Discussion of “Technological Change, Labor Supply and Gender Differences in Occupational Choice,” by Elisa Keller

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Fascinating and important issue: Gender differences in occupational choice

- Strong convergence in gender occupational choices (along complexity characterization) between 1970 and 2010

Hypothesis: return to experience higher in more complex occupations

Driver: increase in women’s market work (via occupation-specific technical change, labor-saving technological progress in home sector, residual occupational wedges)...

...contributes to narrowing gender occupational choice gap
Analysis and Results

- Construct quantitative model of occupational choice, calibrated to match relevant data, including gender trends
- Perform a decomposition analysis of the main drivers of trends: occupational “wedges”, occupation-specific technical change, and technological progress in household production
- Changes in occupational “wedges” account for the bulk of gender occupational convergence (56 percent of total)
- Technical change in household sector account for 34 percent
- Occupation-specific technical change account for 10 percent
Overall Assessment

- Nice paper, studies an important episode of convergence in occupational choices across genders
- The challenge is that there are too many moving pieces
- Paper could be improved on the details of implementation to render the quantitative results more convincing
- My suggestion: take smaller steps in the quantitative assessment
Some Comments: (1) Facts

- Gender occupational choices more broadly, convergence patterns in other dimensions, help motivate focus on complexity dimension
- Are there clear trends in occupations more intensive in service industries? Connection with structural change?
- What is happening with occupational choices of males over time? This will serve as useful benchmark
- How do hours vary by occupations by males? Are complex occupations more time intensive for males, does it change over time?
- What is the relationship between hours and occupational choices of males? Can this serve as useful discipline to some of the relevant elasticities?
While the presentation of facts can be general, the specifics have to be more closely tied to the model considered.

Is gender occupational convergence driven by new cohorts over time or are there occupational switches that contribute to convergence?

Key connection of market hours and occupational choice. Evidence shows steeper life-cycle wage profiles for complex occupations.

In (static) model this only occurs if people work more in complex occupations, could offer direct evidence on male market hours across occupations, and changes over time.
(2) Model

- What is a reasonable model of occupational choice for this analysis?

- For example, full convergence in gender occupational choices by 2010 is puzzling given the substantial remaining differences in wages and hours of work; suggests something more than standard forces may be at work, perhaps gender policies?
(2) Model

- Lots of details, lots of potential moving pieces
- Married couples as main unit of observation whereas in data just married males and females
- Individuals make lifetime occupational decisions—although model is static, no lifecycle considerations—whereas in data anyone at a given point in time
- Married males and females endowed with same skill whereas in the data substantial differences in educational attainment and strong convergence (and overtake!) over time
- Non overlapping earnings profiles whereas in the data there must be substantial overlapping
(2) Model

- I think there is strong value of taking smaller steps: analyze through the lens of basic model the occupational choices of individual males, channels of changes in market hours over time and across genders, and then factors driving hours changes.
- What trends in the time series are affecting occupational choices?
- Education and human capital, structural change, technological progress.
- Males can provide some discipline on these trends for the period of study.
(3) **Calibration/Analysis**

- Paper calibrates model to reproduce trends in the data. Not clear why this is a good strategy in this setting.

- Several moving parts: shares of occupational output $a_i$’s; price of household appliances $P_d$; occupational wedges $\tau_i$’s; total factor productivity; distribution of skills.

- Other than price of durable capital no direct evidence on these sources. Wedges operate as residuals in a setting with potentially missing trends, difficult to interpret.
Conclusions

- Very interesting paper, fascinating facts

- As a somewhat outside reader, I would find a more convincing analysis that takes smaller steps towards a set of factors driving gender occupational convergence

- This may require a more detailed analysis of the trend factors driving occupational decisions and changes for males along with a suitable model accommodating these trends

- Then, more gender-specific factors can be analyzed along with the general trends