

Work, Family, and Stress among Young Adult Women

Finding Jobs, Forming Families, and Stressing Out?

Work, Family, and Stress among Young Adult Women in the United States

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The transition to adulthood is increasingly characterized by complex paths into the world of work and family, especially for young women. Yet how work and family combine to influence stress among young adult women is not well understood. Using data from the National Longitudinal Study of Adolescent to Adult Health, we leverage new extensions to latent class analysis (LCA) to identify common combinations of work and family circumstances among young adult women, their earlier life and contemporaneous correlates, and associations with two stress measures: a multi-item Perceived Stress Scale (PSS) and Epstein–Barr Viral (EBV) antibody titers, a well-validated biomarker of stress-related immunity impairments. We identify seven different common combinations of latent work–family combinations among young adult women ranging from well-compensated professional workers with and without children, mothers without paid employment, and delayed transitions to work and family. Completing a college degree was associated with a higher likelihood of membership in classes marked by professional work irrespective of motherhood, while being raised in a community with greater female labor opportunities was generally associated with membership in child-free classes. Mothers and child-free women in “pink-collar” work with low wages and decision-making freedom reported higher stress compared to women in “white-collar” work with higher wages and decision-making freedom. These differences are mostly attenuated following adjustments for poverty-related stressors and work–family conflict. While prior work has emphasized the health benefits

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for women of combining work and family, our research suggests these benefits may be limited to women of higher socioeconomic status with flexible, well-compensated jobs.

Introduction

Although research finds combining work and family can cause stress and strain (Bass et al. 2009), a substantial amount of research suggests women reap positive benefits from paid work, even when it is combined with caregiving responsibilities (Frech and Damaske 2012; Pavalko and Smith 1999; Schnittker 2007). In fact, recent research finds cortisol levels, a stress biomarker, are lower at work than at home among women who work full-time (Damaske et al. 2014). But combining work and caregiving can lead to negative health outcomes, particularly when children are young (Schnittker 2007) and when caregiving is intensive, leading to increased psychological distress in women (Pavalko and Woodbury 2000). Although there have been numerous studies that have investigated the relationship between work, family, and health (Frech and Damaske 2012; Sabbath et al. 2015; Schnittker 2007), few have explicitly modeled the dual progression of work and family in women's lives and its impact on women's perceived stress nor on stress-related pathologies such as impaired immunity. Indeed, the majority of research on this topic has attended to singular factors, independent of others—examining the impact on health and stress of working or not, or steadily working overtime or not, or combining motherhood and work or not (for exceptions that model work–family without health see Aisenbrey and Fasang 2017; Worts et al. 2013). This approach limits the understanding of the *conditional* associations between multiple aspects of work, family, and well-being.

The ways women combine work, marriage, and parenthood have become complex as the transition to adulthood has lengthened, parenthood has been delayed, and marriage has been upended (Frech 2014; Gerson 2010; Montez et al. 2014; Settersten et al. 2005). A large body of population-based research suggests women's employment is stratified by class and shaped by early-life circumstances (Damaske and Frech 2016; Lu et al. 2017). Similarly, women's decisions about marriage, fertility, childbearing, and child-rearing are also stratified by class and early-life experiences (Edin and Kefalas 2005; McLanahan and Percheski 2008). Moreover, the diversity in women's work and family lives emerges early in life and appears to immediately affect their adoption of health behaviors (Frech 2014), which may also have implications for stress. While work and family patterns clearly emerge in tandem, shape each other, and likely have similar antecedents (Damaske and Frech 2016; Moen and Chermack 2005; Moen and Han 2001), there is, to our knowledge, scant research on how they unfold together and impact women's stress and other stress-related conditions in early adulthood.

Sociological research provides a good starting point for understanding how select work–family circumstances could correlate with stress, though few

attempts have been made to expand beyond simple typologies (e.g., single parenthood vs. married; employment loss vs. continuity) or to assess implications for comorbidities associated with chronic stress exposure. Immunity dysfunction is one possible bio-indicator of the chronic stress linked to suboptimal work–family arrangements. Impaired immunity is associated with mortality and morbidity as well as perceived stress (Burns et al. 2002). Clinically based studies of small samples providing biologically derived measures of immunity have found signals of immune dysfunction following exposure to family-based chronic and acute stressors, including child-rearing (for women, but not men) (Lundberg and Frankenhaeuser 1999). While fewer studies have examined work-related stress and immunity, available evidence suggests a link between low workplace control and immunity problems (Nakata 2012). Yet, little attention has been paid to the relationships among *combinations* of work–family circumstances, perceived stress, and stress biomarkers like immune performance.

Given these research gaps, the current study seeks to identify common combinations of work and family experiences that young women assume upon entering adulthood and how such combinations are related to perceived stress and signs of immunity dysfunction. We use data from the National Longitudinal Study of Adolescent to Adult Health (Add Health) and new extensions of latent class analysis (LCA) appropriate for the analysis of distal outcomes to identify latent work–family combinations defined by relationship and parenthood statuses and several dimensions of employment: employment status, occupational classification, workplace decision-making freedom, and personal earnings from employment. We then assess how latent class membership is associated with a multi-item perceived stress scale (PSS) and a biologically derived marker of immunity status—Epstein—Barr Virus (EBV) antibody titer values. Lastly, we evaluate whether associations between latent classes of work–family circumstances and stress outcomes are robust to adjustment for poverty-related stressors and a self-reported measure of family-to-work interference. These aims address several gaps in the literature by (1) identifying latent classes of work–family circumstances that go beyond simpler previously studied typologies; (2) applying a new LCA extension that reduces bias from classification error in models integrating covariates and distal outcomes; and (3) assessing implications for stress using both self-reports and a stress biomarker infrequently studied in population-based research.

Background

Work, family, and stress

The classic stress paradigm conceptualizes stress as a product of excessive life demands combined with insufficient resources to meet such demands (Pearlin et al. 1981). Within this framework, work and family can be understood to be systems, “greedy institutions” (Coser 1974), that may bring rewards but also stress. Recent research suggests that perceiving a lack of resources at work can raise a person’s cortisol levels and time away from home spent at work can lower

cortisol levels, indicating that there are biological stress responses to both home and work (Damaske et al. 2014, 2016). Chronic stress impacts multiple systems, including cardiovascular, metabolic, and neurological systems (hypothalamic–pituitary–adrenal (HPA) axis; sympathetic nervous system (SNS)), that are activated to cope with stress. Pathways linking adversity to physiological wear and tear include both cognitive processes such as rumination (Mullainathan and Shafir 2013) and coping behaviors that sometimes attenuate the connection between stressors and perceived distress at the expense of physiological well-being (Jackson et al. 2010).

