4.b: Thematic use / applications of census data

Education

2020 World Round of Population and Housing Censuses – Pacific Island countries’ census planning meeting

*International recommendations/standards, contemporary technologies and regional cooperation*


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Demand for data
Different levels of demand

SDG

PEDF

Global indicators: standardized, comparable, reported in most countries, reflects “universal” policies

Regional indicators: standardized, comparable, based on geographic, economic or political groupings

National indicators: standardized, comparable over time, reflect national context and policy priorities

The importance of Pacific Education Statistics

EDUCATION PLANNING AND DECISION SUPPORT
- Informing decision-makers and other users
- Identifying issues to be addressed by administrators and planners, schools
- Supporting policy planning

GOVERNMENT SERVICES
- Education – planning for new schools, classrooms, number location of teachers,
- Resource allocation and policy formation
- Research and monitoring of government policy

FUTURE WORKFORCE
- Better understanding the skills and utility of the countries future workforce
- Education for what?

PROGRESS MONITORING AND EVALUATION
- National reporting on education action plans and strategies
- Funding / international agreements – MDGs, Donor interventions
Measuring access to education and coverage of school-age population

All countries seek, in varying degrees, to discover to what extent their education systems meet perceived needs,

- measure progress towards specific objectives such as the provision of primary education for all;
- identify and measure disparities between different groups within a country, such as between ethnic groups, between the sexes, and between urban and rural dwellers;
- compare the national situation with that of other countries, thereby highlighting problems that need to be given priority;

Decision making and planning

In the Pacific region, education data informs decision-making for a broad audience, from the community, through parents’ selection of schools for their children; school teachers and principals; to central government resource allocations; and development partner investment prioritisation. Education stakeholders at all levels rely on this data being of high quality to ensure their decisions are reliably informed.

The Pacific Education Development Framework

A strategy for creating partnership in Education in the Pacific

Strategic Goals:
1. To achieve universal and equitable participation and access to Pacific education and training. (Access & Equity)

2. To improve quality and outcomes. (Quality)

3. To achieve efficient and effective utilisation of resources ensuring balanced and sustained development of Pacific education systems. (Efficiency & Effectiveness)
What data tell us?

Census and education

Pacific Island countries’ census planning meeting, Noumea, July 2015

Patrick Monjoundes, UNESCO Institute for Statistics
Census is the keystone of education monitoring and analysis

1- **Census-based outputs**: source of information for policy-makers, researchers...often underplayed; education is mostly seen as a background variable and census under the mandate of NSOs

2- **Census-based inputs**: Census population data are also critical for education monitoring

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**Census-based education outputs**

<table>
<thead>
<tr>
<th>IF AGE 3 YEARS OR OLDER</th>
<th>IF AGE 3-24 YEARS</th>
<th>IF AGE 3 YEARS OR OLDER</th>
<th>LITERACY</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVER ATTENDED SCHOOL</td>
<td>CURRENT/RECENT SCHOOL ATTENDANCE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has ...’s ever attended school?</td>
<td></td>
<td>Did ...’s attend school at any time during this year (2016)?</td>
<td>During this school year, what level and class/form/year was ...’s attending?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Did ...’s attend school at any time during 2014 last year?</td>
<td>During that school year, what level and class/form/year did ...’s attend?</td>
</tr>
<tr>
<td>1. Yes, at school</td>
<td>1. Yes</td>
<td>1. Yes</td>
<td></td>
</tr>
<tr>
<td>2. Yes, left school</td>
<td>2. No (go to 23)</td>
<td>2. No (go to 23)</td>
<td>Level is listed below; write the appropriate code in the box</td>
</tr>
<tr>
<td>3. No (go to 23)</td>
<td>Write the appropriate code in the box</td>
<td>Write the appropriate code in the box</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Preschool/Kindergarten:</th>
<th>Junior Secondary school - form</th>
<th>Senior Secondary school - form</th>
<th>Tertiary school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school - class</td>
<td></td>
<td></td>
<td>33. Diploma</td>
</tr>
<tr>
<td>11. C11</td>
<td></td>
<td></td>
<td>34. Bachelor</td>
</tr>
<tr>
<td>12. C12</td>
<td></td>
<td></td>
<td>35. Master</td>
</tr>
<tr>
<td>13. C13</td>
<td></td>
<td></td>
<td>36. Doctorate (PHDs)</td>
</tr>
<tr>
<td>14. C14</td>
<td></td>
<td></td>
<td>41. Vocational</td>
</tr>
<tr>
<td>15. C15</td>
<td></td>
<td></td>
<td>51. Don’t know</td>
</tr>
<tr>
<td>16. C16</td>
<td></td>
<td></td>
<td>46. Other</td>
</tr>
</tbody>
</table>
Census-based education outputs

Stock of Human Capital
- Mean years of schooling, Ed. attainment

Education flows
- Attendance rates, Out-of-school children

Levels of literacy
- Youth (15-24) and adults (15+) literacy rates

Background variables:
Location, Gender, Wealth, Ethnicity, Language etc...

