

Labor Income Profiles in Comparative Context

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Outline

- How do labor income profiles differ across countries? (15 countries)
- How do labor income profiles evolve over time? (Taiwan 1977-2003, See US 1888-2003 from Gretchen's presentation)
- How does composition of labor income differ across countries (wages vs. self-employed)? (6 countries)

Labor Income

- Labor income includes (1993 UN System of National Accounts)
 - The compensation of employees
 - . wages and salaries
 - . employee benefits + deferred payments
 - Labor's estimated share of mixed income
- No countries include
 - Value of time (e.g. childcare)

Why Do They Differ?

- Mechanical decomposition

$$\begin{aligned}\left(\frac{Y}{N}\right)_a &= \left(\frac{Y}{E}\right)_a * \left(\frac{L}{N}\right)_a * \left(\frac{E}{L}\right)_a \\ &= \left(\frac{Y}{E}\right)_a * \left(\frac{L}{N}\right)_a * \left(1 - \left(\frac{UE}{L}\right)_a\right)\end{aligned}$$

Per capita labor income

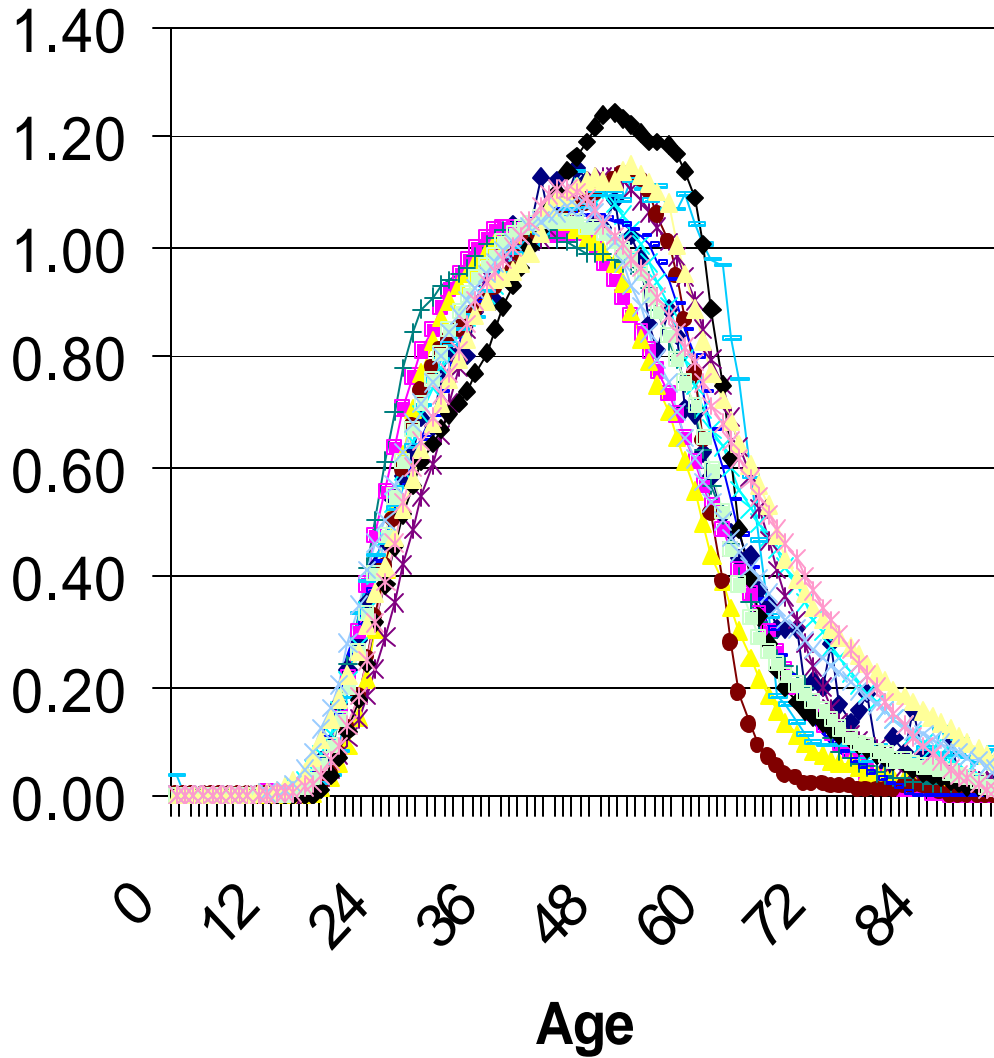
= Age specific productivity *
Labor force participation rate *
(1-Unemployment rate)

Factors Shaping Labor Income Profile

- Per capita labor income profile depends on
 - P: Age specific productivity (concave/inverse U) (health, technological change, OJT)
 - Q: Labor force participation rates (LFPRs) by age (inverse U), working hours by age (inverse U), and unemployment rate by age
 - Institution (minimum wage, seniority-based wage system)
- Decisions made by three demographic groups (women, children, and elderly) are most important

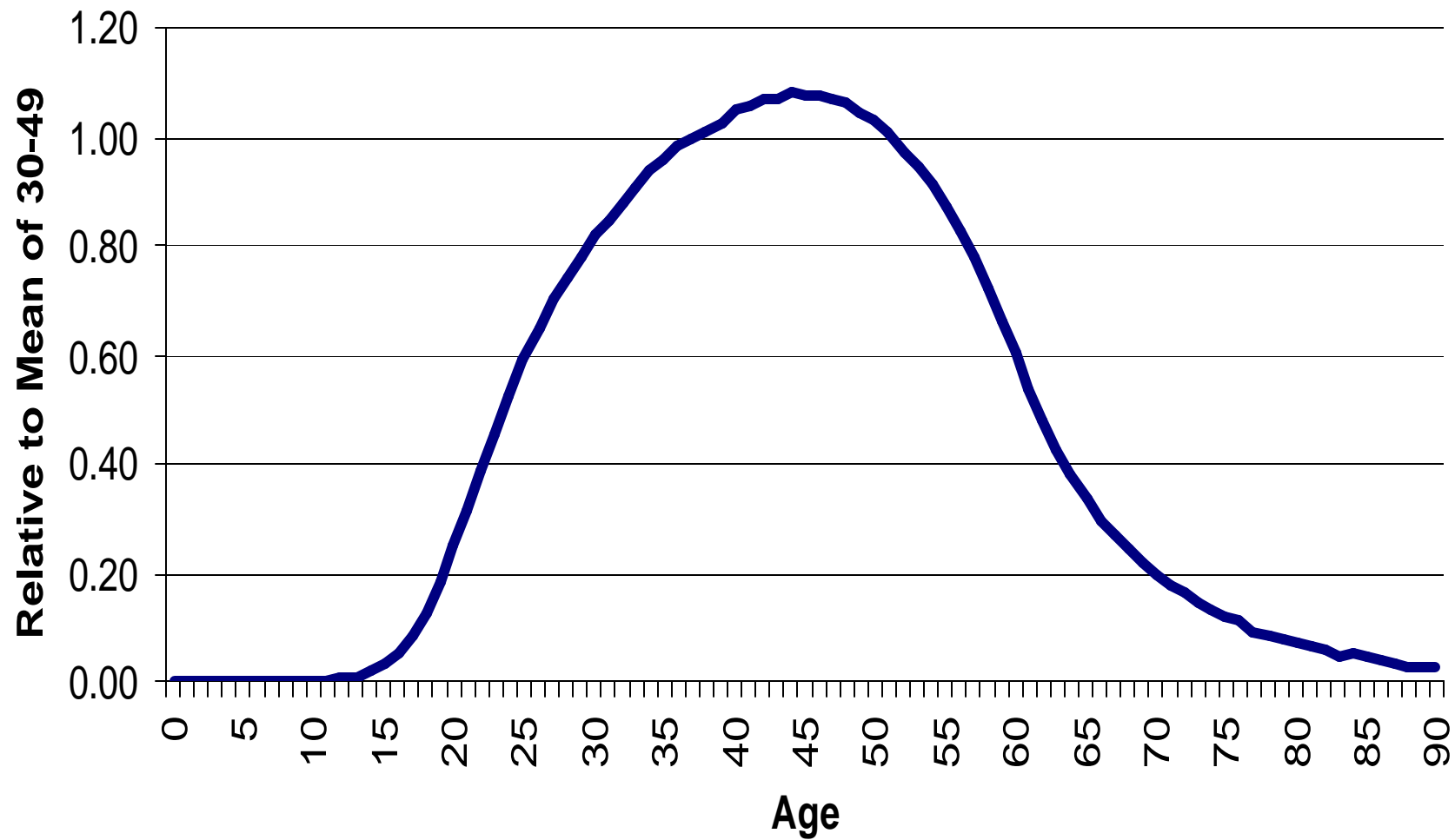
Per Capita Labor Income Profile

Ratio to mean labor income 30
49



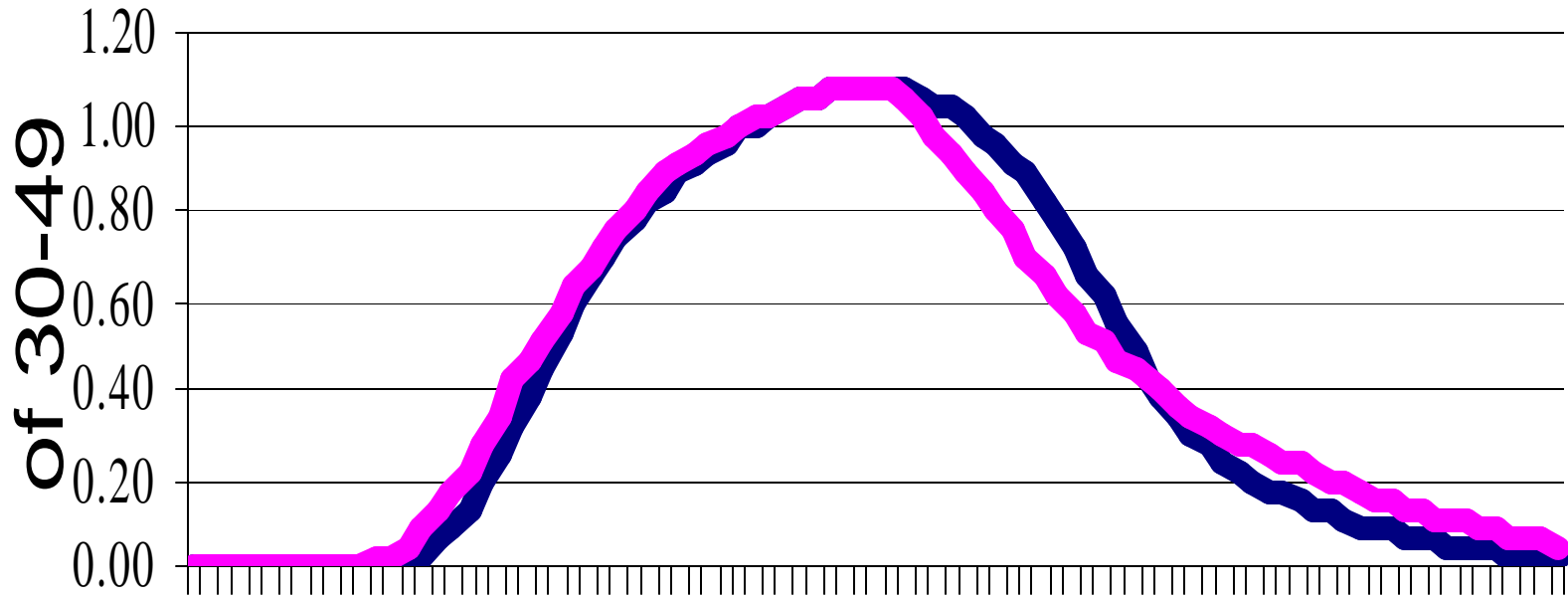
- ◆ Brazil (2001)
- South Korea (2000)
- ▲ Taiwan (2003)
- × Chile (1997)
- * US (2003)
- France (2001)
- + Costa Rica (2004)
- Uruguay (1994)
- Sweden (2003)
- ◆ Japan (2004)
- Thailand (2004)
- ▲ India (1999)
- × Indonesia (1999)
- * Philippines (1999)

Mean of Per Capita Labor Income (14 Countries)



Indonesia (1999)

