Discussion of Patrick Kline and Melissa Tartari

by Richard Blundell, UCL and IFS

Interactions Workshop
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Discussion - four aspects of the KT paper:

1. The model: labor supply model and the two-offer model.
2. Dynamics?
3. Reporting, measurement issues, overlapping welfare programs and the 'size' of the treatment.
4. RP restrictions and predictions, inference and bounds.
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- Nice creative paper - lots going on!
- Aim is to use a randomized welfare experiment and RP restrictions to recover structural labour supply responses.
- MDRC welfare experiment of JF vs AFDC on 4,800 single parents (baseline: single mothers on welfare as in SSP). *(Notches are great - for us!)*
- Assume distribution of unobservables and offered earnings is independent of treatment: exploit this heavily!
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- Use RP (inequality) restrictions to test (some) basic theory predictions and to bound some labor supply responses.
• Limited measurements,
  • on welfare (JF/AFDC) or not, monthly eligibility,
  • broad measure of (quarterly) earnings from administrative data.

• RP restrictions used here remain informative but insufficient to derive (all but weak) counterfactual predictions,
  • can we improve on this?

• Find evidence of extensive (entry effects) and intensive (opt-in) effects of JF reform,
  • the balance between intensive and extensive responses is important for tax/welfare policy design.
Figure 1: The AFDC and the JF Notch!

a) AFDC

b) Jobs First

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1. The Model

Standard static labour supply model: \( \max U(h, C; Z, \beta_i) \) s.t.
\[
C = E - T(E, y, Z, \phi_i) + y, \quad E = wh, \quad \ln w = Z'\theta + u_i, \text{ etc.}
\]

Ignoring the restrictions on offered earnings, the model here:
\( \max U_i(E, C) \) s.t. \( C = E + T(E^r, Z, \phi_i) \)

KT only observe three earnings groups \( E = \{0, < \text{FPL}, > \text{FPL}\} \), and welfare participation. But play this to their advantage!

- unobservable effort rather than hours, general heterogeneity, stigma, fixed costs, work requirements hassle costs.
- do not specify net tax function \( T \), just position the JF notch (formally monthly)
- nice distinction between reported earnings and actual earnings (quarterly).
- use randomization to (partially) identify a limited (but interesting) set of quasi-structural parameters.

- Maybe missing lot of action within intervals, e.g. \( 0 < E < \text{FPL} \).

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At most two earnings offers \( \{O^1_i, O^2_i\} \). If no offer then no earnings.

- Cannot easily rank offers as \( E_1 > E_2 \) - it could be \( h_1 >> h_2 \)?
- No state-dependence in offer distribution.

- Two-offer model is extreme - standard model as number of offers \( \implies \infty \).

- Nonparametric identification of a two-offer model in a discrete choice labor supply model requires the hours distribution has dominated segments that vary across individuals independently of offers. 'Structural' explanation of self-evident RP failures (Blundell-Laroque, 2013).

  - But this paper does not aim to identify the offer distribution.

- Can explain the lack of bunching at the JF notch but impact on RP analysis? - e.g. increased incentive to under-report and stay on JF if \( E=2 \) as next period offer maybe in \( E=1 \).

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  - Use the 3 year panel to get a guide to the process of offers?
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2. Dynamics

- The model is static in two (maybe three) key dimensions:
  1. no experience dynamics - no wage progression
  2. no anticipation of the more stringent JF time limit
  3. no anticipation of changes in family structure

- Family structure does change in data, e.g. probability of partnering. JF reform may change incentive to find a partner?

- Time limit seems not to be very rigorously enforced? SSP evidence on time limit - BGH?

- Wage progression is a key motivation for many welfare to work policies like JF:
  1. Canadian (SSP BGH) and UK wage equation (BCMS) result suggest strong complementarity and little progression for low skill mothers.
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Canadian SSP experiment: Monthly earnings by months after RA

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Canadian SSP experiment: Hourly wages by months after RA

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3. The Distribution of Earnings and Under-Reporting

- Lack of bunching and evidence of ineligible earnings $\Rightarrow$ constraints on offers and under-reporting

- Administration vs Welfare Authority: Are we sure 'under-reporting' isn't contaminated by measurement error?
- Measuring AU, and therefore the FPL, particularly difficult for the non-JF sample.
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Overlapping with Food Stamps

Instead of dampening the incentive the FS disregard amplifies the notch!

That’s great, but changes the size of the treatment - what is the distribution of treatments across families in this sample?
What About Medicaid and EITC?

Medicaid eligibility and EITC does not interact with AFDC or JF?


Could you show where the EITC phase-in and phase-out earnings points are in the earnings distribution for the JF sample?
4. RP Results

- Not all underlying states are distinctly observed (’u’ or ’r’, E=1).
  - sensitivity to the fuzzy nature of the $E = 1, E = 2$ division?
  - no RP restrictions used in the cross-section.
- ’Remarkably’, find informative bounds on some response probabilities across underlying states: $\pi_{s^a, s^j} \equiv P(S_j^j = s^j | S_j^a = s^a)$
  - Nice results, e.g. $\pi_{1n,1r}, \pi_{0r,2u}, \pi_{2n,1r}$
  - Testable restrictions and predictions: point estimates satisfy inequalities - Table 5, surprising? Consistent with lots of ’individual’ RP failures?
  - Inference and bounds: Table 6, bootstrap, isn’t studentization important?
  - Limited information on choices together with under-reporting and restricted offers imply we can identify less (than e.g. Manski (2014)).
1. Use the continuous earnings (even hours!) information to test RP restrictions and derive counterfactual predictions.

   - with nonseparable (multiple) heterogeneity quantiles still satisfy Slutsky on linear budget segments,
   - can use this RP restriction to derive probabilities at kink points, closest to standard models,
   - e.g. Blomquist and Newey (2014) application of nonparametric RP of labor supply with taxes - they assume quasi-concavity of $U_i(E, C)$.

2. Rank invariance of heterogeneity on linear budget sets, as in Blundell, Kristensen and Matzkin (2013).

   - compare 'similar' individuals across two regimes and use the Afriat/Varian inequalities as in BKM (2013),
   - difficult without measuring $h$ and precise measurement of the budget constraint (treatment),
   - BBC (2008) allow for 'optimising error' or deviations from RP, relax rank invariance and generalize to multivariate.
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Taking the labour supply results further:

- Elasticities typically found to depend on age of youngest child - split analysis by key observables?
- Use the longitudinal nature of the data,
  - all participants begin as welfare mothers with (almost) zero earnings,
  - examine the entry into work - and offers/progression.
- Hours may be informative for this group -
  - MDRC report shows interesting hours variation,
  - UK sample is in retail check-out and care. Hourly wages make some sense.
Matrix of Response Probabilities

<table>
<thead>
<tr>
<th>State under AFDC</th>
<th>Earnings / Reporting State under JF</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>0n</td>
</tr>
<tr>
<td>0n</td>
<td>1 - π_{0n,1r}</td>
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