Individualization, opportunity and jeopardy in American women's work and family lives: A multi-state sequence analysis

Diana Worts [a,*], Amanda Sacker [b], Anne McMunn [c], Peggy McDonough [a]

[a] Dalla Lana School of Public Health, University of Toronto, 155 College Street, Toronto, Ontario, Canada M5T 3M7
[b] Research Department of Epidemiology & Public Health, University College London, 1-19 Torrington Place, London WC1E 6BT, UK
[c] Department of Epidemiology & Public Health, University College London, 1-19 Torrington Place, London WC1E 6BT, UK

ARTICLE INFO

ABSTRACT

Life course sociologists are increasingly concerned with how the general character of biographies is transformed over historical time – and with what this means for individual life chances. The individualization thesis, which contends that contemporary biographies are less predictable, less orderly and less collectively determined than were those lived before the middle of the 20th century, suggests that life courses have become both more internally dynamic and more diverse across individuals. Whether these changes reflect expanding opportunities or increasing jeopardy is a matter of some debate. We examine these questions using data on the employment, marital and parental histories, over the ages of 25–49, for five birth cohorts of American women ($N = 7150$). Our results show that biographical change has been characterized more by growing differences between women than by increasing complexity within individual women's lives. Whether the mounting diversity of work and family life paths reflects, on balance, expanding opportunities or increasing jeopardy depends very much on the social advantages and disadvantages women possessed as they entered their prime working and childrearing years.

© 2013 The Authors. Published by Elsevier Ltd. Open access under CC BY license.

1. Introduction

Understanding historical change in the biographies of individuals has become a central focus of life course research. While the very definition of the life course as a sequence of events or activities implies a sensitivity to change over individual lifetimes, sociologists are also concerned with how the general character of biographies is transformed over historical time – and with what this means for individual life chances (Mayer, 2004). The contemporary era in industrialized nations is seen by many as one in which long-term biographies are less predictable, less orderly and less collectively determined – more "individualized" – than in the middle of the 20th century (Beck, 1992; Buchmann, 1989). Some interpret the shift as a reflection of weakening constraints and, by implication, as evidence of expanding opportunities and the growing freedom of individuals to direct the course of their lives (Giddens, 1990). Others are not so sanguine. They argue that the transformation implies growing jeopardy, especially for those without the requisite resources to reflexively negotiate their biographies, as the breakdown of collective determination has left individuals personally accountable for the active planning of their lives in a context where many face ever-narrowing options (Beck &

* Corresponding author. Tel.: +1 416 923 9922.
E-mail addresses: dworts@chass.utoronto.ca (D. Worts),
a.sacker@ucl.ac.uk (A. Sacker), a.mcmunn@ucl.ac.uk (A. McMunn),
peggy.mcdonough@utoronto.ca (P. McDonough).

Beck-Gernsheim, 2002; Charles & Harris, 2007; Côté & Bynner, 2008).

Nowhere is there more fertile ground for examining individualization processes than in the work and family lives of adult women – so radically altered over the course of the past two generations. And nowhere is the juxtaposition of opportunity and jeopardy more salient than in the United States, where the championing of individual initiative coexists with deep and persistent racial and socioeconomic inequalities (Bailey & Dynarski, 2011; Kochhar, Fry, & Taylor, 2011). For American women, as for women in many industrialized nations, the once-dominant role of full-time mother/homemaker married "till death do us part" to a male breadwinner has given way to a range of "choices" about whether, when and how to engage in paid work, marriage and parenthood. Yet, options have proliferated within a context of unyielding inequalities, producing disturbing evidence of growing polarization in the work and family circumstances of women (Copen, Daniels, Vespa, & Mosher, 2012; Dozier, 2010). Once-closed doors may have opened, but the persistence of structural barriers in education and employment (Bailey & Dynarski, 2009; Dolado, Felgueroso, & Jimeno-Serrano, 2002) and a long-standing scarcity of public supports for motherhood (Cohen, 1996; Henneck, 2003) continue to constrain what is possible for many women. These conditions, coupled with the decline in long-term marriage (Bramlett & Mosher, 2002), may have left certain women in no position to actively plan their lives (at least, in the sense envisioned), and placed them in harm's way even as others have benefited from broadening horizons.

The twin themes of opportunity and jeopardy, as they pertain to the individualization of women's adult biographies, are only beginning to be explored in the life course literature. Findings from this small body of work speak to two key dimensions of life course change: (1) growing diversity *between* life courses, as trajectories in key domains lose their putative universal character; and (2) increasing fluidity *within* individual life courses, as patterns of employment and marriage grow increasingly unstable (Aisenbrey & Fasang, 2010; Brückner & Mayer, 2005).

Empirical evaluation of these trends is challenging. It rests on the detailed assessment of retrospective and/or extended panel data on respondents born in different historical periods. Moreover, it demands the use of techniques designed to evaluate lengthy and often complicated life course sequences, a class of methods generally less well-known in the social sciences. Existing studies of individualization processes in the lives of adult females are therefore few (Widmer & Ritschard, 2009). And, while they lay the foundation for understanding women's changing life courses, they fall short in at least five key ways. First, they often focus exclusively on employment trajectories, despite the long-standing and continuing significance of family responsibilities in women's lives (Treas & Drobnič, 2010). Second, without exception, they consider employment and family biographies independently of one another, thereby failing to do justice to the entwined nature of these key life domains

(Han & Moen, 1999; MacMillan, 2005). Third, they generally do not distinguish the between-person and the within-person dimensions of biographical change and, as a result, muddy the conceptual waters somewhat (Aisenbrey & Fasang, 2010). Fourth, the few existing studies apply to a very limited number of countries, and their findings may not be generalizable to other settings in which women's lives have been equally transformed. And, finally, few researchers consider the extent to which broader stratification processes affect *which* women experience *which kinds* of biographical change.

We advance the discussion of individualizing life courses in several ways: (1) we focus on adult females during a period of rapid social change in women's life courses; (2) we analyze both work and family biographies; (3) we examine these domains separately and in combination; (4) we distinguish the between-person and the within-person dimensions of life course change; (5) we use data for the US, a nation seldom considered in the investigation of individualization processes; and (6) we investigate the social patterning of change processes. We ask whether American women's work and family lives over the ages of 25–49 became less alike during the period of rapid social transformation that followed World War II, whether their biographies became more complex and whether (and with what implications) change processes differed for women who entered their prime working and childrearing years in contrasting social positions.

The paper begins with an outline of our theoretical framework for examining change in women's life courses, then proceeds to a review of existing empirical evidence, gleaned from both cross-sectional time series and panel studies. The next section describes the data and methods we use to examine women's evolving work and family biographies. This is followed by a detailed presentation of the results of our analyses, distinguishing the between-person, within-person and socially patterned aspects of life course change. The paper concludes with a brief summary of our findings and a discussion of their implications for individualization processes, expanding opportunities and growing jeopardy.

2. Theoretical framework

Much existing research on changing life courses is framed by the individualization thesis (Beck, 1992; Beck & Beck-Gernsheim, 2002; Beck & Lau, 2005). "Individualization" reflects the assertion that, since approximately the mid-20th century, an epochal transformation of social institutions, and of the relationship between individuals and society, has been occurring. To put an extremely complex argument in simple terms, the controllability, certainty and security that underpinned institutions and action during the Enlightenment-based modern era are said to have been replaced, in the current period, with uncertainty, ambiguity and complexity. The changes are such that we are seen to have entered a new epoch, often referred to as the second, or reflexive, modernity.

Two key overlapping dimensions of individualization link these macro-level changes to individual life courses

(Beck & Beck-Gersheim, 2002). The first is the "disembedding" of individuals from previously defining social categories. For example, while gender may have predicted women's life courses with a fair degree of certainty in the modern era, in the second modernity the once-dominant model of a female caregiver paired for life with a male breadwinner has been supplanted by provisional, more negotiated marital biographies and a stronger attachment to the labour force. Importantly, although the earlier standard has not disappeared (Wilson, Cunningham-Burley, Bancroft, & Backett-Milburn, 2012), its normative power has waned. Formerly "deviant" practices such as divorce have become increasingly accepted, both socially and legally, and life course diversity, normalized (Beck, 2007). Similarly, where many women once limited employment to the years before and after childrearing, a majority now expect to work for pay throughout their adult years (Laughlin, 2011; Patten & Parker, 2012). This enlarging of biographical possibilities suggests that the second modernity is accompanied by expanding opportunities for women. At the same time, the uncertainty that characterizes the current era may produce life courses that place them in jeopardy.

The second aspect of individualization linking macro-level change to individuals is that earlier modes of life course regulation – tradition, the family and religion – have been replaced by new demands, controls and constraints, bringing with them new opportunities and threats (Beck & Beck-Gernsheim, 2002). In the second modernity, the job market, the welfare state and other institutions tie individuals to a network of complex guidelines. For example, a woman's biography is no longer defined exclusively or primarily with reference to the family; rather, the contemporary expectation that *all* adults work for pay requires most to plan for life-long employment. This implies acquiring educational credentials, making the most advantageous job "choices," adapting to ever-changing labour market conditions, finding ways to combine paid work with raising children and so forth. Unlike the often explicit rules and prohibitions governing women's work and family lives in the first modernity (e.g., bars against the employment of married women in certain occupations and forced marriage or adoption in cases of unwed pregnancy), the new regulatory framework offers alternatives and incentives (e.g., legalized birth control, uncontested divorce and tax credits favouring certain employment and family arrangements) that both permit and, importantly, *demand* that individuals actively contribute to the construction of their life courses. In the words of Beck and Beck-Gernsheim (2002, p. 3), a "normal" biography becomes a "do-it-yourself" biography, in which individuals determine their own life courses through the innumerable decisions that they make (Raddon & Ciupa, 2011). Notably, such biographies must be flexible with respect to the nature and timing of employment and family transitions and, for both sexes, firmly anchored in paid work.

Because individual efforts do not necessarily succeed, the adult life course is also a "risk" biography (Beck & Beck-Gernsheim, 2002). For example, mothers may respond to the work imperative in a context that offers little in the

way of support for caregiving, and thus be exposed to job loss or underemployment; and women who leave a marriage may be rendered sole carers and providers for their families, often with considerable labour market disadvantage (Henneck, 2003; US Department of Commerce, 2011). In fact, given unfavourable conditions, especially those that restrict or preclude employment, a "do-it-yourself" biography can easily become what Beck and Beck-Gersheim (2002, p. 3) term a "breakdown" biography, characterized by persistent material and/or social hardship and compromised health. Adding insult to injury, such "failures" are now regarded as the fault of the individual, rather than their position in the social structure (Raddon and Ciupa, 2011). Yet, the disproportionate presence of women who lack educational credentials or racial/ethnic privilege in low-paying, low-status and/or temporary jobs, and in fragile or non-existent marriages (Copen et al., 2012; Krieder & Ellis, 2011) suggests that, while gender per se may carry less weight in the second modernity, social position remains an important determinant of women's work–family life courses.

Individualization theory is not without its critics (Brannen & Nilsen, 2005; Goldthorpe, 2002; Skeggs, 2004). In a particularly pointed attack, Atkinson (2007) suggests that Beck's individualization thesis does not adequately specify what individualization is, what its causes are, and how, exactly, it has superseded previous determinants of individual biographies. Others take issue with what they see as a "culturally monochrome" (Smart & Shipman, 2004, p. 494) vision of family and married life depicted by the individualization thesis – that is, a vision that considers only forms of marriage, relationships and intimacy practiced by the dominant culture. Another common critique – one that is particularly relevant for our study – is the assertion that the ability to construct biographies associated with opportunity rather than jeopardy depends critically on the material, social and cultural resources at one's disposal (Heinz, 2009).

Our purpose in discussing individualization theory is, however, not to debate its merits and shortcomings but, rather, to outline a dominant conceptualization of the changing nature of the life course in order to contextualize our own analysis. The implications of the individualization thesis for our research on historical change in women's biographies are three-fold. First, we can expect to see greater *diversity* in later, versus earlier, cohorts' patterns of paid work and family life, as constraints are lifted and a range of options are normalized. Second, we should see increasingly *complex* life paths, as women respond to the new and unending contingencies of labour markets and family life. Third, because a "risk" biography may become a "breakdown" biography (Beck & Beck-Gernsheim, 2002), especially when key resources valued on the labour market are lacking, we can expect to find that the diversity and complexity in women's biographies is *socially patterned*. For some women, second modernity may have brought with it a host of beneficial biographical opportunities that were not available a mere 50 years ago. For others, less well positioned to respond to the complexity and ambiguity of the new era, the historical change may denote growing jeopardy.

3. Empirical evidence

3.1. Cross-sectional trends in American women's adult lives

Much of what is surmised about the individualization of American women's adult life courses comes from cross-sectional time series on labour force participation, marriage and fertility. For example, their disembedding from traditional gender roles is attested to by a growing attachment, at the population level, to the labour force (Blau, Ferber, & Winker, 2002; Caplow & Merton, 1991). That this growth was most dramatic among mothers of young children (Laughlin, 2011; US Bureau of Labor Statistics, 2010) is evidence of a shift away from lives defined by tradition and the family, towards those regulated by the labour market. A growing attachment to the labour force may signal expanding opportunities, but jeopardy is heightened by the ongoing presence of labour market barriers (Bailey & Dynarski, 2009; Dolado et al., 2002; Kerby, 2012) and a context that provides little public support for childcare (Cohen, 1996; Henneck, 2003; Laughlin, 2011). Moreover, there is evidence that socio-economic position has not lost its significance in the construction of life courses. Women without a high school diploma have far greater unemployment rates than those with more education, and are more likely to leave the labour force after the birth of their first child (Laughlin, 2011; US Department of Commerce, 2011). And, while access to paid maternity leave has expanded dramatically since the 1960s for women with a university degree, it has remained flat for those without a high school education (Laughlin, 2011).

