

Value of Women's Work at Home: The Case of South Korea

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Importance of the Study

- Fertility
 - Women's time use (work vs. home)
 - Cost of children including time
- Aging and support for the elderly
 - Family vs. Government
- Gender equity
- National statistics: GDP, inequality
- Comparative across countries.

South Korea

- S. Korea is an interesting case
 - Very rapid population aging in large part due to low fertility
 - The degree of gender role is still pretty high
 - Cost of children is very high
 - Bi-modal pattern of women's labor market activity
 - Familial transfers for elderly is deteriorating but public transfers are increasing for children and elderly.

Value of Time

- Ideally we want measure the price of *outputs*
 - No such data, and double counts.
- Measuring price of *inputs*
 - *Specialist replacement method*
 - *Opportunity cost* (e.g. Bill Gates' cooking at home)
 - *Generalist replacement method* (selection issues)
- For quality, use same equivalent adults consumer (EAC) weights (gender and age).

Data for NTTA

- 2nd Korea Time Use Survey (2004 KTUS)
 - Conducted every 5 years
 - Only data source in Korea for time use information
 - Information collected for people ages 10 and older
 - 12,651 households with 31,634 respondents
 - Provide information on 2 days (to remove rare event)
- 2004 Korea Labor and Income Panel Study (KLIPS).

Time Use Classification in KTUS

1. Personal care
2. Work and work-related activities
3. Education
4. **Household activities and services**
5. **Caring for and helping household members**
6. **Volunteer activities**
7. Socializing, relaxing and leisure
8. Transportation **(Part of 4,5,6)**
9. Others

	KTUS		Occupation matching	Wage rate
I	Household activity and services			5,897
1	음식준비 및 정리	식사준비 및 설거지, 식후정리	조리및음식서비스종사자	5,510
2	의류관리	세탁 및 세탁물 놓기 및 옷정리	가사 및 관련보조원, 청소 및 세탁종사자	4,065
3		의류손질 및 수선, 세탁서비스받기		
4		재봉, 뜨개질		
5	청소 및	방.물품정리	가사 및 관련보조원, 청소 및 세탁종사자	4,065
6	정리	집안청소 및 기타	건물관리, 경비 및 관련 종사자	3,077
7	집관리	가 재 도 구 . 집 손 질 및 관련서비스받기	건물관리, 경비 및 관련 종사자	3,077
8		그 외 집관리		
9		세차, 차량관리 및 관련서비스받기	운송기계 정비 종사자	7,336
10	가정관리 관련	시 장 보 기 및 쇼 핑 하 기 , 무점포쇼핑	가사 및 관련보조원, 청소 및 세탁종사자	4,065
11	물품구입	내구재구매 관련 행동	자재, 생산 및 관련 사무종사자	8,220
12	가정경영	가계부정리	계수사무종사자	8,542
13		가정계획	경영 및 재정 준전문가	12,529
14		은행 및 관공서 일보기	대금수납 및 금전출납 사무종사자	7,681
15	기타가사일		가사 및 관련보조원, 청소 및 세탁종사자	4,065

	KTUS		Occupation matching	Wage rate
II	Family care			6,547
16	미취학아이		교육준전문가	6,793
17	초.중.고 학생		교육준전문가	6,793
18	배우자, 부모 및 조부모, 기타		보건의료준전문가	6,055
III	Volunteer work			5,982
19	이웃 및 친분이 있는 사람돕기 및 참여활동		대인서비스 관련 종사자	5,688
20	자원봉사	국가 및 지역 행사관련	대인서비스 관련 종사자	5,688
21		자녀교육관련	교육준전문가	6,793
22		아동, 노인, 장애인 관련	보건의료준전문가	6,055
23		재해지역 주민돕기, 시설복구 및 기타	대인서비스 관련 종사자	5,688
24		Household activity related	가정관리 평균	5,897
25	Transportation	Family care related	가족보살피기 평균	6,547
26		Volunteer work related	참여 및 봉사활동 평균	5,982

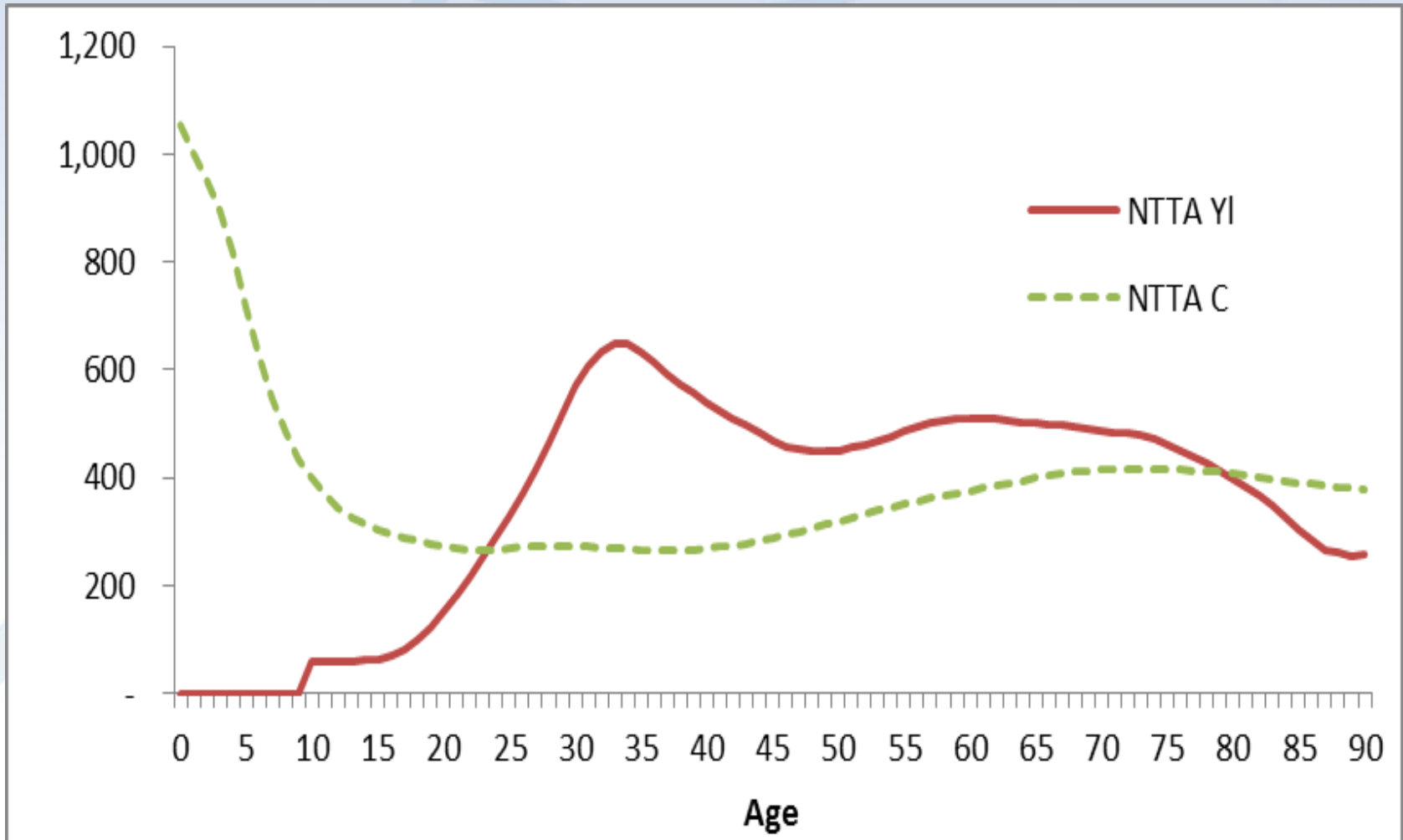
Time Spent on Household Production by Gender, per day (Hour : Minutes)

	Combined	Male	Female
Average	1:56	0:39	3:06
0-19	0:11	0:08	0:14
20-64	2:38	0:51	4:12
65+	2:32	1:07	3:25

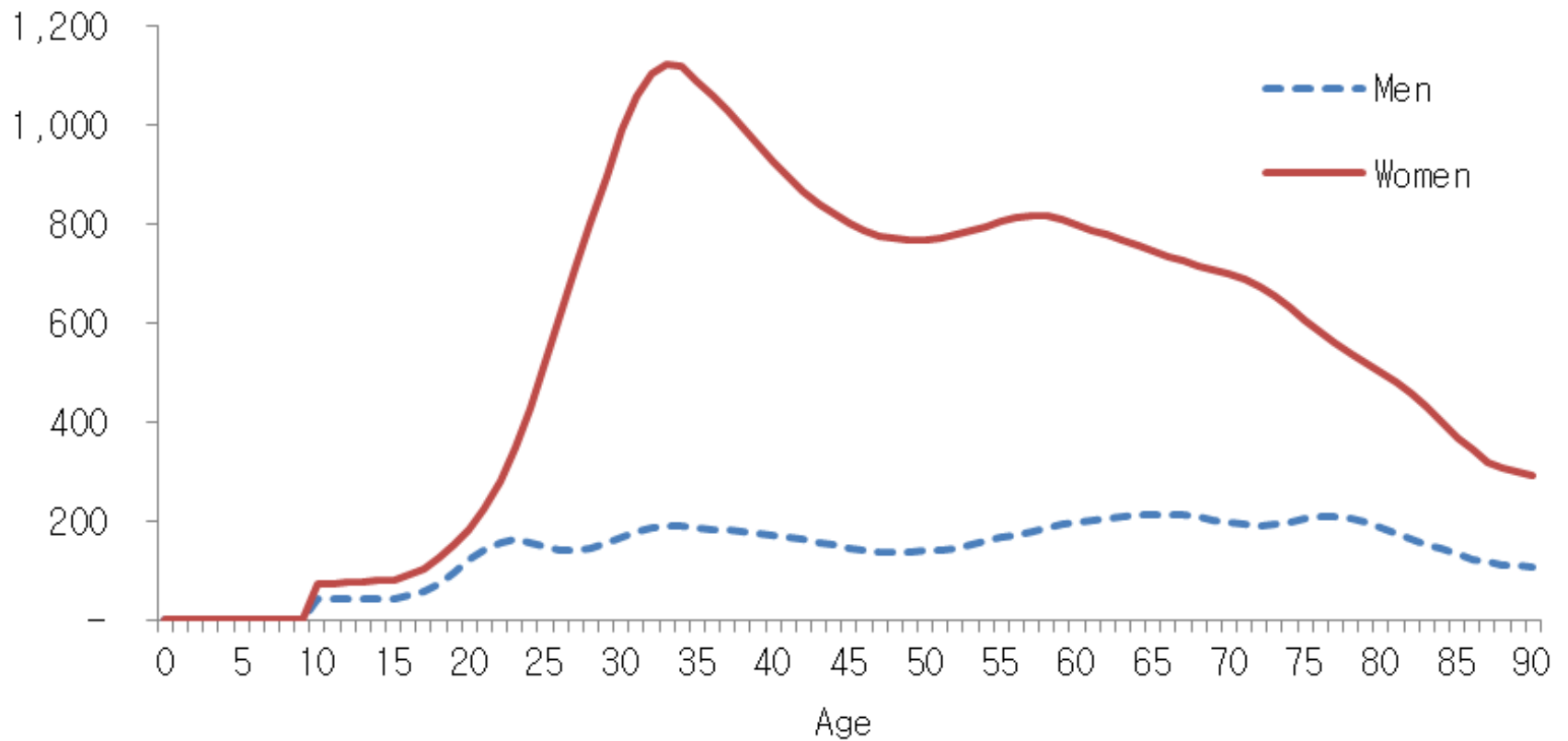
Time Spent on Home Production by Gender and Type (Hour : Minutes)

