

The Uganda National Panel Survey (UNPS) 2013/14

Basic Information Document

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Acronyms

BHPS	British Household Panel Survey
EA	Enumeration Area
GoU	Government of Uganda
GPS	Global Positioning System
ISCO	International Standard Classification of Occupations
ISIC	International Standard Industrial Classification
LC1	Local Council 1
LSMS-ISA	Living Standards Measurement Study – Integrated Surveys on Agriculture
NAADS	National Agricultural Advisory Services
NDP	National Development Plan
NDS	National Development Strategy
NSDS	National Service Delivery Surveys
PSID	Panel Study of Income Dynamics
UBOS	Uganda Bureau of Statistics
UDHS	Uganda Demographic and Health Survey
UNHS	Uganda National Household Survey
UNPS	Uganda National Panel Survey
UMPC	Ultra Mobile Personal Computer
CAPI	Computer Assisted Personal Interviews
CWEST	Capture With Enhance Survey Technology

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1.0 Overview

Uganda has experienced strong economic growth over the past two decades, and has made great strides towards improving the quality of life and access to services. In order to continue to promote pro-poor economic growth, the Government of Uganda (GoU) developed the National Development Plan (NDP) and a Joint Budget Support strategy as part of the implementation of the National Development Strategy (NDS).

The GoU recognizes the need for adequate data collection to effectively monitor outcomes of the National Development Strategy (NDS). For this purpose, the Uganda Bureau of Statistics (UBOS) is implementing the Uganda National Panel Survey (UNPS) program, with financial and technical support from the Government of Netherlands, and the World Bank Living Standards Measurement Study – Integrated Surveys on Agriculture (LSMS-ISA) project.

The UNPS is a multi-topic panel household survey that commenced in 2009/10. One of the primary uses of the UNPS is to inform policymaking in advance of the Budget, through descriptive reports that are made ready in time for the initial work on sector budget framework papers.

In order to measure socio and economic dynamics, panel was rolled to be done each year after 2009/10. This was followed by 2010/11 and 2011/12.

1.1 Survey Objectives

The UNPS aims at producing annual estimates in key policy areas and at providing a platform for experimenting with and assessing of national policies and programs. Explicitly, the objectives of the UNPS include:

1. To provide information required for monitoring the National Development Strategy, of major programs such as National Agricultural Advisory Services (NAADS) and General Budget Support, and also to provide information to the compilation of the National Accounts (e.g. agricultural production);
2. To provide high quality nationally representative information on income dynamics at the household level and provide annual information on service delivery and consumption expenditure estimates to monitor poverty and service outcomes in interim years of other national survey efforts, such as the Uganda National Household Survey (UNHS), Uganda Demographic and Health Survey (UDHS) and National Service Delivery Surveys (NSDS);
3. To provide a framework for low-cost experimentation with different policy interventions to e.g. reduce teacher absenteeism, improve ante- and post-natal care, or assessing the effect of agricultural input subsidies;

4. To provide a framework for policy oriented analysis and capacity building substantiated with the UGDR and support to other research which will feed into the Annual Policy Implementation Review; and
5. To facilitate randomized impact evaluations of interventions whose effects cannot currently be readily assessed through the existing system of national household surveys.

1.2 Survey Design

The UNPS is carried out annually, over a twelve-month period on a nationally representative sample of households, for the purpose of accommodating the seasonality associated with the composition of and expenditures on consumption. The survey is conducted in two visits in order to better capture agricultural outcomes associated with the two cropping seasons of the country. The UNPS will therefore interview each household twice each year, in visits six months apart.

Starting in 2009/10, the UNPS has been set out to track and re interview 3,123 households that were distributed over 322 enumeration areas (EAs), selected out of the 783 EAs that had been visited by the Uganda National Household Survey (UNHS) in 2005/06. The UNPS EAs covered all 34 EAs visited by the UNHS 2005/06 in Kampala District, and 72 EAs (58 rural and 14 urban) in each of the (i) Central Region with the exception of Kampala District, (ii) Eastern Region, (iii) Western Region, and (iv) Northern Region.

Within each stratum, the UNPS EAs were selected from the UNHS 2005/06 EAs with equal probability, and with implicit stratification by urban/rural and district (in this order), except for the rural portions of the ten districts that were oversampled by the UNHS 2005/06. In these districts, the probabilities were deflated, to bring them back to the levels originally intended. Since IDP camps are now mostly unoccupied, the extra EAs in IDP camps are not a part of the UNPS subsample. This allocation strives for reasonably reliable estimates for the rural portion of each region, and for the set of urban areas out of Kampala as a whole, as well as the best possible estimates for Kampala that can be expected from a subsample of the UNHS 2005/06. Therefore, the UNPS strata of representativeness include (i) Kampala City, (ii) Other Urban Areas, (iii) Central Rural, (iv) Eastern Rural, (v) Western Rural, and (vi) Northern Rural.

Prior to the start of the 2009/10 field work, 2 UNPS households were also randomly selected in each EA for the purposes of tracking baseline individuals that moved away from original locations since the UNHS 2005/06. In the UNPS 2010/11, the concept of Clusters instead of EAs was introduced. A cluster represents a group of households that are within a particular geographical area up to parish level. This was due to split-off households that would fall outside a particular EA but could still be reached and interviewed if they fell within the same parish as the EA.

The initial UNPS sample will be subject to three consecutive waves of data collection after which, parts of the sample will start to be replaced by new households extracted from the updated sample frames developed by the UBOS as part of the 2012 Uganda Population and Housing Census. In addition, the UNPS will fit within the Long Term Census and Household Survey Program and therefore both the questionnaires and the timing of data collection will be coordinated with the current surveys and census implemented by UBOS. To suit its multiple objectives, the UNPS comprises of a set of survey instruments, namely:

- Household Questionnaire
- Woman Questionnaire,
- Agriculture Questionnaire, (administered to the subset of UNPS households engaged in agricultural activities), and
- Community Questionnaire.

2 Survey Questionnaires – Review of Sections

As mentioned earlier, the UNPS had six questionnaires namely: Household Questionnaire; Woman Questionnaire; Agriculture Questionnaire; Fisheries Questionnaire; Community Questionnaire and Market Questionnaire. Each of these questionnaires is divided into a number of sections and the level of observation for each section varies accordingly.

Unlike 2009/10 where all the questionnaires were administered on paper, the UNPS 2010/11 and 2011/12 had its Household, Agriculture and Woman questionnaires administered using the CWEST application on a device called a UMPC. The questionnaire was preloaded on this device and as a result there was no need for field data entry for these 2 modules since CWEST captured the data during interviews.

The tables 1-4 below provides an overview of the sections of the Household, Agriculture, Community and Woman questionnaires, associated data files, and key identifiers.

2.1: Explanatory notes by section – Household Questionnaire

Section 1A: Household Identification Particulars

Information in this section was distributed by the Headquarters staff to the field teams before starting data collection. Names and codes pertaining to the selected Enumeration Areas (EAs) were provided by UBOS to the team leaders prior to fieldwork. An EA generally does not have its own name but is known by the name of the Local Council 1 (LC1) that is associated with it.

Section 1B: Staff Details and Survey Time

The Supervisors, interviewers and data entry operators were all required to record their particulars in this section. Time taken to conduct interviews was recorded. The data also include the date on which the household questionnaire was administered in full.

Section 2: Household Roster

The purpose of this section is to:

- (i) Identify all persons who are members of the household;
- (ii) Provide basic demographic information such as age, sex and marital status of each household member; and
- (iii) Identify any changes to household members since the first visit

The respondent for this section was mainly the household head. In the absence of the household head the next person who is acting as household head would be interviewed. It was a requirement that respondent must be a usual member of the household and should be capable of providing all the necessary information about other members of the household. Other household members also helped in providing information or details on particular questions concerning them.

In UNPS 2013/14, a household was defined as a group of people who have normally been living and eating their meals together for at least 6 of the 12 months preceding the interview. Therefore, the member of the household is defined on the basis of their usual place of residence.

Section 3: General Information on Household Members

This section captured general information on all members of the household specifically on:

- (i) Parents of household members who sometimes do not live in the same dwelling as the household members.
- (ii) The salient moves (migration status) made by members of the household.
- (iii) Malaria indicators: use and treatment of mosquito nets.

The respondents for questions in the first half of this section (columns (1) – (7)) were all members of the household below 18 years while the questions in the second half applied to all members of the household. To the extent possible each person was asked directly. If someone was not available or too young to answer then the household head, spouse, or another well-informed member of the household would answer these questions.

Section 4: Education

The objective of this section was to measure the level of education or formal schooling of all household members aged 5 years and above, and to collect educational expenditures associated with each. Information was mainly collected on (i) the literacy status of household members – i.e. member of the household who could read and write; (ii) the educational attainment of each respondent and the type of school attended; and (iii) amount spent on education of household member's during the past 12 months, among others.

Section 5: Health

This section collected information on illness and injuries among household members during the past 30 days, use of health facilities and medical expenses for treating the illnesses or injuries. The respondents for the section were all members of the household, but parents or a knowledgeable adult (preferably female) could answer for young children.

Section 6: Child Nutrition and Health

These questions were asked with a view of obtaining a better picture of the diversity of the child's diet. Only children aged from 0 to 59 months and living with a mother or caretaker in the sampled households are eligible for the questions. The questions were answered by the mothers /caretakers of the children because they are considered more knowledgeable about the children. Height and weight measures were obtained for all children aged 6 to 59 months using anthropometric equipment.

Section 8: Labour Force Status

This section acted as a screen to determine which respondents should be asked about employment and which should be asked the questions that address labor force participation, unemployment, and job search. It also determined the reason for absence for those people who had a job or business but were not at work the previous week. All household members aged 5 years and older were classified into three broad groupings i.e. employed, unemployed, and not in the labor force.

Employed persons were defined as those who were working at a paid job or business or who were working unpaid at a household business or farm for at least one hour during the reference week, or who did not work during the reference week but held a job or had a business from which they were temporarily absent.

Unemployed persons were classified as those individuals who did not work at all during the reference week and who were not absent from a job, but who actively looked for work during the

past four weeks and were available to work in the reference week. Persons who were on layoff from a job to which they expected to return and were available to work during the reference week are also classified as unemployed, even if they did not actively look for work. The sum of the employed and the unemployed constituted the labor force. (Persons not in the labor force were those who were neither employed nor unemployed. They did not work, they were not absent from work and they did not actively look for work in the past four weeks).

Section 9: Housing Conditions, Water and sanitation

Data from this section was aimed at measuring the quality of housing occupied by the household currently. Information was collected on the type of dwelling, occupancy status, the physical characteristics of the dwelling, and access to basic services (including water, electricity and sanitation). A dwelling was defined as a building or a group of buildings in which the household lived. It could be a hut, a group of huts, a single house, a group of houses, an apartment, several one-room apartments, etc.

Section 10: Energy Use

Information obtained in this section aimed at measuring the access and utilization of energy fuels especially for lighting and cooking.

Section 11: Other Household Incomes

This section gathered information on income transfers i.e. all incomes of household members other than that from paid and/or self-employment during the past 12 months.

