The More Things Change, the More They Stay the Same: The Safety Net, Living Arrangements, and Poverty in the Great Recession

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The Labor Market in the Aftermath of the Great Recession
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Our paper

• We examine the relationship between the Great Recession and poverty and explore the mediating effects of the private and social safety net
• To put these results in perspective we take a historical approach, relying on data (and cycles) back to 1980
• We test whether the patterns that we see in the Great Recession are what we would expect given the historical experience
• We provide suggestive evidence on the possible role of the safety net in the weak expansion out of the Great Recession
Overview of our approach

• Empirical strategy:
  – Exploit differences in timing and severity of cycles across states (basic state panel fixed effects model)
  – Unemployment rate is measure of cycle
  – Test whether responses in the GR are different from earlier cycles

• Outcomes we explore:
  – Poverty, official (cash) and alternative (CPS)
  – Social safety net: Safety net caseloads and $ using administrative data (AFDC/TANF, SNAP, UI, EITC, SSI, SSDI)
  – Private safety net: living arrangements, doubling up, young adults living at home
Preview of the findings

• NEED TO ADD
(1) The Facts: Cycles, Poverty, the Safety Net and the Great Recession
Poverty measures

• Official poverty uses cash, pre-tax income
  – Does not incorporate the noncash safety net (e.g., Food Stamps) or taxes (e.g. the EITC)

• Development and release of the Census Supplemental Poverty Measure (in 2011) address this concern (other changes as well)

• In our work, we use an “alternative poverty” measure which is measurable in the CPS back to 1980 (using publically available data). Similar to NAS measure shown here.
  – Income includes taxes, plus value of Food Stamps, Medicaid, Medicare, school lunch, housing subsidy, energy assistance

• Meyer and Sullivan (2012) argue that alternative poverty is less tied to disadvantage than cash poverty. But we need a measure that includes the safety net and taxes.
Unemployment Rate and Poverty: The Great Recession

The graph shows the comparison of poverty rates and unemployment rates over the years 2007 to 2011. The poverty rate, marked in blue, and the poverty rate, marked in red, along with the unemployment rate, marked in black, are compared.

- **2007**: The poverty rates for both official and NAS are similar, with the unemployment rate being lower.
- **2008**: Both poverty rates increase, with the poverty rate, official, being slightly higher. The unemployment rate shows a significant increase.
- **2009**: The poverty rates continue to rise, with a slight decrease in the unemployment rate.
- **2010**: The poverty rates remain high, with the official poverty rate slightly lower than the NAS poverty rate. The unemployment rate shows a decrease.
- **2011**: Both poverty rates show a decrease, with the official poverty rate being lower. The unemployment rate decreases further.

The graph illustrates the impact of the Great Recession on poverty and unemployment rates from 2007 to 2011.
Take-away from facts on poverty, cycles

- Poverty is strongly counter cyclical
- The time series evidence suggests that poverty did not increase as much in the GR as expected. Alternative poverty rates did not increase by much.
- This suggests that the safety net is playing an important role.
The safety net for nonelderly families

1. Cash welfare AFDC/TANF [means tested]
2. Food Stamps [means tested]
3. The EITC [means tested, requires employment]
4. Unemployment Compensation [social insurance]
5. Disability benefits: DI, SSI

We identify these programs as the “safety net” – in that they may provide some protection in response to reductions in income/earnings.
Key changes in the safety net, prior to or during the Great Recession

1. AFDC/TANF
   - Large moral hazard potential since implicit tax rates on program are high
   - Welfare reform 1996 → time limits, work requirements → caseloads at historic low

2. Food Stamps
   - Lower moral hazard due to lower implicit tax rates (30%)
   - Relaxing of asset requirements starting in 2002
   - ARRA increased benefits (not eligibility), $25/month
Key changes in the safety net, prior to or during the Great Recession (cont.)

3. EITC
   - Refundable tax credit for families with children; tied to earnings receipt and encourages work (employment)
   - ARRA added more generous schedule for families with 3+ children

4. Unemployment Compensation
   - Many states implemented EB programs
   - ARRA shifted full cost of EB to Federal government
   - Emergency program raised UI benefit durations to as long as 99 weeks
Key changes in the safety net, prior to or during the Great Recession (cont.)