Also consistent with the individualization thesis are the indications that the institution of marriage is a less central determinant of American women's life courses than it once was (Thornton & Young-Demarco, 2001). Marital longevity has declined dramatically, relative to the middle of the last century: Unions not only end earlier – divorce rates having peaked in the early 1970s following the introduction of "no-fault" provisions (Bramlett & Mosher, 2002; Saluter & Lugaila, 1998) – but they also begin later (Copen et al., 2012; Krieder & Ellis, 2011). However, as with employment, there is evidence that marital biographies are socially patterned. Marriage is consistently less common and more fragile among Black women than among their White counterparts (Bramlett & Mosher, 2002; Copen et al., 2012), and its likelihood and duration increase with educational attainment (Bramlett & Mosher, 2002; Copen et al., 2012; Krieder & Ellis, 2011).

The institution of motherhood also appears less prominent than it once was in shaping American women's life courses. Oral contraceptives revolutionized the ability to actively plan maternity (Tone, 2001), and coincided with later childbearing, shrinking family size and a growing tendency to remain childless (Livingston & Cohn, 2010; Martinez, Daniels, & Chandra, 2012). At the same time, far more women now raise children alone (Hamilton, Martin, & Ventura, 2011; Ventura, Martin, Curtin, & Mathews, 1999) suggesting that, for many, maternity continues to figure heavily in life course decisions. As with employment and marriage, motherhood is socially patterned. Later and smaller families are more common among better-educated White women than among their less privileged counterparts (Livingston & Cohn, 2010; Martinez et al., 2012). By contrast, non-marital childbearing is unfailingly higher among Black women (Martin et al., 2010; Ventura et al., 1999), and the greater fragility of marriage among those with less education or income (Copen et al., 2012; Krieder & Ellis, 2011) leaves them more likely to spend time raising children alone and with limited resources.

Population-level changes in women's work and family arrangements are well documented. Less clear, however, are the implications of these aggregate trends for understanding individualization processes. Shedding light on the latter aspect of historical change requires a shift in focus to how *individual* women's life courses unfold and how that unfolding has differed for women born in earlier and later time periods.

3.2. Women's changing work and family biographies

To date, few studies examine historical change in women's individual life courses, and a number of questions therefore remain unanswered. Before assessing substantive gaps, however, we encounter a methodological challenge: Existing studies operationalize individualization in inconsistent ways (Brückner and Mayer, 2005). Our review follows the lead of Aisenbrey and Fasang (2010), who argue that individualization encompasses two distinct but related phenomena, which they label de-standardization and differentiation. De-standardization refers to declining biographical uniformity – that is, increasing variation *between* individuals with respect to the unfolding of the life course. It captures the notion that trajectories in key domains, such as employment, marriage and parenthood, are becoming less alike as individuals respond to an expanding array of opportunities and a proliferation of "acceptable" life paths. So, where a "life course consisting of continuous marriage, early maternity, extended childrearing and little or no participation in the labour force may have been dominant in the mid-20th century, a wider array of work–family biographies is now in play. Differentiation denotes declining state stability – that is, increasing movement between states *within* individual life courses. It expresses the idea that trajectories are becoming more dynamic, as individuals construct biographies that respond to fluctuating and sometimes unpredictable risks. So, for example, women who lack access to adequate childcare may move in and out of the labour force, or between spells of full-time, part-time and non-employment, according to the exigencies of motherhood.

The majority of studies that directly measure de-standardization and differentiation in women's adult life courses focus on employment biographies – despite the repeated assertions of life course and other researchers that women's labour market histories are intimately tied to their family lives (Drobnič, Blossfeld, & Rohwer, 1999; Han & Moen, 1999; Martinengo, Jacob, & Hill, 2010). The evidence is mixed with regard to *de-standardization* in this domain. For example, Berger, Steinmüller and Sopp (1993) show that German women's employment trajectories,

tracked over the ages of 20–49 years, became less standardized over time. Among women born between 1901 and 1955, later cohorts increasingly engaged in continuous full-time employment, but were also more likely to have sequences characterized by discontinuous and part-time employment. Simonson and colleagues (2011), comparing paid work trajectories over ages 15–45 for German women born between 1936 and 1965, also find evidence for de-standardization – albeit manifesting in opposite ways for women born in East and West Germany. For the former, de-standardization manifested as a decline in the share of women following continuous full-time employment biographies, the pattern that dominated prior to unification. Among West German women, de-standardization appeared as a drop in the proportion occupying the previously normative housewife trajectory. Conversely, Blair-Loy (1999) suggests that *standardization* occurred in the careers of a sample of American women in high finance. She distinguishes five career types and compares them across three cohorts spanning the Equal Opportunities legislation of the early 1970s. Results show that each of the five career paths consisted of more homogeneous sequences in the most recent cohorts than in the earlier ones. Specifically, it became increasingly rare for women to work part-time or spend time outside the labour force, and specialization in finance began earlier – in college or right after graduation.

Evidence on *differentiation* for women's employment trajectories is even sparser. Simonson and colleagues (2011) find that the number of transitions between employment/activity states increased for later-born cohorts. Buchholz and Grunow (2006), also analyzing German women's employment trajectories, reach the same general conclusion. Similar to Simonson and her co-authors, they examine cohorts born between 1939 and 1964, and follow individuals up to age 40. They conclude that women in later-born cohorts experienced more unemployment spells, along with more downward and upward mobility. Widmer and Ritschard (2009) also uncover evidence for life course differentiation, using data for Switzerland. They assess sequences over ages 20–45, for cohorts born between 1910 and 1957. Their results show that women's work trajectories became more differentiated (i.e., the most recent cohorts experienced a wider variety of states and transitions) in part because their sequences more often included periods of part-time employment.

Few studies consider individualization processes as they apply to women's family biographies. Simonson and her co-authors (2011), while not assessing trajectories for multiple domains, do probe selected characteristics of their four employment clusters, including fertility. Within the continuous full-time cluster, later cohorts were more likely to be childless than earlier cohorts, suggesting that women's parental histories *may* have become more de-standardized over time. Widmer and Ritschard (2009) provide more conclusive evidence that cohabitational trajectories became less standardized (more heterogeneous) in later cohorts. However, their finding applied only to the young adult years; trajectories from age 30 onward showed similar levels of homogeneity across all cohorts of

women. Examination of the patterns within individual trajectories suggested that life courses also became more *differentiated*. Women from later cohorts had less stable cohabitational trajectories than their earlier-born counterparts.

Existing evidence on the *social patterning* of individualization processes in the lives of adult women is confined to employment trajectories. The study by Berger and his colleagues (1993) demonstrates that de-standardization reflected aspects of social advantage and disadvantage. The rise in continuous full-time work trajectories (but *not* the increase in discontinuous and part-time employment) occurred primarily among those with more education, signalling a growing polarization of women's employment biographies.

In sum, only limited evidence is available on the individualization of women's work and family life courses. As a result, a number of gaps remain. First, existing studies most often consider only employment trajectories, while the one study that examines both work and family histories (Simonson, Gordo, & Titova, 2011) treats them in isolation. Second, although our review distinguishes between-person (de-standardization) and within-person (differentiation) dimensions, almost no studies examine both, or differentiate them conceptually or analytically. A third limitation is that the few available studies use data from only three countries (two – Germany and Switzerland – if we consider only nationally representative samples) and their results may not apply to other nations in which women's lives have undergone rapid change. And, finally, analyses reveal surprisingly little about the social pattering of individualization processes. It is our hope that the following investigation will begin to address these gaps and, thus, contribute to sociological debates about the nature – and differential distribution – of life course change.

4. Data and methods

4.1. Data

Our data come from two nationally representative US-based panel studies: the National Longitudinal Survey of Women – Young Women (NLSW-YW) and the National Longitudinal Survey of Youth 1979 (NLSY79) (McClain & Hering, 2001; US Bureau of Labor Statistics, 2011). The NLSW-YW was initiated in 1968 and ran through 2003, following women who were 14–24 years of age at the end of 1967. The NLSY79 began in 1979 and is ongoing, with the most recent available wave at the time we began this analysis being 2008. It tracks individuals who were aged 14–21 years at the end of 1978. Blacks were oversampled in both studies – as were Hispanics in the NLSY79. NLSW-YW interviews were conducted annually for the first five years, then on a 2-2-1 schedule through 1988 and every other year from 1991 onward. NLSY79 interviews were conducted annually through 1994 and during alternate years beginning in 1996. Both studies contain detailed work, marital and childbearing/childrearing histories, as well as information on socio-demographic characteristics. For both surveys, we use data from all waves in which the

respondent was aged 25–49 years – that is, of prime working and family-building age. Our analytic sample includes all NLSW-YW and all female NLSY79[1] respondents who were non-missing on the covariates and who remained in the study at least until their early 40s (N = 7150). Selecting on the latter criterion permits us to develop a more accurate picture of women's adult lives than is possible when we include women who dropped out. A comparison of the full sample with our analytic sample shows virtually identical distributions – with variations of less than 1 percentage point – for our two main covariates, education and race/ethnicity; hence we are confident that results based on our sample accurately reflect the social patterning of individualization processes. Distributions for birth cohort differ only marginally, with our analytic sample having slightly larger proportions in the two latest cohorts – by about 2 percentage points – and correspondingly smaller proportions in the two earliest cohorts. All analyses are run on the combined NLSW-YW and NLSY79 datasets, using the weights provided by the survey websites to account for attrition, sampling design and the use of multiple waves of data.[2]

4.2. Measures

Work and family life courses. The foci of our analyses, work and family biographies, are derived from a series of time-varying measures of employment status, marital status and ages of children living at home, assessed either retrospectively or currently and applied to each of the 25 annual time points at which a woman was aged 25–49 years. For each age, we code a set of categorical variables representing whether, during that year, a respondent: (1) was primarily employed full-time, part-time, or not at all; (2) was primarily married or not[3]; and (3) had a youngest child living at home who was pre-school-aged (0–5 years) or school-aged (6–18 years), or had no children under 19 living at home.[4] These age-specific variables constitute the sequences that describe each woman's biography in three life course domains: employment, marriage and parenthood.

From the separate-domain measures we also create an 18-category joint-state variable covering all possible combinations of circumstances in the three life course domains (e.g., employed full-time, married, with a youngest child not yet in school; employed full-time, married, with a youngest child of school age, etc.). The 25 joint-state variables – one for each of the 25 ages in a respondent's record – are then subjected to optimal matching analysis (see next section) to produce an 11-category classification of work–family life course patterns. These work–family life course groups are coded as follows: 1 = married mother full timer; 2 = married mother late entrant; 3 = married mother gradual entrant; 4 = married mother part timer; 5 = empty-nest divorcer; 6 = married employed non-mother; 7 = single employed mother; 8 = single employed non-mother; 9 = married at-home non-mother; 10 = single at-home mother; and 11 = single at-home non-mother. The first four groups are all characterized by "traditional" family lives – stable marriages and children in the household for much of the adult life course – but represent a range of employment patterns. The fifth group follows a variant of the "traditional" family pattern – stable marriage and child-rearing until the children are older, then divorce/separation and entry into the labour force. The next three groups follow less conventional family patterns (reflecting the range of "alternatives" that may be opening up), in each case combining this with a strong attachment to the labour force. Group 6 is characterized by stable marriage and little or no involvement in childrearing, group 7 by having spent much of the adult years caring for children in the absence of a stable marriage and group 8 by unstable or no marriage and minimal or no involvement in childrearing. The final three groups match groups 6–8 with respect to their family biographies, but stand apart from those groups in their weak attachment to the labour force.

Birth cohort. The primary independent variable in our analysis is a measure of birth cohort, designed to capture different circumstances encountered during the formative years, and aimed at assessing historical changes in women's work and family life courses. The variable is coded, using the respondent's year of birth, into five categories: 1 = wartime babies (born 1942–1945); 2 = post-war spike (born 1946–1949); 3 = middle baby boom (born 1950–1953); 4 = late baby boom (born 1957–1960); and 5 = baby boom tail (born 1961–1964). The three cases born in 1941 and the single case born in 1954 are dropped from the analysis. Apart from the single deleted case born in 1954, no respondents had birthdates between 1954 and 1956 (the gap between the two surveys).

Social position at age 25. Our analysis incorporates two measures of social position likely to structure women's work–family life courses: education and race/ethnicity. *Education* is measured as years of schooling at age 25. Age 25 represents the beginning of the work and family histories and a point by which the vast majority of sample members had completed their education. For the purposes of the current analysis, we categorize this variable so that it represents, in the American context, no qualifications (no high school), minimal qualifications (high school but no college/university), and extended qualifications (college or

---

[1] The original NLSY79 sample included a military subsample not interviewed after 1984, and an economically disadvantaged subsample not interviewed after 1990. We do not include either subsample in our analysis. We use appropriate weighting strategies to take this into account.

[2] See http://www.nlsinfo.org/women/docs/gdetext/yw/ych2pt3.htm#twoeight and http://www.nlsinfo.org/nlsy79/docs/79html/79text/tocusing/weights3_3.html.

[3] While we recognize that non-marital cohabitation played an increasing role in the life courses of women (and men) during the period covered, unfortunately, the data do not permit us to adequately identify women in our sample who were living with a partner to whom they were not legally married. As the collection of this information becomes standard practice in panel studies, analyses that distinguish histories of legal marriage and informal cohabitation should be increasingly feasible.

[4] These categories are chosen to capture the parental dimension of key changes in women's work and family lives over the past several decades: delayed childbearing and smaller families (hence, fewer years with dependent children in the home), and the employment of mothers of pre-schoolers. Further distinctions were found to complicate an already complex analysis without contributing to the substantive findings.

university degree): 1 = less than 12 years; 2 = 12–15 years; 3 = 16-plus years.[5] *Race/ethnicity* is a dichotomous variable distinguishing (primarily) Blacks and Hispanics, the major racial/ethnic minorities in the US, from Whites. For the NLSW-YW sample, it is taken from a 3-category variable coded 1 = White, 2 = Black, 3 = other; for the NLSY79, it is taken from a 3-category variable coded 1 = Hispanic, 2 = Black, 3 = non-Black, non-Hispanic. The coding variation between the two surveys means that we designate categories 2 and 3 as Black/Hispanic for the NLSW-YW sample, and categories 1 and 2 as Black/Hispanic for the NLSY79 sample. Educational attainment and race/ethnicity are then combined to capture the notion that various social positions shape the life course in ways that are interactive rather than additive (Choo & Ferree, 2010). The resulting six-category measure of social position at age 25 is coded as follows: 1 = "Black/Hispanic with less than 12 years;" 2 = "White with less than 12 years;" 3 = "Black/Hispanic with 12–15 years;" 4 = "White with 12–15 years;" 5 = "Black/Hispanic with 16-plus years;" and 6 = "White with 16-plus years."