Section 12: Non-agricultural Enterprises/Activities

This section collected information the presence of non-agricultural household enterprises. It includes information income and employment derived from non-agricultural household enterprises. It identified which household member was responsible for each enterprise in terms of decision making and the allocation of income generated. It also covered the involvement of household enterprises in the credit market. The respondent for each enterprise was a member of the household best informed about the activities of the enterprise. An enterprise was defined as any undertaking which is engaged in the production and/or distribution of some goods and/or services meant mainly for the purpose of sale whether fully or partly.

Section 14: Household Assets

This section aimed at collecting data to estimate the value of household, farm and non-farm enterprise assets. It also collected information on ownership of assets.

Section 15: Household Consumption Expenditure

This section covered expenditures of the household with different reference periods depending on the frequency of purchases. It is separated into four parts which include: (a) food, beverages and tobacco; (b) non-durable goods and frequently purchased services; (c) semi-durable and durable goods and services; and (d) non-consumption expenditure.

The major emphasis of the section was mainly on consumption and not monetary expenditures. Although the two are very close, they are not the same. Household consumption expenditures in cash, kind or through barter were recorded for the household only. For bartered items the value of the item paid for (not the value one got in exchange) was recorded. Food, beverages or tobacco served to other members and guests in the household during the reference period were however included. The respondent for this section was the person (household member) who managed the household budget and was the best informed about the household's consumption expenditure.

Section 16: Shocks and Coping Strategies

Shocks were defined as events that happen suddenly. Usually they have a marked beginning and end. While they last for a short time, a few days or weeks, usually their effects are felt for a longer time. It was noted that a shock can be household specific or community wide. Examples of shocks include floods, rebel raids, livestock disease, fire, etc. For example, petty theft of household property was not considered as a shock.

Section 17: Welfare Indicators and Food Security

The Purpose of this section was to collect information on vital needs and living conditions of households during the last 12 months. It provided additional information to assess household welfare. Food security was defined as the availability of food and one's access to it. A household was considered food secure when its occupants did not live in or fear of starvation.

2.2: Explanatory notes by section – Agriculture Questionnaire

The purpose of the agricultural module in the household survey was to give a better descriptive picture of Uganda's farm economy, and deeper insight into factors affecting farm incomes. These would include a better understanding of the influence of farmers' resources and marketing

opportunities on farm-household income, and some sense of how farmers' situation has changed in the past few years.

The agriculture module was administered in two visits to the selected households. During the first visit, agricultural production data was collected on the first cropping season of 2011 (January – June 2011). The second visit collected agricultural production data on the second cropping season of 2011 (July – December 2011).

The main or first agricultural season normally refers to the growing cycle of temporary crops that are planted and harvested in the first half of the year, occasionally extending up to the end of June. It thus covers the period between January and June. The second agricultural season is generally the period between July and December. It should be noted that seasons are directly related to rains and only indirectly related to the growing cycle of crops. The first rains are generally longer than the second rains. However, it is also noted that some areas in Uganda have only one significant agricultural season.

Section 1A: Household Identification Particulars

Information in this section was distributed by the Headquarters staff to the field teams before starting data collection. Names and codes pertaining to the selected Enumeration Areas (EAs) were provided by UBOS to the team leaders prior to fieldwork. An EA generally does not have its own name but is known by the name of the LC1 that is associated with it.

Section 1B: Staff details and survey time

The Supervisors, interviewers and data entry operators were all required to record their particulars in this section. Time taken to conduct interviews was also recorded.

Section 2: Current land holdings and land that the household has access through use rights

The purpose of this section was to have a complete list of all the parcels owned and/or operated as well as rented by the household during the first season of 2011 and the second season of 2011. This section captures information in two parts; Section 2 part A captures information concerning current land holdings and section 2 part B captures information pertaining to land that a household has access to through use rights. The questions were administered to households who had been involved in crop farming during the last completed and the current cropping seasons. Information was collected on agricultural land that these households had access during the reference period. Issues of land tenure status and land user rights were also investigated.

Section 3A & 3B: Agricultural and labour inputs

This section collected information on non-labor and labor input applications at the parcel-plot-level during the first cropping season (January-June 2011) and second cropping season (July – December 2011) in part A and B, respectively.

Section 4A & 4B: Crops grown and type of seeds used

The purpose of this section was to collect information on crop cover of parcels farmed by the household. Data was collected on crops planted by the household during the first cropping season (January-June 2011) and second cropping season (July –December 2011) on each plot on each parcel accessed by the household through ownership or user rights, in part A and B, respectively.

Section 5A & 5B: Quantification of Agricultural Production

Information on agricultural production is collected at the parcel-plot-crop-level separately for the first cropping season (January-June 2011) and second cropping season (July –December 2011) in part A and B, respectively. This section also collects data on how the household used the harvested produce.

Sections 6A, 6B & 6C: Livestock ownership

The data on the ownership of (i) cattle and pack animals, (ii) small animals, and (iii) poultry and other animals are solicited in sections 6A, 6B, and 6C, respectively. Each section collects information on dynamics of household livestock ownership at animal-type level over a given reference period, earnings from animal sales, and expenditures on animal purchases. If the household cared for animals that belonged to others, interviewers were instructed to record only ownership, sales and purchases of animals the household was entitled to keep, for instance the baby goats or sheep that the household keeps in return for caring the flock.

Section 7: Livestock Inputs

The purpose of this section was to estimate expenditure on inputs on livestock i.e. the expenditures necessary to raise the animals. This ranges from breeding, feeding, watering housing, and animal health expenses incurred to raise the animals.

Section 8: Livestock Products

This section collected information on the production and sales of livestock by-products. The reference period was generally last 12 months for live stocks and three months for poultry (eggs).

These are covered in different sections (8A-8E) including production of (Meat, Milk, Eggs, Dung and Animal power) respectively.

Section 9: Extension Services

The section collected information on agricultural technology and extension services. It covered access to extension services and access to and demand for agricultural technology. Extension workers were defined as individuals employed by the government or non-governmental organizations who work as an agricultural development agents for contacting and demonstrating improved farming methods to farmers. They are responsible for organizing, disseminating, guiding and introducing technical methods in agricultural production directly to farmers, and for facilitating farmers coming into contact with cultivation methods to promote agricultural production.

Section 10: Farm Implements and Machinery

This section collected information on agricultural implements and machinery. It collects information in regard to ownership and estimated value both in cash and in kind of the implements and it has a reference period of 12 months.

2.4: Explanatory notes by section – Community Questionnaire

The community survey aimed at collecting information relating to communities residing in the sampled EAs. The administrative unit for collection of community data was mainly the LC1, although there were specific questions for the Sub-county Chief. The community survey information was collected by interviewing key informants within the institutions of interest. These included community members and heads of selected facilities.

Section 1: Community Identification Particulars

Most of the information in this section was obtained from headquarters by field teams before starting data collection. A provision was made to record details for each of the subsequent 4 sectors on which data was collected. These included names of respondents and responses status for each sector.

Section 2: Availability of services within the community

The purpose of this section was to obtain general information on the social infrastructure nearest to the community. Information was collected from community leaders. The social facilities on which data was collected included schools/other education facilities, banks, markets, agricultural

and fisheries services, police and army facilities, various types of health facilities, water and sanitation facilities as well as works and transport services.

Section 3: Education (Primary)

Information for this section was provided by a knowledgeable school official preferably the headmaster or someone nominated by him/her. Data was collected on both the most popular and the nearest primary schools. These schools on which data was collected were not necessarily located within the LC1 covered.

Section 4: Health services

In this section, information was collected on the most commonly used public and private health facilities. The respondent for this section was an authorized or knowledgeable health official at the facility preferably the head of the facility. The health facility targeted would be a place that had qualified doctors/nurses/medical attendants for treating patients including dressing and emergency attention facilities and would in addition be selling medicines to patients. Individual doctors, practitioners, etc, doing only consultation, with very limited supply of medicines were excluded. However, Doctors with moderate treatment and medical attention facilities were included.

Section 5: Works and Transport

The respondent for this section was the sub-country chief. Information was mainly collected on the availability, use and maintenance of works and transport infrastructure.

Section 6: Community Characteristics, Groups, needs and resources

The respondent to this section is a group of community members. Information is collected on the number of households in the community and the how the land is used. Information is also collected on the different community groups, NGOS working within the community, the community needs, actions and achievements as well as communal resource management.

2.5: Explanatory notes by section – Woman Questionnaire

The intention of the Woman module in the household survey was to gather information relating to knowledge and use of contraceptives among women as well as their birth history. This questionnaire was administered to all women aged 15-49 years in the households.

Section 1a: Household identification particulars

Information in this section was distributed by the Headquarters staff to the field teams before starting data collection. Names and codes pertaining to the district and selected Enumeration Areas (EAs) were provided by UBOS to the team leaders prior to fieldwork. An EA generally does not have its own name but is known by the name of the LC1 that is associated with it. Name, line number and household code were also provided.

Section 2A: Contraception

Information on contraceptives in the survey was collected by asking females in the households within the reproductive age of 15-49 years to name the different ways or methods that one would use to avoid or delay getting pregnant. The interviewers would then describe the methods mentioned to the respondent in case she failed to mention any spontaneously. They would go further to ask the respondent if they have ever used each of the methods and the ones that they are currently using with their partner.

Section 2B: Birth History

The purpose of this section was to obtain information on the birth history of eligible women in the household (15-49 years). Information was mainly collected on the number of children ever born whether dead or alive as well as birth information on last child born in the last five years (whether living or dead).

3 Other related instructions/codes

3.1: Area Measurement using Global Positioning System (GPS)

The GPS was mainly used in measuring parcels owned and/or operated by the selected households located within the EA and crop plot area for the respective cropping season of 2011. The GARMIN 12 hand-held Global Positioning System (GPS) equipment was used. The GPS equipment is in principle a high precision digital watch combined with a signal receiver. The field supervisors were responsible for ensuring availability of fully charged batteries for the GPS equipment and also ensuring that they were handled with great care and stored in a safe place when not in use. Details on GPS equipment were well documented and rigorous training about use of GPS was given to the interviewers before actual data collection.

4 UNPS 2013/14 Panel Weights

This section presents a general description of the steps involved in the construction of panel weights for the UNPS 2013/14. The UNPS has two broad analytic goals. The first is to track the

same sample of people from 2005/06 to 2013/14 to see how their lives have changed. The first goal is met by revisiting the same cases in each wave. Two-thirds of the original panel households (3200 household) were followed up in 2013/14 wave. The second is to provide a cross-sectional snapshot of the Ugandan household population. The second goal, however, necessitates the incorporation new households and individuals in each wave to account for the changing population.

The UNPS addresses this conflict by allowing for the inclusion of a sub-sample of split-off households in the wave and refreshing a third of the sample. The survey covers all split-off core members of the households. The core members includes head spouse and children of the household head who were part of households in 2005/2006 that were interviewed in 2005 survey and were selected for the 2013/14 round of data collection, but who are not living in the household at the time of the 2013/14 survey visit are tracked to their new location. If found, they are interviewed, along with the members of their new household. This methodology allows new units to enter into the sample. Split off households core members then remain part of the core sample during subsequent rounds. The approach of refreshing the sample does offset the loss of representativeness, as those new population members who do not live in households with those eligible for selection in 2005 have chance of selection.

