

Indonesian Census 2000

Tables and Reports for AusAID Explanatory Notes

Compiled by Ariane J. Utomo
Demography and Sociology Program
Research School of Social Sciences
The Australian National University
March 2003
under the supervision of Prof. Terence H. Hull

Table of Contents

1. [Introduction](#)
2. Explanatory Notes on Table Compilations
 - 2.1 [Organisation of Tables](#)
 - 2.2 [Concepts and Definitions](#)
 - 2.3 [List of Tables](#)
3. Attachments: Background Article and Information on the Indonesian Census 2000
 - A.1 [Article: First Results from the Indonesian Census 2000](#)

Terence H.Hull
 - A.2 [Unofficial Translations of the L1 and L2 Forms](#)
 - A.3 [Table: Comparison of Data Collected in the five Indonesian Censuses](#)

Terence H.Hull

1. Introduction

This brief report serves as a supplementary notes for a CD ROM containing a series of tables derived from the Indonesian Census 2000 compiled by the Demography and Sociology Program, RSSS, ANU for AusAID. The tabulations provided are designed to act as preliminary tools for further poverty analysis in the eight target provinces of West Nusa Tenggara, East Nusa Tenggara, South Sulawesi, Southeast Sulawesi, Maluku, North Maluku, East Java, and Papua.

The Indonesian Census 2000 was carried out within the official period of June 1 through to June 30 2000. It was the fifth census to be conducted in Indonesia since independence, following the 1961, 1971, 1981, and 1990 Censuses. Unlike previous censuses which were based on sampling, the 2000 enumeration process covered the entire population of Indonesia. It also produces data down to the district, sub-district, and village level. The availability of data at the local regional level would assist the process of districts selection for AusAID's area development program.

In utilising the census as one source of data for regional welfare and poverty indicators, the tables outline the following thirteen subject areas at the province and/or regional level. These are:

- Total Population according to Sex
- Marital Status by Sex and Age Group
- Infant Mortality Rate
- Measures of Fertility
- Religion
- Ethnicity
- Educational Attainment
- Estimate of Schooling
- Occupational Structure
- Recent Migration
- Availability of Clean Water
- Provision of Electricity
- Provision of Toilet Facilities.

Section 2 begins with a general overview of how the tables are organised and presented in the CD ROM. Section 3.2 provides the List of Tables with details of their locations. Section 3.3 offers explanatory notes on concepts and definitions used in the process of tabulation.

Section 3 of the report consists of three attachments providing background information on the Indonesian Census 2000. Attachment A.1 is an article on the *Preliminary Results of the Indonesian Census 2000* written by Prof. Terence H. Hull. Attachment A2 provides unofficial translations of both the L1 and L2 forms. Finally, Attachment A3 contains a table for comparative assessment on data collected on the five censuses.

2. Explanatory Notes on Table Compilations

2.1 Organisation of Tables

The tables are organised into two folders: those derived from the individual data set (L2) and those derived from the household data set (L1). Included in the Individual Data Set folder are individual sub-folders containing groups of tables, which are classified according to its subject area. These are: Total Population according to Sex; Marital Status by Sex and Age Group; Infant Mortality Rate; Measures of Fertility; Religion; Ethnicity; Educational Attainment by Age Group; Estimate of Current Schooling by Schooling Age Group; Occupational Structure; and Recent Migration. Likewise, the Household Data Set folder is divided into three sub-folders: Clean Water; Electricity; and Toilet Facilities.

Each of the subject sub-folder contains mostly two Excel workbooks. The first presents tabulations at the provincial level, and the second contains tabulations at the regional level.

Where applicable, each workbook is then further divided into different worksheets accounting for individual provinces. For example, the Clean Water sub-folder contains two workbooks: [Workbook 11.1](#) consists of one worksheet with a summary table that allows for inter provincial comparison of the number of household with clean water facility in their houses as shown in sample 2.1a. [Workbook 11.2](#) consists of eight worksheets for the eight target provinces, where each sheet presents a table that compares the percentage of household with clean water facility in their homes across regions (Sample 2.1b). A complete listing for the number of worksheets per Workbook can be found in Section 2.3

Sample 2.1a

Table 11.1 Target Provinces: Number of Households with Clean Water Facility

Province	Number of Household with Clean water	Total Number of Household	% of Household with Clean Water
West Nusa Tenggara	301685	979498	30.8
East Nusa Tenggara	215783	801914	26.9
South Sulawesi	987137	1831873	53.9
Southeast Sulawesi	165812	398106	41.7
Maluku	61047	236871	25.8
North Maluku	48314	127443	37.9
East Java	6168167	9954923	62.0
Papua	178789	436193	41.0

Sample 2.1b

Table 11.2.1 West Nusa Tenggara: Households with Clean Water Facility per Region

Administrative Level	Regency/ Municipality	Number of Household with Clean water	Total Number of Household	% of Household with Clean Water
Regency	Lombok Barat	59536	176644	33.7
Regency	Lombok Tengah	47816	215706	22.2
Regency	Lombok Timur	73324	270453	27.1
Regency	Sumbawa	24167	68005	35.5
Regency	Dompu	10574	42554	24.8
Regency	Bima	30361	121948	24.9
Municipality	Mataram	55907	84188	66.4
Province	West Nusa Tenggara	301685	979498	30.8

There are two exceptions whereby the sub-folder contains only one or three Excel Workbook. The tables of recent inter-regional migration per province are all contained in one workbook consisting of eight worksheets for each of the target provinces. On the other hand, the Measures of Fertility Rate sub-folder contains three workbooks. [Workbook 4.1](#) consists of one worksheet containing a table comparing the Child-Woman Ratio for all the provinces in Indonesia. [Workbook 4.2](#) comprises of eight provincial worksheets that allows for inter-regional comparison of the Child-Woman Ratio in each of the province. Finally, [Workbook 4.3](#) entails one table illustrating the estimate of Total Fertility Rate by Province using the Own Child Method for all of Indonesia.

