NTTA and NTA by Sex

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Overview

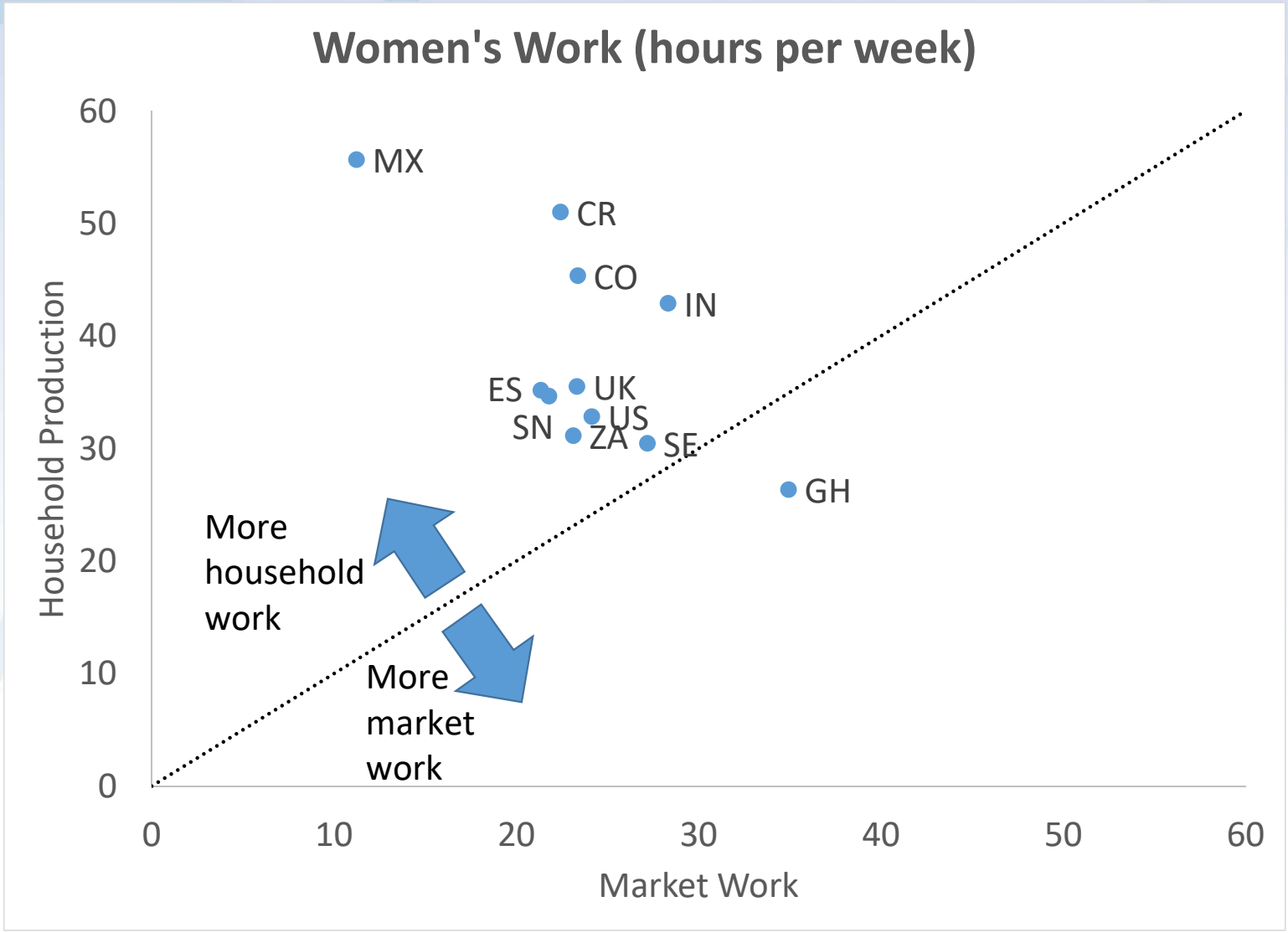
- What is the gendered economy?
- How to measure it in the NTA framework?
  - Including unpaid care work (UCW)
  - In terms of time
  - In terms of money
- Illustrative results and discussion

Gendered economic measurement

	Goods	Services
Sold in the marketplace	Included	Included
Produced and consumed in the household	Included	Not included

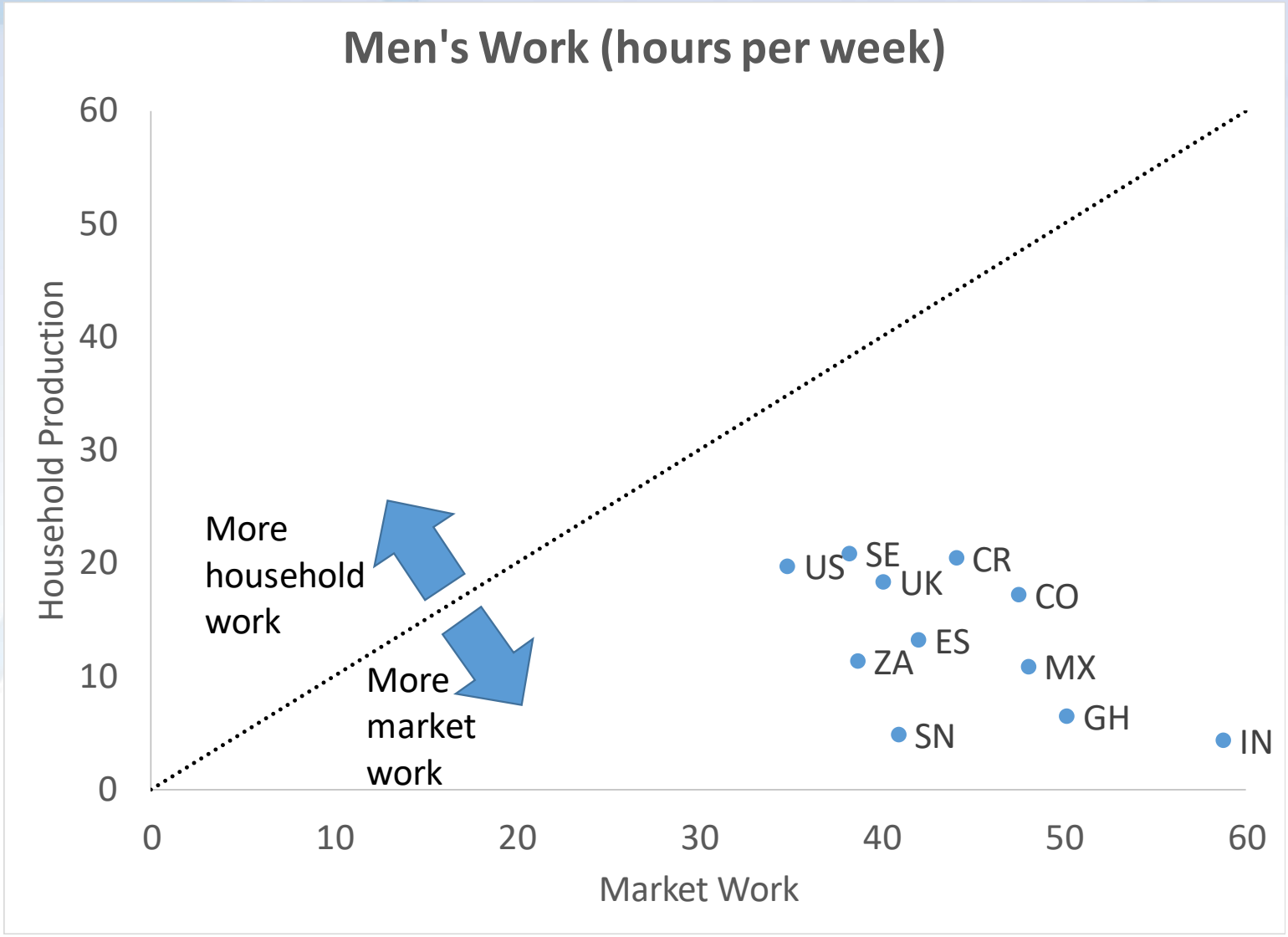
"Included" is what is already covered in NTA. "Not included" is not covered in NTA and is work most often done by women.