The methodology described here builds upon published documentation from established panel surveys, such as the Panel Study of Income Dynamics [PSID], conducted since 1968 by the Institute for Social Research at the University of Michigan; and the British Household Panel Survey [BHPS], whose first 13 waves were conducted between 1991 and 2003 by Institute for Social and Economic Research at the University of Essex.

Sample persons

Under the revised UNPS longitudinal weight computation algorithm, a non-zero positive weight value is assigned to each cooperating UNPS sample person. Each interviewed household that includes one or more sample persons receives a positive, nonzero household weight.

Non-sample persons

The UNPS is designed to be a longitudinal study of individual and families. Each year, individual data are collected for non-sample persons who enter a UNPS household through marriage or residency. Data for non-sample persons presents a problem for longitudinal analysis since the time series for these individuals is left censored at the date at which they entered the UNPS household.

Re-appearers and re-contact persons

UNPS assigns the last available positive weight, called the reference weight, to sample persons who appear in the study after being nonresponse in prior waves. There is also a possibility of a bias in assuming that each sample person assigned a positive weight at time t has the requisite data to conduct a weighted longitudinal analysis for the multi-year interval $(t-k,t)$. Depending on the time interval of interest, the re-appearers /re-contacts may not, in fact, have the required data for the previous year(s). Researchers who are conducting longitudinal analysis of the UNPS data are encouraged to check how many cases are excluded from the analysis due to nonresponse for an entire wave or have item missing data for key variables

Methodological Approach to the Longitudinal Weight Construction

UNPS longitudinal weights are inverse probability weights. In each year weight construction for the UNPS household and individual weights follows a two-step procedure.

- a) Begin with the “base weights” or those calculated during the previous round of the survey;
- b) In the second stage, individual longitudinal weights are constructed for all individuals who ever participated in the study.
- c) In the third stage, the household weight is calculated as the average of the individual weights of all the household members—both sample and non-sample participating in the study in that year.

The 2013/2014 weights are “carry-over” weights. The last attrition adjustment of the UNPS longitudinal individual weights was done in 2011/2012 and thus, the construction of the 2013 individual weights starts with the 2011 longitudinal weight as the basis. For sample persons who were interviewed in both 2011 and 2013, the 2013 individual weights were assigned by carrying forward the 2011 longitudinal weight. For sample persons who were interviewed in 2013 but not in 2011, the most recent non-zero individual weight or “reference weight” for the case was carried forward as the 2013 individual weight. All “non-sample” individuals in the panel receive a zero (0) value for their longitudinal weight. The UNPS provides an optional cross-sectional weight that is designed for single wave analysis of all cases in the UNPS individual data. The UNPS cross-sectional weight is a positive weight for all sample and non-sample members of interviewed UNPS households (see Heeringa, et al., 2011). For sample new-borns under 2 years of age in 2013, the 2013 individual longitudinal weight was calculated as the average of head's and spouse's individual weight in 2013. If a UNPS sample person moved into a UNPS household during the period between 2011 and 2013 and they had no existing reference weight, that sample individual was assigned a new individual weight equal to the average of all positive 2013 individual weights in the household unit. Once individual longitudinal weights had been constructed for each sample person interviewed in 2013, the 2013 longitudinal household weight was computed as the average

of the positive individual weights for sample persons and the zero-value weights for the non-sample persons in the household. For example, consider a 2013 UNPS household that consisted of a young married couple in which the female spouse was a UNPS sample person and had an individual longitudinal weight of 60. Her new spouse was UNPS “non-sample” and therefore is assigned a “0” value for his longitudinal individual weight. The 2013 household weight for this two-person household is $(60+0)/2=30$. Figure 1 is a simple schematic that illustrates the dynamic process of household level weighting for four waves of data collection. At the baseline wave, household “A” and “B” are chosen to the sample. Households “C” and “D” were eligible for probability sample selection at baseline but were not chosen. Over the next four waves, there are “split-offs” from sample households, marriage or new household formation by members of original sample and non-sample household members. At each wave’s change in household composition the household weights, Wt_hh , are recomputed as the average of the current individual weights for the sample and non-sample persons that comprise the household unit. Note from the final column that the sum of all household weights constructed in this fashion remains consistent with the total number of all household units in the hypothetical dynamic population. Unlike the 2013 UNPS individual weight which is available in both the longitudinal form (sample persons only) and cross-sectional analysis form (sample and non-sample persons have non-zero weights), there is only one version of the 2013 UNPS household weight. The longitudinal household weight can be used for cross-sectional analysis of UNPS household data

The weights are developed in eight steps:

- 1) incorporate the probability of selection into the UNPS;
- 2) derive fair-share weights for composition changes;
- 3) pool the weights in (i) and (ii) together;
- 4) derive attrition adjusted weights for all individuals, including split-off¹ households, then aggregate these weights to the household level;
- 5) Post-stratify the pooled weights to known population totals.

Each of these steps is discussed in detail below.

Base Weights from 2013/14 Sample

Since the UNPS 2013/14 sample is a two-stage stratified cluster sample, sampling weights was calculated based on sampling probabilities which was calculated separately for each sampling stage and for each cluster. We use the following notations:

¹ For the purposes of this note, ‘parent’ refers to the household found at the same location as the previous round of data collection, and ‘split-off’ refers to new households entering the sample through an individual originally resident in a parent household during a previous round.

- P_{1hi} : sampling probability of the i^{th} cluster in stratum h
- P_{2hi} : sampling probability within the i^{th} cluster for households
- P_{hi} : overall sampling probability of any households of the i^{th} cluster in stratum h

Let a_h be the number of clusters selected in stratum h for the UNPS 2013, M_{hi} the number of households according to the sampling frame in the i^{th} cluster, and $\sum M_{hi}$ the total number of structures in the stratum h . The probability of selecting the i^{th} cluster in stratum h for the UNPS 2013 is calculated as follows:

$$P_{1hi} = \frac{a_h M_{hi}}{\sum M_{hi}}$$

Let L_{hi} and g_{hi} ($g_{hi}=10$ for all h and i for UNPS2013) be the number of households listed and selected in the i^{th} cluster in stratum h . The probability for selecting a household in the i^{th} cluster is calculated as follows:

$$P_{2hi} = \frac{g_{hi}}{L_{hi}}$$

The overall selection probability of each household in cluster i of stratum h is therefore the production of the selection probabilities:

$$P_{hi} = P_{1hi} \times P_{2hi} = \frac{a_h g_{hi} M_{hi}}{L_{hi} \sum M_{hi}}$$

The design weight for each household in cluster i of stratum h is the inverse of its overall selection probability:

$$W_{hi} = 1 / P_{hi}$$

Design weight was adjusted for household non-response and as well to get the sampling weights for households.

The base weight calculation was based on the 2014 population and housing census mapping which were done in 2012.

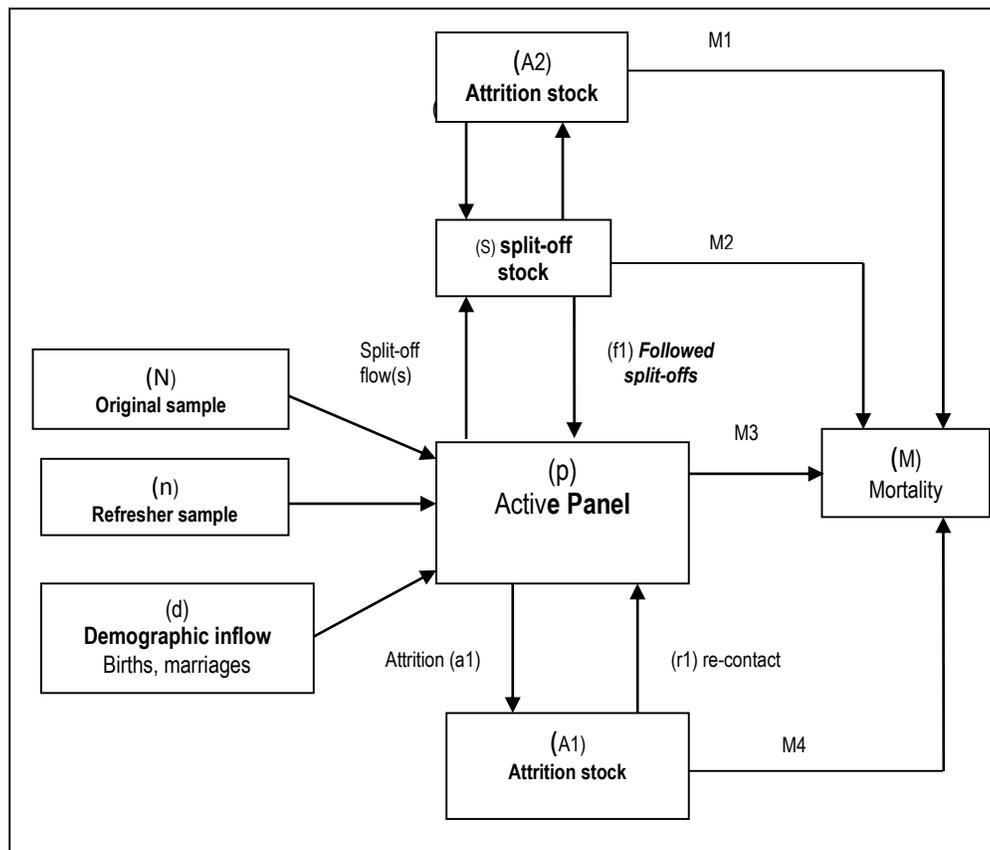
The steady-state panel design is depicted in Figure 1. Flows of people into the panel come from three sources: the original 2005 sample (N); the 2013 refresher sample (n), which is described below; and births and marriages in existing households (d). The intergenerational element is represented by children who split off as adults to form their own household units (s). Because of

the follow-status rules (f_1 , f_2), success in bringing in new households (i.e., boosting f_1 , f_2), strategies to minimize attrition (a_1 , a_2), and re-contacting (r_1) households refusing to be interviewed or not located (A_1 and, A_2) in previous waves, the UNPS active panel sample (P) has almost remained the same despite losses due to mortality (m_1 , m_2 , m_3 , m_4) and attrition from the active panel. Table 1 shows the summary statistics linked to individuals in the panel data.

Table 1: Summary Statistics

Status	Number of individuals
Recent exit	757
Resent entry persons including refreshed sample	7,741
Re-entry/re-contact persons	328
Persons that were found in 2011/2012 and 2013/2014	9,374
Total	18,200

Figure 1: Steady State Panel Schematic



Source: Adapted from PSID, 2015

Attrition Correction Factor

All household panel surveys must tackle the problem of attrition, sample members selected for follow-up interviews which cannot be located and/or interviewed. The methodology used to adjust weights for attrition in the UNPS follows Rosenbaum & Rubin (1984). We use predicted response probabilities from a logistic regression model based on the covariates to form the weighting classes or cells. This approach has also been adopted in the PSID; see for example, Gouskova (2008).

The attrition correction in the case of the UNPS needs to take into account two distinct sources of attrition: entire households that are not found and split-off individuals that are selected for tracking but not found. The two potential options for the calculations are (1) to treat the split-off households as household heads and do the calculations at the level of the household, or (2) to treat the households that are not found as individuals and perform the calculations at the individual level. The first option is problematic as the characteristics of household heads are dissimilar to the characteristics of split-offs (see table 6). Therefore in the UNPS, the second methodology was employed.

