

SIAP/UNFPA/USP Sub-regional training on Using Population and Census
Data for Sub-national Planning: Thematic Analysis on Youth
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Using census and demographic data in sectoral planning applications

Dr Alessio Cangiano

Senior Lecturer, Population & Demography Program

School of Economics, FBE

University of the South Pacific

Outline

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- Overview of applications of demographic analysis to policy and planning
- Implications of demographic trends for policy and planning
- Using census and household surveys to inform youth policies: some examples
- Use of census data for population and socio-economic projections (e.g. school enrolment, labour force)

Main applications of demographic analyses to policy-making and planning

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- Schooling population
 - Entrants in the education system at different levels (e.g. demand for building new schools)
 - School drop-outs and school leavers
- Working-age population (labour force)
 - Labour market entrants from education system
 - Retirement
 - Migration
 - Skill composition

Main applications of demographic analyses to policy-making and planning (2)

Application to the problems of state and local governance

- Infrastructure and facilities (e.g. housing, hospitals, roads, airports, dumping/recycling sites, fire stations, prisons)
- Service provision (e.g. garbage collection, social housing, family planning, community health services, childcare, libraries)
- Legislative districts and electoral reform
- Allocation of public expenditure to local areas and to different priorities (education, health, social security, etc.)
- Financial sustainability of pension/social security systems
- Analysis of poverty and deprivation (population at risk)
- Reform of land tenure
- Disaster management

Application of demographic analysis to business planning (aka “Business demography”)

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- Site location (e.g. new plants, retail store, service outlets)
- Marketing (e.g. tracking demand for products/services)
- Human resource planning (e.g. workforce

Demography cuts across the MDGs

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Millennium Development Goals (MDGs)



1 Eradicate extreme poverty and hunger



2 Achieve universal primary education



3 Promote gender equality and empower women



4 Reduce child mortality



5 Improve maternal health



6 Combat HIV/AIDS, malaria and other diseases



7 Ensure environmental sustainability



8 Develop a global partnership for development

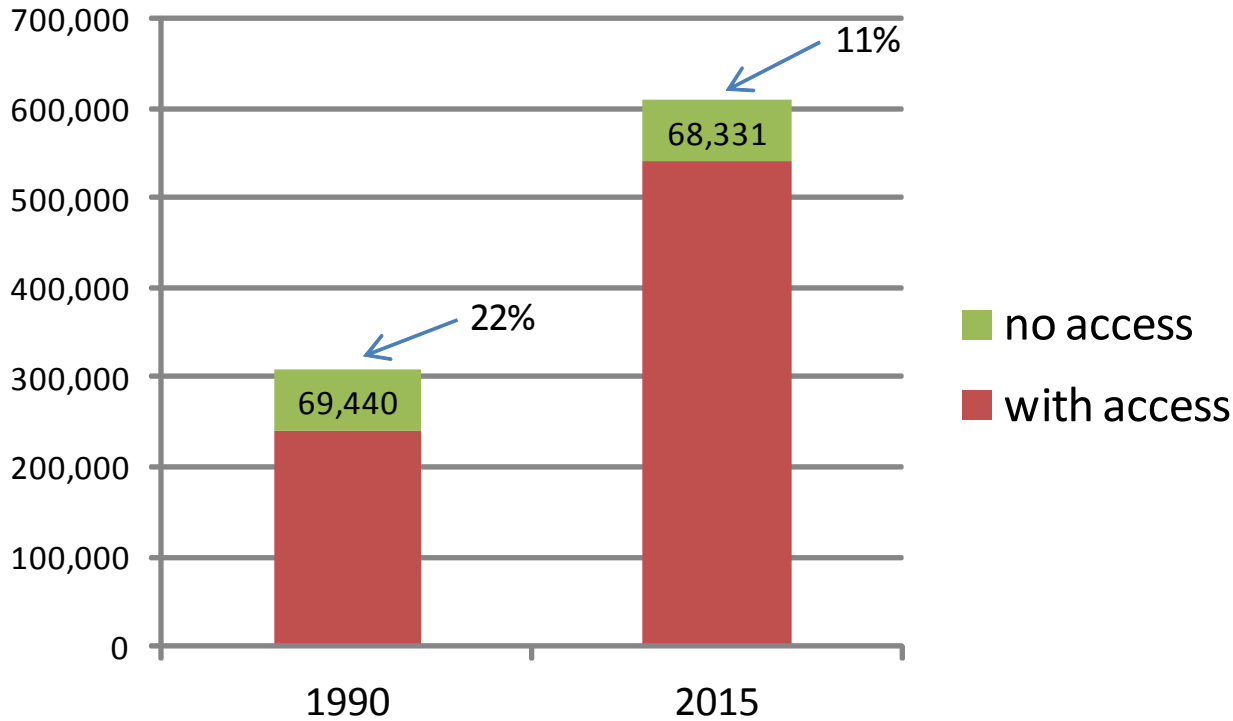
Challenges associated with rapid population growth (examples)

