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## The Destabilization and Destandardization of Social Roles across the Adult Life Course: Considering Aggregate Social Role Instability and its Variability from a Historical-Developmental Perspective

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### Abstract

Existing research focused on social role destabilization (historical increases in role instability) and destandardization (historical increases in variability of role instability) has primarily focused on discrete social roles during discrete periods of development. Building on this work, we applied a macro approach to elucidate the extent to which historical trends towards destabilization and destandardization are occurring at the aggregate among a key set of social roles (union formation, education, residential independence, and employment) and across the whole of adulthood. Applying a historical-developmental approach, we also document how historical trends towards destabilization and destandardization vary by age. We used three historical, longitudinal data sets: the Monitoring the Future Study ( $N = 69,464$ ; 55.4% women; 75.5% white), the Panel Study of Income Dynamics ( $N = 45,001$ ; 51.4% women; 54.3% white), and The Health and Retirement Study ( $N = 30,913$ ; 53.6% women; 75.6% white) that collectively cover the entire adult life course and over a century of U.S. birth cohorts. We found that aggregate destabilization and destandardization have occurred across the entirety of adulthood, although trends appear more pronounced at either end of the adult life course and the specific roles driving both trends vary across the adult life course. Findings were robust for educational attainment, and destabilization and destandardization were more pronounced among women. Findings highlight the importance of considering social role changes at the aggregate and singularly, and the need to evaluate social

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role changes in any one period of adulthood in conjunction with those occurring in other periods of adulthood.

### Keywords

Social roles; transitions; historical variation; life course; gender; educational attainment

A mainstay in psychology, sociology, and demography has been the focus on documenting and understanding changes in the “Big 5” social roles as markers of adulthood (Settersten & Ray, 2010), including attending and finishing school, obtaining a full-time job, moving away from the parental home, union formation (i.e., getting married or cohabiting), and becoming a parent. There is widespread, cross-disciplinary agreement that due to *deinstitutionalization* (i.e., the timing, necessity, and acceptability of social role acquisition has become less guided by normative, legal, or structural rules; Bruckner & Mayer, 2005; Elzinga & Liefbroer, 2007; Mortimer & Moen, 2016; Settersten, 2003), individuals now have greater responsibility for and control over their own life trajectories. As a result, over the last several decades, the life course has steadily become more “individualized” – particularly within industrialized countries (Billari & Liefbroer, 2007; Bynner & Parson, 2002; Settersten, 2003).

One important marker of this individualization is social role *destandardization* – namely, that the timing and sequencing of social role acquisition is increasingly heterogeneous (Bruckner & Mayer, 2005; EGRIS, 2001; Elzinga & Liefbroer, 2007; Settersten, 2003; Zimmerman & Konietzka, 2018) – leading to greater inter-individual variability in social role transition patterns. A less explored, albeit equally important, marker of this individualization is what we refer to here as social role *destabilization*, namely, historical increases in social role instability. More specifically, although the role of parenthood has remained relatively stable (i.e., the role of parenthood is rarely relinquished or lost once it is obtained), the remaining Big 5 roles (union formation, education, residential independence, and employment) are all increasingly characterized by *multiple* entries and exits across adulthood. For example, with respect to employment, changing jobs or “job shopping” (Fuller, 2008) is increasingly common during young adulthood, as is moving in and out of the labor force or “job churning” in middle and older adulthood (Burgess et al., 2001). Similar patterns have been documented for union formation, education, and residential independence (Cohen et al., 2003; EGRIS, 2001; Elzinga & Liefbroer, 2007; Kaya & Barmark, 2019; Settersten, 2003).

Given mounting research indicating historical increases in social role instability for multiple social roles across multiple periods of adulthood, there is evidence to suggest a broad destabilization of the life course. Such a broad destabilization could have important implications for public health and overall well-being, given that existing theory (e.g., Life-Course theory, Elder, 1998; Social Role Theory, Turner, 2001) posits that social role instability that is either *excessive* during young adulthood (i.e., beyond the minimum amount required for individuals to transition into adult roles) or *off-time* (i.e., not age normative) during middle adulthood and beyond is fundamentally risk-laden. Consequently,

it is important to define the scope of this destabilization as well as more clearly explicate for whom and when this destabilization is most pronounced.

