

The Rev. T. H. Malthus saw poverty as nature's check on population growth.

- Higher incomes would just raise poor families' birth rate.
- Agricultural output growth cannot keep up with populations.
- Efforts to help the poor would end with famine, war and pestilence

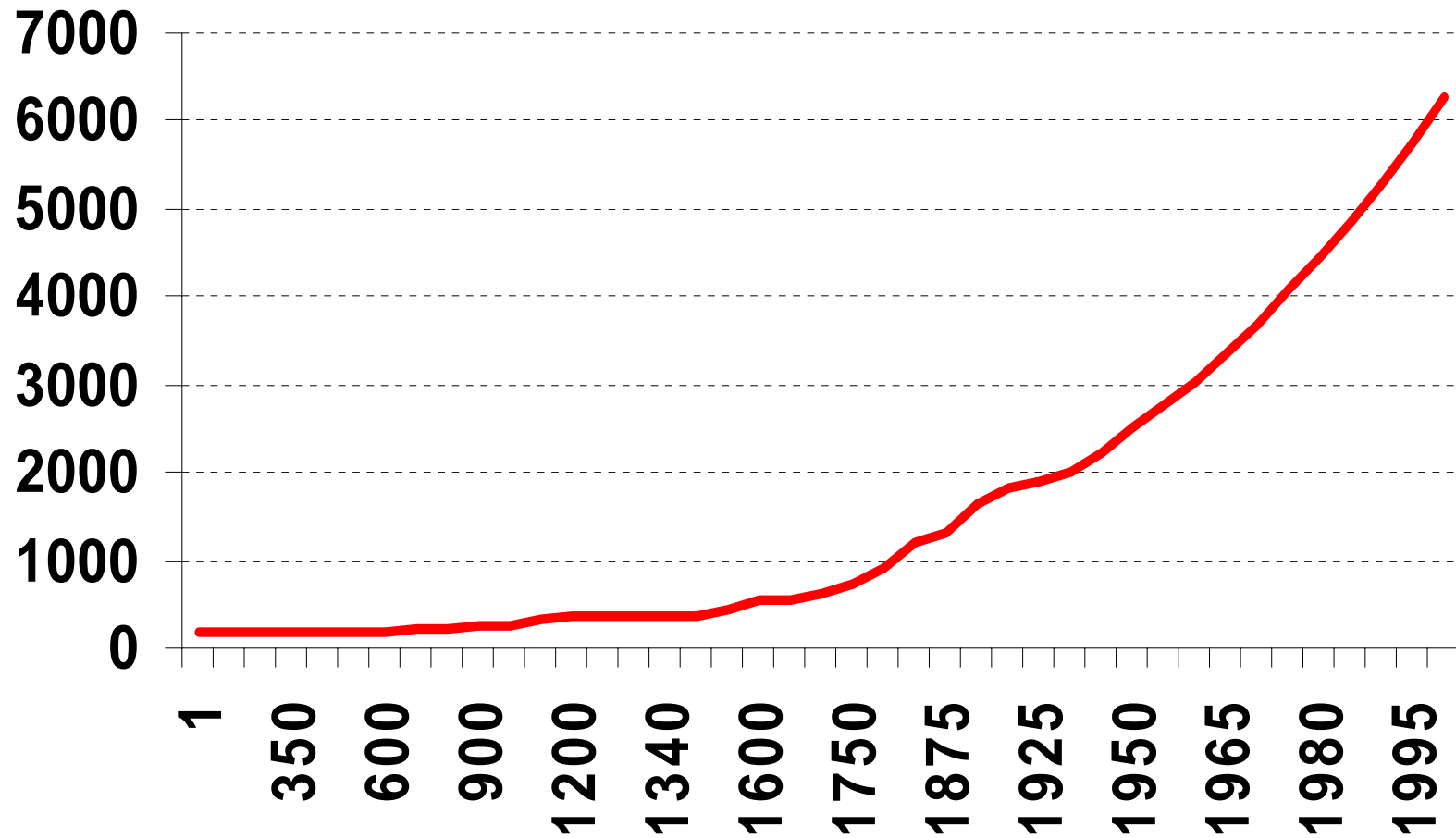


But Malthus and Ricardo were wrong...what actually happened:

- ***Birth rates rose, but then fell as incomes rose further:*** the value of parent's time-- the cost of raising children rises so everyone substitutes quality for quantity.
- ***Agricultural output rose faster than population*** even in populous China, Indonesia and India.
- ***Even the poorest families appear to choose their family size*** to maximize their own well-being (if not the countries') contrary to the uncontrolled reproduction Malthus envisioned in the first edition of his *Essay on Population*.