The gendered economy - women



Data are averages, ages 25-55, from Counting Women's Work and Agenta project for Europe

The gendered economy - men



Data are averages, ages 25-55, from Counting Women's Work and Agenta project for Europe

Is specialization a problem?

- Girls' and women's unpaid care work time may be a barrier to
  - Paid work
  - Education
  - Access to time for leisure, rest, and self-care
- Women specialize in "invisible" sector
  - Value of UCW not recognized
  - Creates policy and monitoring "blind spots"
    - Often these blind spots have specifically gender-based implications

Counting Women's Work: Measuring the gendered economy

1. NTA by sex
   - Same tools as NTA, but separated out by sex
2. National Time Transfer Accounts (NTTA) by sex
   - Framework same as NTA
     - Individual-level production estimates by age
     - Consumption imputed to household members
     - No assets, so simpler than NTA
   - Data requirements different from NTA
     - Time use survey with household roster
     - Wage data

NTA

Methodology Resources

- NTA Wiki page for Time Use and Gender Working Group
  - Methodology document
  - Stata code for several example countries with different types of time use data
- AGENTA (NTA Europe) project's methodology document
  - Linked on wiki TU&G Working group page
- Ask CWW participants questions, send me preliminary results, code, data, whatever!

Production Approach

- NTA
  - If you have calculated NTA, you can calculate NTA by sex
  - See manuals for specifics
  - General idea:
    - Modify your main NTA code to save copies of microdata before you collapse to age means
    - After you finish single-sex NTA, go back to saved microdata to calculate means by age and sex
    - Smooth age/sex means
    - Calculate single-sex average implied by unadjusted age/sex means
    - Use this to adjust smoothed age/sex means to be consistent with adjusted single-sex regular NTA

Production Approach

- National Time Transfer Accounts (NTTA)
  - Measure time spent in unpaid household services (housework and care) from time-use surveys
  - Third person criterion: Can you pay someone to do it for you?
  - Value the time at an appropriate market wage for each type of activity (specialist replacement method) to estimate time production by age and sex
    - Some countries use generalist replacement or minimum wage instead because of data limitation
  - Creates an UCW version of labor income, but does not include UCW version of asset income (services provided by consumer durables)

Groups of NTTA Activities

1. Cleaning
2. Laundry (includes sewing and clothing repair)
3. Cooking (food and drink preparation)
4. Household maintenance and repair
5. Lawn and garden care
6. Household management (incl. finances, scheduling, coordinating, and related telephone calls)
7. Pet care (not veterinary care)
8. Purchasing goods and services
9. Childcare **
10. Eldercare and care outside the home (includes volunteering) **
11. Travel (related to care activities and purchasing goods and services)
12. Other as appropriate in country context (gathering wood and water? Other?)

General household activities in red; care activities in blue

** Needs to be divided into variables for care in household versus outside household

Consumption Approach

- NTA
  - As described for production (save microdata before collapsing to age means, smooth, adjust)
  - I have not made much use of NTA consumption separated out by sex because of the limits of methodology
  - Only potential differences between households are observable, but not within households
  - Many people disagree with me about this, so I will change, but necessary to be very specific about what our results can and cannot tell about sex-specific consumption profiles

Consumption Approach

- NTTA
  - Because we assume NTTA work cannot be saved or stored for later, total NTTA household production is equal to total NTTA household consumption
  - Allocate consumption to household members
    - Per capita for housework (i.e., equal share for each person)
    - For direct care, methods vary
      - Regression method like NTA health and education, where "utilization measure" is being in the target age group
      - One-child method
      - Survey-enabled specific assignment
  - Again, I have not published NTTA consumption broken out by sex, but we can if we qualify the estimates

Transfers

- NTA
  - As described for production (save microdata before collapsing to age means, smooth, adjust)
- NTTA
  - Net transfers are simple!
    - Difference between consumption and production
  - Transfer inflows and outflows
    - Direct care production is outflow, direct care consumption is inflow
    - General housework outflow is that part of housework production that the producer did not consume him/herself
    - General housework inflow is that part of general housework consumption that the consumer did not produce him/herself

Sensitivity Tests

- NTA
  - Role of headship
  - Separate consumption out by item to get better sex-specific estimates?
- NTTA
  - Net transfers are simple!
    - Difference between consumption and production
  - Transfer inflows and outflows
    - Direct care production is outflow, direct care consumption is inflow
    - General housework outflow is that part of housework production that the producer did not consume him/herself
    - General housework inflow is that part of general housework consumption that the consumer did not produce him/herself

Big pending issues

- Imputed NTTA wages
  - How to choose?
  - How to be comparable?
  - Make sure to keep time-valued profiles separately!
- Adjust NTTA wages or production for productivity?

SUMMARY

Gender and the Total Economy

National Time Transfer Accounts

Identify household production activities in TU survey

Count time spent in productive activities (no multi-tasking for x-country comparison)

Estimate per capita age profile of household production in time units

Impute consumption by regression for care, equally for general household activities

EAC weights for gen'l household activities, other?

Estimate transfers removing consumption of own-produced activities

Impute a market wage to each type of activity (specialist replacement method)

Generalist?

Adjust wages for relative productivity by age???

National Transfer Accounts

Calculate single-sex NTA, save microdata before calculating age means

Calculate age means by sex using saved microdata, smooth

Use regression instead of EAC weights, other?

Change definition of household head

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

Main methodology steps in sequence are in the blue boxes. Suggested sensitivity analyses are in green.