5. Disability benefits (DI, SSI)
   – The GR occurred against a backdrop of steady increases in disability benefits.
   – This could change the relationship of cycles to poverty given the greater use of these programs.
   – [Wherever possible, we limit our analysis of SSI to the nonaged caseload.]
## Cash and Near-Cash Safety Net, 2010

<table>
<thead>
<tr>
<th>Program</th>
<th>Number of Recipient Units (thousands)</th>
<th>Total Benefit Payments (millions 2010$)</th>
<th>Average Monthly Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>TANF</td>
<td>1,911</td>
<td>$10,699</td>
<td>$402</td>
</tr>
<tr>
<td>Food Stamps</td>
<td>18,618</td>
<td>$64,702</td>
<td>$285</td>
</tr>
<tr>
<td>Federal EITC</td>
<td>26,170</td>
<td>$58,620</td>
<td>$187</td>
</tr>
<tr>
<td>SSI, Nonaged Caseload</td>
<td>6,728</td>
<td>$45,618</td>
<td>$518</td>
</tr>
<tr>
<td>SSDI</td>
<td>9,398</td>
<td>$114,854</td>
<td>$1,068</td>
</tr>
<tr>
<td>UI - Regular State Benefits</td>
<td>3,927</td>
<td>$59,461</td>
<td>$1,262</td>
</tr>
<tr>
<td>UI - Extended Benefits</td>
<td>604</td>
<td>$9,344</td>
<td>$1,289</td>
</tr>
<tr>
<td>UI - Emergency Benefits</td>
<td>4,508</td>
<td>$69,894</td>
<td>$1,292</td>
</tr>
<tr>
<td>UI - Total</td>
<td>9,039</td>
<td>138,699</td>
<td>$1,279</td>
</tr>
</tbody>
</table>
Take-away from facts on safety net

• Decline of welfare and rise of EITC $\rightarrow$ major transformation of safety net from *out-of-work* aid to *in-work* aid $\rightarrow$ less protection in GR

• Long UI benefit durations $\rightarrow$ more protection in GR

• Food stamp benefits expanded leading up to and during the GR $\rightarrow$ more protection in GR

• Backdrop of increases in disability benefits
Household participation in the safety net CPS tabulations for nonelderly persons Trough years 1982 vs. 2010

Caveat to CPS analysis: underreporting of government transfers is increasing over time (Meyer, Mok, and Sullivan 2009)
(2) Is the Great Recession period different?
Our approach

• Are the responses of the safety net and poverty as we would expect based on the historical evidence?

• We provide two comparisons:
  – Compare GR to prior recessions, compare expansion out of GR to prior expansions

• We define the cycles based on peak-to-peak using national unemployment

• Our analysis period = 1980–2011.
Our approach [cont.]

• We begin by establishing the findings for official (cash) and alternative poverty (CPS)

• We explore two mediating forces that may buffer families from effects of downturns:
  1. **Social safety net**: administrative data on caseloads and total $
  2. **Private safety net**: living arrangements, doubling up; interest in particular in young adults
Empirical model

• State panel fixed effects model
• Cycle measured by state-year unemployment rate
• Standard errors clustered on state, weighted using denominator

• **Test 1: Is GR different from 1980s cycle?**

$$y_{st} = \beta_{80} D_{80} UR_{st} + \beta_{GR} D_{GR} UR_{st} + \beta_{O} D_{O} UR_{st} + \alpha_{s} + \delta_{t} + \varepsilon_{st}$$

• **Test 2: Is GR different from all other recessions?**
  (same for expansions)

$$y_{st} = \beta_{CON} D_{CON} UR_{st} + \beta_{EXP} D_{EXP} UR_{st} + D_{GR} (\beta_{GR}^{CON} D_{CON} UR_{st} + \beta_{GR}^{EXP} D_{EXP} UR_{st}) + \alpha_{s} + \delta_{t} + \varepsilon_{st}$$
CPS sample

- CPS ASEC (March) 1981-2012 (calendar years 1980-2011)
- Limit to nonelderly persons
- Income and poverty assigned using household as economic unit
- **Outcomes:** income below 50%, 100%, 150%, 200% of official (cash) poverty and alternative poverty
- Collapse data to state-year cells
- Weight using sum of march weights in cell
Results for full period:

- The estimates are similar to many prior estimates in the literature (ADD SOME CITES)
- Percent impacts decline as we move up the income distribution (but increase in percentage point impacts)
- Patterns and magnitudes for alternative poverty are strikingly similar. Exception is extreme poverty (<50% poverty) which shows much less cyclicality than cash poverty.
Test 1: Is GR different from early 1980s recession?

- Mostly no.
- Exception for *greater* cyclicality of alternative poverty at 150% and 200% poverty.