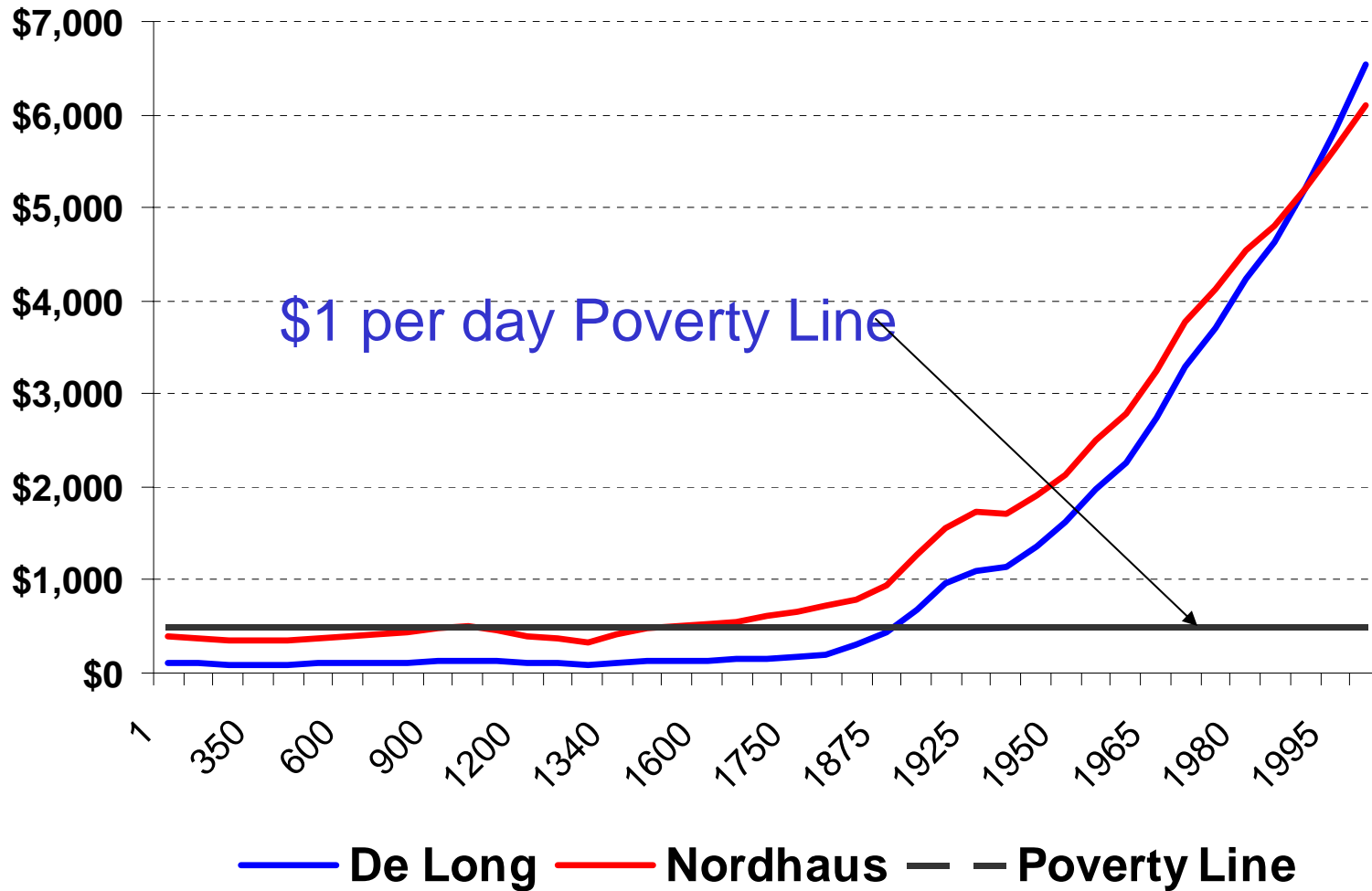
1000 Years of World Population (millions)