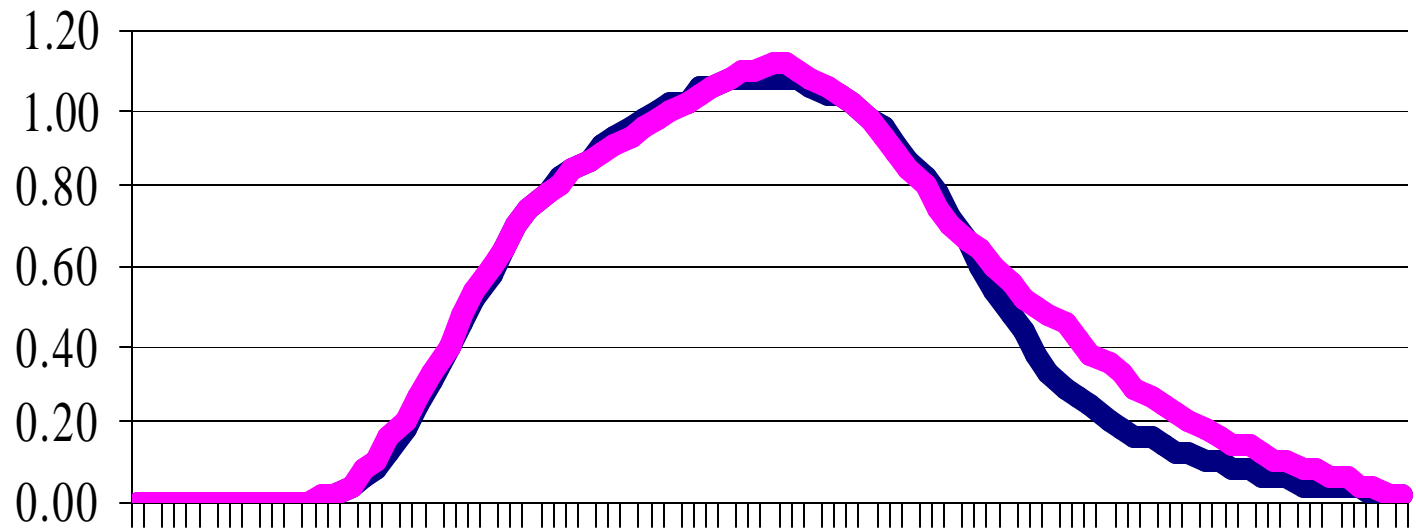
Relative to Mean
Of 30-49



0 9 18 27 36 45 54 63 72 81 90
Age

Chile (1997)

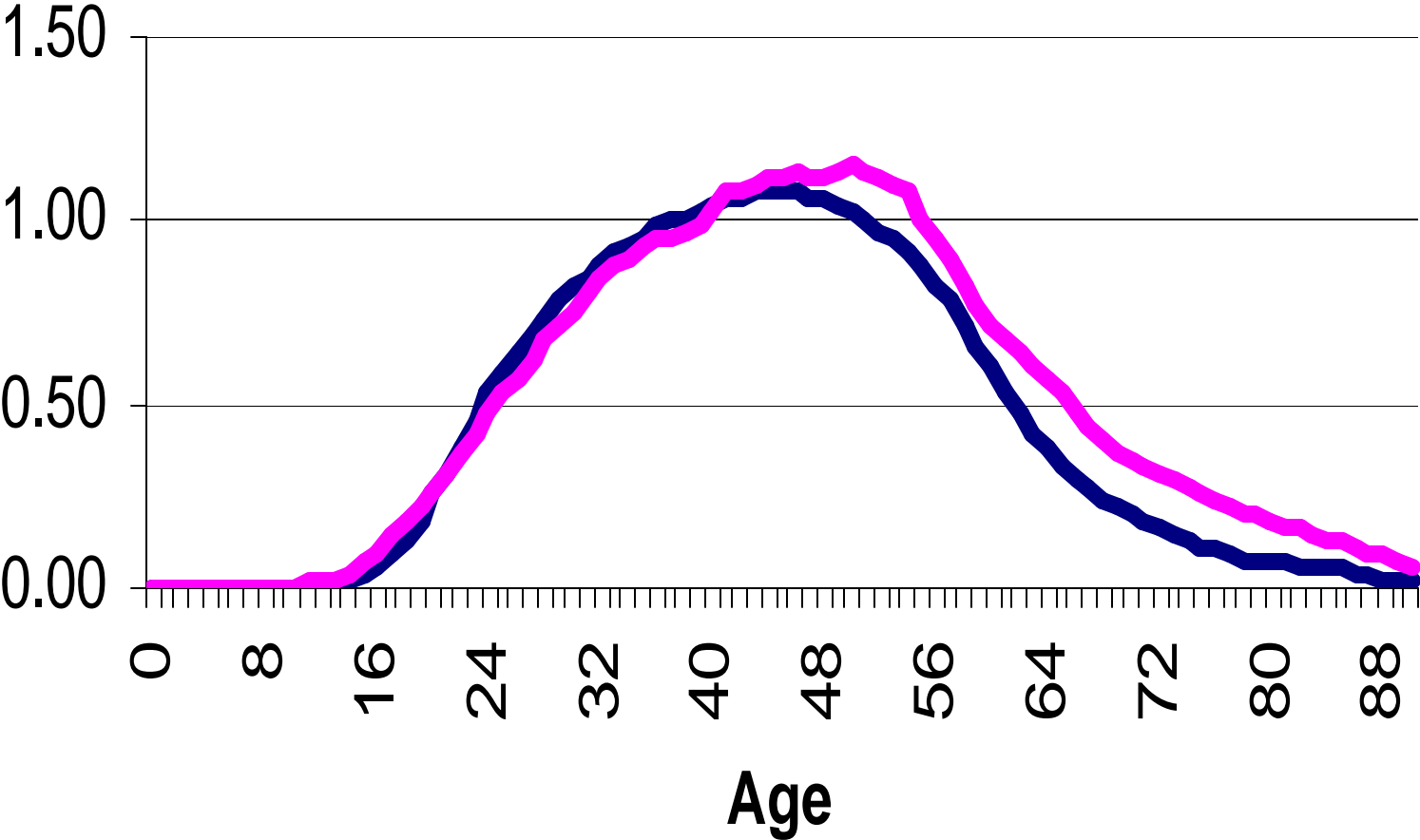
**Relative to Mean
of 30-49**



Age

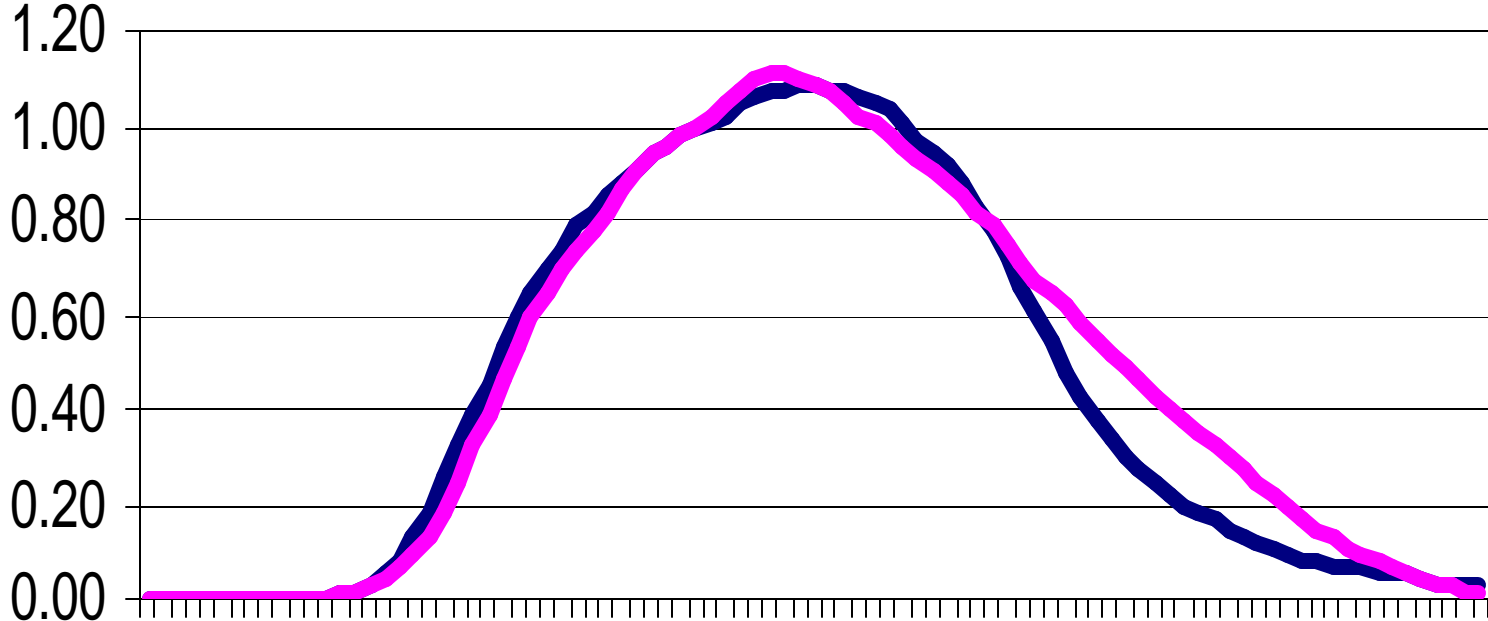
India (1999)

Relative to Mean of
30-49



Philippines (1999)

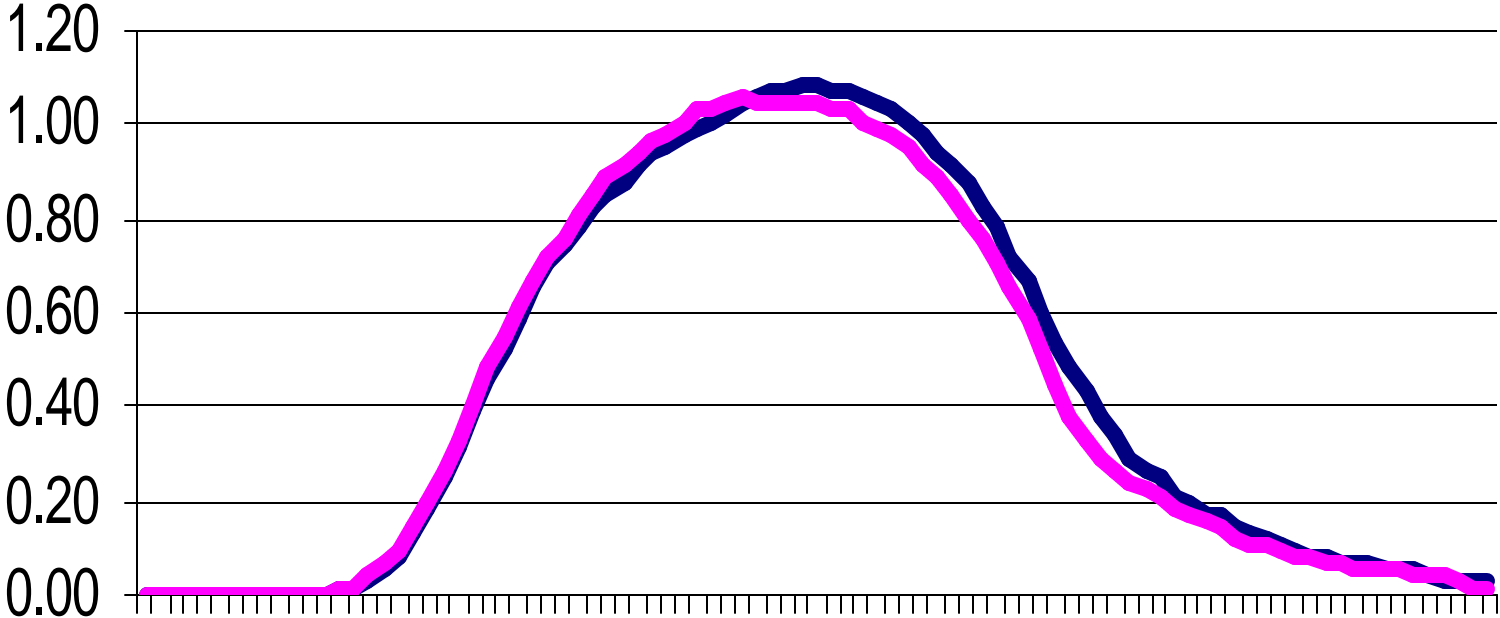
Relative to Mean of 30-
49



Age

Thailand (2004)

