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Low-Income Mothers' Private Safety Nets and Children's Socioemotional Well-Being

*Using longitudinal data from the Fragile Families and Child Well-being Study (*N = *1,162) and the National Evaluation of Welfare-to-Work Strategies (*N = *1,308), we estimate associations between material and instrumental support available to low-income mothers and young children's socioemotional well-being. In multivariate OLS models, we find mothers' available support is negatively associated with children's behavior problems and positively associated with prosocial behavior in both data sets; associations between available support and children's internalizing and prosocial behaviors attenuate but remain robust in residualized change models. Overall, results support the hypothesis that the availability of a private safety net is positively associated with children's socioemotional adjustment.*

Since the passage of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), which replaced federal entitlement to cash assistance with time-limited, work-based assistance under Temporary Assistance for Needy Families (TANF), welfare recipients, and low-income parents generally, have had to support their families increasingly through employment and other nonwelfare sources. Public concern has been raised over families' economic and socioemotional well-being in the wake of these changes (Duncan & Chase-Lansdale, 2001), particularly because research suggests it is extremely difficult to support a family on TANF benefits or earnings from low-wage work alone (Edin & Lein, 1997). As low-income parents struggle to raise children in this policy context, they may turn more often to private sources of material and instrumental support to ease their economic strain and the emotional stress that so often accompanies it.

Much qualitative sociological research has described the essential role material and instrumental support from family and friends can play in low income parents' economic survival (Edin & Lein, 1997; Massey & Denton, 1993; Wilson, 1996). Recently, researchers have begun to quantify these links using newly available, large-scale data sets of low-income families or longitudinal studies of former welfare recipients (Harknett, 2006; Henly, Danziger, & Offer, 2005; Turney & Harknett, 2007). Although these studies document the way material and instrumental support can improve low-income parents' economic circumstances, they do not examine the implications of that support for children's well-being. Developmental psychological research explores this link by examining informal support as a mediator between economic hardship and child well-being, but many such studies rely on small, community-based, or cross-sectional samples or a combination of these and do not estimate the

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direct link between social support and children's well-being with robust controls for endogenous maternal and child characteristics (Burchinal, Follmer, & Bryant, 1996; Jackson, Brooks-Gunn, Huang, & Glassman, 2000; McLoyd, Jayaratne, Ceballo, & Borquez, 1994). We aim to bridge these literatures by estimating the association between material and instrumental support and children's socioemotional adjustment in two recent large-scale longitudinal studies of low-income mothers. In doing so, we aim to highlight an important protective factor for children growing up in low-income families.

Defining Private Safety Nets

In the sociology and developmental psychology literatures, "social support" is a broad construct that includes cash, in-kind, and instrumental assistance along with emotional support (Sarason, Sarason, & Pierce, 1990) and the quality and quantity of interpersonal relationships (Pattison, DeFrancisco, Wood, Frazier, & Crowder, 1975). We focus here on material support, defined as cash or in-kind financial assistance, and instrumental support, defined as help in caregiving, transportation, and other daily tasks. By tangibly alleviating the economic strain low-income families experience, cash or in-kind support should have the most direct impact on the material resources available to children. By meaningfully reducing daily life strains, material and instrumental support should enhance mothers' emotional resources for parenting. We borrow the term "private safety net" from Edin and Lein (1997) and subsequently Harknett (2006) to describe this construct because the term emphasizes not only the type of support we examine but also the protective role we believe it could play in low-income families' lives.

Our measures of private safety nets tap the *availability* of support to mothers, rather than its actual *receipt*. As in Harknett (2006), we conceive of the availability of support as a form of "insurance" against the risks posed by life at the economic margins. By defining private safety nets as the ability to draw upon support when needed, one better avoids confounding the availability of support—a positive attribute—with the immediate need for support—an indicator of risk (Harknett; Henly et al., 2005; Sarason et al., 1990). Additionally, literature suggests that heavy reliance on private sources of support can strain interpersonal relationships and in so doing may induce as much stress as it alleviates (Antonucci & Jackson, 1990; Howard, 2006). Perhaps for this reason, some studies have found that it is only the availability of support, and not its actual receipt, that predicts better economic and emotional outcomes among low-income mothers (Hashima & Amato, 1994; Henly et al.; Howard, 2006; Thoits, 1995; Wetherington & Kessler, 1986).

By defining safety nets in terms of availability, our measures necessarily reflect mothers' perceptions of that availability. Insofar as perceiving that support is available enhances mothers' emotional well-being, which in turn could benefit child development, these perceptions may partially, and legitimately, drive positive associations between safety nets and child well-being. It also may be true, however, that perceptions are driven by maternal characteristics, such as self-esteem and internal locus of control, which are independently linked to children's socioemotional well-being (Downey & Coyne, 1990), and could thus produce spurious associations between private safety nets and child well-being. To establish that mothers who believe they have strong safety nets actually have greater access to resources than mothers with weak safety nets, we compare our measure of perceived safety net availability to mothers' actual receipt of financial assistance from informal sources. This point will be elaborated upon in the Method section.

Private Safety Nets and Maternal Well-Being

Studies examining low-income mothers' actual and potential receipt of material and instrumental support have documented links between private safety nets and economic well-being. Cash assistance from friends and family can help mothers pay for essentials, such as food, rent, and utilities, and nonessentials, such as new clothes for children and meals at inexpensive restaurants (Edin & Lein, 1997), which can relieve real and perceived economic strain (Edin & Lein; Henly et al., 2005; Howard, 2006). Material support that is delivered in kind, such as diapers, food, and toys, can serve a similar function (Edin & Lein). Research also documents the importance of instrumental support, such as emergency (or regular) help with child care and transportation as key factors in low income mothers' ability to find or keep a job (Henly, 2002; Knox, London, & Scott, 2003). Although debate exists over whether informal support helps low-income mothers improve their

economic well-being (Harknett, 2006; Henly et al.), qualitative and quantitative research indicate that such support is crucial to their economic survival.

It is also possible that activating, or simply having the potential to activate, a private safety net in times of need can relieve emotional stress associated with chronic economic strains and periodic financial crises (Thoits, 1995). Indeed, receiving material and instrumental support from family and friends has been associated with lower psychological distress among poor and low-income parents (Jackson et al., 2000; Simons, Lorenz, Wu, & Conger, 1993). Qualitative research also describes how merely believing relatives or friends would help if necessary can make mothers feel less hopeless, isolated, and anxious and instill a sense of belonging (Henly, 2002; House, Umberson, & Landis, 1988; Howard, 2006). Thus, whether informal support is real or perceived, it is clear that the availability of a strong private safety net can bolster mothers' economic and emotional well-being in the face of financial hardship.

Private Safety Nets and Child Well-Being

A large body of research links early childhood poverty and financial hardship with unfavorable socioemotional outcomes in children (Duncan & Brooks-Gunn, 1997). Economic theory suggests that low income negatively impacts children's development because it prevents parents from purchasing essential and enriching materials, experiences, and services (Haveman & Wolfe, 1994). A complementary view exemplified by the family stress model emphasizes how financial pressure or deprivation undermines parents' socioemotional resources and disrupts parent-child interactions and child development as a result (Conger & Conger, 2000; Dodge, Pettit, & Bates, 1994). Private safety nets could facilitate low-income children's socioemotional development through both theorized pathways. By reducing their mothers' experience of financial hardship, private safety nets allow mothers to invest more and steadier resources in children, thereby enhancing their socioemotional development. As well, by bolstering mothers' emotional well-being, private safety nets protect against disrupted parent-child interactions and, thus, negative socioemotional outcomes.