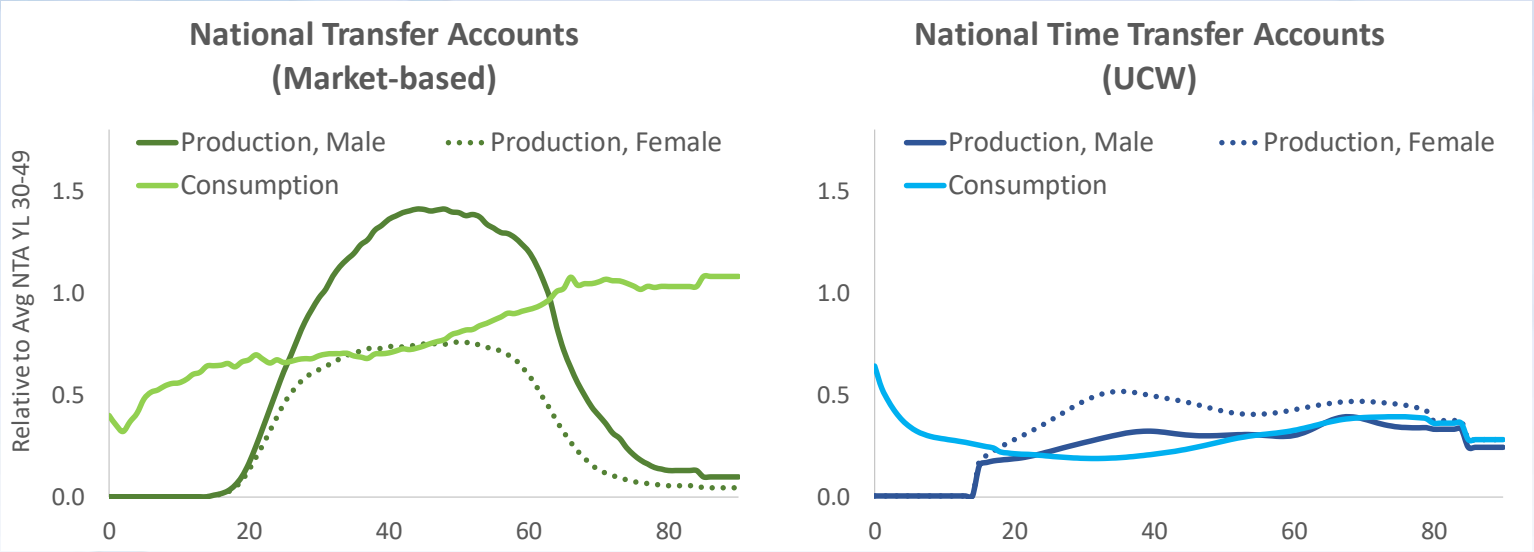
What if I don't have a TUS?

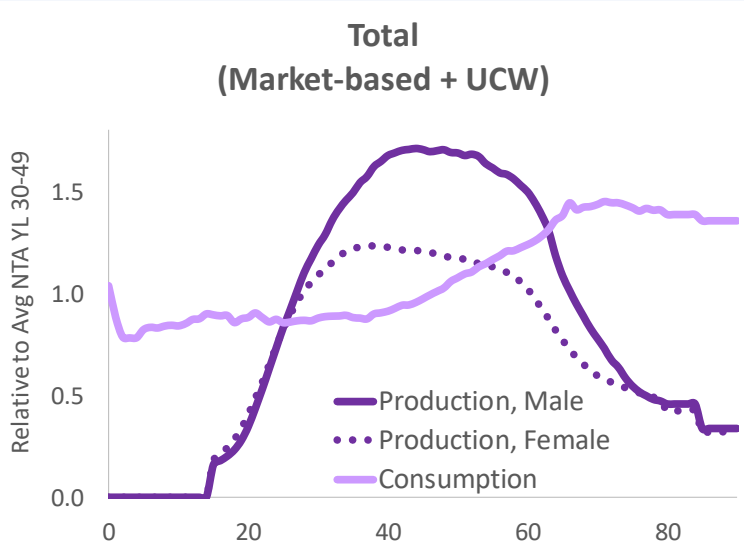
- Finance a small-scale survey?
  - IDS/Oxfam group facilitates quick surveys, not nationally representative, but could qualify as a pilot
  - Insert a time-use module into an existing survey?
- Look for existing small-scale surveys?
  - Young Lives (Peru)
  - Others?
- Modules in existing surveys?
  - Some DHS have modules on chores and housework
- Creative data reuse?
  - Use estimates from a neighboring country to impute to another country?

Advantages of NTA/NTTA approach

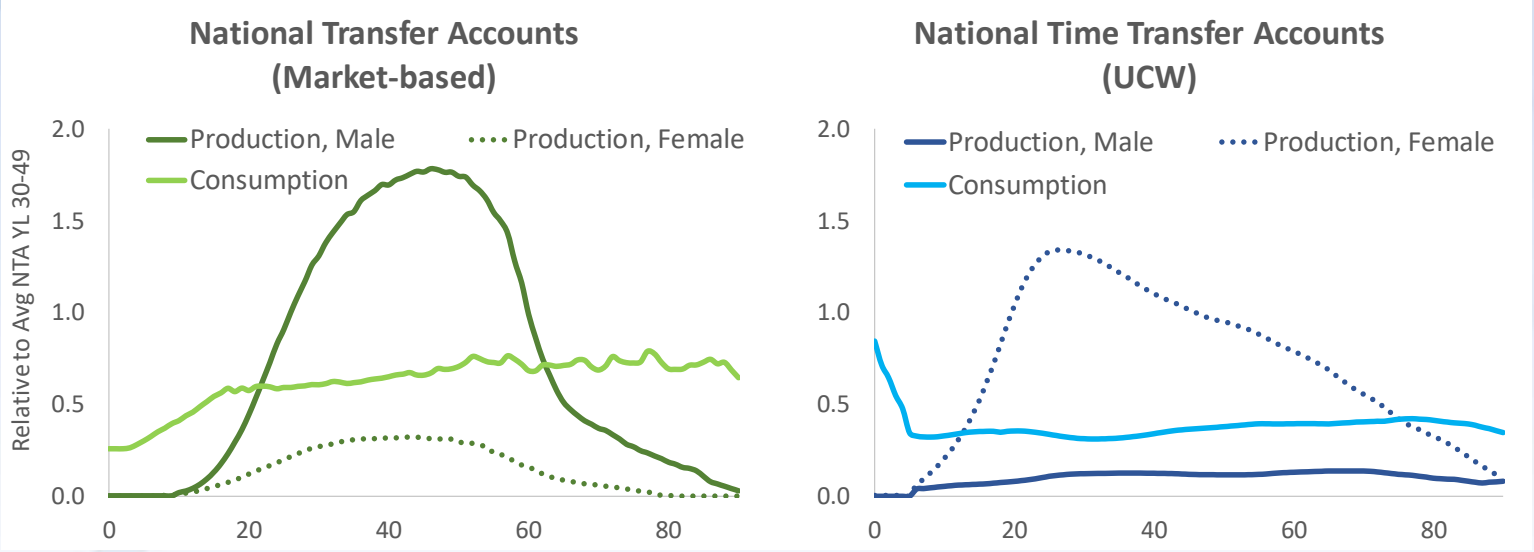
- Includes age dimension
  - Life cycle processes drive financial and UCW dynamics, so age is an important factor
  - Makes estimates more useful for policy
- NTTA fits in with existing NTA framework
  - Can estimate consumption of UCW time in same way as consumption of market goods and services
  - Integrates time estimates with existing NTA estimates
  - Relates NTTA with existing NTA analyses, such as demographic dividends