The availability on data at both regional and provincial level, or only at provincial level varies by case, and is largely determined whether the provinces is defined as a key province within the eight target provinces.

The Target Provinces (TP) are West Nusa Tenggara, East Nusa Tenggara, South Sulawesi, Southeast Sulawesi, North Maluku, Maluku, East Java, and Papua. The Key Provinces (KP) are West Nusa Tenggara, East Nusa Tenggara, South Sulawesi and Southeast Sulawesi. Table 2.1 on the next page indicates the availability of regional data for each of the province.

Table 2.1 Provision of Regional Data Based on AusAID's Request

Table	Data at the Province Level	Data at the Region/Municipality Level
L2 Individual Data Set		
Total Population according to Sex	All Provinces in Indonesia (AP)	All Regions within Target Provinces (TP)
Marital Status, sex and age	TP	All Regions within Key Provinces (KP)
Infant Mortality Rate	AP	KP
Fertility Rate	AP	-
Child-Woman Ratio	AP	TP
Religion for all adults	TP	TP
Ethnic Groups	TP	KP
Education obtained, by five year age groups	TP	KP
Estimate of Current Schooling	TP	KP
Occupational Structure	TP	TP
Migration (the proportion of people who lived in another region five years ago as a proportion of the total population of the region)	-	TP
L1 Household Data Set		
Availability of Clean Water	TP	TP
Availability of Electricity	TP	TP
Availability of Toilet Facilities	TP	TP

Please refer to Section 2.3 for a detailed listings of all tables contained in the CD ROM.

2.2 Concepts and Definitions

2.2.1 Individual Data Set

- *Total Population According to Sex*

Population is defined as “ all residents of the entire geographic territory of Republic of Indonesia who have stayed six months or longer, and those who intended to stay even though their length of stay was less than six months” (BPS, 2001a: xxx).

[Workbook 1.1](#) contains a table for Indonesia’s total population by province according to sex. [Workbook 1.2](#) consists of eight worksheets for individual target provinces, each with a table of total population according to sex by region/municipality.

- *Marital, Status, Sex , and Age*

[Workbook 2.1](#) and [2.2](#) enlist tables for total population according to marital status, sex and age group at the provincial and regional level respectively. The four classifications for marital status are: *Not yet/Never Married, Married, Divorced, and Widowed*. *Married* includes those who were bound by marriage irrespective of whether they live together or not. It applies to both who are legally married (through tradition, religion, or state system), as well as those who were regarded as husband and wives by the surrounding community. *Divorced* is a category for those who divorced their husbands or wives and had not yet remarried. *Widowed* applies for those with deceased husbands or wives and had not yet remarried. (BPS, 2001a: xxxi). The data on the tables are presented in both absolute numbers as well as in percentage.

- *Infant Mortality Rate*

The estimates of infant mortality rate (IMR) in the tables are calculated using the CEBS procedure in the Mortpak Software. The inputs used are the average number of children ever born and the average number of children still living by the age group of women aged 10-49 obtained from the BPS L2 publication series on national and provincial aggregates.

Table 3.1 in [Workbook 3.1](#) allows for a comparison of estimate of IMR across provinces. The number reported are the Q3 estimate derived from the Mortpak output (Women aged 25-29. [Workbook 3.2](#) consists of eight worksheets for each of the target province and allows for comparison of IMR between regions/municipalities in each of the target provinces.

- *Measures of Fertility*

The Measures of Fertility sub–folder entails two different measures of fertility. [Workbook 4.1](#) and [4.2](#) respectively contains tables for Child-Woman Ratio at the provincial and regional level.

The Child-Woman Ratio (CWR) is one method of measuring indirect fertility from census data. It is the ratio of children 0-4 years old to women of ages 15-44 or 15-49 (Palmore and Gardner, 1983: 103). In calculating the CWR for the tables, the total number of women aged 15-49 is used. Algebraically, it is expressed as:

$$CWR = (Number\ of\ Women\ 15-19 / Population\ Aged\ 0-4) \times 1000$$

From the algebraic expression, it follows that the CWR is not based on birth, but rather on the survivors of births in the last five years. It therefore fails to account for the deaths of children even after compensating for the deaths of women in the childbearing years, and generally results in an underestimate of fertility. Another problem associated with the use of CWR is that it does not incorporate mortality calculations. If two regions have identical fertility rate but one has higher mortality rate than the other, then that region would have a lower CWR. Despite problems associated with the CWR, it has been used repeatedly as a crude measure of fertility from census data.

