

Identifying Doubled-Up Households using Survey Data

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Abstract

The U.S. Census Bureau has reported a significant increase in the number of doubled-up households following the 2007 economic recession, including a 2% growth in the proportion of young adults ages 24 to 35 living in their parents' homes between 2007 and 2009. These households are defined as those including at least one non-student adult who is not the householder or the householder's partner (DeNavas-Walt et al 2011). In 2011 18.3% of U.S. households were doubled up - an increase of 1.3% since the height of the housing market boom in 2007. These data have inspired many studies examining doubling up as a strategy for making ends meet during times of financial hardship. Analysts are often challenged to identify doubled-up households using household roster data, without the benefit of contextual information about life cycle events (marriage, new births, etc.) and despite the temporary nature of many doubled-up housing arrangements. Data limitations may confound efforts to create a measurement of doubling up that captures substitutions of individual household members and other complexities. In this paper we present findings from a small meta-analysis of techniques used to isolate doubled-up households with survey information. We describe our experiences working retroactively with longitudinal data from the Survey of Consumer Finances and Making Connections Survey and offer recommendations for best practices at both the data collection and analysis stage.

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Introduction

Reports in both the popular media and scholarly research have cited Census data showing an increase in ‘doubled up’ households following the 2007 economic recession. Researchers have also used other data sources to examine doubled-up households. Our primary substantive interest in families which include other adults is examining how other adults in the household may impact the well-being of children (du Toit et.al. 2011, du Toit and Haggerty 2011, du Toit et. al. 2012a, b, Bachtell, et. al. 2012, du Toit et. al. 2013a, b, c, Bachtell et. al. 2014a, b, c). This paper focuses on the methodology undertaken to determine how best to identify, evaluate and compare the phenomenon of doubled-up households across two datasets. In our past work using data from the *Making Connections* Survey, a longitudinal study of ten low-income neighborhoods, we found that about 64% (63% and 65% in waves 1-2 and 2-3, respectively) of households with children from the wave 1-2-3 panel moved between waves, and about half experienced a change in household composition (48% and 45% between waves 1-2 and 2-3, respectively) (Bachtell et al 2012, pgs. 107 and 109). Doubling up is not a new strategy for making ends meet among this group of low-income families. Is the rise in doubling up at the national level an example of how poor families may serve as a bellwether for the larger American population after the 2007 recession in their propensity to cohabit when faced with economic hardship? To investigate this substantive question, we first needed to find the prevailing measures used to identify and understand doubling up, evaluate the measures, and select one to apply to our own research.

Background

Why double up?

Economists use the terms “joint production advantages” (e.g. increased specialization, division of labor, and risk pooling) and “joint consumption advantages” (e.g. shared use of furniture, food, and other household goods) to describe the incentives encouraging individuals to double up. At the same time, doubling up may be viewed as a sign of distress or hardship, and more specifically, as a response to economic constraints which may involve disproportionate use of household resources.

Figure 1 depicts a family in the *Making Connections* sample which underwent a change in composition across the three points in time our study collected data.

(Figure 1) Example of Transition Into and Out of Doubled Up Household

Research Questions

Our research sought to answer three basic questions:

RQ1: What are the prevailing measures used to identify and understand doubling up?

RQ2: What are the means of evaluating measures of doubling up?

RQ3: How *should* we define 'doubling up'?

Methods

First we reviewed ten published studies which included the original analysis of doubling up (Figure 2). When reviewing the studies we considered the following:

- Sample characteristics
- The presence and consideration of non-parent adults
- The distinction between temporary couch dwellers and long-term residents
- Transitions to doubled-up arrangements
- Agency: Voluntary versus involuntary arrangements

While the methodology used in the studies we examined served well the idiosyncratic purpose of the focus of the individual research, the analysis in all but one of the studies either excluded household members we would want to include, excluded household types we would want to include, could not distinguish adults from children, or distinguish nuclear family adults from other household members. Our review of the literature helped us to determine that the definition used by Mykyta and Macartney (2012a, b) best suited our research because it enabled comparison to national figures and required data commonly collected in household rosters.

