Counting Women's Work: Measuring the gendered economy by incorporating gender and time use into National Transfer Accounts

Gretchen Donehower
University of California at Berkeley
Project Director, Counting Women's Work

COUNTING WOMEN'S WORK

NTA

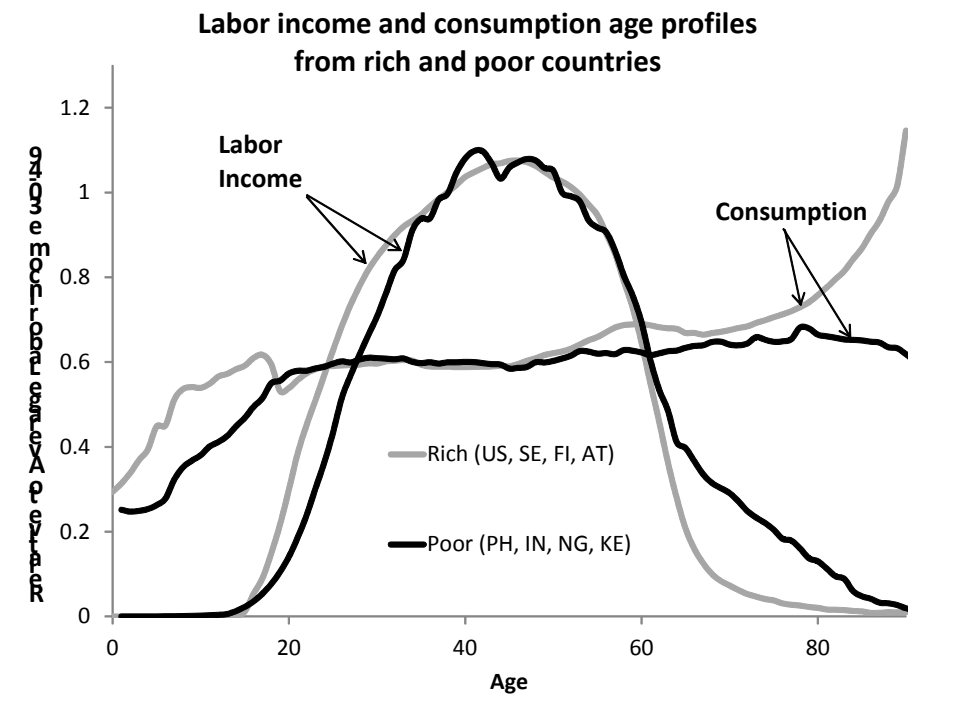
What are National Transfer Accounts?

- National Transfer Accounts (NTA) (www.ntaccounts.org) is an international research project that aims to measure and understand the generational economy:
  1. the social institutions and economic mechanisms used by each generation or age group to produce, consume, share, and save resources
  2. the economic flows across generations or age groups that characterize the generational economy
  3. explicit and implicit contracts that govern intergenerational flows
  4. the intergenerational distribution of income or consumption that results from the foregoing generational economy

(from Lee, R. and Mason, A., principal authors and editors. 2011. Population aging and the generational economy: A global perspective. Cheltenham, UK, Edward Elgar.)

An example of NTA results

- NTA "age profiles:" cross-sectional per capita flows estimated from household surveys and administrative data
- Consistent with aggregate flows from national accounts
- Includes public and private flows
- Includes consumption, income from labor and capital, transfers, and saving



Country age profiles are standardized for comparison by dividing by the average labor income age profile for ages 30-49 for the country. Rich country lines are average from US, Sweden, Finland, and Austria. Poor country lines are average from Philippines, India, Nigeria, and Kenya

NTA, Gender, and Time Use

- NTA age profiles represent an "average" person at each age
  - BUT there is no "average" person in an economy… there are boys and girls, men and women
- NTA is consistent with national accounts
  - BUT national accounts ignore the value of non-market services such as housework and care work because of long-standing measurement difficulties
- The Counting Women's Work project addresses both of these issues:
  - Separate NTA age profiles by sex
  - Use time use surveys to estimate age profiles of non-market services (National Time Transfer Accounts)

The Counting Women's Work Project (www.countingwomenswork.org)

- Supports adding gender and time use to NTA estimates in lower- and middle-income countries
- Other NTA network countries will follow the same methodology to create cross-country comparative database
- Funded by the International Development Research Centre and the William and Flora Hewlett Foundation
- Based at the University of California at Berkeley, the University of Cape Town, and the East-West Center
- Goals
  - Measure the gendered economy
  - Make traditional "women's work" visible for research and policy analysis

NTA

Adding gender and time use is central to NTA research

Our Goal:

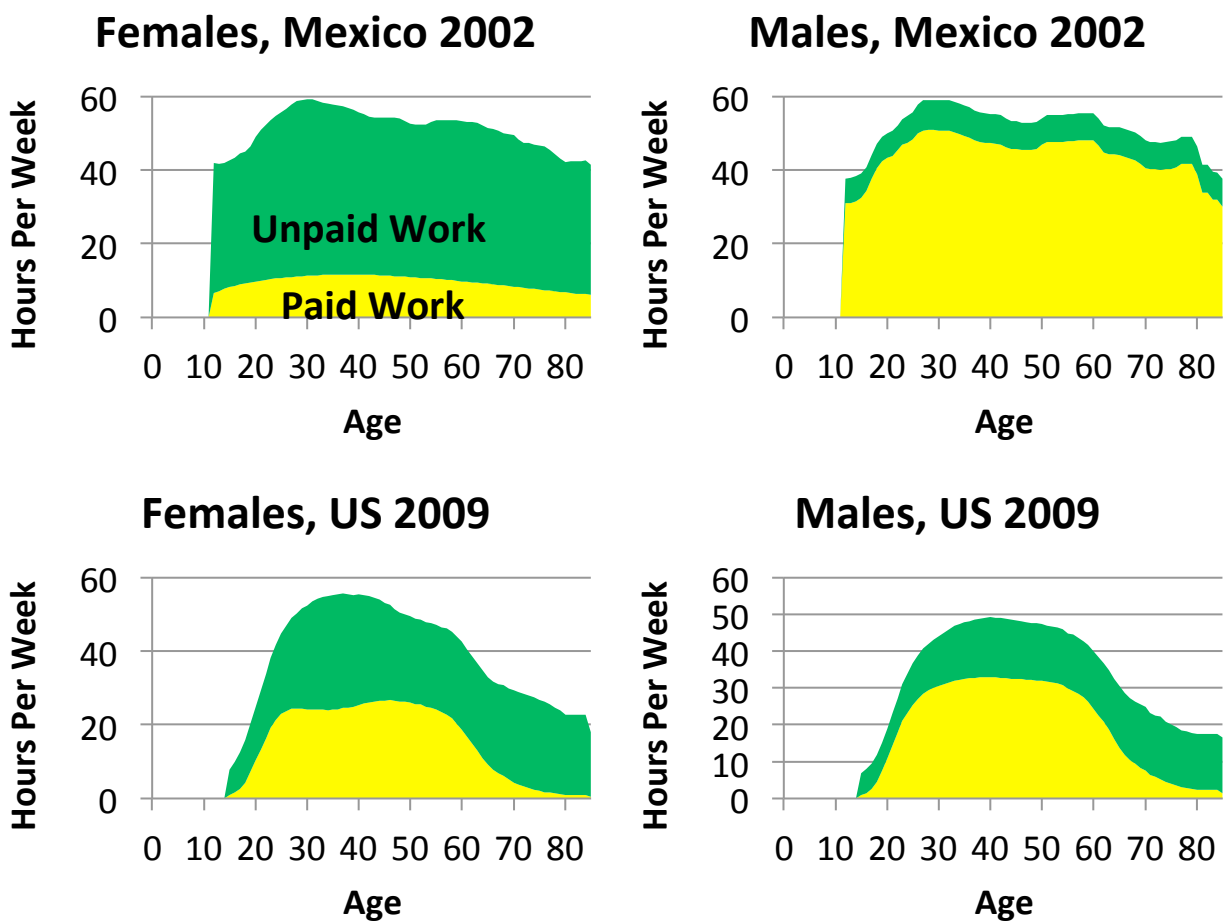
Value everyone's work, measure everyone's care

Producing market goods:

Producing non-market services:

Motivation for measuring the gendered economy

- Big differences between men and women in mode of economic participation
- Amount of time spent in unpaid work (house- and care-work) is very large



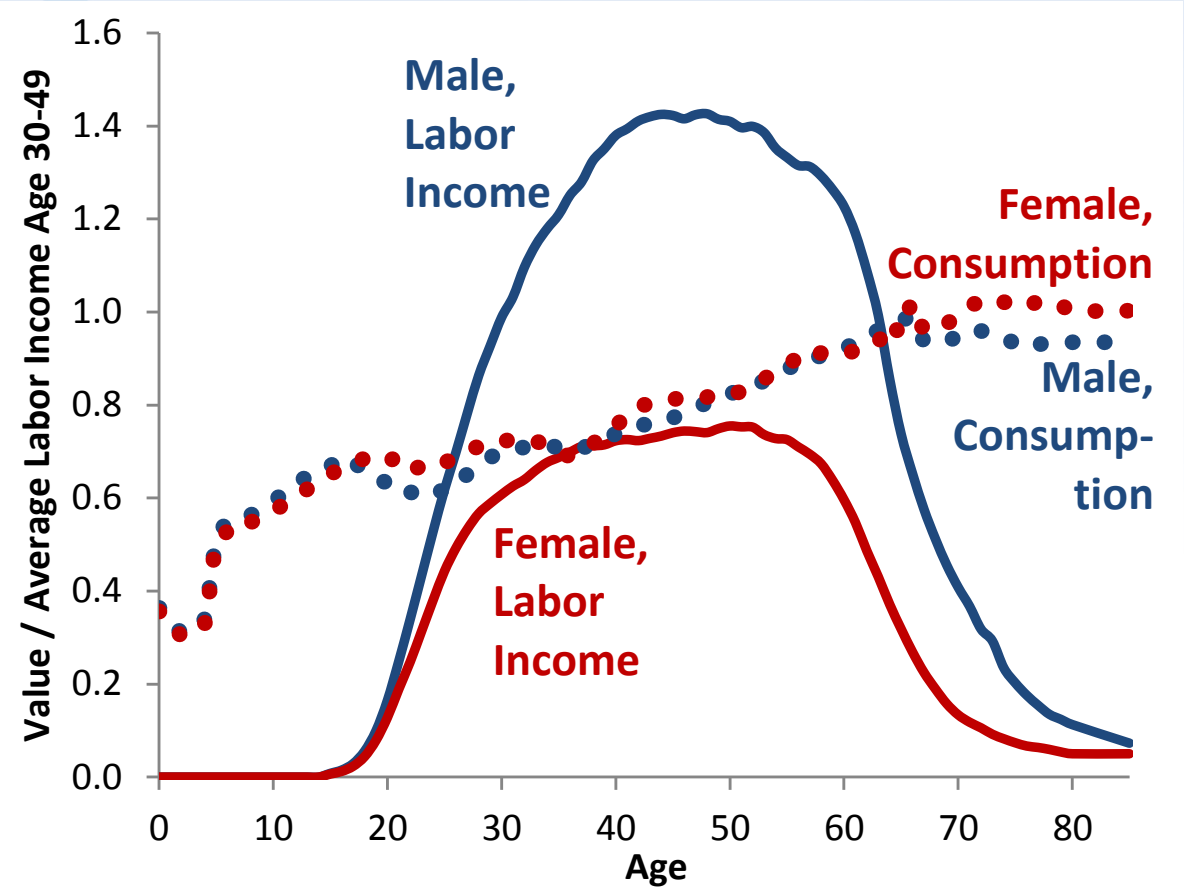
Data for Mexico is the Encuesta Nacional sobre uso del Tiempo, 2002; for US is American Time Use Survey, 2009

Measuring the gendered economy involves two research efforts:

1. Estimate market-based NTA by sex

Example: United States 2009

Estimates are smoothed per capita flows for 2009, estimated from the Current Population Survey, the Consumer Expenditure Survey, and administrative data. Consistent with National Income and Product Accounts aggregates.