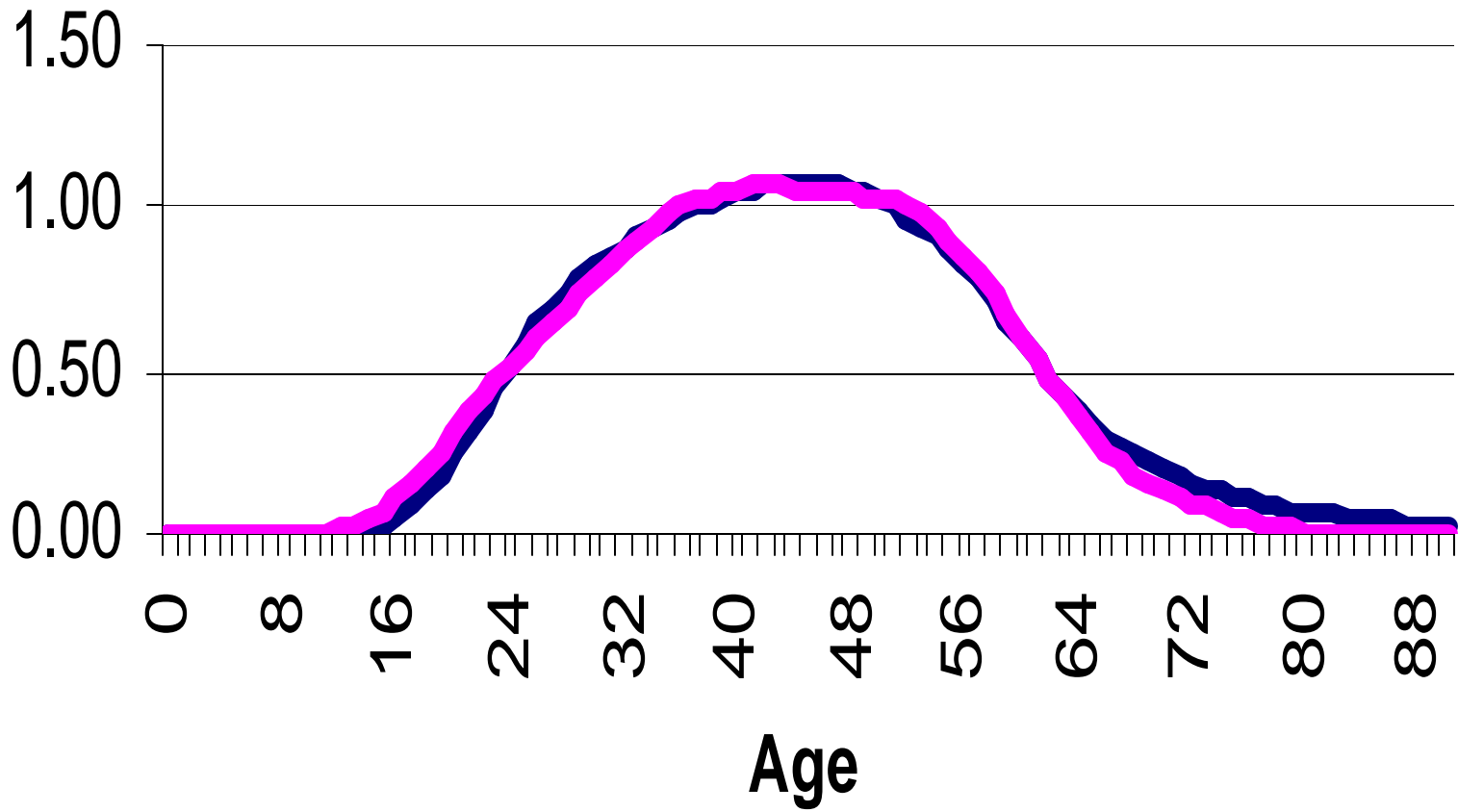
Relative to Mean of 30-49



Age

Uruguay (1994)

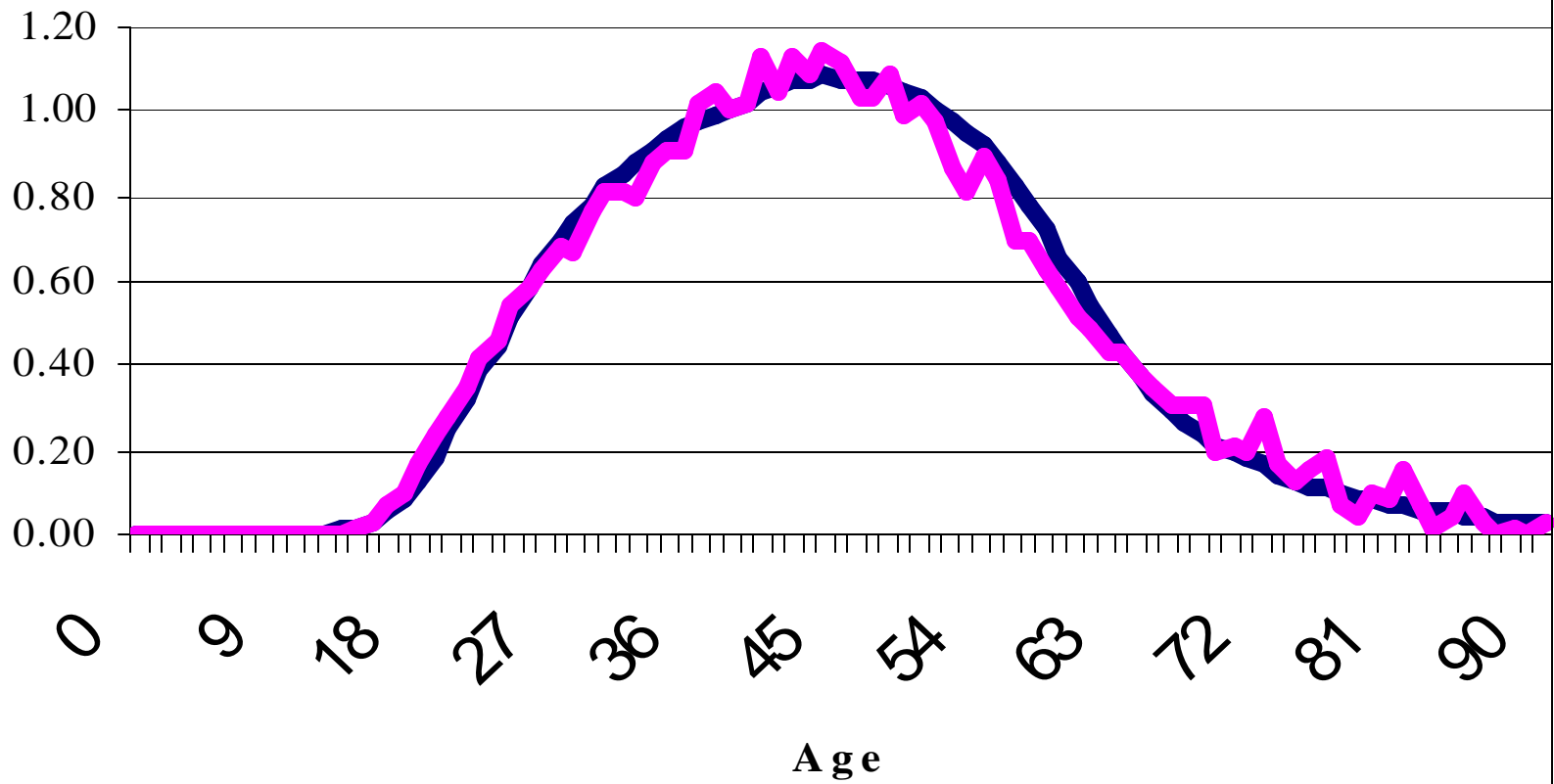
Relative to Mean
of 30-49



Brazil (2001)

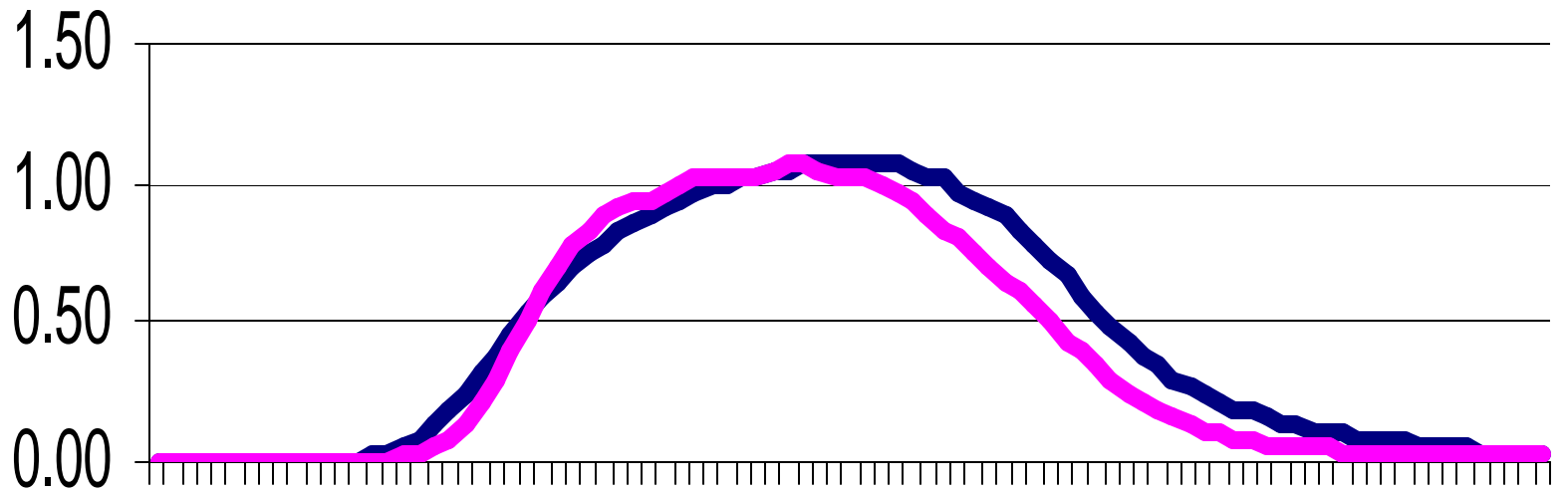
Relative to Mean of 30-

49



Taiwan (2000)

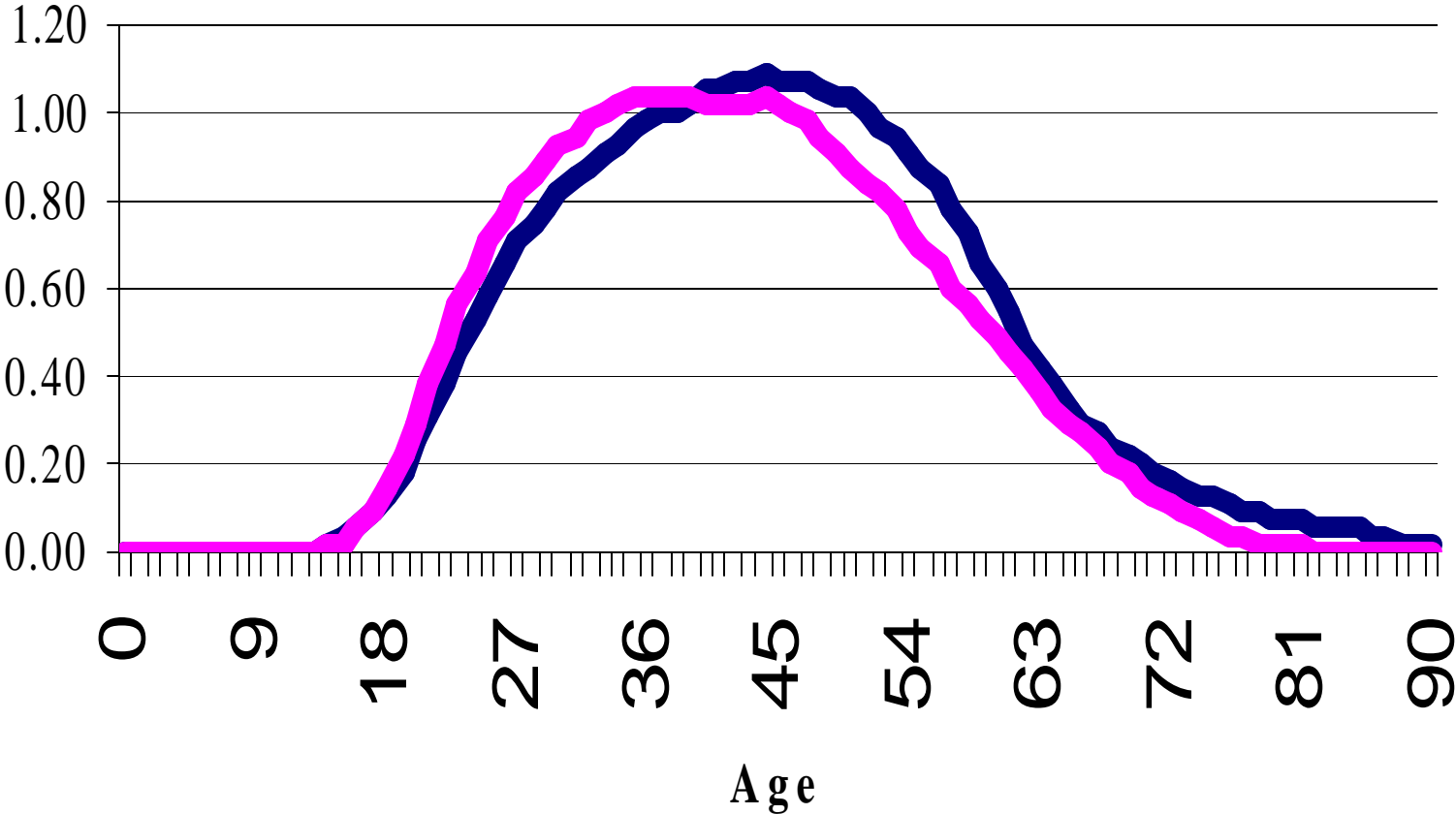
Relative to Mean
of 30-49



Age

South Korea (2000)

