**Getting the Poor to Work:**

Three Welfare Increasing Reforms for a Busy Germany  
(FU Berlin Discussion Paper No. 2015/22)

### Labor Supply Effects

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Women</th>
<th>Men</th>
<th>Total</th>
<th>Women</th>
<th>Men</th>
<th>Total</th>
<th>Women</th>
<th>Men</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic income</td>
<td>800 Euro/month</td>
<td>-</td>
<td>-</td>
<td>800 Euro/month</td>
<td>-</td>
<td>-</td>
<td>800 Euro/month</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Taxable income</td>
<td>No Change</td>
<td>-</td>
<td>-</td>
<td>No Change</td>
<td>-</td>
<td>-</td>
<td>No Change</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MTR</td>
<td>0.245</td>
<td>-</td>
<td>-</td>
<td>0.6885</td>
<td>-</td>
<td>-</td>
<td>0.315</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>No Change</td>
<td>-</td>
<td>-</td>
<td>No Change</td>
<td>-</td>
<td>-</td>
<td>No Change</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Three Reform Scenarios

- **No Change**
  - Employment: No Change
  - MTR from 0.21
  - MTR from 0.245
  - From 13,470
- **Increasing MTR from 0.21**
  - Employment: No Change
  - MTR from 0.6885
- **Increasing MTR from 0.245**
  - Employment: No Change
  - MTR of 0.6885
- **MWR of 0.6 up to income of 1,200 Euro**
  - Subsidy of 1,560 Euro/year
  - MWR of 0.6885
- **MWR of 1 afterwards**
  - Subsidy of 1,560 Euro/year
  - MWR of 1
  - (All other transfers for people under 65 are abolished)
- **Withdrawn at rate of 0.19**
  - MWR of 1,560 Euro/year
  - MWR of 0.19
  - from 28,250 Euro/year

### Incentives and Budget Constraints

#### Single Person without Children

- **Income and Welfare Effects**
  - **Women**
    - Employment: No Change
    - Full-Time: No Change
    - Basic Income/Flat Tax: -
    - MTR: No Change
    - MWR: No Change
  - **Men**
    - Employment: No Change
    - Full-Time: No Change
    - Basic Income/Flat Tax: -
    - MTR: No Change
    - MWR: No Change
  - **Total**
    - Employment: No Change
    - Full-Time: No Change
    - Basic Income/Flat Tax: -
    - MTR: No Change
    - MWR: No Change

#### Married Couple with two Children

- **Income and Welfare Effects**
  - **Women**
    - Employment: No Change
    - Full-Time: No Change
    - Basic Income/Flat Tax: -
    - MTR: No Change
    - MWR: No Change
  - **Men**
    - Employment: No Change
    - Full-Time: No Change
    - Basic Income/Flat Tax: -
    - MTR: No Change
    - MWR: No Change
  - **Total**
    - Employment: No Change
    - Full-Time: No Change
    - Basic Income/Flat Tax: -
    - MTR: No Change
    - MWR: No Change

### Structural Labor Supply Model

A discrete choice model of weekly working hours (van Soest 1995)

- Data from the Socioeconomic Panel (SOEP)
- Wages from a wage regression with selection correction (Heckman 1979)
- Net incomes from the microsimulation model STSM (Steiner et al. 2012)
- Couples maximize joint utility in leisure and consumption by choosing hours category (e.g., wife works in a mini-job, husband works full-time):
  \[ \max_{L_{ij},L_{ij}} \left[ C_j + L_{ij} + L_{ij} + \epsilon_j \right] \]
  with: \[ L_{ij} \] leisure of the female partner in household \[ i \] in hours category \[ j \], \[ L_{ij} \] leisure of the male partner, \[ C_j \] consumption, \[ \epsilon_j \] iid random disturbance from the Gumbel distribution, \( X_i \) individual and household characteristics

- Probability that household \( i \) chooses hours category \( k \) (McFadden 1974)
  \[ P_{ik} = \Pr(Y_{ik} > Y_{ij}, j \neq k) = \exp(V_{ik}) / \sum_k \exp(V_{ik}) \]
  \( V_{ik} \) is derived from a discrete choice model of weekly working hours (van Soest 1995)

- Estimation of extensive (employment) and intensive (working hours) elasticities which are used to simulate labor market effects of reforms

### Conclusions

1. A basic income that covers the socio-cultural subsistence level is fundable
   - People in the bottom decile increase working hours, while all others increase leisure
   - Women would reduce labor supply substantially under basic income

2. Introducing an hours subsidy of 1,560 Euro per year at 10 hours per week increases overall working hours (including strong effect for the first decile) and overall welfare

3. Compared to reforms that involve subsidies at specific working hours, the basic income reform increases welfare the most.

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**Research Area: Public Economics, Labor Economics, Microsimulation**

**Freie Universität Berlin**

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