Measuring the gendered economy involves two research efforts:

1. Estimate market-based NTA by sex
2. Create "National Time Transfer Accounts" (NTTA)
   - Measure time spent in unpaid household services (housework and care) from time use surveys
   - Value the time at an appropriate wage for each type of activity (specialist replacement method) to estimate time production by age and sex
   - Impute consumption to individuals within the household or community

National Time Transfer Accounts (NTTA)

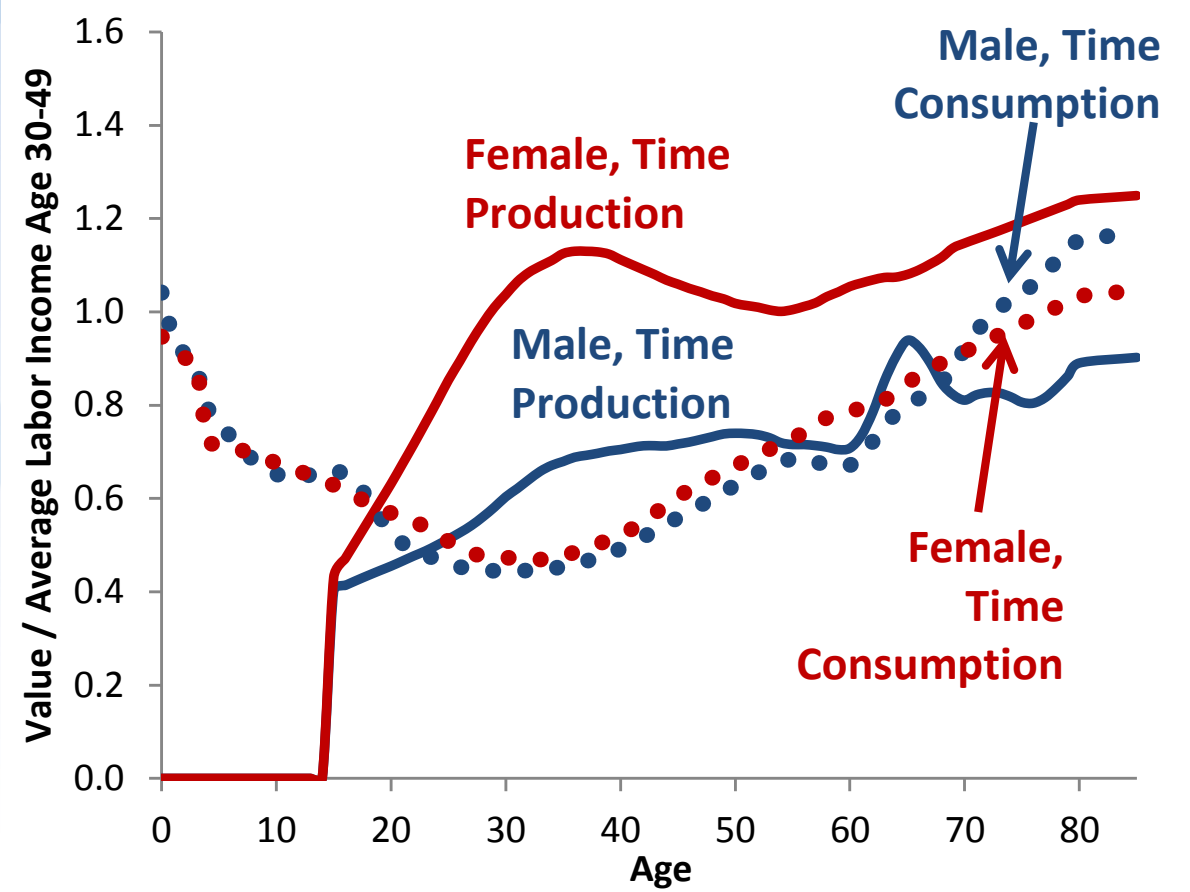
- Starts from past work developing satellite household production accounts
  - Fills in "blind spot" in economic data: non-market services
  - Add to national accounts to create complete picture of the economy
- Innovations of NTTA
  - Adds age dimension
  - Adds time consumption and transfers
  - Integrated with market accounts from NTA

NTTA Methodology

- Estimate time production from time use surveys
  - Average time spent in various housework, care, and volunteering activities by age and sex
  - Value time by pre-tax replacement wage for each activity
- Impute time consumption to persons by age and sex
  - Housework allocated equally to household members
  - Care of household members imputed to those in target age group based on correlation between care production and household structure
  - Care of non-household members distributed per capita to total population in target age group
- All time is transferred except the time consumed by the producer
  - Example: If I cook for 60 minutes for my household of four persons;
    - I produced 60 minutes of time
    - Each person in my household consumes 15 minutes of time
    - I make a transfer outflow of 45 minutes of time
    - The three other persons in my household receive a transfer inflow of 15 minutes each
- Some aspects of the methodology may be refined or revised