In the face of acute stress, the processes initiated by systems including the HPA and SNS are normative and often beneficial, though persistent activation of these systems is associated with chronic illnesses. Chronic stress also impacts immunity performance; while acute stress has been shown to enhance immunity, chronic stress undermines it (Dhabhar and McEwen, 1997). This may include processes initiated by work–family stress (Shockley and Allen 2013), especially for women (Lundberg and Frankenhaeuser 1999).

One limitation of the prior work using stress biomarkers to examine health consequences of work–family circumstances is that it is based on small, idiosyncratic samples. Population-based research on the stress implications of work–family circumstances provides valuable insights, albeit from studies based mostly on self-reports. Working full-time, in comparison to part-time or nonemployment, is associated with better physical and mental health across race, marital status, and age (Frech and Damaske 2012; Pavalko and Smith 1999). In contrast, working part-time is shown to have mixed results, with some studies suggesting women who work part-time have poorer health, and others suggesting that the relationship between part-time work and health may be explained by other differences, such as spousal work hours, job tenure, and occupation (Kleiner and Pavalko 2010). Well-educated women may leave the workforce for different reasons than those with lower levels of education, which may explain the variance in the relationship between part-time work and health (Damaske 2011; Webber and Williams 2008). Work disrupted by unemployment and characterized by greater precarity may place a strain on workers' health (Frech and Damaske 2012). While consistent employment may be protective against poor health, there are health inequalities across occupational categories that disfavor those in unskilled positions. For instance, mortality from common causes of death such as heart disease appear higher among women in unskilled trades (e.g., service and private household workers) and lower among women in professional or managerial positions (Krueger and Burgard 2011). Wages also may play an important role in shaping women's health, as prior work has found personal income bears a stronger association with self-rated health for women than men, net of one's own work hours and their spouse's (Kleiner and Pavalko 2014).

Life-course scholars contend health and well-being unfold over time in tandem with other dynamic life trajectories such as work careers and family formation (Moen and Chermack 2005; Umberson et al. 2010). Women's health pathways are not defined simply by their workforce participation—their marital

and childbearing trajectories also matter to their health (Schnittker 2007). There is less research directly measuring the effect on stress of these differing trajectories, but we do expect stress is likely to follow similar patterns to commonly used measures of mental and physical health, including self-assessed depression and general physical health. Self-rated health appears to be poorer when women work and have young children in the house, although those health losses appear to be made up for by the benefits to one's health of long-term full-time employment once children are older (Schnittker 2007). Moreover, the presence of children in the household is associated with higher levels of distress and depression as well as lower life expectancy, among single versus married women (Avison et al. 2007; Sabbath et al. 2015). Among the few studies to track work–family arrangements over time, Lacey and colleagues (2016a) found women from the 1946 British cohort study had higher life satisfaction at mid-life when they combined strong ties to the labor force with parenthood and marriage across the life course—advantages that may also extend to lower chronic inflammation and fewer cardiometabolic disorders (Lacey et al. 2016b; McMunn et al. 2016). How cohabiting unmarried mothers fare relative to single mothers remains unclear, though most evidence suggests their stress exposure and mental well-being is more like single vs. married mothers (Kim and McKenry 2002). While family-related strains appear to be linked with suboptimal mental and physical health, such strains may not be unique to parents; single, child-free adults are often faced with obligations to other family members (Connidis 2001). Thus, work–family conflicts may affect both those with and without children.

In sum, sociological research shows women's life-course pathways are constituted by multiple interdependent work and family arrangements. Women's pathways are complex and reflect gendered acculturation to distinct life expectations and differential resource allocation (Moen and Chermack 2005)—processes that begin early in life. While much qualitative work has untangled these processes and shed light on how work–family circumstances contribute to multiple forms of inequality among women (Damaske 2011; Hansen 2005), approaching the topic with quantitative data and methods is a challenge (Aisenbrey and Fasang 2017). And though theory on work–family strain and health (Berkman et al. 2014) would lead to the expectation of inequalities in stress-related pathologies among women in more or less advantageous *combinations* of work and family roles, few studies have investigated this supposition.

Work and family covariates during the passage to adulthood

Key transitions made during young adulthood—completing high school and entering into college, employment, marriage, and parenthood—constitute interdependent transitions, sometimes precipitating one another and sometimes co-occurring (Damaske and Frech 2016; Moen and Chermack 2005; Moen and Han 2001). The trajectories formed by such interlocking transitions are diverse and complex; while many women work steadily full-time, the sum of women's work remains uneven, with some starting work later in life, some women taking time out of the workforce to care for children, and some women facing greater

unemployment risks (Damaske and Frech 2016; Sabbath et al. 2015). Thus, many of the factors that shape workforce participation also likely shape family formation.

Early socioeconomic status (SES), gender ideologies, and early-life work–family opportunities and constraints shape women’s workforce participation during their twenties and thirties (Damaske and Frech 2016). Being raised in poverty, having a mother with lower levels of education, having lower levels of education oneself, and facing community-level barriers to employment can all decrease the likelihood that women will work (Damaske and Frech 2016). In contrast, higher levels of education often lead to both a higher likelihood to be employed and increased marital prospects and timely transitions to parenthood (Percheski 2008; Reid and Padavic 2005). While recent research suggests that women’s personal earnings and education levels are better predictors of her workforce participation than her husband’s earnings, husband’s earnings and work hours do influence the likelihood women will work full-time (Damaske 2011; Shafer 2011). Children also play an important role in shaping women’s employment; work–family conflict may increase when individuals—couples and singles—have a child and having a young child is generally understood to be among the most time-demanding responsibilities for parents (Moen 2001). Race likely also plays a role in shaping the alignment of employment, marriage, and childbearing, with Blacks and Latinas reporting lower levels of employment and higher levels of unemployment in their youth as well as greater likelihood to be single parents, although Blacks and Latinas also appear less likely to decrease their workforce participation to part-time hours during prime childbearing years (Damaske and Frech 2016; McLanahan and Percheski 2008; Reid and Padavic 2005). In sum, there is considerable evidence that work and family decisions are made alongside each other and have many common determinants. Thus, we argue, such transitions should be studied in tandem.

We address several knowledge gaps that characterize the literature on work, family, and stress during the transition to adulthood. We focus on this stage in the life course because it marks a moment when young people begin to experience firsthand the challenges of complex work–family arrangements and the implications that such arrangements may have for their well-being. We draw on data from the National Longitudinal Study of Adolescent to Adult Health (Add Health) to address several aims. First, we use LCA to identify common typologies of work and family circumstances. For this, we assess statuses across marriage, parenthood, and several dimensions of employment: employment status, occupational classification, workplace decision-making freedom, and personal earnings from employment. Second, we integrate covariates into the LCA model to identify correlates of membership in latent classes defined by young adult work–family circumstances. Third, we capitalize on new extensions to latent class modeling with covariates and distal outcomes that reduce bias in models estimating associations between latent class membership and two outcomes: a multi-item self-reported stress measure, and a biologically derived measure of immunity dysfunction—Esptein–Barr Virus (EBV) antibody titers—a measure that has been used frequently in clinical, but not population-based,

investigations of work–family stress and health. Finally, we assess whether association between latent classes of work–family circumstances and stress are robust to adjustment for poverty-related stressors and work–family interference.