- **Pressure on health budgets** health personnel and infrastructural facilities are already severe in many PICs, particularly on rural facilities. Ability to provide universal and high **quality** reproductive health services might become increasingly difficult.
- **School-age populations are anticipated to increase** very substantially in several countries, particularly in Melanesia.
- Need for significant employment expansion to absorb **youth unemployment**
- **The pressure on land will intensify** in situations with demarcation disputes over traditional, communally-owned or unregistered land
- Deleterious **environmental implications** – e.g. pressure on clean water supplies, sanitation, coastal reefs and in-shore fishing grounds
- **Food security** (also because of the rising share of imported food)

Impact of rapid population growth on MDG targets

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Fig. – Population with and without access to improved sanitation facilities. Solomon Islands, 1990 (observed) and 2015 (based on MDG target)



MDG target 7.9

Halve by 2015 the proportion of the population without access to an improved sanitation facilities

Challenges associated with changing demographic structures

- Age pyramid with **broad base**
 - High levels of child dependency (e.g. high education and health expenditure)
 - Children disproportionately affected by poverty and deprivation
 - Further population growth implicit in the age structure – because of large cohorts entering reproductive ages

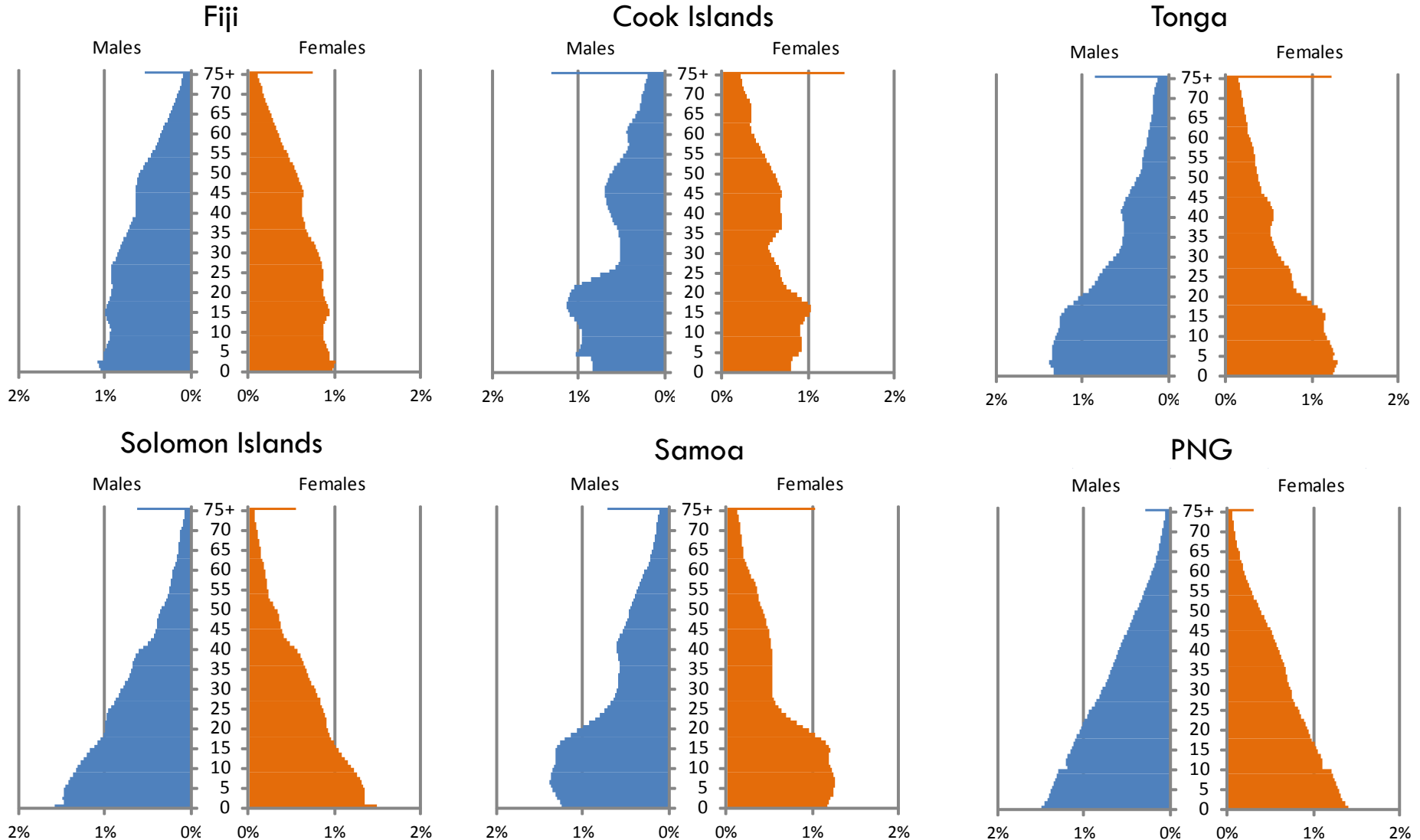
- Age pyramid with **large top**
 - High levels of old-age dependency (e.g. pension expenditure)
 - Older people amongst most vulnerable group

- Age pyramid with **depleted working-age cohorts**
 - High levels of dependency (e.g. low tax revenue)
 - Labour shortages