World Population



World Income Per Person (1990 \$US)

World Income Per Person

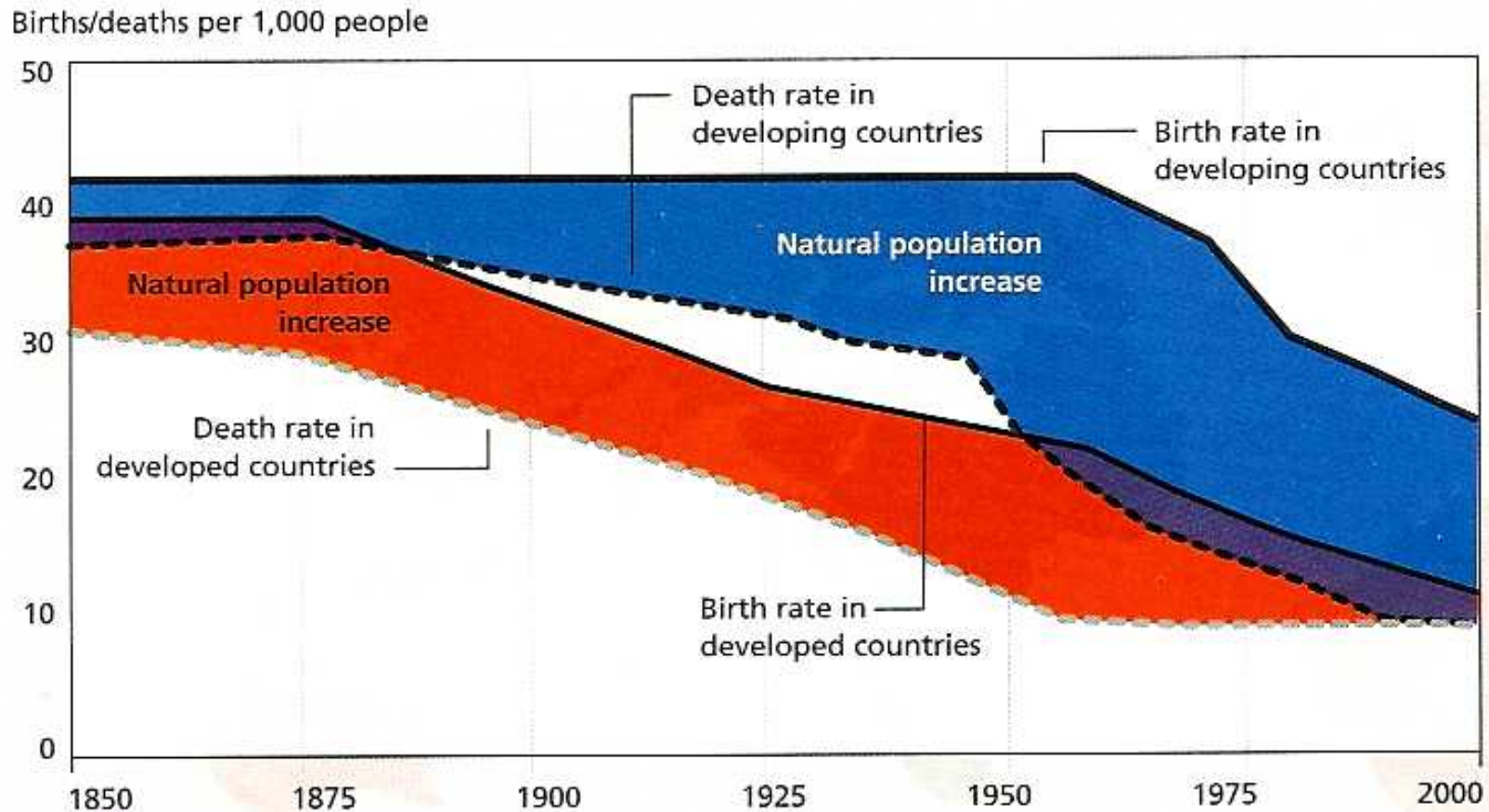


What is the Demographic Transition?– as any group's income rises above \$350 per year...