[Workbook 4.3](#) contains one table for total fertility rate (TFR) by province for all the provinces in Indonesia, calculated by the own-child methods, taken from the BPS publication on the Estimates of Fertility, Mortality, and Migration from the Indonesian Census 2000 (BPS, 2001b: Table 3.4, p.18).

- *Religion for All Adults*

[Workbook 5.1](#) and [5.2](#) are comprised of population by religion at the provincial and regional level respectively for all of the eight target provinces. Religion was recorded during the Census according to the respondent's statement. The six categories for religion were *Islam, Catholicism, Protestant, Hinduism, Buddhism, and Other*. The decision to have a separate category for *Confucianism (Kong Hu Cu)* occurred during the enumeration process itself, hence it was not printed in the actual form of the L1. The data on the number of Confucians is only available for certain provinces. However, the number seems much smaller than expected due to the abrupt process of including it in the questionnaire.

- *Ethnic Groups*

[Workbook 6.1](#) provides a summary table for the percentage and number of the National Top 8 Ethnic Group across the eight target provinces. The national top 8 ethnic groups are: *Jawa, Sunda/Priangan, Madura, Minangkabau, Bugis/Ugi, Betawi, Banten, and Banjar/Melayu Banjar*. [Workbook 6.2](#) contains eight separate worksheets for each of the target provinces. Each worksheet contains two tables enlisting the actual number and proportion, of the Top 8 Provincial Ethnic Groups in the particular province across regions/municipalities.

- *Educational Attainment*

Educational attainment is based on the highest diploma/ certificate from educational institutions obtained by the respondents at the time of the enumeration. The seven categories are: *No Schooling, Primary School, Junior High School, Senior High School, College, Academy, and Undergraduate*.

[Workbook 7.1](#) comprises of eight worksheets, each with one table for each of the target provinces. The table accounts for the province's total population by age group starting from 10-14 through to 45-49 and educational attainment. The tables include both percentage and absolute numbers. Similarly, the four worksheets in [Workbook 7.2](#) contains regional data for total population in the four key provinces by age group and educational attainment.

- *Estimate of Schooling*

The estimate of schooling is obtained using question 11 in the L2 questionnaire on last week activity. A person is *in school* if she/ he attends any form of educational institutions in the last week prior to the enumeration date. The *In School* category also includes people who are in school and working and /or looking for work at the same time. [Workbook 8.1](#) has eight worksheets for the eight target provinces with data on absolute number as well as the percentage of people who are *In School* and *Not in School* according to the schooling age group of 5-6, 7-12, 13-15, 16-18, and 19-24. [Workbook 8.2](#) contains similar tabulations but only consists of four worksheets, each with region/municipality specific data on schooling status for the four key provinces.

- *Occupational Structure*

The 10 categories used in the 2000 Census for main industry are *Food Crops, Plantation, Fishery, Animal Husbandry, Other Agriculture, Manufacturing, Trade, Services, Transportation, and Others*.

[Workbook 9.1](#) contains eight worksheets for each of the target provinces. The table in each worksheet is segregated in three parts: the number of people according to gender and main industries, the gender distribution of the workforce in each of the industry, and the distribution of the male and female workers across industries. See Table 9.1.8 for one example.

Sample 2.2.1a

Main Industry	Male	Female	Total	% Distribution within Industry			% Distribution within Sectors	
				Male	Female	Total	Male	Female
				Others	32353	27081	59434	54.4
Food Crops	258090	239125	497215	51.9	48.1	100.0	52.9	66.4
Plantation	11323	7176	18499	61.2	38.8	100.0	2.3	2.0
Fishery	21456	3546	25002	85.8	14.2	100.0	4.4	1.0
Animal Husbandry	1628	983	2611	62.4	37.6	100.0	0.3	0.3
Other Agriculture	39701	36477	76178	52.1	47.9	100.0	8.1	10.1
Manufacturing	12208	3816	16024	76.2	23.8	100.0	2.5	1.1
Trade	20767	15658	36425	57.0	43.0	100.0	4.3	4.3
Services	80943	25444	106387	76.1	23.9	100.0	16.6	7.1
Transportation	9395	720	10115	92.9	7.1	100.0	1.9	0.2
Total	487864	360026	847890	57.5	42.5	100.0	100.0	100.0

From the above table, we could say for example that male makes up 76.2% of the workers in the manufacturing industry. Looking at the distribution of the labour force across sectors, 66.4% of all female workers and 52.9% of the males are in the food crops industry.

[Workbook 9.2](#) also contains eight worksheets for each of the target provinces. The tables, however, illustrate the data for population by sex and main industry at each region/municipality within the province.

- *Recent Migration*

[Workbook 10.1](#) includes eight worksheets for each of the target provinces, illustrating the proportion of recent migrant in each region/municipality. Recent migrant is defined as those who lived outside the region five years prior to the enumeration date.

2.2.2 Household Data Set

The Household Data Set folder incorporates tabulations from the housing data (L1), and is further divided into three sub-folders entitled Clean water, Electricity and Toilet Facilities.

- *Clean Water*

[Workbook 11.1](#) provides an overall summary of the proportion of households with clean water facilities in their homes across the target provinces. [Workbook 11.2](#) entails eight worksheets for each of the target province that allows for comparison of the proportion of households with clean water facilities in their homes across region/municipalities.