Our next step was to identify a means for evaluating doubled-up household to apply to our own research.

We examined both a statistical approach: the correlations between dependent variables, and a theoretical approach: considering who is involved and the associated implications of inclusion or exclusion.

Finally, after we selected a definition and a method of evaluating households, we used data from two sources to identify and compare the incidence of doubled-up households.

Source Datasets

We used two data sets to conduct our analysis: the *Making Connections* Survey (MC), funded by the Annie E. Casey Foundation, and the Survey of Consumer Finances (SCF), funded by the Board of Governors of the Federal Reserve System. Table 1 below highlights key information about each source.

Table 1. Sources	<i>Making Connections</i> Survey	Survey of Consumer Finances
Funding agency	Annie E. Casey Foundation	Board of Governors of the Federal Reserve System
Summary	Neighborhood-based study of families in ten low-income communities across U.S	Preeminent household finance survey in U.S.
Access	Restricted use within NORC's Data Enclave	Public use dataset
Sample type	AP and list of focal children	AP and list, with oversample of high-income Americans
Key advantages	Detailed household roster information and linked personal identifiers	Multiple techniques to provide detailed data on personal and business finances, including dollar probes, range cards, and multiple imputation of missing values

Analytical Sample

From MC, we include records from seven sites over two waves, collected between 2005-2007 ("Time 1"), and 2008-2011 ("Time 2"). From SCF, we use the public-use datasets created with the 2007-2009 panel surveys to represent Time 1 and Time 2, respectively. Our selection criteria for both samples required that 1) the same individual served as the respondent in both interviews, 2) the household size did not exceed 12 members, and 3) one or more children were reported to be living in the household at Time 1. Table 2 provides additional information.

Table 2. Analytical Sample	<i>Making Connections Survey</i>	Survey of Consumer Finances
Inclusion criteria	Households with children	Households with children
Source for Time 1	Wave 2, collected 2005-2007	2007 SCF
Source for Time 2	Wave 3, collected 2008-2011	2009 re-interviews with 2007 SCF Panel

Findings

We reviewed ten published studies with original analysis of doubling up and of these ten, nine measured observed behaviors. One study (Seltzer et al 2002) measured attitudes toward various hypothetical types of co-residence and was deemed out of scope for our analysis.

Several older studies (e.g. Honig and Filer 1993, Kobel and Rives 1993) rely on definitions of “nuclear” families. We find that measures dependent on the “nuclear” family are inconsistent with the current context of family diversity in the U.S. and our own recent work with longitudinal data which focuses on respondents’ co-residence of friends and extended family in their households.

More recently, authors using longitudinal data have held the respondent constant and identified instances of their imposition on others (Comey et al 2012, Fertig and Reingold 2008, Vacha and Marin 1993). For example, Fertig and Reingold (2008) used a sample of at-risk families from the Fragile Families and Child Wellbeing Study, and isolated those who were (a) living with family or friends or living in a house owned by family and (b) not paying rent. An underlying assumption is that families tend to double up for economic reasons. These approaches are best used when respondents have similar social and/or economic characteristics. They deemphasize the economic contribution of the respondent and may miss households in which the respondent pays rent and/or provides shelter to others.

The Census Bureau defines a doubled up, or “shared” household, as one which includes at least one person aged 18 or older who is (a) not enrolled in school and (b) neither the householder, the spouse, nor the cohabiting partner of the householder. An individual falling into either category is referred to as an “additional adult.” We prefer this approach because it can be applied to diverse samples and requires data commonly collected in household rosters. It also makes no assumptions about economic burden. However, there are some disadvantages to using the Census definition. The definition *does* categorically omit adult students from the pool of potential “additional adults” which requires the indication of school enrollment for every person in the household.

In any study, analysts operate within the constraints of their dataset. Particular challenges arise when working with public use datasets, and/or performing comparative analyses. We had to make several adjustments to replicate the Census Bureau’s methodology with public SCF data. One example is defining adults as individuals age 20 and older rather than 18

and older due to the age rounding performed by the FRB to prevent the identification of respondents. Another was the inclusion of students in the pool of potential “additional” adults as student status was only collected for the respondent and his/her spouse/partner and not for other household members so we could not omit them.