### Table: Official Poverty vs. Alternative Poverty

<table>
<thead>
<tr>
<th></th>
<th>&lt;50%</th>
<th>&lt;100%</th>
<th>&lt;150%</th>
<th>&lt;200%</th>
<th>&lt;50%</th>
<th>&lt;100%</th>
<th>&lt;150%</th>
<th>&lt;200%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UR x 1980s</strong></td>
<td>0.384***</td>
<td>0.662***</td>
<td>0.756***</td>
<td>0.821***</td>
<td>0.102***</td>
<td>0.513***</td>
<td>0.697***</td>
<td>0.817***</td>
</tr>
<tr>
<td></td>
<td>(0.062)</td>
<td>(0.075)</td>
<td>(0.121)</td>
<td>(0.154)</td>
<td>(0.033)</td>
<td>(0.062)</td>
<td>(0.146)</td>
<td>(0.160)</td>
</tr>
<tr>
<td><strong>UR x Rest of period</strong></td>
<td>0.506***</td>
<td>1.047***</td>
<td>1.317***</td>
<td>1.466***</td>
<td>0.208***</td>
<td>0.732***</td>
<td>1.132***</td>
<td>1.316***</td>
</tr>
<tr>
<td></td>
<td>(0.074)</td>
<td>(0.150)</td>
<td>(0.227)</td>
<td>(0.240)</td>
<td>(0.057)</td>
<td>(0.136)</td>
<td>(0.189)</td>
<td>(0.274)</td>
</tr>
<tr>
<td><strong>UR x GR</strong></td>
<td>0.354***</td>
<td>0.624***</td>
<td>0.843***</td>
<td>1.148***</td>
<td>0.193***</td>
<td>0.496***</td>
<td>0.907***</td>
<td>1.302***</td>
</tr>
<tr>
<td></td>
<td>(0.071)</td>
<td>(0.079)</td>
<td>(0.120)</td>
<td>(0.160)</td>
<td>(0.034)</td>
<td>(0.055)</td>
<td>(0.084)</td>
<td>(0.159)</td>
</tr>
</tbody>
</table>

### Impact

<table>
<thead>
<tr>
<th></th>
<th>% Impact, 1980s</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Official poverty (cash pre-tax)</strong></td>
<td>7.9%</td>
<td>5.2%</td>
<td>3.5%</td>
<td>2.6%</td>
<td>4.2%</td>
<td>5.5%</td>
<td>3.5%</td>
<td>2.6%</td>
</tr>
<tr>
<td><strong>Alternative poverty (post-tax, all transfers)</strong></td>
<td>7.2%</td>
<td>5.0%</td>
<td>4.0%</td>
<td>3.8%</td>
<td>7.1%</td>
<td>6.0%</td>
<td>5.8%</td>
<td>5.1%</td>
</tr>
</tbody>
</table>
**Test 2: Is GR different from earlier recessions (contractions)**

- **If anything the GR is leading to more cyclicality of alternative poverty**
- **The expansion coming out of the GR is generating less improvement in poverty compared to historical expansions.**
- **Caveat on expansion – our CPS data only go through 2011.**

<table>
<thead>
<tr>
<th></th>
<th>Official poverty <em>(cash pre-tax)</em></th>
<th>Alternative poverty <em>(post-tax, all transfers)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;50%</td>
<td>0.259*** 0.353***</td>
<td>0.601*** 0.703*** 0.072** 0.336*** 0.465*** 0.581***</td>
</tr>
<tr>
<td>&lt;100%</td>
<td>(0.057) (0.094)</td>
<td>(0.157) (0.201) (0.033) (0.067) (0.172) (0.201)</td>
</tr>
<tr>
<td>&lt;150%</td>
<td>0.502*** 0.902***</td>
<td>1.091*** 1.176*** 0.171*** 0.715*** 1.033*** 1.185***</td>
</tr>
<tr>
<td>&lt;200%</td>
<td>(0.052) (0.101)</td>
<td>(0.150) (0.177) (0.039) (0.086) (0.126) (0.184)</td>
</tr>
<tr>
<td>UR x Contraction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UR x Expansion</td>
<td>0.089 0.051</td>
<td>0.180 0.358 0.130** 0.171*** 0.384** 0.614**</td>
</tr>
<tr>
<td></td>
<td>(0.060) (0.129)</td>
<td>(0.222) (0.298) (0.048) (0.072) (0.181) (0.275)</td>
</tr>
<tr>
<td>UR x Contraction x GR</td>
<td>-0.197** -0.349***</td>
<td>-0.329 -0.063 -0.045 -0.352*** -0.159 0.191</td>
</tr>
<tr>
<td></td>
<td>(0.080) (0.125)</td>
<td>(0.211) (0.230) (0.078) (0.106) (0.130) (0.166)</td>
</tr>
<tr>
<td>UR x Expansion x GR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1632 1632 1632 1632 1530 1530 1530 1530</td>
<td></td>
</tr>
</tbody>
</table>
The private safety net