- ***The death rate falls from 30-40 to about 8-12 per 1000 people due to better nutrition and sanitation.***
- ***After increasing, the birth rate falls from 35-45 to about 12-18 per 1000 as incomes rise.***
- ***But, higher income lowers the death rate faster than it reduces the birth rate so population growth surges for about 20 years creating a “baby boom” that lasts at least two generations as more young people have more kids (this is known as population momentum).***

The Demographic Transition in LDCs started after WWII

Figure 3.2 Trends in birth and death rates, 1850–2000

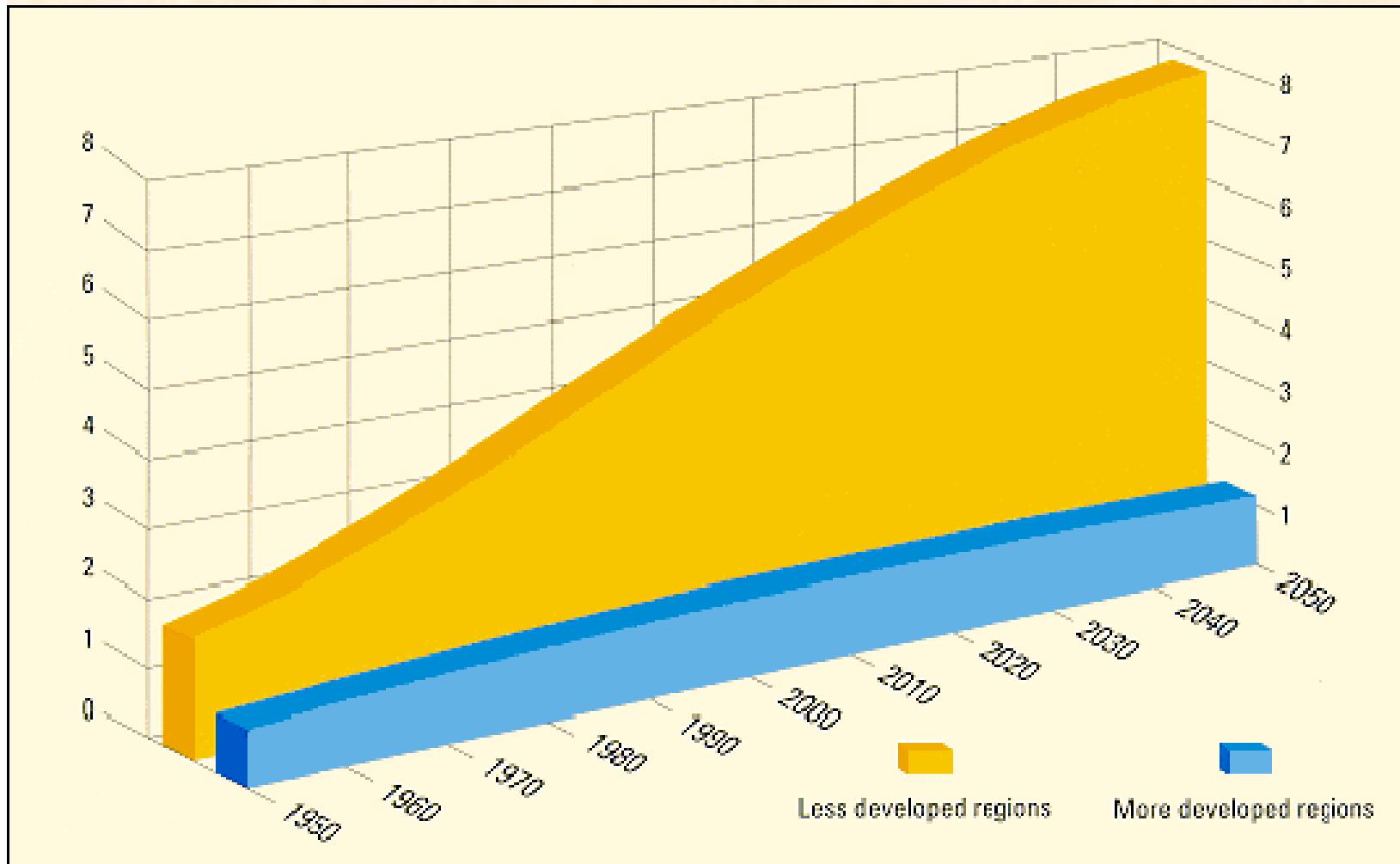


Note: Developed countries include high-income countries and present-day transition economies.

