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HOW DID THE SAFETY NET PERFORM DURING THE GREAT RECESSION

Living Arrangements, Doubling Up, and the Great Recession: Was This Time Different?†

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The Great Recession brought unemployment rates unseen since the severe recessions of the early 1980s, with the seasonally adjusted rate reaching a peak of 10 percent in October 2009. The government responded to this severe shock with the 2009 American Recovery and Reinvestment Act, which included expansions to many social safety net programs. In addition to the large expansions to unemployment insurance, where benefits were extended to unprecedented maximum lengths, there were also expansions to Supplemental Nutrition Assistance Program (SNAP) maximum allotments, Temporary Assistance for Needy Families (TANF) block grants to states, the Earned Income Tax Credit (EITC) (both for married families and for three-dependent families), and various other tax credits and programs. In addition to this response of the social safety net, it is also of interest to understand the extent to which the private safety net responded to these negative shocks.

Much attention has also been paid to the private safety net, and to living arrangements in particular. Census figures show that from 2007 to 2011, there was an 11 percent increase in the number of households with someone doubled-up and more than a 25 percent increase in the number of 25–34 year olds living at home (Johnson 2011). But is this response different from that during previous recessions? In this paper, we comprehensively examine the response of a key dimension of the private safety net—living arrangements and doubling up—and assess whether the response is different than it was in previous recessions. We look in detail at the living arrangements of young adults 18–30 years old who were particularly hard hit by the recession (e.g., Hoynes, Miller, and Schaller 2012). We also look more broadly at the size of households in the general nonelderly population. We first establish whether the living arrangements we study show a cyclical response overall, and then test whether the response of living arrangements in the Great Recession represents a significant break from experiences in earlier cycles.

I. Background and Data

We begin by reviewing what we know about how the private safety net helps families absorb shocks from recessions. Individuals and families may adjust to shocks by "doubling up" or sharing living conditions. One example of this is young adults living at (or moving back to) home (Wang and Morin 2009). Another example is two or more related (or unrelated) families sharing a household. There is a small literature that examines how these living arrangements change with business cycles (London and Fairlie 2006; Mykyta and Macartney 2011, 2012; Painter 2010).[1] In the wake of the Great Recession

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[1] Additionally, Dyrda, Kaplan, and Ríos-Rull (2014) examine the responsiveness of living arrangements to the business cycle using time-series approaches to document an adjustment margin that is important for macro model estimates of the Frisch labor supply elasticity.

(GR), a few recent studies have examined the role of own unemployment and income (Lee and Painter 2013 and Paciorek 2013) and consumer debt (Dettling and Hsu 2014) in affecting living arrangements. Additionally, more descriptive analyses (e.g., Vespa 2014) have also drawn attention to this issue. We contribute to this literature by exploring a variety of measures of household composition, examining a relatively long historical period (cycles spanning 1980–2013), and testing for significant changes in living arrangements and the cycle during the Great Recession.

We use pooled Annual Social and Economic Supplement (ASEC) (March) Current Population Survey (CPS) data, covering living arrangements for 1981–2014, and focus on the sample of the nonelderly, due to their larger exposure to the negative shocks of the Great Recession. For the most part, we construct our measures of living arrangements at the household level, and assign these measures to each person under 65. We then collapse this individual data to state-year cells. However, we also construct several indicators for young adults 18–30, and estimate models based on them. First, we create a measure for whether young adults are living independently, which we measure as living alone or together only with their own nuclear family (spouse and/or child) or other nonrelatives. This variable would be coded as 1 for single adults 18–30 living alone, or living with only a spouse and/or own children and/or unrelated persons. For any adults 18–30 living with their own relatives besides a spouse or child (or their spouses' such relatives), this variable would be 0. We then go on to look separately at young adults aged 18–24 and those 25–30. Finally, for the younger group, we consider whether young adults are currently enrolled in school (either full or part time). (Note that this information is not collected for anyone over 24, and it is only collected from 1985 on.) All outcomes are weighted to be population representative, and statistics are weighted using the sum of the relevant nonelderly or young adult population in each state-year cell. We add to the CPS data the annual state unemployment rate for the preceding calendar year—our measure of the business cycle; years in the text refer to the calendar year whose income the ASEC measures.

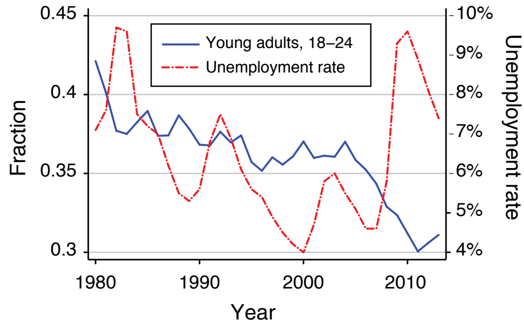

Figure 1. Share of Young Adults 18–24 Living Independently and Unemployment Rate for 1980–2013

Notes: Figure shows that the share of young adults 18–24 years old who live independently (left axis) and unemployment rate (right axis) by year for the CPS ASEC for calendar years 1980–2013. The living independently measure is created from the CPS ASEC, and is 1 for adults 18–24 living alone or with only their own spouse and child or unrelated individuals and corresponds to March of the following calendar year. The unemployment rate comes from the Bureau of Labor Statistics (BLS). The ASEC measures are weighted to be representative of the population of those 18–24.