It is also important to note that contextual information (e.g. what each person brings to the household) is often not available.

Figure 2: Results of Meta-analysis

Study	Data Source	Measure	Remarks
Pilkauskas et al 2013	Sample of at-risk families from the Fragile Families and Child Well-being (FFCW) study	Living with a relative or adult non-relative at a given survey wave.	Comprehensive but is it possible to distinguish between adults and children
Mykyta and Macartney 2012a, b	U.S Population, based on data from the Annual Social and Economic Supplement of the Current Populations Survey (CPS ASEC)	A household which includes at least one “additional adult”. An additional adult is defined as a person aged 18 or older who is (a) not enrolled in school and (b) neither the householder, the spouse, nor the cohabiting partner of the householder. Referred to as a “shared” household.	Best option, as it enables comparison to national figures and requires data commonly collected in household rosters. Note that adult children are considered to be an “additional adult”.
Comey et al 2012	Sample of Moving to Opportunity (MTO) participants	Did not have a place of their own to stay and lived with their friends and family. Referred to as unstably housed.	Missed households that are stably doubled-up and those in which the respondent provides shelter to another/other adults in the respondent’s home.
Seltzer et al 2012	American adults from the Knowledge Networks on-line panel	Attitudes toward various types of co-residence	Not applicable for our purposes.
Fertig and Reingold 2008	Sample of at-risk families from the Fragile Families and Child Well-being (FFCW) study.	(a) Living with family or friends or living in home owned by family and (b) not paying rent.	See comments on Comey et al 2012. Also misses households in which the respondent pays rent.