**Relative to Mean
of 30-49**



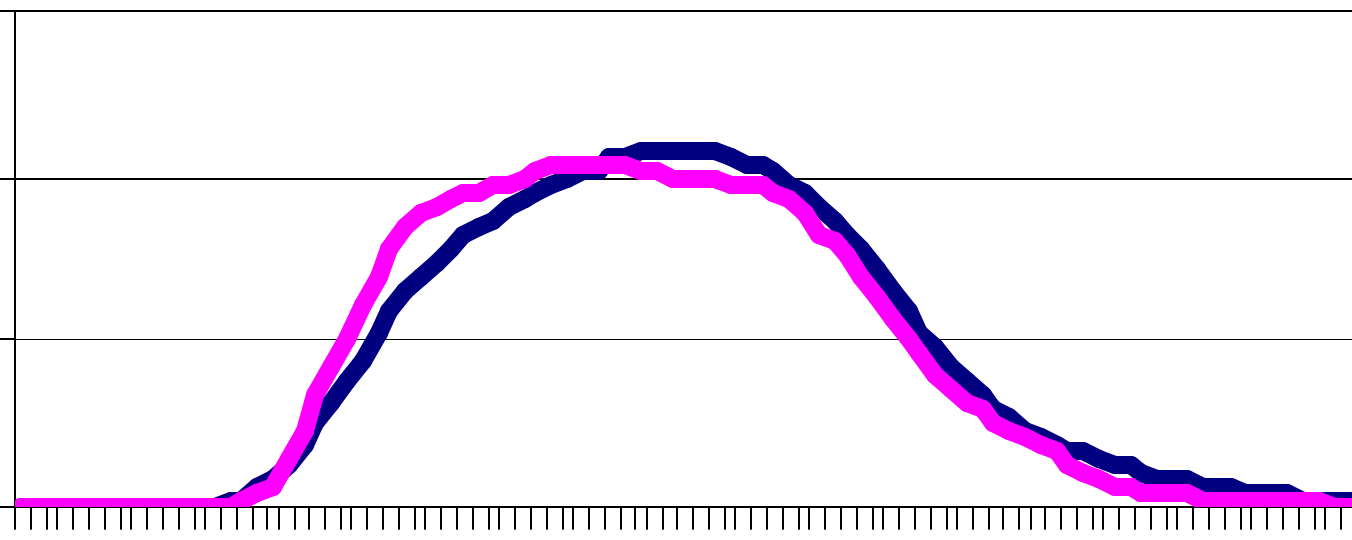
Costa Rica (2004)

Relative to Mean of
30-49

1.50
1.00
0.50
0.00

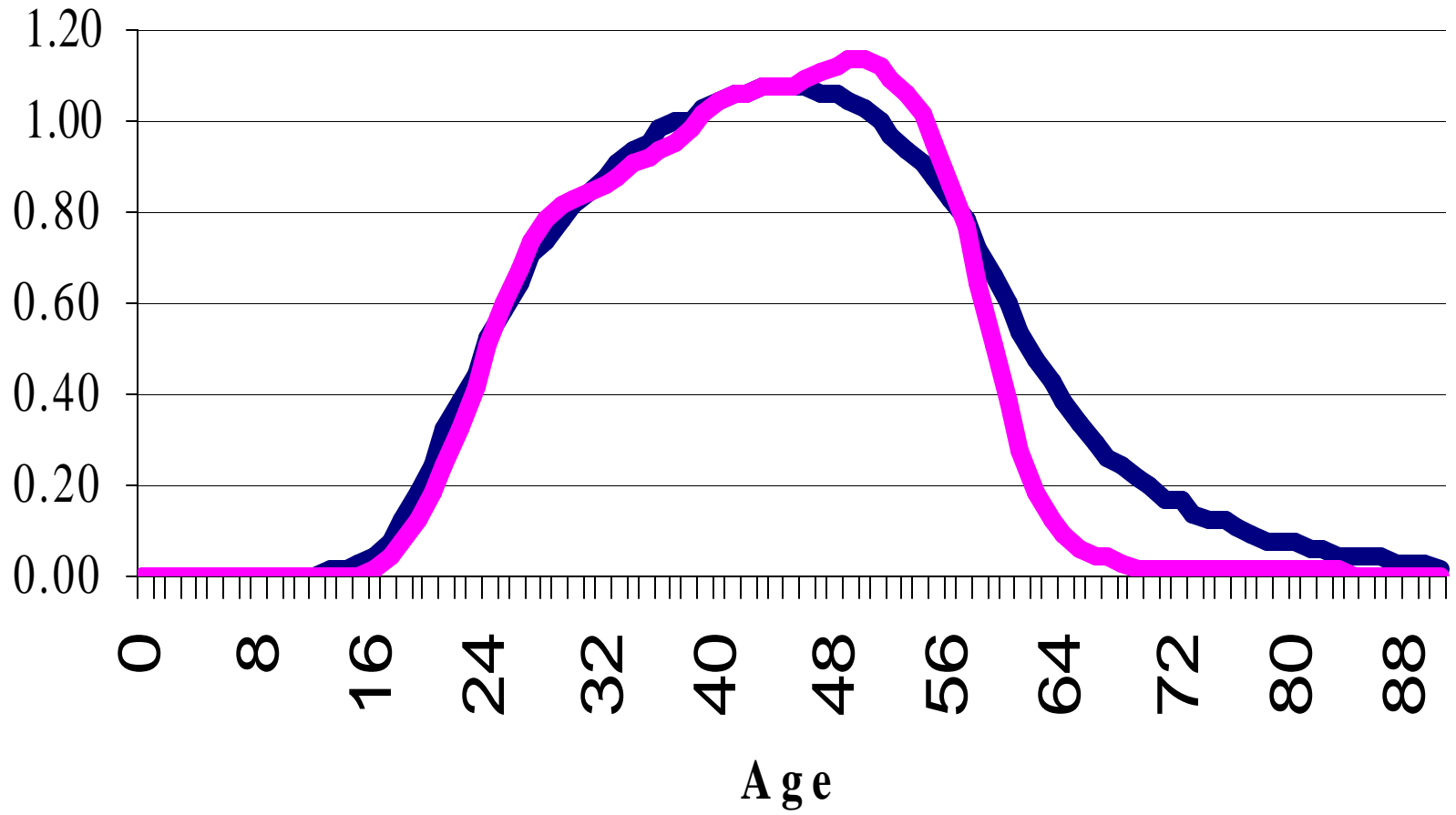
0 8 16 24 32 40 48 56 64 72 80 88

Age



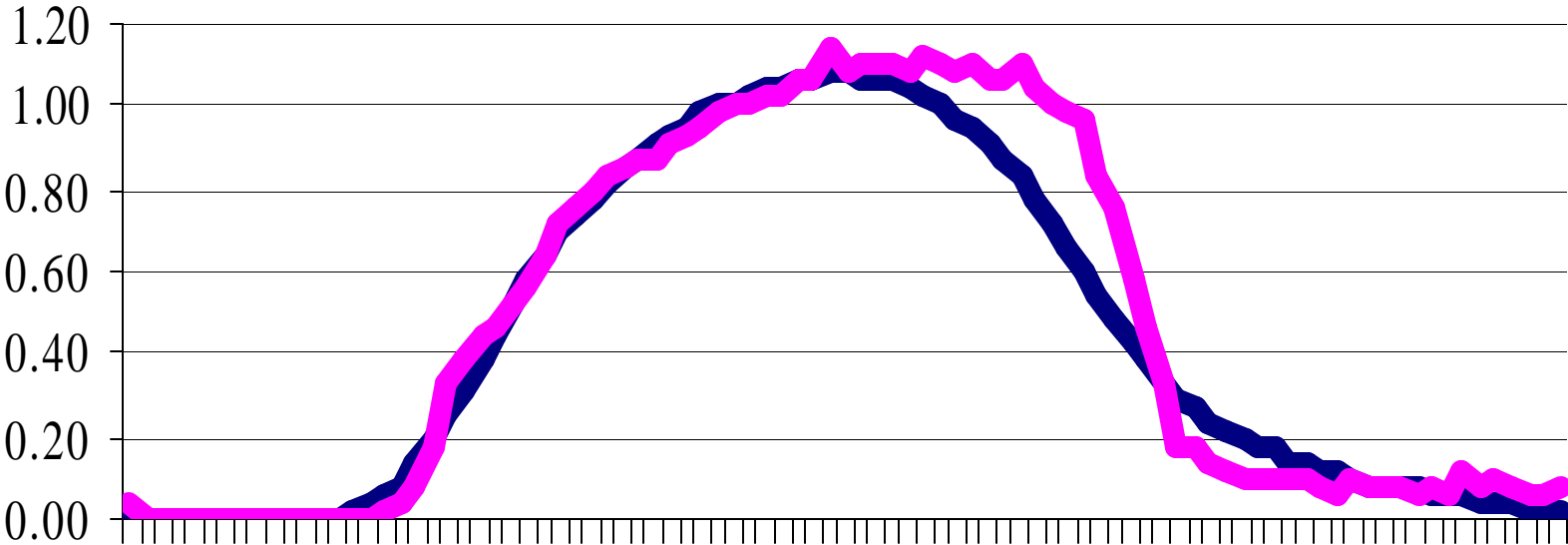
France (2001)

**Relative to Mean
of 30-49**



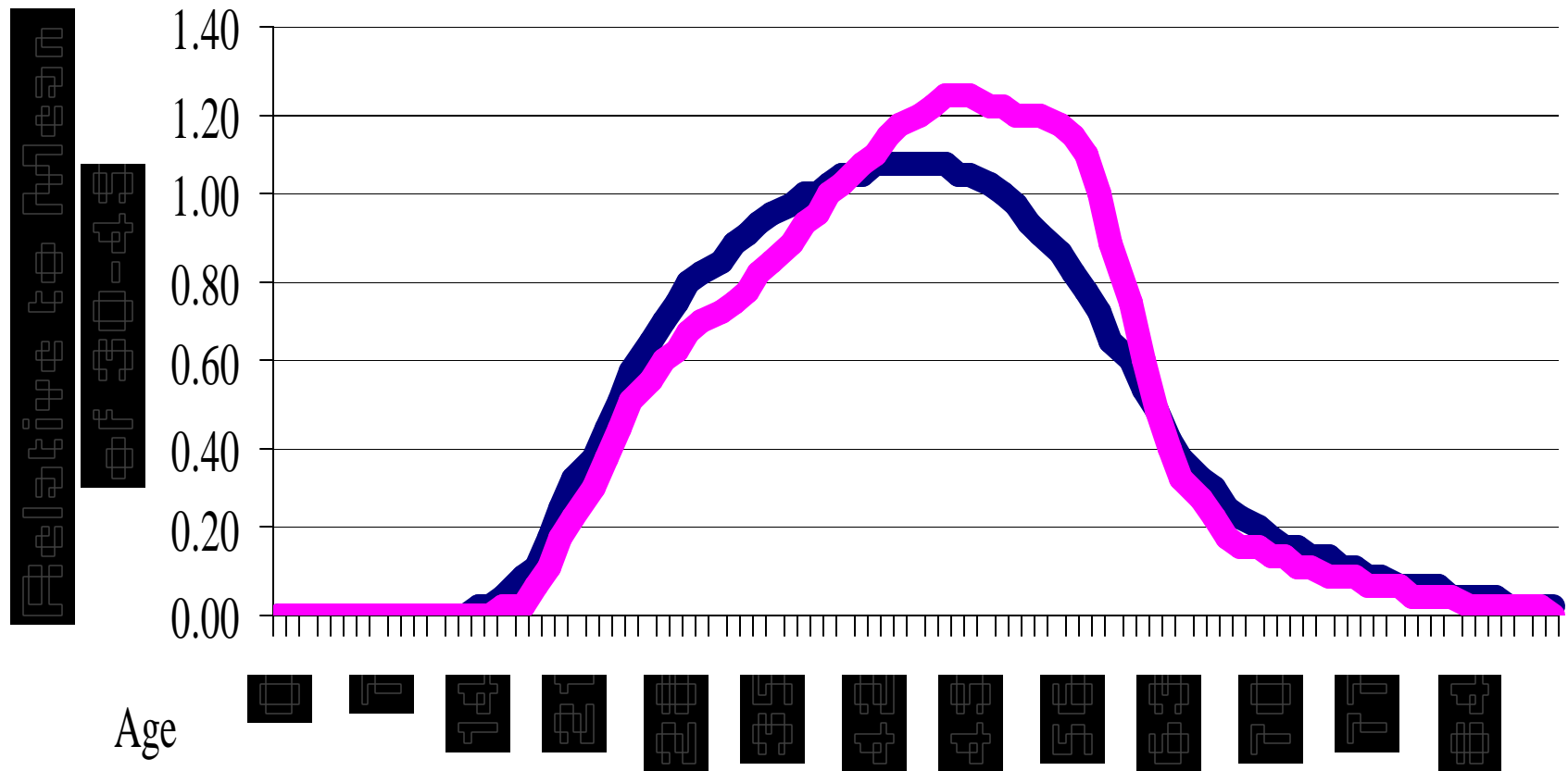
Sweden (2003)