P6.1-R. Population ...* years of age and over by school attendance, educational attainment, age and sex
P6.2-R. Population 5 to 29 years of age, by school attendance, single years of age and sex
P6.3-R. Population 10 years of age and over, by literacy, age and sex

Kiribati

Preschool/Kindergarten:
- 01. Yr1
- 02. Yr2

Primary school, class:
- 11. C11
- 12. C12
- 13. C13
- 15. C15

Junior Secondary school - form:
- 21. F4
- 22. F2

Senior Secondary school - form:
- 24. F4
- 25. F5
- 26. F6

Tertiary school:
- 31. Tertiary level N/C
- 32. Certificate
- 33. Diploma
- 34. Bachelor
- 35. Master
- 36. Doctorate (PHDs)
- 41. Vocational
- 51. Don’t know
- 98. Other

22. F2 = 8 years of schooling
Use of census-based education outputs

- Education Planning, Monitoring and Evaluation, Resource allocation and policy, Out-of-school analysis

How can censuses respond to regional and international monitoring needs?

Education MDGs indicators

6. Net enrolment ratio in primary education
7. Proportion of pupils starting grade 1 who reach grade 5
8. Literacy rate of 15-24 year-olds
9. Ratios of girls to boys in prim., secondary and tertiary education
10. Ratio of literate women to men, 15-24 years old

PEDF: ~10%
At regional and international levels, importance of ISCED, census should enable ISCED conversion.

Cooks:
Primary GER = 108
Fiji:
Primary GER = 108.2

But this is based on national classification, Primary: 6 years in Cooks and 8 years in Fiji

### Proposed Education SDGs indicators

<table>
<thead>
<tr>
<th>Concept</th>
<th>Proposed indicator</th>
<th>Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4.1</strong> Primary and secondary: Learning</td>
<td>Percentage of children who achieve minimum proficiency standards in reading and mathematics at end of: (i) primary (ii) lower secondary</td>
<td>Targets 4.1-4.7</td>
</tr>
<tr>
<td>Primary and secondary: Completion</td>
<td>Completion rate (primary, lower secondary, upper secondary)</td>
<td>Gross intake ratio to the last grade (primary, lower secondary)</td>
</tr>
<tr>
<td>Primary and secondary: Exclusion</td>
<td>Out-of-school rate (primary, lower secondary)</td>
<td></td>
</tr>
<tr>
<td><strong>4.2</strong> Early childhood: Readiness</td>
<td>Early Childhood Development Index</td>
<td></td>
</tr>
<tr>
<td>Early childhood: Participation</td>
<td>Participation rate in organized learning (one year before the official primary entry age)</td>
<td>Pre-primary education gross enrolment ratio</td>
</tr>
<tr>
<td><strong>4.3</strong> TVET/Tertiary</td>
<td>Enrolment ratios by level and type of education</td>
<td></td>
</tr>
</tbody>
</table>
## Proposed Education SDGs indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4.4</strong></td>
<td>Skills for work</td>
</tr>
<tr>
<td><strong>4.5</strong></td>
<td>Equity</td>
</tr>
<tr>
<td><strong>4.6</strong></td>
<td>Literacy and numeracy</td>
</tr>
<tr>
<td><strong>4.7</strong></td>
<td>Sustainability/Citizenship: Environment</td>
</tr>
<tr>
<td></td>
<td>Sustainability/Citizenship: Citizenship</td>
</tr>
</tbody>
</table>

### But censuses remain snapshots

- Able to answer needs only at a single point in time
- And in some cases, censuses only enable for a proxy (attendance vs enrollment)
- Census however, provide with the means to do regular monitoring, population data are used as the baseline for many social indicators
The importance of population data for education

• One of the objectives of a census is to meet the demand for good quality population data…. and these have many clients, one is education

• A large share of education indicators are population based. If we get the population wrong we get education wrong

Ex: 80% of Education MDGs are population-based indicators

The importance of population data for education

Education indicators require annual population data by single age

• Censuses provide the basic initial parameters for yearly population estimates

• But single year - single age population estimates can be tricky.

Example: UNPD method from 5 years age groups every five years to single age every year, loosens track of the cohorts
The importance of population data for education

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary</th>
<th>Lower secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>2012</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>2013</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>2014</td>
<td>14</td>
<td>12</td>
</tr>
</tbody>
</table>

- Censuses remain underused when it comes to education analysis despite the fact that they provide one of the richest source of information
- Censuses are not sufficient but they are a necessary condition for appropriate monitoring of education
- Good data from education question means less burden for regional and international request
- Population data are critical for education monitoring, need to have good client provider discussion, requires inter-ministries collaboration
- Inter-censal surveys/ Mini-censuses are important to redress population estimates, the further from the census the higher the risk of inaccuracy of population data and of education indicators (as well as other fields)

Concluding remarks
THANKS