

Counting Women's Work in South Africa

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Background and Rationale

Background and Rationale

- Within National Transfer Accounts, focus is on intergenerational transfers
 - How societies produce, consume, share and save over the lifecycle

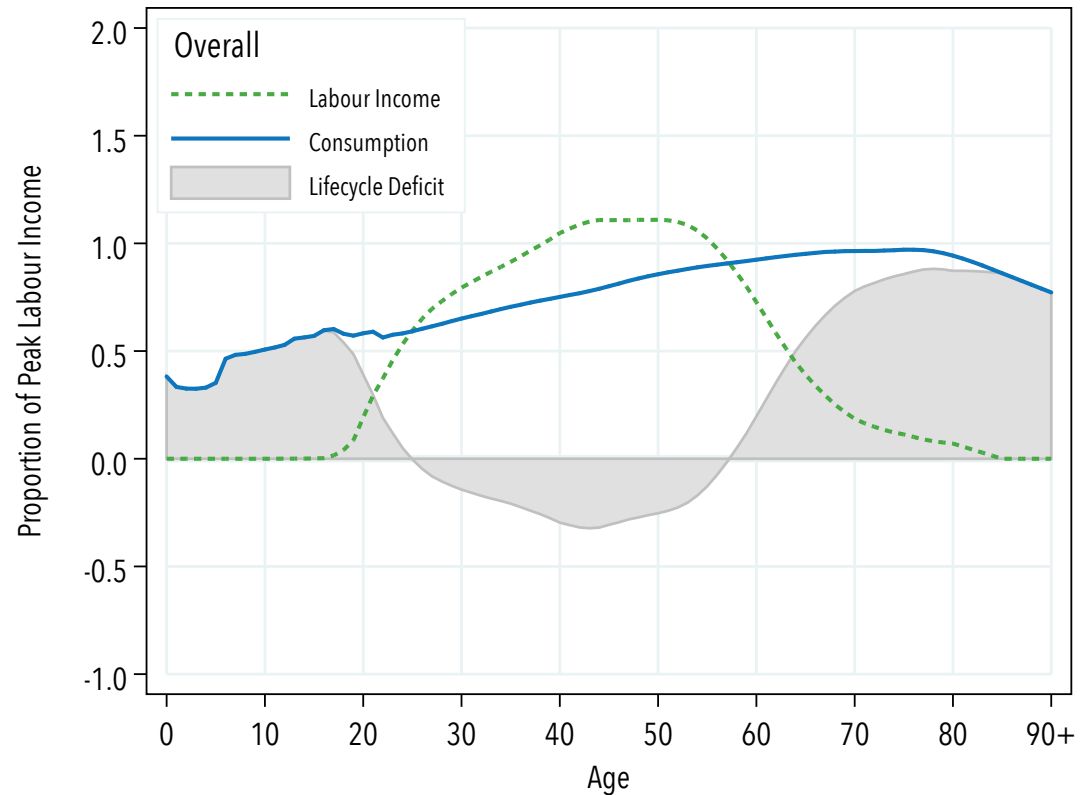
$$\underbrace{C(x) - Y^I(x)}_{\text{Lifecycle deficit}} = \underbrace{\tau^+(x) - \tau^-(x)}_{\text{Net transfers}} + \underbrace{Y^A(x) - S(x)}_{\text{Asset-based reallocations}}$$

- NTA details these flows by age
- But, link to national accounts means that NTAs miss unpaid household production

Background and Rationale

NTA profiles
for South
Africa, 2010

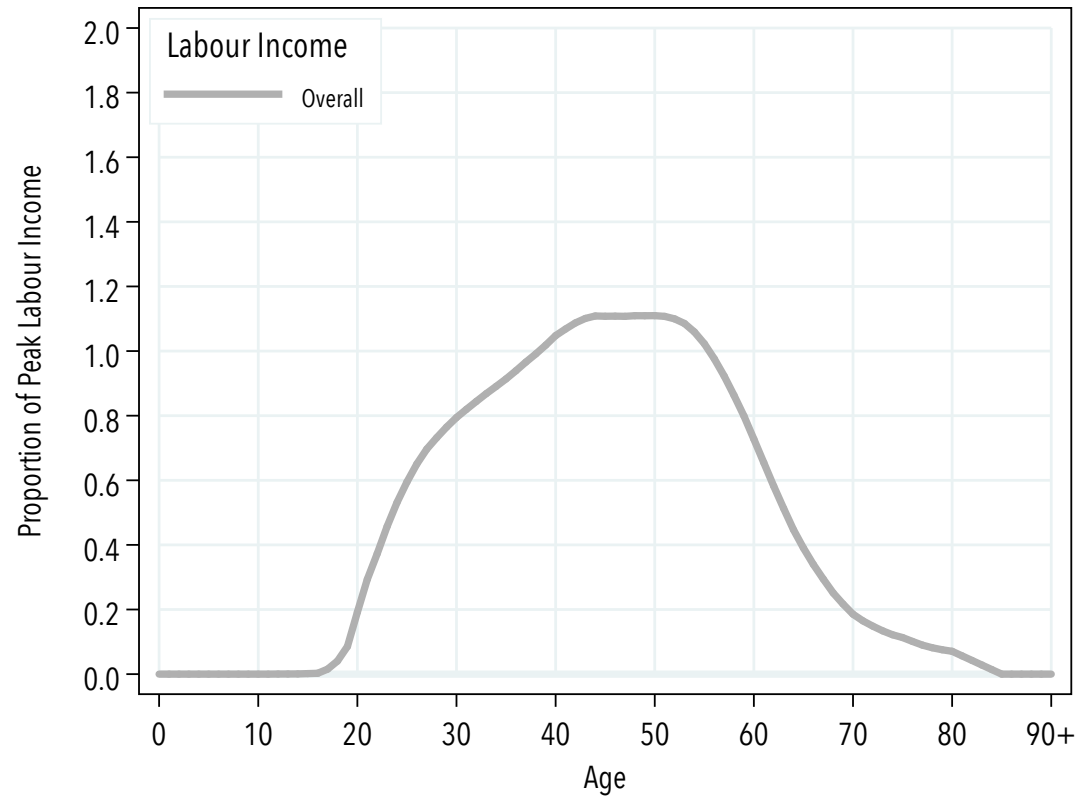
Children and
the elderly
run deficits,
working ages
generate
surpluses