Relative to Mean
of 30-49



Age

Japan (2004)



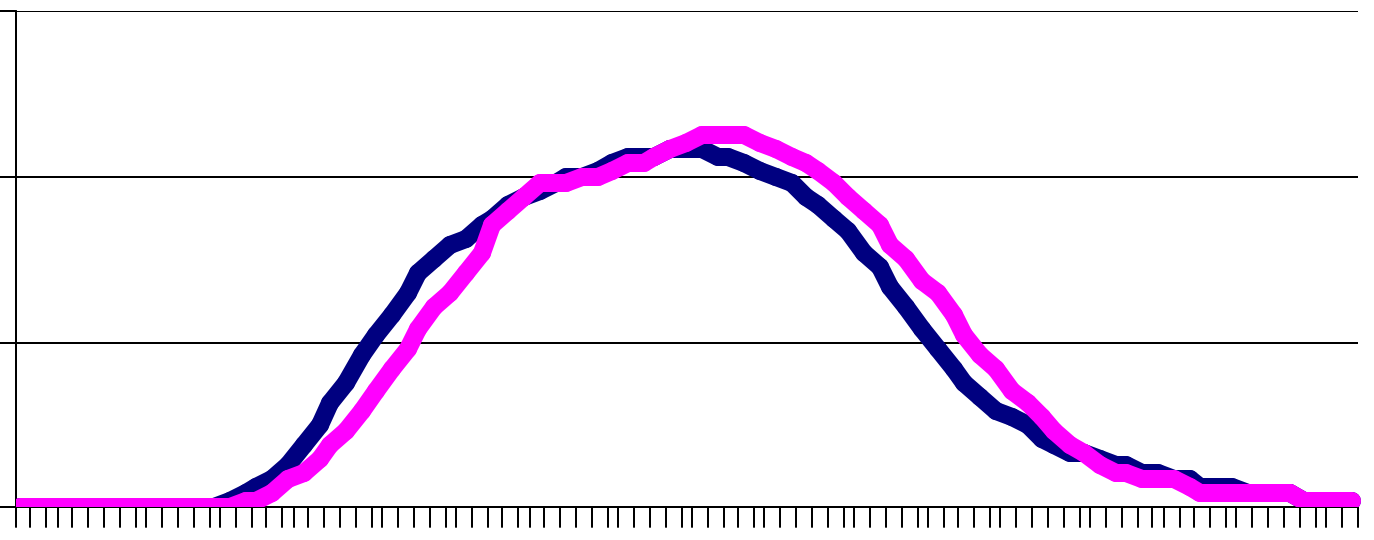
US (2003)

Relative to Mean of
30-49

1.50
1.00
0.50
0.00

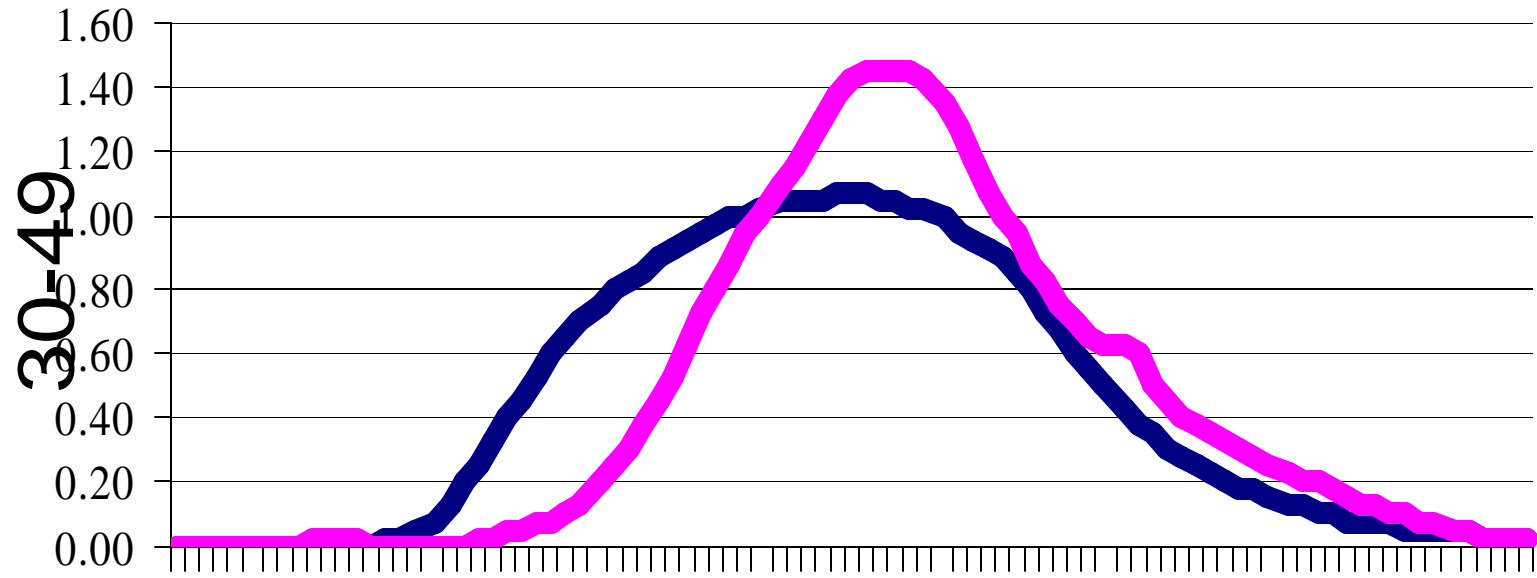
0 8 16 24 32 40 48 56 64 72 80 88

Age



Urban China (2002)

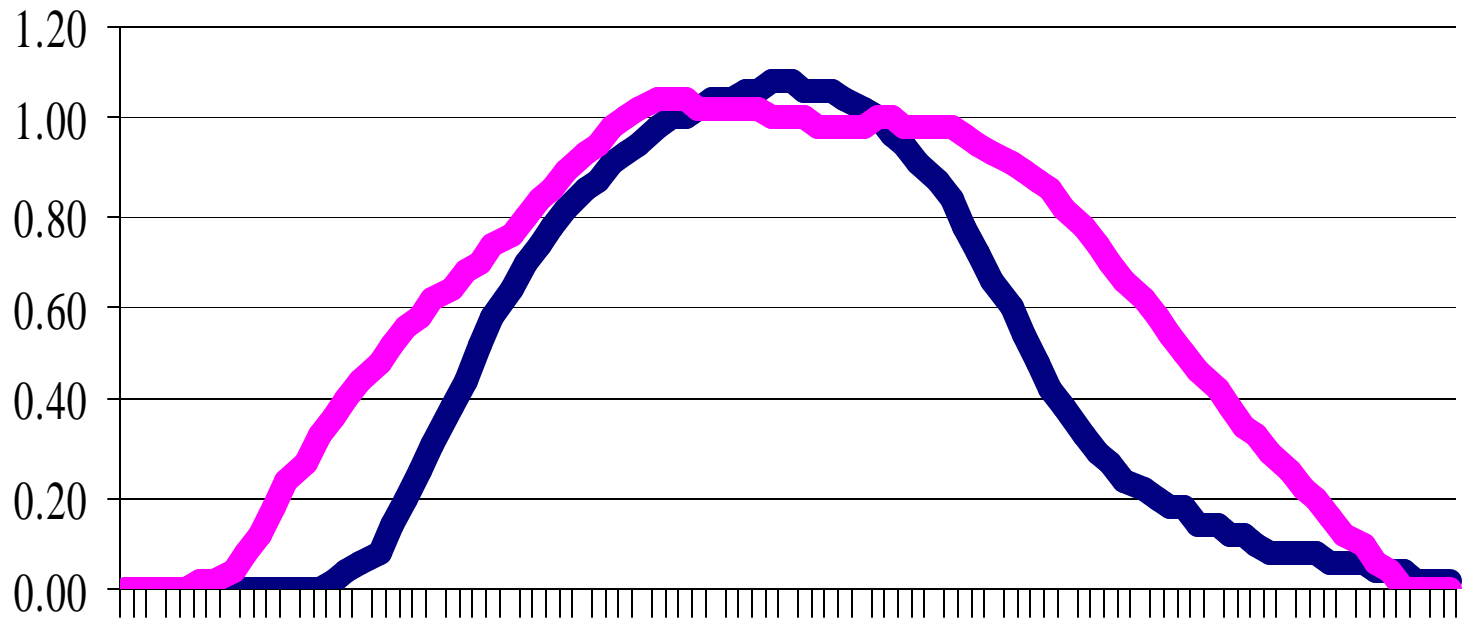
Relative to Mean of 30-49



Age

Rural China (2002)