- *Electricity*

[Workbook 12.1](#) provides an overall summary of the proportion of households with electricity in their homes across the target provinces. [Workbook 12.2](#) entails eight worksheets for each of the target province that allows for comparison of the proportion of households with electricity in their homes across region/municipalities.

- *Toilet Facility*

[Workbook 13.1](#) provides an overall summary table of the proportion of households with toilet facilities in their homes across the target provinces. [Workbook 13.2](#) entails eight worksheets for each of the target province that allows for comparison of the proportion of households with toilet facilities in their homes across region/municipalities.

References:

BPS (Badan Pusat Statistik) (2001a), *Population of Indonesia: Results of the 2000 Population Census, Series L2.2 – L2.2.31*, Jakarta

BPS (Badan Pusat Statistik) (2001b), *Estimasi Fertilitas, Mortalitas dan Migrasi : Hasil Sensus Penduduk Tahun 2000*, Jakarta

Palmore, J.A and Gardner, R.W (1983), *Measuring Mortality, Fertility, and Natural Increase: A Self-Teaching Guide to Elementary Measures*, East West Center, Hawaii

.3 List of Tables

**Indonesian Census 2000
Tables for Ausaid**

Folder	Sub-Folders	Table Number	Title	No. of Sheets or Tables per Workbook
Individual Data Set	Total Population	1.1	Indonesia: Total Population by Sex and Province	1
		1.2	Target Provinces: Total Population by Sex and Region	8
Individual Data Set	Marital Status	2.1	Target Provinces: Population by Age, Sex and Marital Status	8
		2.2	Target Provinces: Population by Age, Sex, Marital Status and Region	8
Individual Data Set	Infant Mortality Rate	3.1	Indonesia: Estimate of Infant Mortality Rate per 1000 Birth by Province	1
		3.2	Target Provinces: Estimate of Infant Mortality Rate per 1000 Birth by Region	8
Individual Data Set	Fertility Rate	4.1	Indonesia: Child-Woman Ratio	1
		4.2	Target Provinces: Child-Woman Ratio by Region	8
		4.3	Indonesia: Estimate of Total Fertility Rate by Province using the Own Child Method (1971-2000)	1
Individual Data Set	Religion	5.1	Target Provinces: Population by Provinces and Religion	1
		5.2	Target provinces: Population by Region and Religion	8
Individual Data Set	Ethnicity	6.1	Target Provinces: Population by Province and National Top 8 Ethnicity	2
		6.2	Target Provinces: Population by Region and Provincial Top 8 Ethnicity	16
Individual Data Set	Educational Attainment	7.1	Target Provinces: Population by Age Group and Educational Attainment	8
		7.2	Key Provinces: Population by Region, Age Group, and Educational Attainment	4
Individual Data Set	School Enrolment	8.1	Target Provinces: Population by Schooling Age Group and Schooling Status Based on Last Week Activity	8
		8.2	Key provinces: Population by Region, Schooling Age Group and Schooling Status Based on Last Week Activity	4
Individual Data Set	Occupation	9.1	Target Provinces: Population by Sex and Main Industry	8
		9.2	Target Provinces: Population by Region, Sex and Main Industry	8
Individual Data Set	Recent Migration	10.1	Target Provinces: Population 5 Years of Age and Over by Recent Migration Status, and Regency/Municipality	8
Household Data Set	Clean Water	11.1	Target Provinces: Number of Households with Clean Water Facility	1
		11.2	Target Provinces: Households with Clean Water Facility per Region	8
Household Data Set	Electricity	12.1	Target Provinces: Number of Household with Electricity	1
		12.2	Target Provinces: Households with Electricity per Region	8
Household Data Set	Toilet Facilities	13.1	Target Provinces: Numebr of Households with Toilet Faciilities	1
		13.2	Target Provinces: Households with Toliet Facilities per Region	8
			Total number of tables	146

ATTACHMENT A1

A1 Article: First Results from the 2000 Population Census

Terence H. Hull
Demography Program, RISS, ANU

The preliminary results of the 2000 Census were circulated in November 2000 in Jakarta, and were officially released in a Press Release from BPS on January 3, 2001 (BPS 2001). The first published books of preliminary tables were released in January 2001, though the publication date is as of December 2000 (BPS 2000a and b). The census estimates have met with less interest and less confidence than was the case in the New Order Censuses of 1990, 1980 or even 1971. In part this is because of the dominance of other news in Jakarta over the last year, but there is also some confusion about the reliability and the meaning of the figures. The preliminary results have been affected by similar social and economic problems that have held up development in Indonesia in general. As a result the official counts of population need to be adjusted to produce estimates closer to the 'true' population. To date the process of adjustment has been partial with the implication that readers need to be particularly careful interpreting the levels and trends of population change implied by the figures (see Table 1 for provincial results).