Population age structures in the Pacific, 1 July 2010

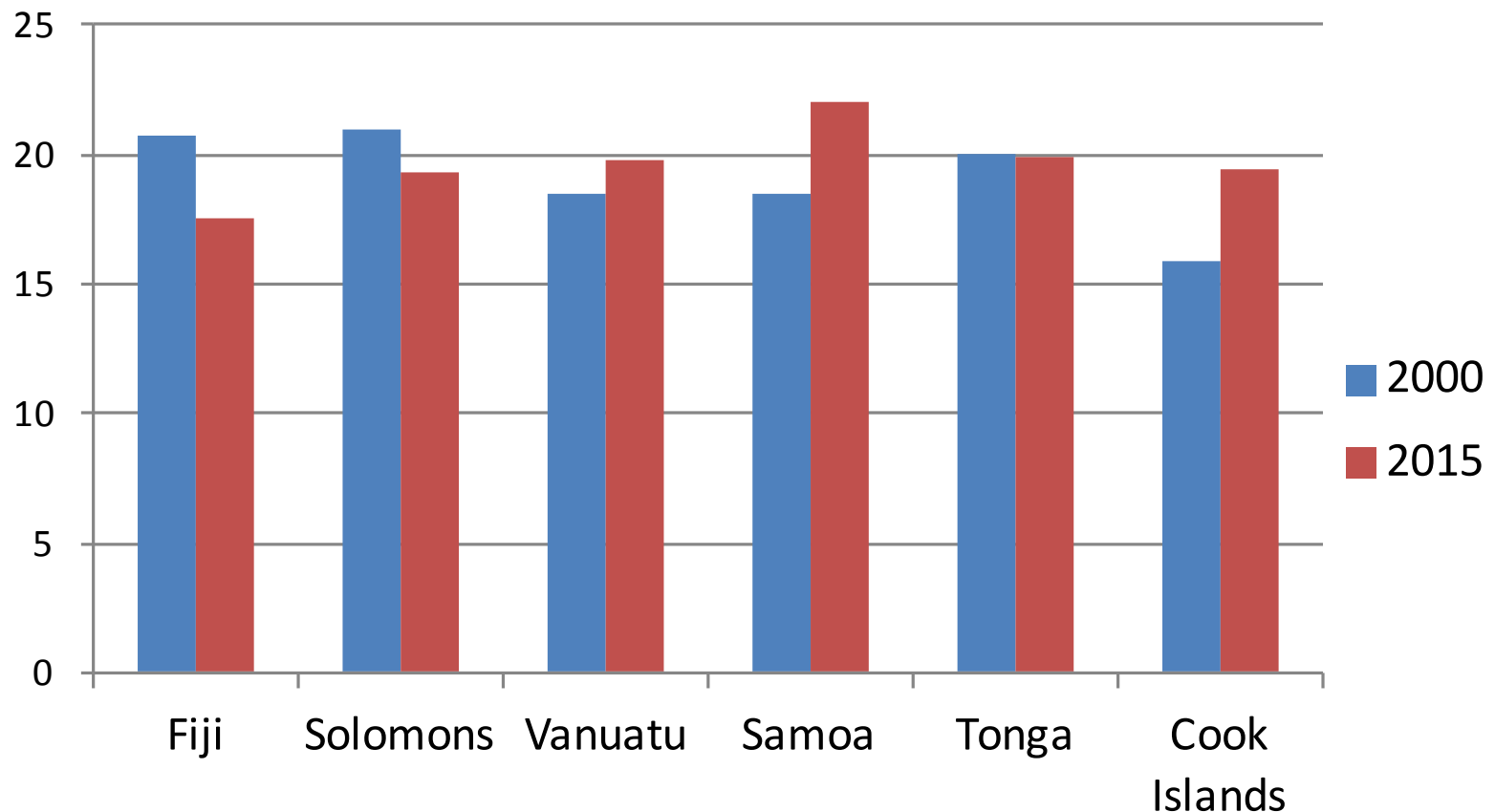
Source: Secretariat of the Pacific Communities, Population Data Sheet.

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Youth = 1 in 5 Pacific Islanders