Existing research provides theoretical and empirical support for this hypothesis. Studies of low-income parents find that those with strong material and instrumental support interact in more supportive and less punitive ways with their children (Hashima & Amato, 1994; Leinonen, Solantaus, & Punamaki, 2003). Studies in developmental psychology find that low-income mothers' perceived instrumental support is associated with children's behavioral adjustment indirectly through improved maternal emotional well-being and parenting quality. These studies, however, either do not find a direct link between social support and child outcomes (Burchinal et al., 1996; Jackson et al., 2000) or do not test for one (McLoyd et al., 1994). Moreover, they use small, community-based samples and do not employ robust methods to account for potentially confounding maternal and child characteristics. Nonetheless, they provide support for our hypothesis and illuminate mechanisms through which the association between private safety nets and child socioemotional well-being may operate.

Accounting for Endogenous and Simultaneous Associations

In addressing this research question, it is important to consider that observed and unobserved maternal characteristics may bias any association between private safety nets and children's well-being. Some mothers may have interpersonal or economic strengths that make it easier for them to generate strong private safety nets. Literature on the importance of reciprocity in social networks supports this view, for it finds that in order to receive instrumental or material support, one often needs to be able to offer some kind of help in return (Antonucci & Jackson, 1990). The individual strengths mothers use to build strong networks in turn may be associated with more optimal child behavior through genetic endowment, parenting quality, or other aspects of the home environment.

We used two approaches to minimize the threat of endogenous maternal characteristics in our analyses. First, we included a robust battery of covariates in models to control for observed maternal background, socioeconomic, and personal characteristics, including her parents' level of education, whether she lived with both parents at age 15, her cognitive ability, and her socioemotional well-being. We also controlled for household structure to distinguish the influence of having a private safety net from simply living

with ready sources of material and instrumental support. We also included indicators of mothers' use of public safety nets such as TANF, the Women, Infants, and Children Program (WIC), and food stamps because these supports could reduce the need for informal support or indicate greater economic disadvantage. Second, our regression models controlled for earlier measures of each dependent variable to account for unobserved time-invariant maternal and child characteristics (this approach is sometimes called a "residualized change model"; National Institute for Child Health and Human Development Early Child Care Research Network & Duncan, 2003). Although neither of these approaches can fully account for potential endogeneity in the association between private safety nets and child behavior, they offered more conservative estimations than did previous research.

In addition to endogeneity, simultaneity could bias our estimation of the association between private safety nets and child outcomes, for just as private safety nets could influence children, child well-being could influence mothers' access to support. For instance, if a child behaves very aggressively, it may be difficult for the mother to recruit instrumental support, particularly in the form of emergency child care, because others will not want to interact with the child. Although it is impossible to rule out this and other scenarios, in additional analyses we strive to ensure that child behavior does not wholly drive the hypothesized association by predicting child behavioral outcomes from mothers' safety net availability at the time of the child's birth, presumably before the child's behavior could have a biasing effect.

The Present Study

The present study tests the hypothesis that the availability of private safety nets to low-income mothers is positively associated with their children's socioemotional adjustment. We draw from two recent, longitudinal studies, the Fragile Families and Child Well-being Study (FFCWS) and the National Evaluation of Welfare-to-Work Strategies (NEWWS). Both samples consist of low-income mothers, the former because we restricted the full FFCWS sample to mothers who were unwed and living at 200% of poverty or below at the child's birth and the latter because as an experimental evaluation of welfare programs it included only welfare recipients at baseline. We restrict the FFCWS sample to unwed births to render our analytic samples more comparable demographically, for all of the NEWWS participants were single mothers at random assignment. Thus, both data sets provide large samples of economically disadvantaged families who would theoretically need and benefit from having a private safety net, with the NEWWS sample relevant to mothers leaving the welfare rolls and the FFCWS relevant to a broader population of low-income mothers and their children.

METHOD

Data

FFCWS. The FFCWS is a longitudinal birth cohort that began in 1998 and has followed children and their families for 5 years. To choose participating cities, the designers used a stratified random sample of all U.S. cities of 200,000 people or more. Unwed families were oversampled by design, creating an ideal data set for examining unwed mothers and children over time (see Reichman, Teitler, Garfinkel, & McLanahan, 2001, for a detailed review of the study design). Mothers were initially interviewed in hospitals at the focal child's birth and again when children were 1, 3, and 5 years old. Information on child behavioral outcomes was obtained from mothers during a separate in-home interview at 3 and 5 years for which response rates were lower than for the main telephone interview.

Among the 2,018 mothers who were unwed and living below 200% of the federal poverty line at the focal child's birth (in the 18 nonpilot cities), 1,481 (73%) were interviewed in home about child behavior at the 3-year follow up. Of those families, 1,203 (60%) were also interviewed in home at the 5-year follow-up, the main criterion for inclusion in our study. Our final sample was further restricted to those with complete data on all covariates at 1 and 3 years ($N = 1{,}162$; 58%). Mothers in our analytic sample had education levels and ages similar to the 856 mothers without full data or who did not participate in the longitudinal follow-ups. They were, however, more likely to be Black (62% vs. 48%) and less likely to be Hispanic (24% vs. 30%); they were also more likely to receive welfare between baseline and 3 years (36% vs. 29%) and more likely to have been consistently unemployed (29% vs. 21%), suggesting mothers in our analytic sample were

somewhat more disadvantaged than those not in our sample.

NEWWS. The NEWWS was a random assignment intervention designed to assess various welfare-to-work strategies operating under the Job Opportunities and Basic Skills Training (JOBS) program. Between 1991 and 1994, the NEWWS enrolled single-parent cash welfare recipients in 11 programs at seven sites nationwide (see Hamilton et al., 2001, for a detailed review of the study design). In three sites, mothers with children between the ages of 3 and 5 years were selected at random for inclusion in the Child Outcomes Study (COS), and one age-eligible child per household was randomly selected as the "focal child." Sample members in the COS completed in-person interviews 2 and 5 years after random assignment (RA). Of the 3,018 families who participated in the 2-year COS follow-up, 1,982 (66%) families had full data on all covariates at RA and 2 years; of those families, 1,308 (43%) also participated in the COS 5-year follow-up, when focal children were between 8 and 10 years old. Overall, analytic sample members were more advantaged than COS families with missing data; a higher proportion of mothers had a high school degree at RA, and they had higher employment rates between RA and 2 years; sample mothers were also more likely to be White (vs. non-White) than those excluded.

Measures

Private safety nets

FFCWS. The availability of a private safety net was assessed at the 1-, 3-, and 5-year follow-ups via six dichotomous items asking mothers whether they could count on someone to (a) lend them $200, (b) lend them $1,000, (c) provide them with a place to live, (d) help with emergency child care, (e) cosign a bank loan for $1,000, and (f) cosign a bank loan for $5,000. Because four of the six items asked about financial support, the scale taps the availability of material more than instrumental support. Responses to each question were summed (1 = *yes*; 0 = *no*) to create a scale ranging from 0 to 6 ($\alpha = .81$ at 1 and 3 years; $\alpha = .82$ at 5 years). Although scores were normally distributed (3 years: $M = 3.51$; $SD = 1.81$; skew $= -0.28$; kurtosis $= 2.11$), we trichotomized the scale into *High* (scores of 5 or 6; $n = 392$; 34%), *Medium* (scores of 2 – 4; $n = 583$; 50%), and *Low* (scores of 0 – 1; $n = 187$; 16%) because we deemed categorization more appropriate for what is essentially an interval scale. In our main OLS models, dummy variables for Medium and Low at 3 years were entered with High as the reference category. One- and 5-year safety net levels were used in additional analyses.

At the time of the focal child's birth, mothers were asked only three of the six items. We dichotomized this scale into *High* (score of 3; 82%) and *Low* (scores of 0 – 2; 18%). A dummy variable for Low was entered in models predicting age three outcomes, with High as the reference, to rule out the influence of simultaneity in main models. Although far more mothers reported having High safety nets on this abridged scale than on the full scale, the reliability was comparable ($\alpha = .77$).