Unfortunately, our understanding of social role destabilization remains fragmented and incomplete because most existing work is limited in scope to a single social role and/or a single period of adulthood, with studies of social role instability during young adulthood disproportionately represented. The same is true for social role destandardization, although perhaps to a lesser degree. We know of no research that has more broadly considered the destabilization or destandardization of multiple social roles across the entirety of adulthood. Indeed, out of all the studies we reviewed, only a handful focused on an age range that extended beyond a single period of development (e.g., Hofacker & Chalouplova, 2014; Lesnard et al., 2016; Van Winkle, 2017; Van Winkle & Fasang, 2017; Zimmerman, 2020; Zimmerman & Konietzka, 2018). None of these studies, however, focused on the entire adult life course. Moreover, all of these studies focused solely on destandardization with no consideration of destabilization, only considered specific social roles or at best a narrow set of social roles, and were based on non-U.S. data.

As a result, existing research highlighting destabilization or destandardization has primarily utilized a more granular approach and narrowly focused on specific social roles during specific periods of the adult life course (most typically young adulthood), which leaves important questions unanswered about combined or aggregate social role destabilization as well as what is common and unique across all of adulthood. Therefore, unlike existing research focused on historical increases in social role instability (i.e., destabilization) and social role variability (i.e., destandardization), here we applied a macro approach with respect to both social roles (i.e., consideration of the aggregate in addition to single roles) and the life course (i.e., inclusion of the entire adult life course).

## The Importance of a Macro Approach

Although existing work on destabilization and destandardization has yielded valuable insights, it does not capture the full scale of either phenomenon due to the traditional focus on discrete or specific social roles. Given that social role transitions do not operate in isolation from one another and are dynamically linked (e.g., education transitions often coincide with employment transitions, transitions in and out of romantic relationship commitments often coincide with employment or residential transitions; Lin et al., 2018; Sned et al., 2007), it is important to acknowledge this interdependence among social roles by examining them at the aggregate as opposed to just individually. For example, to the extent that destabilization co-occurs for multiple social roles, then focusing on a single role would fail to capture the true scope of destabilization, and the same is true for destandardization. Additionally, both destabilization and destandardization may generalize across the entire adult life course, but only at the aggregate. For example, even if no single social role displays destabilization across the entire adult life-course, provided different social roles display destabilization at different points of adulthood, then at the aggregate it would still be possible for social roles to display destabilization across the entire adult life course.

A further limitation of existing literature is that the focus on discrete periods of the life course (e.g., young adults; older adults) may overly compartmentalize destabilization and destandardization. A consequence of this approach is that it potentially miscasts destabilization and destandardization – as well as their origins – as developmentally bounded when in fact they generalize more broadly across the adult life course (Van Winkle, 2017; Zimmerman, 2020). When examinations are limited to a narrow range of ages, period effects are indistinguishable from cohort effects (Bell & Jones, 2015). Consequently, due to its focus on discrete periods of development, existing research may misidentify destabilization and destandardization as “cohort” effects (i.e., historical fluctuations that generalize to a narrow range of ages) when they are in fact “period” cohort effects (i.e., historical fluctuations that generalize to a broad range of ages). However, due to the individualized lifecourse, and its corresponding historical reductions in social structure, present-day adults of all ages experience less social structure relative to their past counterparts. In turn, present-day adults of all ages may experience more social role instability and variability relative to their past counterparts, potentially leading to social role destabilization and destandardization among adults of all ages (i.e., a period effect). Nevertheless, the extent of social role destabilization and destandardization that results from that reduced social structure may vary in magnitude across the developmental stages of adulthood. For example, the impact of reductions in social structure on social role instability is likely most pronounced among those who have yet to fully commit to any adult roles (i.e., young adults) than among middle and older adults, when individuals are thought to more reliably make conscious decisions about how to select and respond to role changes (Baltes, 1987), providing potential stabilizing effects. Such a pattern would constitute a period effect that is moderated by age – or a period by age interaction, which is consistent with a historical-developmental approach (Jager et al., 2015; Keyes et al., 2019; Schulenberg et al., 2018) that both disentangles historical and developmental time and captures their interplay.