National Time Transfer Accounts

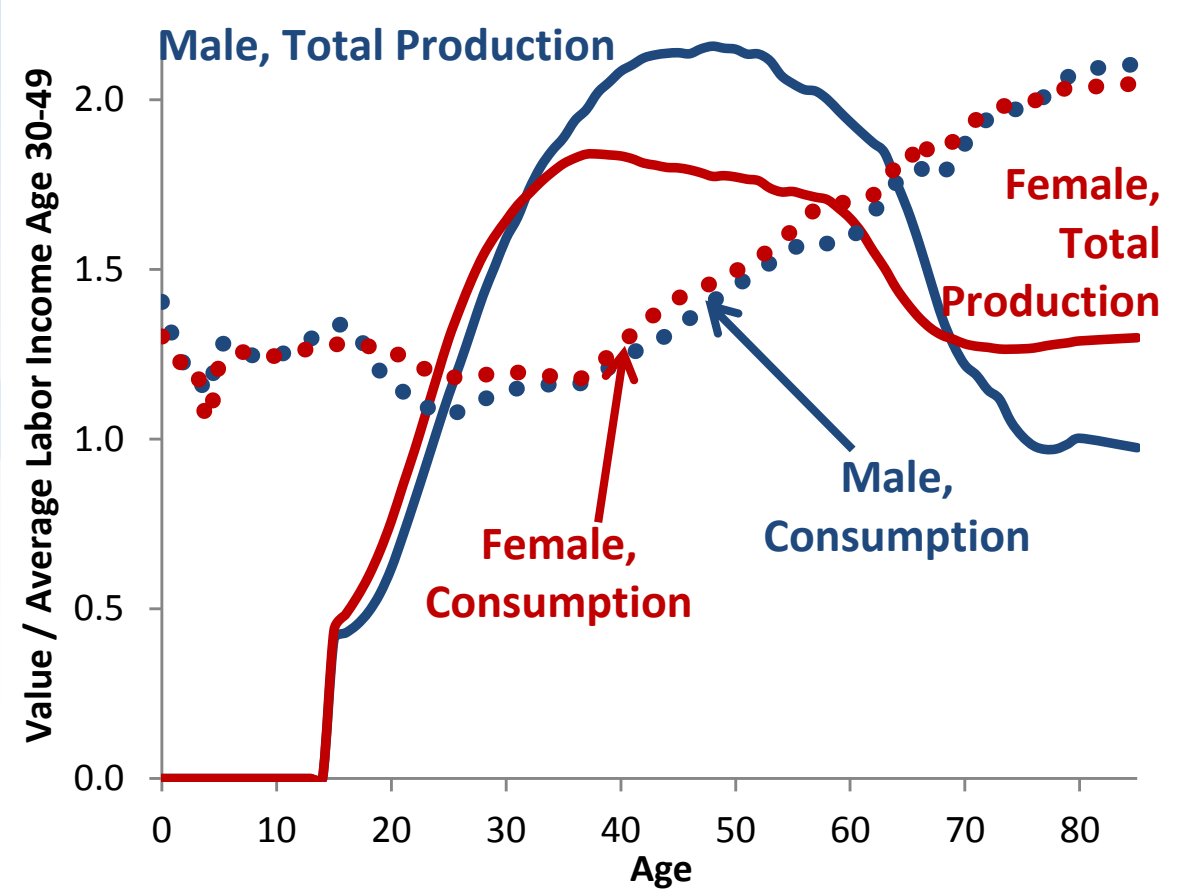
Example: United States 2009



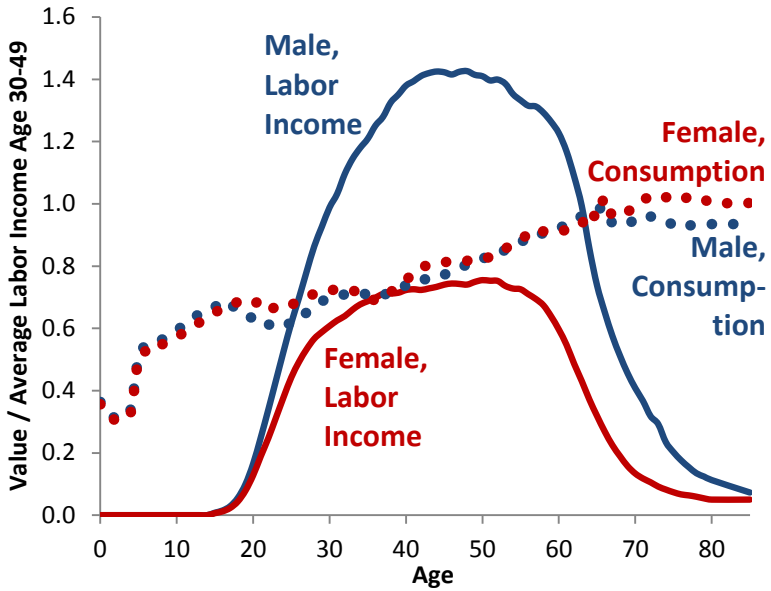
Time use data for 11 groups of housework and care activities are from the 2009 American Time Use Survey, valued at the average pre-tax wage for the activity group from Bureau of Labor Statistics' annual Occupational Employment and Wage estimates for 2009. Consumption of the housework time produced is imputed to all household members equally. Consumption of care work is imputed to those in the target care group (i.e. children or adults) using regression methods based on household structure.

Total Economy (NTA+NTTA)