Data and Methods

Data are drawn from the restricted-use National Longitudinal Study of Adolescent to Adult Health (Add Health), an ongoing, nationally representative survey of adolescents (Harris 2013). In 1994, Add Health administered in-school questionnaires to students selected through a stratified random sample of all US high schools ($n = 90,118$). A subsample (the “core sample”) participated in home-based interviews between 1994 and 1995 ($n = 20,745$). All core sample students except for graduating high school seniors were reinterviewed in a second wave of data collection in 1996 ($n = 14,738$). Third and fourth waves were collected in 2001–2002 and 2008, respectively, from all Wave 1 core sample participants. We retain data from female participants, aged 27–34, of both the Wave 1 and 4 interviews with valid sample weights who were positive for EBV (i.e., >10th percentile of EBV values; $n = 5,388$). We further omit women who were pregnant at the time of the Wave 4 interview ($n = 305$) or were taking immunosuppressive medications ($n = 13$). Missing data on latent class indicator items, while rare, were addressed through full-information maximum likelihood replacement (see Collins and Lanza 2010). Similarly, missingness for covariates was rare and limited to two variables: parental education ($n = 290$) and Wave 1 overweight/obese ($n = 168$). Imputation of missing data on covariates is unavailable in LCA (Collins and Lanza 2010); thus, missingness on these measures was replaced by drawing upon respondent reports of parents’ education where parent-provided data were unavailable ($n = 290$) and by using Wave 2 ($n = 110$), Wave 3 ($n = 44$), or Wave 4 ($n = 14$) data on body mass index (BMI) to replace missing data for Wave 1 BMI.¹ This yields a final analytic sample of 5,070 women.

We consider two stress-related outcomes from the Wave 4 (young adult) interviews. The first is Cohen’s PSS (Cohen et al. 1983), a well-validated measure of perceived stress that is strongly correlated with stress biomarkers (Burns et al. 2002). We rely on an abbreviated version of the PSS which combines responses to the following: how often in the past month did the respondents feel (1) that they were unable to control the important things in their life; (2) confident in their ability to handle their personal problems; (3) that things were going their way; and (4) that difficulties were piling up so high that they could not overcome them. Response options ranged from “never” (0) to “very often” (4). We reverse-coded items two and three such that higher values indicate more difficulty across all items. Reliability of the abbreviated PSS in our analytic sample was satisfactory ($\alpha = 0.75$) and all factor loadings were above 0.72.

The second outcome is cell-mediated immunity assessed via log-transformed EBV viral capsid antigen (VCA) IgG antibody titers among EBV-positive adult females. EBV reactivation can occur when cell-mediated immune functioning weakens, allowing the dormant herpesvirus to produce viral antigens, to which

the body's immune system responds with the release of antibodies. Because chronic stress exposure can lead to immunity dysfunction, EBV antibodies have been used to approximate chronic stress exposure and immunity (McDade et al. 2000). Add Health researchers collected EBV antibodies from Wave 4 participants consenting to collection of capillary dried blood spots that were analyzed by the Department of Laboratory Medicine at the University of Washington.

Latent class models include indicators of relationship status, motherhood, labor force participation, working conditions, and personal earnings (see tables 1 and 2 for descriptions of class indicators and model covariates). Respondent-provided household rosters are used to measure relationship status and motherhood. Married respondents are those who reported coresiding with a spouse, cohabiters reported living with an unmarried partner, and single individuals reported neither. *Motherhood* is based on an ordinal measure of the number of child dependents under the age of 18 living with the respondent, including both biologically and socially related children.

Labor experiences include *employment status*, with categories for full-time (35 or more hours per week at one's current primary job), part-time (between 10 and 35 h per week), and not working, including those working fewer than 10 h per week who were not asked about their current labor experiences. *Occupational classification* is based on Bureau of Labor Statistics Standard Occupational Codes (SOC) designed to group workers into categories with similar educational and training demands, job tasks, and compensation. Preliminary assessments suggested a two-category occupational classification scheme fits our data the best. The first category is comprised of women in professional work, including management and executive positions; work in science, law, medicine, and the arts; and social work, counseling, and education. The second category is comprised of women engaged in what has been referred to as "pink-collar" work—work that brings few opportunities for advancement and to which women may be limited as family demands move them in and out of the labor force (Howe 1977). Employment categories represented in this group include service, sales, clerical, and housework; unskilled health care; and construction, production, and transportation.

Decision-making freedom is based on the question "How often do/did you have the freedom to make important decisions about what you do/did at work and how you do/did it?" Respondents were coded as having low decision-making freedom if they reported "some of the time or none/almost none of the time" vs. "most or all/almost all of the time." *Personal earnings* for the previous year are self-reported and recorded as a five-category ordinal measure in increments of \$10,000 with a range of \$10,000 or less to \$40,000 or more. The median personal earnings reported by full-time workers in our sample was \$32,000, compared to the national median of \$32,396 for 25- to 34-year-old women in 2008 (U.S. Department of Labor 2009).

We draw on several covariates from the Wave 4 (young adult) interviews to evaluate whether associations between work–family circumstances and stress outcomes are robust to adjustments for education, poverty-related stressors, and work–family interference. *Completed education* is a dichotomous measure

Table 1. Weighted Sample Description ($N = 5,070$)

	Mean or proportion	Standard error	Range
Perceived Stress Scale score	5.18	0.06	3.99–7.18
Epstein–Barr Viral antibody titer values (logged)	5.03	0.01	0–16
Age in years, Wave 4	28.94	0.03	27–34
Race			
Non-Hispanic White (reference)	0.65	0.01	
Non-Hispanic Black	0.17	0.01	
Hispanic	0.12	0.01	
Other race	0.06	0.01	
Parental education			
Less than high school	0.17	0.01	
High school or equivalent (reference)	0.55	0.01	
Four-year college degree	0.28	0.01	
Family received public assistance	0.11	0.01	
Count of siblings	1.39	0.02	0–9
Work–family arrangements in adolescence			
Dual-earner two-parent family (reference)	0.50	0.01	
Single-earner two-parent family	0.15	0.01	
Single-parent family	0.24	0.01	
Other family type	0.11	0.01	
County female labor opportunity index	3.35	0.02	0–5
County proportion adult women married	0.52	0.00	0.28–0.69
Wave 1 overweight/obese	0.27	0.01	
Respondent completed college by Wave 4	0.31	0.01	
Missed housing or utility payment, Wave 4	0.24	0.01	
Food insecure, Wave 4	0.15	0.01	
Family-work interference, Wave 4	1.35	0.03	0–4

indicating completion of a four-year college degree or not. Poverty-related stressors include dichotomous measures of *missed payments* in the past year for housing (rent, mortgage) or utilities and *food insecurity*, which is equal to “1” for respondents reporting that in the past year they had worried that food would run out in the household before there would be money to buy more. *Work–family interference* is a Likert-style ordinal measure with five response options