To validate our measure of private safety nets, we compared it to mothers' reports of financial support actually received from informal sources at the 3-year follow-up. We found that nearly 40% of mothers who reported high safety net availability had received money from friends or family in the past year compared to only 15% of mothers in the low safety net availability group. Mothers in the high safety net availability group also reported more sources of support and received far more money than mothers in the low safety net availability group ($511 vs. $149). Mothers in the high and medium safety net availability groups received money in similar proportions and from similar numbers of people, but mothers in the medium group were lent or given far less money than those in the high group ($511 vs. $253). Although cash loans or gifts likely represent only a small portion of the help mothers received, these indicators suggest that mothers' perceptions do indeed reflect real advantages.

NEWWS. In the 2-year COS follow-up, mothers were asked to assess the following five statements on a 10-point scale, with 0 representing *not true* and 10 representing *completely true*: "If I need to buy a pair of shoes for my child but I am short of cash, there is someone who would lend me the money"; "When I have troubles or need help, I have someone I can really talk to"; "If I need to do an errand, I can easily find a friend or relative living nearby to watch my child"; "If I needed a ride to get my child to the doctor, there are friends I could call

to help me"; and "When my child is sick friends or family will call or come by to check on how things are going." Answers to each of the questions were summed (range = 0 – 50; $\alpha = .77$). Because four of the five questions asked about nonfinancial support, unlike the FFCWS measure, this measure more strongly tapped the availability of instrumental rather than material support. No measure of instrumental support actually received was available in the NEWWS to validate this measure.

The linear measure was highly left-skewed, suggesting it should not be entered into models in its linear form (the average value in the analytic sample was 34, the median value was 37; fully 10% of observations took on the maximum value of 50). Previous studies investigating social support in the NEWWS address this issue by dividing the sample into quartiles of private safety net availability (see Harknett, 2006). We followed this approach to conform to existing literature and to create dosage-based groupings analogous to those we examined in the FFCWS. In regression analyses, we entered quartile dummies with the top quartile as the reference category, similar to the Medium and Low dummies entered in FFCWS analyses. It should be noted, however, that results for both data sets were strikingly similar when the linear (continuous) and categorical versions of safety net measures were used.

Fathers' support. Neither study asked mothers to exclude help from children's biological fathers in the responses to the perceived support questions; thus our private safety net measures likely account for potential support from fathers "in times of need." To distinguish the influence of this support from regular child support and visitation, however, we initially controlled for whether fathers paid any formal or informal child support and whether fathers visited the child (in both FFCWS and NEWWS) in the past year. These variables were not significant across models and did not influence results, so they were dropped in final models.

Child behavioral outcomes. In both the FFCWS and the NEWWS we examined internalizing and externalizing child behavior problems as well as different measures of positive behaviors so that associations between private safety nets and children's socioemotional development could be assessed across behavioral domains. Each measure was based on maternal report, and complementary measures were available at two time points in both data sets.

FFCWS. The FFCWS used 26 items from the Age 2 – 3 Child Behavior Checklist (CBCL; Achenbach, 1992) at age 3 and 34 items from the 4 – 18 CBCL (Achenbach, 1991) at age 5 that comprised the Anxious/Depressed (hereafter, internalizing behaviors) and Aggressive behavior (hereafter, externalizing behaviors) subscales. To compute scores on each subscale, mothers' responses to each item (0 = *not true of my child*; 1 = *sometimes/somewhat true*; 2 = *very/often true*) were summed (internalizing: $\alpha = .69$ at 3 years, .66 at 5 years; externalizing: $\alpha = .86$ at 3 years, .85 at 5 years). The internalizing subscale ranged from 0 to 19 and externalizing from 0 to 36, with higher scores representing more behavior problems such as sadness and nervousness (internalizing) and fighting and bullying (externalizing). Scores on each subscale were correlated between time points, although externalizing behaviors were more strongly correlated over time than internalizing (internalizing: $r = .36$, $p < .001$; externalizing: $r = .56$, $p < .001$).

Children's positive behaviors were assessed with nine items from the Express subscale of the Adaptive Social Behavior Inventory (ASBI) at both 3 and 5 years (Hogan, Scott, & Bauer, 1992), a subscale measuring children's social competence and prosocial skills with adults and peers (hereafter, Social Competence). Mothers' responses were summed, ranging from 0 to 18. The alpha coefficient was high at both times ($\alpha = .77$ at 5 years; $\alpha = .73$ at 3 years) and comparable to the full subscale reliability reported for other samples of socioeconomically disadvantaged preschoolers (Greenfield, Wasserstein, Gold, & Jorden, 1997). Scores were significantly positively correlated between time points ($r = .35$; $p < .001$).

NEWWS. In the NEWWS, internalizing and externalizing behavior problems were assessed at the 5-year follow-up with items from the Social Skills Rating System (SSRS; Gresham & Elliot, 1990). The internalizing subscale ranged between 0 and 24 ($\alpha = .66$), and the externalizing subscale ranged from 0 to 18 ($\alpha = .78$), with higher values on both scales reflecting more perceived problems. At 2-year follow-up, internalizing behavior problems were assessed using the 5-item Depressed/Withdrawn Behavior Problems

Index (BPI) scale (Zaslow, McGroder, & Moore, 2000). Externalizing behavior was measured in the 2-year follow-up using items from the Antisocial Subscale of the BPI. Both 2-year measures reflected the mean of item responses on a scale identical to the CBCL's (range = 0 to 2), rather than total scores, because the raw scores were not publicly available. Scores on both subscales were correlated between time points, but as in the FFCWS, externalizing behaviors were more strongly correlated than internalizing behaviors (internalizing: $r = .22$, $p < .001$; externalizing: $r = .34$ $p < .001$).

Positive behaviors at the 5-year follow-up were assessed with three measures from the Cooperation, Positive Assertion, and Responsibility subscales of the SSRS; these scales assess aspects of social competence similar to those captured in the ABSI Express scale. They ranged from 1 to 39, 0 to 30, and 0 to 27, respectively, and had high internal consistencies ($\alpha = .85$; $\alpha = .83$; $\alpha = .80$). Although the scales were intercorrelated (rs = .64 – .68), correlations were not so high as to obviate their separation. At the 2-year follow-up, seven items from the Social Competence subscale of the Positive Child Behavior Scale (Polit, 1996) were used to assess children's prosocial skills. Although items differed from those in the SSRS, the scale was positively correlated with all 5-year positive measures (rs = .33, .38, .32), suggesting it tapped similar constructs. As this was the only positive behavior measure gathered at 2 years, it was used as the earlier measure in models predicting all 5-year positive behavioral outcomes.

Covariates. We included a wide range of controls in all models, conceptualized in four categories: maternal characteristics, household structure, public safety net use, and child characteristics. All capture variables that could confound the association between private safety nets and children's behavior in the ways described previously. In the FFCWS and NEWWS, we chose the most similar measures within each category so that specifications would be maximally analogous across data sets. In addition to the covariates described below, we controlled for study site (with 17 indicators for city in FFCWS and 2 site indicators in NEWWS) in all analyses.

FFCWS. The maternal characteristics we controlled for included two measures of mothers' family background: her parents' highest level of education (less than high school/GED with high school or higher as reference) and whether she lived with both parents at age 15. We included five measures of socioeconomic characteristics: maternal race (coded as three indicators for Black, Hispanic, or other race/ethnicity with White as the reference), education level at baseline (coded identically to parents' education), age at focal child's birth, household income-poverty ratio at 1 and 3 years (averaged), and employment status at 1 and 3 years (unemployed at both times, with employed at either or both times as the reference). Key indicators of mothers' personal characteristics, measured at baseline, were maternal health (mother is in fair/poor health with excellent/very good/good as the reference), whether mother smoked during pregnancy, whether she used alcohol/drugs during pregnancy, and whether she received prenatal care in her first trimester. We also entered her score on the Peabody Picture Vocabulary Test-III (PPVT; Dunn & Dunn, 1997), a receptive language assessment administered at 3 years, as an indicator of cognitive ability. In robustness checks, we added an indicator variable for whether mother had experienced a major depressive episode in the year after the focal child's birth (using criteria from the Composite International Diagnostic Interview – Short Form; Kessler, Andrews, Mroczek, Ustun, & Wittchen, 1998).