## **Gender and Educational Attainment as Potential Moderators of Destabilization and Destandardization**

Given that both destabilization and destandardization are linked to the individualized life course (Billari & Liefbroer, 2007; Bynner & Parson, 2002; Settersten, 2003), and the individualized life course is believed to vary by sociodemographic factors, including gender and education (Augustyn & Jackson, 2017; Bruckner & Mayer, 2005; Hansen & Lorentzen, 2019; Keyes et al., 2020), both destabilization and destandardization may vary by gender and educational attainment. As Mayer (2004) notes, changes in the structure of education, work, family, and public welfare since the early 1970s (e.g., increased concentration of women in higher education; increased occupational qualifications among women; increased opportunities from the women’s movement) may have increased the extent of social role destandardization more so for women than for men. Indeed, although primarily based on specific social roles and discrete periods of development, existing work does suggest that both destabilization (EGRIS, 2001; Elzinga & Liefbroer, 2007; Furlong et al., 2002; Lesnard et al., 2016) and destandardization (EGRIS, 2001; Lesnard et al., 2016; Van Winkle, 2017;

Van Winkle & Fasang, 2017; Zimmerman, 2020; Zimmermann & Konietzka, 2018) have been more evident among women.

Although finishing school is one of the Big 5 social roles, given the magnitude of college drop-out rates in the U.S. (Barefoot, 2007), many “finish” school without earning a degree, and this is even more likely to be the case among more recent cohorts given historical increases in the college dropout rate (Bound et al., 2010; Turner, 2004). Existing work also suggests that destabilization and destandardization vary by educational attainment, especially given the structural changes surrounding education and work since the 1970s (e.g., expansion of higher education; overall decline in manufacturing jobs; Mayer, 2004). However, findings regarding the direction of effects have been mixed. Some research suggests more destabilization and destandardization for those with less education – particularly in the case of employment (Goodwin & O’Connor, 2005; Mortimer, 2015; Krahn et al., 2015; Ramos, 2018), whereas other research finds the opposite, particularly in the case of parenting and union formation (Bruckner & Mayer, 2005; George, 1993; Van Winkle, 2017). Because this work has focused on particular roles at certain ages, it is limited when it comes to documenting sociodemographic differences in destabilization and destandardization at both the aggregate-level of social roles and across the entire adult life course.

## The Present Study

To date, existing research focused on social role destabilization and destandardization has utilized a more granular approach and primarily focused on discrete social roles during discrete periods of development. Although this work yields valuable insights, it leaves important questions unanswered regarding aggregate social role destabilization and destandardization as well as what is common and unique across all of adulthood. Considering these limitations, here we focus not only on aggregate social role destabilization and destandardization across the social roles of union formation, college attendance, full-time employment, and residential independence, but also social role destabilization and destandardization across the entire adult life course.

To accomplish this task, we apply a historical-developmental approach using three U.S. national, multi-cohort longitudinal data sets: (1) the Monitoring the Future Study (MTF; Schulenberg et al., 2021), (2) the Panel Study of Income Dynamics (PSID; PSID, 2019), and (3) The Health and Retirement Study (HRS; HRS, 2019). For social role destabilization, we focus on the mean of aggregate social role transitions (either in or out of social roles) and examine how this average varies across birth cohorts. Increases across birth cohorts in the mean of aggregate social role transitions would be consistent with destabilization. For social role destandardization, we focus on variability in the mean of aggregate social role transitions and examine how this variability varies across birth cohort. As destandardization entails more variability across individuals in social role transition patterns, increases across birth cohorts in the variability of the mean of aggregate social role transitions would support destandardization. In light of our application of a historical-developmental approach, we also document how historical increases in aggregate social role instability (i.e., destabilization) and variability in aggregate social role instability (i.e., destandardization)

vary by age. Although we expect destabilization and destandardization to apply to adults of all ages – consistent with period effects, we predict that the extent of destabilization and destandardization will vary by age – consistent with period-by-age interactions. To add further depth, we also present specific destabilization and destandardization for each of the four social roles examined here. We give little specific attention to any single social role, and instead present these data to better understand the social role(s) that are primarily driving aggregate social role destabilization and standardization, and how this might vary by age. Finally, we also examine gender and educational attainment (i.e., 4-year college degree acquisition) as potential moderators of destabilization and destandardization.