High	60.2	73.6	81.0	67.8	59.4	47.8	37.1
Low	39.8	26.4	19.0	32.2	40.6	52.2	62.9
Personal earnings							
≤\$10,000	10.0	0.0	0.2	19.8	50.9	98.7	74.3
\$10,001–\$20,000	23.6	0.2	2.4	31.1	32.3	1.3	21.1
\$20,001–\$30,000	40.0	4.1	17.3	34.9	14.7	0.0	4.3
\$30,001–\$40,000	20.9	24.1	38.1	12.1	2.1	0.0	0.3
>\$40,000	5.4	71.6	42.0	2.1	0.1	0.0	0.0
Probability of class membership	19.9	16.9	15.1	14.3	12.3	11.1	10.4

Notes: Estimates represent the probability of item endorsement conditional on membership in class s.

ranging from “strongly agree” to “strongly disagree” to the statement “Family responsibilities have interfered with my ability to work,” with higher values indicating stronger agreement. We control for race/ethnicity and completed education in fully adjusted models for distal outcomes because prior work documents strong associations between these measures and both perceived stress and EBV values (Dowd et al. 2014; Mirowsky and Ross 2003).

Fully adjusted models assessing latent class membership include a vector of sociodemographic and family background measures. *Race/ethnicity* is based on respondent reports, as is *age in years* which is drawn from the Wave 4 interview (range = 27–34, median = 29, mean = 28.9). *Parental education* is a three-category measure with options for high school diploma or equivalent (reference), less than high school, and four-year college degree or more. *Count of siblings* measures the number of siblings with whom respondents reported coresiding at the Wave 1 interview.

A typology of *work–family arrangements in adolescence* was constructed by combining measures of family structure at Wave 1 (i.e., two-parent, single-parent, step-parent families, and other family types) and reports of whether respondents’ parent(s) worked outside of the home. Combining family structure and parental employment yields four categories of Wave 1 work–family arrangements: dual-earner families including two-parent biological and step families (reference), single-earner two-parent families, single-parent families,² and other family types.

Family public assistance is a dichotomous measure drawn from reports of Wave 1 household participation in any of the following: Aid to Families with Dependent Children (AFDC), food stamp program, housing subsidies, or any other type of “welfare” assistance.

To capture community-level correlates of eventual work–family circumstances, we examine two county-level measures—*proportion adult women married with spouse present* and *female labor opportunity index*—to approximate the local nuptial and employment environments respondents were exposed to as adolescents. The former measure is based on estimates from the 1990 decennial census. The female labor opportunity index, which prior work suggests is negatively associated with the odds of marriage among young adult women (Guzzo 2006), indicates the expected number of jobs for female workers relative to the potential supply of female workers, adjusted for sex segregation in the labor market. It is expressed by $\frac{P_i W_i}{F}$, where W_i is the number of workers in the county who are in the three-digit census occupation category i , which is weighted by P_i —the national proportion of workers in occupation category i who are female—summed over all occupations and divided by F , the potential supply of women workers (i.e., number of women in the county aged 16 and older). See Nakamura et al. (1979) for a detailed description.

Analysis

We implement LCA to identify subgroups of respondents (i.e., classes) with common response patterns across work–family indicators. LCA uses observable

indicators to produce unobserved probabilities of endorsing $y_1 \dots y_k$ response patterns that account for the covariance between observed indicators. In its basic form, the latent class model is defined by

$$P(Y = y) = \sum_t P(X = t)P(Y = y|X = t) \quad (1)$$

where $P(X = t)$ denotes the probability of belonging to class t and $P(Y = y|X = t)$ is the probability of having response pattern y conditional on membership in class t .

This model assumes local independence, or that K indicators are mutually independent within classes—an assumption that was satisfied in all but three pairs of indicators in our model as evidenced by bivariate residuals (BVRs) exceeding a value of 1.96. In these cases, we allowed for direct effects between these indicators, a common solution to violations of local independence. With this adjustment, the joint probability of a response pattern y across K indicator items is the product of the item-specific probabilities:

$$P(Y = y) = \sum_t P(X = t) \prod_k P(Y_k = y_k|X = t) \quad (2)$$

Parameters of interest include latent class proportions $P(X = t)$ and conditional item-response probabilities $P(Y_k = y_k|X = t)$. We assign cases to classes using proportional assignment, which is derived by applying Bayes's theorem to observed response pattern y , $P(X = t|Y = y)$:

$$P(X = t|Y = y) = \frac{P(X = t)P(Y = y|X = t)}{P(Y = y)} \quad (3)$$

Recent advancements allow the inclusion of covariates associated with latent class membership, as well as distal outcomes dependent on latent class membership. Historically, fitting distal outcomes within LCA used a classify-analyze approach (Bolck et al. 2004), where a latent class model is first estimated, cases are assigned to latent classes, and relationships between distal outcomes and class membership are analyzed using traditional methods (e.g., regression). Recent demonstrations show this approach introduces bias by failing to account for classification error, attenuating the association between distal outcomes and class membership (Bolck et al. 2004; Bray et al. 2015).

To reduce this bias, Bolck et al. (2004) developed the BCH 3-Step approach, which involves estimation of weights that are inversely related to the classification error of latent class assignment. The BCH method involves three steps: (1) estimation of the standard latent class model; (2) assignment of cases based on proportional posterior class membership probabilities; (3) estimation of associations among model covariates, categorical latent variable X , and distal outcome Z , while accounting for model error derived from the second step by weighting the model by the inverse of the classification error (Bakk and Vermunt 2016).

These steps are achieved through a form of the basic latent class model, modified to include distal outcome Z_i alongside response set Y_i :

$$P(Y_i, Z_i) = \sum_{t=1}^T P(X=t) \prod_{k=1}^K P(Y_{ik}|X=t) f(Z_i|X=t) \quad (4)$$

where $f(Z_i | X=t)$ represents the class-specific distribution of continuous outcome Z_i , defined by a normal distribution with mean μ_t and variance σ_t^2 .