We controlled for maternal household structure with three indicators: lives with parent(s), lives with child's biological father and parent(s), or lives alone, with lives with child's father only as the reference. We also included number of children in the household (two indicator variables for two children or three or more children, with focal child only as the reference). All were measured at 3 years.

We controlled for several indicators of mothers' public safety net use: whether she ever received welfare/TANF, assistance from the WIC program, food stamps, or a housing subsidy or lived in public housing between the 1- and 3-year follow-ups. We also controlled for whether the child had public or private health insurance at 3 years (separate indicators), with no insurance as the reference. Child characteristics included child was male, child age in months at the 5-year follow-up, and low birthweight status, as a proxy for high child health risk.

NEWWS. The maternal characteristics we controlled for included two baseline indicators

of family background: whether the mother lived in a household that received welfare during childhood and whether the mother first gave birth as a teenager. We controlled for maternal race using two indicators for Black and non-White/non-Black, with White serving as the reference category, and for maternal education with an indicator for mother has no high school degree or GED at baseline. Household income as a percentage of poverty at 2-year follow-up was included, as was the number of quarters she worked between RA and the 2-year follow-up.

To control for mothers' personal characteristics, we used baseline measures of mothers' self-efficacy entered as four indicators of different dimensions of the construct: feeling pushed around in life; feeling people like themselves never get a fair chance to succeed; feeling like they have no control over the things that happen; and feeling that there is little that can be done to change many of the important things in life. We also included a dummy variable for scores below sufficiency on a baseline literacy test. Although we were not interested in assessing treatment impacts, we included indicators for treatment group status, with control group membership as the reference category. In robustness checks, we added a measure of mothers' level of depressive symptoms at the 2-year follow-up using responses to 12 items from the Center for Epidemiologic Studies Depression Scale – Short Form (CESD-SF; Radloff, 1977; $\alpha = .89$).

To control for maternal household structure, we entered three indicators of living arrangements: living with children and a spouse/partner, living with children and an adult relative, and not living with children at 2-year follow-up, with living alone with children as the reference. We also entered two indicators for mother has two children or three or more children at baseline, with one child as the reference category.

As measures of public safety net use, we included the number of months between RA and 2-year follow-up respondents received food stamps and, separately, cash welfare. A vector of indicators reflected receipt of the following public assistance programs at the 2-year follow-up: WIC (anyone in the household), Medicaid (focal child), and living in public housing or receiving public housing assistance (household). We also included controls for whether the focal child was privately insured or uninsured (two indicators), with missing insurance status as the reference group. To control for child characteristics, we include a dummy for child is male. The most precise information on child age reported in the public use data files was whether the focal child was younger than the median age at RA, so we included this measure as an indicator.

Analytic Strategy

Univariate analyses. We first examined which maternal (and child) characteristics were associated with the availability of private safety nets by comparing mothers at the different safety net levels across all covariates using one-way analyses of variance (ANOVA) for continuous variables and chi-square tests for dichotomous variables. We also compared children's behavioral scores at both time points across private safety net levels and conducted pairwise contrasts using Bonferroni post hoc adjustments to identify significant between-group differences. In the NEWWS, these and subsequent analyses were conducted with an analytic weight to account for unequal probability of selection into the COS sample.

Multivariate analyses. We then conducted the following 3 types of multivariate models.

OLS models. First, we ran OLS regression models predicting behavioral outcomes from private safety net levels, holding constant the outlined set of covariates. This technique reduces bias induced by *observed* characteristics of mother and child but does not account for unobserved characteristics of mother and child, such as unmeasured maternal interpersonal skills (National Institute of Child Health and Human Development Early Child Care Research Network & Duncan, 2003). This model took the following form:

$$\begin{aligned} Y_{it} = {} & \alpha_1 + \beta_1 \mathrm{PrSN}_{i(t-1)} \\ & + \beta_2 \mathrm{Mat}_i + \beta_3 \mathrm{PbSN}_{i(t-1)} \\ & + \beta_4 \mathrm{Child}_i + \varepsilon_{it}, \end{aligned} \tag{1}$$

where Y_{it} represents a child's score on a particular behavioral outcome at age 5 in the FFCWS and the 5-year follow-up in the NEWWS. PrSN represents a vector of indicators reflecting mothers' level of private safety net (with the highest level as the reference) at age 3 in the FFCWS and the 2-year follow-up in the NEWWS. Mat represents a vector of variables for all maternal characteristics, PbSN a vector of indicators for

mothers' public safety net use contemporaneous with private safety net, and Child a vector of covariates for child characteristics. β_1 through β_4 represent the corresponding coefficients.

Residualized change models. Next, we entered children's scores on earlier measures of the outcome on the right-hand side of Equation (1), running what is sometimes called a residualized change model (National Institute of Child Health and Human Development Early Child Care Research Network & Duncan, 2003). It is considered a change model because entering the earlier outcome as an independent variable reduces all other coefficients to estimating their impact on change in the outcome between measurements. Whereas in OLS models safety net coefficients reflect mean differences in child behavior scores by safety net group at one time point, residualized change coefficients reflect mean differences in the change in scores between time points. This approach attenuates bias induced by both observed and unobserved time invariant characteristics of mother and child. It can provide considerably more power than other types of change models to detect associations when outcomes are highly correlated and not measured identically over time (Cronbach & Furby, 1970). Because including initial level as a predictor likely introduces a biasing correlation between it and the error term, however, the change model may underestimate coefficients' confidence intervals. We use robust standard errors to correct for this potential underestimation. This model took the following form:

$$\begin{aligned} Y_{it} = {} & \alpha_1 + \beta_1 \mathrm{PrSN}_{i(t-1)} + \beta_2 \mathrm{Mat}_i \\ & + \beta_3 \mathrm{PbSN}_{i(t-1)} + \beta_4 \mathrm{Child}_i \\ & + \delta Y_{i(t-1)} + \varepsilon_i, \end{aligned} \tag{2}$$

where $Y_{i(t-1)}$ represents the analogous behavior score at age 3 in the FFCWS and the 2-year follow-up in the NEWWS, and δ reflects its coefficient.

Results

Univariate Results

FFCWS. As hypothesized, children whose mothers reported high levels of perceived safety nets had significantly lower internalizing and externalizing scores at both time points than those in the medium and low groups (see Table 1). Although children in the medium safety net group had lower scores than those in the low group, differences were small and nonsignificant. Children in both the high and medium groups had significantly higher social competence scores than those in the low group at both time points.

Mothers differed in terms of family background and personal characteristics by private safety net level. Those who reported high levels had more educated parents, were more educated themselves, had higher PPVT scores, and were younger than those in the medium or low groups. Their household incomes were also higher, and they were less likely to have been consistently unemployed. Across characteristics, mothers in the medium group fell in between those in the high and low groups but were closer to those in the low group.

Mothers in the high safety net group were also less likely to rely on public programs such as TANF or food stamps and were less likely to live in public housing. Mothers in the high group were more likely to live with the child's biological father at 3 years and less likely to live alone or with nonrelative adults than those with lower levels. Taken together, these patterns suggest that mothers with higher levels of private safety nets came from more advantaged families, were better off socioeconomically, and may have had more sources of support in the home than those who reported lower levels.

NEWWS. In the NEWWS, differences in child behavior across levels of mothers' private safety nets closely resembled those in the FFCWS (see Table 2), with children in the top quartile scoring significantly lower on internalizing and externalizing behaviors and significantly higher on all positive behaviors than children in the bottom two quartiles at both time points. Scores on all outcomes followed a downward trend, with those in the second and third quartiles scoring in between those in the top and bottom quartiles.