II. Descriptive Results

We start by showing the time series for our young adult measure in Figure 1 along with the unemployment rate (UR). The left scale pertains to our measure of living independently for the younger young-adult group, those 18–24, while the annual unemployment rate is plotted on the right scale. One can see the sharp fall in the probability that these young adults lived independently during the Great Recession, capturing the time series trend reported in the media. However, the sharp fall begins in 2005 a few years before the Great Recession. Additionally, one can also see a marked decline in the early 1980s when the last severe downturn occurred. These cyclical variations take place against a backdrop of a steady time series decline in independent living for young adults across the past two decades. There is even less sign of cyclical responsiveness for the measure of independent living for the broader population of young adults 18–30 (not shown).

Instead of relying on the time series alone, we also estimate regression models that take advantage of variation in the local cycle—as proxied by the state-year unemployment rate—while also controlling for both national shocks and time-invariant state characteristics. As an initial view into these results, Figure 2 shows

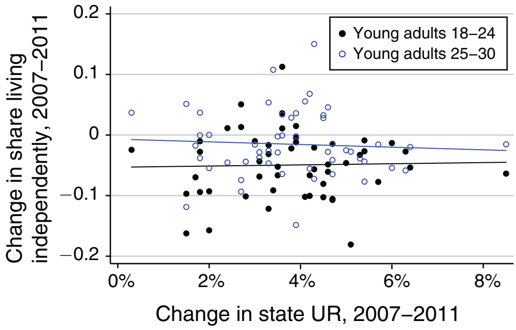

FIGURE 2. CHANGE FROM 2007 TO 2011 IN THE SHARE OF YOUNG ADULTS 18–24 LIVING INDEPENDENTLY VERSUS CHANGE IN THE STATE UNEMPLOYMENT RATE, BY STATE

Notes: Figure shows a scatter plot of the change from 2007 to 2011 in the state unemployment rate (x-axis) versus the change over the same period in the probability that young adults 18–24 live independently (live with no relatives except an own child and/or a spouse) (filled in circles) and versus the change for young adults 25–30 (empty circles). The best linear fit lines use the sum of population weights. The living independently measures are from the CPS ASEC and correspond to March of the next calendar year. The unemployment rate comes from the BLS.

the relationship between changes in the state unemployment rate for 2007–2011 (x-axis) and changes in the state-level probability of living independently for 2007–2011 (y-axis). The 2007–2011 period spans the worst of the Great Recession. Each point is a state pair, and the points in (filled circle) plot the data for 18–24 year olds and the points in (open circle) plot the data for 25–30 year olds. We also provide a best fit line (using the young adult population in each state as weights) for these points. Were there a strong cyclical relationship between living independently and the state unemployment rate across the Great Recession, there would be a clear downward trend in the scatter plot (larger increases in unemployment leading to larger decreases in living independently). Overall, the scatter plot shows a very weak relationship between changes in state unemployment and changes in young adult living arrangements. At most there is a small (in magnitude) negative relationship for 25–30 year olds.

III. State Panel Estimates

Next we turn to multivariate regressions. We estimate models where the dependent variable is a measure of young adult or nonelderly living arrangements, and the key independent variable is the state unemployment rate. We also control for state and year fixed effects, weight to be population representative, and cluster the standard errors at the state level. Panel A of Table 1 presents estimates for the full period 1980–2013 and panel B presents estimates where we allow for differential effects in the Great Recession and the earlier cycles.[2] Specifically, the panel B specifications interact the unemployment rate with an indicator for three time periods: (i) the Great Recession and recovery (2007–2013); (ii) the trough and recovery from the early 1980s recessions (1980–1989); and (iii) the rest of the period. Thus, the coefficients are directly comparable (there is no omitted category). In addition to the point estimates, we include the percent impacts to allow comparison of effects across the different outcomes (important since the means vary substantially across dependent variables). To construct the percent effects, we divide the relevant coefficient on the unemployment rate by the full period mean for the dependent variable. Finally, in panel B, we test whether the cyclicality in the 1980s recessions and the Great Recession differ statistically.

We start by examining the living-independently measure for young adults. On average, throughout our analysis period, 55 percent of those 18–30 live independently (column 1 of Table 1). It is less common for 18–24 year olds to live independently than it is for 25–30 year olds. (Note that college students living in dormitories are coded by the ASEC as living with their parents.) The results in panel A confirm our prior—in downturns, young adults are less likely to live independently, although the percent impact is small (a 1 percentage point increase in the UR leads to a 0.7 percent decline in living independently for 18–30 year olds). Also, as might be expected, percent effects are larger in magnitude for the 18–24 year olds than for the 25–30 year olds. However, notably none of the estimates are statistically significant. We further explored what the 18–24 year olds were doing, and found a small but significant increase in the

[2] Living arrangements are measured of the time of the survey, which is typically in March. We match the living arrangements in year t to the unemployment rate over the prior calendar year. The years we give in the text (e.g., 1980–2013) correspond to the prior calendar year.