	Combined			Male			Female		
	I. HH Service	II. Care	III. Volunteer	I	II	III	I	II	III
Avg.	1:27	0:26	0:04	0:24	0:11	0:04	2:24	0:39	0:03
0-19	0:08	0:02	0:01	0:05	0:02	0:01	0:11	0:03	0:01
20-64	1:55	0:38	0:05	0:30	0:16	0:06	3:11	0:58	0:04
65+	2:12	0:15	0:05	0:51	0:12	0:04	3:03	0:17	0:05

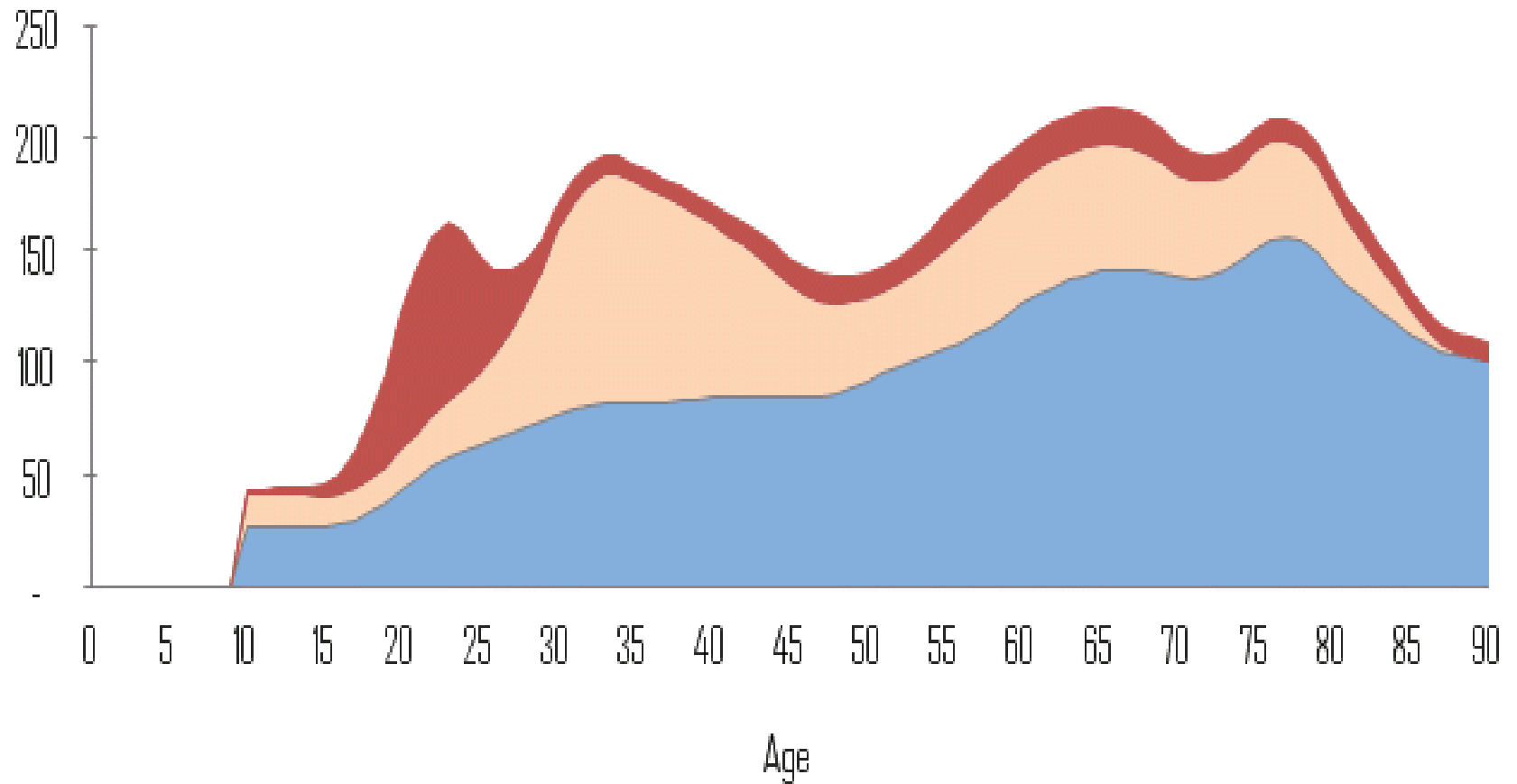
Per capita Production and Consumption, NTTA