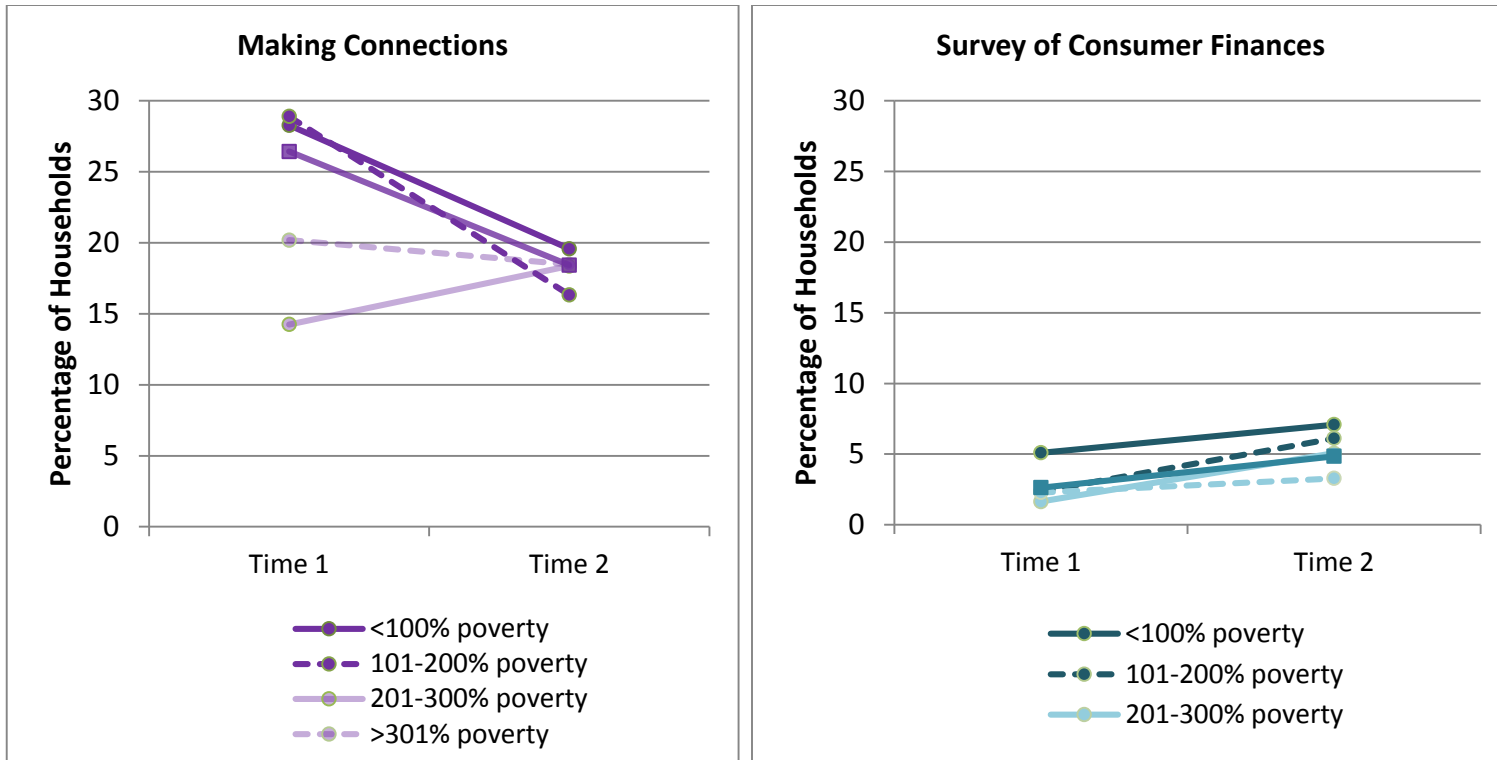
Weimer 2012	Nationally representative sample of the non-institutionalized population of the U.S. from the Survey of Income and Program Participation (SIPP)	Household containing adult children (25+), three generation households, and households with cohabiting households.	Allows for comparison of rates of doubling-up with the American Communities Survey but may miss non-parent adults other than grandparents and cohabiting partners (eg. aunts, uncles)
Honig and Filler 1993	Homeless population in cross section of metropolitan areas in 1984, based on estimates from the Department of Housing and Urban Development (HUD)	Households containing one or more nuclear families. A nuclear family is defined as parents and their children related by blood or adoption. (see Stegman 1988)	Misses children living with their grandparents without legal separation from their parents.
Kobel and Rives 1993	Families who receive Aid to Families with Dependent Children (AFDC)	In housing that is shared by adult relatives of the AFDC mother (not part of the nuclear family) or non-relatives	May be problematic in households in which the mother of the child/children is not present. "Nuclear" distinction may also be problematic.
Vacha and Marin 1993	Clients of the Neighborhood Centers in Spokane, Washington (mostly low-income households applying for energy assistance)	A subset of homeless respondents who reported living with a friend or relative who could not afford a place of their own	Useful for building a comprehensive understanding housing problems, but misses those who double up for non-economic reasons
Mutchler and Krivo 1989	Adult population in U.S. metropolitan areas for 1970 and 1980, based on Census of Population and Housing	Adults living with relatives in households in which they are not members of the nuclear family or who are the adult children of the head. Referred to as "complex" living arrangements.	Misses non-related adults who are not part of the nuclear family.

Substantive application

We tested the application of several doubling up measures using the MC and SCF data. Capturing transitions into doubled up households proved difficult when comparing two different datasets, as shown in Figure 3. For MC, we compared personal identifiers across waves and identified new adults at Time 1 and Time 2. For SCF, the values come directly from a question asking if each adult on the household roster “usually” lived there. These methodological variations may account for some of the stark difference in the rates observed across datasets, with MC families appearing to be more likely than SCF families to have gained adults by a factor of 10 and 4 at Times 1 and 2, respectively.