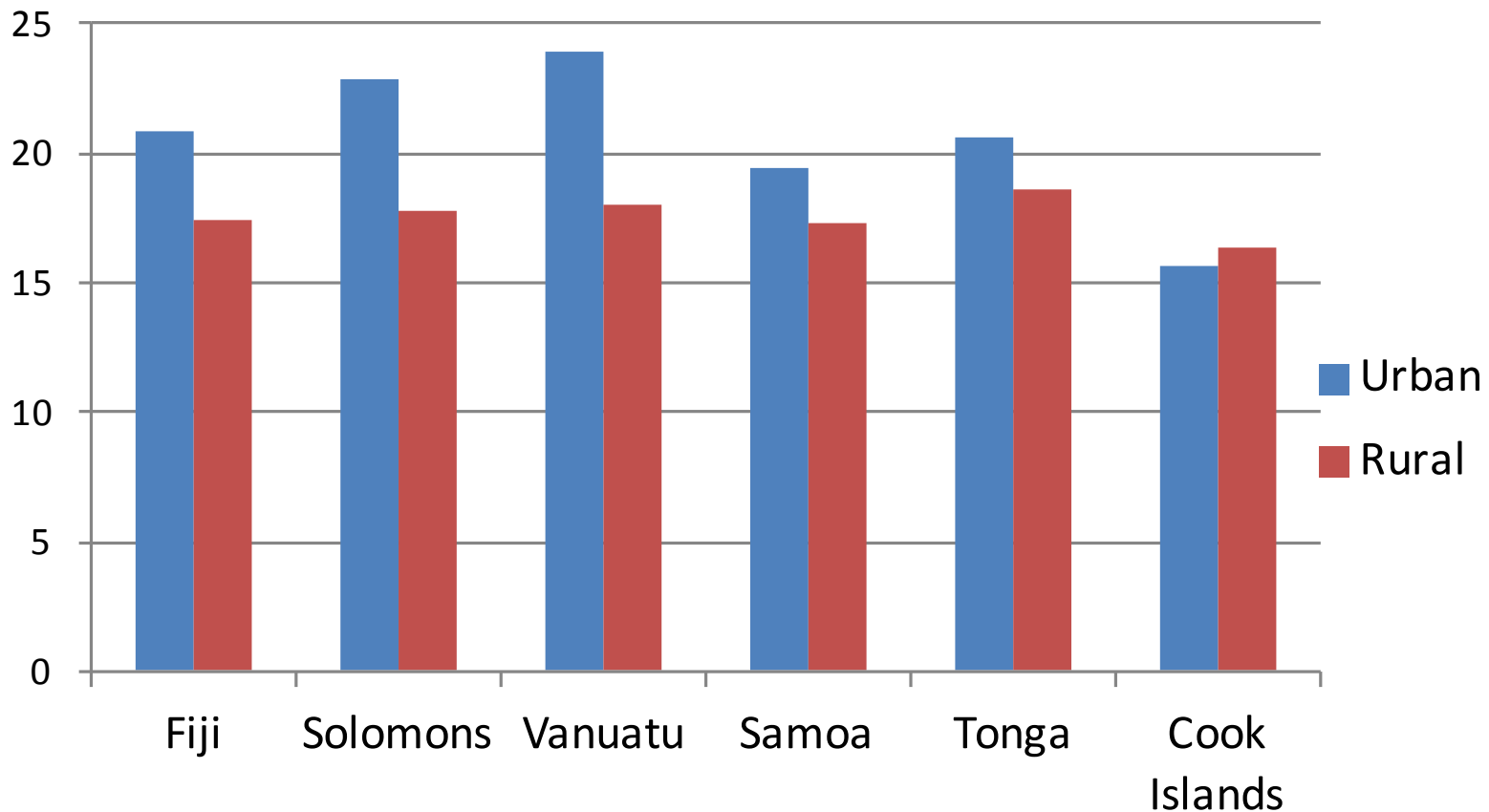
Figure – Proportion of youth (15-24) in the population of selected PICs (%)



Melanesian youth are concentrated in urban areas

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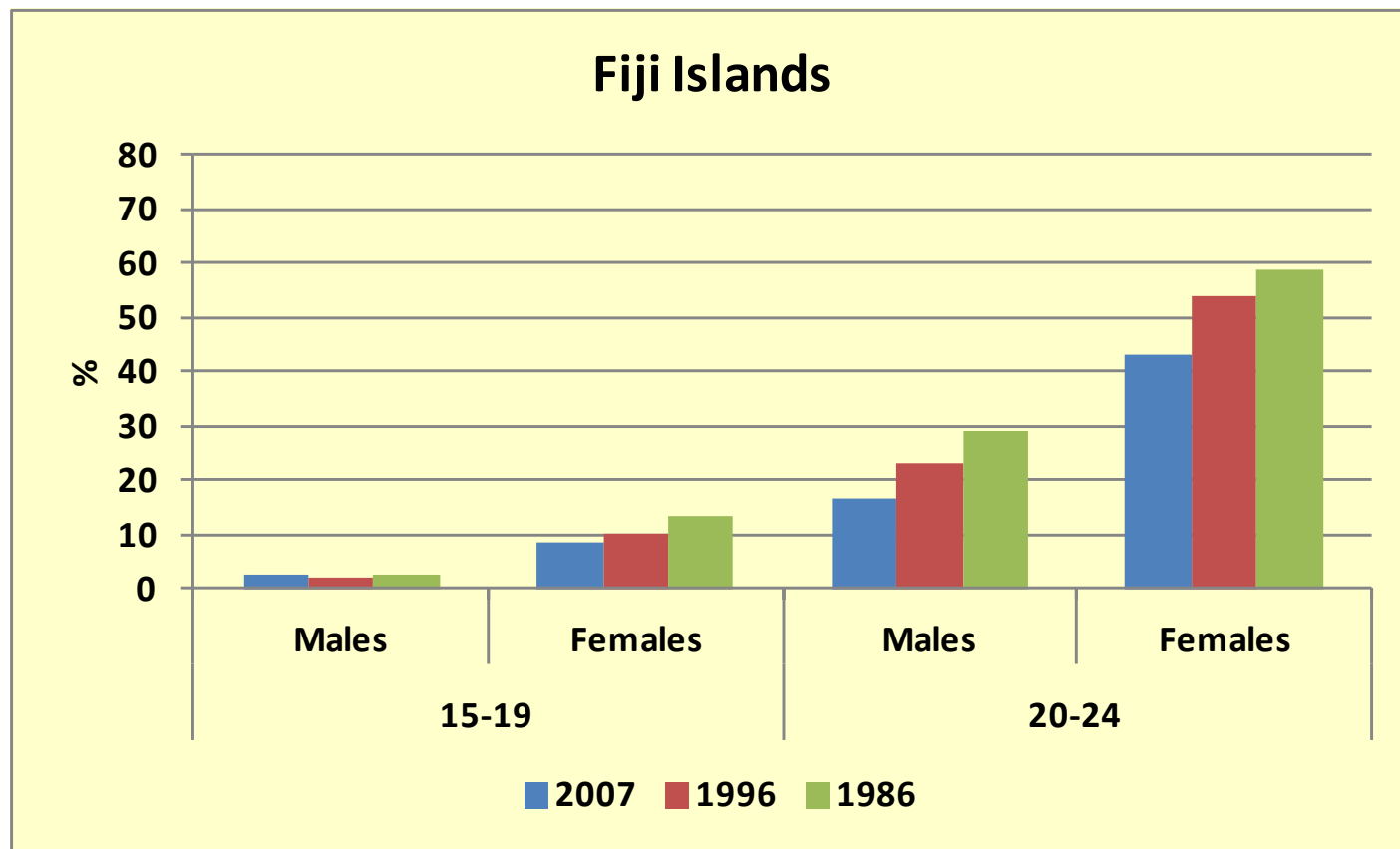
Figure – Proportion of youth (15-24) in the urban and rural population of selected PICs (%)