For attrition adjustments similar procedure were used as for the previous waves(2009/10, 2010/2011 and 2011/12 panel surveys).

Post-stratification

To reduce the overall standard errors, and weight the population totals up to the known population figures, a post-stratification correction is applied. Based on the projected number of households in Kampala and in the urban and rural segments of the four main regions (central, eastern, northern and western), adjustment factors are calculated. This correction also reduces overall standard errors (see Little et al, 1997). The final weight calculations are the product of the (i) base weight, the attrition correction, and the post-stratification adjustment. Prior to the attrition correction, weights are trimmed at the two percent level.

For cross-sectional estimates of population dynamics based only on the UNPS 2013.14 data, the data users must use the variable **wgt_X** as part of GSEC1.dta of the UNPS 2013/14 package for household weight. This variable includes sampling weights for original as well as split-off and refreshed households and is generated as a result of the procedures detailed above. As noted above, the UNPS strata of representativeness include (i) Kampala City, (ii) Other Urban Areas, (iii) Central Rural, (iv) Eastern Rural, (v) Western Rural, and (vi) Northern Rural. The variable stratum as part of the GSEC1.dta of the UNPS 2013/14 data package captures these. The variable **wgt** part of GSEC1.dta of the UNPS 2013/14 package for panel households was computed only for the interviewed both in 2011/2012 and 2013/14.

5 References

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Annex 1. Codes for Unit of Quantity

No.	UNIT	CODE
1	Kilogram (kg)	01
2	Gram	02
3	Litre	03
4	Small cup with handle (Akendo)	04
5	Metre	05
6	Square metre	06
7	Yard	07
8	Millilitre	08
9	Sack (120 kgs)	09
10	Sack (100 kgs)	10
11	Sack (80 kgs)	11
12	Sack (50 kgs)	12
13	Sack (unspecified)	13
14	Jerrican (20 lts)	14
15	Jerrican (10 lts)	15
16	Jerrican (5 lts)	16
17	Jerrican (3 lts)	17
18	Jerrican (2 lts)	18
19	Jerrican (1 lt)	19
20	Tin (20 lts)	20
21	Tin (5 lts)	21
22	Plastic Basin (15 lts)	22
23	Bottle (750 ml)	23
24	Bottle (500 ml)	24
25	Bottle (350 ml)	25
26	Bottle (300 ml)	26
27	Bottle (250 ml)	27
28	Bottle (150 ml)	28
29	Kimbo/Cowboy/Blueband Tin (2 kg)	29
30	Kimbo/Cowboy/Blueband Tin (1 kg)	30
31	Kimbo/Cowboy/Blueband Tin (0.5 kg)	31
32	Cup/Mug (0.5 lt)	32
33	Glass (0.25 lt)	33
34	Ladle (100 g)	34
35	Table spoon	35
36	Tea spoon	36
37	Basket (20 kg)	37
38	Basket (10 kg)	38
39	Basket (5 kg)	39
40	Basket (2 kg)	40
41	Loaf (1 kg)	41

No.	UNIT	CODE
44	Buns (100 g)	44
45	Buns (50 g)	45
46	Bathing soap (Tablet)	46
47	Washing soap (Bar)	47
48	Washing soap (Tablet)	48
49	Packet (2 kg)	49
50	Packet (1 kg)	50
51	Packet (500 g)	51
52	Packet (250 g)	52
53	Packet (100 g)	53
54	Packet (Unspecified)	54
55	Fish – Whole (Up to 1 kg)	55
56	Fish – Whole (1 - 2 kg)	56
57	Fish – Whole (Above 2 kg)	57
58	Fish - Cut piece (Up to 1 kg)	58
59	Fish - Cut piece (1 - 2 kg)	59
60	Fish - Cut piece (Above 2 kg)	60
61	Tray of 30 eggs	61
62	Ream	62
63	Crate	63
64	Heap (Unspecified)	64
65	Dozen	65
66	Bundle (Unspecified)	66
67	Bunch (Big)	67
68	Bunch (Medium)	68
69	Bunch (Small)	69
70	Cluster (Unspecified)	70
71	Gourd (1 – 5 lts)	71
72	Gourd (5 – 10 lts)	72
73	Gourd (Above 10 lts)	73
74	Gologolo (4 - 5 lts)	74
75	Calabash (1 - 5 lts)	75
76	Calabash (Above 5 lts)	76
77	Jug (2 lts)	77
78	Jug (1.5 lts)	78
79	Jug (1 lt)	79
80	Tot (50 ml)	80
81	Tot (sachet)	81
82	Tot (Unspecified)	82
83	Tobacco leaf (Number)	83
84	Pair	84

42	Loaf (500 g)	42
43	Buns (200 g)	43
44	Buns (100 g)	44

85	Number of Units (General)	85
86	Acre	86
87	Other Units (Specify)	99

Annex 2: Crop Codes

No.	Crop name	Crop code	No.	Crop name	Crop code
1	Wheat	111	31	Oranges	700
2	Barely	112	32	Paw paw	710
3	Rice	120	33	Pineapples	720
4	Maize	130	34	Banana food	741
5	Finger millet	141	35	Banana beer	742
6	Sorghum	150	36	Banana sweet	744
7	Beans	210	37	Mango	750
8	Field peas	221	38	Jackfruit	760
9	Cow peas	222	39	Avocado	770
10	Pigeon peas	223	40	Passion fruit	780
11	Chick peas	224	41	Coffee all	810
12	Groundnuts	310	42	Cocoa	820
13	Soya beans	320	43	Tea	830
14	Sunflower	330	44	Ginger	840
15	Simsim	340	45	Curry	850
16	Cabbage	410	46	Oil palm	860
17	Tomatoes	420	47	Vanilla	870
18	Carrots	430	48	Black wattle	880
19	Onions	440	49	Other	890
20	Pumpkins	450	50	Natural pastures	910
21	Dodo	460	51	Improved pastures	920
22	Eggplants	470	52	Fallow	930
23	Sugarcane	510	53	Bush	940
24	Cotton	520	54	Natural forest trees	950
25	Tobacco	530	55	Plantation trees	960
26	Irish potatoes	610	56	Bamboo	970
27	Sweet potatoes	620	57	Other forest trees	990
28	Cassava	630			
29	Yam	640			
30	Coco yam	650			

Annex 3: International Standard Classification of Occupations (ISCO)

- 1 Managers
 - 11 Chief executives, senior officials and legislators
 - 111 Legislators and senior officials
 - 1111 Legislators
 - 1112 Senior government officials
 - 1113 Traditional chiefs and heads of village
 - 1114 Senior officials of special-interest organizations
 - 112 Managing directors and chief executives
 - 1120 Managing directors and chief executives
 - 12 Administrative and commercial managers
 - 121 Business services and administration managers
 - 1211 Finance managers
 - 1212 Human resource managers
 - 1213 Policy and planning managers
 - 1219 Business services and administration managers not elsewhere classified
 - 122 Sales, marketing and development managers
 - 1221 Sales and marketing managers
 - 1222 Advertising and public relations managers
 - 1223 Research and development managers
 - 13 Production and specialized services managers
 - 131 Production managers in agriculture, forestry and fisheries
 - 1311 Agricultural and forestry production managers
 - 1312 Aquaculture and fisheries production managers
 - 132 Manufacturing, mining, construction, and distribution managers
 - 1321 Manufacturing managers
 - 1322 Mining managers
 - 1323 Construction managers
 - 1324 Supply, distribution and related managers
 - 133 Information and communications technology service managers
 - 1330 Information and communications technology service managers
 - 134 Professional services managers
 - 1341 Child care services managers
 - 1342 Health services managers
 - 1343 Aged care services managers
 - 1344 Social welfare managers
 - 1345 Education managers
 - 1346 Financial and insurance services branch managers
 - 1349 Professional services managers not elsewhere classified
 - 14 Hospitality, retail and other services managers
 - 141 Hotel and restaurant managers
 - 1411 Hotel managers
 - 1412 Restaurant managers
 - 142 Retail and wholesale trade managers
 - 1420 Retail and wholesale trade managers
 - 143 Other services managers
 - 1431 Sports, recreation and cultural centre managers
 - 1439 Services managers not elsewhere classified
- 2 Professionals
 - 21 Science and engineering professionals
 - 211 Physical and earth science professionals

- 2111 Physicists and astronomers
- 2112 Meteorologists
- 2113 Chemists
- 2114 Geologists and geophysicists
- 212 Mathematicians, actuaries and statisticians
 - 2120 Mathematicians, actuaries and statisticians
- 213 Life science professionals
 - 2131 Biologists, botanists, zoologists and related professionals
 - 2132 Farming, forestry and fisheries advisers
 - 2133 Environmental protection professionals
- 214 Engineering professionals (excluding electrotechnology)
 - 2141 Industrial and production engineers
 - 2142 Civil engineers
 - 2143 Environmental engineers
 - 2144 Mechanical engineers
 - 2145 Chemical engineers
 - 2146 Mining engineers, metallurgists and related professionals
 - 2149 Engineering professionals not elsewhere classified
- 215 Electrotechnology engineers
 - 2151 Electrical engineers
 - 2152 Electronics engineers
 - 2153 Telecommunications engineers
- 216 Architects, planners, surveyors and designers
 - 2161 Building architects
 - 2162 Landscape architects
 - 2163 Product and garment designers
 - 2164 Town and traffic planners
 - 2165 Cartographers and surveyors
 - 2166 Graphic and multimedia designers
- 22 Health professionals
 - 221 Medical doctors
 - 2211 Generalist medical practitioners
 - 2212 Specialist medical practitioners
 - 222 Nursing and midwifery professionals
 - 2221 Nursing professionals
 - 2222 Midwifery professionals
 - 223 Traditional and complementary medicine professionals
 - 2230 Traditional and complementary medicine professionals
 - 224 Paramedical practitioners
 - 2240 Paramedical practitioners
 - 225 Veterinarians
 - 2250 Veterinarians
 - 226 Other health professionals
 - 2261 Dentists
 - 2262 Pharmacists
 - 2263 Environmental and occupational health and hygiene professionals
 - 2264 Physiotherapists
 - 2265 Dieticians and nutritionists
 - 2266 Audiologists and speech therapists
 - 2267 Optometrists and ophthalmic opticians
 - 2269 Health professionals not elsewhere classified
- 23 Teaching professionals
 - 231 University and higher education teachers
 - 2310 University and higher education teachers
 - 232 Vocational education teachers
 - 2320 Vocational education teachers