## Methods

### Respondents and Procedures

This study was approved by the Institutional Review Board at Arizona State University (protocol # 0006315), Project Title: Historical variation in the timing and health effects of social role transitions. This study was not preregistered.

**Monitoring the Future.**—MTF is an ongoing US national study of the epidemiology and etiology of drug use among adolescents and adults (Schulenberg et al., 2021). Beginning in 1975, U.S. samples of approximately 16,000 12th graders were drawn from about 135 public and private schools each year. Starting with the class of 1976, approximately 2,400 respondents were randomly selected for biennial follow-up from each cohort through mail surveys, with one random half being surveyed one year after high school and the other random half being surveyed two years after high school; each half was followed biennially through age 30 and then every five years thereafter (Schulenberg et al., 2021). Respondents who reported illicit drug use at baseline were oversampled for follow-up; corrective weighting was used in the analyses.

In the present study, we focused on data for ages 18 to 45, which correspond to the first 10 waves of the MTF panel data. For the purposes of this study, analyses were limited to those respondents who were in 12<sup>th</sup> grade between 1976 and 2016 (corresponding to 1958–1998 birth cohorts), and who provided data at two or more waves ( $N = 69,464$ ; 55.4% women; 75.4% white). Among those cohorts old enough to reach age 45 (i.e., 1976–1989 12<sup>th</sup> grade cohorts) by the most recent year of data collection (i.e., 2016), the retention rate between Waves 1 and 10 was 51.18%. These retention rates reflect the reality of long-term longitudinal studies of drug use (Hansen et al., 1990; McCabe & West, 2016) and compare reasonably well with other long-term studies (Booker et al., 2011; Brook et al., 1983). Consistent with recent MTF analyses (Jager et al., 2021; Keyes et al., 2020; McCabe et al., 2019; McCabe & West, 2016; Schulenberg et al., 2015), we incorporated attrition weights provided by MTF to account for both the oversampling of drug users into the panel and respondent characteristics associated with nonresponse at age 45 follow up (i.e., gender, race/ethnicity, college plans, truancy, high school grades, number of parents in the home, religiosity, parental education, alcohol use, cigarette use, marijuana use, other illicit drug use, and region) to correct for potential attrition bias.



**Panel Study of Income Dynamics.**—The PSID, which is the longest running household panel study in the U.S., started in 1968 with a sample of 18,230 individuals in 4,802 families (PSID, 2019). Data were collected every year from 1968 to 1997 and every two years thereafter. Analyses here include data collected through 2017. The head of household reports data for all family members. When children establish families, the PSID follows and interviews them. As of 2017, PSID consists of over 80,000 individuals and 10,000 families. Lower income and predominantly Black households were oversampled among the families initially sampled in 1968, nevertheless, PSID survey weights adjust for this oversampling and render estimates representative of the U.S. (McGonagle et al., 2012). Generally, attrition was low, with re-interview response rates of around 98% per year, or about 96% over 2 years (Karraker et al., 2015). Although past work based on the PSID has shown that attrition is higher among minorities, those with less education and lower incomes, and those who move, within all PSID analyses we applied PSID survey weights that have been shown to be effective at adjusting for attrition and preserving sample representativeness (Fitzgerald, 2011; Lillard & Constantijn, 1994). Because a reliable measure of college attendance was not available within PSID until 1979, PSID analyses were limited to data collected in or after 1979. PSID analyses were further limited to those respondents aged 18 and older and who provided data at two or more waves ( $N = 45,001$ ; 51.4% women; 54.3% white). Within this PSID sample, birth cohort ranged from 1870 to 1999.

**Health and Retirement Study.**—The HRS (HRS, 2019) began as a single cohort study of individuals aged 51–61 in 1992 and their spouses, and this sample has since been augmented with multiple cohorts to ensure it is representative of all cohorts born in 1959 or earlier. During each biennial wave of data collected, approximately 20,000 participants are surveyed. Baseline assessments were conducted in person, with follow-up assessments offered either face-to-face for older participants or via telephone. Attrition was modest and in most cases due to respondent death, as opposed to active attrition due to other causes. Those lost to death were more likely to be older, single, men, non-Hispanic, and in poorer health. Active attrition does not appear to be selective, and the attrition bias it caused is described as statistically ignorable (Honggao & Hill, 2007). Nevertheless, sample weights provided by HRS that adjust for both differential probability of selection and non-response due to attrition were incorporated into all analyses. We utilized the RAND HRS Longitudinal File 2016 (V2), which contains cleaned-up versions of each wave of the HRS and was developed at RAND with funding from the National Institute on Aging and the Social Security Administration. In the present study, HRS analyses were limited to those respondents aged 50 and older who provided data at two or more waves ( $N = 30,913$ ; 53.5% women; 75.6% white).