Note: Peak labour income is defined as the unweighted mean of per capita labour income amongst 30-49 year olds.

Background and Rationale

Mean profiles,
though, hide
inter-group
differences



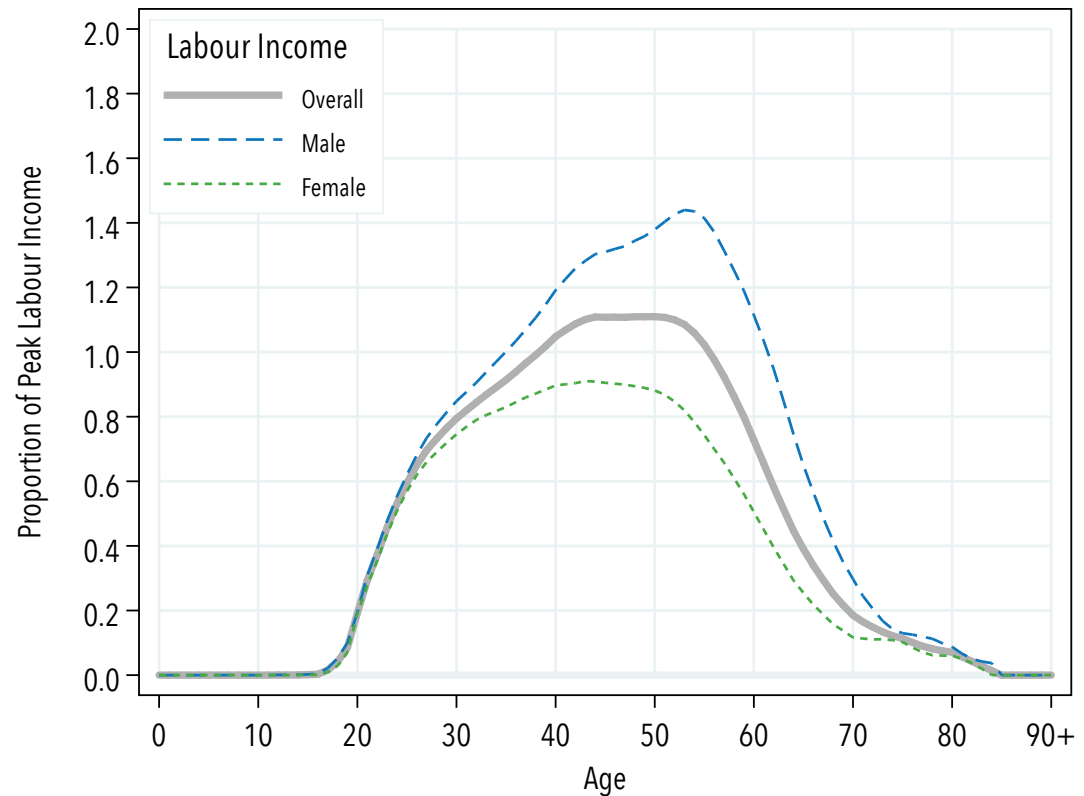
Note: Peak labour income is defined as the unweighted mean of per capita labour income amongst 30-49 year olds.