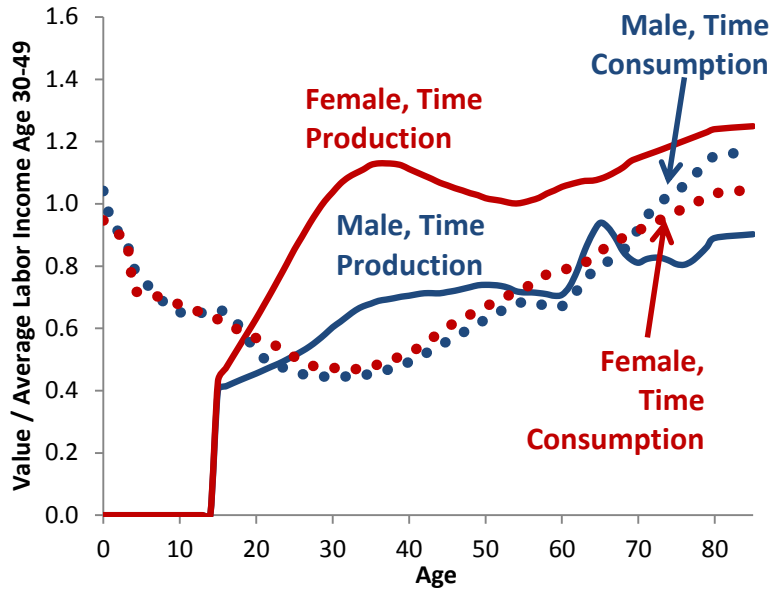
Example: United States 2009



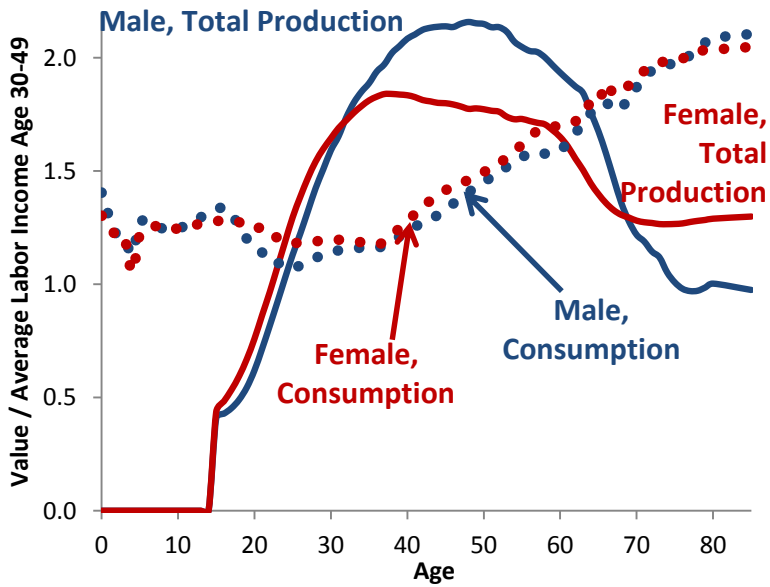
Market ($)



Household (🕓)

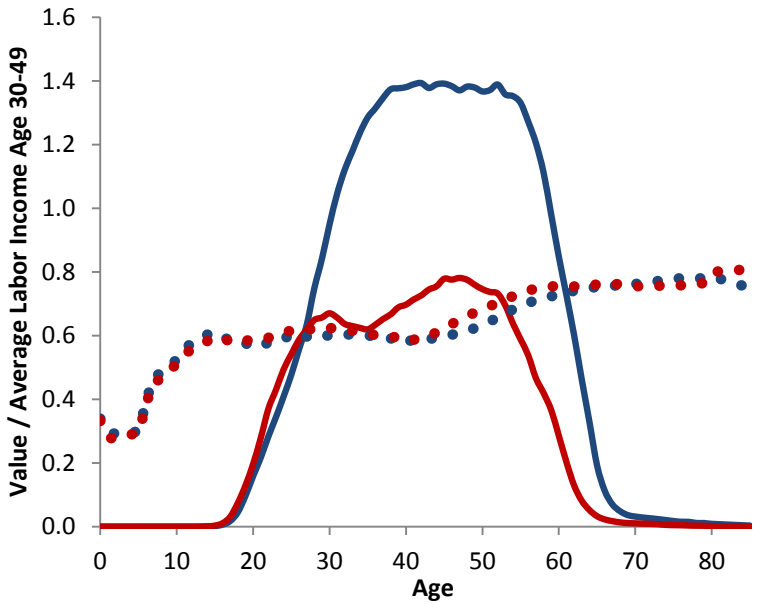


Total

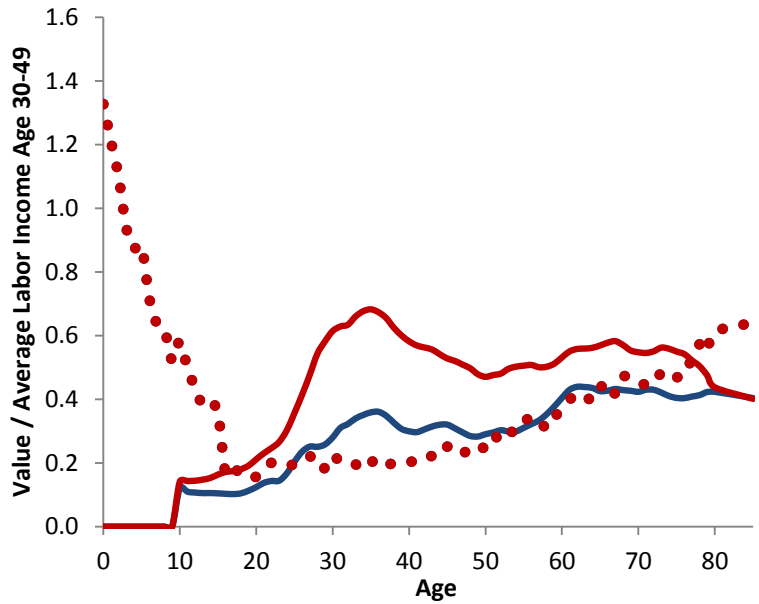


US, 2009

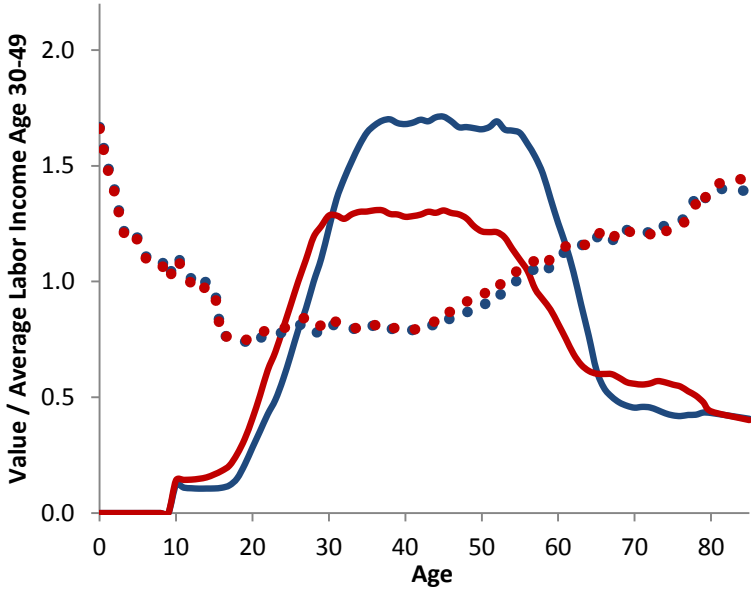
Market ($)



Household (🕓)