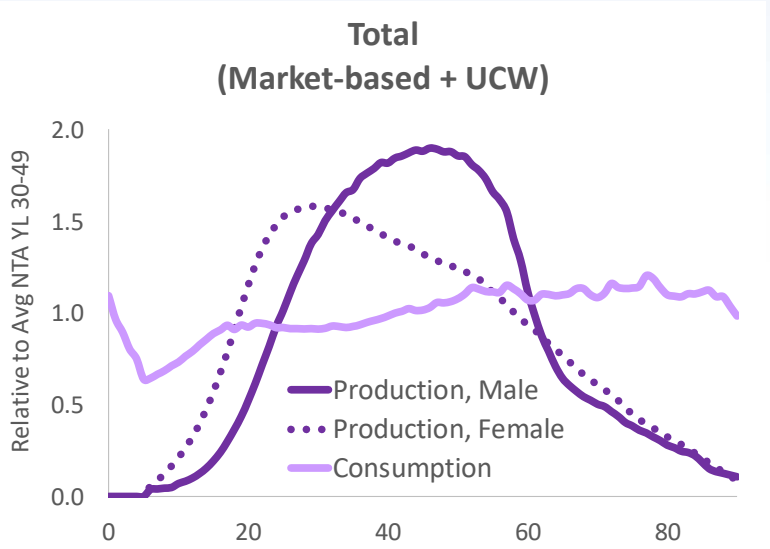
Example (US, 2009)



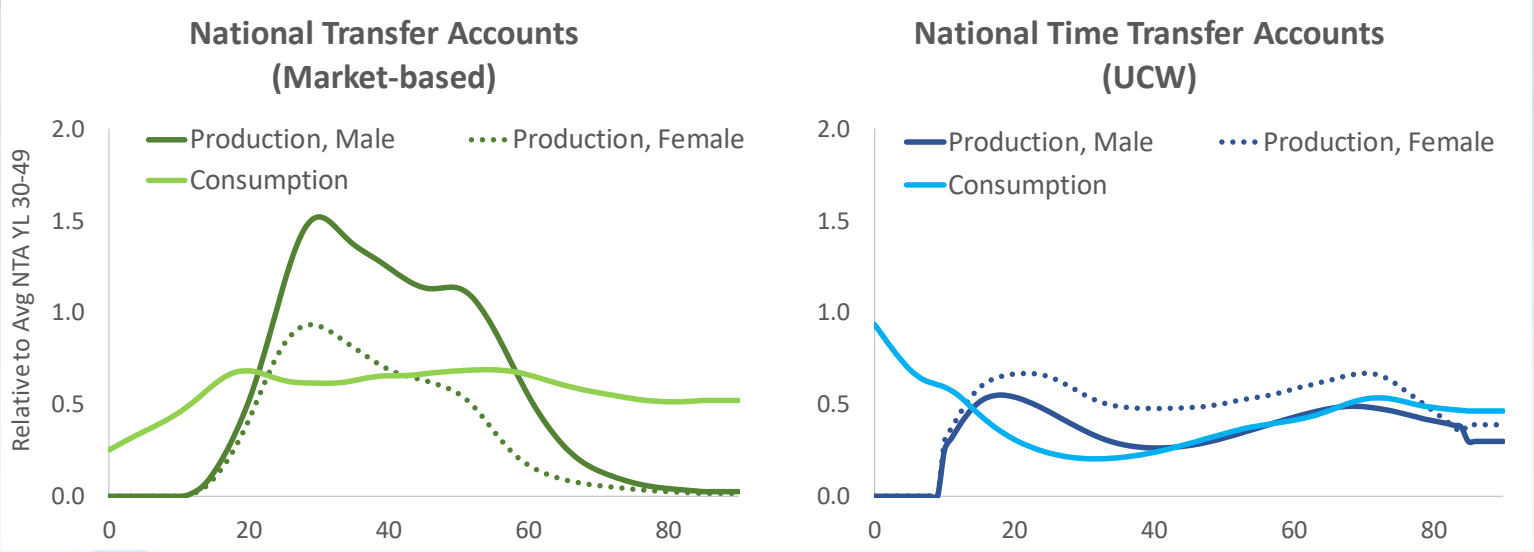


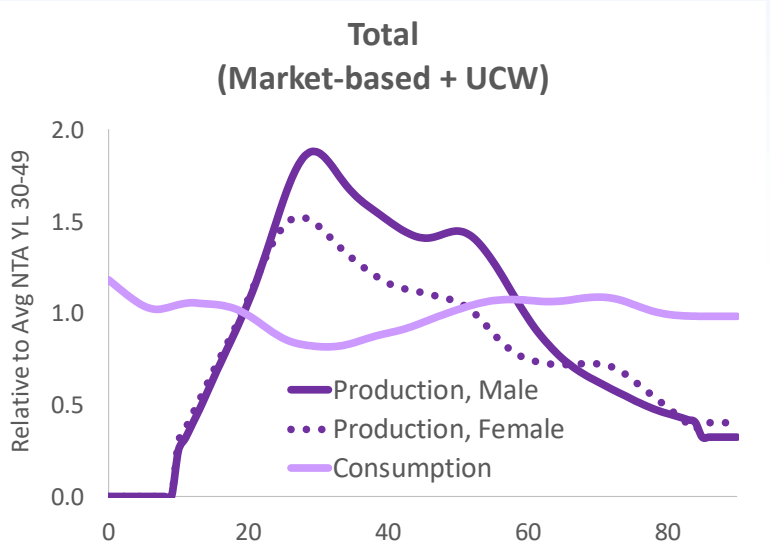
Example (India, 1999)





Example (Vietnam, 2015)