- 233 Secondary education teachers
 - 2330 Secondary education teachers
- 234 Primary school and early childhood teachers
 - 2341 Primary school teachers
 - 2342 Early childhood educators
- 235 Other teaching professionals
 - 2351 Education methods specialists
 - 2352 Special needs teachers
 - 2353 Other language teachers
 - 2354 Other music teachers
 - 2355 Other arts teachers
 - 2356 Information technology trainers
 - 2359 Teaching professionals not elsewhere classified
- 24 Business and administration professionals
 - 241 Finance professionals
 - 2411 Accountants
 - 2412 Financial and investment advisers
 - 2413 Financial analysts
 - 242 Administration professionals
 - 2421 Management and organization analysts
 - 2422 Policy administration professionals
 - 2423 Personnel and careers professionals
 - 2424 Training and staff development professionals
 - 243 Sales, marketing and public relations professionals
 - 2431 Advertising and marketing professionals
 - 2432 Public relations professionals
 - 2433 Technical and medical sales professionals (excluding ICT)
 - 2434 Information and communications technology sales professionals
- 25 Information and communications technology professionals
 - 251 Software and applications developers and analysts
 - 2511 Systems analysts
 - 2512 Software developers
 - 2513 Web and multimedia developers
 - 2514 Applications programmers
 - 2519 Software and applications developers and analysts not elsewhere classified
 - 252 Database and network professionals
 - 2521 Database designers and administrators
 - 2522 Systems administrators
 - 2523 Computer network professionals
 - 2529 Database and network professionals not elsewhere classified
- 26 Legal, social and cultural professionals
 - 261 Legal professionals
 - 2611 Lawyers
 - 2612 Judges
 - 2619 Legal professionals not elsewhere classified
 - 262 Librarians, archivists and curators
 - 2621 Archivists and curators
 - 2622 Librarians and related information professionals
 - 263 Social and religious professionals
 - 2631 Economists
 - 2632 Sociologists, anthropologists and related professionals
 - 2633 Philosophers, historians and political scientists
 - 2634 Psychologists
 - 2635 Social work and counselling professionals
 - 2636 Religious professionals
 - 264 Authors, journalists and linguists

- 2641 Authors and related writers
- 2642 Journalists
- 2643 Translators, interpreters and other linguists
- 265 Creative and performing artists
 - 2651 Visual artists
 - 2652 Musicians, singers and composers
 - 2653 Dancers and choreographers
 - 2654 Film, stage and related directors and producers
 - 2655 Actors
 - 2656 Announcers on radio, television and other media
 - 2659 Creative and performing artists not elsewhere classified

3 Technicians and associate professionals

- 31 Science and engineering associate professionals
 - 311 Physical and engineering science technicians
 - 3111 Chemical and physical science technicians
 - 3112 Civil engineering technicians
 - 3113 Electrical engineering technicians
 - 3114 Electronics engineering technicians
 - 3115 Mechanical engineering technicians
 - 3116 Chemical engineering technicians
 - 3117 Mining and metallurgical technicians
 - 3118 Draughtspersons
 - 3119 Physical and engineering science technicians not elsewhere classified
 - 312 Mining, manufacturing and construction supervisors
 - 3121 Mining supervisors
 - 3122 Manufacturing supervisors
 - 3123 Construction supervisors
 - 313 Process control technicians
 - 3131 Power production plant operators
 - 3132 Incinerator and water treatment plant operators
 - 3133 Chemical processing plant controllers
 - 3134 Petroleum and natural gas refining plant operators
 - 3135 Metal production process controllers
 - 3139 Process control technicians not elsewhere classified
 - 314 Life science technicians and related associate professionals
 - 3141 Life science technicians (excluding medical)
 - 3142 Agricultural technicians
 - 3143 Forestry technicians
 - 315 Ship and aircraft controllers and technicians
 - 3151 Ships' engineers
 - 3152 Ships' deck officers and pilots
 - 3153 Aircraft pilots and related associate professionals
 - 3154 Air traffic controllers
 - 3155 Air traffic safety electronics technicians
- 32 Health associate professionals
 - 321 Medical and pharmaceutical technicians
 - 3211 Medical imaging and therapeutic equipment technicians
 - 3212 Medical and pathology laboratory technicians
 - 3213 Pharmaceutical technicians and assistants
 - 3214 Medical and dental prosthetic technicians
 - 322 Nursing and midwifery associate professionals
 - 3221 Nursing associate professionals
 - 3222 Midwifery associate professionals
 - 323 Traditional and complementary medicine associate professionals
 - 3230 Traditional and complementary medicine associate professionals

- 324 Veterinary technicians and assistants
 - 3240 Veterinary technicians and assistants
- 325 Other health associate professionals
 - 3251 Dental assistants and therapists
 - 3252 Medical records and health information technicians
 - 3253 Community health workers
 - 3254 Dispensing opticians
 - 3255 Physiotherapy technicians and assistants
 - 3256 Medical assistants
 - 3257 Environmental and occupational health inspectors and associates
 - 3258 Ambulance workers
 - 3259 Health associate professionals not elsewhere classified
- 33 Business and administration associate professionals
 - 331 Financial and mathematical associate professionals
 - 3311 Securities and finance dealers and brokers
 - 3312 Credit and loans officers
 - 3313 Accounting associate professionals
 - 3314 Statistical, mathematical and related associate professionals
 - 3315 Valuers and loss assessors
 - 332 Sales and purchasing agents and brokers
 - 3321 Insurance representatives
 - 3322 Commercial sales representatives
 - 3323 Buyers
 - 3324 Trade brokers
 - 333 Business services agents
 - 3331 Clearing and forwarding agents
 - 3332 Conference and event planners
 - 3333 Employment agents and contractors
 - 3334 Real estate agents and property managers
 - 3339 Business services agents not elsewhere classified
 - 334 Administrative and specialized secretaries
 - 3341 Office supervisors
 - 3342 Legal secretaries
 - 3343 Administrative and executive secretaries
 - 3344 Medical secretaries
 - 335 Regulatory government associate professionals
 - 3351 Customs and border inspectors
 - 3352 Government tax and excise officials
 - 3353 Government social benefits officials
 - 3354 Government licensing officials
 - 3355 Police inspectors and detectives
 - 3359 Regulatory government associate professionals not elsewhere classified
- 34 Legal, social, cultural and related associate professionals
 - 341 Legal, social and religious associate professionals
 - 3411 Legal and related associate professionals
 - 3412 Social work associate professionals
 - 3413 Religious associate professionals
 - 342 Sports and fitness workers
 - 3421 Athletes and sports players
 - 3422 Sports coaches, instructors and officials
 - 3423 Fitness and recreation instructors and program leaders
 - 343 Artistic, cultural and culinary associate professionals
 - 3431 Photographers
 - 3432 Interior designers and decorators
 - 3433 Gallery, museum and library technicians
 - 3434 Chefs

- 3435 Other artistic and cultural associate professionals
 - 35 Information and communications technicians
 - 351 Information and communications technology operations and user support technicians
 - 3511 Information and communications technology operations technicians
 - 3512 Information and communications technology user support technicians
 - 3513 Computer network and systems technicians
 - 3514 Web technicians
 - 352 Telecommunications and broadcasting technicians
 - 3521 Broadcasting and audio-visual technicians
 - 3522 Telecommunications engineering technicians
- 4 Clerical support workers
 - 41 General and keyboard clerks
 - 411 General office clerks
 - 4110 General office clerks
 - 412 Secretaries (general)
 - 4120 Secretaries (general)
 - 413 Keyboard operators
 - 4131 Typists and word processing operators
 - 4132 Data entry clerks
 - 42 Customer services clerks
 - 421 Tellers, money collectors and related clerks
 - 4211 Bank tellers and related clerks
 - 4212 Bookmakers, croupiers and related gaming workers
 - 4213 Pawnbrokers and money-lenders
 - 4214 Debt-collectors and related workers
 - 422 Client information workers
 - 4221 Travel consultants and clerks
 - 4222 Contact centre information clerks
 - 4223 Telephone switchboard operators
 - 4224 Hotel receptionists
 - 4225 Enquiry clerks
 - 4226 Receptionists (general)
 - 4227 Survey and market research interviewers
 - 4229 Client information workers not elsewhere classified
 - 43 Numerical and material recording clerks
 - 431 Numerical clerks
 - 4311 Accounting and bookkeeping clerks
 - 4312 Statistical, finance and insurance clerks
 - 4313 Payroll clerks
 - 432 Material-recording and transport clerks
 - 4321 Stock clerks
 - 4322 Production clerks
 - 4323 Transport clerks
 - 44 Other clerical support workers
 - 441 Other clerical support workers
 - 4411 Library clerks
 - 4412 Mail carriers and sorting clerks
 - 4413 Coding, proof-reading and related clerks
 - 4414 Scribes and related workers
 - 4415 Filing and copying clerks
 - 4416 Personnel clerks
 - 4419 Clerical support workers not elsewhere classified
- 5 Service and sales workers
 - 51 Personal service workers

- 511 Travel attendants, conductors and guides
 - 5111 Travel attendants and travel stewards
 - 5112 Transport conductors
 - 5113 Travel guides
- 512 Cooks
 - 5120 Cooks
- 513 Waiters and bartenders
 - 5131 Waiters
 - 5132 Bartenders
- 514 Hairdressers, beauticians and related workers
 - 5141 Hairdressers
 - 5142 Beauticians and related workers
- 515 Building and housekeeping supervisors
 - 5151 Cleaning and housekeeping supervisors in offices, hotels and other establishments
 - 5152 Domestic housekeepers
 - 5153 Building caretakers
- 516 Other personal services workers
 - 5161 Astrologers, fortune-tellers and related workers
 - 5162 Companions and valets
 - 5163 Undertakers and embalmers
 - 5164 Pet groomers and animal care workers
 - 5165 Driving instructors
 - 5169 Personal services workers not elsewhere classified
- 52 Sales workers
 - 521 Street and market salespersons
 - 5211 Stall and market salespersons
 - 5212 Street food salespersons
 - 522 Shop salespersons
 - 5221 Shop keepers
 - 5222 Shop supervisors
 - 5223 Shop sales assistants
 - 523 Cashiers and ticket clerks
 - 5230 Cashiers and ticket clerks
 - 524 Other sales workers
 - 5241 Fashion and other models
 - 5242 Sales demonstrators
 - 5243 Door to door salespersons
 - 5244 Contact centre salespersons
 - 5245 Service station attendants
 - 5246 Food service counter attendants
 - 5249 Sales workers not elsewhere classified
- 53 Personal care workers
 - 531 Child care workers and teachers' aides
 - 5311 Child care workers
 - 5312 Teachers' aides
 - 532 Personal care workers in health services
 - 5321 Health care assistants
 - 5322 Home-based personal care workers
 - 5329 Personal care workers in health services not elsewhere classified
- 54 Protective services workers
 - 541 Protective services workers
 - 5411 Fire-fighters
 - 5412 Police officers
 - 5413 Prison guards
 - 5414 Security guards