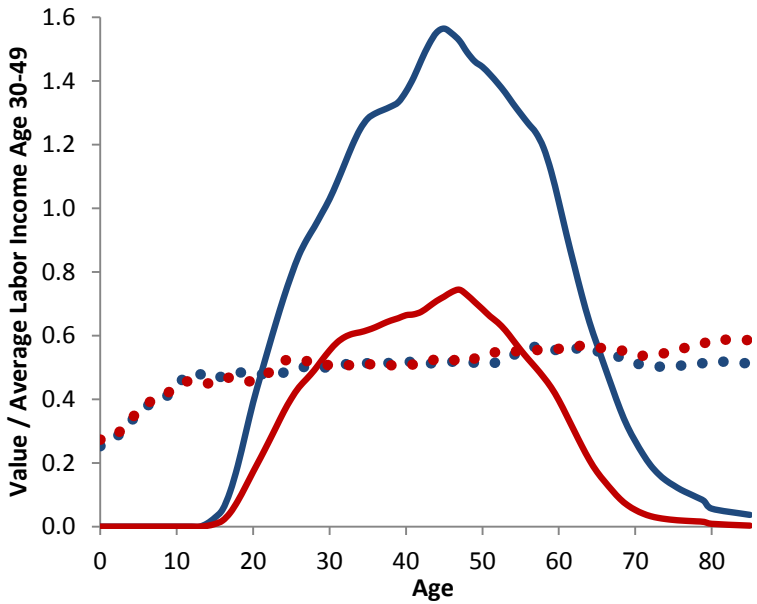


Total

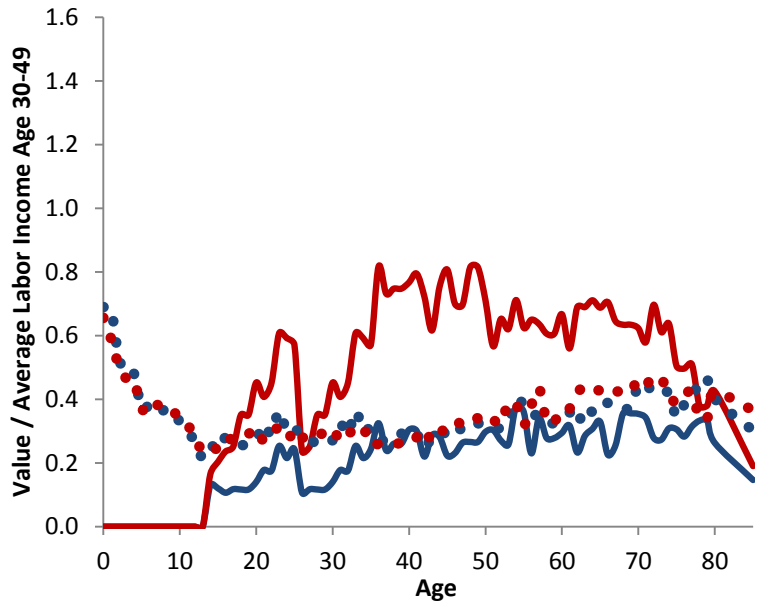


Germany, 2003

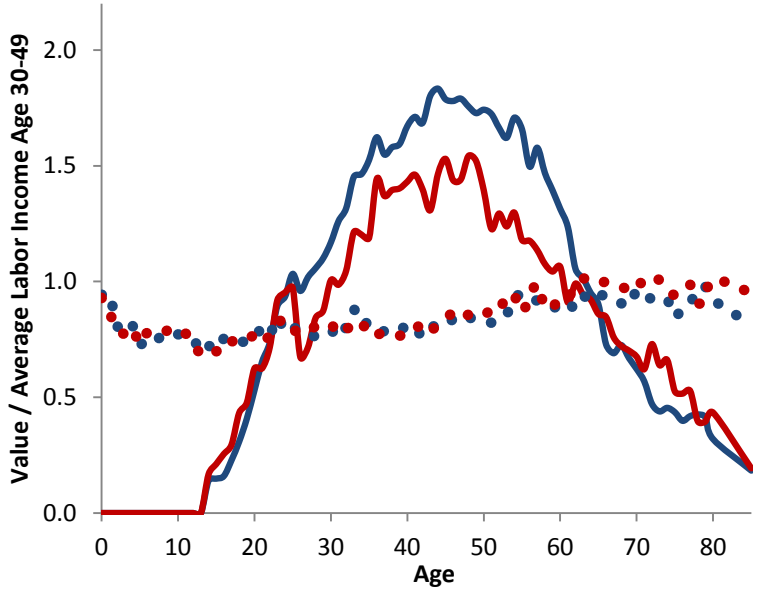
Market ($)



Household (🕓)