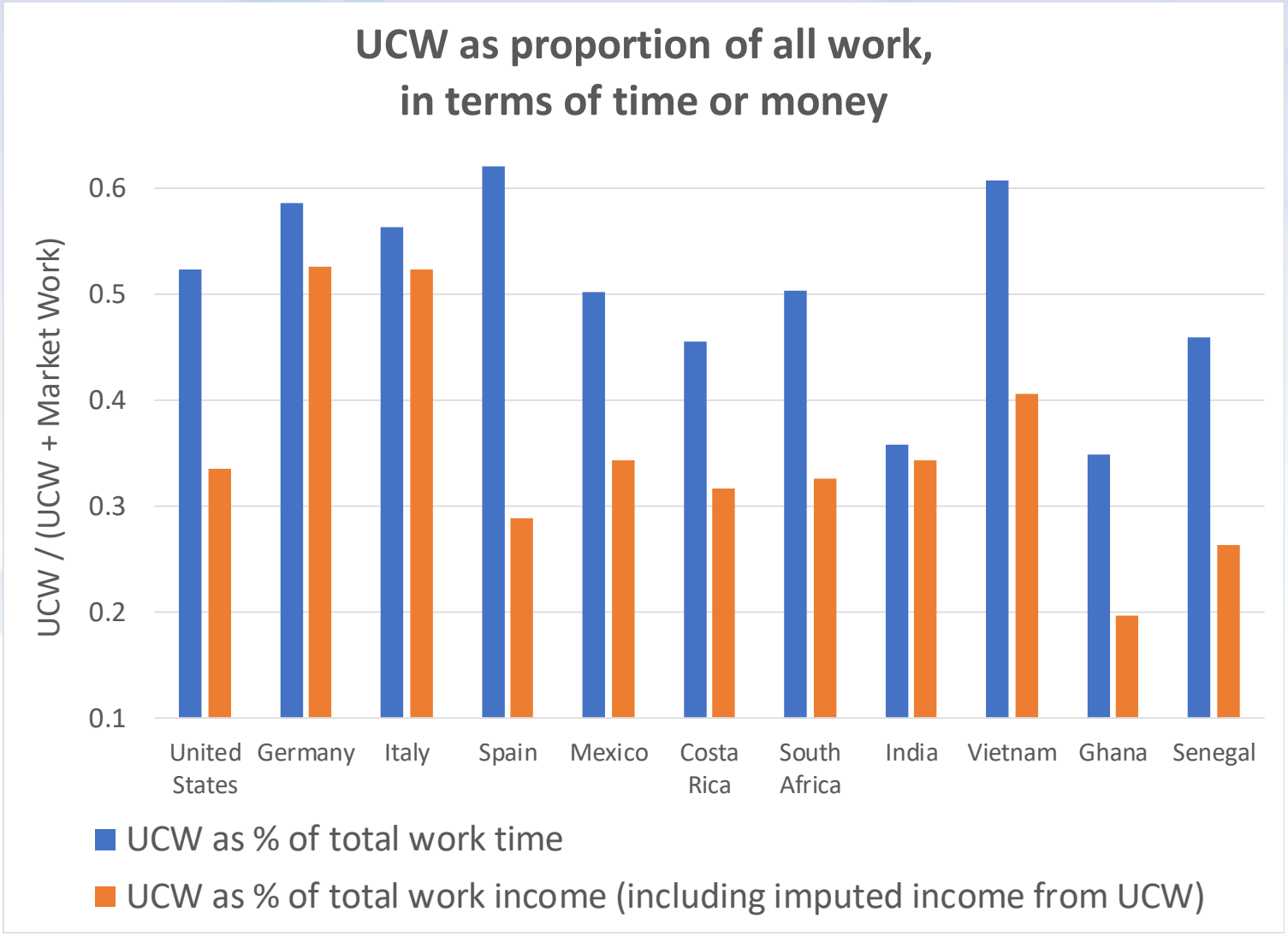
What do we see?

- Great deal of specialization by gender in economic participation in many different types of country
- UCW is a huge part of the economy, but it is largely “invisible”
- Young children consume more in time than in market goods and services
- Age patterns appear very different if we consider the total economy

And now… a bunch of graphs

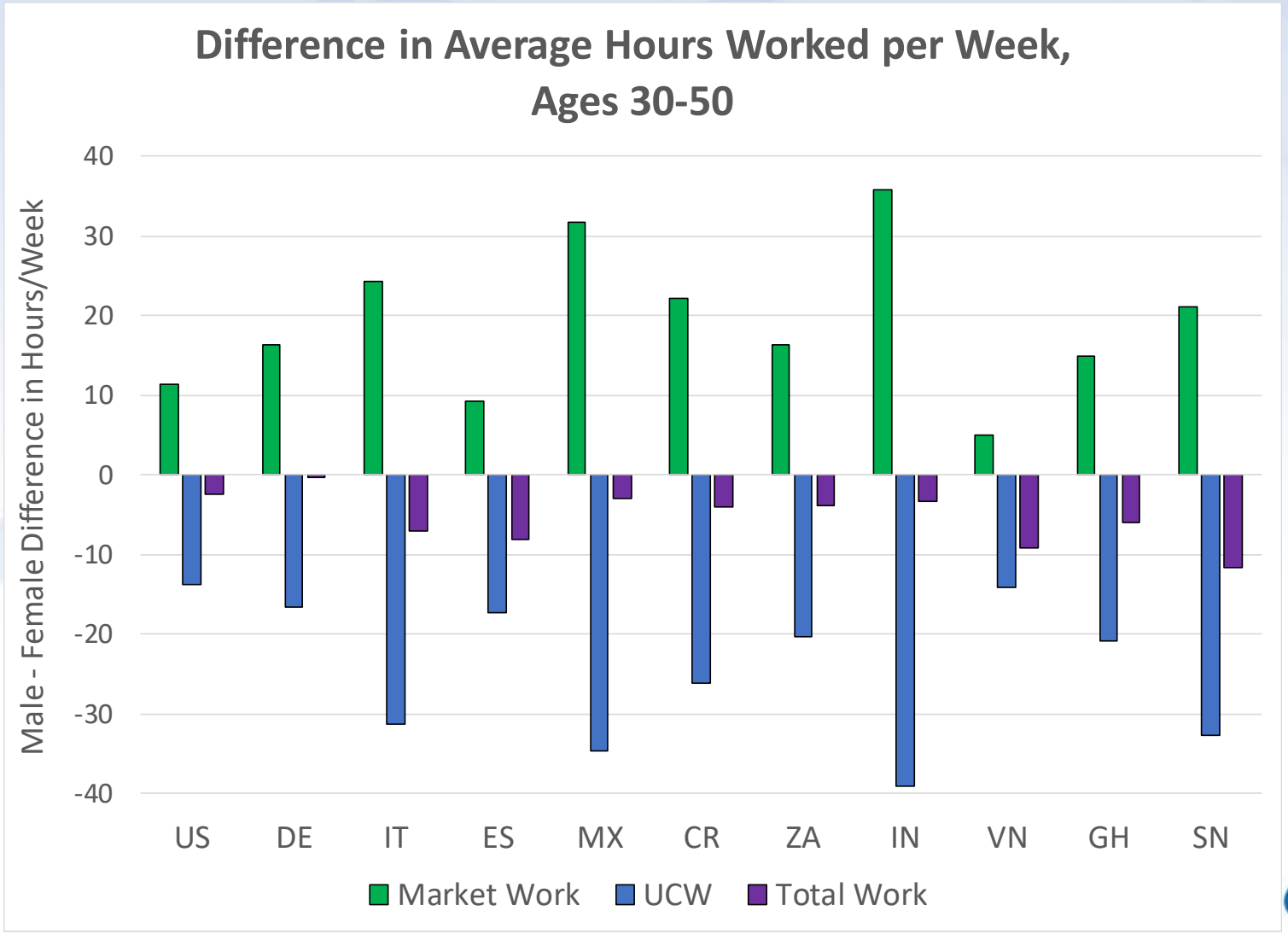
- Comparative results and scenario-based estimates using NTA and NTTA gender accounts
- Demonstrates the range of issues that can be addressed and the different constituencies that might be interested in the work