Far fewer differences emerged among mothers in the NEWWS in their characteristics and use of public programs, perhaps because mothers were less socioeconomically diverse, and more disadvantaged, than those in the FFCWS. Mothers in the top safety net quartile were more likely to be Black and less likely to feel pushed around in life than those in lower quartile, the latter suggesting higher self-efficacy in this group. They were less likely to receive public health insurance and slightly more likely to lack health insurance

Table 1. *Child Behavioral Outcomes at 5 Years and All Independent Variables by Perceived Safety Net Level: FFCWS*

	Perceived Safety Net Level				
	Total	High	Medium	Low	F/χ^2
Child behavior at 5 years					
CBCL Anxious/Depressed (0 – 19 scale)	3.71 (3.20)	3.27_a	3.83_b	4.27_b	***
CBCL Aggressive (0 – 36 scale)	11.80 (6.83)	10.82_a	12.11_b	12.92_b	**
ASBI Social Competence (0 – 18 scale)	15.38 (2.72)	15.75_a	15.34_a	14.71_b	***
Child behavior at 3 years					
CBCL Anxious/Depressed (0 – 19 scale)	5.96 (3.40)	5.41_a	6.05_b	6.85_c	***
CBCL Aggressive (0 – 29 scale)	10.47 (6.22)	9.53_a	10.80_b	11.43_b	**
ASBI Social Competence (0 – 18 scale)	14.95 (2.88)	15.20_a	15.01_a	14.26_b	***
Maternal characteristics					
Mother lived with both parents at 15 (%)	30.0	26.9	29.0	32.9	*ns*
Mothers' parents had < HS diploma (%)	27.5	22.20	27.4	39.0	***
Mother is Black (%)	62.2	57.7	64.2	65.4	*ns*
Mother is Hispanic (%)	23.9	26.3	22.3	23.6	*ns*
Mother is other race (%)	1.7	2.1	1.5	1.8	*ns*
Mother and father same race (%)	88.6	88.0	88.8	89.6	*ns*
Mother has < HS diploma (%)	44.3	37.0	46.1	54.4	***
Mother's age at child's birth	23.4 (5.3)	22.9	23.5	24.5	**
Mother's PPVT Score	86.8 (10.0)	87.8	87.0	84.2	***
Mother has fair/poor health	9.6	13.4	8.6	9.4	*ns*
Mother smoked during pregnancy	25.5	23.0	25.6	30.8	*ns*
Mother used alcohol/drugs during pregnancy	13.7	10.5	15.4	15.4	*ns*
Mother had early prenatal care	58.1	60.0	59.1	51.0	*ns*
Mothers' HH income-to-poverty	0.93 (.71)	1.17	0.87	0.64	***
Mother unemployed 36 and 60 months	28.7	20.4	29.7	43.4	***
Household structure at 3 years					
Lives with father	31.9	35.7	31.6	24.7	*
Lives with father and parents	4.6	5.4	3.8	5.4	*ns*
Lives with parents	13.7	15.1	14.4	8.6	+
Lives alone/with nonrelative adults	49.9	43.9	50.2	61.3	***
Has two children in HH	31.9	33.5	31.3	30.3	*ns*
Has three (or more) children in HH	44.1	38.9	44.0	55.1	**
Use of public programs at 3 years					
Welfare/TANF	35.9	26.5	39.5	45.1	***
WIC	68.8	66.5	71.2	65.9	*ns*
Food stamps	73.5	65.3	77.1	80.2	***
Housing subsidy	30.9	25.0	32.6	37.9	**
Public housing	29.4	23.0	31.8	35.7	**
Public health insurance for child	76.2	71.9	77.4	81.9	*
Private health insurance for child	13.3	18.4	11.6	7.7	**
Child characteristics					
Child is male	52.9	53.7	52.1	53.9	*ns*
Child was low birthweight (<2500 g)	10.8	9.0	12.1	10.8	*ns*
Child age in months (at 5-year follow-up)	60.9 (2.3)	61.0	60.9	60.9	*ns*

$N = 1{,}162$. Means are listed with standard deviations in parentheses in the first column. Child behavior means with different subscripted letters differ in pairwise contrasts at $p < .05$.

$+p < .10$. $*p < .05$. $**p < .01$. $***p < .001$.

Table 2. *Child Behavioral Outcomes at 5-Year Follow-Up and All Independent Variables by Perceived Safety Net Quartile: NEWWS*

	Perceived Safety Net Quartile					
	Total	Top	Third	Second	Bottom	F/χ^2
Child behavior at 5-year follow-up						
Internalizing behavior (0 – 22 scale)	8.3 (3.6)	7.8_{a}	7.9_{ab}	8.6_{bc}	9.0_{c}	***
Externalizing behavior (0 – 18 scale)	4.8 (3.1)	4.3_{a}	4.6_{ab}	5.1_{bc}	5.2_{c}	***
Cooperation (1 – 39 scale)	22.0 (6.5)	23.6_{a}	22.2_{b}	21.2_{b}	21.0_{b}	***
Positive assertion (0 – 30 scale)	21.6 (5.1)	22.6_{a}	22.0_{ab}	21.1_{bc}	20.6_{c}	***
Responsibility (0 – 27 scale)	18.0 (4.6)	19.1_{a}	18.4_{ab}	17.4_{c}	17.3_{c}	***
Child behavior at 2-year follow-up						
Internalizing behavior (0 – 2 scale)	0.21 (0.29)	0.14_{a}	0.19_{ab}	0.24_{bc}	0.26_{c}	***
Externalizing behavior (0 – 2 scale)	0.47 (0.34)	0.38_{a}	0.40_{ab}	0.46_{bc}	0.52_{c}	***
Social competence (0 – 2 scale)	1.59 (0.37)	1.66_{a}	1.60_{ab}	1.55_{b}	1.54_{b}	***
Maternal characteristics						
Mother was on welfare as a child (%)	31.4	30.2	30.4	32.5	32.5	*
Mother had first baby as a teenager (%)	49.8	52.0	51.7	47.9	47.6	*
Mother is White (%)	32.4	27.6	35.0	32.1	34.3	*
Mother is Black (%)	55.0	61.5	53.8	55.2	49.9	*
Mother is non-White, non-Black (%)	12.6	10.9	11.1	12.7	15.8	*
Mother has < HS diploma (%)	35.7	34.4	34.3	37.4	36.9	*
Mother has low literacy (%)	29.7	30.0	26.3	31.9	30.8	*
Maternal HH Income-to-Pov (at 2-year FU)	0.78 (0.43)	0.79	0.80	0.75	0.76	*
Quarters employed between RA and 2-year FU	3.1 (2.8)	3.4	3.0	3.2	2.9	*
Mother feels pushed around (%)	35.0	26.0	32.6	40.5	40.6	***
Mother has no control over life (%)	27.2	22.5	26.3	28.2	31.7	*
Mother unable to change life (%)	26.7	24.6	24.8	29.3	28.2	*
Mother angry at life chances (%)	52.8	51.4	48.3	52.7	58.9	*
Control group (%)	36.1	32.1	37.3	38.0	36.6	*
Human capital development treatment arm (%)	28.8	32.7	31.5	23.8	27.2	*
Labor force attachment treatment arm (%)	35.2	35.3	31.3	38.3	36.2	*
Household structure at 2-year follow-up						
Lives with a spouse or partner (%)	18.9	19.9	20.6	19.0	16.0	*
Lives with a relative (%)	19.0	21.4	22.7	16.8	15.1	*
Lives with a nonrelative (%)	3.4	2.4	2.8	4.2	4.3	*
Lives alone with children (%)	56.0	52.8	50.8	58.5	62.1	*
Does not live with children (%)	2.7	3.6	3.1	1.6	2.6	*
Number of children at RA						
Has one child in HH (%)	28.9	31.4	30.0	30.5	23.9	*
Has two children in HH (%)	42.0	39.3	43.4	42.0	43.3	*
Has three or more children in HH (%)	29.0	29.3	26.6	27.6	32.8	*
Use of public programs at 2-year follow-up						
Months receiving cash welfare since RA	17.9 (7.7)	17.7	17.6	17.7	18.2	*
Receiving WIC (%)	15.9	11.4	16.2	19.1	16.8	*
Months receiving food stamps since RA	18.7 (7.5)	18.4	18.6	18.8	19.1	*
Living in public or publicly subsidized housing (%)	36.4	33.9	34.7	39.4	37.7	*
Public health insurance for Child	76.3	71.5	73.3	80.1	80.1	*
Private health insurance for Child	7.7	10.4	6.4	8.8	5.5	*
Uninsured child	10.6	11.8	14.7	6.7	9.0	*
Child characteristics						
Child is male	48.9	48.1	51.4	45.3	50.7	*
Child was younger than 51 months at RA (%)	51.3	51.5	43.8	55.4	55.0	*

$N = 1{,}308$. Means are listed with standard deviations in parentheses in the first column. Child behavior means with different subscripted letters differ in pairwise contrasts at $p < .05$.