Problems in the field

The Population Census enumeration took place between June and August 2000, with the official census reference date being set as July 1, 2001¹. This was in many ways the most ambitious census undertaking in the history of the Indonesian Republic. In contrast to the New Order censuses, the year 2000 involved an attempt to administer a full questionnaire to collect detailed information on all regular household members (see forms L1 and L2 in Appendix). When this strategy was developed in 1996-1998 it was meant to serve the growing demands for detailed information at very small areas of government (to the village level if possible). When the Habibie Government brought in a radical decentralisation plan, such detailed statistics became all the more valuable, both for calculation of financial equalisation schemes of revenue sharing, and for planning the needs for education and welfare at the district (kabupaten) level of administration.

From the first week of June it was clear that the enumeration would have serious problems of much greater magnitude than any of the New Order counts.

Security problems in some areas meant that BPS could not carry out the field operations required for a house to house count of the population. The most serious problems were found in the Districts of Aceh Utara, Pidie, Aceh Timur, Sambas, Poso, Maluku Tengah, Ambon and Jayawijaya. In addition some regions experienced serious delays in the processing of the counts, including Sumatera Utara, Riau, Sumatera Selatan, and Lampung. By January 3, 2001 the number missing for such reasons was given as 3,233,160, or 1.6% of the official preliminary estimate.

Changing public attitudes (democracy and reform) meant more people refused to be censused, either overtly, or by failing to cooperate with requests to meet the interviewers. In addition, a series of budget cuts and delays in the disbursement of funds meant that the payment of interviewers was greatly disrupted, and many interviewers dropped out of the task due to disappointment over the compensation they were receiving. It is not clear how this affected the

¹ The two previous censuses had a census reference date of October 31. The change in reference date means that the intercensal period is 9.66 years rather than the previous 10-year period. This change needs to be born in mind when producing calculations of intercensal change or extrapolations of population estimates.

total population counts, but it is likely that many households were simply skipped, and where complex households were encountered some of the interviewers may have failed to put in full effort to uncover the full information on all household members.

Constraints observed in the field or reported in the press:

Interviewers abandoned their jobs due to lower than expected pay and higher than expected difficulties of the task. This arose because of last-minute changes to planning in BPS when severe budget cuts were implemented. There was also uncertainty in administration when approved budgets were delayed.

Rules relating to the determination of residence status used to define the *de jure* count of the population were sometimes confusing to the interviewers and challenged by a highly mobile population with multiple places of actual residence. This presumably led to some cases of over or undercount depending on region and circumstances. The separate count of homeless, beggars and ships’ crews produced lists of members of socially defined groups that added 430,692 people to the estimated population (or 0.2%). Note that in the listing of these groups:

1. Some homeless people in Tanah Abang market area protested that the government refused to acknowledge the existence of their homes out of fear of land disputes. They felt they should have been included in the normal enumeration rather than the listing of homeless people.
2. Fear of arrest or harassment meant that many homeless people avoided census enumerators on the night of the count. (Their fears appeared to have foundation when two weeks after the census in Jakarta the government initiated a sweeping campaign to move homeless people out of the city).
3. Single sailors were listed as ‘awak kapal’ (crew) while their married colleagues were listed as household heads in their shore abodes.

One of the most important problems of the Indonesian census is the failure to take account of the large numbers of citizens who have left the country for work or study, and who intend to return home in the short term. While it might be valid to exclude such non-residents from attempts to collect detailed characteristics of citizens, the lack of clear adjustment for net international migration inhibits the goal of estimating the total number of Indonesians for reasons of national identity, civic responsibility or realistic identification of an abstractly defined population.

Will the Year 2000 Estimates Change?

In the past BPS has announced official population figure in terms of a ‘mildly adjusted’ estimate of the population including the homeless and other people who were listed on a separate, simplified form. In 2000 this has become more complex with the consideration of a number of distinct factors:

The Actual Count (from form L1 as summarised in form L3):	199,792,153
Adjustment for no enumeration or severe delay in processing:	3,233,160
Addition of listing of homeless, sailors and IDP or isolated:	430,692
Preliminary official estimate:	203,456,005

<i>Issues for which further adjustments could be made to national figure</i>	
‘Chronic’ undercount (1 percent?)	2,000,000?
Interviewer failures in 2000 (judgement based on field reports)	500,000?
Errors due to <i>de jure</i> enumeration in context of rising mobility	500,000?
Net loss due to international migration 1990-2000	1,000,000?

Potential substantial adjustment to national population figure

207,000,000

There is a need to ensure that future releases of population figures at the national and local levels distinguish between the actual count, the mild adjustment, and the substantial adjustment, so users of demographic data are aware of the limitations of the data. The actual count is needed because that is the basis of any analysis of the characteristics of individuals and households. There is no record of characteristics for either the people missed to enumeration or listed as homeless, etc.

The preliminary official estimate has the advantage of adjusting numbers for provinces and small areas as well as the national figure, and is the basis of past official estimates.

Analysts base the more serious substantial adjustments to the national figure on educated judgements. These adjustments are difficult to apply to smaller regions, but they are potentially important in defining concepts such as per capita economic measures or estimates of people in different social or economic categories.

Some implications of the preliminary results

The 1998 Population Projections (BPS 1998) produced a figure for the end of 1999 of 207 million, and this was expected to rise to 210 million at the end of 2000. With the preliminary mid-year census estimate of 203 million it is clear that the projections were substantially off the mark. Presumably this was due to unrealistic assumptions about fertility and mortality with the greatest likelihood that fertility fell faster than had been assumed in the projections. Had the projections been accurate the intercensal growth rate would have been around 1.6 percent per annum rather than the actual calculation of 1.35 percent in Table 1.