Background and Rationale

Substantial differences by sex

Stronger rightward lean for males

Differences also in consumption

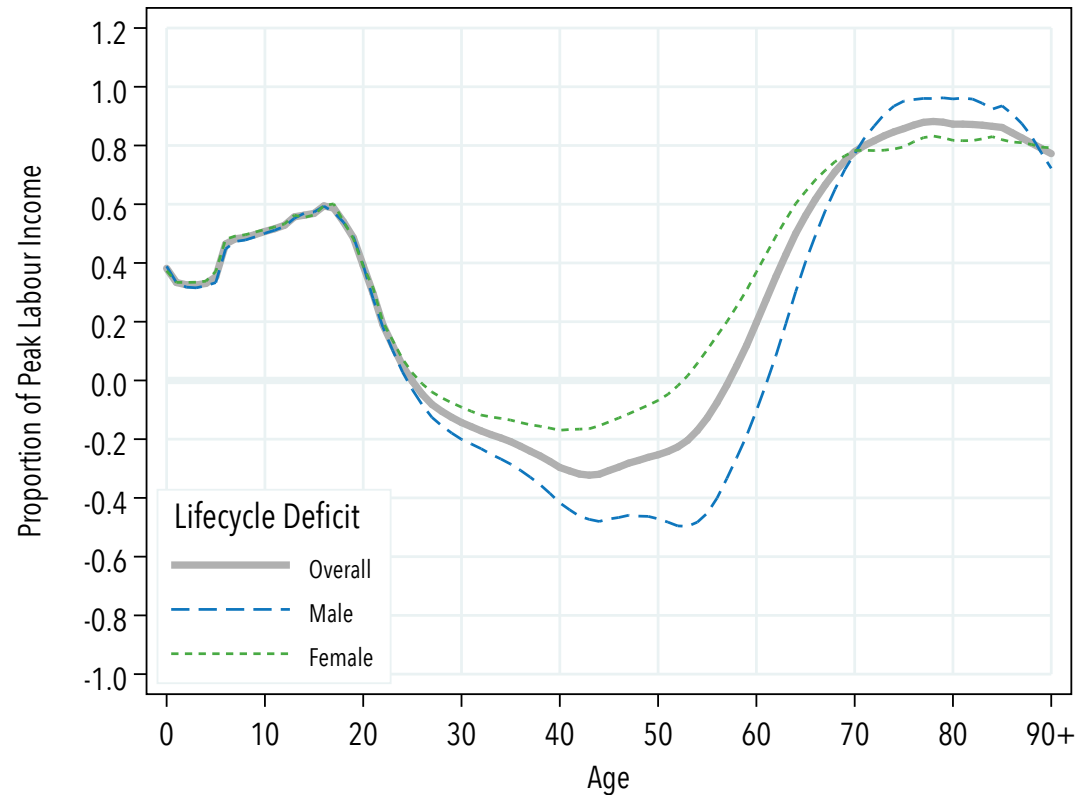


Note: Peak labour income is defined as the unweighted mean of per capita labour income amongst 30-49 year olds.

Background and Rationale

Slight differences in consumption by sex

For women, lifecycle surplus is shallower and of shorter duration



Note: Peak labour income is defined as the unweighted mean of per capita labour income amongst 30-49 year olds.



Methodology

Methodology

- Third-party criterion to identify productive activities
 - 15 major groups
- Production:
 - Calculate time spent by each respondent for each activity
 - Calculate mean time for each sex at each age in each activity (including zeros)
 - Smooth profiles

Methodology

- Consumption
 - Allocate 'production' of non-market services to 'consumers' within and outside the household (e.g. per capita, regression)
- Transfers in and out
 - Based on individual-level production and consumption
- Wages
 - Choose a wage to value time spent in household production



Data

Data

- South African Time-Use Survey 2010
 - 24-hour day (half-hour slots from 4am)
 - “the day before today”; representative of the week
 - No primary/secondary activity distinction; up to three consecutive or simultaneous activities per slot
 - Two respondents per household, ages 10+
 - Specific prompts at end of questionnaire around care
 - UN classification system, similar to 2000 SA TUS, with minor modifications

Data

- Labour Market Dynamics Survey 2010
 - For wages
- Income and Expenditure Survey 2010/2011
 - As basis for NTA estimates
- National accounts and administrative data
 - For NTA estimates

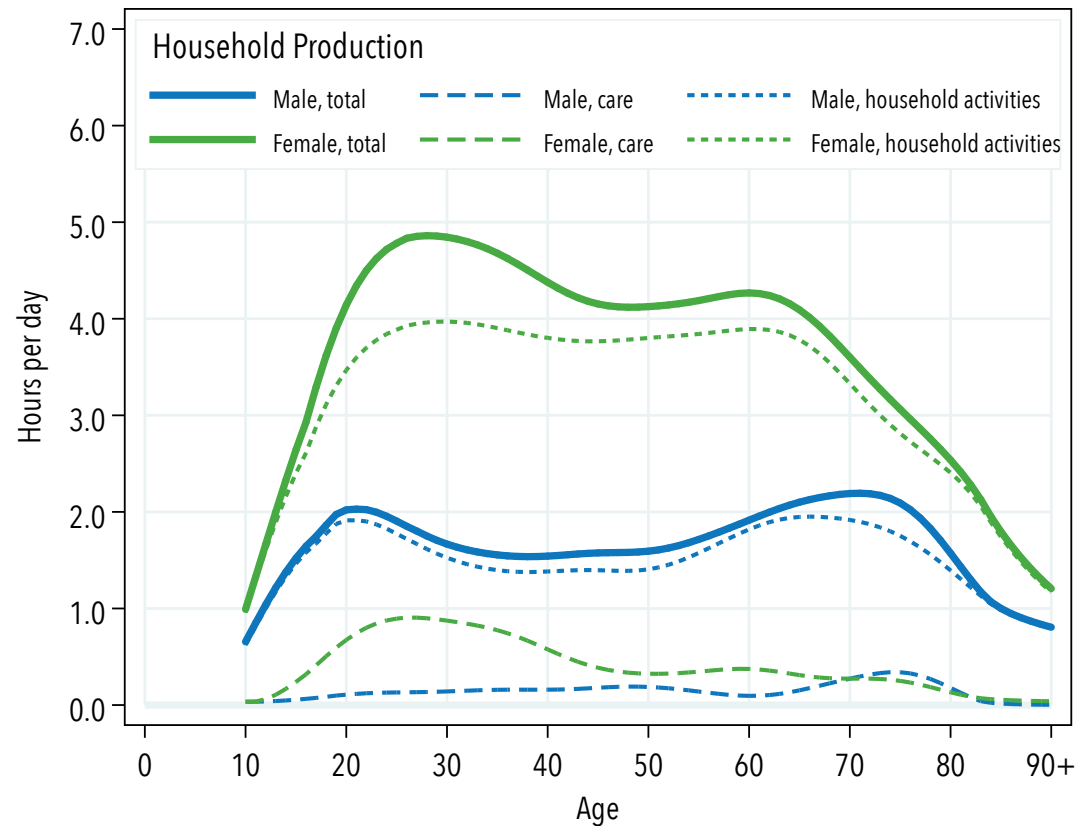


Results

1. The economic lifecycle

Age profiles of household production (hours)