Per capita Production by Gender, NNTA



Per Capita Production by Type, Male, NTTA

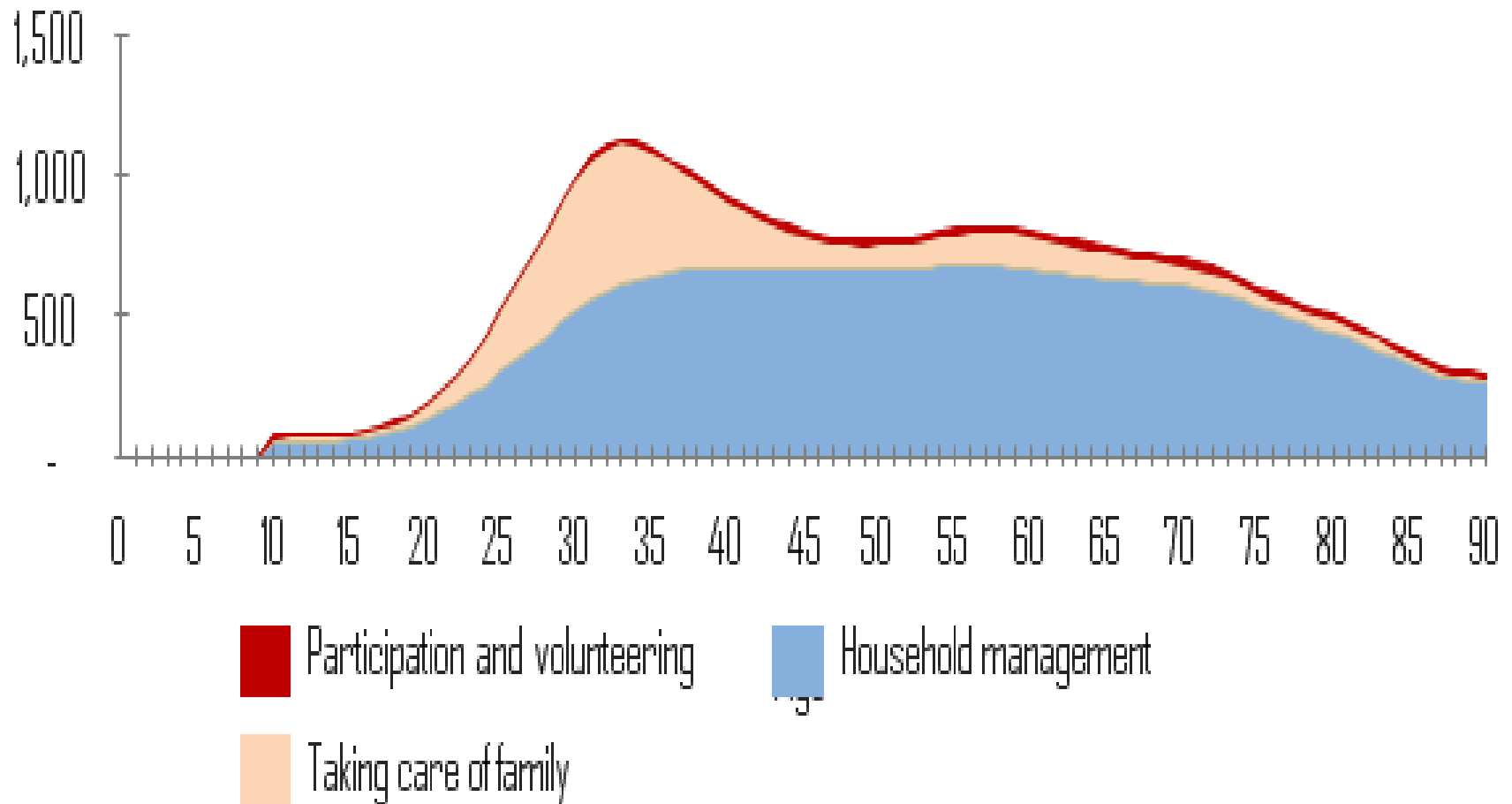


■ Participation and volunteering

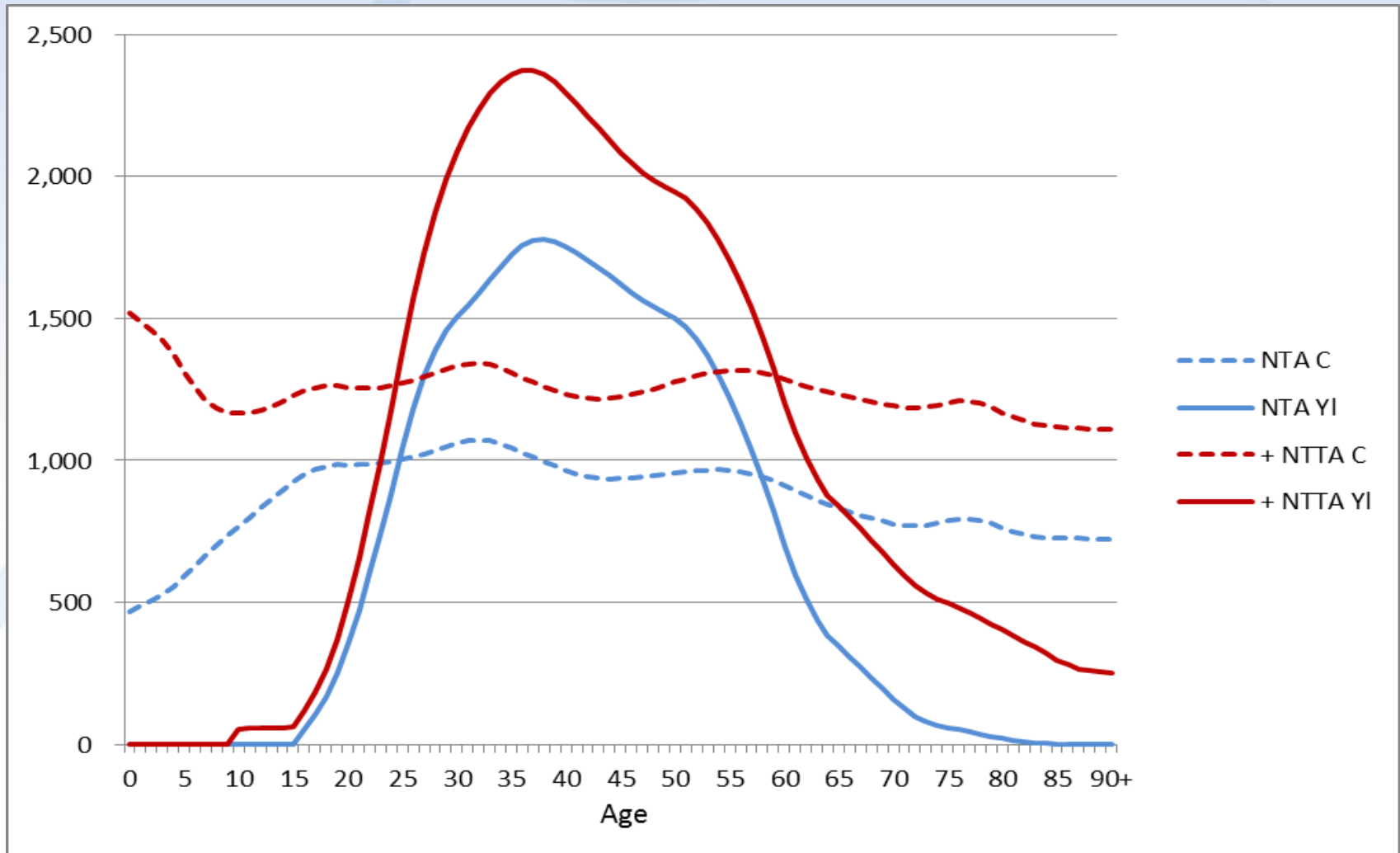
■ Taking care of family

■ Household management

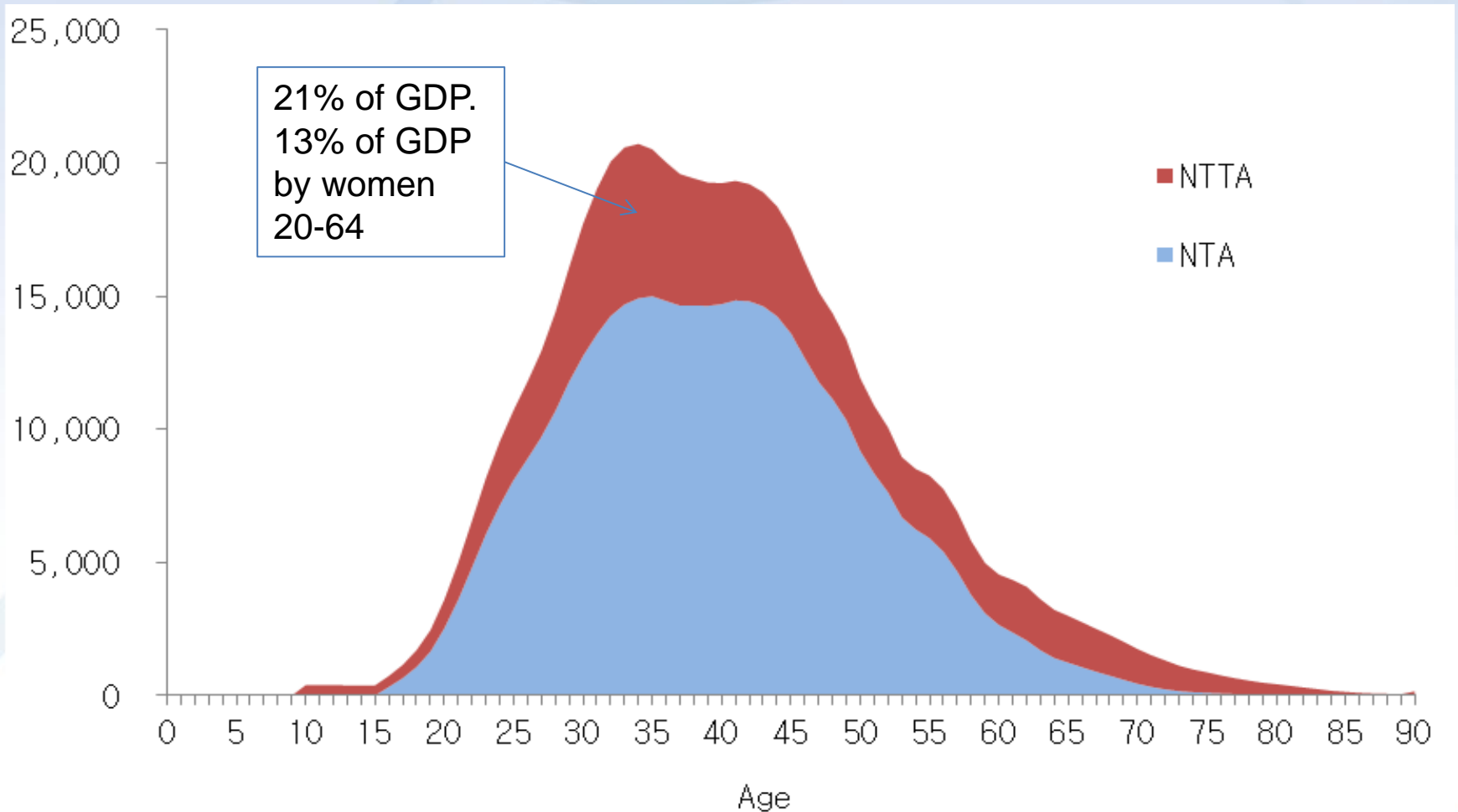
Per Capita Production by Type, Female, NTTA



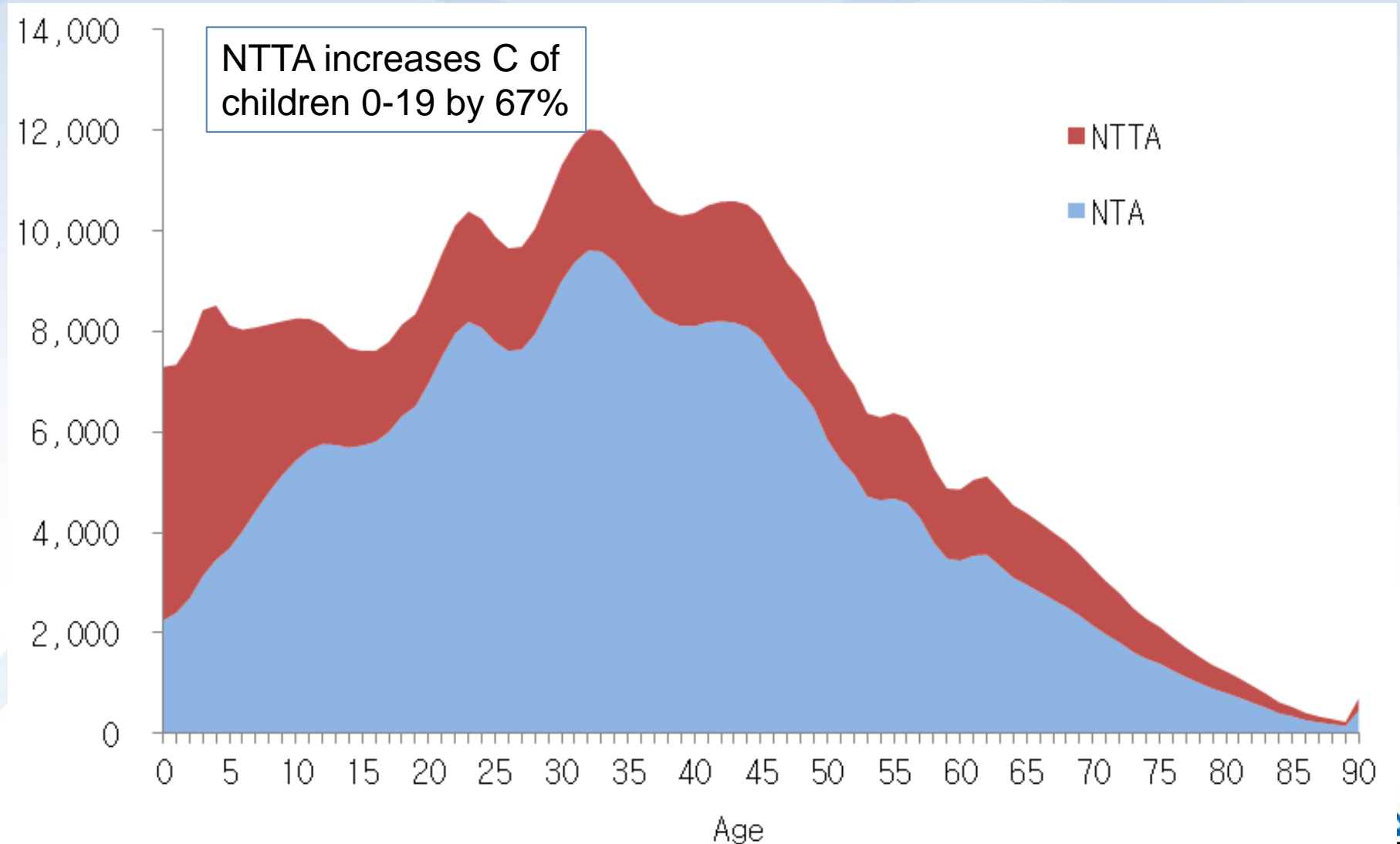
Per capita Production and Consumption, S. Korea, 2004 (10,000 won per year)