## Measures

**Social roles.**—Across all three data sets, all measures of the four social roles were assessed at each wave. Data for *college attendance* (i.e., attendance at any college or university, with attendance of vocational and technical schools excluded) were available from MTF and PSID, with MTF providing data for full-time college attendance and PSID providing data for any college attendance. Data for *union formation* (i.e., married or cohabiting versus neither married nor cohabiting) were available from all three data

sets. PSID measured marriage and cohabitation combined, whereas MTF and HRS measured marriage and cohabitation separately, which we recoded into marriage and cohabitation combined to maximize consistency across the three data sets. Data for *full-time employment*, defined here as working 35+ hours/week, were available from all three data sets. For PSID, there was no measure of full-time employment that was continuously available across the entire duration of the study. Consequently, across 1968 and 1993, full-time employment was determined based on a continuous measure of hours worked. However, after 1993, this measure of hours worked was only gathered for heads of households and their spouses (resulting in missing data for adult dependents, such as young adults in college as well as young adults not in college but still living with their parents). Thus, after 1993, full-time employment for PSID was based on a categorical measure of employment status (where 1 = “working full-time”). Data for *residential independence*, defined here as not living in a household where the household-head is an older generation relative (e.g., parents, grandparents) or a younger generation relative (e.g., adult child), were available from MTF and PSID.

**Age.**—When documenting social role instability, we divided each of the three periods of adulthood - young adulthood (i.e., between ages 18 to 30), middle adulthood (i.e., between ages 30 to 60), and older adulthood (i.e., ages 60 and higher) – into two age groups resulting in a total of six *age groups*: (1) instability between ages 18–24; (2) instability between ages 24–30; (3) instability between ages 30–45; (4) instability between ages 45–60; (5) instability between ages 60 to 75; and (6) instability between 75 and up. Our designation of age groups is consistent with work suggesting meaningful distinctions within each of these developmental periods (Mehta et al., 2020; Moen, 2016). Regarding younger adulthood, although equal in size to one another (i.e., 6 years), the two young adult age groups are smaller in size than the two middle adulthood and older adulthood age groups for two reasons. First, the period of young adulthood spans a shorter age range than the other periods, resulting in its two age groups being smaller than the age groups for the other periods. Second, due to well-documented delays in family and career formation among more recent cohorts of young adults (Arnett, 2000), there is reason to suspect differential historical variation in role instability across the first and second halves of young adulthood. Regarding middle adulthood, recent work (Mehta et al., 2020) suggests middle adulthood represents two distinct periods: established adulthood (ages 30 – 45) and middle adulthood (45 – 60). Regarding older adulthood, scholars (Moen, 2016) suggest the period between 60 to 75 should be considered encore adulthood (60 – 75), whereas those over 75 are in older adulthood.

**Cohort.**—We divided birth-year into five *birth-year groups*: born (1) before or during 1929; (2) 1930 to 1949; (3) 1950 to 1969; (4) 1970–1989; and (5) during or after 1990.

**Sociodemographic moderators.**—Gender was dichotomized based on self-report (MTF 55.4% women; PSID 51.4% women; HRS 53.6% women). Educational attainment was operationalized as two mutually exclusive categories: Bachelor’s degree or higher versus less than a Bachelor’s degree (MTF 37.6% had degree; PSID 21.4% had degree; HRS 18.5% had degree). Educational attainment was a lifetime measure (i.e., respondents



are coded as having a Bachelor's degree or higher if at any point during data collection they indicated they had a Bachelor's degree or higher). Note that sample percentages provided here do not adjust for sampling design or attrition.