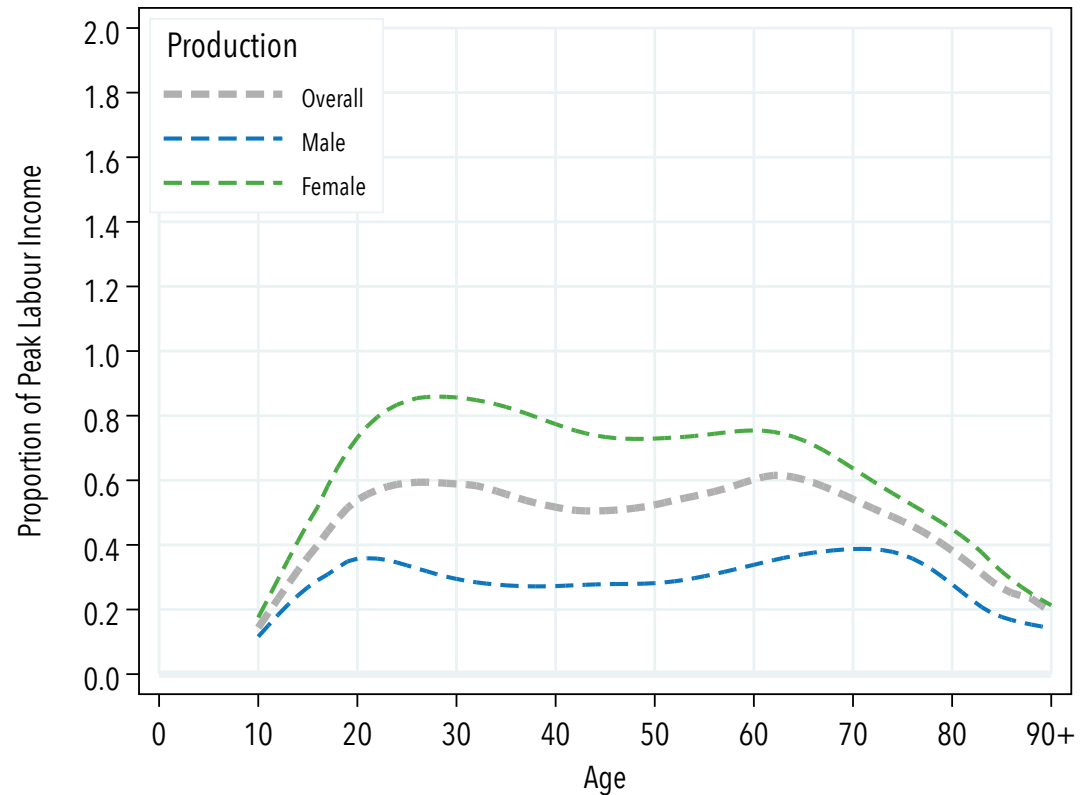
Women perform 91% of childcare; 81% of total care; 72% of total household production; 39% of market work



Age profiles of household production (value)