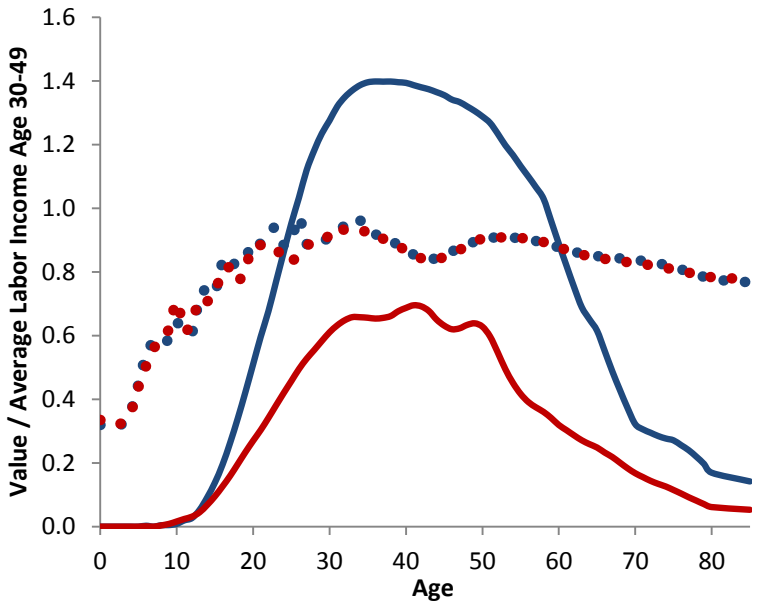


Total

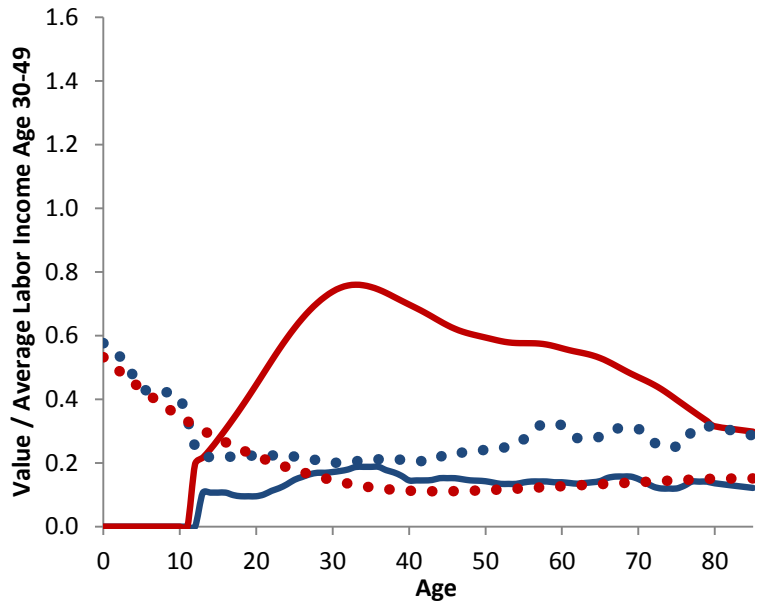


Uruguay, 2007

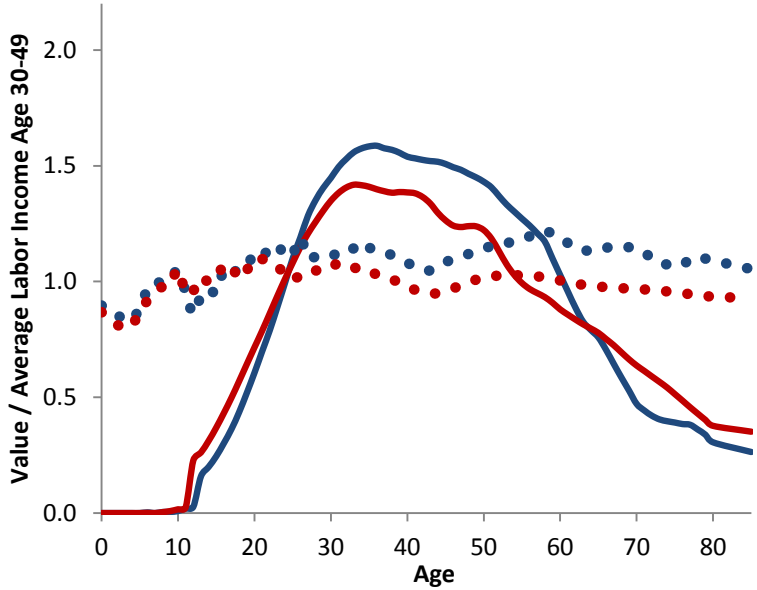
Market ($)



Household (🕓)