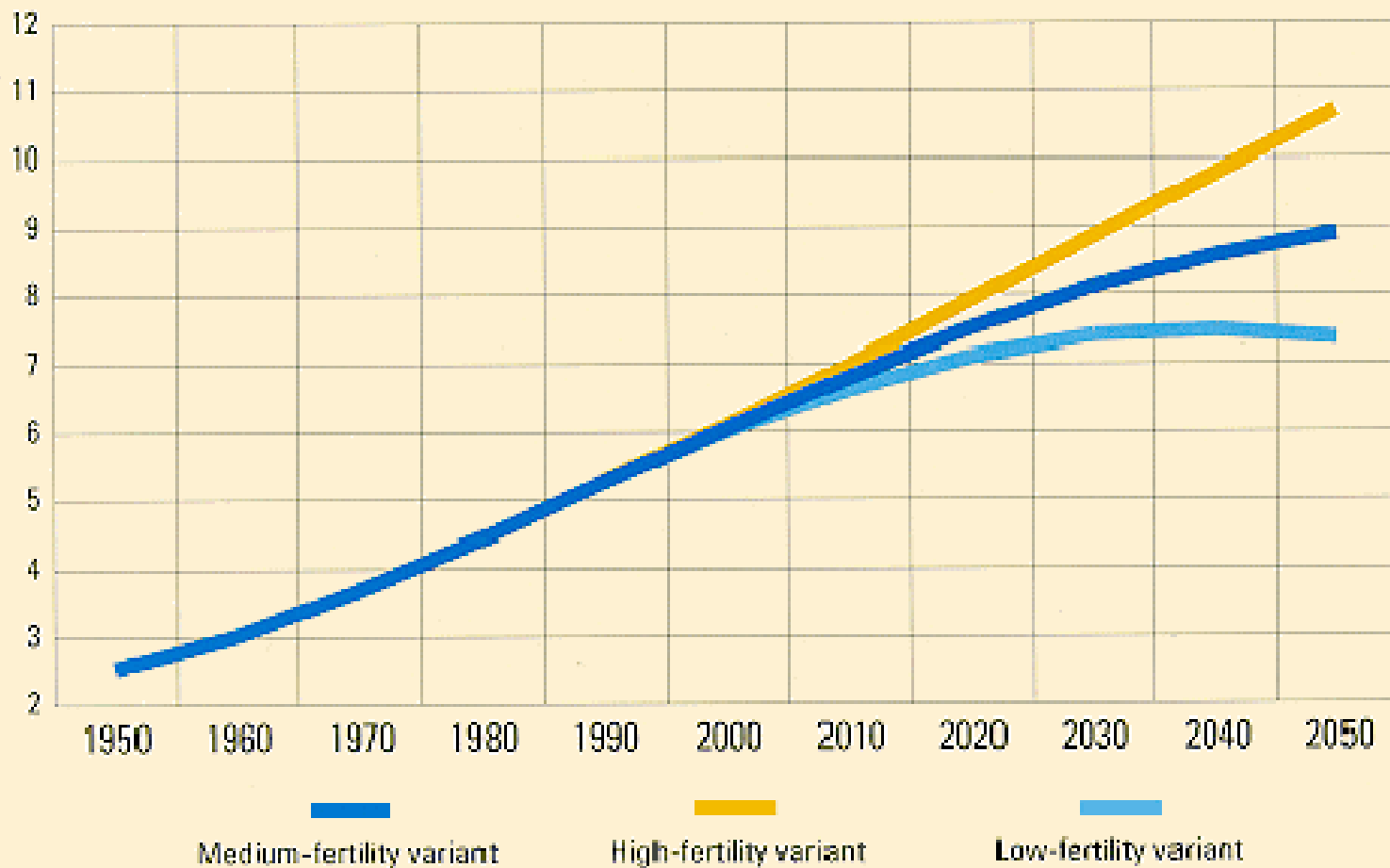
Two Population Booms Compared

Demographic Transition: North vs. South:	
In Europe (1830-1980)	In LDCs (1950-2050)
1 Longer & more gradual 1-1.5% pop. growth.	Began Dramatically in 1950s and 1960s-- 2-3% pop. growth.
2 Massive Out Migration (50 M 1881-1920)	Little emigration, except to Cities (10-15M Temporary Workers)
3. Expanding Land Base (Colonial Expansion)	More intensive cultivation--require Green Revolution Technologies Environmental Problems

The Demographic Transition in LDCs is coming to an end...



UN Population Council scenarios result in 7-11 billion people by 2050



Population control may hurt the poor but help the nation: the “isolation paradox”:

- **The poor make rational decisions regarding the cost and benefit of children for them (evidence? twins and other “natural experiments”)**
- **Having more children improves the poor’s well being or they would not do it—policy dilemma?**
- **Problem: the poor do not pay all the costs of raising children – social costs vs. private costs.**
- **A baby boom requires more social services and public investment perhaps slowing growth.**

The Demographic Bonus (a silver lining):

- As the demographic transition ends and population growth slows the ratio of children to adults (the dependency ratio) falls, more working age adults and fewer dependents raises average income.
- An older more experienced population earn higher wages, commit fewer crimes, save and pay more taxes, all with fewer children to take care of.
- This boost to living standards and the quality of life is known as the Demographic Bonus.