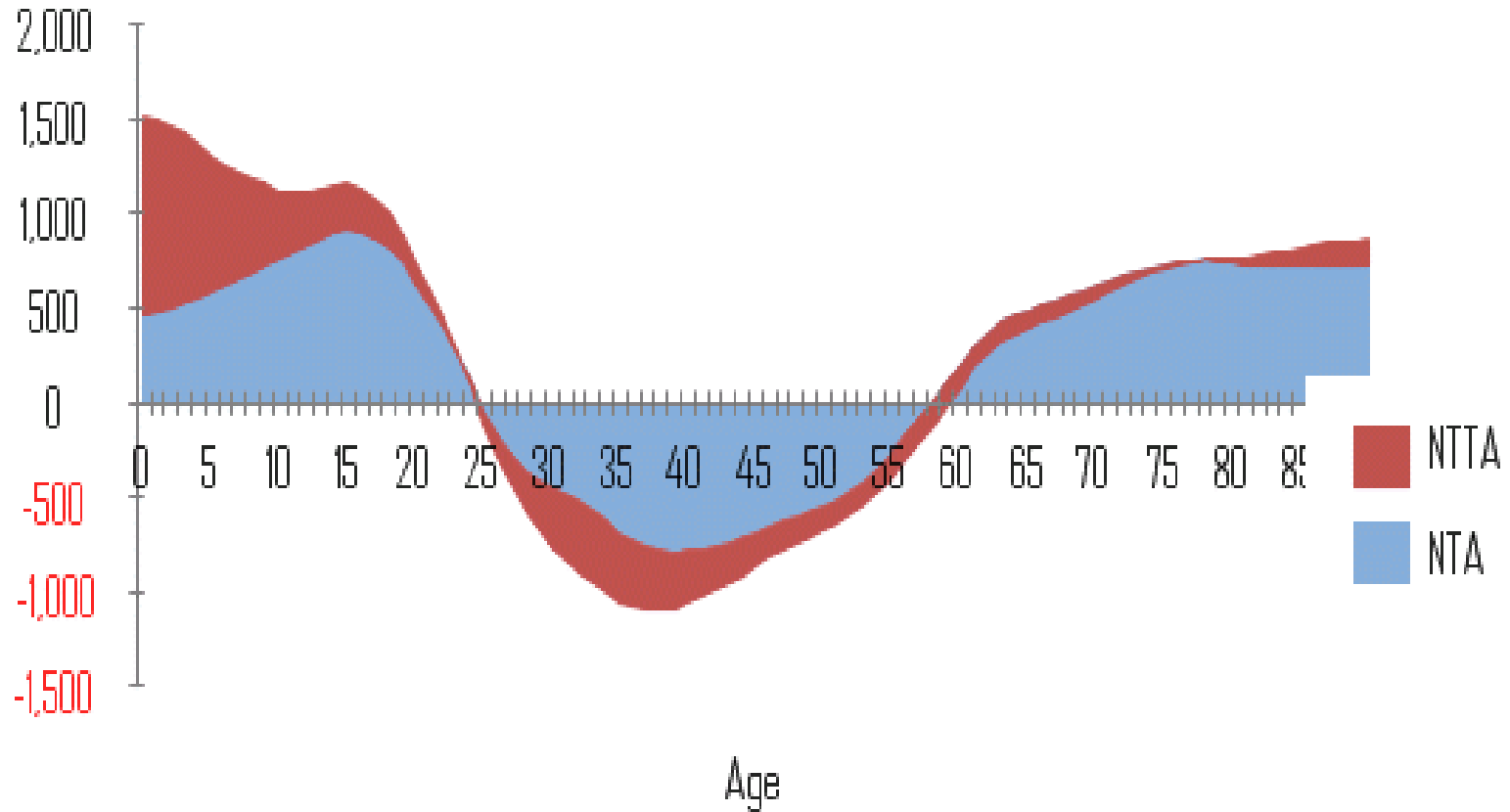
Aggregate Production (1 billion won)