(Figure 3) Capturing Transition into Doubled Up Household Proves Difficult for Comparative Study

The 'newly doubled-up': Presence of one or more adult(s) not previously in the HH among families with children by poverty level (at Time 1), weighted

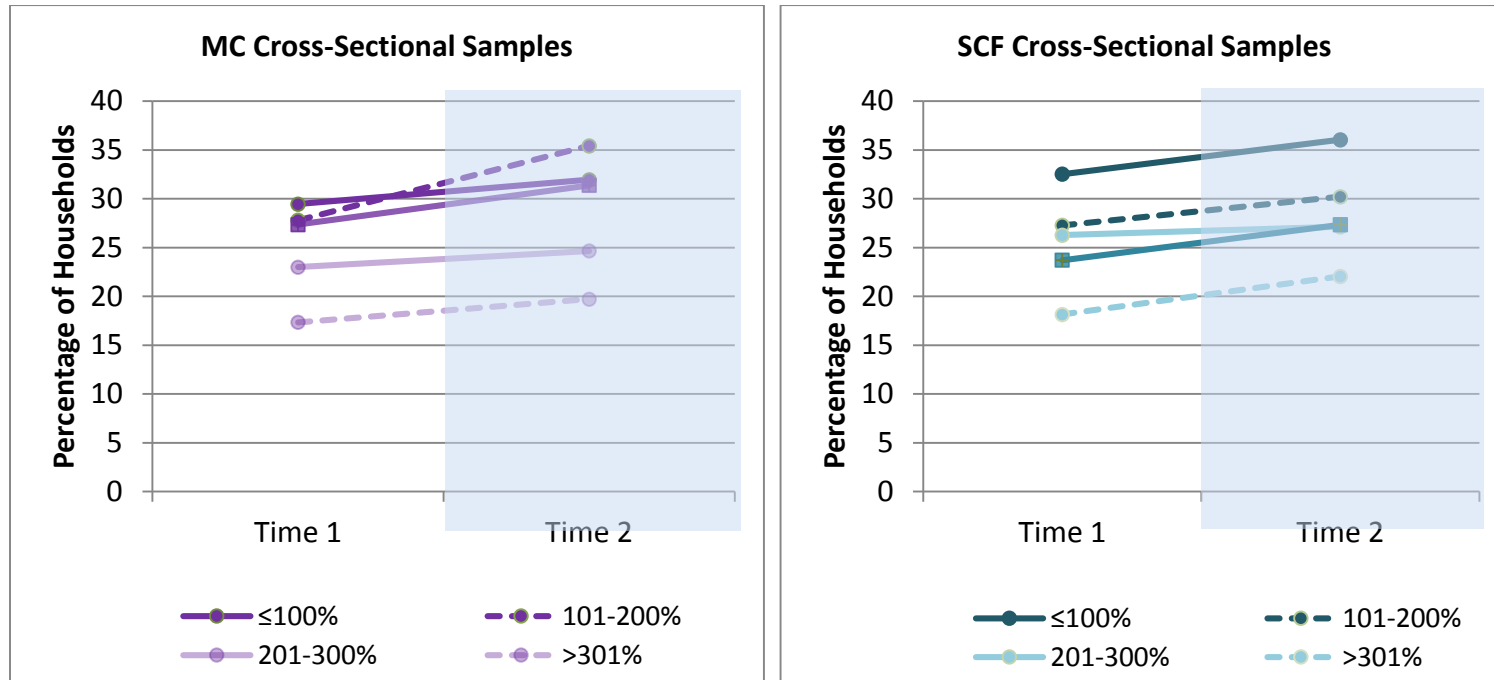


Notes:

- In the MC data, this was calculated by comparing the personal identifiers across waves and identifying new adults at waves 2 (in the Time 1 row) and at wave 3 (in the Time 2 row) after ruling out "natural births" of infants and teenage and young adult children moving out.
- In the SCF data, the values are derived directly from a question asking the respondent if each adult on the household roster "usually" lived there during the 2007 and 2009 interviews. These methodological differences may account for some of the difference in the rates observed in the two datasets (with MC families appearing to be more likely than SCF families to have gained adults by a factor of 10 and 4 at Times 1 and 2, respectively).
- Only households with children at T1 are included from both datasets.
- The MC income groups are based on the total household income reported in the wave 2 interview (2005-2007). The SCF income groups are based on the total household income reported in the 2007 interview.