Total

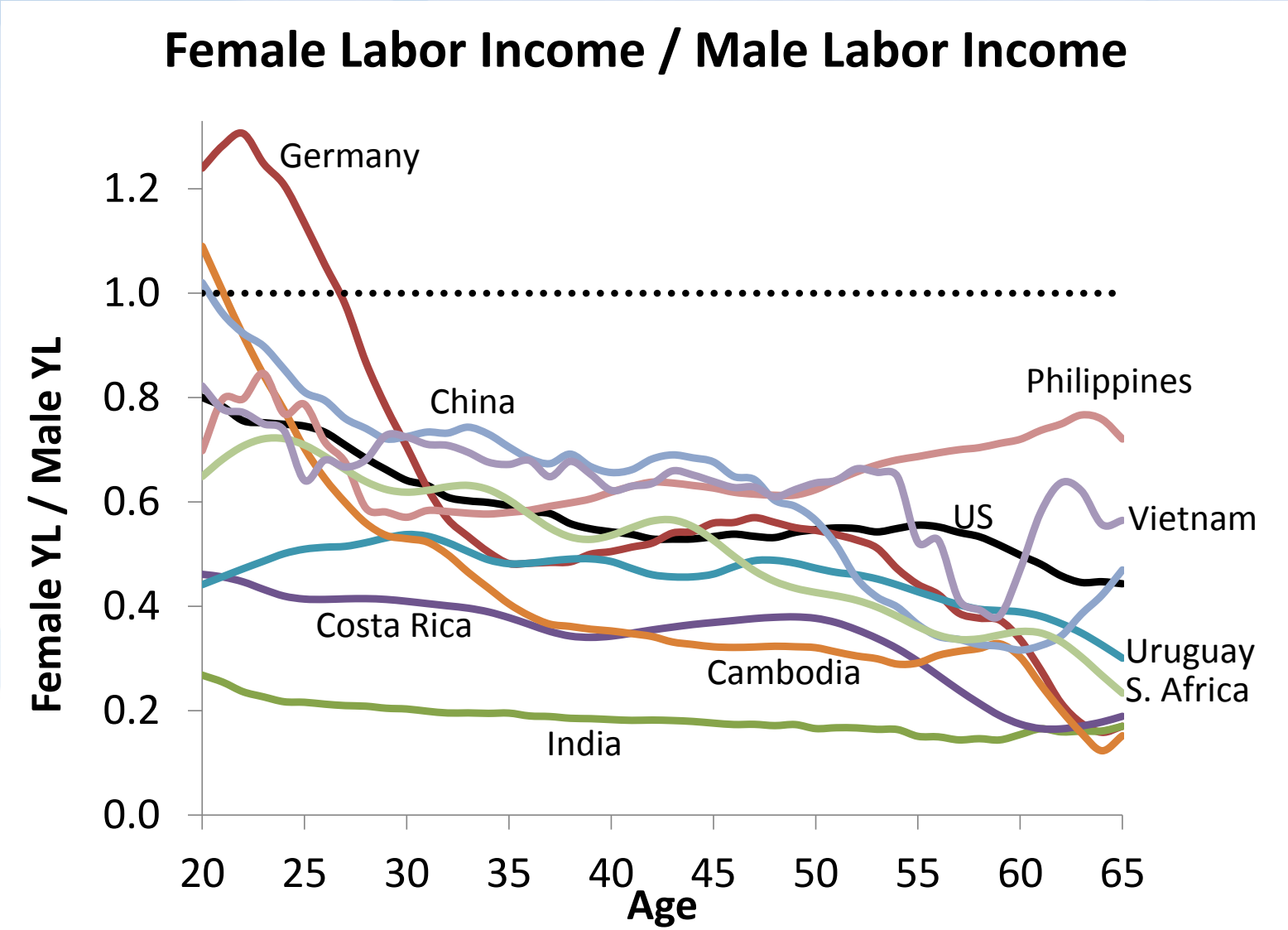


Mexico, 2005

What do we see?

- Great deal of specialization by gender in economic participation in many different types of countries
- Young children consume more in time than in market goods and services
- Age patterns appear very different if we consider the total economy
- Need to improve methodology to distinguish consumption by sex

Gender in Market Work



What do we see?

- Great diversity in gender gap in market work
  - Could be decomposed into contribution of differences by labor force participation, hours worked per week, occupational distribution, and wages
- Strong trend in many countries of greater gender gaps at older ages
  - Cohort change?
  - Increasing household and care responsibilities with age?

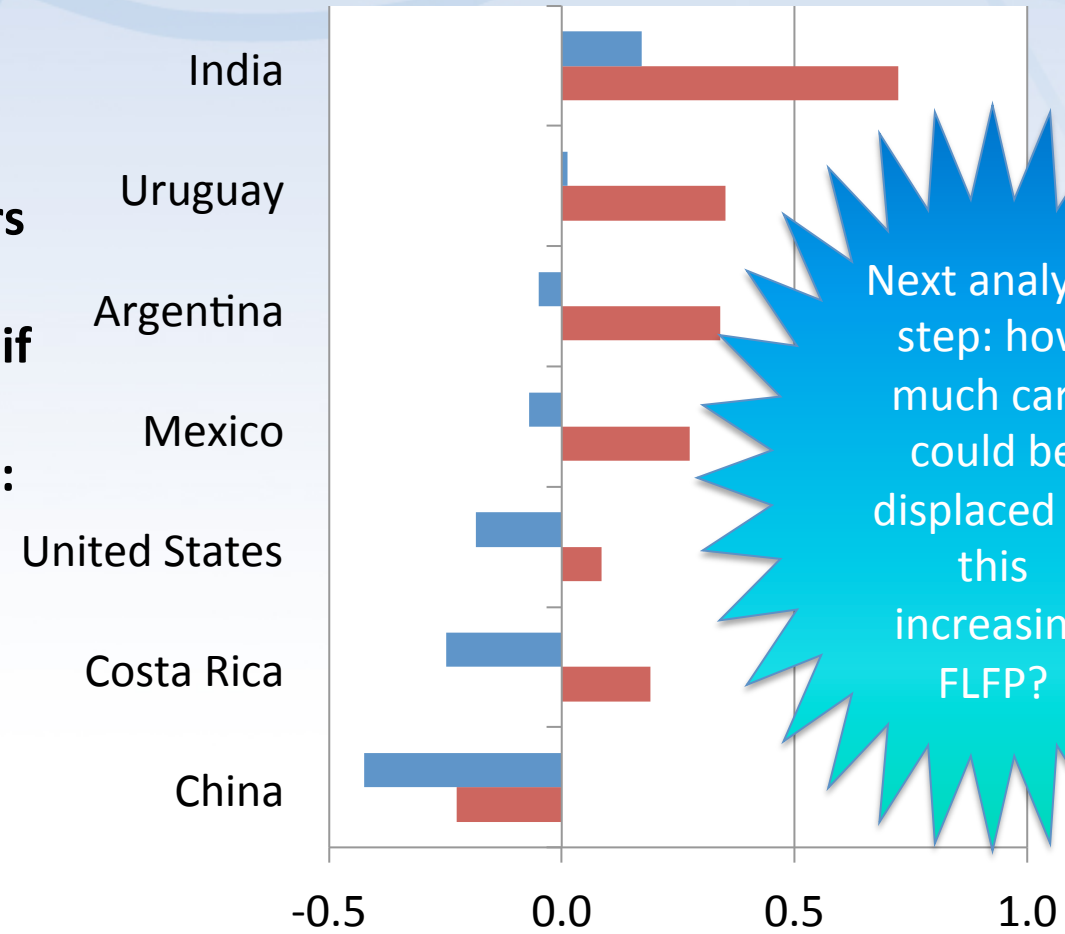
Time use and gender questions

- Equity: developing new gender equity indicators
- Efficiency: are resources wasted when economic roles are determined by gender?
- Future change
  - Will a "gender dividend" from women's increased market work offset economic effects of population aging?
  - Who will do housework and care if women spend more time in the labor market?
  - Will aging populations require more care?

Policy relevant analysis example: "Gender dividend" and support ratios

Change in the support ratio (effective producers per consumers) from 2012 to 2050 if Female Labor Income Age Profile:

- Remains Constant
- Converges by Half



Avg Annl Rate of Change in Support Ratio

Next analysis step: how much care could be displaced by this increasing FLFP?

NTA

Policy relevance

- Estimate potential for gender dividend and suggest most effective paths to realize it
- Model future needs of the care economy
  - As more women participate in market work
  - As the population shifts to more elderly and fewer children
- Cross-country comparison will suggest links between institutions, gender, and time use
  - Family, work, and care policies
  - Cultural expectations around gender roles

To learn more

- National Transfer Accounts project website:

www.ntaccounts.org

- Counting Women's Work project website:

www.countingwomenswork.org