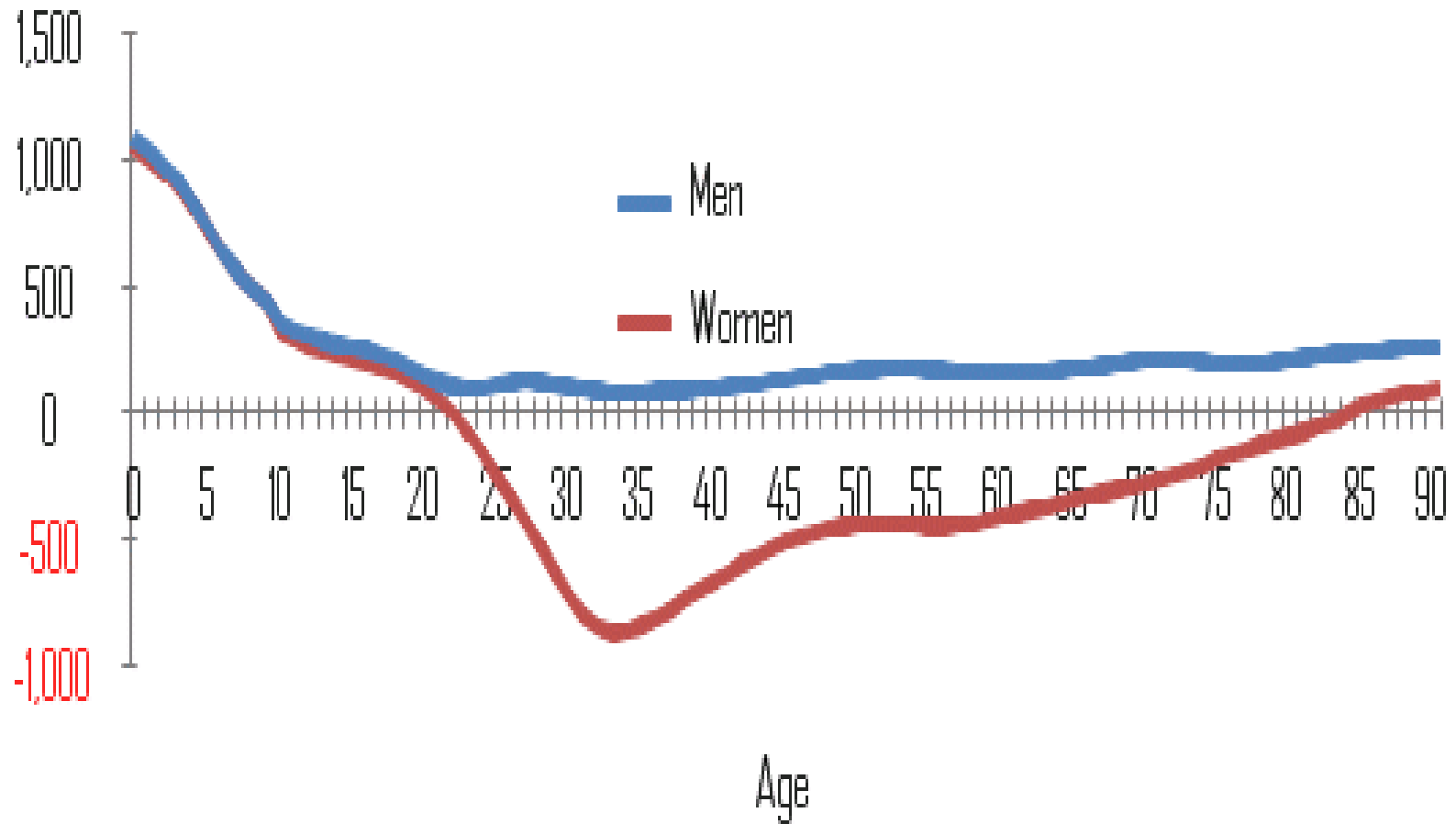
Aggregate Consumption



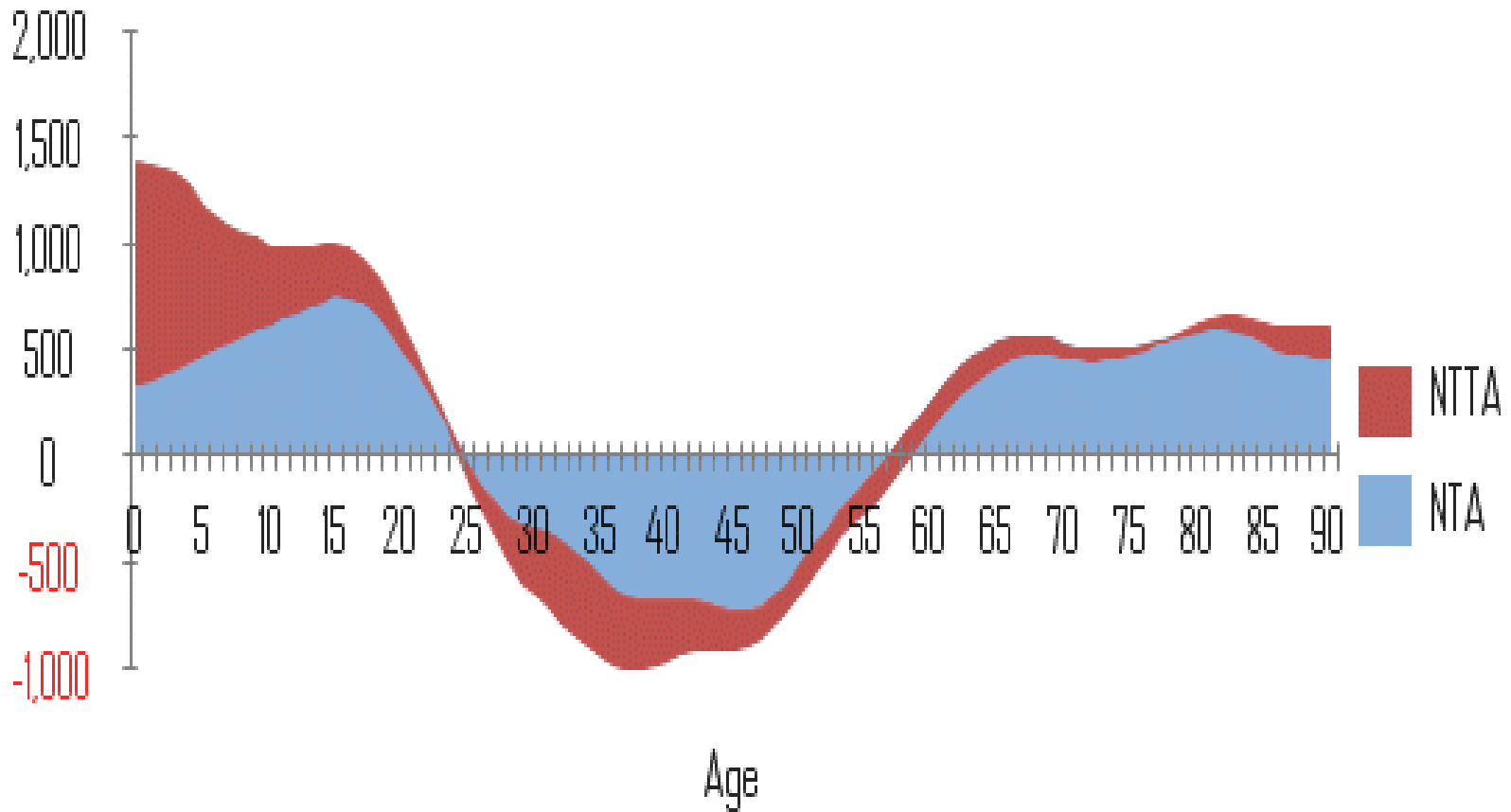
Per Capita Life Cycle Deficit



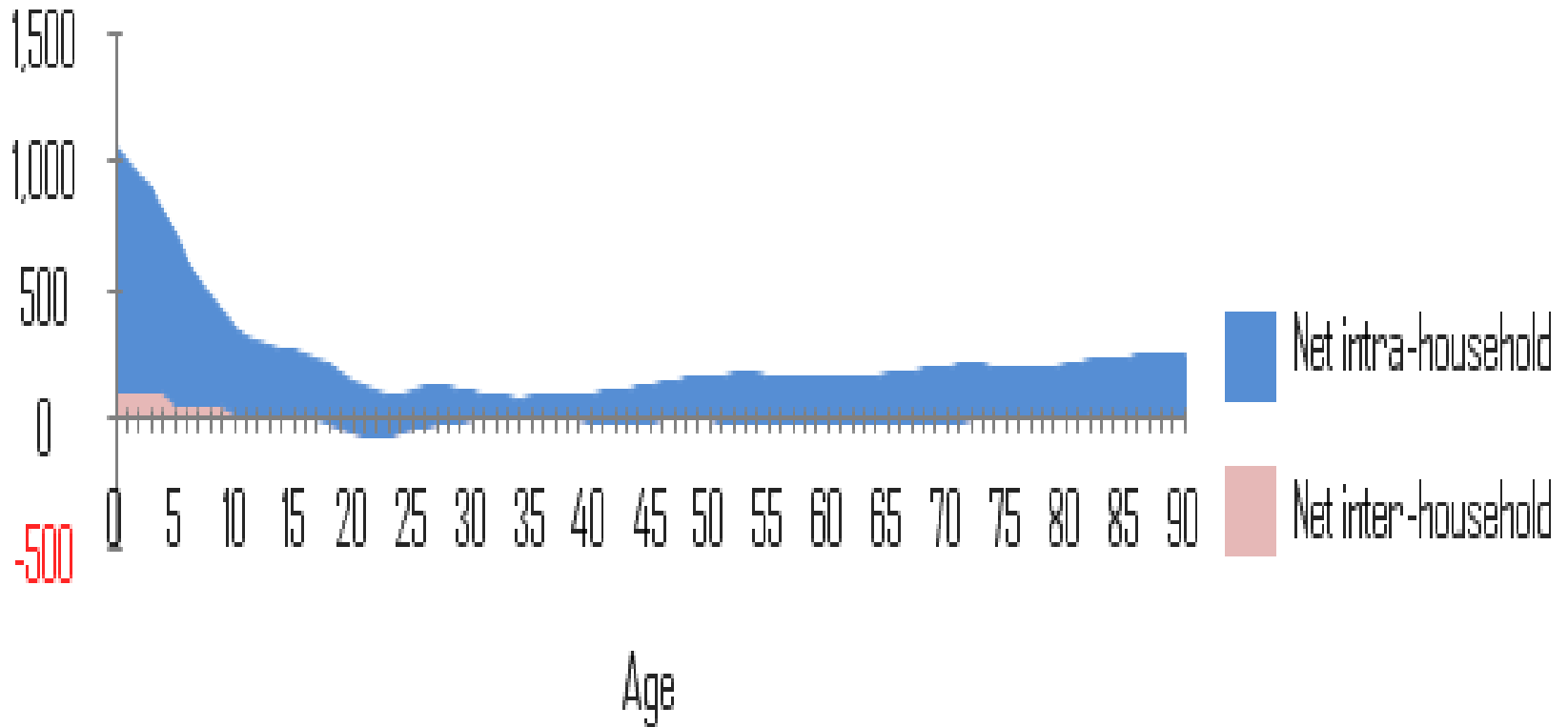
Per Capita Life Cycle Deficit by Gender, NTTA