Interestingly, had the 1980-1990 growth rate of 1.95 percent continued into the 1990s, we would have seen a population of over 215.5 million people, or more than 12 million in excess of the preliminary estimate for mid 2000. In contrast, if the BPS had not adjusted the figures for the known underenumeration of people in regions of conflict the actual population count of 199 million would have implied a growth rate of 1.16 percent. In terms of growth, then, the extreme assumptions of no decline of growth in the 1990s (1.95 percent) and no underenumeration (1.16 percent) provide a bracket of potential estimates for the growth of Indonesian population in the last part of the New Order and the first phase of the Reform period. While this bracket may appear to be wide, it should give us confidence in the preliminary estimate of growth of 1.35 percent as a reasonable, and very moderate result.

If the projections obviously exceed the true levels of population growth because of overestimates of fertility, they are not subject to very large errors at older ages since the assumptions of mortality rates are unlikely to have been substantially incorrect. As a result the changes in age structure shown in the projections will be close to the changes to be revealed in the full census results late in 2001. What is the main lesson likely to arise from those results? Perhaps the most important thing will be the realization that Indonesia has turned an important corner in the demographic transition that started in the mid 1960s. Sometime between 2000 and 2001 the number of young people who constitute potential entrants to the labour force ceased to grow and began to decline. From a peak of 23,227,500 people aged 15 to 19 in 2000, the projected total fell to 22,739,400 in 2001, or a decline of 2.12 percent. The course of the projection of this age group continues to decline, falling to 20,797,400 in 2005. What this will mean for labour force changes is less straightforward than these figures suggest. In addition to the simple numbers there are social constructions that determine participation, for instance schooling experience, gender constructions and employment opportunities. While the 15 to 19 age group may be

regarded as a good indicator of potential labour force entrants, the next older age group is also in a situation to contribute to the labour force numbers. This age group will continue to grow substantially over the next half decade, from 20,659,800 in 2000 to 23,070,600 in 2005, and growing at rates of over 2.5 percent per year.

Some recommendations for future enumerations

The Population Census 2000 was seriously inhibited by a wide variety of problems affecting Indonesian society and economy. Problems of internal security, rapid changes in public attitudes toward government, and major difficulties with the government budget meant that the census results would inevitably be flawed. This came on top of problems of census enumeration that are endemic to censuses around the world – underenumeration, problems of implementing questionnaires in multiple languages, and the difficulty of attaining standard concepts of inherently complex social processes. Analysts can compensate for many of these problems by applying revisions to the basic data on the basis of the application of logic and comparable data to the raw data. It is important to be clear on the type and method of adjustments made to obtain population estimates. The adjustments must aim to produce realistic estimates of the true population. It is increasingly important to publicise both the actual count of enumerations and the adjusted estimates to enable users to understand the nature and importance of any weakness found in the data. Users of demographic data need to be educated to the implications of sampling and non-sampling errors, and ways of validly interpreting uncertain estimates.

In the case of Indonesia, it is probably time to move from the combined *de facto* and *de jure* definition of place of residence since this is obviously causing troubles for interviewers and respondents alike. This combined definition involves determining the usual residence rather than current residence. This is defined in terms of place of abode over a span of six months (either in the past, or as an intention in future) and means that highly mobile populations are thrown into confusion about how to report their residence. As the mobility of Indonesians has increased in the past four decades, interviewers have often resorted to reporting the ‘official’ residence as reflected in the Population Cards (KTP) rather than trying to interpret the six month rules. Future enumerations should move toward the implementation of a more specifically *de facto* concept of the population and count people according to their usual place of residence as of the enumeration date. This would also allow the census to collect full information on people who are officially defined as homeless but who have an identifiable place of residence. It would also reduce over- and under-counting due to confusion or errors in the interpretation of legal residence.

REFERENCES

- BPS (Badan Pusat Statistik) (2000a), *Penduduk Indonesia: Hasil Sensus Penduduk 2000*, Series RBL1.1. [Provincial results] Jakarta.
- BPS (Badan Pusat Statistik) (2000b), *Penduduk Indonesia: Hasil Sensus Penduduk 2000*, Series RBL1.2. [District and City results] Jakarta.
- BPS (Badan Pusat Statistik) (2001), *Hasil Sementara Sensus Penduduk 2000 (Preliminary Results of the Population Census 2000)*, *Berita Resmi Statistik*, No. 3, Th IV, 3 January 2001. Jakarta.

ATTACHMENT A2

Unofficial translation of the main census forms.

SP2000 - Form L1.

Republic of Indonesia
Population Census 2000
Listing of Dwellings and Households

Confidential

I. PLACE IDENTIFICATION

I. Identification of Region

101. Province (2 digits)
102. District/City (2 digits)
103. Subdistrict (3 digits)
104. Village (3 digits)
105. Classification of Village/Kalurahan (1 digit) Urban (1) Rural (2)
106. Number of Census Block (4 digits)
107. Local Place Unit.