4.3. Analysis

Descriptive and analytic procedures. Initial distributions, both for pooled ages and for each age separately, are generated using SAS PROC MIANALYZE (a procedure for analyzing multiple imputation data – see last paragraph of Section 4) and appropriate weights. To derive measures of single-domain properties, we use both Stata -sqom- (a sequence analysis procedure) and the Complexity menu in CHESA 3.1, a dedicated sequence analysis application.[6] The measures derived include, for the 25-year span, mean years in each state, mean sequence complexity indices and coefficients of concentration. Complexity indices measure the degree of movement between states in a given domain *within* the life courses of individuals. They take into account the number of distinct subsequences in each biography (e.g., non-employed → employed part-time, employed part-time → employed full-time, etc.) and the within-sequence variance in state duration. Accordingly, complexity increases with the number of distinct states in a given sequence, the number of distinct orderings of states and the variability in state duration – that is, with greater *differentiation*. Coefficients of concentration measure the degree to which domain-specific sequences are alike or distinct *between* individuals (*de-standardization*). Like the complexity indices, they draw on entire employment,

marital, or parental sequences. They represent the percentage of "single-case" sequences – that is, the share of respondents whose sequence in a given domain is unlike that of any other individual in the sample (or, in our case, unlike that of any other sample member from the same birth cohort). The larger the coefficient, then, the less it is possible to speak of a "standard" work or family life course.

For the joint-state analyses, we generate Shannon entropies to quantify the level of de-standardization in a given cohort. Shannon entropies measure the degree to which a distribution is concentrated or dispersed – that is, the diversity of life course types – using the following formula:

$$(S) = -\sum_i p_i \ln p_i$$

where p_i is the proportion in each life course type for a given cohort or social position-cohort combination. The scale runs from zero to the natural log of the number of groups (2.40 in the present study), with lower values indicating greater concentration – or more standardization.

Complexity, concentration and entropy must be derived separately for each of the 20 imputed data sets (see last paragraph of Section 4 for details on the imputation process). Outputs are then read back into the imputed data sets, which are, in turn, combined and analyzed using techniques suitable for multiple imputation data (-mi estimate- for Stata and PROC MIANALYZE for SAS). Where appropriate, analyses are conducted using OLS, binomial or multinomial regression techniques to generate significance tests for cohort differences. Coefficients of concentration must be generated separately for each birth cohort (or each cohort-social position group) and are not, therefore, suited to the use of regression to test cross-cohort differences. To assess historical change in these measures, we bootstrap (1000 replicates) to accommodate the uncertainty inherent in multiple imputation data and derive appropriate standard errors and confidence intervals. All procedures are weighted using the custom population weights supplied by the survey websites, to account for survey design and attrition.

Dynamic optimal matching. Prior to analysis, individuals were assigned to 1 of the 11 joint-state life course groups using optimal matching analysis (OM). OM is a data reduction technique that permits the analyst to work with sequences comprising numerous changes in status (multiplied many times over when three domains are combined) and immeasurable numbers of unique longitudinal patterns across a sample of individuals. The technique reduces these unwieldy data by grouping individuals on the basis of distinct and meaningful biographical patterns. OM contrasts with standard approaches – for example, classification based on counts of the number of years in full-time employment, number of years married, etc. – in that it takes the *entire biographical sequence* as the unit of analysis, assessing both its underlying structure over time and the extent to which it differs, as a unit, from the sequences of other individuals in the sample (Abbott & Tsay, 2000; Anyadike-Danes & McVicar, 2010).

---

[5] Education in early adulthood is used here because it is considered a good measure of socioeconomic position (Galobardes, Shaw, Lawlor, & Lynch, 2006; Oakes, 2010). It is particularly valuable for this purpose in research that adopts a life course perspective, being relatively stable after age 25 and related to both early-life SEP and key aspects of later-life SEP (e.g., future individual and household income and occupation) (Galobardes et al., 2006; Oakes, 2010; Shavers, 2007). Beyond its utility for life course research, education is appropriate for analyses that focus on women, as it does not exclude those who are out the labour force (Galobardes et al., 2006; Shavers, 2007). And, more generally, education is valuable because it suffers less than most alternatives from erroneous reporting or refusal (Galobardes et al., 2006; Oakes, 2010; Shavers, 2007).

[6] See http://home.fsw.vu.nl/ch.elzinga/.

We conducted the joint-state OM using a recent refinement devised by Lesnard (2010) and implemented in Stata -seqcomp-.[7] Lesnard's method better distinguishes respondents on the basis of the *timing* of states within the life course than do standard OM algorithms.[8] Like all OM, Lesnard's method has at its heart the calculation of distance measures, or measures of the distinctness (or similarity) of individuals' biographical sequences (Abbott and Tsay, 2000; MacIndoe & Abbott, 2004). The technique uses information on employment/family states at each age in the biographical sequence (25–49 years), and calculates a distance measure representing the "cost" of converting one person's sequence to another's (see MacIndoe and Abbott, 2004). Distances can be calculated in two ways: (1) relative to every other sequence in the data, (producing an $N \times N$ distance matrix, where N = the number of respondents); or (2) relative to one or more reference sequences – often a set of theoretically-derived "ideal-type" sequences aimed at grouping individuals on the basis of their closeness to a given "model" biography (Wiggins, Erzberger, Hyde, Higgs, & Blane, 2007) – (producing an $N \times M$ matrix of distance measures, where M = the number of reference sequences).

We adopted the latter approach. Prior to conducting OM we developed a set of ideal-typical work–family life courses that described various pathways women were likely to have traced in each of the three domains over the ages of 25–49. These ideal types were constructed separately by all authors, based on existing knowledge of key patterns – both past and present – in women's work and family arrangements. The separately-developed typologies were then assessed for overlap (found to be substantial) as well as unique patterns felt to be of theoretical interest, to develop the 11 life course types used in the OM. Eleven "dummy" cases, one representing each ideal-type biography, were then added to the dataset (and removed after OM), so that respondents could be matched with their nearest ideal type to create the 11 work–family life course groups.

Following OM, the composition of each group was examined to ensure that means on the distance measure for each group's associated ideal type were substantially lower than means on the same distance measure for all other life course groups, and that variances on each "own-type" distance measure were minimized relative to variances on the same measure for the full sample. That is, the life course type assignment was inspected for between-group heterogeneity and within-group homogeneity. OM was carried out separately for each of the 20 imputed data sets (see next paragraph for details on the imputation). Results were then concatenated for further analysis using procedures suitable for multiple imputation data sets.

Imputation. The type of OM used here requires complete data on the sequence variables – that is, the 25 years' worth

of employment status, marital status and age of youngest child measures. As many respondents were missing data from one or more interviews, we imputed values where necessary in order to retain as many cases as possible. Imputation was carried out in Stata, using a two-fold fully conditional multiple imputation specification (Van Buuren, Boshuizen, & Knook, 1999). In brief, this method computes, for each missing value, its posterior distribution conditional on other variables in an imputation model. A value is then sampled from this distribution under the assumption that missingness is random given the values of the other variables in the model. The method uses a Markov chain Monte Carlo algorithm. After double iteration of the algorithm, a complete data set is created, consisting of a mixture of imputed and known data values. Enough complete datasets are generated – 20, in our case – to ensure the accuracy of substantive model estimates (Graham, Olchowski, & Gilreath, 2007). All analyses are based on the simultaneous investigation of these 20 data sets, averaging over them and deriving standard errors according to Rubin's rules (Rubin, 1987). Imputations were conducted for the full analytic sample, regardless of the amount of missingness, in order to maximize cell sizes and the chances of obtaining reliable (and unbiased) estimates. Sensitivity analyses were performed to check this decision. (See Appendix A for information on the extent to which dropping cases with varying degrees of missingness on any of the three sequence types affects distributions for the covariates in our analysis. Appendix A shows that, regardless of the missingness cut-point, little changes regarding our measures of social position, while a cut-point more restrictive than 10+ risks biasing the cross-cohort comparisons, since the dropped cases come disproportionately from the second and third (NLSW-YW) cohorts.)

5. Results

5.1. Sample characteristics: aggregate and age-specific

Tables 1 and 2 present the broad characteristics of the analytic sample, using weighted mean years in each of the seven life course states (three employment, two marital and three parental) and weighted distributions for the covariates. Across all persons and ages, American women in the prime working and childbearing years were more often employed full-time than part-time or not at all, were generally married rather than not, and were more often

Table 1
Mean years in each life course state (weighted).[a]

Life course state	Mean years occupied (of 25)
Employed full-time	13.58
Employed part-time	3.87
Not employed	7.55
Married	17.76
No children under 19 at home	7.46
Youngest child school-aged	10.67
Youngest child pre-school-aged	6.87

[a] Means are derived from multiple imputation data sets, for the analytic sample.

---

[7] See http://laurent.lesnard.free.fr/article.php3?id_article=8.
[8] We tested this claim and found that it held for our data. We also found that the Lesnard algorithm produced "cleaner" groups, that is, groups for which the sample proportions in each life course state at each age more closely matched their respective ideal-type specification, and where individuals were assigned to one group only.

Table 2
Sample distributions for covariates (weighted).

Variable	Percent
Birth cohort	
Wartime babies (born 1942–1945)	7.19
Post-war spike (born 1946–1949)	18.44
Middle baby boom (born 1950–1953)	21.73
Late baby boom (born 1957–1960)	27.03
Baby boom tail (born 1961–1964)	25.61
Education at age 25	
Less than 12 years	14.71
12–15 years	64.02
16-Plus years	21.27
Race/ethnicity	
Black/Hispanic	16.73
White	83.27
Combined social position at age 25	
Black/Hispanic and education less than 12 years	4.33
White and education less than 12 years	10.38
Black/Hispanic and education 12–15 years	10.68
White and education 12–15 years	53.34
Black/Hispanic and education 16-plus years	1.73
White and education 16-plus years	19.54

living with a youngest child who was school-aged rather than with one who was pre-school-aged or without dependent children. The analytic sample is more heavily weighted towards the later birth cohorts; however, sizeable shares are found in each of the five groups defined here. Census estimates for women in the appropriate age groups in 2003 (the final wave of the NLSW-YW) and 2008 (the most recent wave of the NLSY79) indicate that this distribution is representative of American women in the 25–49-year age range. In addition, about one in seven respondents had attained less than 12 years of schooling by age 25 and just over one in five had 16 or more, while about one in six was Black or Hispanic – also consistent with census figures for women in the prime working and childrearing years in these birth cohorts. Combining the two aspects of social position at age 25, just under 1 in 20 sample members were Black/Hispanic with less than 12 years, less than two percent were Black/Hispanic with 16-plus years of education, 1 in 10 were either Black/Hispanic with 12–15 years or White with less than 12 years of schooling, just over half were White with 12–15 years, and one in five were White with 16-plus years.

Table 1 displays work and family states averaged across all birth cohorts and all ages; hence, it cannot speak to life course *dynamics*, or how those dynamics differed for women born in earlier and later time periods. Fig. 1 offers a preliminary window on how women's biographies changed, both over the prime adult years and across historical time. It shows, separately for each birth cohort, weighted proportions in the seven work and family conditions (three employment, two marital and three parental) at each age from 25 through 49 years. The figure reveals how common non-employment was in the biographies of earlier-born respondents: Not until their early 40s and beyond did a majority of women born during WWII work for pay full-time. For subsequent birth cohorts, full-time employment dominated at younger and younger ages – and, ultimately, at all ages for late baby boomers and women in the baby

boom tail. Most women in the sample were married at every age, regardless of when they were born; nevertheless, there is evidence of a trend towards later unions (declining proportions were married at younger ages) and mounting later-life break-ups (ever-smaller shares were married at older ages). Finally, there was a growing propensity for at least some women to delay childbearing (the ages at which a youngest child was not yet school-aged are more spread out for later cohorts) and to have fewer children overall (the proportions with no dependent children at home rose at all points in the life course).

5.2. Differentiation: did women's work and family life courses become more complex?

Although Fig. 1 distinguishes the 25 ages under investigation, it does so using sample averages at each age. Determining whether life courses became more differentiated over time – that is, whether women experienced more movement between states in a given domain – requires information on how work and family states unfolded over the course of *individual* women's lives. We employ sequence complexity indices to assess this dimension of life course change. The higher these indices, the more movement there is between states *within* women's biographies.

Fig. 2 gives the mean complexity indices for each sequence type, by birth cohort. Overall, marital sequences were less complex than employment or parental sequences – not surprising given that marital status here consists of only two possible states, whereas employment and parenthood each comprise three. More important, for our purposes, is the extent to which complexity *changed* across birth cohorts. The figure shows distinct trends for each life course domain, with mixed implications for individualization processes: Employment sequences became somewhat less complex, marital biographies became somewhat more so, and the complexity of parental histories remained fairly constant. Regression estimates (available on request) confirm the presence of significant historical shifts – negative for employment and positive for marriage – in the complexity of women's life courses. They also confirm that the complexity of parental sequences remained stable across cohorts.