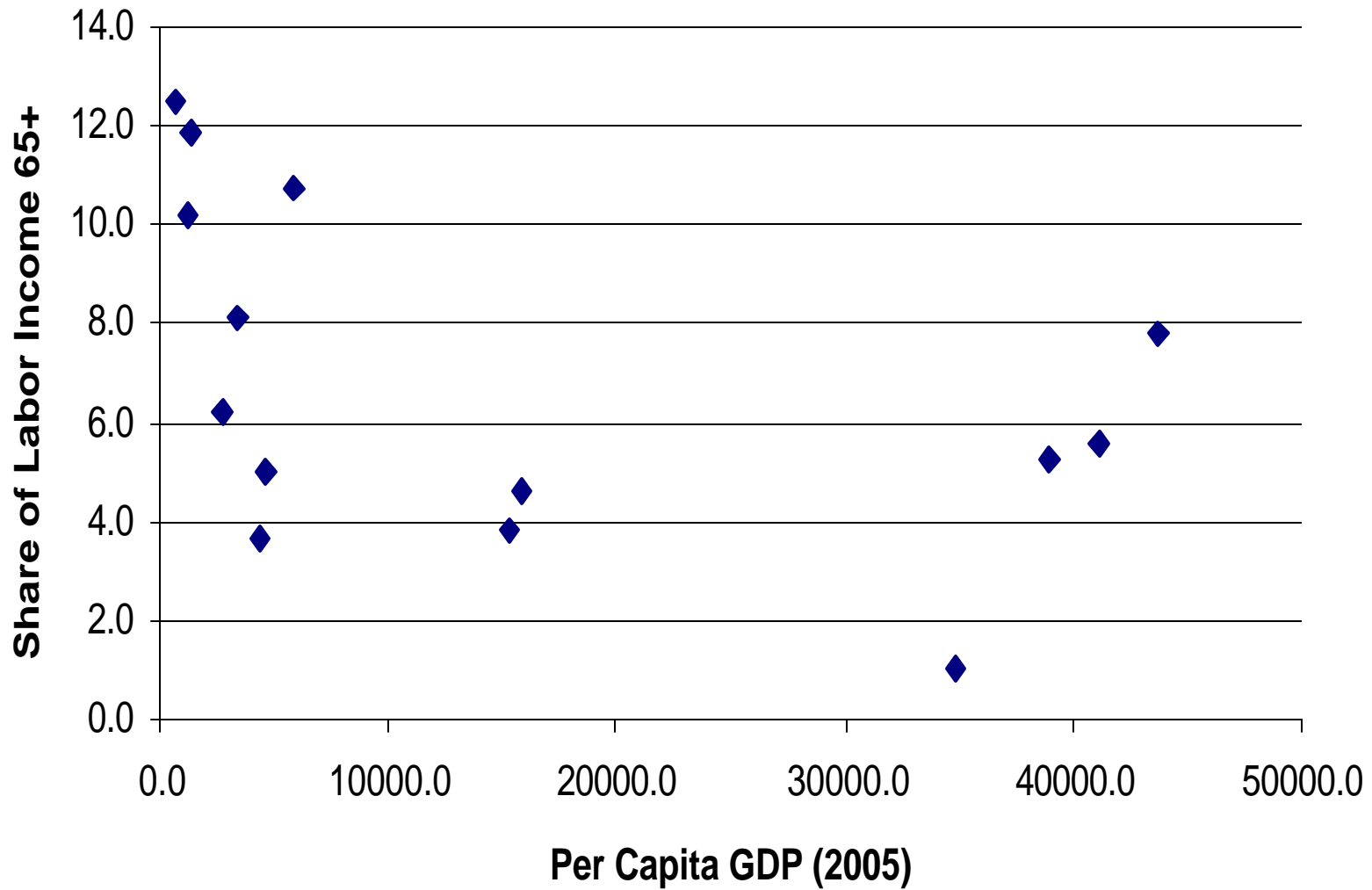
Relative to Mean
of 30-49



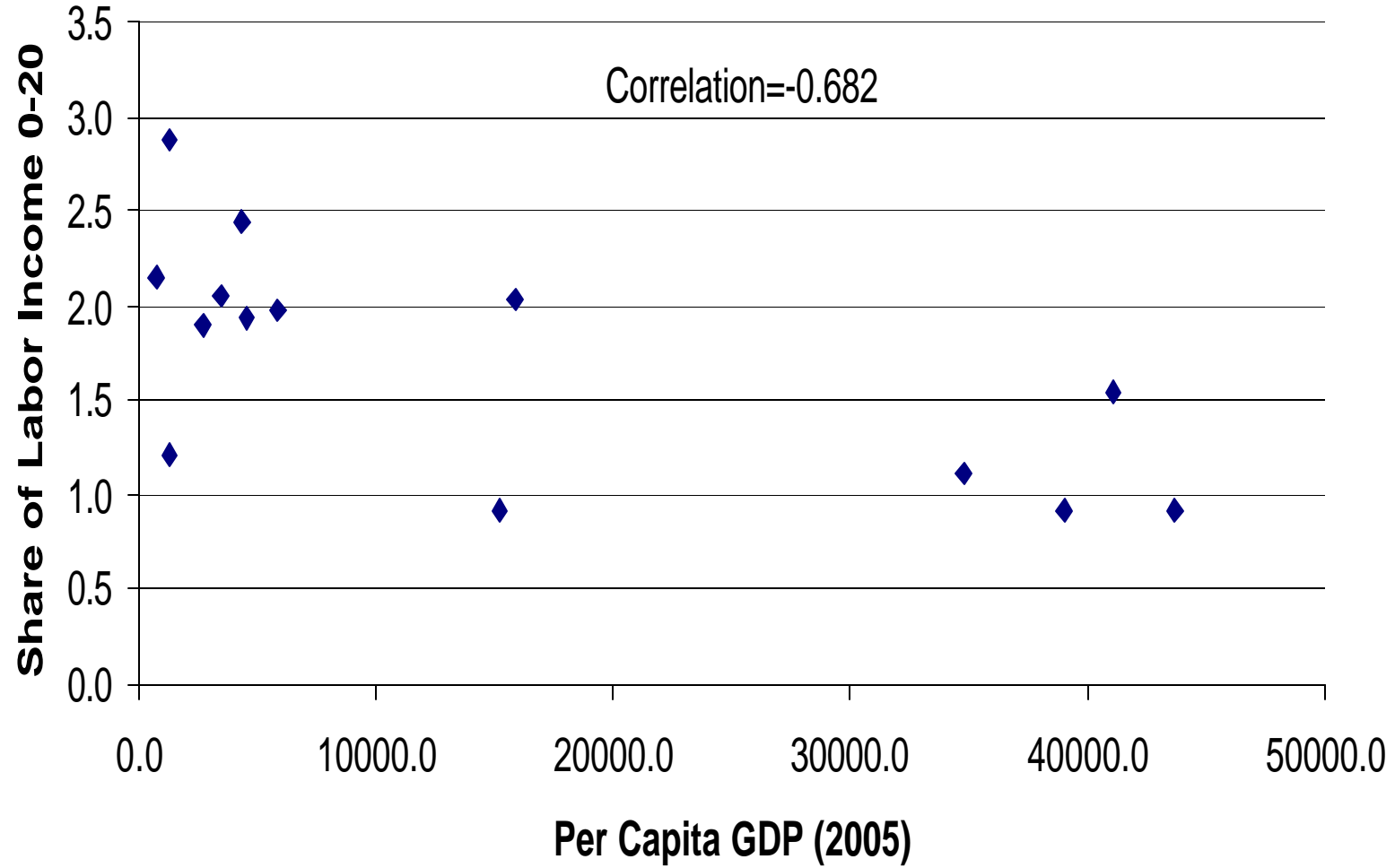
Age

Country	Peak	65+	<=25	<=20	Mean	Median
Brazil (2001)	44	8.1	7.4	2.0	45.1	49.2
S. Korea (2000)	40	4.6	8.6	2.0	42.7	55.4
Taiwan (2003)	41	3.8	6.3	0.9	42.9	55.7
Chile (1997)	45	10.8	7.0	2.0	46.4	46.0
US (2003)	47	7.8	4.2	0.9	46.8	43.1
France (2001)	49	1.0	6.4	1.1	42.8	52.3
Costa Rica (2004)	40	5.0	8.8	1.9	43.1	54.2
Uruguay (1994)	42	3.7	7.3	2.4	43.8	50.6
Sweden (2003)	43	5.6	6.6	1.5	45.9	45.2
Japan (2004)	48	5.2	5.2	0.9	46.2	42.7
Thailand (2004)	40	6.2	7.4	1.9	44.2	51.5
India (1999)	50	12.5	6.4	2.1	47.8	42.1
Indonesia (1999)	45	10.2	8.6	2.9	45.2	50.3
Philippines (1999)	43	11.8	5.4	1.2	47.2	44.5
U. China (2002)	47	11.1	1.1	0.5	50.3	31.5
R. China (2002)	37	14.3	13.5	7.9	45.8	46.9

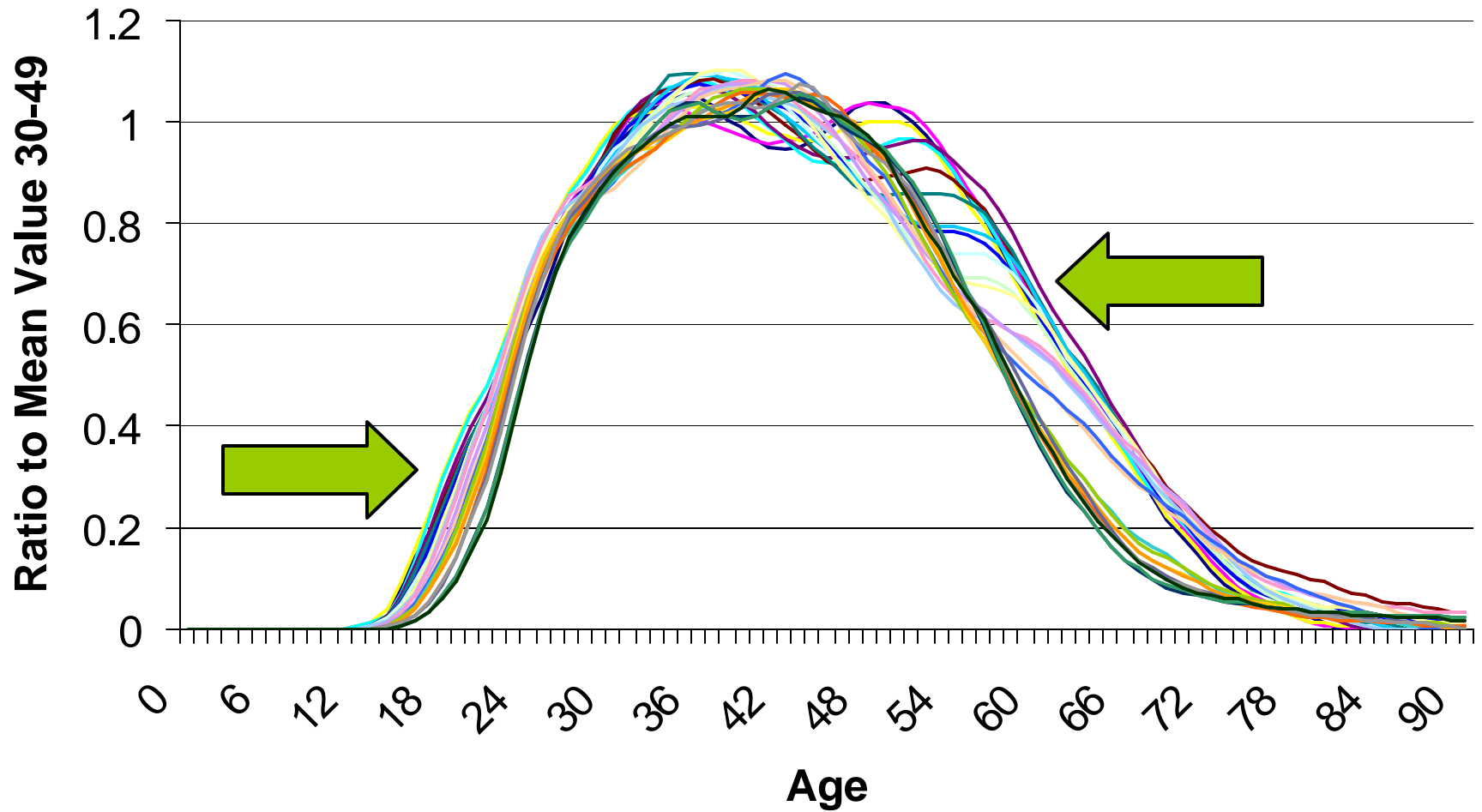
Per capita GDP vs. Share of Per Capita Labor Income 65+



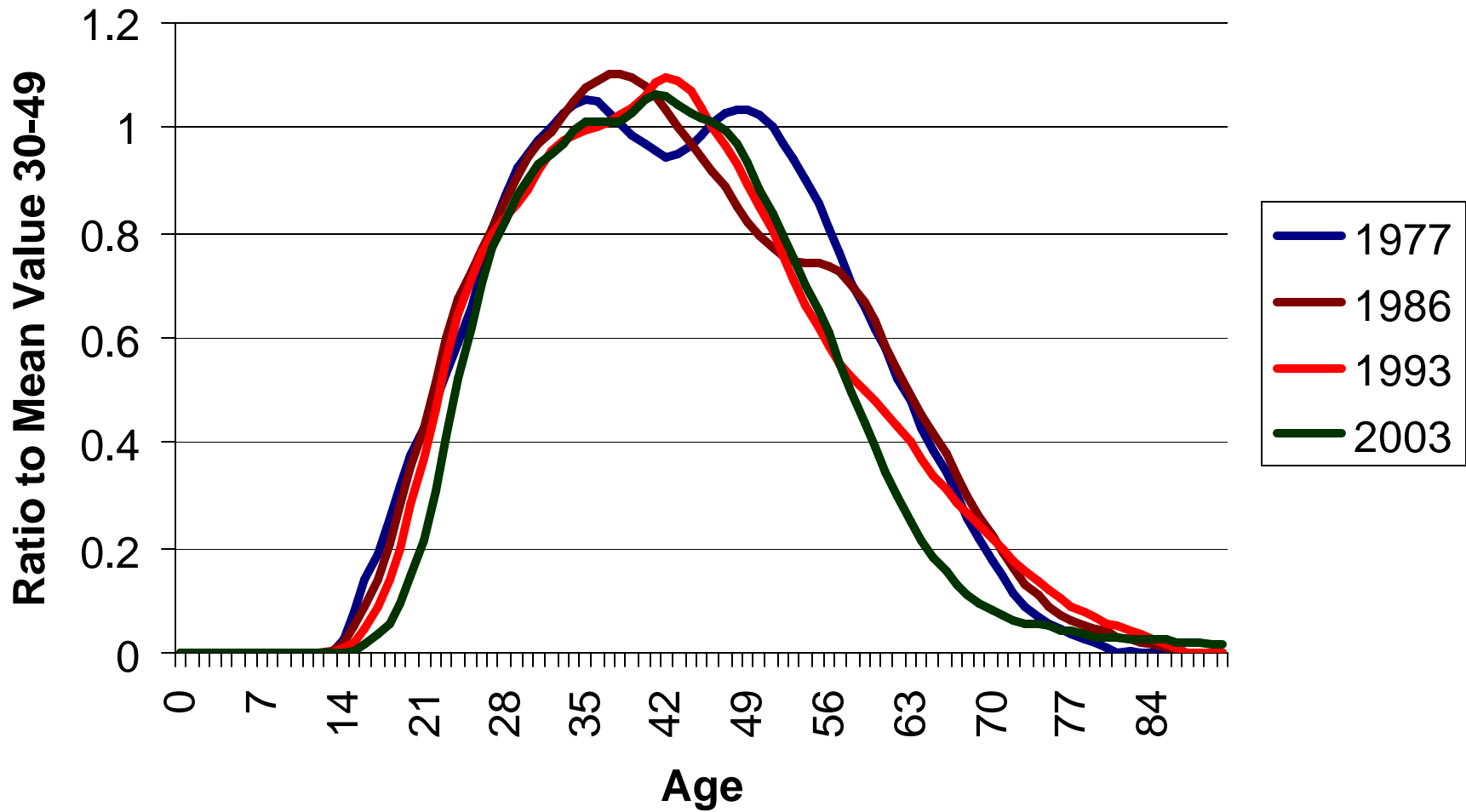
Per Capita GDP vs. Share of Per Capita Labor Income 0-20