UCW is a lot of 🕑 but less $



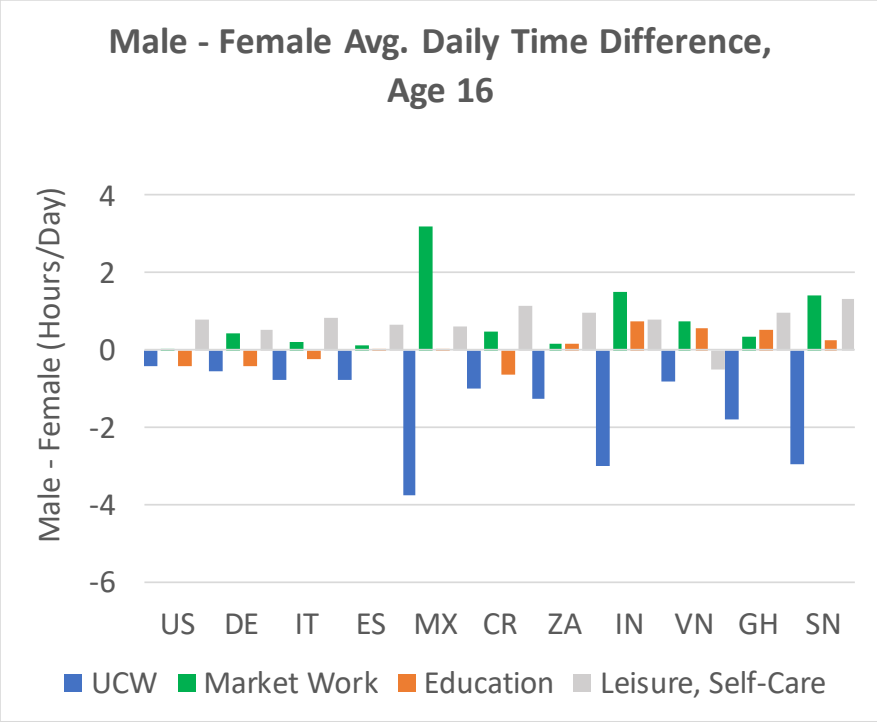
Countries ordered by per capita Gross National Income (ppp-adjusted)