Inspection of the underlying sequences (not shown due to space considerations) sheds light on the mechanisms behind these changes. Employment histories became less complex primarily because, relative to the two earliest, each successive cohort of women had fewer episodes of non-employment. In other words, women increasingly worked full-time for the majority of the years between 25 and 49, rather than moving between full-time employment and non-employment. (Part-time work played only a minor role, regardless of when women were born.) Growing marital complexity was the product of fewer women spending the majority of their prime working and childrearing years married – principally because they entered unions later and/or dissolved them earlier, rather than because they experienced more marital episodes. The complexity of parental histories remained relatively stable, despite the *cross-sectional* evidence (Fig. 1) of later
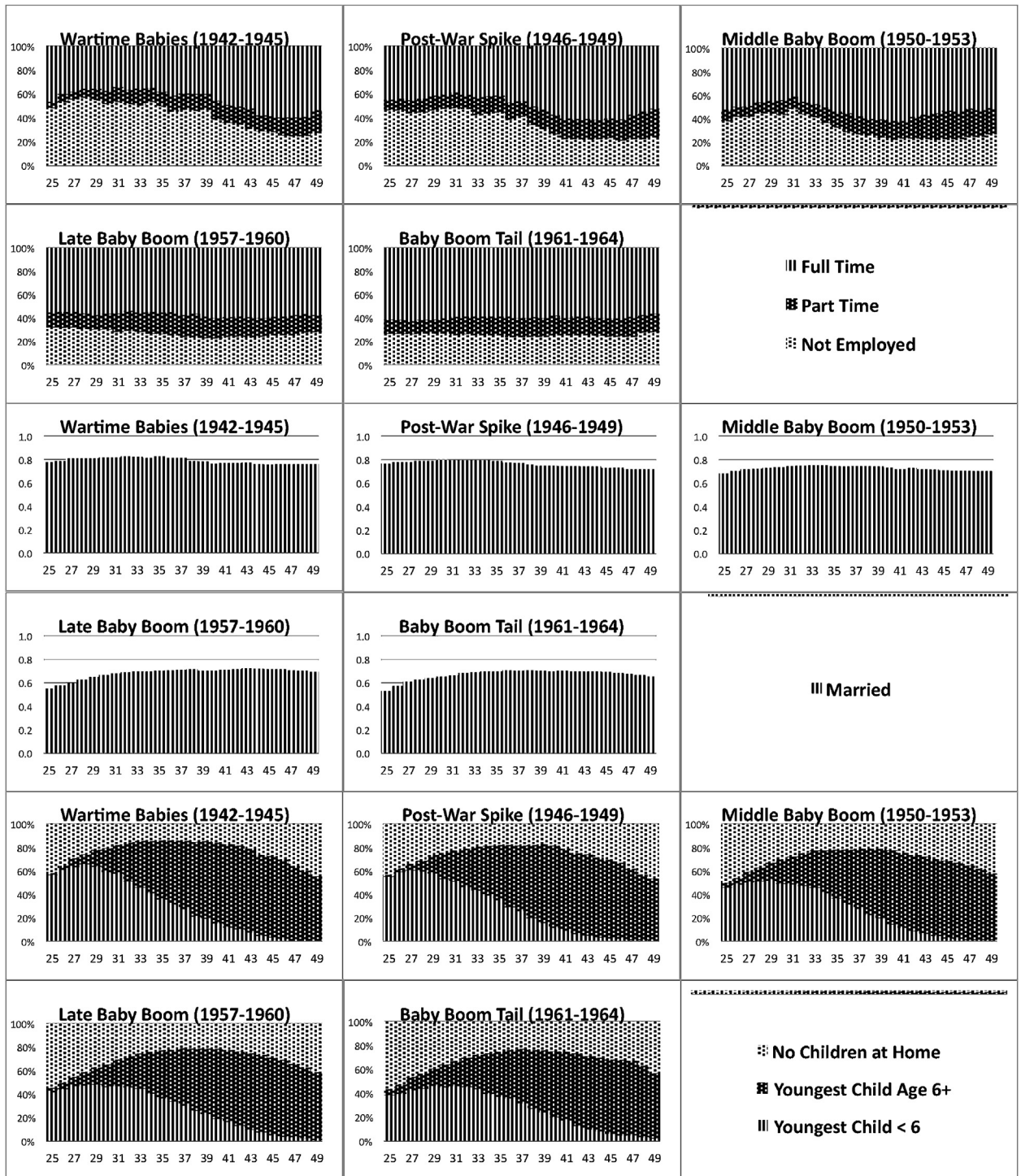
Fig. 1. Employment, marital, and parental histories, by cohort.

childbearing and smaller families. This reflects the fact that, while the number of years without dependent children in the household increased, the majority of American women continued to move, over the ages of 25–49, through all three parental phases in sequence (youngest child pre-school-aged, youngest child school-aged and no children under 19 living at home). That is, in all cohorts, most did not "backtrack" by having another child after the former youngest was school-aged or older, and the extent to which they did "backtrack" remained stable.
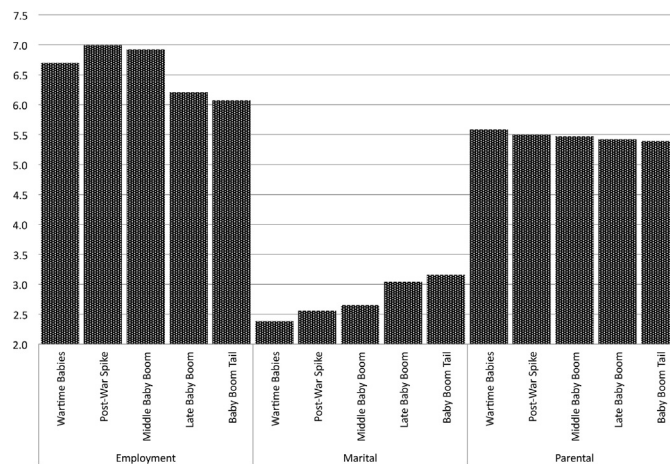
Fig. 2. Mean sequence complexity, by birth cohort (wartime babies = born 1942–1945; post-war spike = born 1946–1949; middle baby boom = born 1950–1953; late baby boom = born 1957–1960; baby boom tail = born 1961–1964).

5.3. De-standardization: did women's work and family life courses become more diverse?

Differentiation helps characterize changing work and family dynamics *within* the lives of individual women. Questions about de-standardization demand attention to how similar or dissimilar biographical patterns were *between* individuals. We assess this dimension using coefficients of concentration for women's employment, marital and parental histories (Fig. 3). The larger the coefficient of concentration, the less we can speak of a "standard" work or family life course.

Fig. 3 demonstrates that, regardless of when women were born, their marital histories were more alike than their employment or parental histories. With respect to the central issue – *historical change* in the degree of similarity – we find that, counter to the individualization thesis, employment and parental biographies over ages 25–49 generally became more uniform across birth cohorts, while marital histories over those ages traced a shallow U-shaped pattern, initially growing more homogeneous and later beginning to re-diversify. Bootstrapped confidence intervals for the coefficients of concentration (available on request) confirm these patterns and show, for each sequence type, significant differences between adjacent birth cohorts in the degree to which work and family biographies were standardized.

Once again, the underlying sequences (not shown due to space considerations) help elucidate the meaning of these shifts. They suggest that employment histories became more alike as larger shares of women followed a trajectory characterized by long-term, full-time paid work over the ages of 25–49. The standardization of parental sequences followed from the majority of such women adopting the pattern of later and/or smaller families that typified the life courses of better-educated women in the earliest cohort. Marital patterns initially grew more similar because, relative to the earliest cohort, women aged 25–49 in the middle cohorts were somewhat more alike in their propensity not to form life-long unions. Sequences later

diversified as not all women in the sample participated to the same degree in the progressive lengthening of time spent single prior to a first marriage.

5.4. Bringing together work and family: joint states and life course "types"

Examining women's work and family biographies separately for each domain reveals an important facet of changing life courses: differentiation and de-standardization processes for employment, marriage and parenthood do not run in the same direction, and sometimes fail to trace patterns predicted by the individualization thesis. However, the life course perspective also sensitizes us to the notion that what occurs in one domain (e.g., employment) cannot be properly understood apart from the paths that unfold in other domains (e.g., marriage and parenthood). In keeping with this view, we extend the separate sequence analysis to examine individualization processes for women's *joint-state* biographies over ages 25–49, using the 11 work–family life course groups generated through optimal matching analysis (see Section 4.3).

Table 3 describes each of the life course groups with respect to employment, marital and parental biographies, and displays the weighted life course type distribution for the sample as a whole. The descriptions are based on an examination of weighted group means for each state variable at every age, 25–49 years. Each biographical grouping is a close match to the original (intentionally exaggerated) ideal type used to define it, but with the degree of "messiness" needed to accommodate actual life histories. The distribution shows that the majority of women in the sample fell into one of the four "traditional family" groups (*married mothers* with various employment patterns), with the largest share of these exhibiting a strong attachment to the labour force (*married mother full timers*). However, substantial proportions were also found in the "minimal parenting" groups with a strong attachment to the labour force (*married* and *single employed non-mothers*). At the other extreme, only small proportions had
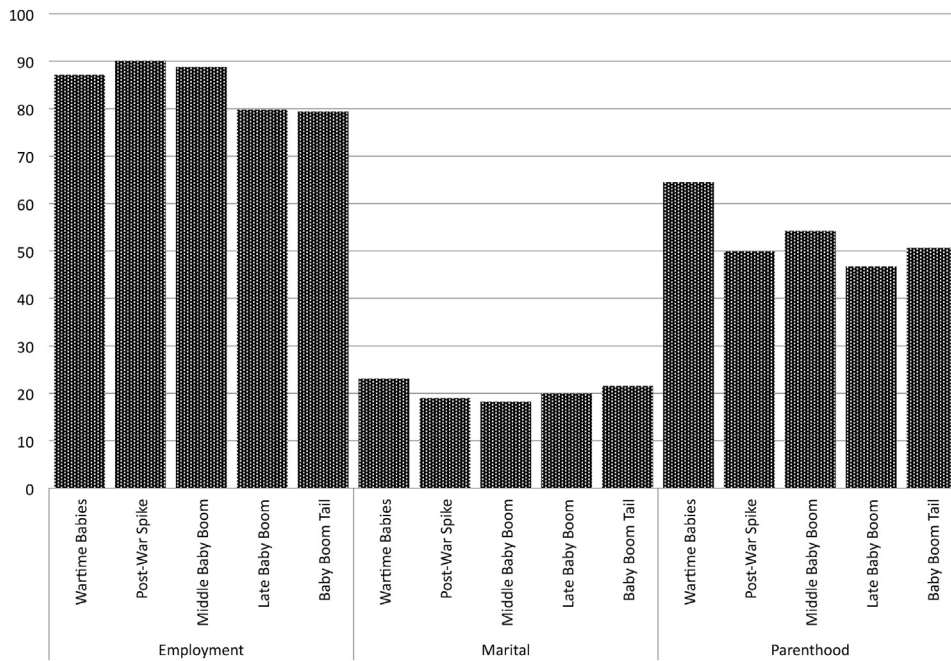
Fig. 3. Coefficients of concentration for employment, marital, and parental sequences, by birth cohort (wartime babies = born 1942–1945; post-war spike = born 1946–1949; middle baby boom = born 1950–1953; late baby boom = born 1957–1960; baby boom tail = born 1961–1964).

biographies characterized by the combination of a "non-standard" family life *and* a weak attachment to the labour force (*married* and *single at-home non-mothers*, and *single at-home mothers*).

5.5. De-standardization and combined work–family histories

Life course change is revealed in the shifting distributions of work–family history groups across birth cohorts (Fig. 4). In general, the groups characterized by a strong attachment to the labour force over the prime working and childrearing years expanded, while the four "traditional family" groups, taken as a whole, shrank (notwithstanding the rising share of *married mother full timers*). The increase in groups with a strong attachment to the labour force is consistent with the evidence from Fig. 3 that women's employment biographies became more standardized as larger and larger shares engaged in paid work over the ages

Table 3
Description and distribution of work–family life course groups.

Work–family life course type	Life course patterns age 25–49	Weighted distribution[a]
Married mother full timer	Mostly married throughout; dependent children generally present throughout; mostly employed full-time throughout	27.31
Married mother late entrant	Mostly married throughout; dependent children generally present throughout; mostly homemaker with later (re)entry into employment (most often part-time)	13.01
Married mother gradual entrant	Mostly married throughout; dependent children generally present throughout; mostly homemaker with gradual (re)entry into employment (mostly part-time then mostly full-time)	9.98
Married mother part timer	Mostly married throughout; dependent children generally present throughout; mostly employed part-time throughout	6.55
Empty-nest divorcer	Mostly married, then mostly unmarried; dependent children generally present throughout; mostly homemaker then mostly employed full-time	6.53
Married employed non-mother	Mostly married throughout; dependent children generally absent; mostly employed full-time	8.68
Single Employed Mother	Unstable or no marriage; dependent children generally present throughout; mostly employed full-time throughout	6.82
Single employed non-mother	Mostly unmarried throughout; dependent children generally absent throughout; mostly employed full-time throughout	13.45
Married At-Home Non-Mother	Mostly married throughout; dependent children generally absent throughout; mostly out of the labour force throughout	2.18
Single at-home mother	Unstable or no marriage; dependent children generally present throughout; mostly out of the labour force throughout	3.58
Single at-home non-mother	Mostly unmarried throughout; dependent children generally absent throughout; mostly out of the labour force throughout	1.92

[a] Percent distribution is derived from the multiple imputation datasets, for the analytic sample.
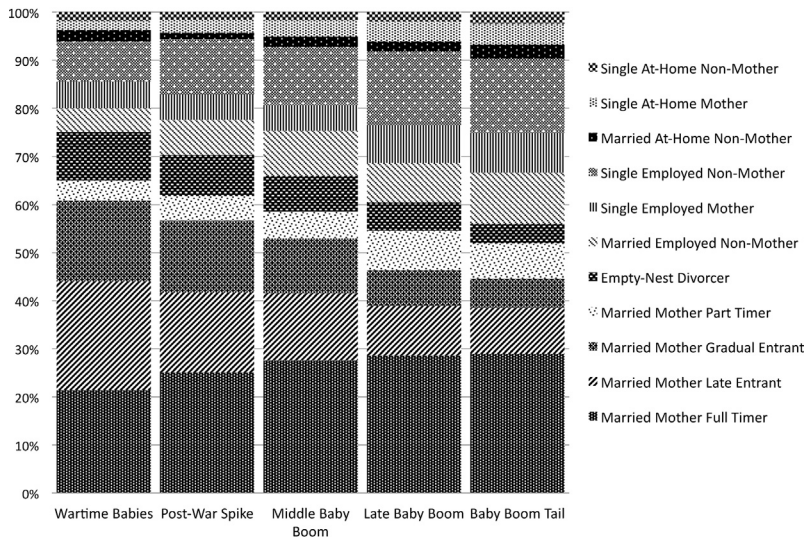
Fig. 4. Life course type distributions, by birth cohort (wartime babies = born 1942–1945; post-war spike = born 1946–1949; middle baby boom = born 1950–1953; late baby boom = born 1957–1960; baby boom tail = born 1961–1964).

of 25–49. However, in contrast to the divergent employment, marital and parental trends shown in Fig. 3, the declining proportions of women in the once-dominant "traditional family" groups evident in Fig. 4 point to a steady *de*-standardization of joint-state biographies. In other words, taking into account the various ways women *combine* employment and family over the prime working and childrearing years reveals that their adult biographies became progressively more diverse over the period of observation. This impression is confirmed by Shannon entropies for cohort-specific life course type distributions (Fig. 5). Increasing entropies across the birth cohorts

indicates that American women's age 25–49 work–family biographies generally became less standardized over time, although there is some suggestion of a levelling off with the most recent cohort.