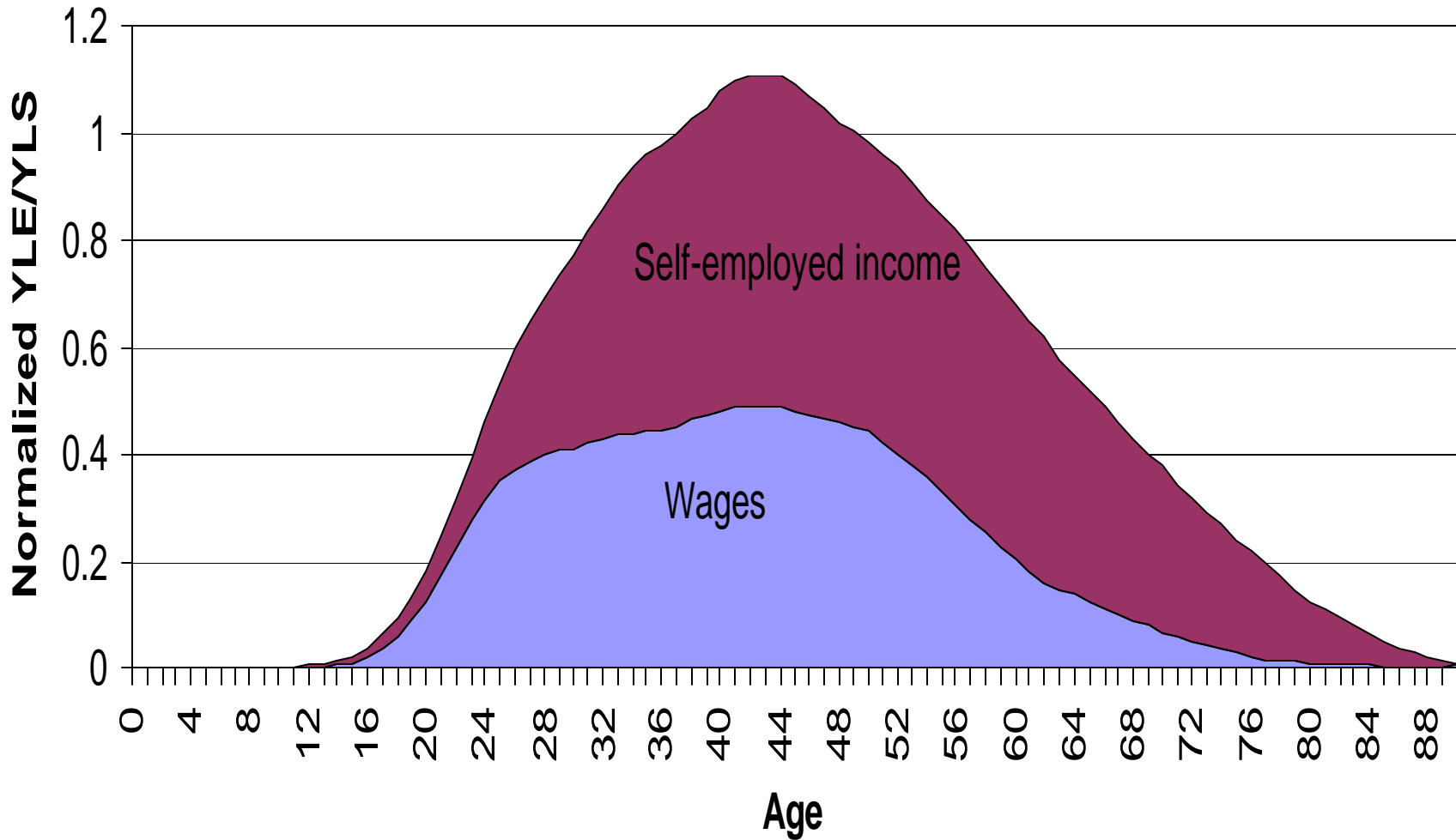
Per Capita Labor Income Over Time (Taiwan, 1977-2003)



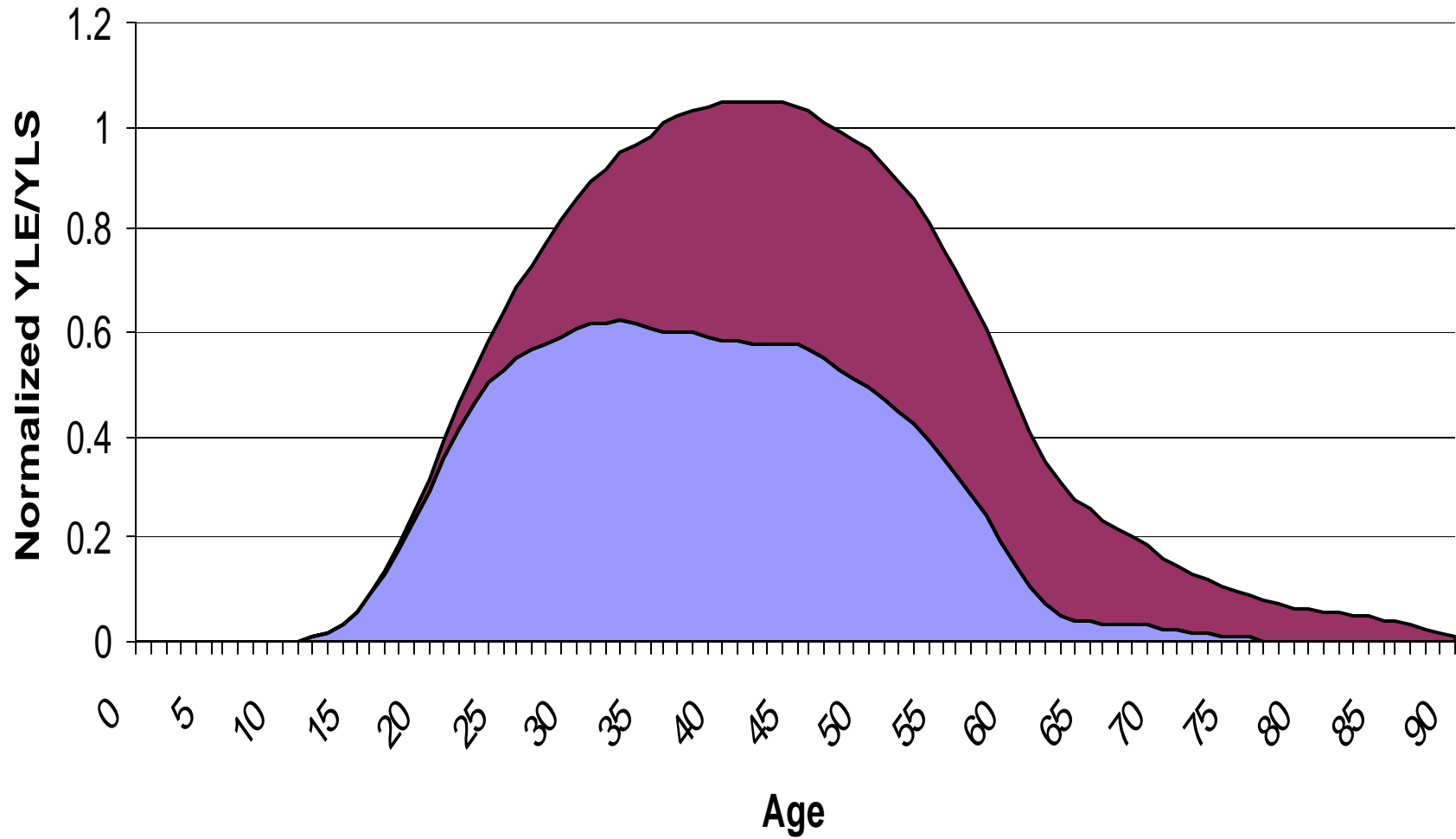
Per Capita Labor Income Over Time (Taiwan, 1977, 1986, 1993, 2003)



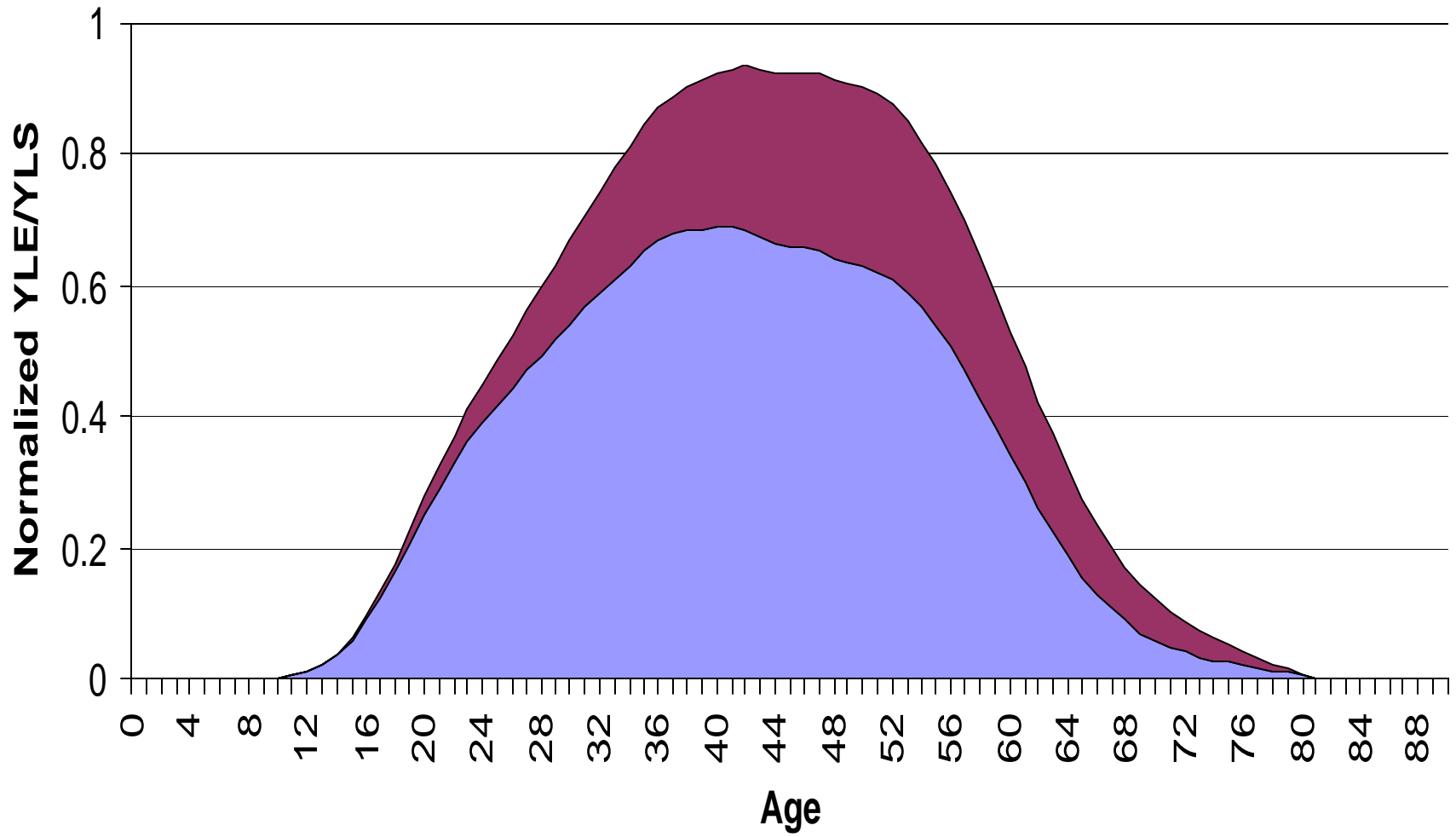
Phillippines (1999)