- Families can help absorb shocks in many ways. We explore how living arrangements change in cycles and whether the patterns are changing over the GR
- Continue with CPS, nonelderly sample, 1980-2011

- Number of persons, number of families (in the household)
- Number of “extra” adults in household (over age 18, not household head or spouse)
- Living arrangements of young adults 18-30: live alone, with parents, with relatives, other

[Caveat on young adult measures NEED TO FIX]
Small adjustments in living arrangements.

Larger movements for young adults

Only one statistically significant difference between GR and early 1980s
The social safety net

• We explore the adjustment of the safety net in cycles
• We use administrative data on state-year caseloads per population

❖ AFDC/TANF, Food Stamps, UI, EITC
❖ These sources are monthly (except EITC which is annual)
❖ [Still waiting to complete our data on SSI, SSDI]
<table>
<thead>
<tr>
<th></th>
<th>Caseload / Population, Monthly</th>
<th></th>
<th>Cases/Pop, Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AFDC/TANF</td>
<td>Food Stamps</td>
<td>UI, 1988+ [Reg., Ext., Emerg.]</td>
</tr>
<tr>
<td>UR</td>
<td>0.064*** (0.015)</td>
<td>0.132*** (0.038)</td>
<td>0.011*** (0.001)</td>
</tr>
<tr>
<td>Mean of Y, pooled</td>
<td>0.012</td>
<td>0.037</td>
<td>0.001</td>
</tr>
<tr>
<td>% impact</td>
<td>5.5%</td>
<td>3.6%</td>
<td>13.3%</td>
</tr>
</tbody>
</table>

- Over entire period (1980-2011), all programs except the EITC are countercyclical. This masks countercyclical effects for married and (insignificant) pro-cyclical effects for singles (Bitler, Hoynes & Kuka 2013)
- Largest effects for UI.
<table>
<thead>
<tr>
<th></th>
<th>Caseload / Population, Monthly</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AFDC/TANF</td>
<td>UI</td>
</tr>
<tr>
<td>UR x Contraction</td>
<td>0.079**</td>
<td>0.015***</td>
</tr>
<tr>
<td></td>
<td>(0.024)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>UR x Expansion</td>
<td>0.082***</td>
<td>0.010***</td>
</tr>
<tr>
<td></td>
<td>(0.017)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>UR x Contraction x GR</td>
<td>-0.082**</td>
<td>0.006</td>
</tr>
<tr>
<td></td>
<td>(0.036)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>UR x Expansion x GR</td>
<td>-0.076**</td>
<td>-0.027</td>
</tr>
<tr>
<td></td>
<td>(0.030)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>Mean of Y, 1980s</td>
<td>0.016</td>
<td>0.001</td>
</tr>
<tr>
<td>Mean of Y, GR</td>
<td>0.012</td>
<td>0.001</td>
</tr>
<tr>
<td>N</td>
<td>19,584</td>
<td>19,584</td>
</tr>
</tbody>
</table>

- Post-welfare reform: TANF no protection across cycles
- SNAP shows more cyclicality in GR, not significant
- No evidence that UI is more responsive in GR (point estimates show more protection)
How is the cyclicality of poverty affected by the safety net?