Value of household production for women peaks earlier than market production

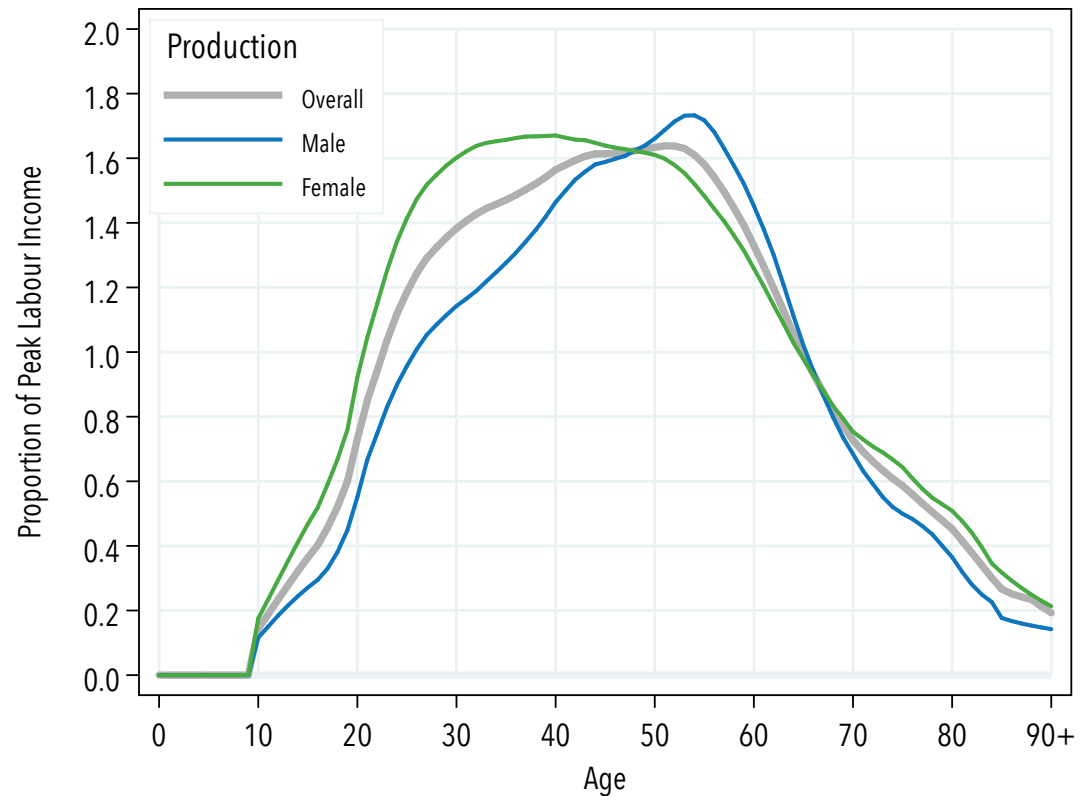
Peaks are similar in height



Note: Peak labour income is defined as the unweighted mean of per capita labour income amongst 30-49 year olds.

Age profiles of total production, market + household (value)

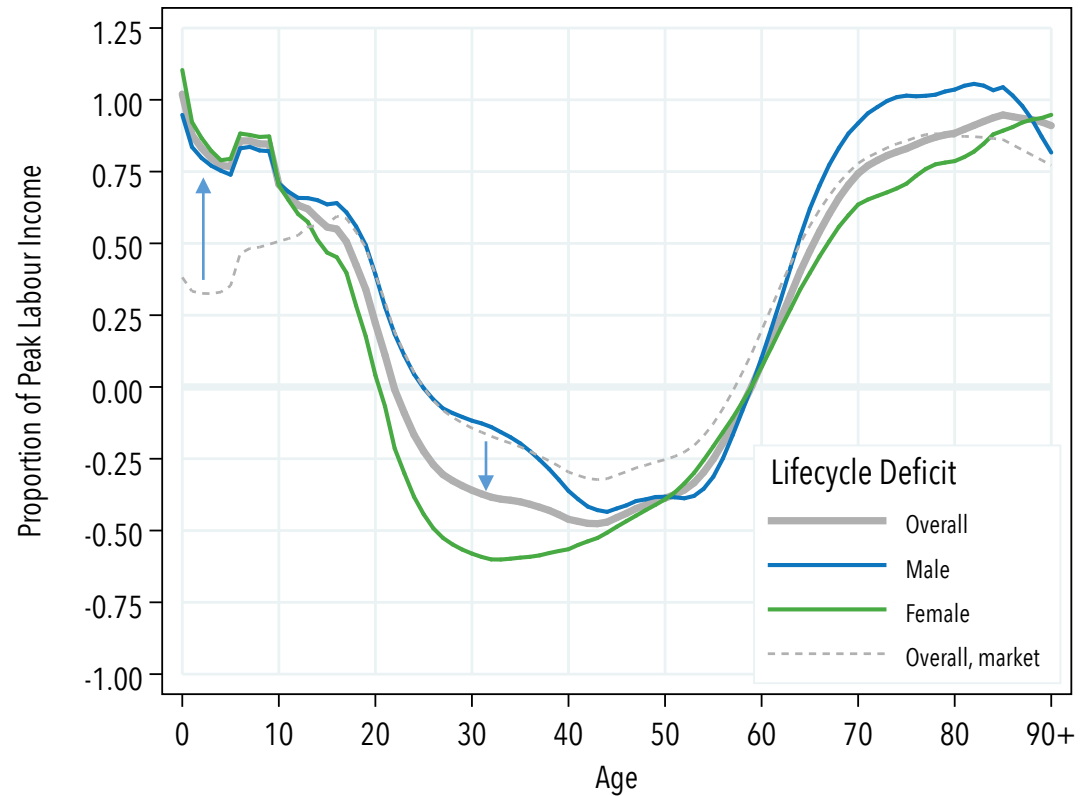
Value of total production is higher for women than men for those aged <48, and for those aged 67+



Note: Peak labour income is defined as the unweighted mean of per capita labour income amongst 30-49 year olds.

Total lifecycle deficit

Including unpaid work raises the cost of children significantly in South Africa



Note: Peak labour income is defined as the unweighted mean of per capita labour income amongst 30-49 year olds.



Results

2. Demographic change

Impact of demographic change

- Demographic change expected to alter aggregate 'supply' of and 'demand' for household production
 - Ageing population may see relative declines in 'demand' for childcare, but relative increases in 'demand' for adult- or eldercare
 - For household activities, effect is not clear
- Questions:
 1. What does the non-market demographic dividend look like for South Africa?
 2. How may the non-market demographic dividend impact on the market demographic dividend?