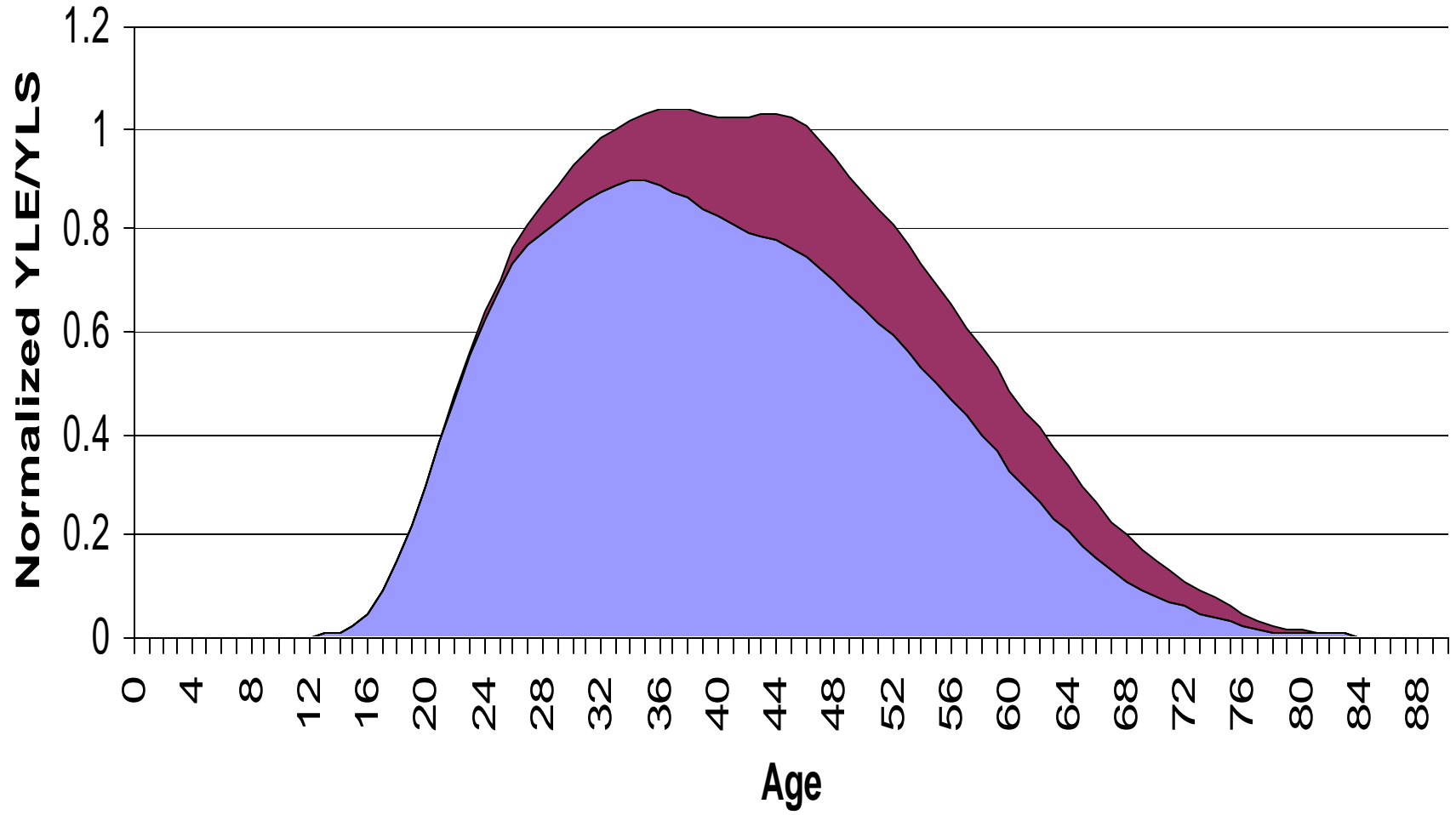
Thailand (2004)



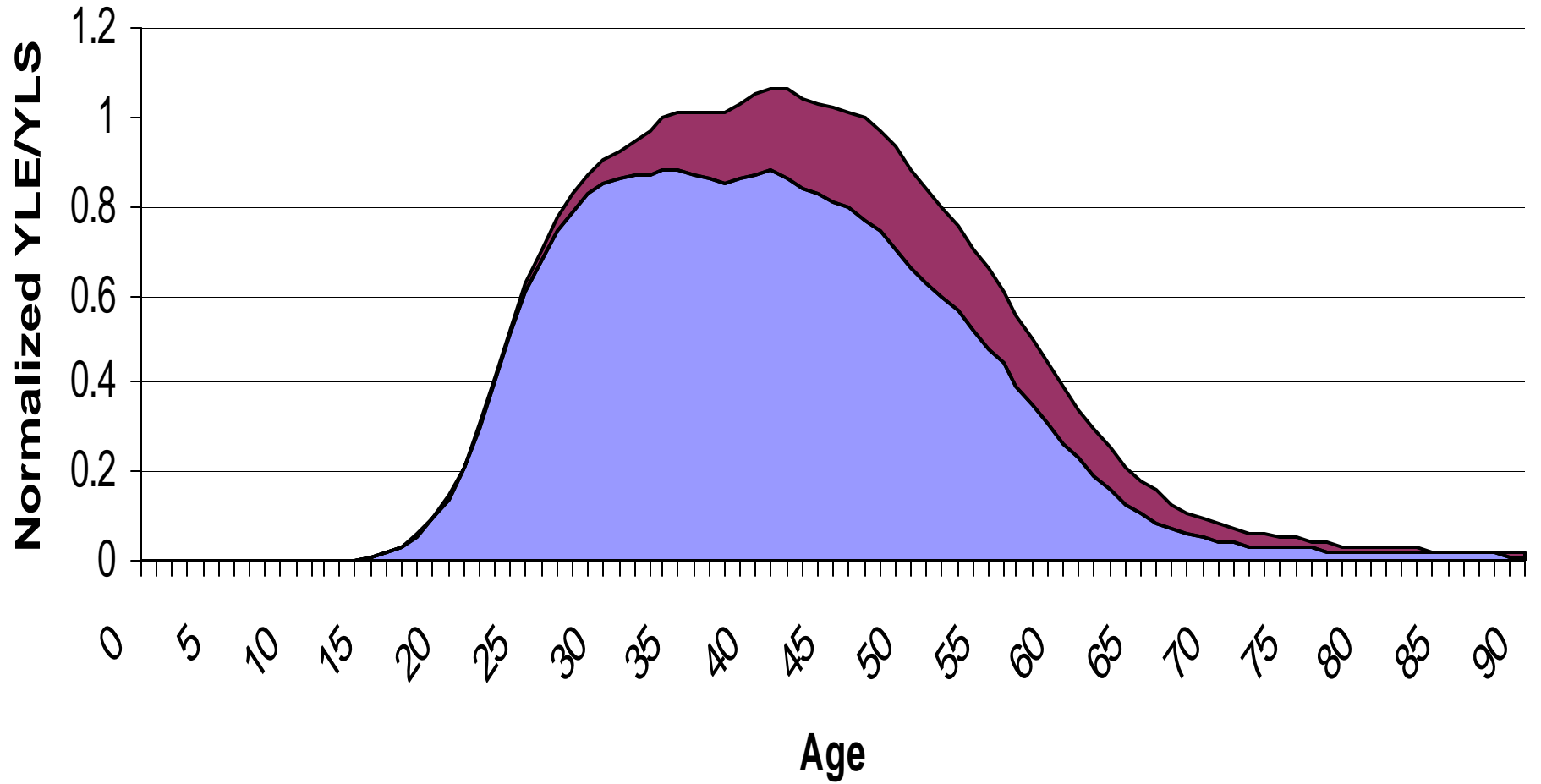
Uruguay (1994)



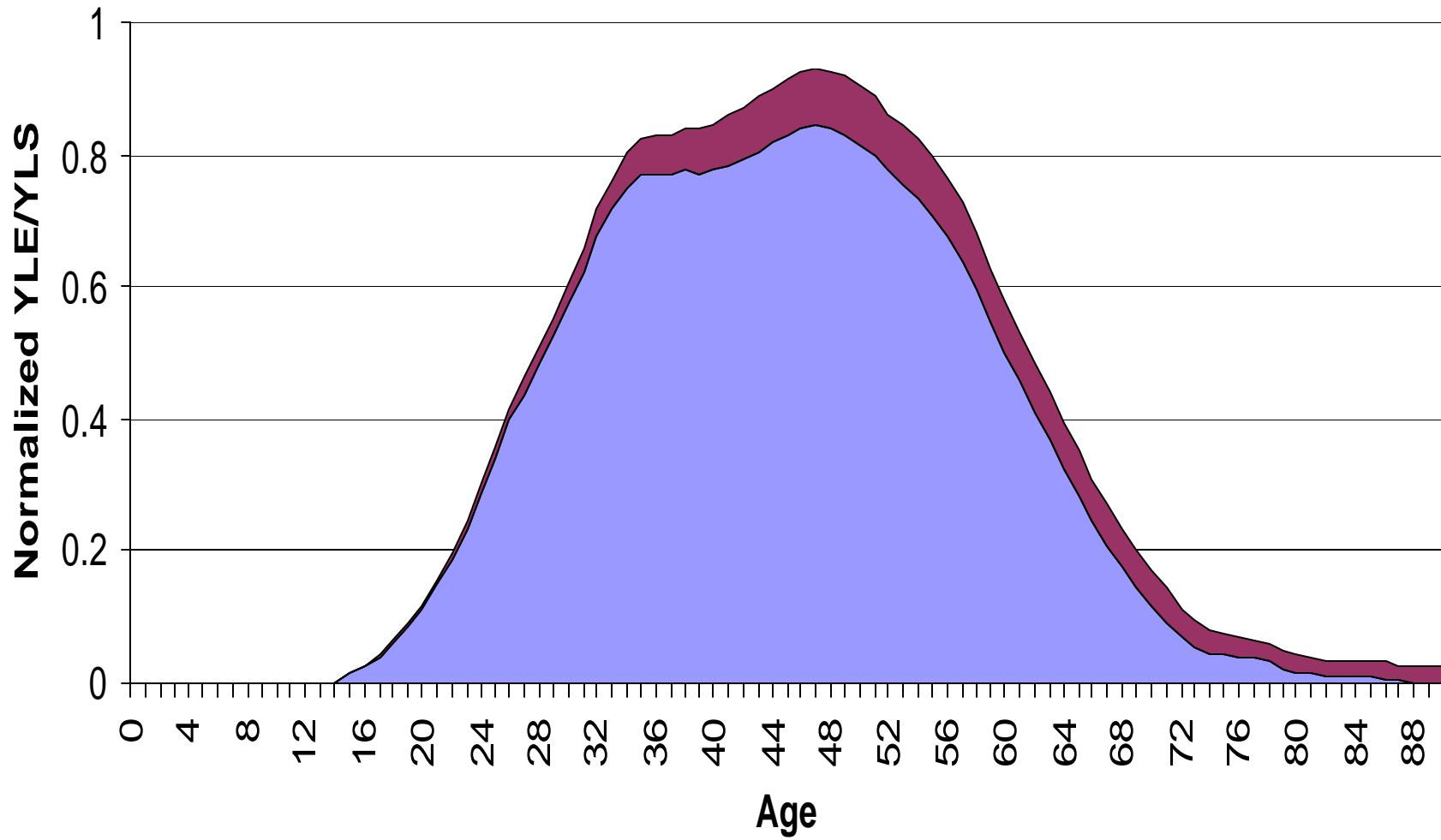
S. Korea (2000)



Taiwan (2003)



US (2003)



Summary

- Decisions made by women, children, and elderly might be most important in shaping the labor income profiles across countries and over time.
- These decisions may be somewhat related with the level of development, but the relationship may not be necessarily linear.
- The share of self-employed income might be related with the level of development.

Other Issues

- How does labor income interact with private consumption and others (e.g. private transfer)?
- How do policies on education (e.g. mandatory schooling), public pensions, and child care affect the profile?
- How does labor income profile differ by education/gender/place of residence?
- Measurement (value of time spent on non-production, etc.)