II. RECAPITULATION

(Taken from Block IV on the last page)

201. Total households (Last number from column 18)
202. Total male household members (Column 23)
203. Total female household members (Column 24)
204. Total male household members + female household members (Column 25)

III. INTERVIEWER INFORMATION

- | | Interviewer | Supervisor/checker |
|-----------------------------------|-------------|--------------------|
| 301. Name of official | | |
| 302. ID Number | | |
| 303. Date of enumeration/checking | till | till |
| 304. Signature | | |

IV. LISTING OF BUILDING AND HOUSEHOLD

Columns:

1. Name/Number of the local area
2. Segment number
3. Order number of physical building
4. Order number of census building
5. Type of census building (Yes = 1 No = empty)
Not residence (go to column 412)
Residence/house
Mixed/house
6. House characteristics
Permanent house (yes = 1 No = -)
Housing facilities (Write the code 1 if present and stip (-) if not)

Bedroom
Kitchen
Bath room
Toilet
Clean water source
Electricity

407. Complete (if all columns under column 406 are coded 1, write 1, if not, insert strip(-)

1. Occupied (Yes = 1 No = - If '- Stop)
2. Number of households in census building
3. Order number of household
4. Type of household (ordinary = 1 Special = -)
5. Name of head of household (If 405 is 'not residence' write the name of the building user then STOP)
6. Building ownership status is owner (yes = 1 No = - , If '1' go to column 415)
7. If not personally owned (Rent/contract = 1 Other = -)
8. Number of household members
 - Male
 - Female
 - Male+Female

Republic of Indonesia
Population Census 2000
Listing of Dwellings and Households

Confidential

Identification codes recorded in 16 cells at the top of the form:

Province (2 digits)
 District/City (2 digits)
 Subdistrict (3 digits)
 Village (3 digits)
 Census block number (4 digits)
 BF number (3 digits)
 Household order number (3 digits)
 Type of household: Ordinary, Special.

- 1) To be included as household members: 1. Babies, 2. Visitors who have lived here for at least 6 months, or who have been here less than six months but intend to stay for at least 6 months, 3. Household servants who live and eat in this household.

Not included: 1. Household members who have been away for 6 months or more, or who have been away for less than 6 months but who intend to stay away, 2. Household servants who do not live in this household.

Total number of household members (4 digits)

Number of the Household Member (4 digits)

1. Write the name of the household member under the household member number.

2. Relationship to head of household (*darken the circle matching the appropriate code*)

Head of household	1	Wife/husband	2
Child	3	Other	4

1. Sex

Male	1
Female	2

2. Which District/Kotamadya and which Province of birth?

Name of District/Kotamadya: _____ (coded in 2 digits)

Name of Province: _____(coded in 2 digits)

3. Month and Year of birth along with age

a. Month and year (Gregorian) of birth? (Month in 2 digits, Year in 2 digits)

b. Age now (in years)? (coded in 2 digits)

4. Status/Condition of Marriage at the moment

Not yet Married	1	Married	2
Divorced	3	Widowed	4

5. Religion

Islam	1	Catholic	2	Protestant	3
Hindu	4	Budha	5	Other	6

6. Citizenship/Ethnic group
 Indonesia 1 (write out ethnic group)
 Foreigner 2 (write out nationality)

FOR Household Member AGED 5 YEARS AND ABOVE

7. Place of residence five years ago
 Name of District/Kotamadya: _____ (coded in 2 digits)
 Name of Province: _____ (coded in 2 digits)

8. Highest Degree/Certificate Possessed
- | | | | |
|------------------------------|---|---------------------------|---|
| Not yet/None | 1 | Elementary or equivalent | 2 |
| Junior High or equivalent | 3 | High School or equivalent | 4 |
| Diploma I/II | 5 | Academy/Diploma III | 6 |
| Higher Education/ Diploma IV | 7 | | |

9. What activity was undertaken within the last week (Read the answers)
- | | | | |
|----------------|---|------------------|---|
| Work/Have work | 1 | Looking for work | 2 |
| Schooling | 3 | Other | 4 |

10. If Question 11 is code 1. Main Sector of Work
- | | | | |
|--------------------|---|---------------------|---|
| Agriculture (food) | 1 | Estate crops | 2 |
| Fisheries | 3 | Animal husbandry | 4 |
| Other Agriculture | 5 | Processing Industry | 6 |
| Commerce | 7 | Services | 8 |
| Transport | 9 | Other | 0 |

11. Status/position in the main work
- | | |
|-------------------------------------|---|
| Enterprise/self-employed | 1 |
| Enterprise with temporary employees | 2 |
| Enterprise with permanent employees | 3 |
| Labourer/employee/wage worker | 4 |
| Unpaid worker | 5 |

FOR EVER-MARRIED WOMEN AGED 10 YEARS AND ABOVE

12. Total of all own children ever-born. (two digits)
 13. Total own children that are still living. (two digits)

ATTACHMENT A3

COMPARISONS ON DATA COLLECTED IN THE FIVE INDONESIAN CENSUSES
Based on materials compiled by Sie Gde Made Mamas
Updated and modified by Terence H.Hull

No.	Topics	Population Census 1961	Population Census 1971	Population Census 1980	Population Census 1990	Population Census 2000	Remarks
-----	--------	------------------------	------------------------	------------------------	------------------------	------------------------	---------