Why children work:

- **Poor families have few assets**– unskilled labor is one– adding more workers is one way to increase household income– surveys suggest children can account for 15-25% of family income.
- **Children lack bargaining power** both within the family and within the workplace– example in-bond child worker sent back to family may be rejected, income enhances position within family– contributing.
- **Governments should protect children**– but bans on child labor can make the child and poor family worse off– so many governments leave decisions regarding to the family unless child workers participate in abusive, illegal or hazardous activities.

Source: U.S. DOL

Table II-1: Child Labor Data					
<i>Country</i>	<u>Total Population</u> <u>1996 d</u> <i>(millions)</i>	<i>Age Range</i>	<i># of Children in Age Range</i> <i>(millions)</i>	<i>Estimated Number of Child Workers in Age Range</i> <i>(thousands)</i>	<i>% of Children Working in Age Range</i>
Nepal a/	22	5 to 14	6.2	2,596	42
Kenya c/	27	10 to 14	3.8	1,558	41
Tanzania c/	30	10 to 14	3.9	1,523	40
Bangladesh a/	122	5 to 14	34.5	6,584	19
Mexico b/	93	12 to 14	6.6	1,137	17
Brazil b/	161	5 to 14	33.9	4,349	13
Thailand c/	60	6 to 14	5.6	1,495	13
Turkey a/	63	6 to 14	11.9	1,495	13
Egypt b/	59	6 to 14	10.9	1,309	12
Philippines a/	72	5 to 14	17.5	1,863	11
Nicaragua b/	5	10 to 14	0.6	60	10
Pakistan a/	134	5 to 14	40	3,313	8.0
India b/	945	5 to 14	210	11,285	5.4
South Africa b/	38	10 to 14	4.6	200	4.3
Guatemala b/	11	7 to 14	3.7	152	4.1
Peru b/	24	6 to 14	4.8	196	4.1
Totals	1866		399	9.4%	