5419 Protective services workers not elsewhere classified

- 6 Skilled agricultural, forestry and fishery workers
 - 61 Market-oriented skilled agricultural workers
 - 611 Market gardeners and crop growers
 - 6111 Field crop and vegetable growers
 - 6112 Tree and shrub crop growers
 - 6113 Gardeners, horticultural and nursery growers
 - 6114 Mixed crop growers
 - 612 Animal producers
 - 6121 Livestock and dairy producers
 - 6122 Poultry producers
 - 6123 Apiarists and sericulturists
 - 6129 Animal producers not elsewhere classified
 - 613 Mixed crop and animal producers
 - 6130 Mixed crop and animal producers
 - 62 Market-oriented skilled forestry, fishery and hunting workers
 - 621 Forestry and related workers
 - 6210 Forestry and related workers
 - 622 Fishery workers, hunters and trappers
 - 6221 Aquaculture workers
 - 6222 Inland and coastal waters fishery workers
 - 6223 Deep-sea fishery workers
 - 6224 Hunters and trappers
 - 63 Subsistence farmers, fishers, hunters and gatherers
 - 631 Subsistence crop farmers
 - 6310 Subsistence crop farmers
 - 632 Subsistence livestock farmers
 - 6320 Subsistence livestock farmers
 - 633 Subsistence mixed crop and livestock farmers
 - 6330 Subsistence mixed crop and livestock farmers
 - 634 Subsistence fishers, hunters, trappers and gatherers
 - 6340 Subsistence fishers, hunters, trappers and gatherers
- 7 Craft and related trades workers
 - 71 Building and related trades workers, excluding electricians
 - 711 Building frame and related trades workers
 - 7111 House builders
 - 7112 Bricklayers and related workers
 - 7113 Stonemasons, stone cutters, splitters and carvers
 - 7114 Concrete placers, concrete finishers and related workers
 - 7115 Carpenters and joiners
 - 7119 Building frame and related trades workers not elsewhere classified
 - 712 Building finishers and related trades workers
 - 7121 Roofers
 - 7122 Floor layers and tile setters
 - 7123 Plasterers
 - 7124 Insulation workers
 - 7125 Glaziers
 - 7126 Plumbers and pipe fitters
 - 7127 Air conditioning and refrigeration mechanics
 - 713 Painters, building structure cleaners and related trades workers
 - 7131 Painters and related workers
 - 7132 Spray painters and varnishers
 - 7133 Building structure cleaners
 - 72 Metal, machinery and related trades workers
 - 721 Sheet and structural metal workers, moulders and welders, and related workers

- 7211 Metal moulders and coremakers
- 7212 Welders and flamecutters
- 7213 Sheet-metal workers
- 7214 Structural-metal preparers and erectors
- 7215 Riggers and cable splicers
- 722 Blacksmiths, toolmakers and related trades workers
 - 7221 Blacksmiths, hammersmiths and forging press workers
 - 7222 Toolmakers and related workers
 - 7223 Metal working machine tool setters and operators
 - 7224 Metal polishers, wheel grinders and tool sharpeners
- 723 Machinery mechanics and repairers
 - 7231 Motor vehicle mechanics and repairers
 - 7232 Aircraft engine mechanics and repairers
 - 7233 Agricultural and industrial machinery mechanics and repairers
 - 7234 Bicycle and related repairers
- 73 Handicraft and printing workers
 - 731 Handicraft workers
 - 7311 Precision-instrument makers and repairers
 - 7312 Musical instrument makers and tuners
 - 7313 Jewellery and precious-metal workers
 - 7314 Potters and related workers
 - 7315 Glass makers, cutters, grinders and finishers
 - 7316 Sign writers, decorative painters, engravers and etchers
 - 7317 Handicraft workers in wood, basketry and related materials
 - 7318 Handicraft workers in textile, leather and related materials
 - 7319 Handicraft workers not elsewhere classified
 - 732 Printing trades workers
 - 7321 Pre-press technicians
 - 7322 Printers
 - 7323 Print finishing and binding workers
- 74 Electrical and electronic trades workers
 - 741 Electrical equipment installers and repairers
 - 7411 Building and related electricians
 - 7412 Electrical mechanics and fitters
 - 7413 Electrical line installers and repairers
 - 742 Electronics and telecommunications installers and repairers
 - 7421 Electronics mechanics and servicers
 - 7422 Information and communications technology installers and servicers
- 75 Food processing, wood working, garment and other craft and related trades workers
 - 751 Food processing and related trades workers
 - 7511 Butchers, fishmongers and related food preparers
 - 7512 Bakers, pastry-cooks and confectionery makers
 - 7513 Dairy-products makers
 - 7514 Fruit, vegetable and related preservers
 - 7515 Food and beverage tasters and graders
 - 7516 Tobacco preparers and tobacco products makers
 - 752 Wood treaters, cabinet-makers and related trades workers
 - 7521 Wood treaters
 - 7522 Cabinet-makers and related workers
 - 7523 Woodworking-machine tool setters and operators
 - 753 Garment and related trades workers
 - 7531 Tailors, dressmakers, furriers and hatters
 - 7532 Garment and related pattern-makers and cutters
 - 7533 Sewing, embroidery and related workers
 - 7534 Upholsterers and related workers
 - 7535 Pelt dressers, tanners and fellmongers

- 7536 Shoemakers and related workers
 - 754 Other craft and related workers
 - 7541 Underwater divers
 - 7542 Shotfirers and blasters
 - 7543 Product graders and testers (excluding foods and beverages)
 - 7544 Fumigators and other pest and weed controllers
 - 7549 Craft and related workers not elsewhere classified
- 8 Plant and machine operators and assemblers
- 81 Stationary plant and machine operators
 - 811 Mining and mineral processing plant operators
 - 8111 Miners and quarriers
 - 8112 Mineral and stone processing plant operators
 - 8113 Well drillers and borers and related workers
 - 8114 Cement, stone and other mineral products machine operators
 - 812 Metal processing and finishing plant operators
 - 8121 Metal processing plant operators
 - 8122 Metal finishing, plating and coating machine operators
 - 813 Chemical and photographic products plant and machine operators
 - 8131 Chemical products plant and machine operators
 - 8132 Photographic products machine operators
 - 814 Rubber, plastic and paper products machine operators
 - 8141 Rubber products machine operators
 - 8142 Plastic products machine operators
 - 8143 Paper products machine operators
 - 815 Textile, fur and leather products machine operators
 - 8151 Fibre preparing, spinning and winding machine operators
 - 8152 Weaving and knitting machine operators
 - 8153 Sewing machine operators
 - 8154 Bleaching, dyeing and fabric cleaning machine operators
 - 8155 Fur and leather preparing machine operators
 - 8156 Shoemaking and related machine operators
 - 8157 Laundry machine operators
 - 8159 Textile, fur and leather products machine operators not elsewhere classified
 - 816 Food and related products machine operators
 - 8160 Food and related products machine operators
 - 817 Wood processing and papermaking plant operators
 - 8171 Pulp and papermaking plant operators
 - 8172 Wood processing plant operators
 - 818 Other stationary plant and machine operators
 - 8181 Glass and ceramics plant operators
 - 8182 Steam engine and boiler operators
 - 8183 Packing, bottling and labelling machine operators
 - 8189 Stationary plant and machine operators not elsewhere classified
 - 82 Assemblers
 - 821 Assemblers
 - 8211 Mechanical machinery assemblers
 - 8212 Electrical and electronic equipment assemblers
 - 8219 Assemblers not elsewhere classified
 - 83 Drivers and mobile plant operators
 - 831 Locomotive engine drivers and related workers
 - 8311 Locomotive engine drivers
 - 8312 Railway brake, signal and switch operators
 - 832 Car, van and motorcycle drivers
 - 8321 Motorcycle drivers
 - 8322 Car, taxi and van drivers

- 833 Heavy truck and bus drivers
 - 8331 Bus and tram drivers
 - 8332 Heavy truck and lorry drivers
- 834 Mobile plant operators
 - 8341 Mobile farm and forestry plant operators
 - 8342 Earthmoving and related plant operators
 - 8343 Crane, hoist and related plant operators
 - 8344 Lifting truck operators
- 835 Ships' deck crews and related workers
 - 8350 Ships' deck crews and related workers

9 Elementary occupations

- 91 Cleaners and helpers
 - 911 Domestic, hotel and office cleaners and helpers
 - 9111 Domestic cleaners and helpers
 - 9112 Cleaners and helpers in offices, hotels and other establishments
 - 912 Vehicle, window, laundry and other hand cleaning workers
 - 9121 Hand launderers and pressers
 - 9122 Vehicle cleaners
 - 9123 Window cleaners
 - 9129 Other cleaning workers
- 92 Agricultural, forestry and fishery labourers
 - 921 Agricultural, forestry and fishery labourers
 - 9211 Crop farm labourers
 - 9212 Livestock farm labourers
 - 9213 Mixed crop and livestock farm labourers
 - 9214 Garden and horticultural labourers
 - 9215 Forestry labourers
 - 9216 Fishery and aquaculture labourers
- 93 Labourers in mining, construction, manufacturing and transport
 - 931 Mining and construction labourers
 - 9311 Mining and quarrying labourers
 - 9312 Civil engineering labourers
 - 9313 Building construction labourers
 - 932 Manufacturing labourers
 - 9321 Hand packers
 - 9329 Manufacturing labourers not elsewhere classified
 - 933 Transport and storage labourers
 - 9331 Hand and pedal vehicle drivers
 - 9332 Drivers of animal-drawn vehicles and machinery
 - 9333 Freight handlers
 - 9334 Shelf fillers
- 94 Food preparation assistants
 - 941 Food preparation assistants
 - 9411 Fast food preparers
 - 9412 Kitchen helpers
- 95 Street and related sales and service workers
 - 951 Street and related service workers
 - 9510 Street and related service workers
 - 952 Street vendors (excluding food)
 - 9520 Street vendors (excluding food)
- 96 Refuse workers and other elementary workers
 - 961 Refuse workers
 - 9611 Garbage and recycling collectors
 - 9612 Refuse sorters
 - 9613 Sweepers and related labourers

- 962 Other elementary workers
 - 9621 Messengers, package deliverers and luggage porters
 - 9622 Odd job persons
 - 9623 Meter readers and vending-machine collectors
 - 9624 Water and firewood collectors
 - 9629 Elementary workers not elsewhere classified
- 0 Armed forces occupations
 - 01 Commissioned armed forces officers
 - 011 Commissioned armed forces officers
 - 0110 Commissioned armed forces officers
 - 02 Non-commissioned armed forces officers
 - 021 Non-commissioned armed forces officers
 - 0210 Non-commissioned armed forces officers
 - 03 Armed forces occupations, other ranks
 - 031 Armed forces occupations, other ranks
 - 0310 Armed forces occupations, other ranks

Annex 4: International Standard Industrial Classification (ISIC)

- A Agriculture, forestry and fishing
 - Division Group Class Description
 - Division 01 Crop and animal production, hunting and related service activities
 - 011 Growing of non-perennial crops
 - 0111 Growing of cereals (except rice), leguminous crops and oil seeds
 - 0112 Growing of rice
 - 0113 Growing of vegetables and melons, roots and tubers
 - 0114 Growing of sugar cane
 - 0115 Growing of tobacco
 - 0116 Growing of fibre crops
 - 0119 Growing of other non-perennial crops
 - 012 Growing of perennial crops
 - 0121 Growing of grapes
 - 0122 Growing of tropical and subtropical fruits
 - 0123 Growing of citrus fruits
 - 0124 Growing of pome fruits and stone fruits
 - 0125 Growing of other tree and bush fruits and nuts
 - 0126 Growing of oleaginous fruits
 - 0127 Growing of beverage crops
 - 0128 Growing of spices, aromatic, drug and pharmaceutical crops
 - 0129 Growing of other perennial crops
 - 013 0130 Plant propagation
 - 014 Animal production
 - 0141 Raising of cattle and buffaloes
 - 0142 Raising of horses and other equines
 - 0143 Raising of camels and camelids
 - 0144 Raising of sheep and goats
 - 0145 Raising of swine/pigs
 - 0146 Raising of poultry
 - 0149 Raising of other animals
 - 015 0150 Mixed farming
 - 016 Support activities to agriculture and post-harvest crop activities

0161 Support activities for crop production
0162 Support activities for animal production
0163 Post-harvest crop activities
0164 Seed processing for propagation

017 0 Hunting, trapping and related service activities

Division 02 Forestry and logging

0210 Silviculture and other forestry activities
0220 Logging
0230 Gathering of non-wood forest products
0240 Support services to forestry

Division 03 Fishing and aquaculture

031 Fishing
0311 Marine fishing
0312 Freshwater fishing
032 Aquaculture
0321 Marine aquaculture
0322 Freshwater aquaculture

B Mining and quarrying

Division Group Class Description

0510 Mining of hard coal
0520 Mining of lignite

0610 Extraction of crude petroleum
0620 Extraction of natural gas

072 Mining of non-ferrous metal ores
0721 Mining of uranium and thorium ores
0729 Mining of other non-ferrous metal ores

0810 Quarrying of stone, sand and clay

089 Mining and quarrying n.e.c.
0891 Mining of chemical and fertilizer minerals
0892 Extraction of peat
0893 Extraction of salt
0899 Other mining and quarrying n.e.c.