Equation (4) may be modified by weighting the model by the inverse of the classification error. Using posterior probabilities of class membership (Equation (3)), cases are first assigned to each of S classes proportionally, with a weight equal to $P(W=s|Y_i) = P(X=s|Y_i)$, where W corresponds to the predicted class membership variable. A weight equal to the inverse of the classification error is derived and expressed as the probability of an assigned class membership s conditional on the observed class membership t (Bakk and Vermunt 2016):

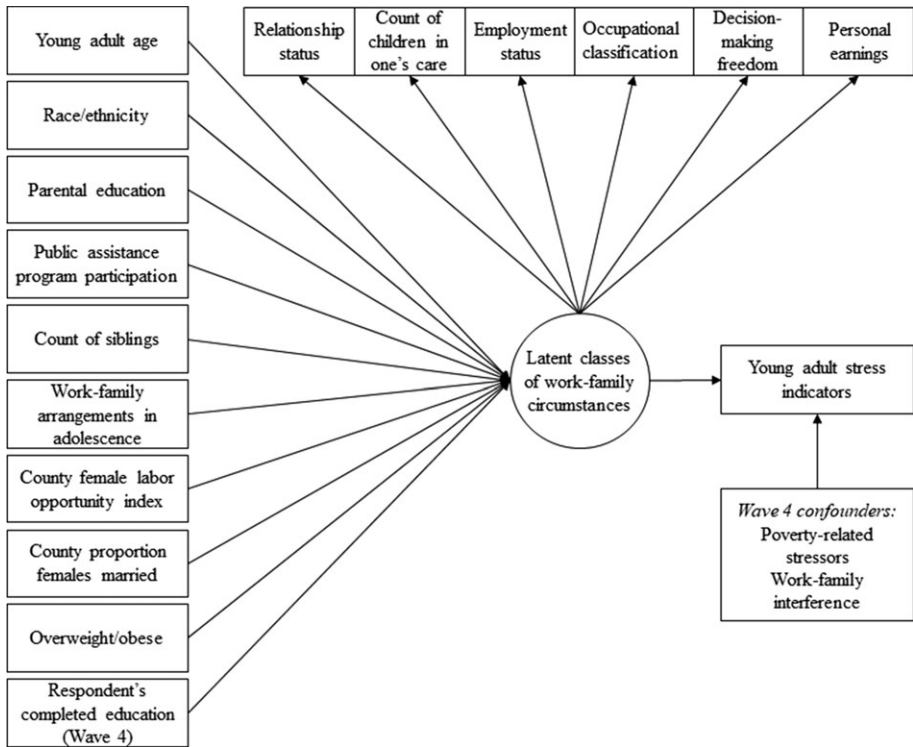
$$P(W=s|X=t) = \frac{\frac{1}{N} \sum_i P(X=t|Y=y_i) w_{is}}{P(X=t)} \quad (5)$$

where N is the sample size and $w_{is} = P(W=s|Y=y_i)$. The classification error weight derived from Equation (5), denoted by d_{st}^* , may then be integrated with Equation (4):

$$P(X=t, Z=z) = \sum_s P(W=s, Z=z) d_{st}^* \quad (6)$$

with d_{st}^* derived from the inverted T -by- T matrix \mathbf{D} with elements $P(W=s|X=t)$ from Equation (5) (Bakk and Vermunt 2016). Adjusting model estimates in this way gives more weight to those best classified by the LCA model, reducing bias in the estimated association between latent class membership and distal outcomes (Bray et al. 2015).

Using Latent Gold 5.1, we estimated multiple latent class models and assessed model fit criteria including information criteria (Bayesian Information Criterion (BIC), BVRs, bootstrapped likelihood ratio tests (BLRT), and substantive interpretation. BIC values were lowest for the six- and seven-class solutions, though BLRT values supported the seven-class solution, our ultimate choice (see online Supplement A). As shown in Figure 1, our complete BCH model integrates the covariates previously described with the seven-class latent model and distal outcomes. All models apply probability weights to adjust for the Add Health study design (Harris 2013).

Figure 1. Illustration of the BCH 3-Step Latent Class Model with Distal Stress Outcomes

Results

Describing Combinations of Work–Family Circumstances

In our description of each latent class, we pay particular attention to conditional item-response probabilities ≥ 70 percent (or ≤ 30 percent; see table 2). Indicators that distinguished classes most clearly included employment status, occupational classification, and motherhood. We arranged classes by posterior probability of membership and describe each in the order of their frequency. We also describe covariate differences between the classes by drawing on unadjusted bivariate analyses (table 3) and fully adjusted results from a BCH model with covariates shown in online Supplement B.

Class 1—pink-collar workers without children

The modal group in the sample, these women had high propensities for full-time work in pink-collar positions and low probabilities of motherhood. The modal earnings category for women in this class suggests that *pink-collar workers without children* earn modest paychecks, which for single women in this class—the modal relationship status—is likely the sole source of household income. Table 3 and online Supplement B indicate that women in Class 1 are younger

Table 3. Covariate Means/Proportions Conditional on Latent Class Membership (*N* = 5,070)

	Pink-collar workers without children	Professional workers without children	Professional workers with children	Pink-collar workers with children	Pink-collar part- time workers with children	Mothers without paid employment	Slow starters
Age in years, Wave 4	28.45	28.85	29.44	28.94	28.91	29.16	29.11
Race/ethnicity							
Non-Hispanic White	0.68	0.67	0.70	0.50	0.69	0.73	0.55
Non-Hispanic Black	0.16	0.12	0.13	0.29	0.17	0.10	0.21
Hispanic	0.11	0.12	0.13	0.16	0.09	0.10	0.18
Other race	0.05	0.09	0.05	0.05	0.05	0.07	0.06
Parental education							
Less than high school	0.12	0.08	0.14	0.29	0.23	0.21	0.20
High school or equivalent	0.59	0.40	0.53	0.62	0.61	0.60	0.50
Four-year college degree	0.30	0.52	0.33	0.10	0.16	0.20	0.30
Received public assistance	0.08	0.03	0.07	0.20	0.16	0.16	0.18
Count of siblings	1.29	1.30	1.25	1.46	1.44	1.51	1.60

Work-family arrangements in adolescence							
Dual-earner two-parent family	0.55	0.67	0.54	0.38	0.46	0.39	0.38
Single-earner two-parent family	0.13	0.12	0.16	0.12	0.16	0.17	0.19
Single-parent family	0.25	0.16	0.19	0.35	0.27	0.23	0.27
Other family type	0.07	0.06	0.10	0.15	0.11	0.21	0.16
County female labor opportunity index	3.44	3.76	3.27	3.12	3.09	3.09	3.58
County proportion adult women married	0.53	0.52	0.53	0.51	0.53	0.53	0.52
Wave 1 overweight/obese	0.34	0.23	0.17	0.33	0.22	0.26	0.40
Respondent completed college by Wave 4	0.28	0.81	0.48	0.03	0.07	0.13	0.15

than all other women, were more likely to be overweight or obese as adolescents than all other classes except Class 7 and presented a mixed propensity for post-secondary education.