*$p < .05$. ***$p < .001$.

for their children than those in the bottom quartile. Similar differences emerged in mothers' household structure, with mothers who reported higher levels of safety net availability more likely to live with relatives and less likely to live alone than mothers reporting lower levels.

OLS and Residualized Change Models

FFCWS. Table 3 presents results for both the OLS and residualized change models. In Model 1, with all covariates held constant, children scored significantly higher on both internalizing and externalizing behavior problems and significantly lower on social competence in the medium and low safety net groups than in the high safety net group. The difference between the low and high groups represented about a third of a standard deviation on internalizing problems and a quarter of a standard deviation on externalizing and social competence. The differences between medium and high groups were smaller (0.11 and 0.22 of a standard deviation, respectively). With all other covariates held constant, children of Black mothers scored significantly lower on internalizing and externalizing behaviors than those of White mothers, and boys scored lower on social competence than girls. Estimates for other covariates are available upon request.

In Model 2, the analogous age 3 outcomes were entered as covariates in residualized change models. For internalizing behaviors, coefficients for both low and medium were reduced in size but remained statistically significant. For social competence, the coefficient for low was reduced but remained statistically significant. In contrast, for externalizing behaviors, both coefficients were reduced in size by over half and became insignificant.

Few maternal characteristics were significantly associated with children's behavioral adjustment, except that children of Black mothers had fewer behavioral problems than those of White mothers, and poor maternal health was positively associated with behavior problems. Likewise, public safety nets variables were largely unrelated to children's behavioral outcomes.

NEWWS. Results from OLS and residualized change models in analyses using the NEWWS data were strikingly similar to those using the FFCWS (see Table 4). In Model 1, children in the bottom two quartiles of safety net scored significantly higher than children in the top quartile on both internalizing and externalizing behavior problems. Differences on internalizing behaviors were larger, representing approximately a third of a standard deviation between the top and bottom quartiles. Children in the lowest two quartiles also scored significantly lower on cooperation, assertiveness, and responsibility than those in the top, and both bottom and second quartile coefficients represented a third of a standard deviation or greater. Only results for cooperation are shown because results for other positive behaviors were similar (available upon request). With all other covariates held constant, children of Black mothers scored significantly lower on externalizing behaviors and higher on cooperation than those of White mothers, and boys scored lower on cooperation than girls.

Once analogous earlier outcomes were entered in Model 2, children in the bottom quartile still scored significantly higher than those in the top quartile on internalizing behaviors by 0.17 of a standard deviation. In models predicting externalizing behaviors, safety net coefficients reduced substantially and became nonsignificant, just as they did in the FFCWS. Finally, children in the bottom two quartiles still scored significantly lower than those in the top quartile on all positive behaviors, and safety net coefficients were largely unchanged in these models.

In the NEWWS, as in the FFCWS, public safety net variables were largely unrelated to children's behavioral adjustment. Of the few public safety net variables that were significant, most were associated with poorer behavioral outcomes for children, with the exception of food stamps receipt, perhaps because receipt of public supports indicates greater socioeconomic disadvantage.

Threats to Validity

Despite including a particularly rich set of covariates and employing change models, our study design still faced potential threats to validity. Primarily, we were concerned that the key independent variable and the outcome measures may have been simultaneously determined. To test for bidirectional causation, we ran additional models predicting age 3 child outcomes from mothers' safety net level at birth—before the child's behavior could plausibly influence safety net levels—using FFCWS data (not shown). In OLS models with child characteristics controlled, low safety net level at birth was associated with greater internalizing

Table 3. *OLS Regession Models Predicting Age 5 Child Outcomes From Age 3 Perceived Safety Net: FFCWS*

	Internalizing				Externalizing				Social Comp.			
	1		2		1		2		1		2	
	b	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Safety net level												
High (5 – 6) (reference)	—	—	—	—	—	—	—	—	—	—	—	—
Low (0 – 1)	1.04	0.30***	0.66	0.29*	1.89	0.64**	0.71	0.56	−0.65	0.28**	−0.48	0.24*
Medium (2 – 4)	0.69	0.21**	0.51	0.20*	1.19	0.46*	0.37	0.38	−0.28	0.18	−0.27	0.17
Age 3 outcome			0.33	0.03***			0.60	0.03***			0.33	0.03***
Mothers' characteristics												
Lived with both parents at 15	0.13	0.21	0.03	0.20	−0.09	0.46	−0.32	0.40	−0.17	0.18	−0.13	0.17
Parents had < HS diploma	0.01	0.22	−0.02	0.21	−0.27	0.48	−0.20	0.41	−0.01	0.19	0.00	0.18
Black	−1.09	0.36**	−1.00	0.34**	−2.19	0.79**	−1.90	0.72**	−0.12	0.31	−0.15	0.29
Hispanic	0.20	0.41	0.18	0.39	−1.04	0.90	−1.45	0.79	−0.55	0.35	−0.47	0.33
Other race	−0.41	0.78	−0.50	0.73	1.08	1.68	−0.46	1.42	−0.39	0.66	−0.41	0.62
Father same race	0.17	0.33	0.41	0.31	0.25	0.71	0.65	0.65	0.14	0.28	0.18	0.26
Has < HS diploma	0.03	0.21	−0.06	0.20	0.44	0.46	0.41	0.39	−0.11	0.18	0.01	0.17
Age at child's birth	−0.03	0.02	−0.01	0.02	−0.09	0.04*	−0.02	0.04	−0.02	0.02	−0.01	0.02
PPVT score	−0.03	0.01**	−0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.01**	0.02	0.01
Fair/poor health	1.12	0.32***	0.86	0.30**	1.68	0.69*	0.65	0.64	−0.28	0.27	−0.24	0.25
Smoked while pregnant	−0.27	0.24	−0.42	0.22	0.78	0.51	0.18	0.43	0.31	0.20	0.22	0.19
Used alcohol/drugs while pregnant	0.60	0.29*	0.60	0.27*	0.74	0.62	0.69	0.49	−0.02	0.24	−0.06	0.23
Had early prenatal care	0.36	0.19	0.30	0.18	0.83	0.42*	0.62	0.35	0.28	0.16	0.24	0.15
HH Income-to-Poverty	0.25	0.16	0.30	0.15*	−0.14	0.34	−0.13	0.26	0.01	0.14	0.02	0.13
Unemployed 36 and 60 months	−0.17	0.22	−0.04	0.21	−0.51	0.48	−0.44	0.42	−0.53	0.19**	−0.44	0.17*
Household structure at 3 years												
Lives with father	−0.14	0.22	−0.15	0.21	−1.19	0.48*	−1.05	0.39*	−0.03	0.19	−0.08	0.18
Lives with father and parents	−0.45	0.47	−0.32	0.44	−1.51	1.03	−0.76	0.88	0.30	0.40	0.34	0.38
Lives with parents	0.08	0.30	−0.06	0.28	−0.14	0.65	−0.24	0.56	−0.32	0.25	−0.32	0.24
Two children in HH	−0.12	0.25	−0.14	0.24	−0.04	0.55	−0.27	0.46	−0.03	0.22	−0.03	0.20
Three (or more) children in HH	−0.08	0.25	−0.08	0.24	0.26	0.55	0.12	0.46	0.03	0.21	0.14	0.20