Figure 4 displays our attempt to replicate the Census Bureau's methodology using the MC and SCF data. Their approach requires only cross-sectional data, including the age of each household member, his/her relationship to the householder and an indication of school enrollment for each person. Of the studies we reviewed, we contend that the Census definition of shared households presents the best option for identifying and examining doubled-up families.

(Figure 4) Replicating the Census Method: A better approach
Percentage of Shared Households among Families with Children, Weighted



Notes:

- a. A 'shared household' is defined as including one or more adults (age 20 or older) who is not the respondent nor the spouse or partner of the respondent. This follows the approach used by Mykyta and Macartney (2011) and others working with data from the Current Population Survey data, with two exceptions:
1. 'Adults' are typically defined as individuals age 18 or older; however, we consider those age 20 or older due to the rounding of ages performed as part of the FRB's disclosure adjustments, which collapsed teenagers age 14-19 into one category. For more detail, see <http://www.federalreserve.gov/econresdata/scf/files/Disclosure3.pdf>.
 2. Authors have sometimes isolated adult students (e.g. Mykyta and Macartney June 2012); however, in the SCF panel data, school enrollment is only captured for the respondent and his/her spouse/partner. We are thus unable to identify 'other' adults who are in school.
- Due to these differences in measurement, we expect that the rate of doubling up among households with children is slightly lower than presented here for both samples. However, this should not impact the rate change observed between Times 1 and 2, as they employ the same definition of doubling up.

Discussion

Several older studies of doubling up (e.g. Honig and Filer 1993, Kobel and Rives 1993) rely on definitions of “nuclear” families. These may be problematic in the current context of increasing family diversity in the U.S.

More recently, authors using longitudinal data have held the respondent constant and identified instances of their imposition on others (Comey et al 2012, Fertig and Reingold 2008, Vacha and Marin 1993). For example, Fertig and Reingold (2008) used a sample of at-risk families from the Fragile Families and Child Wellbeing Study, and isolated those who were (a) living with family or friends or living in a house owned by family and (b) not paying rent. An underlying assumption is that families tend to double up for economic reasons. These approaches are best used when respondents have similar social and/or economic characteristics. They deemphasize the economic contribution of the respondent and may miss households in which the respondent pays rent and/or provides shelter to others.

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Limitations

It is important to note the possible limitations of the data we used for our analysis and our points of comparison. In the MC sample, the respondent is a primary caretaker of a selected focal child. In the SCF, the respondent is the financial head of the household. Secondly, the MC sites included in our analysis are not representative of poor urban communities nationwide. Third, Families in which the focal child chosen at Time 1 aged-out (turned 18 years old) *and* moved to a new geographic location were not re-interviewed at Time 2 for the MC panel. Finally, in both datasets, there may be unmeasured differences due to sample attrition.

Conclusions

We determined that the best approach was the Census definition of ‘shared’ households.

Longitudinal and retrospective cross-sectional data add detail and facilitate in-depth analysis, but cross-sectional relationship data suffice for identifying and examining doubled up households. However, it is important to understand how survey respondents were selected and who they represent in the household. Whether the respondent is the head of the household, eldest member, primary caretaker of a focal child, or someone else has implications for the identification of doubled up households.

Bibliography

Bachtell, Kate, du Toit, Nola and Haggerty, Catherine. October 2014 (forthcoming). The Presence of Non-Parent Adults and Economic Realities for Children in Low-income Households. Russell Sage Conference on Severe Deprivation in America. New York, NY.

Bachtell, Kate and Haggerty, Catherine, and Kennickell, Arthur. August 2014. Doubling Up Among Low-Income Families Before & During the Recession. National Association for Welfare Research and Statistics Workshop. Providence, RI.

Bachtell, Kate and Haggerty, Catherine. May 2014. Identifying Doubled-Up Households using Survey Data. American Association for Public Opinion Research Conference. Anaheim, CA.