Class 2—professional workers without children

As their label suggests, women in this class presented strong propensities for full-time work in professional positions with high earnings and decision-making freedom. Very few of the women in this class were raising children, and their relationship status was mixed. *Professional workers without children* were distinguished from other classes by both their parents' education (52 percent with a college degree) and their own (81 percent with a college degree). Like their counterparts in Classes 1 and 7, *professional workers without children* originated from counties with significantly higher female labor opportunity index scores than women from classes comprising primarily mothers.

Class 3—professional workers with children

Most women in this group are engaged in full-time, professional work in well-paid jobs. Contrary to Class 2, women in Class 3 are almost universally engaged in child-rearing with most simultaneously working full-time. *Professional workers with children* had a high propensity for marriage as well as a strong degree of decision-making freedom at work. Compared to all other classes, women in this class were older and—with the exception of *professional workers without children*—more likely to have completed college degrees.

Class 4—pink-collar workers with children

Women in this class have high probabilities of both engagement in full-time pink-collar work and of child-rearing in and out of married relationships. Compensation for their work is low, with most earning below \$30,000 per year—a figure that is consistent with their educational attainment. Results from fully adjusted models (online Supplement B) show that women in Class 4 were less likely to have completed a college degree relative to all but one class (5) and were less likely to have college-educated parents than women from all but two classes (5,6).

Class 5—pink-collar part-time workers with children

Part-time work was rare in our sample, though for women in Class 5 it was the modal employment category. For women in this class, working part-time may be an adaptive response to family demands, given the average number of children (2.2) in the care of *pink-collar part-time workers*. Relationship status was also mixed in this group, indicating that—like *pink-collar workers with children*—a large minority of women in Class 5 are single mothers.

Class 6—mothers without paid employment

Women in this class had the largest families and a majority were parenting within married partnerships. Work outside the home was uncommon for women in this class, though reports regarding the most recent labor experience suggest a tendency for *mothers without paid employment* to work in pink-collar positions.

Class 7—slow starters

The least common class is one characterized by marginal employment, singlehood, and child-free status. *Slow starters*—a term we borrow from Osgood et al. (2005) who found a similar class in their analysis of young adults from the Michigan Study of Adolescent Life Transitions—had a recent history of pink-collar work in positions with low decision-making freedom and showed lower educational attainment (15 percent with a college degree) than their parents' education (30 percent with college-educated parents) might suggest. Women in Class 7 were more likely to be overweight/obese in adolescence compared to all other women save *pink-collar* and *professional workers without children*—the other two classes with the lowest probabilities of marriage and parenthood.

Work, Family, and Stress-Related Outcomes

We now assess associations between latent combinations of work–family circumstances and perceived stress, tapped with the PSS measure, and log-transformed Epstein–Barr Viral antibody titers. The outcomes are regressed on $k - 1$ latent class categories six times to achieve full pairwise comparisons, though for parsimony we present only those results based on models treating *professional workers without children* as the reference category (see online supplement for full results). There are several reasons to expect *professional workers without children* might be the most advantaged women in our sample and also the healthiest. Their ability to prioritize their education and their careers during this period in the life course marks them as relatively elite (Stone 2007). Additionally, not yet having had children indicates they have yet to enter the stage of life where young children may place, at least temporarily, strains on one's physical and mental health (Schnittker 2007). These expected advantages make it an ideal reference category. There are two models for each outcome. Model 1 is adjusted for only latent class membership, and Model 2 adds controls for race/ethnicity and respondent's Wave 4 education. Table 4 summarizes results from these models; higher values associated with each latent class label correspond to greater perceived stress or EBV antibodies (indicating poorer immunity) relative to the omitted class.

Turning to perceived stress, results from Model 1 indicate that, relative to *professional workers without children*, women characterized by pink-collar full- or part-time work reported significantly higher perceived stress scores irrespective of whether they had children in their care or not. *Slow starters* similarly reported higher stress scores than professional workers without children. In

Table 4. BCH 3-Step Regression Results of Latent Class Membership, Scores, and Epstein–Barr Virus Antibody Titers (*N* = 5,070)

Latent class of membership	Perceived Stress Scale				EBV antibody titer values (ln)	
Pink-collar workers without children	0.90 (0.24)	***	0.45 (0.27)	†	0.10 (0.05)	* 0.08 (0.05)
Professional workers with children	0.14 (0.24)		−0.10 (0.24)		0.02 (0.05)	0.01 (0.05)
Pink-collar workers with children	1.29 (0.23)	***	0.55 (0.30)	†	0.08 (0.05)	† 0.02 (0.06)
Pink-collar part-time workers with children	1.48 (0.27)	***	0.88 (0.30)	**	0.08 (0.05)	† 0.05 (0.06)
Mothers without paid employment	1.84 (0.29)	***	1.27 (0.31)	***	0.05 (0.05)	0.04 (0.06)
Slow starters	2.67 (0.36)	***	2.10 (0.38)	***	0.01 (0.06)	−0.03 (0.06)

† *p* < 0.10, * *p* < 0.05, ** *p* < 0.01, *** *p* < 0.001.
Omitted class: *professional workers without children*.
Model 1 adjusted for class membership.
Model 2 adjusted for class membership, race/ethnicity, and completed Wave 4 education.

Model 2, following adjustments for race/ethnicity and completed Wave 4 education, these differences are attenuated though perceived stress scores remain significantly higher among *pink-collar part-time workers with children*, *mothers without paid employment*, and *slow starters* relative to *professional workers without children*. In results available in an online supplement we rotate the other classes as the reference categories to achieve full pairwise comparisons. These models show that, net of controls for race/ethnicity and education, *professional workers with children* also had lower perceived stress scores than all other groups except for their counterparts without children. We also find higher perceived stress scores among *mothers without paid employment* relative to all other groups except *pink-collar workers with children* and *slow starters*. Perceived stress scores were also lower among *pink-collar workers without children* compared to *pink-collar part-time workers with children* and *slow starters*.

How do these patterns align with our findings for immunity function? Results shown in Table 4 reveal few meaningful differences in Epstein–Barr titer values among women in different work-life circumstances. Model 1 demonstrates that *pink-collar workers without children* present significantly higher EBV titer values than *professional workers without children*. However, following adjustments for race/ethnicity and education in Model 2, this difference and other marginally-significant contrasts are attenuated and no longer significant.