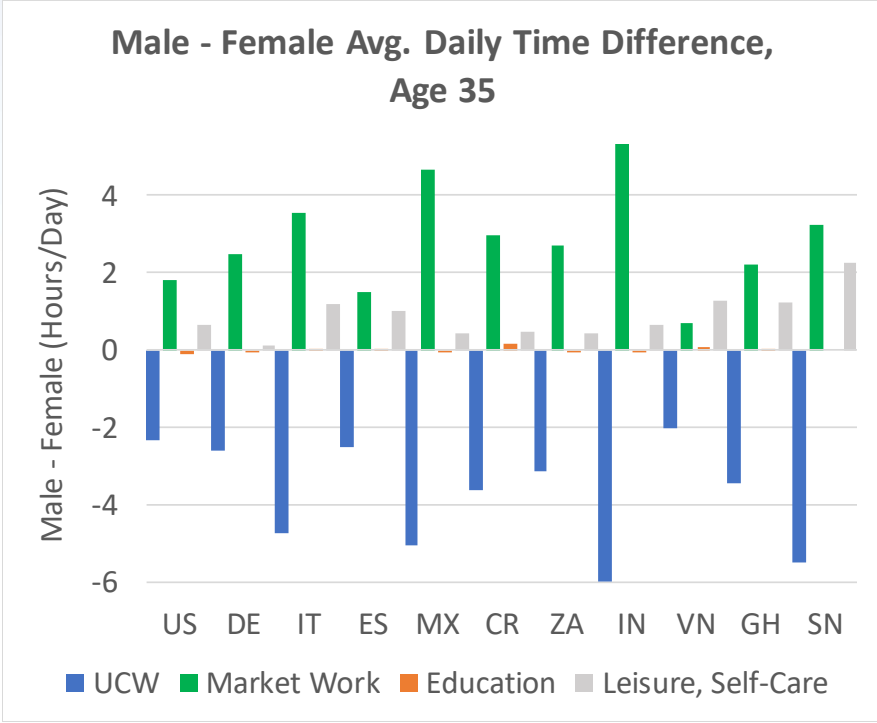
Peak working age specialization



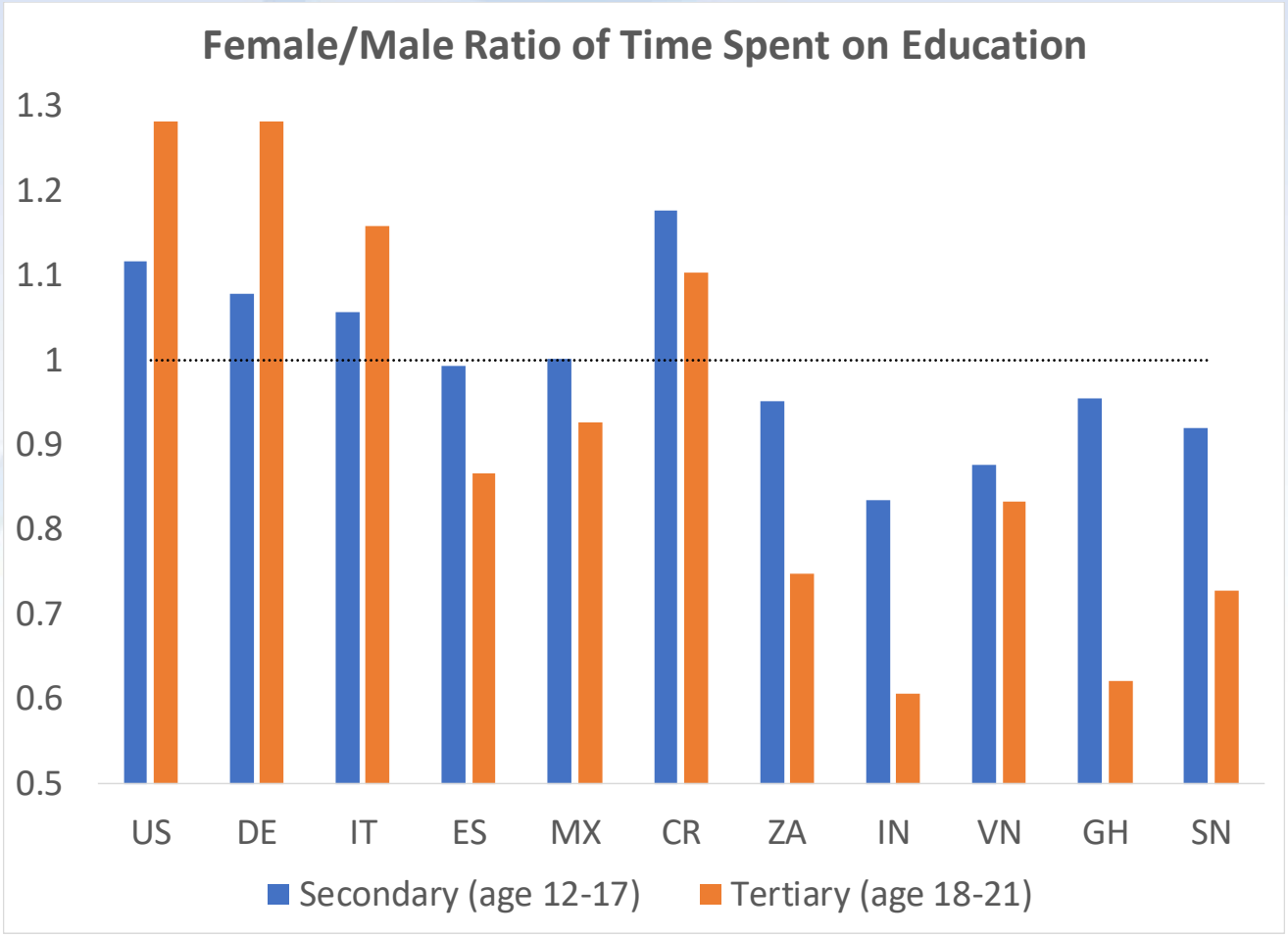
Issues vary by age

- For girls
  - Crowd out education?
  - Specializing in UCW at young age?
- For women
  - Barrier to market work or job search?
  - Creates time poverty?