The postponement of family formation

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Figure – Proportion of married population amongst youth in Fiji, by sex (%)



Source: SPC, Statistics for Development Programme

Household surveys

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- Purpose: obtain information from a representative sample of the population
- More depth than censuses: household surveys collect thematic data which complements general population data provided by censuses
- Quicker than censuses and relatively inexpensive
- Small samples; more limited geographic coverage than censuses and vital registrations

Demographic & Health Surveys (DHS)

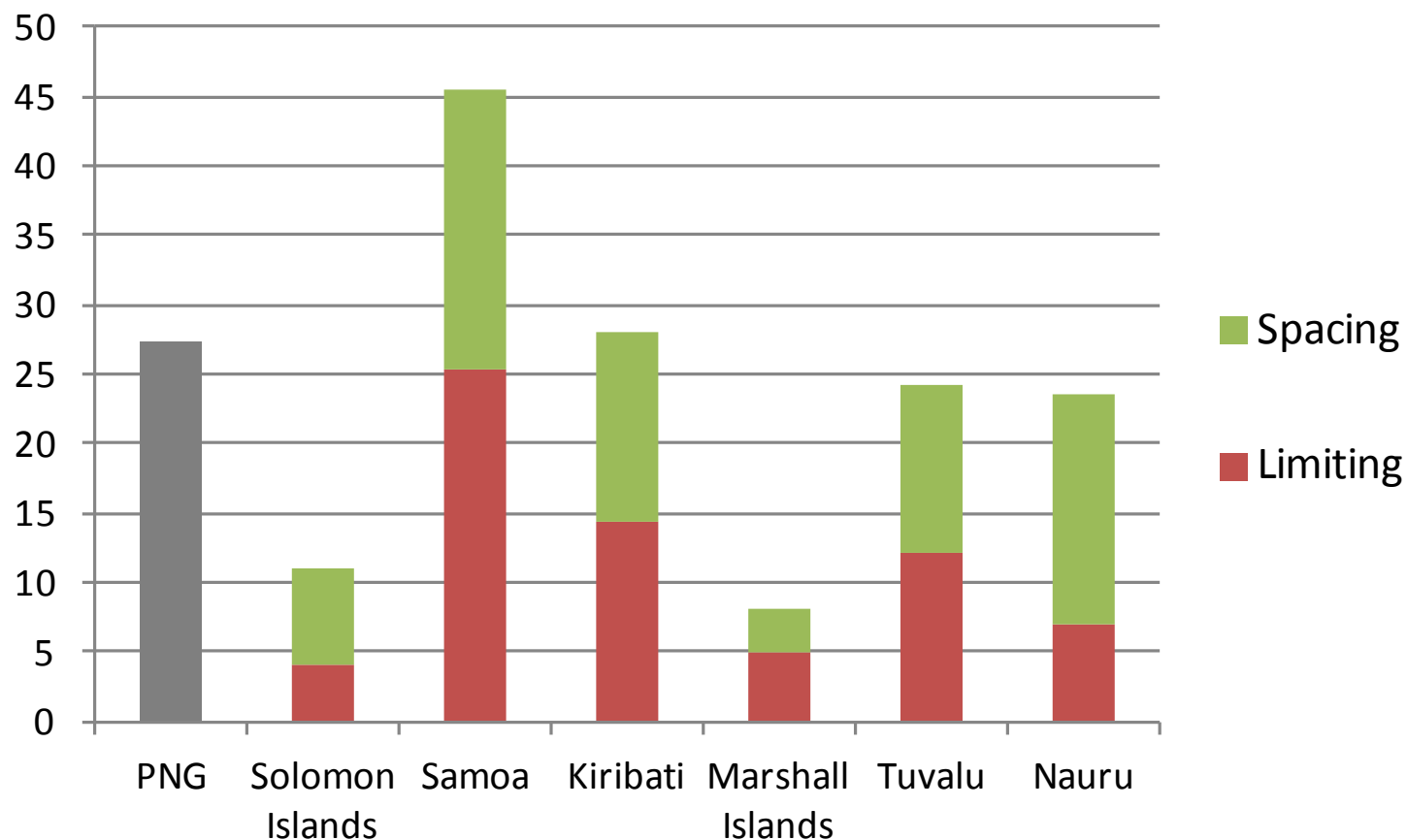
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- One of the largest internationally comparative survey data collection ever undertaken (over 260 surveys in >90 countries)
- Topics: fertility, family planning, maternal and child health, nutrition, and diseases such as HIV and malaria
- Use: family planning and reproductive health policies, gender policies, national health plans, MDG monitoring
- Recent and ongoing DHS in the Pacific: between 2006 and 2013 almost all PICs