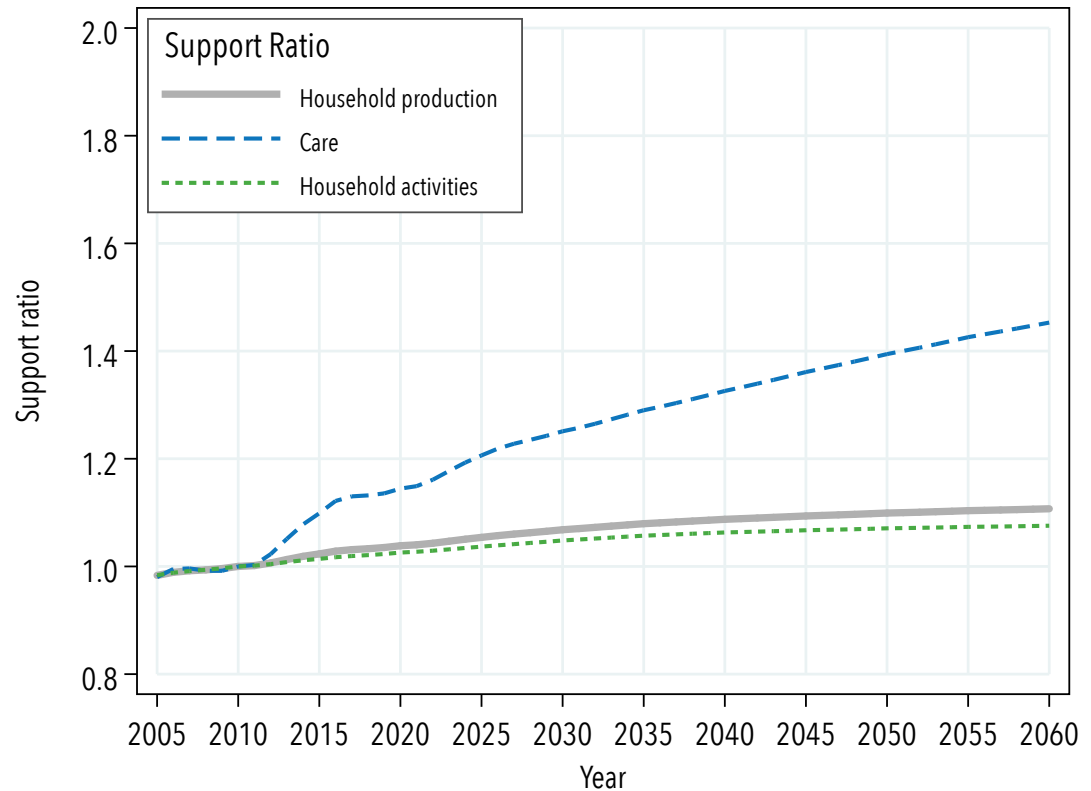
Q1. Non-market demographic dividend

- Within the NTA framework, defined as rate of change of the support ratio (= number of effective producers *divided by* number of effective consumers)
 - Number of effective producers = population-weighted time production profile
 - Number of effective consumers = population-weighted time consumption profile
 - Rising support ratio → population-weighted production growth > population-weighted consumption growth → reduced pressure on producers, and vice versa

Q1. Non-market demographic dividend: Support ratios

Care SR driven by falling childcare requirements

Household activities SR rises much more slowly, but dominates care

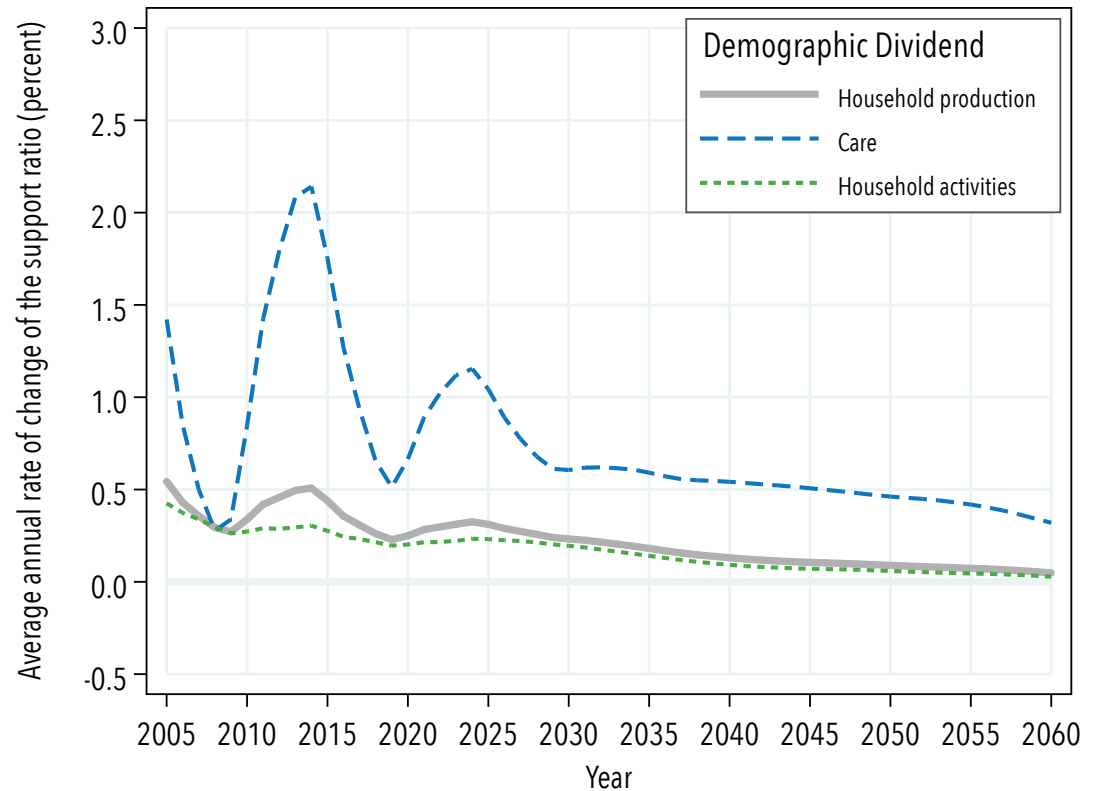


Note: The support ratio is the ratio of producers to consumers.