### Analytical Plan

Analyses were carried out separately for each data set. To capture *social role instability* within each data source for each social role, a transition in role status from one wave to the next (i.e., either into or out of a social role) was coded as 1 (“instability”) and a consistent role status from one wave to the next was coded as 0 (“stability”). Next, we averaged all available wave-to-wave instabilities that fell within a given age group to calculate *average wave-to-wave instability* separately for each data source, each birth-year group, and each social role. For example, for college attendance in the MTF, we averaged all wave-to-wave instabilities that fell within the first age group, ages 18 to 24, *separately* by birth-year group. We then repeated this process for the subsequent age group, ages 24–30, and so on for all remaining age groups for which data were available. Then, we repeated these calculations for each of the three other social roles available within MTF. We replicated this sequence for each of the other two data sets. To calculate aggregate wave-to-wave instability, we summed average wave-to-wave instability for the set of available social roles separately for each data source, each age group, and each birth year group. For example, to determine aggregate wave-to-wave instability in the MTF for the age 18–24 age group for the 1950–69 birth-year cohort group, we summed average wave-to-wave instability for college attendance, union formation, full-time employment, and residential independence.

To capture *social role variability* within each data source for each social role, we calculated the standard deviation (*SD*) of average wave-to-wave instability separately for each data source, age group, and birth-year group. To capture aggregate social role variability, we calculated the *SD* of average aggregate wave-to-wave instability separately for each data source, age group, and birth-year group.

Due to cross-study differences in wave spacing, ages assessed, and social role measures, instability and *SD* values are not directly comparable across data sets. Where possible, we maximized within-study comparability of instability and *SD* values to better detect historical and developmental variation via within-study comparisons. Due to sampling design in each of the three studies, the average age varied across birth-year groups within a given age group, albeit typically modestly. Age is thus a confound that potentially impacts comparability of instability values across birth-year groups within a given age group, and so analyses control for age to render within-study estimates for a given age group fully comparable across cohort groups.

Given the magnitude of college drop-out rates within the U.S. (Barefoot, 2007) and the fact that these rates increased across the cohorts examined here (Bound et al., 2010; Turner, 2004), the social role of college attendance and the sociodemographic moderator of obtaining a bachelor's degree are far from redundant (i.e., there are many who attend college, perhaps even multiple times, who never earn a bachelor's degree). Nevertheless, attending college and earning a bachelor's degree are certainly related, as the former is a necessary condition of the latter. Consequently, we conducted alternative analyses of

aggregate social role instability and variability while excluding college attendance from the aggregate measure. In particular, we were interested in whether the removal of college attendance from the aggregate measure altered the moderating impact of educational attainment on aggregate instability and variability.

All syntax and analysis files are available from the first author, upon request.

## Results

The MTF, PSID, and HRS samples, broken out by cohort group and age group, are presented in Table 1. Mean estimates and SDs of aggregate wave-to-wave social role instability broken out by birth-year group and age group for the full sample as well as by sociodemographic moderators (i.e., gender and educational attainment) are presented in Tables 2 and 3, respectively. Mean estimates of aggregate social role instability are also presented for the full sample (Figure 1), separately by gender (Figure 2), and separately by educational attainment (Figure 3). Similarly, SDs of aggregate social role instability are presented for the full sample (Figure 4), separately by gender (Figure 5), and separately by educational attainment (Figure 6). Finally, mean estimates and SDs of specific social role instability for union formation, full-time employment, college attendance, and residential independence are provided in Tables S1-S4 (see Supplemental Materials 1). Generally, the overall pattern of results was similar when college attendance was excluded from the aggregate measure (see description of findings and Tables S5-S6 in Supplemental Materials 2).

As indicated in Table 1, an advantage of relying on national datasets is that the average available sample size per estimate (i.e., average cell size within Table 1) across the instability and SD estimates listed in the tables and figures is more than 8,800 individuals (or more than 17,000 person-waves of data because most individuals in these datasets provided multiple wave-to-wave instability values within a given cell). When describing the historical changes in role instability, we therefore focus on effect sizes rather than statistically significant changes (McShane et al., 2019) because even negligible differences in instability values across cohort groups are statistically significant (i.e.,  $p < .05$ ) due to large sample sizes. Consequently, for social role instability, the effect size (Cohen's  $d$ ; Cohen, 1992) of the net difference (i.e., difference between the estimates for the youngest and oldest available birth-year groups) is included in all tables and figures. Following Sawilowsky's (2009) revision of Cohen's (1992) guidelines, effect sizes above .02 are noted as very small (VS), effect sizes near .20 are noted as small (S), effect sizes near .50 are noted as medium (M), and effects sizes near or above .80 are noted as large (L). For SD in social role instability, the net absolute difference (i.e., difference between the SD estimate for the youngest and oldest available birth-year groups) and the net percent change (i.e., SD estimate for the youngest available cohort relative to the SD for the oldest available cohort) are included in all tables.