0910 Support activities for petroleum and natural gas extraction
0990 Support activities for other mining and quarrying

C Manufacturing

Division 10 Manufacture of food products

1010 Processing and preserving of meat
1020 Processing and preserving of fish, crustaceans and molluscs
1030 Processing and preserving of fruit and vegetables
1040 Manufacture of vegetable and animal oils and fats
1050 Manufacture of dairy products

106 Manufacture of grain mill products, starches and starch products

1061 Manufacture of grain mill products
1062 Manufacture of starches and starch products

107 Manufacture of other food products
1071 Manufacture of bakery products
1072 Manufacture of sugar
1073 Manufacture of cocoa, chocolate and sugar confectionery
1074 Manufacture of macaroni, noodles, couscous and similar farinaceous products
1075 Manufacture of prepared meals and dishes
1079 Manufacture of other food products n.e.c.

1080 Manufacture of prepared animal feeds

Division 11 Manufacture of beverages

1101 Distilling, rectifying and blending of spirits
1102 Manufacture of wines
1103 Manufacture of malt liquors and malt
1104 Manufacture of soft drinks; production of mineral waters and other bottled waters

Division 12 Manufacture of tobacco products

1200 Manufacture of tobacco products

Division 13 Manufacture of textiles

131 Spinning, weaving and finishing of textiles
1311 Preparation and spinning of textile fibres
1312 Weaving of textiles
1313 Finishing of textiles

139 Manufacture of other textiles

1391 Manufacture of knitted and crocheted fabrics
1392 Manufacture of made-up textile articles, except apparel
1393 Manufacture of carpets and rugs
1394 Manufacture of cordage, rope, twine and netting
1399 Manufacture of other textiles n.e.c.

Division 14 Manufacture of wearing apparel

1410 Manufacture of wearing apparel, except fur apparel
1420 Manufacture of articles of fur
1430 Manufacture of knitted and crocheted apparel

Division Group Class Description

151 Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur

1511 Tanning and dressing of leather; dressing and dyeing of fur
1512 Manufacture of luggage, handbags and the like, saddlery and harness
152 1520 Manufacture of footwear

Division 16 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials

1610 Sawmilling and planing of wood

162 Manufacture of products of wood, cork, straw and plaiting materials

1621 Manufacture of veneer sheets and wood-based panels
1622 Manufacture of builders' carpentry and joinery
1623 Manufacture of wooden containers
1629 Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials

Division 17 Manufacture of paper and paper products

1701 Manufacture of pulp, paper and paperboard

1702 Manufacture of corrugated paper and paperboard and of containers of paper and paperboard
1709 Manufacture of other articles of paper and paperboard

181 Printing and service activities related to printing
1811 Printing
1812 Service activities related to printing

1820 Reproduction of recorded media
1910 Manufacture of coke oven products
1920 Manufacture of refined petroleum products

201 Manufacture of basic chemicals, fertilizers and nitrogen compounds, plastics and synthetic rubber in primary forms
2011 Manufacture of basic chemicals
2012 Manufacture of fertilizers and nitrogen compounds
2013 Manufacture of plastics and synthetic rubber in primary forms
202 Manufacture of other chemical products
2021 Manufacture of pesticides and other agrochemical products
2022 Manufacture of paints, varnishes and similar coatings, printing ink and mastics
2023 Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations
2029 Manufacture of other chemical products n.e.c.

2030 Manufacture of man-made fibres

2100 Manufacture of pharmaceuticals, medicinal chemical and botanical products
Division Group Class Description
221 Manufacture of rubber products
2211 Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres
2219 Manufacture of other rubber products

2220 Manufacture of plastics products

2310 Manufacture of glass and glass products

2391 Manufacture of refractory products
2392 Manufacture of clay building materials
2393 Manufacture of other porcelain and ceramic products
2394 Manufacture of cement, lime and plaster
2395 Manufacture of articles of concrete, cement and plaster
2396 Cutting, shaping and finishing of stone
2399 Manufacture of other non-metallic mineral products n.e.c.

2410 Manufacture of basic iron and steel
2420 Manufacture of basic precious and other non-ferrous metals
2431 Casting of iron and steel
2432 Casting of non-ferrous metals

251 Manufacture of structural metal products, tanks, reservoirs and steam generators
2511 Manufacture of structural metal products
2512 Manufacture of tanks, reservoirs and containers of metal
2513 Manufacture of steam generators, except central heating hot water boilers

2520 Manufacture of weapons and ammunition
259 Manufacture of other fabricated metal products; metalworking service activities
2591 Forging, pressing, stamping and roll-forming of metal; powder metallurgy
2592 Treatment and coating of metals; machining

2593 Manufacture of cutlery, hand tools and general hardware
2599 Manufacture of other fabricated metal products n.e.c.

2610 Manufacture of electronic components and boards
2620 Manufacture of computers and peripheral equipment
2630 Manufacture of communication equipment
2640 Manufacture of consumer electronics

265 Manufacture of measuring, testing, navigating and control equipment; watches and clocks
2651 Manufacture of measuring, testing, navigating and control equipment
2652 Manufacture of watches and clocks
266 2660 Manufacture of irradiation, electromedical and electrotherapeutic equipment

Division Group Class Description
2670 Manufacture of optical instruments and photographic equipment
2680 Manufacture of magnetic and optical media

2710 Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus
2720 Manufacture of batteries and accumulators

273 Manufacture of wiring and wiring devices
2731 Manufacture of fibre optic cables
2732 Manufacture of other electronic and electric wires and cables
2733 Manufacture of wiring devices

2740 Manufacture of electric lighting equipment
2750 Manufacture of domestic appliances
2790 Manufacture of other electrical equipment

281 Manufacture of general-purpose machinery
2811 Manufacture of engines and turbines, except aircraft, vehicle and cycle engines
2812 Manufacture of fluid power equipment
2813 Manufacture of other pumps, compressors, taps and valves
2814 Manufacture of bearings, gears, gearing and driving elements
2815 Manufacture of ovens, furnaces and furnace burners
2816 Manufacture of lifting and handling equipment
2817 Manufacture of office machinery and equipment (except computers and peripheral equipment)
2818 Manufacture of power-driven hand tools
2819 Manufacture of other general-purpose machinery
282 Manufacture of special-purpose machinery
2821 Manufacture of agricultural and forestry machinery
2822 Manufacture of metal-forming machinery and machine tools
2823 Manufacture of machinery for metallurgy
2824 Manufacture of machinery for mining, quarrying and construction
2825 Manufacture of machinery for food, beverage and tobacco processing
2826 Manufacture of machinery for textile, apparel and leather production
2829 Manufacture of other special-purpose machinery

2910 Manufacture of motor vehicles
2920 Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers
2930 Manufacture of parts and accessories for motor vehicles

301 Building of ships and boats
3011 Building of ships and floating structures
3012 Building of pleasure and sporting boats
3020 Manufacture of railway locomotives and rolling stock

Division Group Class Description

3030 Manufacture of air and spacecraft and related machinery
 3040 Manufacture of military fighting vehicles

309 Manufacture of transport equipment n.e.c.
 3091 Manufacture of motorcycles
 3092 Manufacture of bicycles and invalid carriages
 3099 Manufacture of other transport equipment n.e.c.

3100 Manufacture of furniture
 321 Manufacture of jewellery, bijouterie and related articles
 3211 Manufacture of jewellery and related articles
 3212 Manufacture of imitation jewellery and related articles

3220 Manufacture of musical instruments
 3230 Manufacture of sports goods
 3240 Manufacture of games and toys
 3250 Manufacture of medical and dental instruments and supplies
 3290 Other manufacturing n.e.c.

331 Repair of fabricated metal products, machinery and equipment
 3311 Repair of fabricated metal products
 3312 Repair of machinery
 3313 Repair of electronic and optical equipment
 3314 Repair of electrical equipment
 3315 Repair of transport equipment, except motor vehicles
 3319 Repair of other equipment

3320 Installation of industrial machinery and equipment

D Electricity, gas, steam and air conditioning supply

3510 Electric power generation, transmission and distribution
 3520 Manufacture of gas; distribution of gaseous fuels through mains
 3530 Steam and air conditioning supply

D

E Water supply; sewerage, waste management and remediation activities

Division Group Class Description

3600 Water collection, treatment and supply

Division Group Class Description

3700 Sewerage

381 Waste collection

3811 Collection of non-hazardous waste

3812 Collection of hazardous waste

382 Waste treatment and disposal

3821 Treatment and disposal of non-hazardous waste

3822 Treatment and disposal of hazardous waste

3830 Materials recovery

3900 Remediation activities and other waste management services

F Construction

4100 Construction of buildings

4220 Construction of utility projects (roads and railways)

- 4290 Construction of other civil engineering projects
- 4311 Demolition
- 4312 Site preparation
- 4321 Electrical installation
- 4322 Plumbing, heat and air-conditioning installation
- 4329 Other construction installation
- 4330 Building completion and finishing
- 4390 Other specialized construction activities

- G Wholesale and retail trade; repair of motor vehicles and motorcycles
- o Group Class Description
- 4510 Sale of motor vehicles
- 4520 Maintenance and repair of motor vehicles
- Division Group Class Description
- 4530 Sale of motor vehicle parts and accessories
- 4540 Sale, maintenance and repair of motorcycles and related parts and accessories

- 4610 Wholesale on a fee or contract basis
- 4620 Wholesale of agricultural raw materials and live animals
- 4630 Wholesale of food, beverages and tobacco
- 4641 Wholesale of textiles, clothing and footwear
- 4649 Wholesale of other household goods
- 465 Wholesale of machinery, equipment and supplies
- 4651 Wholesale of computers, computer peripheral equipment and software
- 4652 Wholesale of electronic and telecommunications equipment and parts
- 4653 Wholesale of agricultural machinery, equipment and supplies
- 4659 Wholesale of other machinery and equipment

- 4661 Wholesale of solid, liquid and gaseous fuels and related products
- 4662 Wholesale of metals and metal ores
- 4663 Wholesale of construction materials, hardware, plumbing and heating equipment and supplies
- 4669 Wholesale of waste and scrap and other products n.e.c.

