format: F5

S10Q13 Child's height
94
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F3
Write Format: F3

S10Q14 Child sick during past 2 weeks
95
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

S10Q15 If the child was not weighed or measured, why?
96
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F1
Write Format: F1

GR_AGE2 Age groups (4 only)
97
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2
Missing Values: -1,00; -2,00

Value	Label
1,00	<= 10



2,00 10< <=20
3,00 20< <=30
4,00 30<
-1,00 M No response
-2,00 M Age unknown

MED_EXP Medical expenses in 4 groups
98

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1,00	<= 25000
2,00	25000< <=50000
3,00	50000< <=75000
4,00	100000<

EDU_EXP Educational expenses in 4 groups
99

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1,00	<= 75000
2,00	75000< <=150000
3,00	150000< <=225000
4,00	225000<

TOT_EXP Educational expenses in 4 groups
100

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1,00	<= 683715
2,00	683715< <=1122662
3,00	1122662< <=1834789
4,00	1834789<