Q1. Non-market demographic dividend

Care DD
driven by
fluctuating
child cohort
sizes early on

Potential
release of
time, on
average, for
other
activities



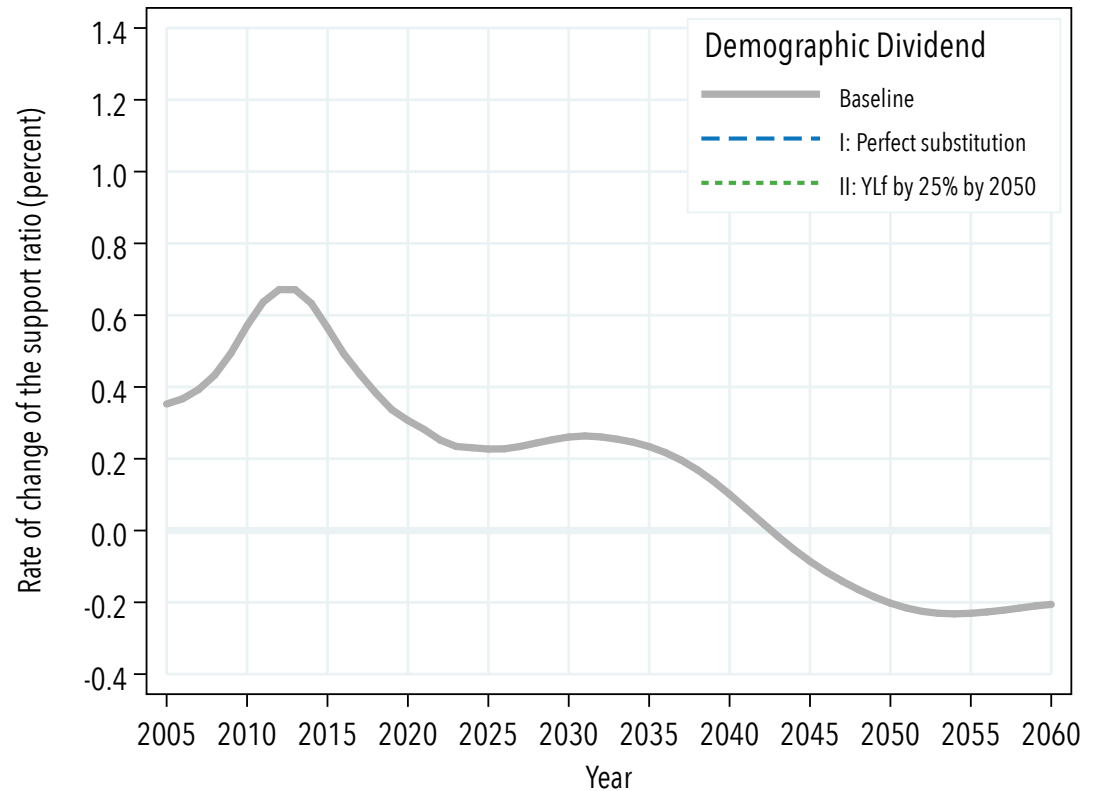
Note: The support ratio is the ratio of producers to consumers.

Q2. Interacting non-market and market demographic dividends

- Impact of demographic change may free up or require additional time allocated to non-market production
 - Impact on time allocated to other activities, incl. market production
- Assumptions:
 - In terms of non-market production time, supply is scaled to demand
 - Substitution only in terms of productive time: non-market \leftrightarrow market
 - Constant implied wage rate

Q2. Interacting non-market and market demographic dividends

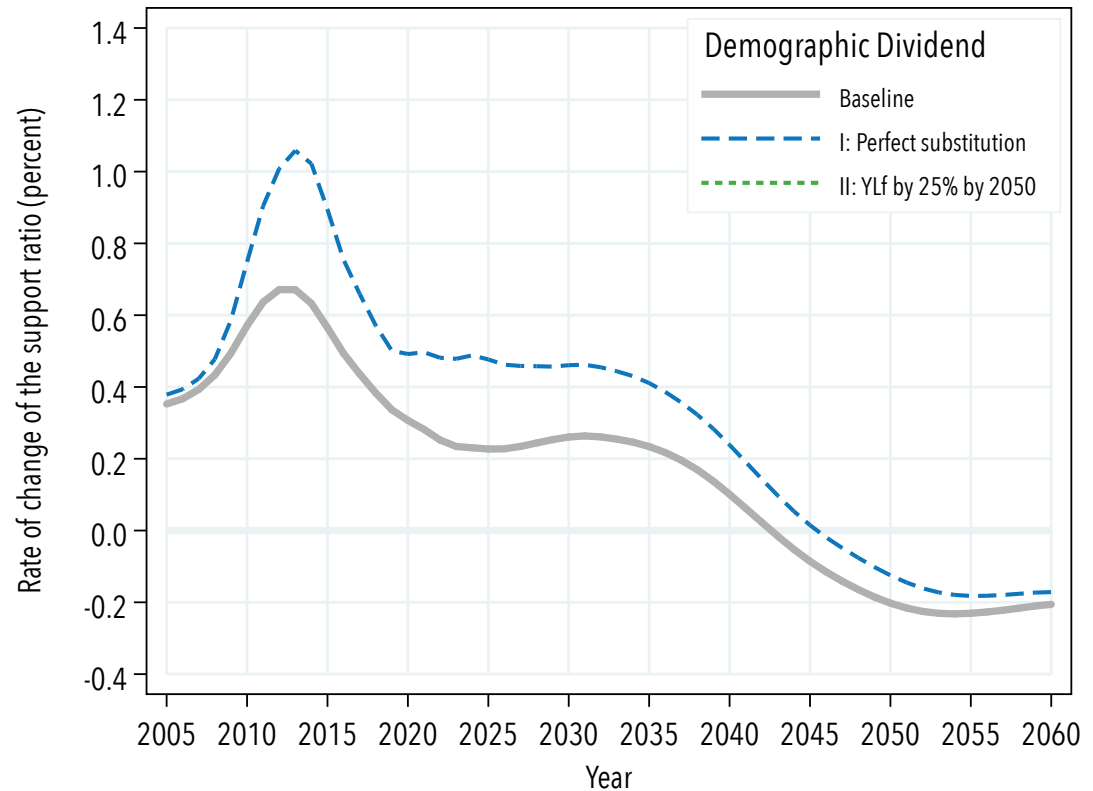
Demographic change boosts economic growth initially, but a drag on growth from the early 2040s