Table 3. *Continued*

	Internalizing				Externalizing				Social Comp.			
	1		2		1		2		1		2	
	b	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Use of public programs at 3 years												
Welfare/TANF	0.06	0.24	−0.12	0.23	0.94	0.52	0.76	0.44	0.36	0.21	0.37	0.19
Food stamps	0.17	0.25	0.28	0.23	0.32	0.54	0.03	0.45	−0.15	0.21	−0.15	0.20
Housing subsidy	0.01	0.23	0.26	0.21	0.14	0.50	−0.05	0.44	−0.40	0.19	−0.28	0.18
Public housing	0.32	0.22	−0.11	0.22	1.05	0.49*	0.86	0.41*	0.13	0.19*	0.04	0.18
Public health insurance for child	−0.11	0.31	−0.20	0.29	0.59	0.68	0.11	0.56	−0.31	0.26	−0.10	0.25
Private health insurance for child	−0.20	0.39	−0.20	0.37	0.83	0.86	0.42	0.68	−0.04	0.33	0.09	0.31
Child characteristics												
Child is male	0.18	0.19	0.15	0.17	0.46	0.40	0.14	0.34	−0.41	0.16*	−0.32	0.15*
Child age in months (at 5-year follow-up)	−0.05	0.05	−0.04	0.04	−0.07	0.10	0.01	0.08	0.01	0.04	0.00	0.04
N	1,162		1,162		1,148		1,148		1,159		1,159	
Adjusted R^2	0.06		0.18		0.05		0.36		0.05		0.18	
F value	2.51***		6.04***		2.20***		12.74***		2.95***		6.27***	

Notes: In addition to the controls listed above, 17 indicator variables for city of residence were included in all models; because none were significant they are not shown; child's low birthweight status was excluded from final models because of consistent insignificance.

*$p < .05$. **$p < .01$. ***$p < .001$.

Table 4. *OLS Regession Models Predicting 5-Year Follow-Up Child Outcomes From 2-Year Perceived Safety Net: NEWWS*

	Internalizing				Externalizing				Cooperation			
	1		2		1		2		1		2	
	b	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Safety net quartile												
Top quartile (reference)	—	—	—	—	—	—	—	—	—	—	—	—
Third quartile	−0.02	0.27	−0.17	0.27	−0.04	0.22	−0.03	0.22	−1.21	0.53*	−1.10	0.51*
Second quartile	0.65	0.29*	0.34	0.29	0.58	0.25*	0.43	0.24^{+}	−2.12	0.54***	−1.87	0.53***
Bottom quartile	1.08	0.31***	0.62	0.41*	0.62	0.25*	0.26	0.24	−2.26	0.55***	−1.80	0.54***
2-year follow-up outcome			3.12	0.41***			3.09	0.29***			5.47	0.58***
Mothers' characteristics												
On welfare as a child	0.02	0.22	0.00	0.22	0.23	0.20	0.14	0.19	−0.49	0.41	−0.42	0.40
Had first baby as a teenager	0.52	0.22*	0.60	0.22**	0.38	0.18*	0.32	0.17	−0.05	0.39	−0.09	0.39
Black	−0.40	0.28	0.21	0.26	−1.63	0.24***	1.46	0.22***	1.63	0.50**	−1.99	0.47***
Non-White, non-Black	0.37	0.37	0.23	0.35	0.57	0.32	0.58	0.30	−0.39	0.64	−0.66	0.64
Has < HS diploma	−0.15	0.23	−0.21	0.23	0.00	0.19	−0.11	0.18	−0.31	0.42	−0.08	0.41
Has low literacy	0.08	0.25	−0.27	0.25	0.19	0.22	−0.04	0.21	−0.54	0.47	0.20	0.45
HH income-to-pov (at 2-year follow-up)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quarters employed between RA and 2-year	0.00	0.04	0.00	0.04	−0.06	0.04	−0.05	0.03	−0.04	0.08	−0.01	0.08
Feels pushed around	0.77	0.23**	0.60	0.23*	0.59	0.20**	0.43	0.19*	−0.39	0.44	−0.13	0.43
Feels has no control over life	0.26	0.26	0.24	0.26	0.37	0.22	0.26	0.22	0.03	0.47	0.10	0.46
Feels unable to change life	−0.09	0.26	−0.31	0.26	0.18	0.22	0.10	0.22	−0.56	0.48	−0.34	0.46
Feels angry at life chances	0.45	0.22*	0.38	0.22	0.19	0.18	0.16	0.18	−0.25	0.39	−0.33	0.39
Human capital development treatment arm	−0.16	0.25	−0.16	0.25	−0.07	0.21	−0.17	0.20	−0.25	0.44	−0.40	0.42
Labor force attachment treatment arm	0.10	0.26	0.09	0.25	−0.18	0.22	−0.25	0.21	−0.21	0.47	−0.36	0.46
Household structure at 2-year follow-up												
Lives with a spouse or partner	−0.10	0.33	−0.15	0.32	0.58	0.30	0.59	0.28*	−0.35	0.56	−0.55	0.53
Lives with a relative	0.40	0.29	0.29	0.28	0.07	0.24	0.13	0.24	−0.36	0.51	−0.29	0.50
Lives with a nonrelative	0.29	0.47	0.22	0.46	0.53	0.46	−0.06	0.43	−1.29	0.97	−0.85	0.95
Does not live with children	−0.20	0.54	−0.09	0.54	0.55	0.52	0.62	0.51	−1.11	1.20	−1.66	1.20
Number of children at RA												
Has two children in HH	−0.22	0.25	−0.37	0.25	0.20	0.22	0.09	0.21	0.84	0.48	0.78	0.48

Table 4. *Continued*

	Internalizing				Externalizing				Cooperation			
	1		2		1		2		1		2	
	b	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Has three or more children in HH	−0.88	0.28**	−1.12	0.28***	0.59	0.25*	0.50	0.23*	−0.67	0.56	−0.46	0.55
Use of public programs at 2-year follow-up												
Months receiving cash welfare since RA	0.04	0.02*	0.05	0.02*	−0.01	0.02	0.00	0.02	0.04	0.04	0.03	0.04
Receiving WIC	0.64	0.29*	0.56	0.28*	0.66	0.26*	0.56	0.25*	−1.01	0.53	−0.69	0.51
Months receiving food stamps since RA	−0.05	0.02*	−0.05	0.02**	−0.03	0.02	−0.03	0.02	−0.01	0.04	0.02	0.04
Living in public or publicly subdized housing	−0.12	0.25	−0.09	0.25	−0.06	0.20	−0.10	0.19	−0.90	0.46*	−0.93	0.45*
Public health insurance for child	−0.16	0.60	0.52	0.59	−0.71	0.52	−0.70	0.51	0.35	0.99	0.93	1.02
Private health insurance for child	−0.02	0.44	0.31	0.41	0.02	0.40	−0.16	0.39	−0.41	0.72	0.23	0.76
Uninsured child	−0.02	0.54	0.48	0.52	−0.34	0.49	−0.30	0.47	1.51	0.96	2.18	1.00*
Child characteristics												
Child is male	0.27	0.20	0.30	0.20	0.57	0.17**	0.44	0.16**	−1.18	0.37**	−0.95	0.36**
Child was younger than 51 months at RA	−0.27	0.21	−0.32	0.20	−0.39	0.18*	−0.46	0.17**	0.90	0.39*	0.77	0.38*
N	1308		1233		1308		1237		1308		1234	
R^2	0.09		0.14		0.15		0.26		0.08		0.17	
F value	3.38	***	5.02	***	5.36	***	8.96	***	2.91	***	6.20	***

Notes: In addition to the controls listed above, two indicator variables for site were included in all models; because their inclusion did not impact results, their coefficients are excluded from tables.