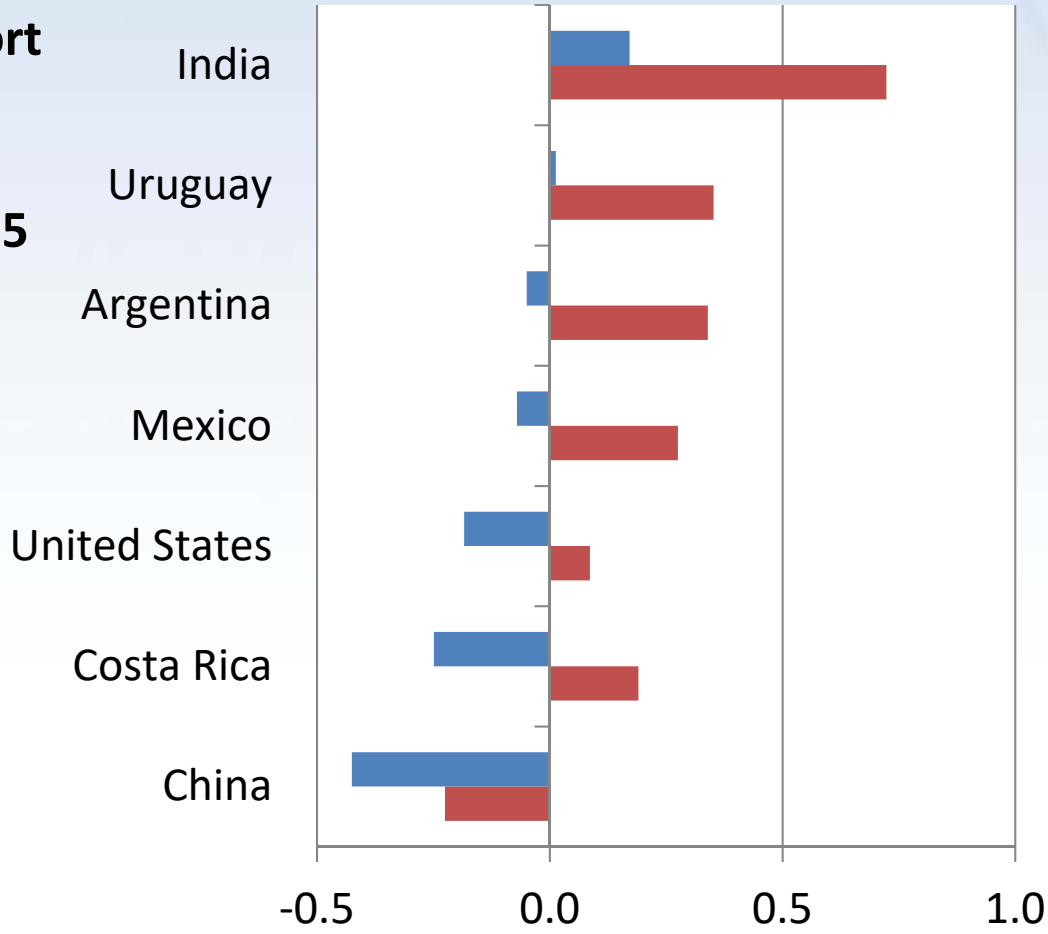
Education beyond enrollment: Time



Closing gender gaps has huge potential to ameliorate effects of aging

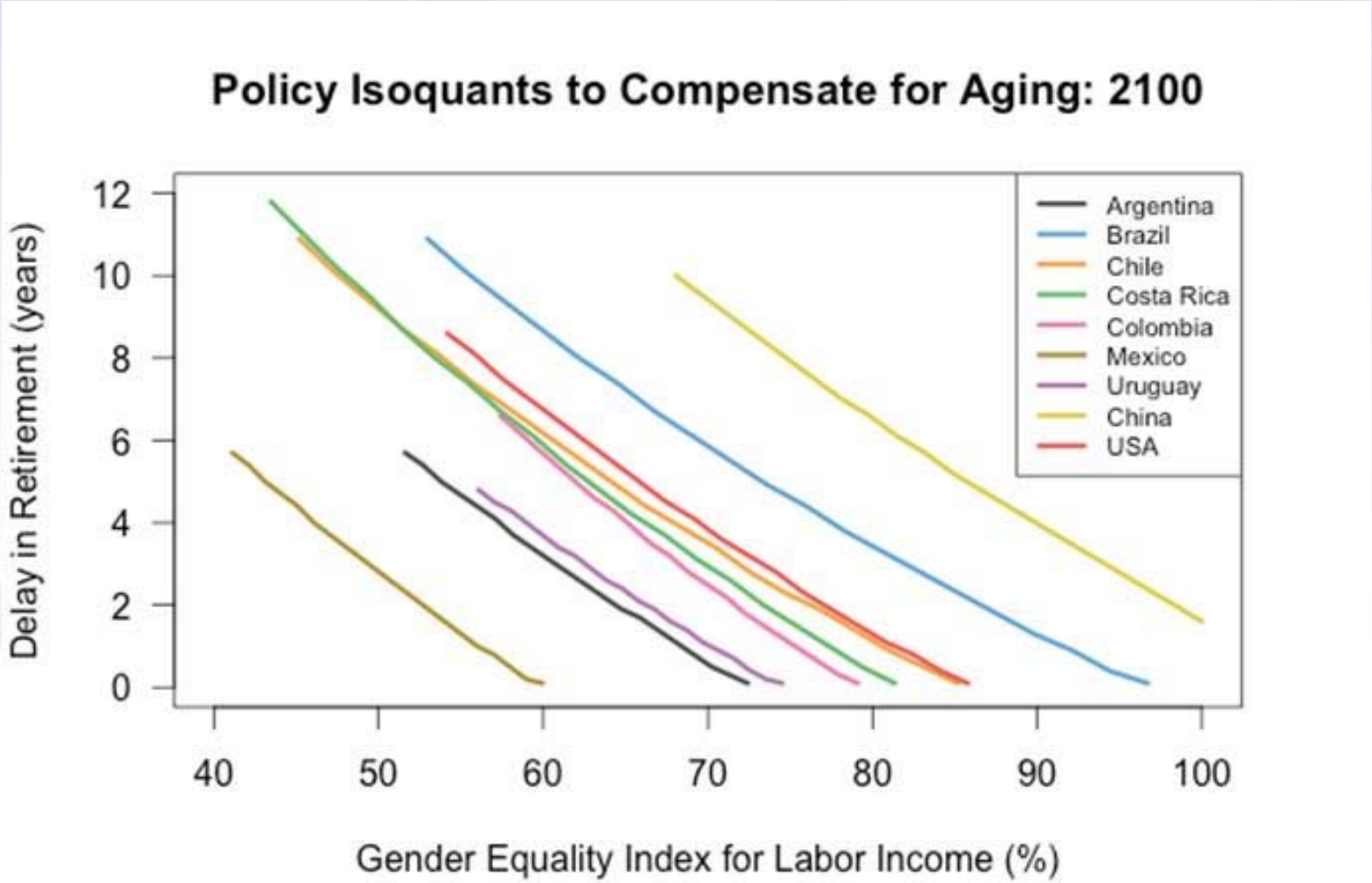
Change in the support ratio (effective producers per consumer) from 2015 to 2050 if Female Labor Income Age Profile:

- Remains Constant
- Converges by Half

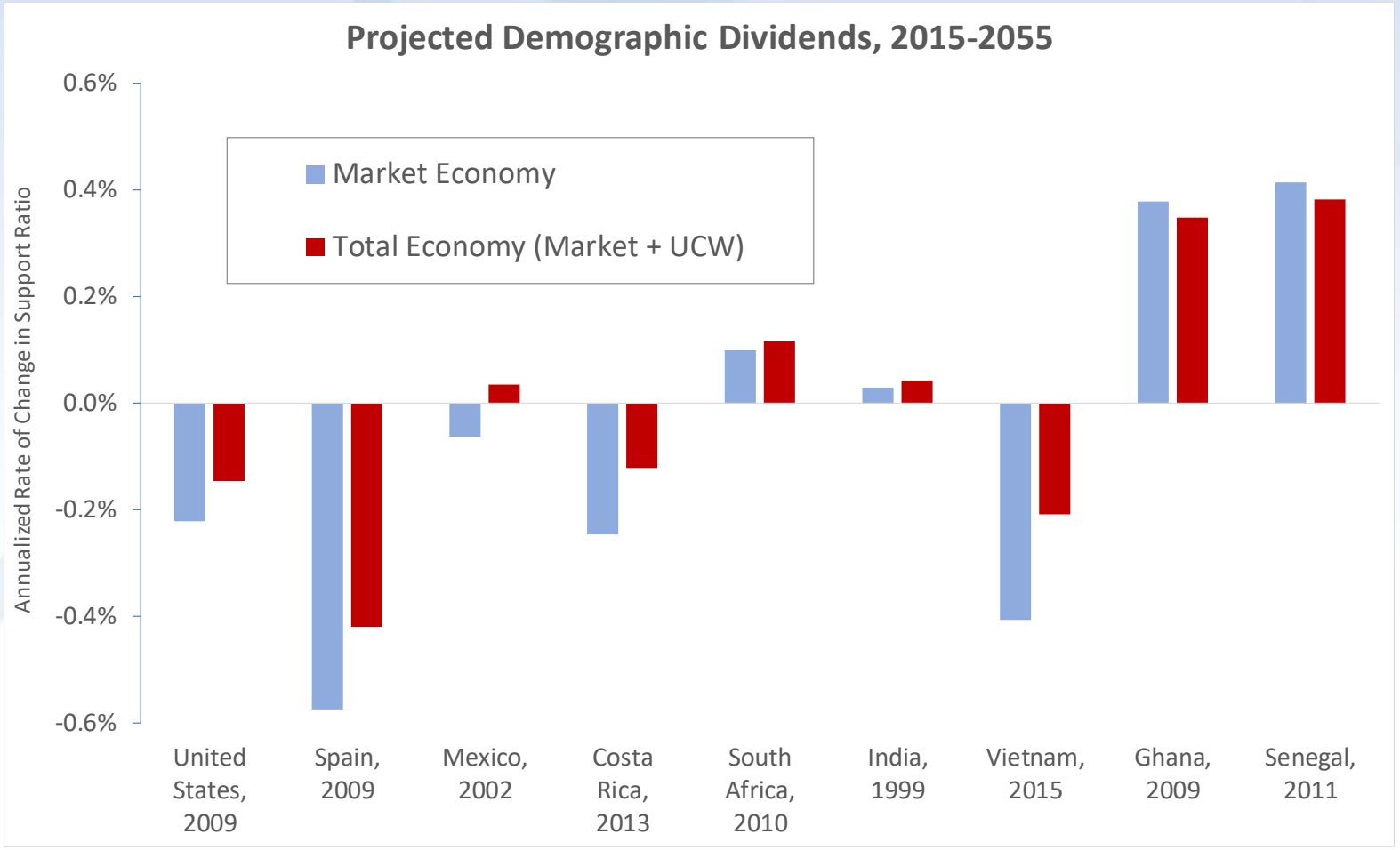


NTA

Policy trade off
to maintain support ratios



Demographic dividends are different when you include UCW



Policy impacts from including UCW

- SDGs now specifically address UCW
  - Goal 5, “Achieve gender equality and empower all women and girls,” Target 5.4, “Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate”
- Human capital investment
  - Returns may be lower if girls do a lot of UCW
  - Child marriage as a child labor issue?
- Infrastructure investment
  - Returns may be higher than expected if investments decrease UCW burdens
- Policies to capture demographic dividends
  - Depend on gender and UCW dynamics to realize full potential

Planning and moving forward

- Technical support for estimating gender accounts is available from CWW
- Some grant money is available from CWW
  - For country studies
  - For dissemination and policy events