Unmet need for family planning

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Figure – Unmet need for family planning (%) in selected PICs, 2006/09

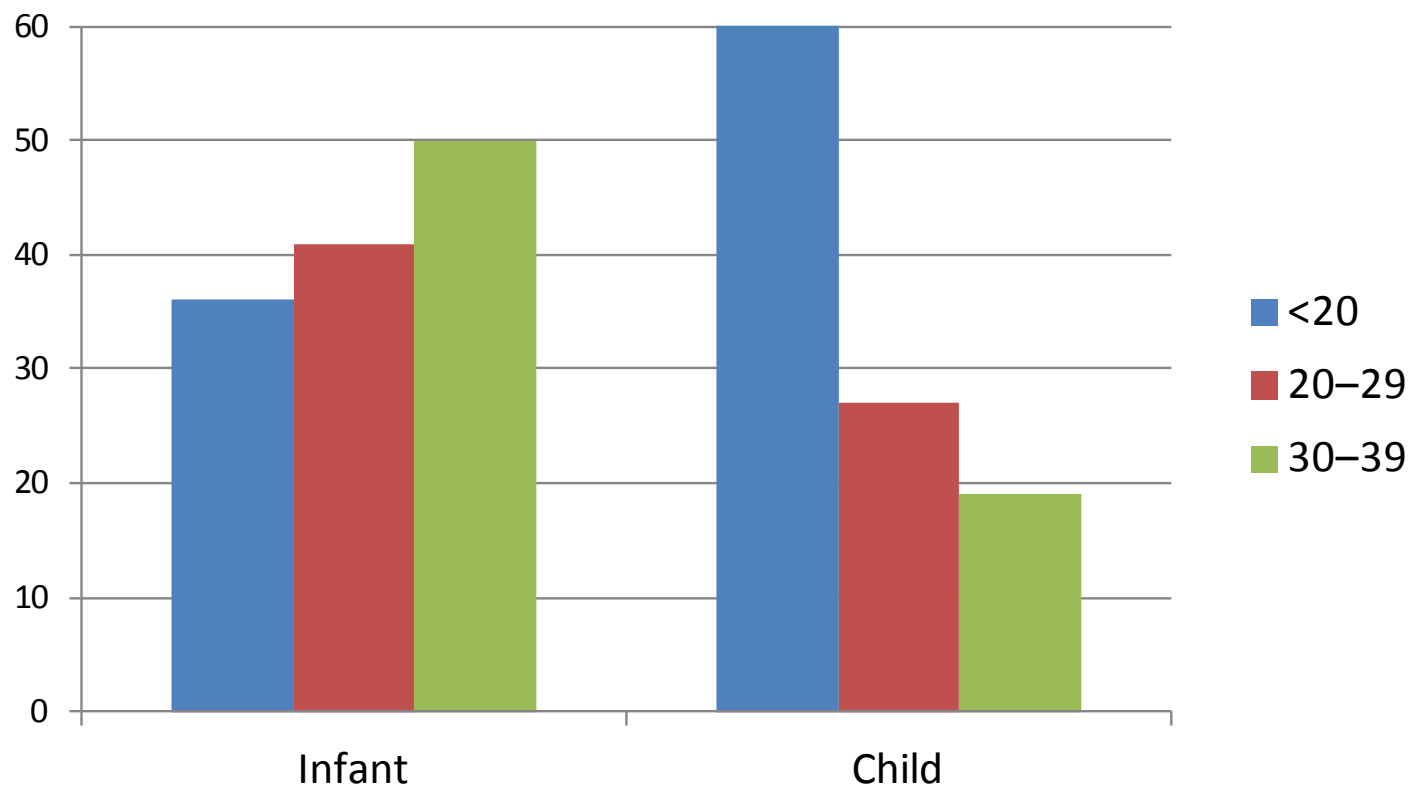


Source: Demographic and Health Surveys.

Child mortality is a youth issue

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Figure – Infant and child deaths per 1000 births by age of the mother, Kiribati 2006-09



Source: Kiribati Demographic and Health Survey.