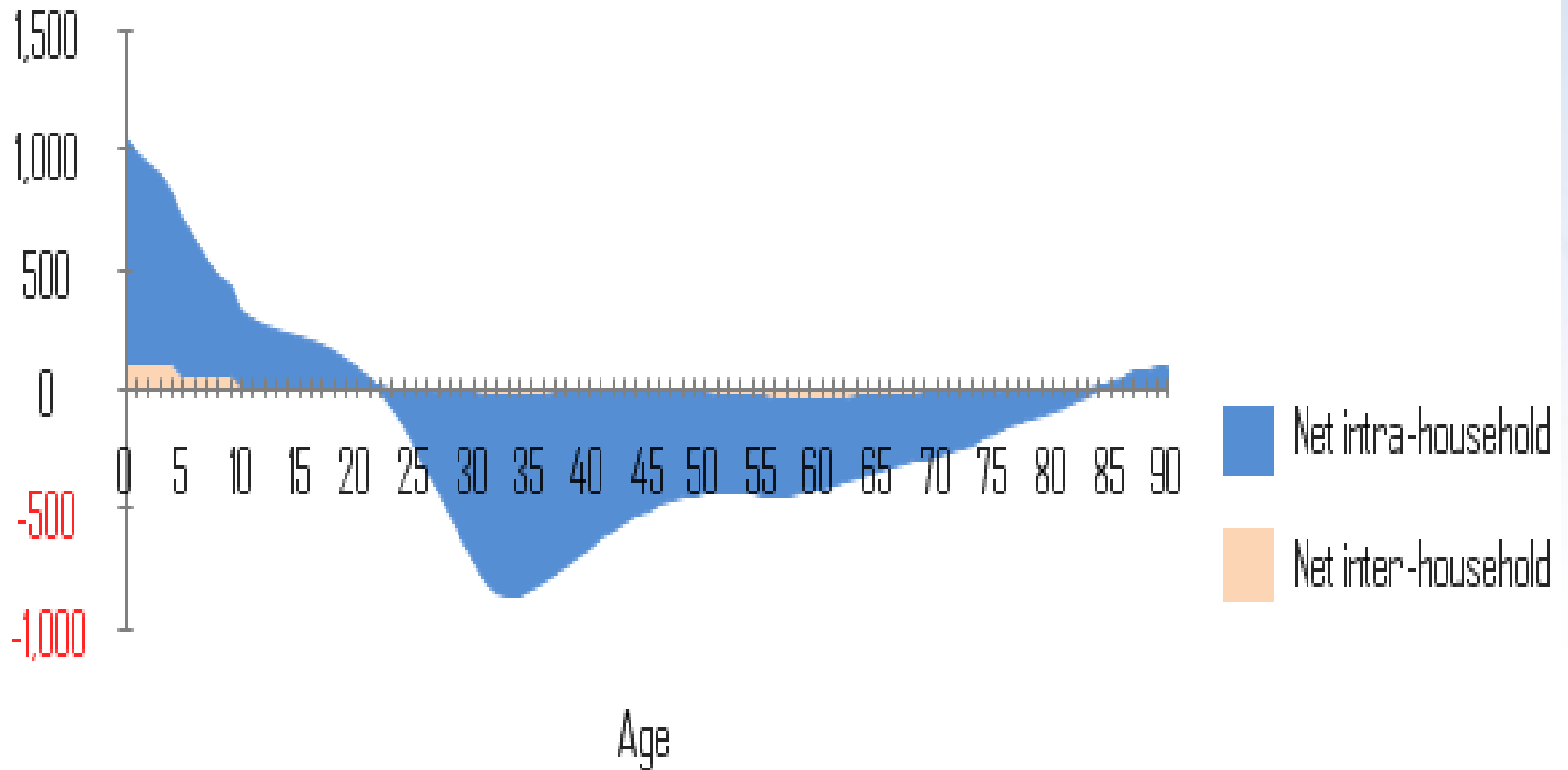
Per Capita Net Private Transfer



Per Capita Net Private Transfer, Male, NTTA

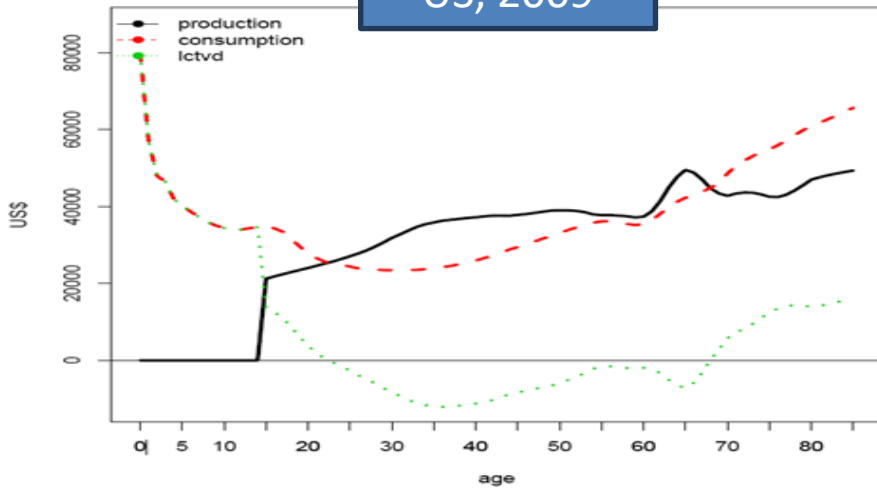


Per Capita Net Private Transfer, Female, NTTA

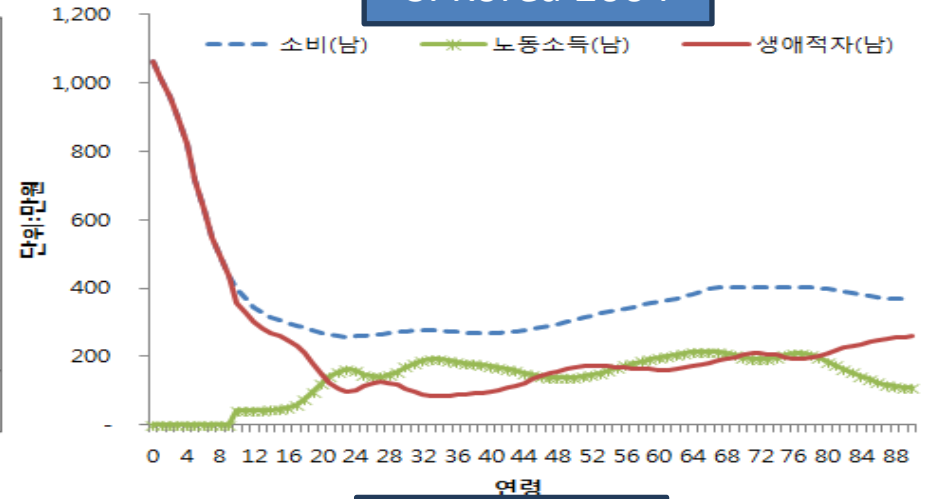


International Comparison of NTTA, Per capita, Male

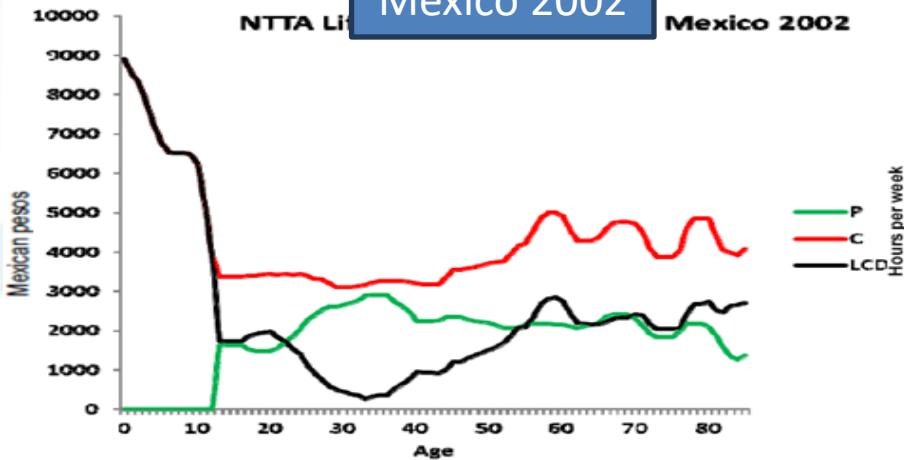
US, 2009



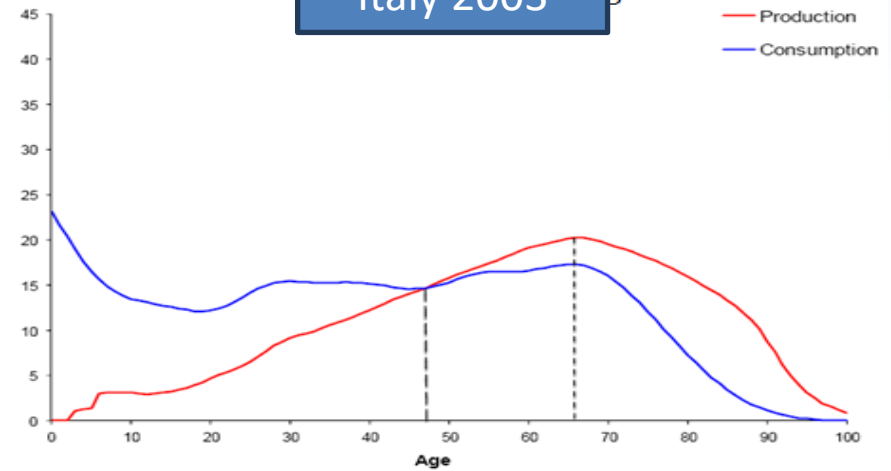
S. Korea 2004



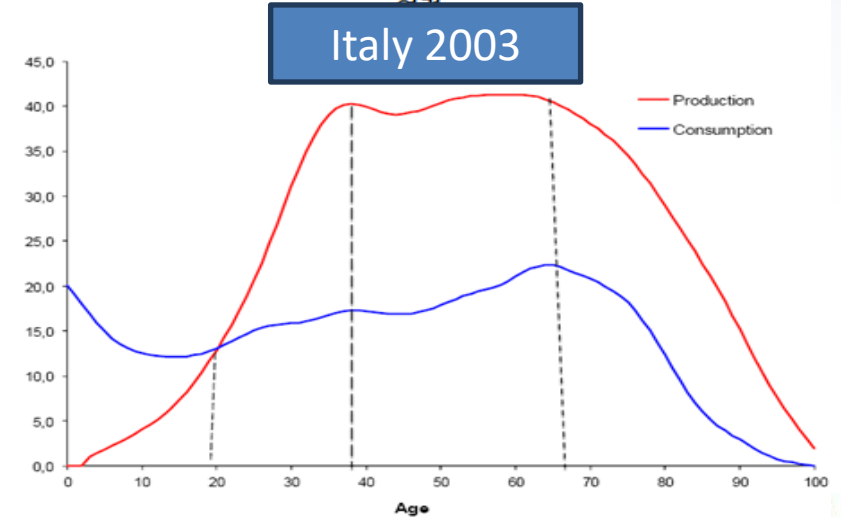
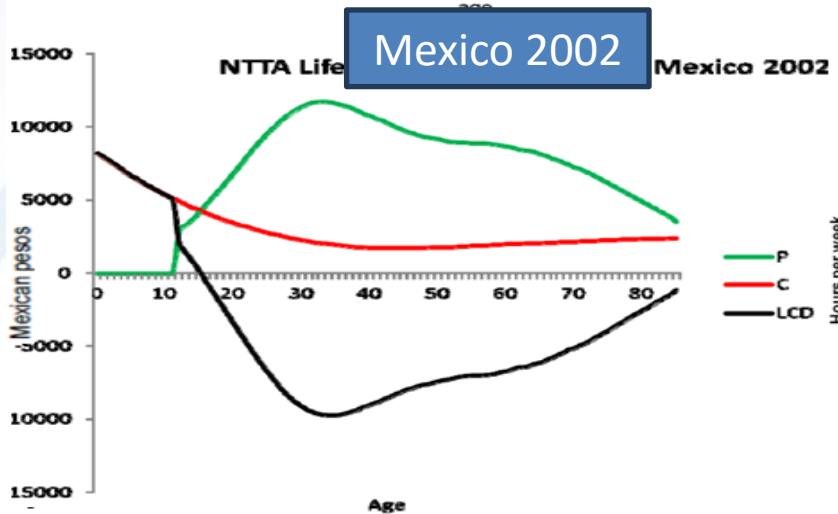
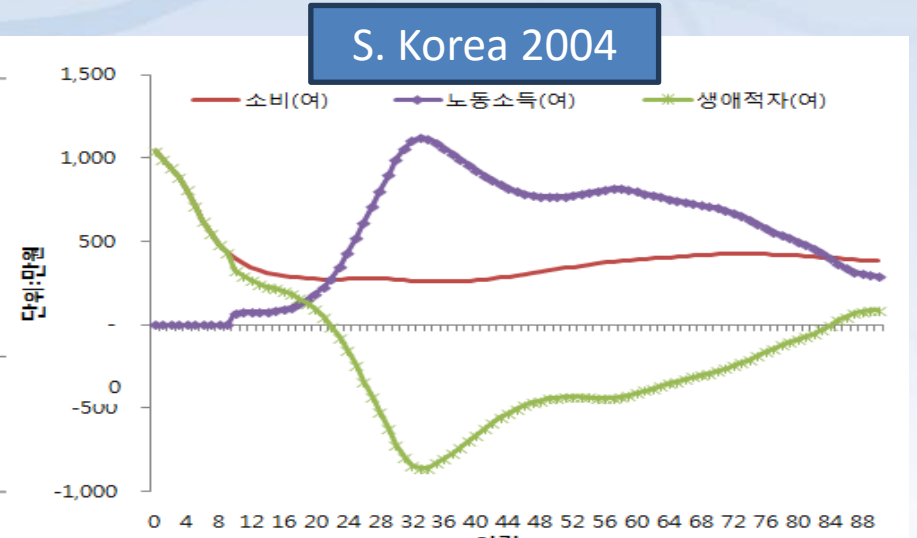
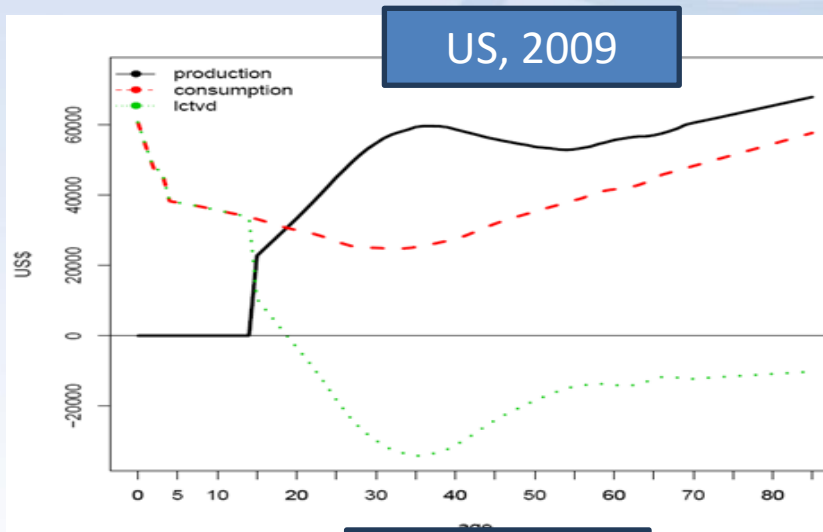
Mexico 2002