I Population							
A. All persons							
1.	Relationship to head of household	v	v	v	v	v	
2.	Sex	v	v	v	v	v	
3.	Age	v	v	v	v	v	The unknown ages are estimated by interviewers
4.	Date of birth	-	-	v	v	v	Only for those who knew their birth date
5.	Own mother living in the same household.	-	-	v	v	-	Included to provide information needed for the 'Own Child estimates of fertility
6.	Marital status	v	v	v	v	v	
11.	Religion	v	v	v	v	v	
12.	Citizenship	v	v	v	v	v	
13.	Ethnicity	-	-	-	-	v	Data on ethnicity and citizenship 2000 combined into code scheme with 1087 + 2 codes.
14.	Place of birth (province)	v	v	v	v	v	In addition to province place of birth, district (<i>kabupaten</i>) place of birth was also asked in the 2000 population census.
15.	Duration of residence in present province	-	v	v	v	-	
16.	Place of previous residence (province)	-	v	v	v	-	
17.	Place of residence 5 years ago (province)	-	-	v	v	v	In addition, district (<i>kabupaten</i>) of residence 5 years ago was also collected in the 2000 population census.
							Data on morbidity compiled

No.	Topics	Population Census 1961	Population Census 1971	Population Census 1980	Population Census 1990	Population Census 2000	Remarks
18.	Morbidity during the previous week	-	-	v	-	-	from the 1980 population census is not reliable.
19.	Medical facility used	-	-	v	-	-	
20.	Type of handicap (if any)	-	-	v	-	-	Data on type of handicap compiled from the 1980 population is very inaccurate.
21.	School attendance	v	v	v	v	-	Data on schooling in 2000 derived from activities in last week
22.	Type school attended or currently attending	-	-	v	v	-	
23.	Highest grade attended/attending	-	-	v	v	-	
24.	Field of study	-	v	v	v	-	
25.	Language used at home	-	-	v	v	-	
26.	Mother tongue	-	-	-	v	-	
27.	Ability to speak Indonesian	-	-	v	v	-	
28.	Literacy	v	v	v	v	-	1. In the 1961 population census, this question only for those aged 10 years and over. 2. In the 1990 population, this question only for those aged 5 years and over.
B. Persons 10 years and above							
29.	Primary activity during the previous week	-	v	v	v	v	1. In the 1961 population census, the time reference was 6 months. Employed persons was

No.	Topics	Population Census 1961	Population Census 1971	Population Census 1980	Population Census 1990	Population Census 2000	Remarks
							defined as those who worked at least 2 months during the reference period. 2. In other censuses, the employed persons were those who worked at least 1 hour during the reference period (1 week).
30.	Number of days worked during the previous week	-	-	v	v	-	
31.	Number of hours worked during the previous week	-	-	v	v	-	
32.	Occupation	v	v	v	v	-	
33.	Industry	v	v	v	v	v	
34.	Employment status	v	v	v	v	v	
35.	If the respondent had an additional job during the previous week, type of industry	-	-	v	v	-	
36.	Looking for work during the previous week	-	v	v	v	v	
37.	Reasons for not looking for work	-	-	v	v	-	
38.	Worked during the previous year, type industry	-	-	v	v	-	
C. Ever married women aged 10 years and over							
39.	Month and year of first marriage	-	-	v	v	-	
40.	Age at first marriage	-	-	v	v	-	
41.	Number of marriage	-	-	v	v	-	

No.	Topics	Population Census 1961	Population Census 1971	Population Census 1980	Population Census 1990	Population Census 2000	Remarks
42.	Number of living children	v	v	v	v	v	
43.	Number of death children	v (computed)	v (computed)	v	v	v (computed)	
44.	Number of children ever born	v	v	v (computed)	v	v	
45.	Month and year of birth of the last child	-	-	v	v	-	
46.	Whether the last child is still alive	-	-	v	v	-	
D. Currently married women under 50 years of age							
47.	Contraceptive methods ever used	-	-	v	-	-	
48.	Contraceptive methods currently used	-	-	v	-	-	
II. Household and housing information							
1.	Type of physical structure	-	-	v	v	v	
2.	Number of census units in the physical structure	-	v	v	v	v	
3.	Number of households in this census unit	-	v	v	v	v	
4.	Ownership status	-	v	v	v	v	
5.	Primary construction material of walls	v	v	v	v	-	
6.	Primary construction material of floor	v	v	v	v	-	
7.	Primary construction material of roof	v	v	v	v	-	

No.	Topics	Population Census 1961	Population Census 1971	Population Census 1980	Population Census 1990	Population Census 2000	Remarks
8.	Floor area	-	-	v	v	-	
9.	Number of bed rooms	-	v	-	-	-	
10.	Type of lighting	-	v	v	v	-	
11.	Type cooking fuel	-	v	v	v	-	
12.	Source of drinking water	-	v	v	v	-	
13.	Source of water for bathing/washing	-	v	v	v	-	
14.	Bathing facility	-	-	v	v	-	
15.	Toilet facility	-	v	v	v	-	
16.	Type garbage disposal	-	v	-	-	-	
17.	Ownership some durable goods	-	-	v	v	-	
18.	Agricultural land tenure	v	-	v	v	-	
19.	Livestock/poultry raised by the household	v	-	v	-	-	