In results not shown, we find additional support for our decision to control for race/ethnicity and education in models for both stress outcomes. With

respect to perceived stress, we find those who completed a four-year college degree by Wave 4 had lower PSS scores compared to those without a degree ($b = -0.82, p < 0.001$). For immunity functioning, we find non-Hispanic Blacks ($b = 0.16, p < 0.001$) and Hispanics ($b = 0.11, p < 0.01$) presented significantly higher EBV antibody titer values than their non-Hispanic White counterparts.

Evaluating Poverty-Related Stress and Work–Family Interference

We next examine whether the patterns identified for perceived stress from table 4 are robust to adjustments for two sets of factors: (1) poverty-related stressors including missed housing or utility payments in the past year and household food insecurity and (2) work–family interference. Table 5 summarizes results from three models that include in turn poverty-related stressors (Model 1), work–family interference (Model 2), and both together (Model 3). In addition to latent class membership, all models also adjust for race/ethnicity and education.

Results from Model 1 indicate that the significant between-class differences from table 4 are attenuated with adjustments for stressors linked to poverty. Following these adjustments, neither group of full- or part-time *pink-collar workers with children* present significantly higher PSS scores compared to *professional workers without children*, and differences in average PSS scores between *mothers without paid employment* and *slow starters* versus *professional workers without children* are attenuated though still significantly different. Model 2 removes poverty-related stressors and adds work–family interference. Following this adjustment, the PSS scores of *professional workers with children* are significantly lower than those reported by *professional workers without children*. We investigated this further and found *professional workers with children* report both lower PSS scores compared to their counterparts with kids in their care, yet higher values on the ordinal measure of work–family interference—findings that are consistent with effect suppression. Model 2 also reveals differences between *mothers without paid employment* and *professional workers without children* are not significant when adjusting for work–family interference, though differences between the latter group and *slow starters* remain significant.

After adjusting for both poverty-related stressors and work–family interference (Model 3), we find that the significant difference in PSS scores between *professional workers with* and *without children* persists, to the benefit of *professional workers with children*. We also find that PSS scores among *slow starters* remain significantly higher than *professional workers without children*. In fact, in full results available online, *slow starters* reported higher PSS scores than all other women net of controls for poverty-related stressors, work–family interference, race/ethnicity, and completed education. Results from supplementary models show *pink-collar workers without children* reported significantly higher PSS scores than *professional workers with children* net of all other factors in Model 3. No other between-class differences in PSS scores are significant following adjustments for both poverty-related stressors and work–family interference. Finally, we note the significant associations between poverty-related

Table 5. BCH 3-Step Regression Results of Latent Class Membership and Scores Adjusting for Poverty-Related Stressors and Work–Family Interference (*N* = 5,070)

Latent class of membership	Model 1	Model 2	Model 3
Pink-collar workers without children	0.24 (0.27)	0.32 (0.27)	0.15 (0.27)
Professional workers with children	−0.16 (0.24)	−0.62 * (0.25)	−0.59 * (0.24)
Pink-collar workers with children	−0.03 (0.29)	0.16 (0.30)	−0.31 (0.30)
Pink-collar part-time workers with children	0.29 (0.30)	0.08 (0.32)	−0.34 (0.31)
Mothers without paid employment	0.76 * (0.31)	0.19 (0.34)	−0.07 (0.34)
Slow starters	1.77 *** (0.38)	1.79 *** (0.36)	1.49 *** (0.36)
<i>Poverty-related stressors and work–family conflict</i>			
Missed bill	1.09 *** (0.16)	–	1.02 *** (0.16)
Food insecure	1.61 *** (0.20)	–	1.47 *** (0.21)
Family-work interference	–	0.55 ** (0.06)	0.46 *** (0.06)

* *p* < 0.05, ** *p* < 0.01, *** *p* < 0.001.

Omitted class: *professional workers without children*.

Estimates shown as OLS regression coefficients with standard errors in parentheses.

All models include adjustments for race/ethnicity and completed Wave 4 education.

stressors, work–family interference, and perceived stress. Those who had missed a housing or utility payment in the past year reported significantly higher PSS scores than those who had not (*b* = 1.02, *p* < 0.001). Similarly, those who lived in households where food security was a concern reported significantly higher PSS scores (*b* = 1.47, *p* < 0.001) than those in food-secure households. Finally, our results indicate that every one-point increase in work–family interference corresponds to approximately a half-point increase in the PSS score.

Discussion

Young adulthood is a key life-course stage marked by numerous transitions, especially those within work and family. The complex matrix of work–family circumstances that young women encounter upon entering adulthood may have implications for their stress exposure. This has received only limited attention, however, partly due to prevailing assumptions regarding the robust health profiles of young adults compared to those much older or younger. Thus, little

empirical work has been devoted to understanding variations among young adult women in both self-assessed health statuses including general health and perceived stress, and biologically derived measures of stress including signals of immunity dysfunction. Attending to both—self-assessments and biomarkers—may be especially important, as perceived well-being does not always align with underlying pathologies, especially for women (Jylhä 2009).

We examined several early life correlates of common work–family combinations among young adult women and assessed how such combinations were associated with perceived stress and a biomarker of stress-related immunity dysfunction. We further explored whether such associations were robust to adjustment for poverty-related stressors and work–family interference. Applying recent extensions to latent class analyses (LCA) allowed us to explore these associations while reducing bias caused by classification error in the latent class model. Drawing upon the National Longitudinal Study of Adolescent to Adult Health, our study yielded several key findings.

First, we find seven common combinations of work–family circumstances among young adult women. Perhaps most striking here is the heterogeneity of work–family combinations—the modal category is comprised of just around 20 percent of the sample, suggesting that the ways young women combine work and family in the twenty-first century are numerous and complex. These included work–family combinations marked by propensities for full-time professional and pink-collar work with and without children, full-time pink-collar work while parenting under the poverty line, stay-at-home parenting within marriage, and delayed transitions to work and family. The diverse work–family alignments in our sample is consistent with prior observations of the growing heterogeneity in young women’s transition to adulthood (Settersten et al. 2005), though our analysis pushes beyond simple typologies of successful or unsuccessful transitions to adulthood. We added to prior work on the transition to adulthood by examining variation in detailed aspects of these transitions—and the transitions that co-occur alongside them—including family formation, occupational classifications of working women, and the intrinsic (decision-making freedom) and extrinsic (earnings) rewards of one’s labor. Our results also illustrated the correspondence between family circumstances and the growing division between labor market winners and losers in “good” and “bad” jobs (Kalleberg 2011). Building on the concept of “good” and “bad” jobs, we borrow the term “pink-collar” from Howe (1977) to capture the work being done by non-professionals, as Howe presciently captured the likelihood that women’s family obligations would leave them employed in jobs with little opportunity for advancement.

