

Suggested Solution to Assignment 4

1. After navigating through the NSO's website, you should find that:

Source: NSO's Website	2006	2007	2008	2009	2010
Population	62,828,706	63,038,247	63,389,730	63,525,062	63,878,267
- Male	31,007,857	31,095,942	31,255,869	31,293,096	31,451,801
- Female	31,820,849	31,942,305	32,133,861	32,231,966	32,426,466
Population Growth Rate (%)	0.7	0.3	0.6	0.2	0.6
Number of Births	802,924	811,384	797,356	787,739	766,370
Birth Rate per 1000	12.8	12.9	12.6	12.4	12.0
Number of Deaths	392,044	398,438	401,981	398,130	414,888
Death Rate per 1000	6.2	6.3	6.3	6.3	6.5
Natural Rate of Increase (%)	0.7	0.7	0.6	0.6	0.6

Clearly, the fall in birth rate has been the major contributor to the downward trend of the rate of natural increase of population.

Source: <http://service.nso.go.th/nso/nsopublish/BaseStat/basestat.html>

(Do not panic if you look up the NSO's Statistical Yearbook and got different figures. Somehow the NSO's indicators in the Yearbook are a little different, especially birth and death rates. I believe this is due to some discrepancy when you count population in thousands as the yearbook did. I'd rather stick with the raw population, births, and deaths data, then calculate the rates myself.)

2. A young age distribution means that a large portion of population is in the childbearing years. With youthful distribution, without proper policy on birth control and ceteris paribus, population would continue to grow as birth rate is likely to be higher than death rate.

3. With well-implemented ban on child labor, a benefit of having a child would be less compared to the total cost of having a child (opportunity cost plus accounting cost). Parents would decide to have fewer children as the cost is higher than the benefit they projected, and thus reduce total fertility rate.

4. Full pay maternal or paternal 3-year leave means that the mother and the father of a child can take a leave of absence to tend to their child for 3 years with normal salary. This reduces the opportunity cost of having a child, and could make the decision of having a child lean towards the positive side.

5. The decision table is as below:

	1	2	3	4	5	6	7
ρ	0.75	0.5	0.25	0.2	0.2	0.2	0.2
$1-\rho$	0.25	0.5	0.75	0.8	0.8	0.8	0.8
Probability	0.75	0.875	0.906	0.925	0.94	0.952	0.962

The parents will choose to have 3 children to be at least 90% certain that at least one of their children would take care of them.