Table 1—Effects of Unemployment Rate on Living Arrangements

	Young adults living independently (with no other relatives besides husband/wife or kids)			All nonelderly persons	
	All young adults (ages 18–30)	Ages 18–24	Ages 25–30	Number of persons	Number of families
Panel A. Pooled estimates					
UR	−0.403	−0.369	−0.427	2.127*	0.425
	(0.210)	(0.195)	(0.217)	(0.973)	(0.265)
Percent impact	−0.74	−1.03	−0.57	0.59	0.45
Full period mean	0.546	0.360	0.754	3.595	0.950
Panel B. By period (1980s, GR, rest of period)					
UR × 1980s	−0.268	−0.265	−0.313	2.415***	0.355**
	(0.162)	(0.173)	(0.156)	(0.685)	(0.132)
UR × Rest of period	−0.365	−0.335	−0.496*	1.903	0.442
	(0.251)	(0.283)	(0.218)	(1.427)	(0.263)
UR × GR	−0.728	−0.621	−0.628	1.743	0.546
	(0.395)	(0.387)	(0.462)	(1.716)	(0.563)
Percent impact, 1980s	−0.49	−0.74	−0.41	0.67	0.37
Percent impact, GR	−1.33	−1.72	−0.83	0.49	0.58
p-value 1980s = GR	0.228	0.385	0.462	0.640	0.698
Observations	1,734	1,734	1,734	1,734	1,734

Notes: Data are from the CPS ASEC for calendar years 1980–2013 and are collapsed to the state by year level (weighted). The first three columns are limited to those 18–30 (column 1), 18–24 (column 2), or 25–30 (column 3). Columns 4 and 5 include living arrangements for all nonelderly persons. All regressions include controls for state and year fixed effects. The results are weighted by the sum of the CPS weights in the cell. Percent impacts present the coefficient divided by the mean of the dependent variable. Panel A reports the coefficient on the unemployment rate and the percent impact, and panel B reports the coefficient for the unemployment rate for the Great Recession, the trough and recovery from the early 1980s recessions, and the rest of the period. Panel B also reports the *p*-value for testing whether the effect of the unemployment rate is statistically significantly different in the Great Recession from the effect during the early 1980s recessions. Standard errors are clustered by state and shown in parentheses.

***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.

probability that they are enrolled in school full or part time when the unemployment rate is higher.

We next report results for the broader nonelderly sample. Columns 4 and 5 present basic "count" measures of household composition, with the average number of persons (column 4) and families (column 5) per household. The results show that households increase in size only modestly in economic downturns—a 1 percentage point increase in unemployment rates leads to 0.6 percent increase in the number of persons and a statistically insignificant 0.45 percent increase in the number of families. Following Mykyta and Macartney (2012), we have also considered the number of "extra adults" in the household, defining extra adults to be all persons age 18 or older who are neither the household head nor the spouse of the head.[3] This is also only weakly cyclical (not shown).

Panel B explores whether the potentially mediating effects of living arrangements are different in the Great Recession (compared to the early 1980s recessions). Here the story is the lack of any striking difference across the two periods. While the effect of the unemployment rate on young adult living arrangements is larger in the Great Recession (for example a 1 percentage point increase in the unemployment rate leads to a 0.5 percent decline in living arrange-

[3] Mykyta and Macartney, in their census report, exclude the cohabitating partner in the count of extra adults. They are able do this because they examine only the most recent years in the CPS, when cohabitants are identified.

ments in the 1980s recession compared to a 1.33 percent decline in the Great Recession) the difference is not statistically significant for any of the age groups (columns 1–3 of panel B). Further, as in panel A, none of the estimates are individually statistically significant (although many are close to being significant at the 5 percent level). Interestingly, our findings are consistent with those of Rogers and Winkler (2014) who focus on housing market shocks, concluding young adults' living arrangements are primarily driven by individual characteristics. Furthermore, the tests for columns 4 and 5 show that there is no significant difference in the Great Recession compared to the early 1980s recessions in the cyclicality of the number of persons or families per household for the nonelderly. In fact the relationship between household size and the labor market was substantially stronger in the early 1980s recession.[4]

IV. Conclusion

Considerable media attention has focused on the plight of Millennials and on various features of household living arrangements as a buffer for the negative shocks of the Great Recession. We have explored the responsiveness of living arrangements—for young adults and for the broader nonelderly population—to the Great Recession using data spanning 1980–2013. We find at most a modest response of living arrangements to the business cycle, even for 18–24 year olds, and no evidence that things are different in the most recent Great Recession compared to the last severe downturns of the early 1980s.

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[4]The results for living arrangements using EPOP as an alternative measure of the state cycle are very similar to the results presented here using the unemployment rate.