Mean optimal matching distances for select ideal types provide a way of interpreting the de-standardization that took place. Fig. 6 shows average distances from the ideal types representing the three groups predominant among women in the earliest cohort – the one with the most standardized biographies – as well as the two groups that were *least* in evidence in the earliest cohort. Two of the dominant types among wartime babies are "traditional"
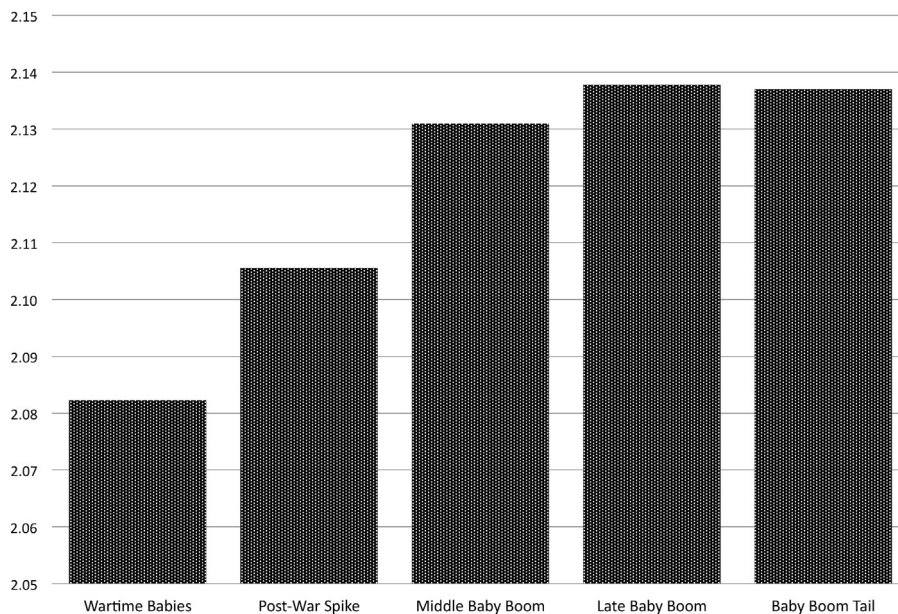

Fig. 5. Shannon entropies for life course types, by birth cohort (wartime babies = born 1942–1945; post-war spike = born 1946–1949; middle baby boom = born 1950–1953; late baby boom = born 1957–1960; baby boom tail = born 1961–1964).
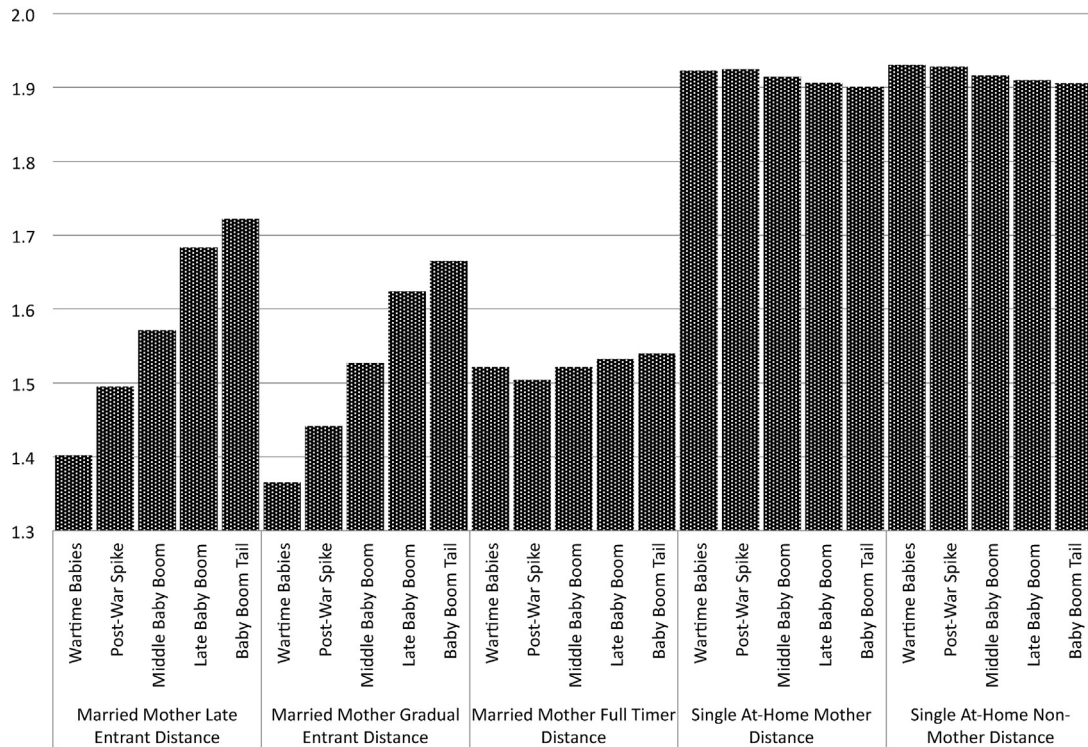
Fig. 6. Weighted sample means on selected distance measures, by birth cohort (wartime babies = born 1942–1945; post-war spike = born 1946–1949; middle baby boom = born 1950–1953; late baby boom = born 1957–1960; baby boom tail = born 1961–1964).

female paths (*married mother late entrant* and *married mother gradual returner*), and one increasingly describes contemporary biographies (*married mother full timer*). The two rarest groups in that cohort are, arguably, "alternatives" that may have grown more prevalent as life courses individualized (*single at-home mother* and *single at-home non-mother*). Mean distances are calculated for all members of a given cohort, not just women allocated to the biography in question. As such, they represent the degree to which work–family life courses for subsequent cohorts *as a whole* deviated from the prevailing biographies of the most standardized birth cohort. The figure shows that the age 25–49 work–family histories of women in later cohorts increasingly diverged from the *married mother late entrant* and *married mother gradual entrant* paths, as would be predicted by the individualization thesis. However, they diverged very little from the *married mother full timer* path. Conversely, the work–family life courses of women in the most recent cohorts increasingly matched the *single at-home mother* and *non-mother* types. Given the well-documented associations between non-employment and lone parenting on the one hand, and such life course risks as poverty and ill health on the other (Bianchi, 1999; Frech & Damaske, 2012; McLanahan, 2009; Meadows, McLanahan, & Brooks-Gunn, 2008; Menaghan & Cooksey, 2008; Pavalko & Smith, 1999; Ross & Mirowsky, 1995; Waite & Gallagher, 2000; Williams, Sassler, Frech, Addo, & Cooksey, 2011), the latter finding suggests that, for at least some women, life course change has been accompanied by

growing jeopardy. Regression estimates (available on request) confirm the observed patterns for deviations (or non-deviations) from wartime babies' life course types – although convergence towards the rarest groups reached significance only with the most recent cohort.

5.6. Differentiation and work–family life course groups

While the measures of (de-)standardization capture life course differences *between* women, they reveal nothing about changes in the degree of movement between states *within* individual women's lives – or differentiation. To assess this dimension, we calculate joint-state, as well as separate employment, marital and parental complexity indices (CIs), for life course groups whose ranks most obviously swelled across cohorts (*married mother full timer*, *married employed non-mother* and *single employed non-mother*) and those whose position most obviously declined (*married mother gradual entrant* and *married mother late entrant*). The former groups had among the least complex joint-state sequences (CI = 9.33 for *married mother full timer*, 8.65 for *married employed non-mother* and 7.71 for *single employed non-mother* – versus, for example, 10.64 for *empty-nest divorcer*) (Fig. 7, Panel A).[9] By contrast, those whose shares most obviously declined had joint-state

---

[9] The ranges are fairly narrow for group means on joint-state and single-state complexity indices.
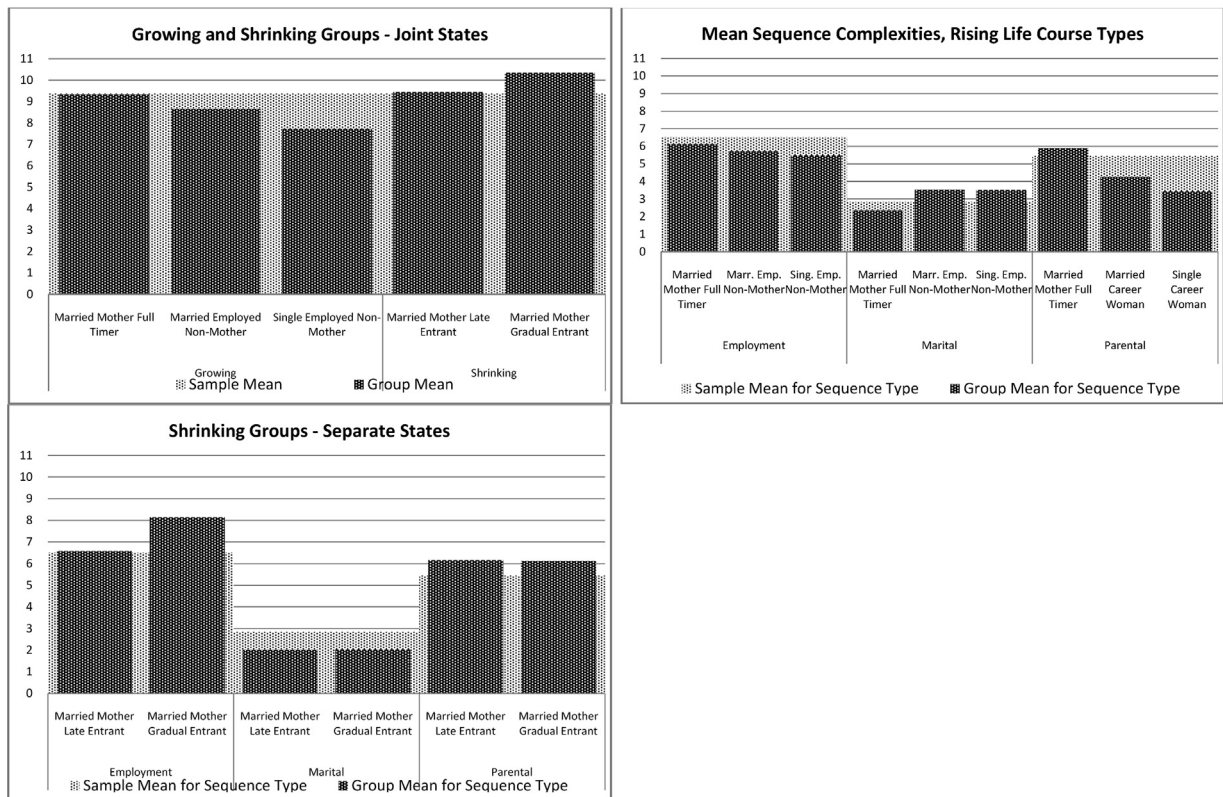
Fig. 7. Mean joint-state and separate-state complexities for major growing and shrinking life course groups.

sequences that were above average in complexity (CI = 9.44 for *married mother gradual entrant* and 10.34 for *married mother late entrant* – versus, for example, 7.71 for *single employed non-mother*). This pattern, in which less complex biographical types grew increasingly common across cohorts and more complex types grew less frequent, suggests, counter to the individualization thesis, that women's age 25–49 work–family life courses generally became *less* differentiated over time.

Group means on the single-domain sequences reveal that the picture was not, however, quite so straightforward. Consistent with what we saw for joint states, life course types whose proportions increased most had the least complex employment sequences (CI = 6.12 for *married mother full timer*, 5.74 for *married employed non-mother* and 5.48 for *single employed non-mother* – versus, for example, 8.14 for *married mother gradual entrant*). Similarly, two of these life course types also had among the least complex parental sequences (CI = 4.25 for *married employed non-mother* and 3.43 for *single employed non-mother* – versus, for example, 6.27 for *empty-nest divorcers*) (Fig. 7, Panel B). These two observations support the conclusion that, overall, the work–family life courses of American women in the prime working and childrearing years became less differentiated across cohorts. However, two of these expanding groups – *married employed non-mother* and *single employed non-mother* – also had among the *most* complex marital sequences (CI = 3.54 and 3.52, respectively – versus, for example, 2.03 for *married mother gradual entrant*).

The same mixed picture is evident for groups whose proportional ranks diminished most over time. They had the most complex parental histories (CI = 6.13 for *married mother gradual entrant* and 6.16 for *married mother late entrant* – versus, for example, 3.43 for *single employed non-mother*) and, in one case (*married mother gradual entrant*), the most complex employment histories (CI = 8.14 – versus, for example, 5.48 for *single employed non-mother*) (Fig. 7, Panel C). Although these observations support the conclusion reached for the joint states, that American women's work–family life courses over the ages of 25–49 grew less differentiated across cohorts, the shrinking groups also had the *least* complex marital histories (CI 2.03 for *married mother gradual entrant* and 2.06 for *married mother late entrant* – versus, for example, 3.52 for *single employed non-mother*). In general, then, the major shifts in the distribution of women's life course types run counter to predictions based on the individualization thesis, and point, instead, to waning differentiation. Nevertheless, in each instance this finding is counterbalanced to some extent by growing complexity in at least one of the three life course domains examined.

5.7. The social patterning of work and family life courses: Who experienced which kinds of change?

Understanding that women's work–family life courses became both more and less complex, and more and less alike, depending on the domain considered, raises an

additional question. Do aggregate results conceal divergent trends for those in contrasting social positions at the launch of their work–family sequences? We address this question by examining two key biographical attributes – Shannon entropies and dominant life course groups – separately for women at each location of the intersection between race/ethnicity and education at age 25.