Use of census data for population estimates and projections

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- Census data are used to prepare population estimates for inter-censal years and population projections
- Population estimates are obtained by 'updating' census counts with vital registration data (births, deaths). The next census is then used to adjust retrospectively inter-censal estimates
- Censuses provide the base-year data for population projections
 - population by age and sex, fertility, mortality, migration

Population Projections

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- ❑ Population projections are an attempt to determine what the future population will be like
- ❑ not just the future size of a population, but also in the future age and sex structure
- ❑ Population projections are not *predictions*: they illustrate a future which is *hypothetical* and only eventuates if actual developments coincide with our assumptions about demographic changes
- ❑ Because of the uncertainty of future trends, the most probable population developments (central or medium variant) is generally accompanied by other scenarios representing alternative futures (e.g. high and low variants)

Population Projections

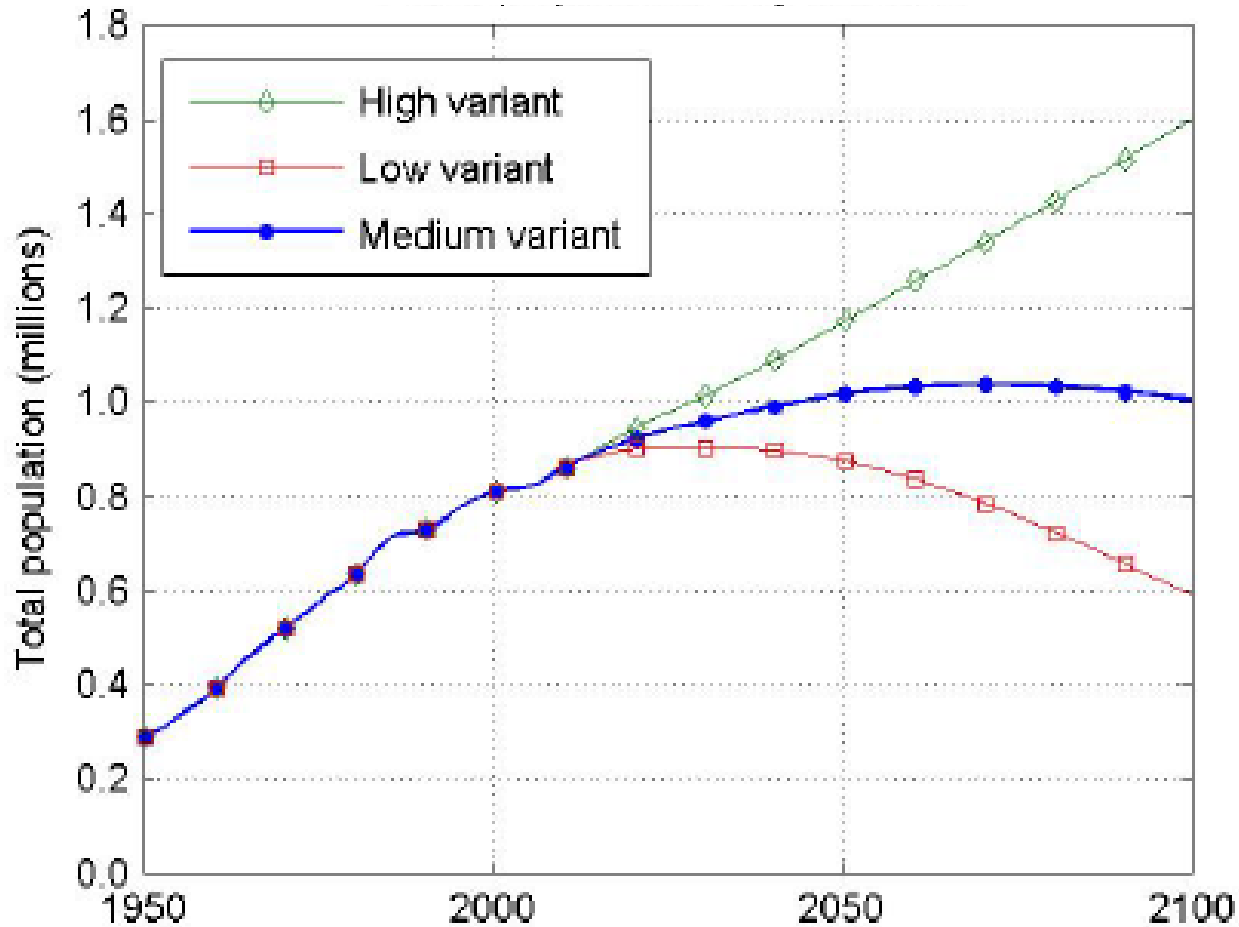
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- ❑ The further into the future, the greater the uncertainty. For example, excluding migrants, all those who will be older than 20 in 2033 (i.e. including all women in reproductive age) are already born today
- ❑ Population projections are often wrong!
- ❑ The smaller the population, the greater the uncertainty (the higher the impact of migration)
- ❑ Local area projections require assumptions about both internal and international migration
- ❑ Population projections produced by different organizations are different and continually revised (e.g. every 2 years)

The longer the projection period, the greater the uncertainty

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Figure – Total population by projection variant, Fiji 1950-2100