### **Destabilization: Increases in Social Role Instability across Birth-Year Group by Age Group**

Using aggregate social role instability for the 18–24 age group (Figure 1; Table 2) to illustrate how to interpret the wave-to-wave instability values presented in the Tables and

Figures, the average wave-to-wave instability across ages 18 to 24 in PSID (dashed-gray trajectory) increased from .53 among the 1950–69 birth-year group to .91 among the 1990 birth-year group. Thus, between the ages of 18 to 24 within PSID, on average, individuals born between 1950 and 1969 either entered or exited .53 social roles from one wave to the next (instability), whereas, on average, individuals born during or after 1990 either entered or exited .91 social roles from one wave to the next (instability). As also depicted in Figure 1 and Table 2, the Cohen's *D* or effect size comparing wave-to-wave instability among the earliest available birth-year group (i.e., 1950–69) to wave-to-wave instability among the latest available birth-year group (i.e., 1990 and after) was .74 (medium).

As depicted in Figure 1 and Table 2 for aggregate social role destabilization, findings generally converged across data source to suggest a broad destabilization (i.e., within age group, aggregate social role instability increases across cohort group). Although the extent of destabilization did vary somewhat by age, with destabilization being more pronounced at the tail ends of adulthood than at the middle. In some instances, the extent of destabilization also varied by data source. For the 18–24 age group, although both data sources suggested a destabilization, PSID suggested a stronger destabilization ( $D = .74$ , Medium) than MTF ( $D = .21$ , Small). Within PSID, the destabilization was primarily driven by college attendance and full-time employment (see Tables S1-S4 in Supplemental Materials 1 for all role-specific results). Within MTF, destabilization was primarily driven by college attendance and partially offset by stabilization (i.e., *decreases* in wave-to-wave instability across birth-year group) in full-time employment (see Supplemental Materials 3 for a discussion of the different findings for full-time employment for MTF and PSID). For the 24–30 age group, both PSID ( $D = .43$ , Small) and MTF ( $D = .44$ , Small) suggested a destabilization of similar magnitude. Within both PSID and MTF, destabilization was a product of increasing instability in all four social roles. Nevertheless, within PSID, destabilization was most pronounced for college attendance and residential independence. For both the 30–45 and 45–60 age groups, although aggregate social-role instability did increase across-cohort group, all effect sizes were  $< .20$  (i.e., very Small). For both the 60–75 and 75+ age groups, both data sources suggested a destabilization, although PSID suggested a stronger destabilization (age 60–75:  $D = .98$ , Large; age 75+:  $D = .54$ , Medium) than HRS (age 60–75:  $D = .25$ , Small; age 75+:  $D = .20$ , Small). Among the 60–75 age group, within PSID destabilization was primarily driven by full-time employment. However, among the 75+ age group, within PSID and among both older age groups within HRS, destabilization was primarily driven by both union formation and full-time employment.

**Gender differences.**—As indicated in Figure 2 and Table 3, for aggregate social role destabilization, overall patterns were similar for both genders. However, aggregate social role destabilization was generally more pronounced for women among the following age groups: 18–24 (not primarily driven by any specific role; see Tables S1-S4 in Supplemental Materials 1 for role specific results), 24–30 (primarily driven by union formation and college attendance), 30–45 (only within PSID, primarily driven by union formation, full-time employment, and college attendance), 60–75 (only HRS, primarily driven by union formation and full-time employment), 75+ (only PSID, primarily driven by union formation and full-time employment). Despite some differences across age groups and data sources

regarding gender differences in aggregate social role instability, one consistent finding was that in no case was destabilization more pronounced for men than it was for women.