In examining the social patterning of life course change, we assume that women with a weak attachment to the labour force, especially in the absence of a stable alternate breadwinner and even more so if combined with responsibility for children, are experiencing biographies that, in the North American context, leave them vulnerable to harms. We are guided in this assumption by large bodies of cross-sectional and longitudinal evidence that non-employment, unstable or no marriage and lone parenthood are all positively linked with such life course risks as poverty and poor health (Avison, Ali, & Walters, 2007; Avison, Davies, Willson, & Shuey, 2008; Bianchi, 1999; Dooley, 2003; Dooley, Catalano, & Wilson, 1994; Frech & Damaske, 2012; McLanahan, 2009; Meadows, McLanahan, & Brooks-Gunn, 2008; Menaghan & Cooksey, 2008; Pavalko & Smith, 1999; Ross & Mirowsky, 1995; Waite & Gallagher, 2000; Williams et al., 2011). By the same logic, we assume that women whose work–family life courses are characterized by a strong attachment to the labour force and stable marriage (especially if accompanied by minimal parenting responsibilities) are reaping the benefits of expanding work–family options. Accordingly, an increase in the ranks of the latter biographies is evidence of expanding opportunities, while rising proportions in the former suggests that historical change has brought with it growing jeopardy.

Fig. 8 presents the distribution of the 11 life course groups by birth cohort, disaggregated by racial/educational position at age 25. (We do not include Black/Hispanic women with 16-plus years of education, as their numbers are too small to produce reliable estimates.) Several points are worth noting. First – and not surprisingly, given their preponderance in the analytic sample – White women with 12–15 years of education at age 25 traced a pattern very much in line with that for the sample as a whole. Among women in this social position, growing proportions are found in the biographies with a strong attachment to the labour force, and declining shares in the "traditional family" groups (except *married mother full timer*). Beyond that, however, the extent and type of de-standardization that took place varies by social position. White women with less than 12 years of education at age 25 were heavily concentrated in the *married mother late entrant* group in the earliest cohort, while their social counterparts born 20 years later were fairly evenly distributed across the life course types. This shift from a highly concentrated to a dispersed distribution is not evident to the same extent for the other racial/educational groups, suggesting that de-standardization occurred most obviously in the work–family life courses of White women with the least education. Shannon entropies for the life course type distributions support this conclusion (Fig. 9). In addition, the entropies reveal de-standardization followed by some re-standardization for Black/Hispanic women with less

than 12 years of education at age 25. Fig. 8 indicates that, for this group, initial de-standardization entailed the declining dominance of the *married mother full-timer* and *married mother late entrant* biographies, while re-standardization occurred by the most recent cohort with the growing prominence of the *single at-home mother* pathway. The pattern for Black/Hispanic women with some post-secondary schooling at age 25 was broadly U-shaped. Initial standardization occurred, in large part, through a decline in the *single at-home mother* biography and, with the middle cohort, a rise in the *married mother full-timer* path; subsequent de-standardization was the product of some reversal of these patterns. The trend for White women with 16-plus years of schooling at age 25 traced an inverted U shape, in which concentration first increased, then decreased. As seen in Fig. 8, this pattern was the product of a simultaneous decline in the dominance of the *married mother gradual entrant* group and rise in the prominence of the *single* and *married employed non-mother* and *married mother part-timer* biographies.

Fig. 8 not only reveals distinct patterns of cohort change for women in each age-25 social position; it also suggests that expanding opportunities and growing jeopardy were not distributed equally across the five social groups considered here. For example, Black/Hispanic women with less than 12 years of education not only fell disproportionately into the *single at-home mother* path throughout the observation period, but they did so to an *increasing* degree with each successive cohort. The well-established links between lone motherhood, non-employment and both poverty and compromised health suggest that Black/Hispanic women with no qualifications at age 25 have borne a disproportionate share of the harms associated with life course change. At the other end of the spectrum of risk – White women with a postsecondary education by age 25 – proportions in the groups most associated with expanding opportunities (*single* and *married employed non-mother*) increased steadily across birth cohorts, while shares in the groups that place women in jeopardy (those combining a "non-standard" family history with a weak attachment to the labour force) remained negligible throughout. In addition, it is interesting to note that women in this social position at age 25 were consistently more likely than other women (and increasingly so across cohorts) to adopt the *traditional family part timer* path. This suggests that, at least in the US, married mothers' ability to "balance" work and family by means of longer-term part-time employment has been something of a mark of privilege.

In sum, among American women of prime working and childrearing age, life course de-standardization is associated with a lack of educational qualifications: The process operates most clearly in the lives of White women who, by the age of 25, did not have a high school education, and to a lesser extent in those of their Black/Hispanic counterparts. More importantly, though, the changes generally thought to reflect expanding opportunities are most evident in the life courses of those in the most privileged position: White women with a postsecondary education at age 25. By contrast, Black/Hispanic women with no qualifications at age 25, whose work–family lives suggested jeopardy even
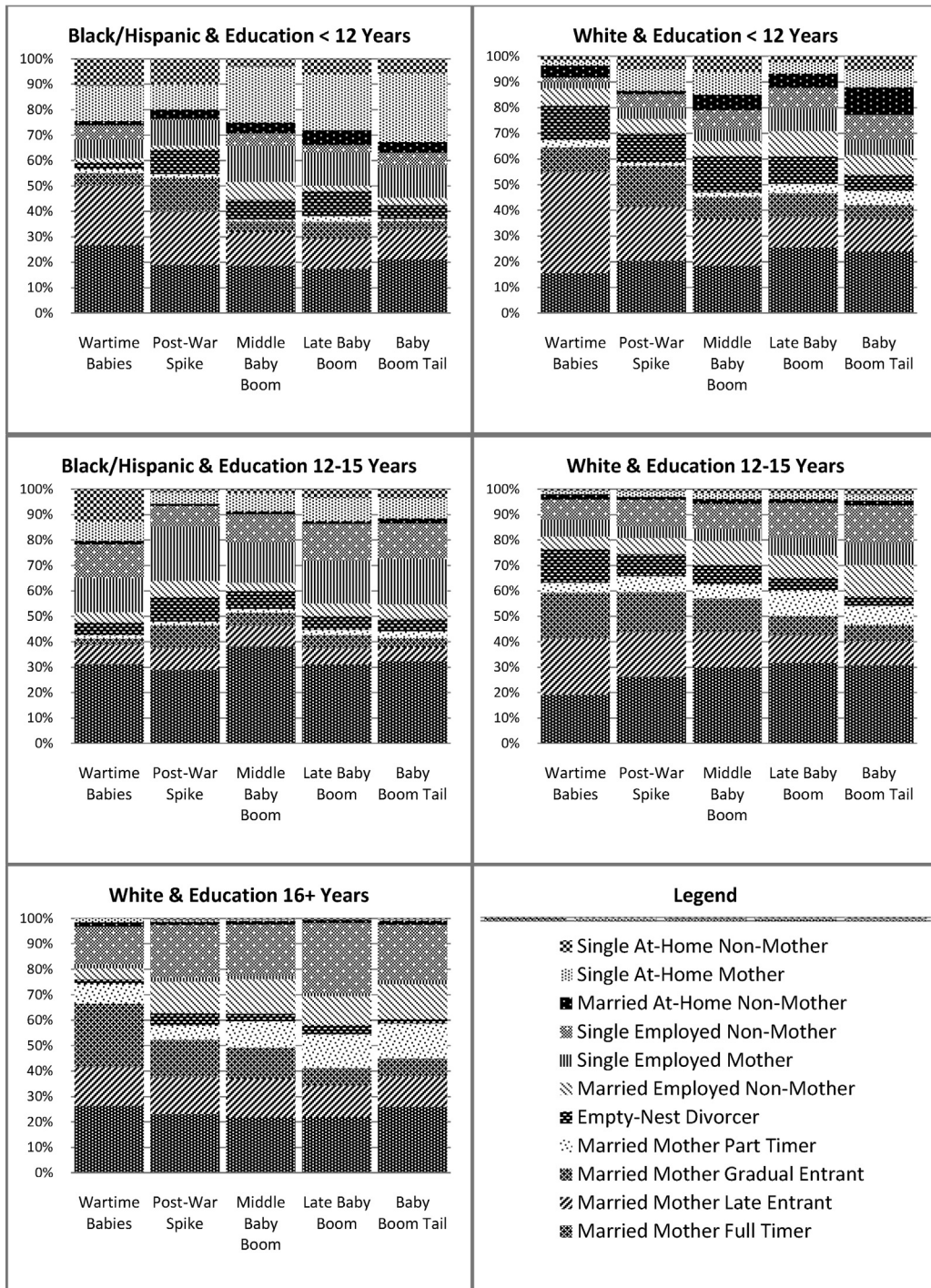
Fig. 8. Life course distributions, by birth cohort (wartime babies = born 1942–1945; post-war spike = born 1946–1949; middle baby boom = born 1950–1953; late baby boom = born 1957–1960; baby boom tail = born 1961–1964) and social position at age 25.

among wartime babies, were, with each successive cohort, increasingly likely to experience harm-prone biographies.

6. Discussion and conclusion

We began with a set of questions about the nature and meaning of historical shifts in women's work and family lives. Drawing on key elements of the individualization thesis and using longitudinal data over the ages of 25–49 for five American birth cohorts, we asked the following: (1) whether individual trajectories became more complex as women increasingly responded to the exigencies of labour markets; (2) whether women's life courses became less alike as the influence of traditional social categories and
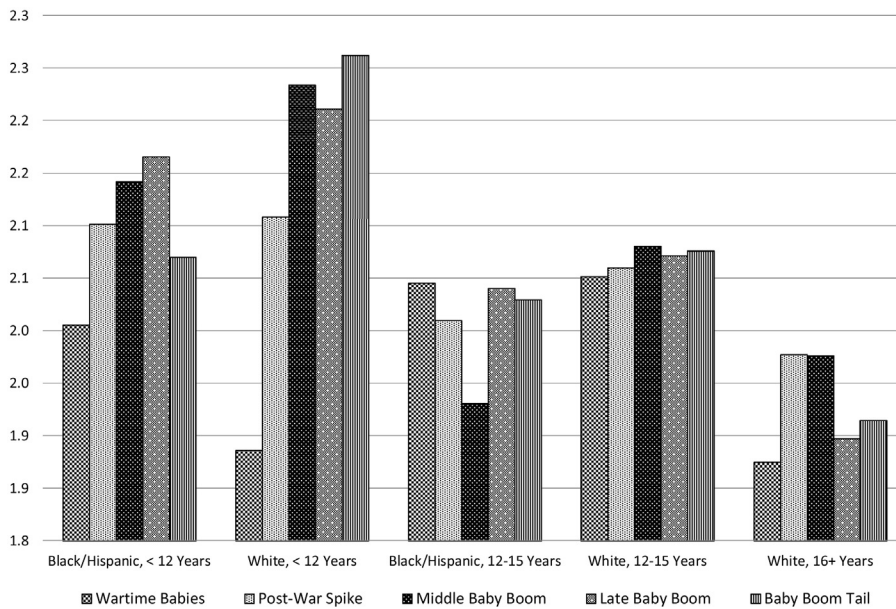
Fig. 9. Shannon entropies for life course types, by birth cohort (wartime babies = born 1942–1945; post-war spike = born 1946–1949; middle baby boom = born 1950–1953; late baby boom = born 1957–1960; baby boom tail = born 1961–1964) and social position at age 25.

institutions waned; and (3) whether change processes differed for women who embarked on their work–family sequences from contrasting social positions. Our analysis examined employment, marital and parental sequences, both separately and in combination, and it distinguished key elements of change for women in distinct age-25 social positions.

We found unique historical patterns for American women's paid work, marital and parental biographies over the ages of 25–49. Employment sequences became less differentiated and more standardized, as complex histories involving movement between paid work and family care became increasingly rare and stable full-time employment emerged as the new "standard." Marital biographies grew more complex as women in the most recent cohort turned away from stable long-term marriages, and they traced a shallow U-shaped curve with respect to de-standardization as women in the middle cohorts converged in their tendency to end marriages early, while those in the latest diverged in their penchant to delay marriage. Parental histories showed little change in complexity across the cohorts in our study, but grew somewhat more standardized as women converged towards a pattern of later and/or smaller families.

Our results for paid work are in agreement with the finding of standardization in the one existing (small-scale) study of women in the US (Blair-Loy, 1999). However, they contrast with the pattern of de-standardization and differentiation found for German women (Berger et al., 1993; Simonson et al., 2011) – a point to which we will return below. Our conclusions for marital histories concur somewhat with findings for Swiss women (Widmer & Ritschard, 2009). The parallels are limited, though, as that study finds no de-standardization of marital biographies after age 30, only five years beyond the initiation our

25-year sequences. We have no point of comparison, in existing studies of women's changing adult life courses, for our findings on parental sequences.

Although trends for employment, marriage and parenthood ran in different directions, the three domains are, arguably, not separable in the lived experiences of women. Our analysis of joint-state sequences, designed to address this concern, demonstrated that it was less and less possible, over historical time, to speak of a "standard" American female work–family biography for the prime employment and childrearing years. More specifically, the life courses of women in later cohorts increasingly diverged from the once-dominant *married mother late entrant* and *married mother gradual entrant* paths, and grew more similar to the much rarer – and more vulnerable – *single at-home mother* and *single at-home non-mother* types.

Changes in the distribution of joint-state life course types had mixed implications for the complexity of women's work–family biographies. The major shifts pointed to declining differentiation, but this finding was accompanied by consistent evidence of increasing complexity in at least one of the three life course domains examined. This pattern of mixed complexity trends suggests that growing instability in one arena was "compensated for" by stability in another – or, conversely, that stability in one area of women's work–family biographies came at the cost of declining stability in another. The finding hearkens back to the life course notion that trajectories in one domain are intimately linked with those in other domains, and highlights the value of an analysis that considers multiple arenas simultaneously. Our results for combined work and family biographies are, to our knowledge, unique among studies of individualization processes in the lives of adult women.

Was the re-shaping of women's life courses socially patterned in ways that shed light on the question of whether individualization processes imply expanding opportunities or growing jeopardy? Our study suggests that, as women's work and family life courses transformed, benefits and harms were not uniformly distributed. Rather, life courses typically understood to reflect the former accrued disproportionately to women in more advantaged positions at the beginning of the prime working and childrearing years, while the potential for harm increasingly characterized the lives of less privileged women.