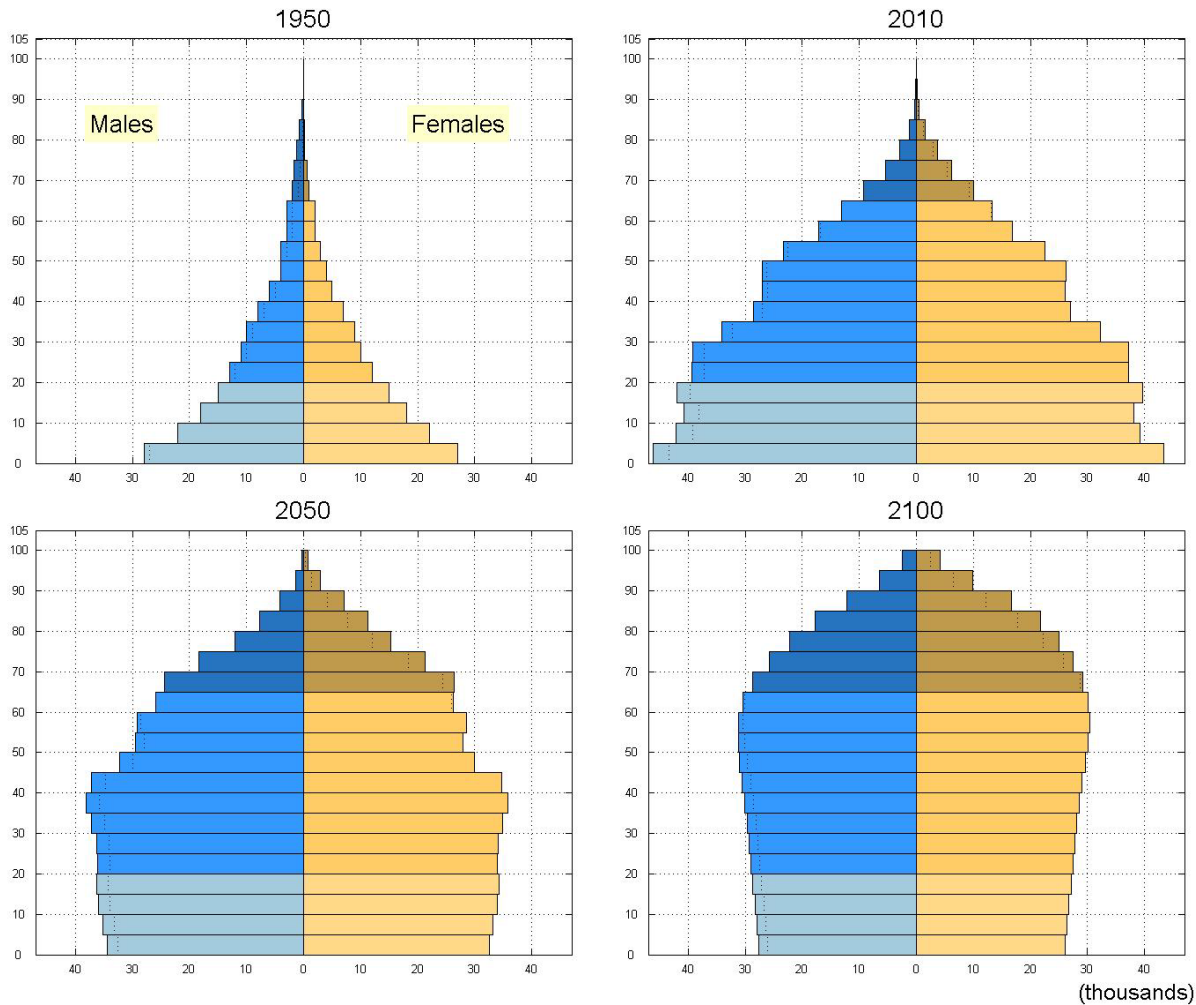


Source: UN Population Division, World Population Prospects, the 2010 revision.

Change in the age structure, Fiji

(UN medium variant)

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Source: UN Population Division, World Population Prospects, the 2010 revision.

Socio-economic projections

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- ❑ Socio-economic projections can be used to inform planning in multiple areas: education, employment, housing, family planning, health, pension, etc.
- ❑ Socio-economic projections need to specify additional parameters, i.e. future trends of school enrolment ratios or labour force participation rates
- ❑ Typical scenarios:
 - Constant enrolment
 - Extrapolation of recent trends
 - Policy goals (i.e. universal secondary education)

Labour market projections for the Pacific Islands

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Table – Projected change in formal and informal sector employment, 2006-2015

| Country | Formal employment | | Labour Force unabsorbed by formal sector | |
|-----------------|-------------------|-------|--|-------|
| | Abs. (000) | % | Abs. (000) | % |
| Fiji | 20 | 15.5% | 13 | 6.4% |
| PNG | 51 | 23.8% | 634 | 25.8% |
| Solomon Islands | 2 | 6.2% | 52 | 31.2% |
| Vanuatu | 4 | 25.3% | 30 | 31.8% |

Massive increase in unabsorbed employment in Melanesian countries (except Fiji)

(Duncan and Voigt-Graf 2008)

Some take-home messages

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- ❑ Censuses and household surveys are complementary data sources with great potential to inform policy and planning
- ❑ Need to combine static and dynamic analyses (i.e. demographic characteristics and processes)
- ❑ Socio-economic projections can be used to inform strategic planning and decision-making in many policy fields
- ❑ Projections not predictions! Results are conditional on assumptions made. More than one scenario has to be provided to reflect the uncertainty of future demographic developments