Second, our findings also implicated a vector of covariates related to class membership. Education, including that of one’s parents but particularly one’s own education, played a key role in distinguishing the odds of class membership. Women with college degrees consistently had higher probabilities of membership in classes marked by full-time professional work, with and without child dependents in the household. Conversely, those without college degrees were better characterized by work–family arrangements combining motherhood with

pink-collar part- or full-time work or no work at all. As prior research shows (Damasko and Frech 2016; Percheski 2008; Reid and Padavic 2005), completion of a college degree is linked to more prestigious and better paid employment and timely transitions into marriage and family formation. Our findings largely agreed with these patterns. Beyond one's educational attainment, labor opportunities available to women in the counties of one's youth were also related to one's family circumstances in young adulthood. Consistent with past research (Guzzo 2006), we found that women originating from counties with more labor opportunities for women were more likely to be child-free and unmarried in young adulthood. Other early-life factors associated with lower propensities for marriage and parenthood in young adulthood included adolescent overweight or obesity, an association identified in a separate nationally representative study of young adults (Frisco et al. 2012).

Third, we explored stress implications of different work–family circumstances in young adulthood. Our findings indicated that perceived stress was lowest for women engaged in full-time professional work, regardless of whether they had children in their care, and highest for women without full-time work, romantic partners, or children. We also found variations in perceived stress among women sharing common life circumstances like motherhood, but who varied in other regards. *Professional workers with children* in particular present lower levels of perceived stress than *pink-collar workers with children*, *pink-collar part-time workers with children*, and *mothers without paid employment* (see online supplement for results). This finding provides further evidence that the benefits of women's work have been greatest for those with higher SES (Stainback and Tomaskovic-Devey 2012), and that strains associated with higher-status work may be offset by the rewards they find both at work (including greater decision-making and higher personal earnings) and at home (including the greater likelihood to be married if a mother). Coupled with the comparable stress levels between *professional workers with* and *without children*, our findings indicated that life-course pathways prioritizing education, career development, and timely partnership formation benefited one's stress levels irrespective of whether children eventually entered the picture.

It was unclear how these patterns coincided with stress-related immunity dysfunction. For instance, *professional workers without children* presented significantly lower EBV antibodies compared to *pink-collar workers without children*, but this appeared to be driven by confounders. Other contrasts in immunity dysfunction that reached statistical significance were attenuated following adjustment for race/ethnicity and education. It is possible that the young age of the cohort leveled variation in immunity between those in different work–family circumstances. As the cohort enters mid-adulthood, it is possible that immunity disparities will widen.

We found that when poverty-related stressors and work–family interference were accounted for, between-class differences in perceived stress were mostly attenuated with the exception of the *slow starters*, whose perceived stress scores remained higher compared to all other groups. Their economic insecurity and difficulties transitioning into adult roles may leave them feeling insecure and

unprepared to handle life events (Silva 2013). The employment and family-related circumstances of *slow starters* may evoke feelings of stress based on fears of future economic dependence and occupational false starts in an uncertain economy.

In sum, we found that women's life paths are reflective of the landscape of opportunities found within their communities of origin and the human capital they accrue during the passage to adulthood. Qualitative work by Edin and Kefalas (2005) highlights the role that community-level labor and relationship opportunities play in shaping young women's expectations for their own occupational and family careers. Our study provides quantitative support for this qualitative evidence, as we found that being raised in communities favoring women's employment was linked to higher probabilities of membership in latent classes characterized by full-time work and delayed family formation. Completing a college degree was further related to membership in classes distinguished by well-paid professional work. The health implications of divergent work-family arrangements among young adult women include inequalities in perceived stress—inequalities that may be attributable to class differences in experiences with poverty-related stressors and work-family interference.

We note several limitations. First, the latent classes we identify are described as “groups” for convenience. In reality, LCA offers ideal types, based upon observed response sets, of likely combinations of work-family circumstances that young women assume upon entering adulthood. The classification of cases into latent classes aligns to varying degrees with the observed response sets, and we account for imprecision by applying classification weights derived from the BCH three-Step approach. Even so, some degree of within-class heterogeneity is always present with LCA. A second and related limitation is that the latent classes we identify here may not be consistent across subgroups defined by sociodemographic characteristics like race, ethnicity, and nativity. Future work exploring the possibility of distinct latent classes and effect modification in the presence of distal stress outcomes would be a valuable addition to this literature. Third, omitted-variable bias may affect the results. We have attempted to account for factors related both to one's probability of class membership and stress outcomes, though other omitted factors may be relevant. Following scholarship on the “long arm of childhood” (Haas 2006; Palloni 2006), other early-life factors including health in adolescence could guide the progress of work-family trajectories in ways we do not capture here. Indeed, in supplemental models available upon request, we found that depression scores in adolescence were predictive of stress in young adulthood, though adjustments for mental health and a range of measures tapping behavioral and general self-rated health did not attenuate the class differences in perceived stress shown here. Even so, additional work on the early-life correlates of work-family pathways is needed. Finally, it is likely that the timing and sequencing of work and family transitions is also important to young women's health. Our data limit our ability to capture fully women's transitions into marriage, cohabitation, and parenthood, as the eldest women have only just entered their third decade of life. Future work accounting for timing and sequencing and that extends to broader age ranges will shed light

on life-course processes linking work and family transitions to young adult health.

Our findings point to how early experiences may correspond with the mix of work and family circumstances young women encounter in young adulthood and how this in turn shapes stress-related outcomes. In doing so, we begin to document how inequalities in stress first emerge during young adulthood—a stage of relatively good health. More research is needed on how work–family patterns form during the transition to adulthood, and how such patterns influence young adult health. Additionally, we are encouraged by evidence from recent experimental workplace interventions indicating improvements in worker health following changes to organizational work–family policies and practices (Moen et al. 2016). Our findings demonstrate young women may face a variety of challenges in combining work and family, leading us to suggest that future efforts to reduce exposure to poverty-related stress and work–family interference should examine a variety of interventions to evaluate which is most efficacious for which group, as it seems unlikely that one policy will suffice. Efforts to ease the stress burden faced by young adult women in precarious work and family circumstances could arrest the widening of future health inequalities and prevent further declines in immunity functioning as women enter mid-adulthood.

Notes

1. Among those with complete case data, wave-to-wave concordance of BMI categories was high: 83% of those with BMI ≥ 25 at Wave 1 had the same status at Wave 2 (93% by Wave 3 and 96% by Wave 4), while 91% of those with BMI < 25 at Wave 1 had BMI < 25 by Wave 2 (64% by Wave 3 and 47% by Wave 4).
2. Most single-parent households (82%) were headed by an employed parent; thus, employed and unemployed single-parent families are combined into one category.

Supplementary Material

Supplementary material is available at *Social Forces* online.

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