Our findings on the social patterning of biographical change are broadly consistent with existing results for Germany (Berger et al., 1993), which indicate that the rise in continuous full-time work trajectories occurred primarily among those with more education. However, our analysis goes beyond Berger's to examine the social patterning of change in joint work *and* family life course groups. In this respect, the conclusions in the present study are, to our knowledge, unique.

As noted earlier, our finding of standardization for employment histories contrasts with existing results for German women, which show de-standardization. This discrepancy highlights the significance of unique national contexts, and demonstrates that individualization processes may not generalize across countries. In Germany, a single standard dominated for women prior to unification. However, the standard took very different forms in the GDR and the FRG – full-time employment in the former nation and homemaking in the latter (Rosenfeld, Trappe, & Gornick, 2004). Women's employment patterns gradually converged after unification, even as earlier patterns persisted. The end result was a wider range of work histories than had existed in either separate state (Simonson et al., 2011). In the US, a different story unfolded. An important thread in that story concerns the very different circumstances of Black and White women. Various factors rooted in a history of racial divisions (low Black male wages, high Black male unemployment, high Black male mortality and relatively high rates of Black lone motherhood), along with a weak social safety net, meant that Black women were likely to work for pay even in an era when the majority of their White counterparts stayed home (Goldin, 1977, pp. 87–88). As social and economic changes drew large numbers of (White) wives and mothers into the labour force, women's employment histories grew more homogeneous.

Had we analyzed employment histories in isolation, our results might have implied that in the US standardization signified the opening up, for White women, of "opportunities" that had long existed for their Black peers. The joint-state analysis revealed that, on the contrary, the *combined* work and family life courses of minority women, especially those with little education as they entered the prime working and childrearing years, were considerably more likely to indicate vulnerability than were those of their better-positioned counterparts. More importantly, it showed that, for the latter group, this was *increasingly* so over time.

Our findings should be considered in light of several built-in limitations. First, our use of Lesnard's OM algorithm required us to impute some values for employment, marital and parental status. To the extent that imputed values do not match actual circumstances, our results may not fully reflect individualization processes in the lives of American women in the prime working and childbearing years. We have, however, gone to great lengths to accommodate the uncertainty associated with imputed values – using a two-fold fully conditional specification, running a large number of imputations and working with techniques designed to handle multiple imputation data. In addition, a sensitivity analysis conducted on a sample that excluded cases with substantial missingness (available on request from the first author) reveals that none of our conclusions would change – although reduced cell sizes would render some estimates less reliable. As a result of all these measures, we have considerable confidence in our findings.

A second limitation is that our results for employment speak only to movement between full-time, part-time and non-employment, and not to other aspects of work histories such as job changes. While we find increasing standardization and declining differentiation in American women's paid work biographies over the ages of 25–49, it is possible that an analysis based on job changes would reach conclusions more in line with the individualization thesis. Future research might profitably investigate this possibility.

Third, the two panel studies used in this analysis measure race/ethnicity in slightly different ways, with possible consequences for our conclusions about the social patterning of individualization processes. Nevertheless, we do not detect any disjuncture, for any of the five age-25 social positions examined, in the patterns found for NLSW-YW (wartime babies, post-war spike and middle baby boom) and NLSY79 (late baby boom and baby boom tail) sample members. This observation affords us some assurance that we have successfully harmonized the race/ethnicity measures across surveys.

A related limitation is that we are unable to distinguish Hispanic from Black women for the NLSW-YW sample, and therefore combine them in our analysis of the social patterning of life course change. Historical patterns of employment and family life are likely to have differed in interesting ways for the two groups; hence, given appropriate data, we would have preferred to examine their biographies independently. Nevertheless, separate analyses for Blacks and Hispanics using only the NLSY79 sample reveal that, despite some differences between the groups, our broad conclusions hold for both. For example, both Black and Hispanic women with less than 12 years of education at age 25 fell disproportionately into the *single at-home mother* path throughout the observation period, and in both cases the share in this life course group increased across the two cohorts (proportions are smaller among Hispanic women but the cross-cohort increase is larger).[10] Additionally, among both Black and Hispanic women with at least a secondary school education by age 25,[11] the *married at-home mother* path dominated

---

[10] Historical trends must be interpreted with caution here, as the NLSY79 sample contains only two cohorts.

[11] Small cells require us to collapse the two higher educational categories for this sub-analysis.

across cohorts and the *single employed mother* biography followed in second place.

Also related to the coding of race/ethnicity is our inability to classify women who do not identify as Black, Hispanic or White – for example, those whose origins are Asian, Middle Eastern or Native American.[12] These women are likely to differ, not only from Whites, Blacks and Hispanics, but also from each other, with respect to work and family patterns (Ghazal Read, 2004; Ghazal Read & Cohen, 2007; Pew Research Center, 2013). The growing presence of at least some of these origin groups in the social fabric of the US (Humes, Jones, & Ramirez, 2011; Shrestha & Heisler, 2011; US Census Bureau, 2013) suggests that future panel studies would do well to distinguish among them, and to oversample to permit analyses (as the current surveys do for Blacks and the NLSY79 does for Hispanics) (Perez & Hirschman, 2009). That being said, we are reassured by our earlier observation (see Section 5.1) that census estimates distinguishing Caucasians from all other racial/ethnic groups, for women in the appropriate age groups and time periods, are consistent with our own distribution for race/ethnicity. We also note, based on census estimates, that for the years our sample members were selected to represent (1967 for the NLSW-YW and 1978 for the NLSY79), none of these origin groups represented more than 1.5 percent of the US population – usually considerably less (Gibson & Jung, 2002). This suggests that, despite their growing significance in the US, their invisibility in the current study is unlikely to have influenced results.

A final limitation is that the data do not permit us to examine historical change in non-marital cohabitation for our sample. Given the rise in informal unions over the period under investigation and the indications that, in the US, such arrangements have taken up some of the "slack" in legal marriage (Bumpass, Sweet, & Cherlin, 1991; Goodwin, McGill, & Chandra, 2009), it would have been interesting to analyze partnership sequences that coded not only single and legally married states, but also periods of informal cohabitation. We do note, however, that in the US (unlike in many European countries) cohabitation tends to be a prelude to, rather than a substitute for, legal marriage (Bumpass & Lu, 2000; Kennedy & Bumpass, 2008). Hence our analysis likely misses less than it would if we were studying women's changing life courses in Western Europe.

These limitations aside, how do our results for American women contribute to larger discussions about the nature of historical change, and about what it means for women's life courses? One purported feature of the second modernity is the disembedding of individuals from traditional social categories and the accompanying proliferation of life course options. While we found inconsistent support for this contention using single-domain trajectories, the results of our joint-state analysis demonstrated that American women's combined work–family lives over

ages 25–49 did, in fact, increasingly respond to the lifting of "traditional" constraints that guided the life courses of the earliest cohort. That this was the case *despite* findings of growing similarity for women's employment and parental biographies highlights the importance of incorporating multiple dimensions of the life course into studies of individualization.

A second proposition about reflexive modernity is that "do-it-yourself" biographies have come to predominate (Beck & Beck-Gernsheim, 2002), manifesting as more movement between states within individual biographies. As regulatory frameworks are said to have shifted, in part, from family-based to labour market-based, this change should be especially apparent in employment trajectories. However, the paid work biographies of American women in their prime working and childrearing years actually grew *less* complex across cohorts, while their marital histories became more so. Since employment, marriage and parenthood are, in fact, interwoven, the results for joint-state biographies may be more relevant. But here, too, we found stronger evidence for declining than for increasing complexity.

Our findings on complexity raise the possibility that individualization does not operate the same way for women as it does for men – the group for whom the theory was originally developed (see Widmer & Ritschard, 2009). In the US, as elsewhere in the industrialized world, declining male employment (Aziz, 2009; US Bureau of Labor Statistics, 2011) has undoubtedly reduced controllability, certainty and security for men, and perhaps led to ever more complex work histories. But this very situation, augmented by limited maternity benefits and a relatively weak social safety net (Laughlin, 2011; Smeeding, 2005), likely contributed to women's increasingly stable attachment to the labour force and, thus, the *declining* complexity of their paid work trajectories. Future studies should test whether our results for American women over the ages of 25–49 apply equally to their male counterparts, or whether men's employment histories changed in ways that are more consistent with expectations derived from the individualization thesis.

Finally, the contention that individuals who are not well positioned to take advantage of expanding opportunities are increasingly likely to suffer "breakdown" biographies (Beck & Beck-Gernsheim, 2002) suggests that, for women in positions of social disadvantage, de-standardization processes are associated with growing vulnerability rather than broadening horizons. We found considerable support for this notion: Women in the most disadvantaged social positions at age 25 experienced fewer of the life course changes generally associated with expanding opportunities, and more of those seen to place them in jeopardy, than did women in the most advantaged positions.

In conclusion, we find that, in the US, the second modernity has been more about mounting differences between women than about growing complexity within individual women's lives. Moreover, whether the de-standardization of work and family histories reflects, on balance, weakening constraints and the expansion of life course opportunities, or the advent of a new set of risks and the proliferation of biographies that place women in

---

[12] To the extent that these women are present in the surveys used for this analysis, they are, unavoidably, grouped with either Blacks and Hispanics (NLSW-YW) or Whites (NLSY79).

jeopardy, depends very much on the social advantages and disadvantages they possessed as they entered their prime working and childbearing years.

Acknowledgements

Appendix A. Weighted sample distributions for covariates, using various cut-points for missingness on any single sequence

Variable	Percent distribution for covariates			
	Full sample	Missing cut-point 10+ per sequence	Missing cut-point 12+ per sequence	Missing cut-point 15+ per sequence
Birth cohort				
Wartime babies (born 1942–1945)	7.19	7.21	7.23	7.30
Post-war spike (born 1946–1949)	18.44	18.40	18.13	17.37
Middle baby boom (born 1950–1953)	21.73	20.82	19.69	17.75
Late baby boom (born 1957–1960)	27.03	27.57	28.37	29.79
Baby boom tail (born 1961–1964)	25.61	26.00	26.58	27.79
Education at age 25				
Less than 12 years	14.71	14.26	14.32	14.32
12–15 years	64.02	64.13	64.02	64.27
16-Plus years	21.27	21.60	21.65	21.42
Race/ethnicity				
Black/Hispanic	16.73	16.33	16.36	16.37
White	83.27	83.67	83.64	83.63
Combined social position at age 25				
Black/Hispanic and Education less than 12 years	4.33	4.19	4.26	4.30
White and education less than 12 years	10.38	10.07	10.07	10.02
Black/Hispanic and education 12–15 years	10.68	10.45	10.41	10.39
White and education 12–15 years	53.34	53.69	53.61	53.87
Black/Hispanic and education 16-plus years	1.73	1.69	1.70	1.68
White and education 16-plus years	19.54	19.91	19.95	19.74

References

Abbott, A., & Tsay, A. (2000). Sequence analysis and optimal matching methods in sociology. *Sociological Methods & Research, 29*(1), 3–33.

Aisenbrey, S., & Fasang, A. E. (2010). New life for old ideas: The 'second wave' of sequence analysis bringing the 'course' back into the life course. *Sociological Methods & Research, 38*(3), 420–462.

Anyadike-Danes, M., & McVicar, D. (2010). My brilliant career: Characterizing the early labor market trajectories of British women from generation X. *Sociological Methods & Research, 38*(3), 482–512.

Atkinson, W. (2007). Beck, individualization and the death of class: A critique. *British Journal of Sociology, 58*(3), 349–366.

Avison, W. R., Ali, J., & Walters, D. (2007). Family structure, stress, and psychological distress: A demonstration of the impact of differential exposure. *Journal of Health and Social Behavior, 48*, 301–317.

Avison, W. R., Davies, L., Willson, A. El. , & Shuey, K. M. (2008). Family structure and mothers' mental health: A life course perspective on stability and change. *Advances in Life Course Research, 13*, 233–255.

Aziz, F. (2009). *Trends in labor force participation rates by gender and race*. St. Paul, MN Hamline University.. Available at: notizie.unimo.it/campusfile/file/ECO_DEP/file27807.pdf.

Bailey, M. J., & Dynarski, S. M. (2011). *Gains and gaps: Changing inequality in U.S. college entry and completion*. Cambridge, MA: National Bureau of Economic Research. Available at: http://www.russellsage.org/research/reports/college-income-graduation-gap.

Bailey, M. J., & Dynarski, S. M. (2009). Inequality in postsecondary education. In W. Brown, A. Bryson, J. Forth, & K. Whitfield (Eds.), *The evolution of the modern workplace* (1st ed., pp. 117–132). Cambridge: Cambridge University Press.

Beck, U. (1992). *Risk society: Towards a new modernity*. London: Sage.

Beck, U. (2007). Beyond class and nation: Reframing social inequalities in a globalizing world. *British Journal of Sociology, 58*(4), 679–705.

Beck, U., & Beck-Gernsheim, E. (2002). *Individualization*. London: Sage.

Beck, U., & Lau, C. (2005). Second modernity as a research agenda: Theoretical and empirical explorations in the 'meta-change' of modern society. *British Journal of Sociology, 56*(4), 525–557.

Berger, P. A., Steinmüller, P., & Sopp, P. (1993). Differentiation of life-courses? Changing patterns of labour-market sequences in West Germany. *European Sociological Review, 9*(1), 43–65.

Bianchi, S. M. (1999). Feminization and juvenilization of poverty: Trends, relative risks, causes, and consequences. *Annual Review of Sociology, 25*, 307–333.

Blair-Loy, M. (1999). Career patterns of executive women in finance: An optimal matching analysis. *American Journal of Sociology, 104*(5), 1346–1397.

Blau, F. D., Ferber, M. A., & Winkler, A. E. (2002). *The economics of women, men, and work*. Upper Saddle River, New Jersey: Prentice-Hall.

Bramlett, M. D., & Mosher, W. D. (2002). "Cohabitation, marriage, divorce, and remarriage in the United States." National Center for Health Statistics. *Vital and Health Statistics23(22).*

Brannen, J., & Nilsen, A. (2005). Individualisation, choice and structure: A discussion of current trends in sociological analysis. *Sociological Review, 53*(3), 412–428.