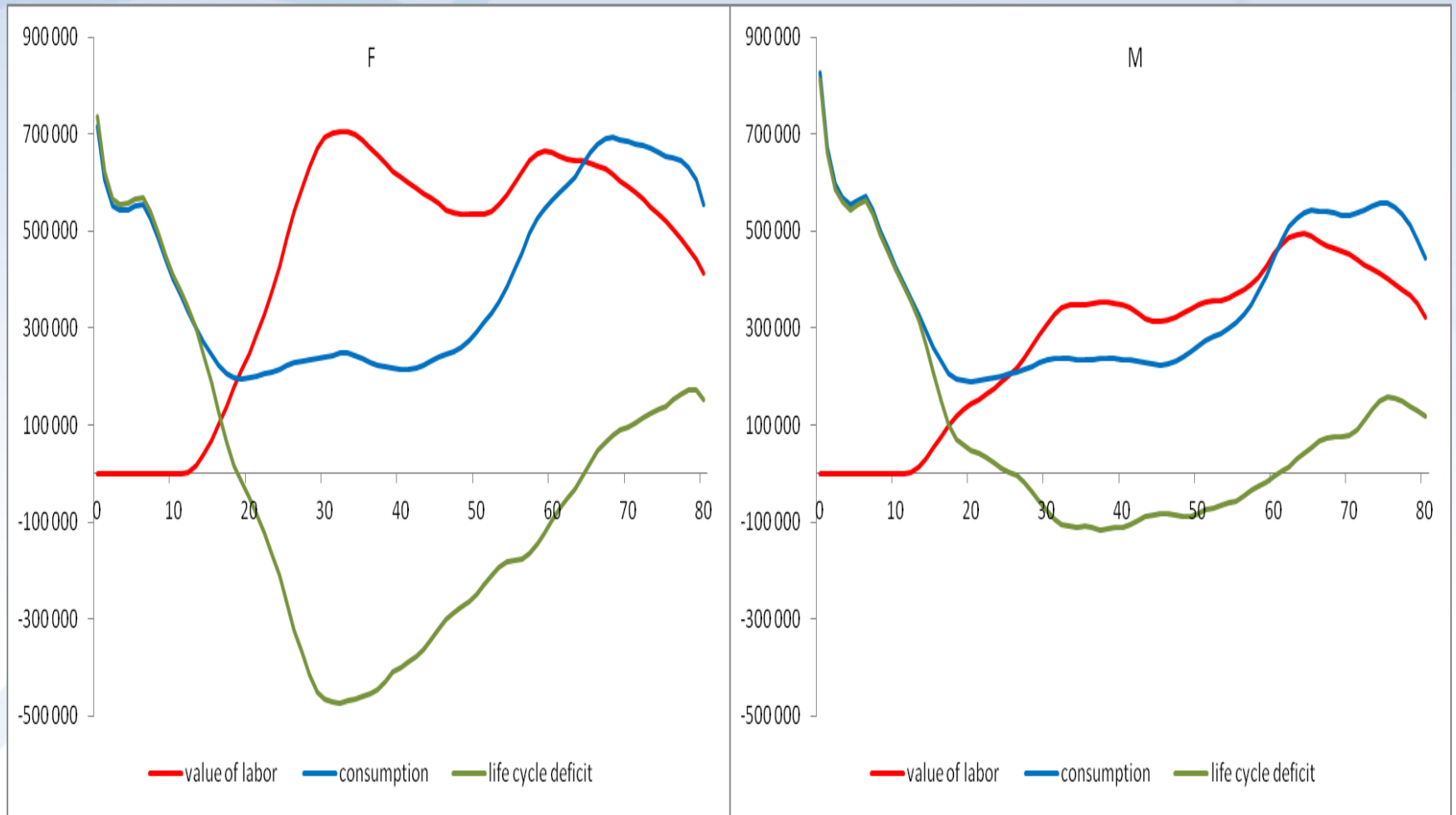
Italy 2003



International Comparison of NTTA, Per capita, Female



Hungary



Sensitivity Tests

National Time
Transfer Accounts

National
Transfer Accounts

Identify household production activities in TU survey (expansive definition)

Calculate single-sex NTA

No multi-tasking

Count time spent, including multi-tasking (50/50 for work overlap, 100 for leisure overlap)

Use regression instead of EAC weights

Estimate per capita age profile of household production

Calculate age profiles by sex using same NTA methodology

Change definition of household head

Data-driven imputation (regression)

Impute consumption equally to those in target age group

Adjust two-sex age profiles at each age to be consistent with single-sex profiles

No adjustment

Estimate transfers removing consumption of own-produced activities

Opportunity cost

Attribute a wage to each type of activity (specialist replacement, with adjustments for quality and fringe benefits)

OC for care only

No adjustments

Sensitivity Tests

- Use multi-tasking ($\frac{1}{2}$ to primary and $\frac{1}{2}$ to secondary)
 - Little change
- Opportunity cost method
 - Increase the NTTA by 66%
- Regression method vs. equal distribution for age groups
 - Little change
- Quality adjustment (0.75 \leftrightarrow 1)
 - Profiles become flat (or vice versa)

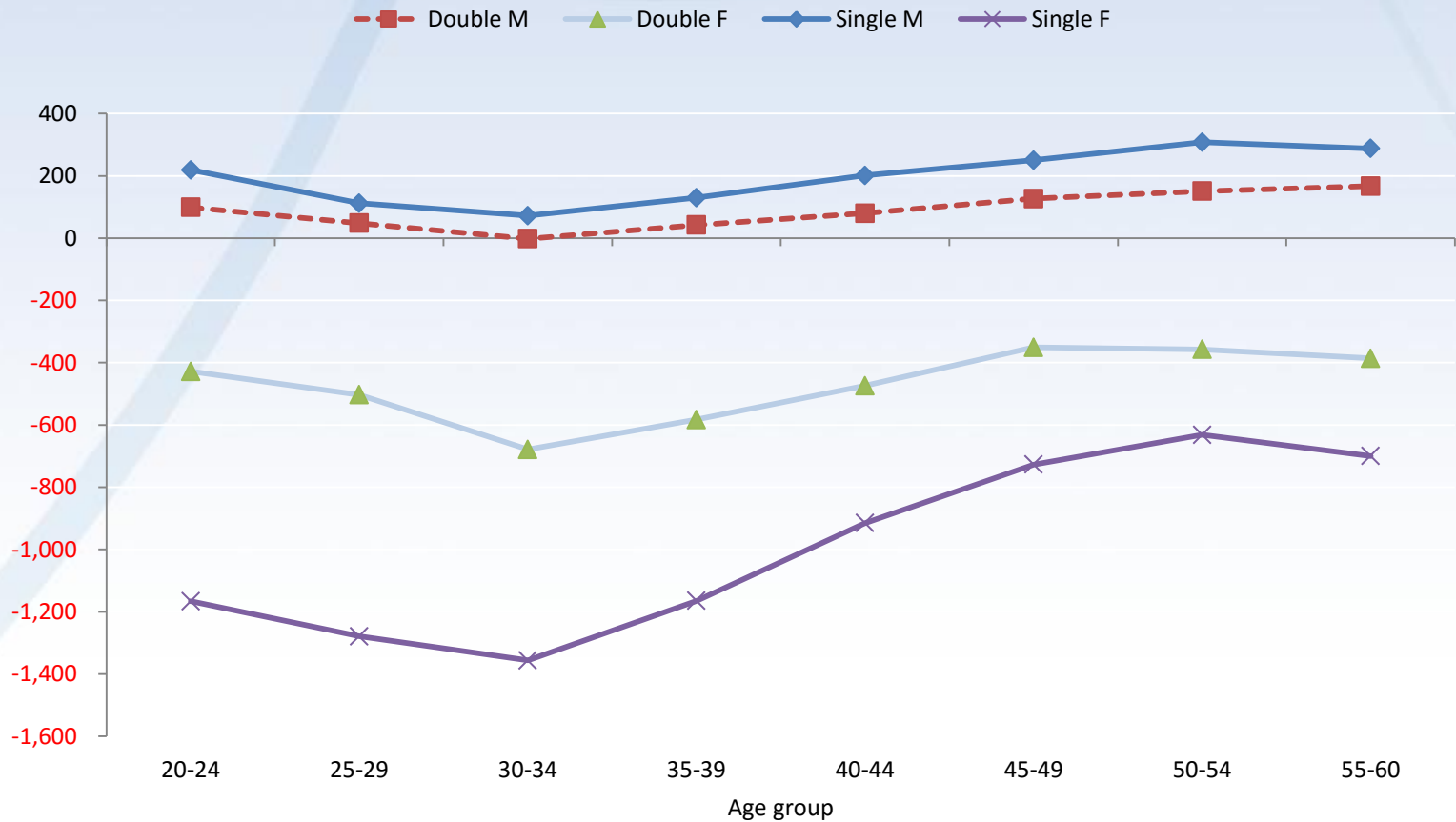
NTTA by Socio-economic Status

- LFP of wife
- Education level
- Marital status
- HHH income
- Attitude toward women's role
- Urban vs. rural
- Household composition