- Division 47 Retail trade, except of motor vehicles and motorcycles
- 471 Retail sale in non-specialized stores
- 4711 Retail sale in non-specialized stores with food, beverages or tobacco predominating
- 4719 Other retail sale in non-specialized stores
- 472 Retail sale of food, beverages and tobacco in specialized stores
- 4721 Retail sale of food in specialized stores
- 4722 Retail sale of beverages in specialized stores
- 4723 Retail sale of tobacco products in specialized stores

- 4730 Retail sale of automotive fuel in specialized stores
- 474 Retail sale of information and communications equipment in specialized stores
- 4741 Retail sale of computers, peripheral units, software and telecommunications equipment in specialized stores
- 4742 Retail sale of audio and video equipment in specialized stores

- 4751 Retail sale of textiles in specialized stores
- 4752 Retail sale of hardware, paints and glass in specialized stores
- 4753 Retail sale of carpets, rugs, wall and floor coverings in specialized stores
- 4759 Retail sale of electrical household appliances, furniture, lighting equipment and other household articles in specialized stores

- 4761 Retail sale of books, newspapers and stationary in specialized stores
- 4762 Retail sale of music and video recordings in specialized stores

Division Group Class Description

- 4763 Retail sale of sporting equipment in specialized stores
- 4764 Retail sale of games and toys in specialized stores
- 4771 Retail sale of clothing, footwear and leather articles in specialized stores
- 4772 Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles in specialized stores
- 4773 Other retail sale of new goods in specialized stores
- 4774 Retail sale of second-hand goods

478 Retail sale via stalls and markets

- 4781 Retail sale via stalls and markets of food, beverages and tobacco products
- 4782 Retail sale via stalls and markets of textiles, clothing and footwear
- 4789 Retail sale via stalls and markets of other goods

479 Retail trade not in stores, stalls or markets

- 4791 Retail sale via mail order houses or via Internet
- 4799 Other retail sale not in stores, stalls or markets

H Transportation and storage

- 4911 Passenger rail transport, interurban
- 4912 Freight rail transport

- 4921 Urban and suburban passenger land transport
- 4922 Other passenger land transport
- 4923 Freight transport by road

- 4930 Transport via pipeline

- 5011 Sea and coastal passenger water transport
- 5012 Sea and coastal freight water transport

- 5021 Inland passenger water transport
- 5022 Inland freight water transport

- 5110 Passenger air transport
- 5120 Freight air transport

- 5210 Warehousing and storage
- 5221 Service activities incidental to land transportation

Division Group Class Description

- 5222 Service activities incidental to water transportation
- 5223 Service activities incidental to air transportation
- 5224 Cargo handling
- 5229 Other transportation support activities

- 5310 Postal activities
- 5320 Courier activities

I Accommodation and food service activities

- 5510 Short term accommodation activities
- 5520 Camping grounds, recreational vehicle parks and trailer parks
- 5590 Other accommodation

- 5610 Restaurants and mobile food service activities
- 5621 Event catering

5629 Other food service activities
5630 Beverage serving activities

J Information and communication

581 Publishing of books, periodicals and other publishing activities

5811 Book publishing
5812 Publishing of directories and mailing lists
5813 Publishing of newspapers, journals and periodicals
5819 Other publishing activities

5820 Software publishing

5911 Motion picture, video and television programme production activities
5912 Motion picture, video and television programme post-production activities
5913 Motion picture, video and television programme distribution activities
5914 Motion picture projection activities

5920 Sound recording and music publishing activities

Division Group Class Description

6010 Radio broadcasting
6020 Television programming and broadcasting activities

6110 Wired telecommunications activities
6120 Wireless telecommunications activities
6130 Satellite telecommunications activities
6190 Other telecommunications activities

6201 Computer programming activities
6202 Computer consultancy and computer facilities management activities
6209 Other information technology and computer service activities

6311 Data processing, hosting and related activities
6312 Web portals

6391 News agency activities
6399 Other information service activities n.e.c.

K Financial and insurance activities

Division Group Class Description

6411 Central banking
6419 Other monetary intermediation
6420 Activities of holding companies
6430 Trusts, funds and similar financial entities
6491 Financial leasing
6492 Other credit granting
6499 Other financial service activities, except insurance and pension funding activities, n.e.c.

6511 Life insurance
6512 Non-life insurance

6530 Pension funding

Division Group Class Description

6611 Administration of financial markets
6612 Security and commodity contracts brokerage
6619 Other activities auxiliary to financial service activities

6621	Risk and damage evaluation
6622	Activities of insurance agents and brokers
6629	Other activities auxiliary to insurance and pension funding
6630	Fund management activities
L	Real estate activities
6810	Real estate activities with own or leased property
6820	Real estate activities on a fee or contract basis
M	Professional, scientific and technical activities
6910	Legal activities
6920	Accounting, bookkeeping and auditing activities; tax consultancy
7010	Activities of head offices
7020	Management consultancy activities
7110	Architectural and engineering activities and related technical consultancy
7120	Technical testing and analysis
7210	Research and experimental development on natural sciences and engineering
7220	Research and experimental development on social sciences and humanities
7310	Advertising
7320	Market research and public opinion polling
7410	Specialized design activities
7420	Photographic activities
7490	Other professional, scientific and technical activities n.e.c.
N	Administrative and support service activities
Group	Class Description
7500	Veterinary activities
7710	Renting and leasing of motor vehicles
7721	Renting and leasing of recreational and sports goods
7722	Renting of video tapes and disks
7729	Renting and leasing of other personal and household goods
7730	Renting and leasing of other machinery, equipment and tangible goods
7740	Leasing of intellectual property and similar products, except copyrighted works
7810	Activities of employment placement agencies
7820	Temporary employment agency activities
7830	Other human resources provision
7911	Travel agency activities
7912	Tour operator activities
7990	Other reservation service and related activities
8010	Private security activities
8020	Security systems service activities
8030	Investigation activities

8110 Combined facilities support activities
8121 General cleaning of buildings
8129 Other building and industrial cleaning activities
8130 Landscape care and maintenance service activities

8211 Combined office administrative service activities
8219 Photocopying, document preparation and other specialized office support activities
8220 Activities of call centres
8230 Activities of collection agencies and credit bureaus

Division Group Class Description
8292 Packaging activities
8299 Other business support service activities n.e.c.

vision Group Class Description
O Public administration and defence; compulsory social security

841 Administration of the State and the economic and social policy of the community
8411 General public administration activities
8412 Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security
8413 Regulation of and contribution to more efficient operation of businesses

8421 Foreign affairs
8422 Defence activities
8423 Public order and safety activities
8430 Compulsory social security activities

Class Description
P Education

8510 Pre-primary and primary education
8521 General secondary education
8522 Technical and vocational secondary education
853 8530 Higher education

8541 Sports and recreation education
8542 Cultural education
8549 Other education n.e.c.
8550 Educational support activities

Section Q Human health and social work activities
8610 Hospital activities
8620 Medical and dental practice activities
8690 Other human health activities

Division Group Class Description
8710 Residential nursing care facilities
8720 Residential care activities for mental retardation, mental health and substance abuse
8730 Residential care activities for the elderly and disabled
8790 Other residential care activities

8810 Social work activities without accommodation for the elderly and disabled
8890 Other social work activities without accommodation

D
R Arts, entertainment and recreationiviss Description
9000 Creative, arts and entertainment activities

9101 Library and archives activities
9102 Museums activities and operation of historical sites and buildings

- 9103 Botanical and zoological gardens and nature reserves activities
- 9200 Gambling and betting activities
- 9311 Operation of sports facilities
- 9312 Activities of sports clubs
- 9319 Other sports activities
- 9321 Activities of amusement parks and theme parks
- 9329 Other amusement and recreation activities n.e.c.
- S Other service activities
- 941 Activities of business, employers and professional membership organizations
- 9411 Activities of business and employers membership organizations
- 9412 Activities of professional membership organizations
- 942 9420 Activities of trade unions
- 9491 Activities of religious organizations
- Division Group Class Description
- 9492 Activities of political organizations
- 9499 Activities of other membership organizations n.e.c.
- 951 Repair of computers and communication equipment
- 9511 Repair of computers and peripheral equipment
- 9512 Repair of communication equipment
- 952 Repair of personal and household goods
- 9521 Repair of consumer electronics
- 9522 Repair of household appliances and home and garden equipment
- 9523 Repair of footwear and leather goods
- 9524 Repair of furniture and home furnishings
- 9529 Repair of other personal and household goods
- 9601 Washing and (dry-) cleaning of textile and fur products
- 9602 Hairdressing and other beauty treatment
- 9603 Funeral and related activities
- 9609 Other personal service activities n.e.c.
- T Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use
- 9700 Activities of households as employers of domestic personnel
- 9810 Undifferentiated goods-producing activities of private households for own use
- 9820 Undifferentiated service-producing activities of private households for own use
- U Activities of extraterritorial organizations and bodies
- 9900 Activities of extraterritorial organizations and bodies

Annex 5: Acceptable Condition Codes For Each Crop Type During Harvesting

Crop code	Crop Name	Condition code	Description of Crop condition
130	Maize	11	Green harvested – with cob, husk & stalk
		12	Green harvested – with cob, husk (no stalk)
		13	Green harvested – on the cob (no husk, no stalk)
		21	Fresh/raw harvested – with cob & stalk
		22	Fresh/raw harvested – with cob (no stalk)
		23	Fresh/raw harvested – on the cob (no husk, no stalk)
		31	Dry harvested – with cob, husk & stalk
		32	Dry harvested – with cob, husk (no stalk)
		33	Dry harvested – on the cob (no husk, no stalk)

111	Wheat	21	Fresh/raw harvested – with shell & stalk
112	Barley	22	Fresh/raw harvested – with shell (no stalk)
120	Rice	31	Dry harvested – with shell & stalk
141	Finger millet	32	Dry harvested – with shell (no stalk)
150	Sorghum		

Crop code	Crop Name	Condition code	Description of Crop condition
610	Irish potatoes	20	Fresh/raw harvested – no state needed
620	Sweet potatoes		
630	Cassava		
640	Yam		
650	Coco yam		

410	Cabbage	20	Fresh/raw harvested – no state needed
420	Tomatoes		
430	Carrots		
440	Onions		
450	Pumpkins		
460	Dodo		
470	Eggplants		
510	Sugarcane		
700	Oranges		
710	Paw paw		
720	Pineapples		
750	Mango		

210	Beans	14	Green harvested – in pods or shells
221	Field peas	24	Fresh/raw harvested – in pods or shell
222	Cow peas	35	Dry harvested – grain
223	Pigeon peas		
224	Chick peas		
310	Groundnuts		
320	Soya beans		
340	Simsim		

330	Sunflower	35	Dry harvested - grain
520	Cotton	35	Dry harvested

770	Avocado		
830	Tea		
840	Ginger		
850	Tumeric		
741	Banana Food		
742	Banana Beer		
743	Banana Sweet		

820	Cocoa	24	Fresh/raw harvested – in pods
870	Vanilla	24	Fresh/raw harvested – in pods

530	Tobacco	10	Green harvested – no state needed
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