Brückner, H., & Mayer, K. U. (2005). De-standardization of the life course: What it might mean? And if it means anything, whether it actually took place. In R. Macmillan (Ed.), *The structure of the life course: Standardized? Individualized? Differentiated?* (pp. 27–54). Amsterdam: Elsevier.

Buchholz, S., & Grunow, D. (2006). Women's employment in West Germany. In H.-P. Blossfeld & & H. Hofmeister (Eds.), *Globalization, uncertainty and women's careers: An international comparison* (pp. 61–83). Northampton, MA: Edward Elgar Publishing.

Buchmann, M. (1989). *The script of life in modern society: Entry into adulthood in a changing world*. Chicago/London: University of Chicago Press.

Bumpass, L. L., Sweet, J. A., & Cherlin, A. (1991). The role of cohabitation in declining rates of marriage. *Journal of Marriage and Family, 53*(4), 913–927.

Bumpass, L. L., & Lu, H.-H. (2000). Trends in cohabitation and implications for children's family contexts in the United States. *Population Studies, 54*(1), 29–41.

Caplow, T., & Merton, R. K. (1991). *American social trends*. San Diego, CA: Harcourt Brace Jovanovich.

Charles, N., & Harris, C. (2007). Continuity and change in work–life balance choices. *British Journal of Sociology, 58*(2), 277–295.

Choo, H. Y., & Ferree, M. M. (2010). Practicing intersectionality in sociological research: A critical analysis of inclusions, interactions, and institutions in the study of inequalities. *Sociological Theory, 28*(2), 129–149.

Cohen, A. J. (1996). A brief history of federal financing for child care in the United States. *Future of Children: Financing Child Care, 6*(2), 26–40.

Copen, C. E., Daniels, K., Vespa, J., & Mosher, W. D. (2012). *First marriages in the United States: Data from the 2006–2010 national survey of family growth* (Vol. 49). . *National health stats report*

Côté, J., & Bynner, J. M. (2008). Changes in the transition to adulthood in the UK and Canada: The role of structure and agency in emerging adulthood. *Journal of Youth Studies, 11*, 251–268.

Dolado, J. J., Felgueroso, F., & Jimeno-Serrano, J. F. (2002). *Recent trends in occupational segregation by gender: A look across the Atlantic.* SSRN eLibrary. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=320108.

Dooley, D. (2003). Unemployment, underemployment, and mental health: Conceptualizing employment status as a continuum. *American Journal of Community Psychology, 32*, 9–20.

Dooley, D., Catalano, R., & Wilson, G. (1994). Depression and unemployment: Panel findings from the epidemiologic catchment area study. *American Journal of Community Psychology, 22*, 745–765.

Dozier, R. (2010). Accumulating disadvantage: The growth in the Black–White wage gap among women. *Journal of African American Studies, 14*(3), 279–301.

Drobnič, S., Blossfeld, H.-P., & Rohwer, G. (1999). Dynamics of women's employment patterns over the family life course: A comparison of the United States and Germany. *Journal of Marriage and Family, 61*(1), 133–146.

Frech, A., & Damaske, S. (2012). The relationships between mothers' work pathways and physical and mental health. *Journal of Health & Social Behavior, 53*, 396–412.

Galobardes, B., Shaw, M., Lawlor, D. A., & Lynch, J. W. (2006). Indicators of socioeconomic position (Part 1). *Journal of Epidemiology and Community Health, 60*(1), 7–12.

Ghazal Read, J. (2004). Family, religion, and work among Arab American women. *Journal of Marriage and Family, 66*(4), 1042–1050.

Ghazal Read, J., & Cohen, P. N. (2007). One size fits all? Explaining U.S.-born and immigrant women's employment across 12 ethnic groups. *Social Forces, 85*(4), 1713–1734.

Gibson, C., & Jung, K. (2002). Historical census statistics on population totals by race, 1790 to 1990 and by Hispanic origin, 1970 to 1990, for the United States, regions, divisions, and states. *Working paper series no. 56*, Washington, DC: US Census Bureau.

Giddens, A. (1990). *Consequences of modernity.* Stanford: Stanford University Press.

Goldin, C. (1977). Female labor force participation: The origin of black and white differences, 1870 and 1880. *Journal of Economic History, 37*(1), 87–108.

Goldthorpe, J. H. (2002). Globalisation and social class. *West European Politics, 25*(3), 1–28.

Goodwin, P., McGill, B., & Chandra, A. (2009). Who married and when? Age at first marriage in the United States, 2002 *NCHS data brief, no. 19*, Hyattsville, MD: National Center for Health Statistics.

Graham, J., Olchowski, A., & Gilreath, T. (2007). How many imputations are really needed? Some practical clarifications of multiple imputation theory. *Prevention Science, 8*(3), 206–213.

Hamilton, B. E., Martin, J. A., & Ventura, S. J. (2011). *Births: Preliminary data for 2010. National vital statistics reports* (Vol. 60, no. 2). Hyattsville, MD: National Center for Health Statistics.

Han, S.-K., & Moen, P. (1999). Work and family over time: A life course approach. *Annals of the American Academy of Political and Social Science, 562*(1), 98–110.

Heinz, W. R. (2009). Structure and agency in transition work. *Journal of Education and Work, 22*(5), 391–404.

Henneck, R. (2003). *Family policy in the US, Japan, Germany, Italy and France: Parental leave, child benefits/family allowances, child care, marriage/cohabitation, and divorce.* Chicago: Council on Contemporary Families. Available at: http://www.contemporaryfamilies.org/work-family/family-policy.html.

Humes, K. R., Jones, N. A., & Ramirez, R. R. (2011). *Overview of race and Hispanic origin: 2010.* Washington, DC: US Census Bureau Available online: www.census.gov/prod/cen2010/briefs/c2010br-02.pdf.

Kennedy, S., & Bumpass, L. L. (2008). Cohabitation and children's living arrangements: New estimates from the United States. *Demographic Research, 19*, 1663–1692.

Kerby, S. (2012). *The state of women of color in the United States.* Washington, DC: Center for American Progress.

Kochhar, R., Fry, R., & Taylor, P. (2011). Wealth gaps rise to record highs between Whites, Blacks, Hispanics. *Pew social & demographic trends*, Washington, DC: Pew Research Center. Available at: http://www.pewsocialtrends.org/2011/07/26/wealth-gaps-rise-to-record-highs-between-whites-blacks-hispanics/.

Krieder, R. M., & Ellis, R. (2011). Number, timing and duration of marriages and divorces: 2009. *Current population reports* (pp. 70–125). Washington, DC: US Census Bureau. Available at: http://www.census.gov/prod/2011pubs/p70-125.pdf.

Laughlin, L. (2011). *Maternity leave and employment patterns of first-time mothers: 1961–2008.* US Census Bureau.

Lesnard, L. (2010). Setting cost in optimal matching to uncover contemporaneous socio-temporal patterns. *Sociological Methods & Research, 38*(3), 389–419.

Livingston, G., & Cohn, D'V. (2010). *Childlessness up among all women; Down among women with advanced degrees.* Washington: Pew Research Center.

MacIndoe, H., & Abbott, A. (2004). Sequence analysis and optimal matching techniques for social science data. In M. A. Hardy & A. Bryman (Eds.), *Handbook of data analysis* (pp. 387–405). London: Sage.

MacMillan, R. (2005). The structure of the life course: Classic issues and current controversies. In R. Macmillan (Ed.), *The structure of the life course: Standardized? Individualized? Differentiated?* (pp. 3–24). Amsterdam: Elsevier.

Martin, J. A., Hamilton, B. E., Sutton, P. D., Venura, S. J., Mathews, T. J., & Osterman, M. J. K. (2010). *Births: Final data for 2008. National vital statistics reports* (Vol. 59, no. 1). Atlanta: National Center for Health Statistics. Available at: http://www.cdc.gov/nchs/data/nvsr/nvsr59/nvsr59_01.pdf.

Martinengo, G., Jacob, J. I., & Hill, E. J. (2010). Gender and the work–family interface: Exploring differences across the family life course. *Journal of Family Issues, 31*(10), 1363–1390.

Martinez, G., Daniels, K., & Chandra, A. (2012). *Fertility of men and women aged 15–44 years in the United States: National survey of family growth, 2006–2010. National health statistics reports* (Vol. 51). Atlanta: National Center for Health Statistics.

Mayer, K. U. (2004). Whose lives? How history, societies and institutions define and shape life courses. *Research in Human Development, 1*(3), 161–187.

McClain, A., & Hering, J. (2001). *NLS of young women user's guide: A guide to the 1968–1999 National Longitudinal Survey of Young Women data.* Columbus, OH: Bureau of Labor Statistics, US Department of Labor.

McLanahan, S. (2009). Fragile families and the reproduction of poverty. *Annals of the American Academy of Political and Social Science, 621*, 111–131.

Meadows, S. O., McLanahan, S. S., & Brooks-Gunn, J. (2008). Stability and change in family structure and maternal health trajectories. *American Sociological Review, 73*, 314–334.

Menaghan, E. G., & Cooksey, E. C. (2008). Well-being at mid-life: Family predictors of continuity and change. *Advances in Life Course Research, 13*, 257–281.

Oakes, M. (2010). Measuring socioeconomic status. *Behavioral and social sciences research (electronic resource)*, Bethesda, MD: National Institutes of Health Office of Behavioral and Social Sciences Research (Chapter 31). Available online: http://www.esourceresearch.org/tabid/226/default.aspx.

Patten, E., & Parker, K. (2012). A gender reversal on career aspirations. *Pew social & demographic trends.* Available at: http://www.pewsocialtrends.org/2012/04/19/a-gender-reversal-on-career-aspirations/.

Pavalko, E. K., & Smith, B. (1999). The rhythm of work: Health effects of women's work dynamics. *Social Forces, 77*(3), 1141–1162.

Perez, A. D., & Hirschman, C. (2009). The changing racial and ethnic composition of the US population: Emerging American identities. *Population and Development Review, 35*(1), 1–51.

Pew Research Center. (2013). *The rise of Asian Americans.* Washington, DC: Pew Research Center Available online: http://www.pewsocialtrends.org/files/2013/04/Asian-Americans-new-full-report-04-2013.pdf.

Raddon, M.-B., & Ciupa, K. (2011). How to write your will in an age of risk: The institutionalization of individualism in estate planning in English Canada. *Current Sociology, 59*, 771–786.

Rosenfeld, R. A., Trappe, H., & Gornick, J. C. (2004). Gender and work in Germany: Before and after reunification. *Annual Review of Sociology, 30*, 103–124.

Ross, C., & Mirowsky, J. (1995). Does employment affect health? *Journal of Health and Social Behavior, 36*, 230–243.

Rubin, D. B. (1987). *Multiple imputation for non-response in surveys.* Chichester: Wiley.

Saluter, A. F., & Lugaila, T. A. (1998). Marital status and living arrangements: March 1996. *Census Bureau report* (pp. 20–496). Washington: US Bureau of the Census.

Shavers, V. L. (2007). Measurement of socioeconomic status in health disparities research. *Journal of the National Medical Association, 99*(9), 1013–1023.

Shrestha, L., & Heisler, E. (2011). The changing demographic profile of the United States. *Federal publications*, Washington, DC: Congressional Research Service Available online: www.fas.org/sgp/crs/misc/RL32701.pdf.

Simonson, J., Gordo, L. R., & Titova, N. (2011). Changing employment patterns of women in Germany: How do baby boomers differ from older cohorts? A comparison using sequence analysis. *Advances in Life Course Research, 16*(2), 65–82.

Skeggs, B. (2004). *Class, self, culture.* London: Routledge.

Smart, C., & Shipman, B. (2004). Visions in monochrome: Families, marriage and the individualization thesis. *British Journal of Sociology, 55*(4), 491–509.

Smeeding, T. M. (2005). Public policy, economic inequality, and poverty: The United States in comparative perspective. *Social Science Quarterly, 86*, 955–983.

Thornton, A., & Young-Demarco, L. (2001). Four decades of trends in attitudes toward family issues in the United States. *Journal of Marriage and Family, 63*, 1009–1037.

Tone, A. (2001). *Devices & desires: A history of contraceptives in America.* New York: Hill and Wang.

Treas, J., & Drobnič, S. (Eds.). (2010). *Dividing the domestic: Men, women, and household work in cross-national perspective*. Stanford: Stanford University Press.

U.S. Bureau of Labor Statistics. (2011). Women in the labor force: A databook. *Report 1034*, Washington, DC: US Bureau of Labor Statistics.

U.S. Census Bureau. (2013). *Asians fastest-growing race or ethnic group in 2012, census bureau reports – Population – Newsroom – U.S. Census Bureau* Available online: https://www.census.gov/newsroom/releases/archives/population/cb13-112.html.

U.S. Department of Commerce. (2011). *Women in America: Indicators of social and economic well-being*. Washington, DC: US Department of Commerce.

Van Buuren, S., Boshuizen, H. C., & Knook, D. L. (1999). Multiple imputation of missing blood pressure covariates in survival analysis. *Statistics in Medicine, 18*(6), 681–694.

Ventura, S. J., Martin, J. A., Curtin, S. C., & Mathews, T. J. (1999). *Births: Final data for 1997. National vital statistics reports* (Vol. 47, no. 18). Atlanta: National Center for Health Statistics.

Waite, L. J., & Gallagher, M. (2000). *The case for marriage: Why married people are happier, healthier, and better off financially*. New York: Doubleday.

Widmer, E. D., & Ritschard, G. (2009). The de-standardization of the life course: Are men and women equal? *Advances in Life Course Research, 14*(1–2), 28–39.

Wiggins, R. D., Erzberger, C., Hyde, M., Higgs, P., & Blane, D. (2007). Optimal matching analysis using ideal types to describe the lifecourse: An illustration of how histories of work, partnerships and housing relate to quality of life in early old age. *International Journal of Social Research Methodology, 10*(4), 259–278.

Williams, K., Sassler, S., Frech, A., Addo, F., & Cooksey, E. (2011). Nonmarital childbearing, union history, and women's health at midlife. *American Sociological Review, 76*, 456–486.

Wilson D S., Cunningham-Burley, S., Bancroft, A., & Backett-Milburn, K. (2012). The consequences of love: Young people and family practices in difficult circumstances. *Sociological Review, 60*(1), 110–128.