Bachtell, Kate, Haggerty, Catherine and English, Ned. October 2012. Understanding Instability: Examining Residential Mobility AND Household Change. EUCCONET and Society for Longitudinal and Life Course Studies. Jean Monnet FIAP, Paris, France.

Comey, Jennifer, Susan J. Popkin, Kaitlin Franks. 2012. MTO: A Successful Housing Intervention. *Cityscape*. 14(2): 87-108.

DeNavas-Walt, Carmen, Proctor, Bernadette and Smith, Jessica. 2011. Income, Poverty, and Health Insurance Coverage in the United States: 2010. U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau.

du Toit, Nola; Bachtell, Kate and Catherine Haggerty. 2013. Coming and Going: Effects of Change in Household Composition on the Economic Wellbeing of Families with Children. In C. Camp-Yeakey, V. L. Sanders-Thompson, and A. Wells (Eds.) *Urban Ills: Post Recession Complexities of Urban Living in the Twenty First Century, in Global Contexts*. Maryland: Lexington Books.

du Toit, Nola; Brown, Jennifer Catherine Haggerty. April 2013. Who Really Lives here and does it Matter? Household Composition Trajectories for Children Living with Other Adults in the Home. Annual Meeting of the Population Association of America. New Orleans, LA.

du Toit, Nola; Bachtell, Kate and Haggerty, Catherine. April 2013. Where Poor Children Live: Household Structure and Change in Composition through the Eyes of Children. Urban Affairs Association Conference, San Francisco, CA.

du Toit, Nola, Bachtell, Kate and Haggerty, Catherine. April 2012. Illuminating Household Composition in Low Income Neighborhoods: Care Giving and Educational Involvement in Two Parent, Single Parent, Extended, and Non-Parent Families. Council on Contemporary Families Conference. Chicago, IL.

du Toit, Nola, Bachtell, Kate and Haggerty, Catherine. March 2012. Caregiving and Educational Involvement in Low Income Neighborhoods: An Examination of Complex Household Structures Including Single Parents, Extended Family Households, and Non-Parent Families. Urban Affairs Association Conference, Pittsburg, PA.

du Toit, Nola and Haggerty, Catherine. May 2011. Instability Overlooked: Evidence of the Importance of Household Roster Data Collection and Matching Over Time. American Association for Public Opinion Research Conference. Phoenix, AZ.

du Toit, Nola, Bachtell, Katherine and Haggerty, Catherine, March 2011. Coming and Going: Effects of Change in Household Composition on the Well-being of Families and Children. Urban Affairs Association Conference, New Orleans, LA.

- Fertig, Angela and David A. Reingold. 2008. Homelessness among At-Risk Families with Children in Twenty American Cities. *Social Service Review* 82 (3): pp. 485-510.
- Honig, Margorie and Randall K. Filer. 1993. "Causes of Intercity Variation in Homelessness. *The American Economic Review* 83(1): pp. 248-255.
- Mutchler, Jan E. and Lauren J. Krivo. 1989. "Availability and Affordability: Household Adaptation to a Housing Squeeze." *Social Forces* 68: pp. 241-61.
- Mykyta, L. and Macartney, S. 2011. The Effects of Recession on Household Composition: "Doubling Up" and Economic Well-Being. US Census Bureau. SEHSD Working Paper (2011-4).
- Pilkauskas, Natasha; Currie, Janet and Irwin Garfinkel. 2012. The Great Recession, Public Transfers and Material Hardship. *Social Service Review* 3: pp. 1-28.
- Seltzer, Judith A.; Lau, Charles and Bianchi, Suzanne. 2012 Doubling up when times are tough: A study of obligations to share a home in response to economic hardship. *Social Science Research* 41: pp 1307-1319.
- Vacha, Edward and Marin, Marguerite. 1993. Doubling Up: Low income Households Sheltering the Hidden Homeless. *Journal of Sociology & Social Welfare* 20: pp. 25-41.
- Weimers, Emily. April 2011. The Effect of Unemployment on Household Composition and Doubling Up. National Poverty Center Working Paper Series #11 - 12. Available online at http://www.npc.umich.edu/publications/working_papers/.