Socio-economic correlates of fertility in Peninsular Malaysia

FIRST ASIAN POPULATION ASSOCIATION CONFERENCE 2010
VIGYAN BHAWAN, NEW DELHI
16-20 NOVEMBER

ADZMEL MAHMUD
AMINAH ABDUL RAHMAN

NATIONAL POPULATION AND FAMILY DEVELOPMENT BOARD
Outline of presentation

- Malaysia at a glance
- Fertility trends and differentials
- Objective
- Data
- Scope and method
- Results and findings
- Summary and conclusion
## Malaysia at a glance

<table>
<thead>
<tr>
<th>Selected population indicators</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population (million)</td>
<td>26</td>
</tr>
<tr>
<td>Pop. in Peninsular Malaysia (%)</td>
<td>72</td>
</tr>
<tr>
<td>Urban population (%)</td>
<td>63</td>
</tr>
<tr>
<td>Annual pop. growth rate (%)</td>
<td>2.3</td>
</tr>
<tr>
<td>Pop. aged &lt; 15 years (%)</td>
<td>32.0</td>
</tr>
<tr>
<td>Pop. aged 65 years and above (%)</td>
<td>4.4</td>
</tr>
<tr>
<td>Ethnicity (%)</td>
<td></td>
</tr>
<tr>
<td>Malays</td>
<td>55</td>
</tr>
<tr>
<td>Other bumiputera</td>
<td>11</td>
</tr>
<tr>
<td>Chinese</td>
<td>26</td>
</tr>
<tr>
<td>Indians</td>
<td>8</td>
</tr>
<tr>
<td>Female LFPR (%)</td>
<td>47</td>
</tr>
<tr>
<td>Total fertility rate (per woman)</td>
<td>2.3</td>
</tr>
<tr>
<td>Age at marriage (2000)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>28</td>
</tr>
<tr>
<td>Female</td>
<td>25</td>
</tr>
<tr>
<td>Infant mortality rate (1000 live births)</td>
<td>6.2</td>
</tr>
<tr>
<td>Life expectancy at birth</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>72</td>
</tr>
<tr>
<td>Female</td>
<td>77</td>
</tr>
</tbody>
</table>
Fertility trends and differentials

Total fertility rate (TFR) by ethnicity, 1960-2007, Peninsular Malaysia

Sources: Department of Statistics, Malaysia, 2006
Age specific fertility rate (ASFR) by ethnicity and age group, 1960-2005, Peninsular Malaysia.

Sources: Department of Statistics, Malaysia, 2006
Age specific fertility rate (ASFR) by ethnicity and age group, 1960-2005, Peninsular Malaysia

Sources: Department of Statistics, Malaysia, 2006
To examine fertility trends and differentials among women in Peninsular Malaysia by selected socio-economic variables which significantly influence the number of children ever born.
Data


- The MPFS-4 is nationally representative survey, whose sample is based on the National Household Sampling Frame (NHSF).

- A total of 3,697 ever-married women aged 15-49 were successfully interviewed in Peninsular Malaysia.
Scope and method

- Dependent variable - number of children ever born (CEB) for women aged 15 to 49.

- Bivariate analyses are performed to examine the relationship between the number of children ever born (CEB) across the socio-economic variables.

- For multivariate analysis, Multiple Classification Analysis (MCA) is used to estimate models that relate the mean number of CEB to selected socio-economic variables.
The explanatory variables tested are:

- ethnicity,
- place of residence,
- regions,
- wife’s and husband’s educational level,
- wife’s work pattern,
- husband’s occupation and
- family income.
Results and findings

Mean number of children ever born (CEB) of ever-married women by age group, 1974 - 2004, Peninsular Malaysia.

Mean number of children ever born (CEB) of ever-married women aged 45-49 by ethnicity, 1974 – 2004, Peninsular Malaysia.

<table>
<thead>
<tr>
<th>MPFS year</th>
<th>All ethnic groups</th>
<th>Malays</th>
<th>Chinese</th>
<th>Indians</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>6.2</td>
<td>5.9</td>
<td>6.7</td>
<td>6.4</td>
</tr>
<tr>
<td>1984</td>
<td>6.1</td>
<td>6.8</td>
<td>5.1</td>
<td>6.1</td>
</tr>
<tr>
<td>1994</td>
<td>4.9</td>
<td>5.6</td>
<td>3.7</td>
<td>4.6</td>
</tr>
<tr>
<td>2004</td>
<td>3.9</td>
<td>4.7</td>
<td>3.0</td>
<td>3.3</td>
</tr>
</tbody>
</table>

Mean number of children ever born (CEB) of ever-married women aged 15-49 by socio-economic variables

**Ethnicity**

- Malays: Total, Adj. (b)
- Chinese: Total, Adj. (b)
- Indians: Total, Adj. (b)

**Place of residence**

- Rural: Total, Adj. (b)
- Urban: Total, Adj. (b)

**Region**

- Northern: Total, Adj. (b)
- Central: Total, Adj. (b)
- Southern: Total, Adj. (b)
- Eastern: Total, Adj. (b)

**Wife's education**

- No schooling: Total, Adj. (b)
- Primary: Total, Adj. (b)
- Secondary: Total, Adj. (b)
- Tertiary: Total, Adj. (b)

M9 : adjusted mean with age and age at marriage
Mean number of children ever born (CEB) of ever-married women aged 15-49 by socio-economic variables

- **Wife's occupation**
  - Never worked
  - Worked before marriage
  - Worked after marriage
  - Worked before and after marriage

- **Husband's education**
  - No schooling
  - Primary
  - Secondary
  - Tertiary

- **Husband's occupation**
  - Agricultural
  - Non-agricultural

- **Family income**
  - < RM1000
  - 1000-1999
  - 2000-2999
  - RM3000 +

M9 : adjusted mean with age and age at marriage
# Results of MCA by ethnicity

<table>
<thead>
<tr>
<th></th>
<th>Malays</th>
<th>Chinese</th>
<th>Indians</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R²</strong></td>
<td>21% 52 %</td>
<td>19% 39%</td>
<td>21% 39%</td>
</tr>
<tr>
<td>M7 : all factors together</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M9 : age and age at marriage as covariates</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Eta** | • wife’s work pattern  
• wife’s education  
• husband’s education  
• husband’s occupation | • wife’s education  
• husband’s education  
• family income  
• wife’s work pattern | • husband’s education  
• place of residence  
• family income  
• family income |
| **Beta** | Wife’s education | Wife’s work pattern | Family income |
Summary and conclusion

• Fertility level in Peninsular Malaysia is declining fast

• The mean number of children ever born (CEB) for all ever-married women has dropped from 4.2 children in 1974 to 3.6 children in 1984, 3.4 children in 1994 and continued to decline to 3.1 in 2004.

• Between 1974 and 2004, the Malay completed family size fell off by about 25%, while that of the Chinese and Indians declined by 45% and 51% respectively.
The fertility was highest among Malays, women who reside in the rural areas and the eastern region, women with lower educational attainment, women who had never worked, women whose husband’s with lower educational attainment, women whose husband’s worked in the agricultural sector and women with family income less than USD 280 (RM1000) per month.

The number of CEB is directly related to age and age at first marriage. Using these variables as demographic controls, fertility differential still exist between Malays and non-Malays, rural-urban residents and women in the eastern region and other regions. However, the differentials according to husband’s and wife’s educational level, women work pattern, husbands occupation and family income were explained away by age and age at first marriage.
THANK YOU