$+p < .10$. $*p < .05$. $**p < .01$. $***p < .001$.

($b = 0.55$; $SE = 0.24$; $p < .05$), externalizing ($b = 1.07$; $SE = 0.43$; $p < .05$), and lower social competence ($b = -0.34$; $SE = 0.20$; $p < .10$) 3 years later, suggesting simultaneity did not strongly bias the main results.

Omitted variables bias was also a concern because neither of our analytic approaches yielded estimates completely free of bias. As an additional robustness exercise, we estimated a child-level fixed effects model with the two waves of FFCWS data that contain measures of safety net availability and child behavior (results not shown). The (continuously measured) safety net variable was not significant in models predicting internalizing or externalizing behaviors but was significant (and positive) at the trend level for social competence. Large confidence intervals in the fixed effects models suggest that imprecision precludes our knowing if these null results for behavior problems are true. Furthermore, it may be that the association between private safety nets and child well-being is relatively stable and cumulative such that short-term changes would not have large effects on outcomes, whereas consistent safety net levels over time would.

Finally, shared method variance between mothers' report of safety net availability and children's behavior threatens construct validity. It is possible, for example, that a depressed mother would perceive more limited support from her social network and perceive higher levels of behavior problems in her child than a nondepressed mother, rendering the association between private safety nets and child behavior an artifact of her perceptions. Encouragingly, our results held when maternal depression was controlled (in both data sets); in the NEWWS controls also included baseline measures of mothers' self efficacy. Recall too that both data sets allowed us to control for mothers' cognitive ability. Importantly, additional analyses (not presented here) showed that mother-reported behavior problems predicted objective assessments of children's academic abilities in both data sets in the expected directions. These associations give us more confidence that our measures of children's behaviors were real and not simply reflections of mothers' cognitive or noncognitive characteristics.

DISCUSSION

Our findings add to a long tradition of research illustrating the importance of social support, broadly defined, to the economic survival and emotional well-being of low-income families (e.g., Edin & Lein, 1997; Harknett, 2006; Henly, 2002; Henly et al., 2005; Howard, 2006). Specifically, we demonstrated a significant and substantively important association between the availability of a private safety net and children's internalizing symptoms and positive behaviors. We did so using two large-scale, high-quality longitudinal data sets and accounting for potential endogeneity and simultaneity biases in estimations. The similarity in the nature and strength of these associations across the two data sets was especially striking given the different (yet complementary) operationalizations of private safety nets in Fragile Families (which emphasized material support) and NEWWS (which emphasized instrumental support). We have thus highlighted an important protective factor for children growing up in economically disadvantaged families, one that may prove especially important in the wake of welfare reform as mothers necessarily rely less on public safety nets, such as cash welfare assistance, and more on their informal networks.

Although we found consistent links between the availability of a private safety net and children's behavioral adjustment in both data sets, we acknowledge that the overall pattern of results was less strong in models that increasingly accounted for unobserved heterogeneity. In residualized change models, the association held only for children's internalizing and positive behaviors and not for their externalizing behaviors. It is possible that children's internalizing symptoms and prosocial skills are simply more strongly associated with mother's private safety net availability than externalizing behaviors. On the other hand, externalizing behaviors may be more stable over time, as the stronger cross-time correlations for this outcome suggest, rendering it too difficult to estimate the association between safety nets and externalizing behavior over a short period. Our fixed effects regression strategy, a much more conservative approach that also relies on changes (in both safety nets and children's behavior) to identify impacts, did not yield statistically significant associations for either internalizing or externalizing behavior problems but yielded significant results in models predicting social competence at the trend level. These results indicate that children's behavioral adjustment may not respond strongly to *changes* in mothers' safety net levels, at least not over a short period of time.

We hypothesized, and found, a positive association between private safety nets and children's socioemotional well-being, but a different finding could have emerged. Qualitative literature on the dynamics of social support suggests that because mothers often receive informal support only on the condition of reciprocity, help from others sometimes can induce as much stress as it alleviates (Antonucci & Jackson, 1990; Howard, 2006) both because mothers worry about repaying their debts (financial or otherwise) and because the exchanges can complicate interpersonal relations. In these ways, mothers' private safety nets could undermine their emotional well-being and consequently their parenting or expose children to negative relationships, either of which could disrupt children's socioemotional development. We may not have found evidence for this alternative hypothesis because we examined perceived (rather than received) support, which necessarily reflects both the availability of support and mothers' willingness to use it; thus our measures capture only the most helpful and least stressful sources of assistance. It is also possible that the economic and emotional benefits of having a private safety net simply outweigh the costs.

Our descriptive evidence suggests that even within low-income samples, mothers with strong private safety nets are more socioeconomically advantaged than their counterparts. For example, Fragile Families' mothers in the high safety net group came from more educated families, had higher levels of education themselves, and had higher household incomes than other mothers. These differences could cast doubt on the causal impact of safety nets on child behavior because the positive qualities that allow mothers to create a social network may also enhance children's socioemotional development. Our ability to control for a wide range of observable characteristics and our use of change models help temper this concern. In the NEWWS, a more uniformly disadvantaged sample in which few socioeconomic differences emerged across safety net levels, findings were remarkably similar to those in Fragile Families, which also alleviates concern about the influence of selection bias.

More broadly, our results suggest that a group of low-income mothers exists for whom social isolation and other disadvantages overlap and that children in these families may be particularly at risk for socioemotional difficulties. As more single mothers enter the labor market under TANF and it becomes increasingly critical to have a private safety net, these mothers and their children may suffer disproportionately. The obvious next step for research is to investigate the availability and efficacy of community-based programs to enhance financial or instrumental support when mothers cannot receive it from their networks. Examples include programs providing emergency cash assistance and food aid directly as well as programs to foster and perhaps formalize the provision of loans, child care, and in-kind assistance among families. For socially isolated mothers, home visiting programs offering parenting and emotional support may be efficacious.

Future empirical research should also investigate the mechanisms linking private safety nets to children's socioemotional well-being. As we described earlier, several possible pathways exist. Low-income mothers who have access to informal networks may be better able to weather economic difficulties following illness, job loss, or relationship dissolution. In this way, private safety nets might help smooth consumption or sustain housing or child-care arrangements for children. It follows that minimizing turbulence would help sustain children's emotional well-being in the face of economic shocks. Private safety nets might also help mothers maintain employment, especially when schedules are erratic and variable, as is characteristic of the low-wage labor market (Presser, 2003). Indeed, Harknett (2006), also using NEWWS, found that private safety nets encouraged employment and minimized welfare use. Private safety nets might also benefit mothers' parenting behavior by minimizing parenting stress and maternal depression, both of which can interfere with healthy parent-child interactions. Our ongoing work will investigate these mediating linkages.

Finally, we recognize a need for large-scale studies to gather more detailed information about the dynamics of low-income families' private safety nets. More detailed information about mothers' received material and instrumental support would have greatly enriched the validation of our perceived support measures. If the studies also had included equal numbers of questions about material and instrumental support, we might have disentangled the relative influences of each type of assistance and the degree to which their availability overlapped. Additionally, questions about mothers' willingness to tap potential material and instrumental support might have indicated which sources of support alleviated

economic strain and which may have caused emotional stress.

Most research and discussion about children's well-being in the wake of welfare reform focuses on how *public* programs, such as TANF or other public insurance programs, can enhance children's environments. Despite the largely accepted notion that social support, variously defined, plays a central role in alleviating the economic and emotional hardship low-income mothers experience, surprisingly little work has examined the social insurance role private safety nets might play in children's development. In the present study, we found substantively important associations between the availability of private safety nets and children's socioemotional well-being, suggesting more research should be devoted to understanding this important protective factor for low-income children and identifying programmatic ways to expand its availability among low-income families.

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