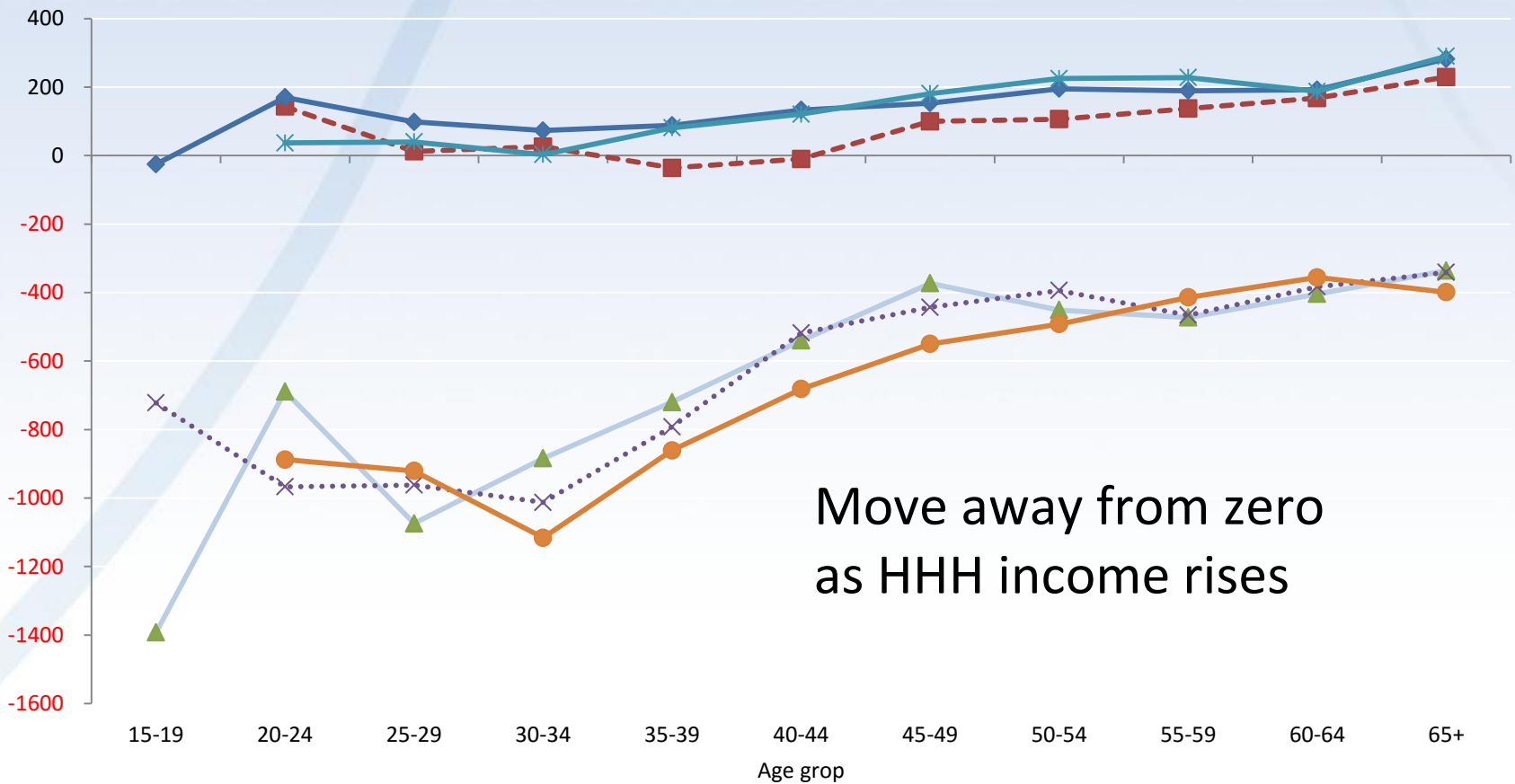
Time Spent on Home Production by Gender and Working Status

	Combined		Male		Female	
	Working	Not working	Working	Not working	Working	Not working
Avg.	1:46	2:48	0:45	0:48	3:01	3:59
0-19	0:31	0:20	0:25	0:14	0:35	0:26
20-64	1:45	4:44	0:45	1:26	3:03	5:52
65+	2:02	2:51	0:50	1:24	3:11	3:33

Per capita Net Private Transfers among Married Single Earner vs. Double Earners

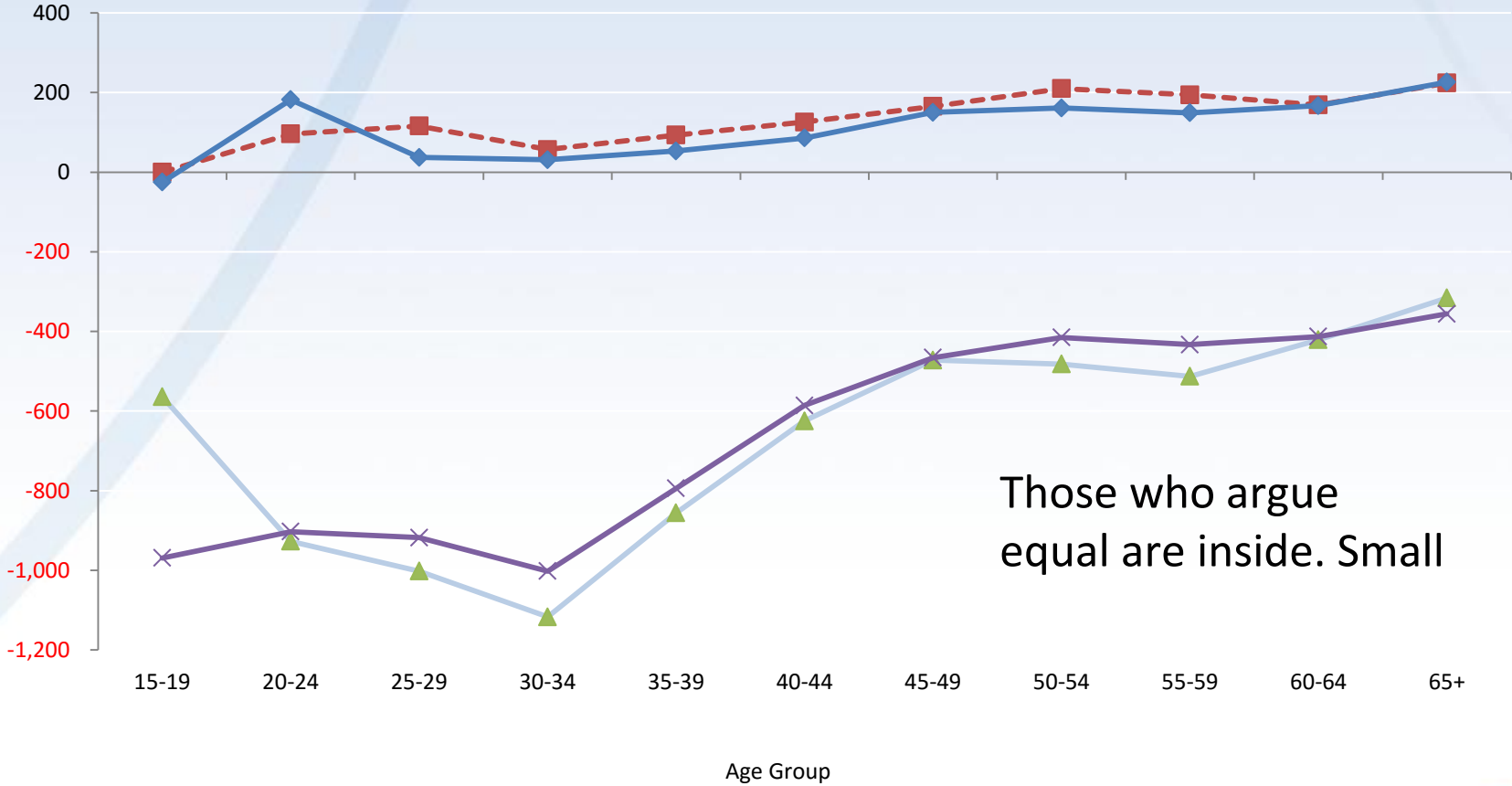


Per capita Net Private Transfers among Married By Household Head Income Level



Per capita Net Private Transfers among Married

Attitude toward Women's Role



Those who argue equal are inside. Small

Conclusion

- Women in Korea greatly contribute to family and economy through non-market labor.
 - Net contributor for almost all adults (contrast to men)
 - Production by ages 20-64 accounts for 13% of GDP
 - Consumption per child increases by \$4,500 per year (67%)—implications.
 - Burden of support for each parents increases by \$1,600 (52%)
 - Some interesting differences by socio-economic status

Thank you

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