- We use the CPS for 1980-2011 and construct alternative poverty based on post-tax post-benefit income (Bitler and Hoynes 2010).
- Then (one at a time) we zero out the income amount from each safety net program and recalculate alternative poverty.
- Compare the cyclicality of poverty with and without each safety net program.
- This is a static exercise, nothing else changes. A more complete analysis would require establishing the full counterfactual for eliminating programs.
- This analysis is subject to concerns about increases in underreporting of safety net programs over time.
• As a descriptive first step, we show these poverty rates with and without safety-net income zeroed-out for 1980 and 2010 (two trough years)
• We then plot the difference in the poverty rates: this gives an estimate of by how much poverty rates increase with the elimination of this safety net program
• [static]
Huge reduction in protection from welfare
Increase in EITC, UI, SSI
Huge reduction in protection from welfare
Huge increase in EITC
Increase in SNAP higher up the income distribution
Huge increase in EITC
Increase in SNAP higher up the income distribution
Huge increase in EITC. Overall little evidence of MORE UI.
• We extend this with a regression framework. We estimate models for (base) alternative poverty and alternative “zeroing out income”
• We estimate the model allowing for different UR effects for 1980s, GR, and rest of period (Table 7)
• Here we ONLY look at the coefficients for the GR period, $\beta_{GR}$
• We then plot, for each safety net program, the difference in $\beta_{GR}$ for (base) alternative poverty and poverty zeroing out the safety net.
• Negative = adding safety net program REDUCES cyclicity
• UI, SNAP and SSDI showing important effect.
• What this doesn’t show is a comparison (1980s)
(3) Is the safety net (moral hazard) slowing down the expansion?
Labor supply predictions

• The optimal design of safety net programs requires balancing the goal of protection against distortion
• This is an issue for social insurance programs (UI, SSDI) and public assistance programs (TANF, SNAP)
• Mulligan (2012) argues that the expansion of the safety net (e.g. UI, SNAP and multiple program participation) has contributed to the weak expansion
• Rothstein (2011) and Farber and Valletta (2013) conclude that UI expansions have led to small increases in unemployment
• We know of no other work on other safety net programs and how they are affecting labor supply in the GR (perhaps Rothstein on DI in this conference)
Our approach

• We present tabulations from the CPS and Food Stamp administrative data on incidence of multiple program participation

• We relate CPS estimates of average state “moral hazard program spending” per household at the trough of the recession (2010) to measures of the state labor market expansion (2010 to 2012 change)

• Moral hazard programs = TANF, SNAP, UI, SSI
Comparison of household participation in 2010, 1982 CPS nonelderly sample

<table>
<thead>
<tr>
<th></th>
<th>Household participation in safety net</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UI</td>
<td>Food Stamps</td>
<td>AFDC/ TANF</td>
<td>SSI</td>
</tr>
<tr>
<td>A. Participation conditional on receiving UI</td>
<td>1982</td>
<td>1.000</td>
<td>0.138</td>
<td>0.055</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>1.000</td>
<td>0.199</td>
<td>0.031</td>
</tr>
<tr>
<td>B. Participation conditional on receiving Food Stamps</td>
<td>1982</td>
<td>0.199</td>
<td>1.000</td>
<td>0.541</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>0.180</td>
<td>1.000</td>
<td>0.134</td>
</tr>
</tbody>
</table>

- SNAP participation higher among UI recipients in GR
- UI participation no higher among SNAP recipients
- Cash welfare (TANF) participation is much lower
- [More results in the paper for TANF, SSI]
Administrative data on SNAP shows similar patterns as the CPS (All persons)

<table>
<thead>
<tr>
<th></th>
<th>Household participation in safety net conditional on receiving Food Stamps</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UI</td>
</tr>
<tr>
<td><strong>A. Food Stamp Quality Control Data (Recipiency Unit)</strong></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>0.019</td>
</tr>
<tr>
<td>2010</td>
<td>0.059</td>
</tr>
<tr>
<td><strong>B. March CPS (Household)</strong></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>0.093</td>
</tr>
<tr>
<td>2010</td>
<td>0.127</td>
</tr>
</tbody>
</table>

- UI participation rates are higher in CPS. Likely due to reporting period (annual for CPS, monthly for SNAP).

Can’t get QC data back to 1982
Average “moral hazard program spending” per household, CPS

Use 2009 as peak of safety net spending
State “moral hazard” safety net spending per household in 2009 vs. change in unemp. rate 2009-2012

- Would expect a positive slope if safety net was contributing to slow recovery (higher $$ \rightarrow $$ less improvement in UR)
- Suggestive evidence
Safety net in 2009 vs. % change in labor force / population 2009-2012

• Would expect a negative slope if safety net was contributing to slow recovery
Safety net in 2009 vs. % change in employment / population 2009-2012

- Would expect a negative slope if safety net was contributing to slow recovery
- CES Employment
Next steps

• NEED TO ADD
Conclusion

• NEED TO ADD
ADDITIONAL RESULTS
## Definition of cycles (App Table 1)

<table>
<thead>
<tr>
<th>Annual Data</th>
<th>Monthly Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contraction</strong></td>
<td><strong>Expansion</strong></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tbody>
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