Note: The support ratio is the ratio of producers to consumers. Consumption profiles assumed constant over time.

Q2. Interacting non-market and market demographic dividends

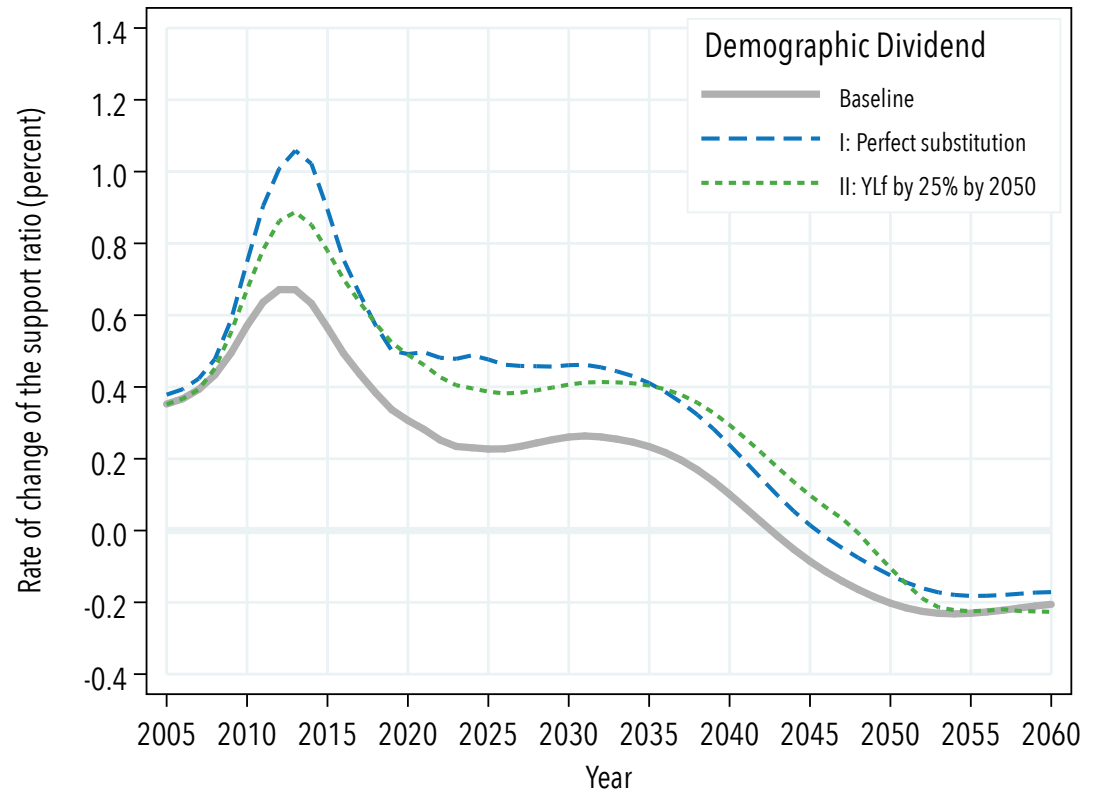
Time freed up by declining 'demand' for household production increases the magnitude and duration of the demographic dividend



Note: The support ratio is the ratio of producers to consumers. Consumption profiles assumed constant over time.

Q2. Interacting non-market and market demographic dividends

Similar in magnitude to a simulated narrowing of the gender gap in YL_f profiles



Note: The support ratio is the ratio of producers to consumers. Consumption profiles assumed constant over time.



Conclusion

Conclusion

1. Clear gender specialisation in South Africa
 - During ages 20-60, men spend 1.5-2.0 times the time spent by women in market production
 - On average, women spend almost 4 hours per day in household production; more time at each age than men
 - Women responsible for 91% of childcare (speaks also to household structure patterns in SA)
 - Girls spend significant time in household production: 2 hours/day by age 14, 3 hours per day by age 17

Conclusion

2. Non-market production is substantial in South Africa

- Even using a relatively low wage to value time in non-market production, it is equivalent to 25% of GDP
- Women account for 57% of total production, compared to 39% of market production
- Raises the 'cost' of children → higher lifecycle deficits

Conclusion

3. A non-market demographic dividend may create space for greater engagement in labour market by women
 - Assuming perfect substitution of productive time, DD boosted and positive DD period extended
 - Similar impact to narrowing of the gender gap in YL
 - But, conditional on supportive social/policy context, appropriate job creation (matching available skills in order to reduce 25% unemployment rate)



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