**Educational attainment differences.**—Overall patterns of aggregate social role instability were similar regardless of whether or not individuals earned a bachelor's degree (Figure 3, Table 3). In some cases, the extent of destabilization within an age group did vary by education; however, the direction of the effect was not consistent across age groups, and effects within age groups were inconsistent across data source. Destabilization was more pronounced among those with a bachelor's degree among the 18–24 age group (PSID only; primarily driven by full-time employment and college attendance; see Tables S1-S4 in Supplemental Materials 1 for all role specific results), the 24–30 age group (PSID only; primarily driven by union formation and residential independence), the 45–60 age group (HRS only, primarily driven by union formation and full-time employment), and the 75+ age group (PSID only, primarily driven by union formation and full-time employment). However, destabilization was more pronounced among those without a bachelor's degree among the 30–45 age group (PSID only, primarily driven by union formation and full-time employment).

### **Destandardization: Increases in Variability of Social Role Instability across Birth-Year Group by Age Group**

As depicted in Figure 4 and Table 2, when aggregated across all social roles, findings clearly converged across data sources to suggest a broad destandardization (i.e., within age group, SDs of wave-to-wave aggregate social role instability increases across cohort group). In absolute terms (i.e., net change in SD), destandardization was the strongest for the 24–30 age group (MTF: .28; PSID: .19), weakest for the 45–60 (PSID: .06; HRS: .03) and 75+ age groups (PSID: .09; HRS: .05). Meanwhile, destandardization for the three remaining age groups fell more in the middle: 18–24 (MTF: .10; PSID: .26), 30–45 (MTF: .12; PSID: .17), and age 60–75 (PSID: .15; HRS: .16). In relative terms (i.e., proportional change in SD), destandardization was the strongest among the 24–30 (MTF: 44%; PSID: 78%) and 60–75 age groups (PSID: 83%; HRS: 70%), and weakest among the 45–60 age group (PSID: 23%; HRS: 9%). The rest of the age groups fell in between: 18–24 (MTF 16%; PSID 58%), 30–45 (MTF 21%; PSID 59%), and 75+ (PSID 60%; HRS 31%). Thus, in both absolute and relative terms, findings converged to indicate that destandardization was the strongest for the 24–30 age group and the weakest for the 45–60 age group.

For the age 18–24 age group, destandardization within PSID was primarily driven by college attendance, full-time employment, and residential independence, whereas destandardization within MTF was primarily driven by residential independence (see Tables S1-S4 in Supplemental Materials 1 for all role-specific results). For the 24–30 age group, although all social roles contributed relatively equally within PSID, college attendance was the strongest driver of destandardization within MTF. For ages 30–45, union formation was the strongest driver of destandardization within PSID, whereas all social roles contributed relatively equally within MTF. For ages 45–60, all social roles except for full-time employment were drivers of destandardization within PSID, whereas full-time employment along with union formation both contributed relatively equally to destandardization within HRS. For ages 60–

75, destandardization was primarily driven by union formation and full-time employment within both PSID and HRS, whereas destandardization was primarily driven by full-time employment within both PSID and HRS for ages 75+.

**Gender differences.**—As indicated in Figure 5 and Table 3, patterns of aggregate social role destandardization were generally similar across gender. However, there was a consistent trend across data source and across age groups for destandardization to be greater for women, and this was true for both net change and proportional change in *SD*. Despite this trend, in most cases gender differences were minimal, apart from one exception: in the 45–60 age group, within PSID but not HRS, destandardization was clearly more pronounced for women (primarily driven by full-time employment; Table S2, Supplemental Materials 1).

**Educational attainment differences.**—As indicated in Figure 6 and Table 3, overall patterns of aggregate social role destandardization were similar regardless of whether or not individuals earned a bachelor's degree. In some cases, however, the extent of destandardization within an age group did vary by education, although the pattern was inconsistent across age groups. Destandardization was more pronounced among those with a bachelor's degree among the 24–30 age group (PSID only; primarily driven by union formation; see Tables S1-S4 in Supplemental Materials 1 for all role specific results). Whereas destandardization was more pronounced among those without a bachelor's degree among the 18–24 age group (MTF and PSID, primarily driven by college attendance and residential independence), the 45–60 age group (PSID only, primarily driven by full-time employment and residential independence), and the 75+ age group (HRS only, primarily due to union formation).

## Discussion

To date, existing research focused on social role destabilization (historical increases in role instability) and destandardization (historical increases in variability of role instability) has primarily focused on discrete social roles during discrete periods of development. Building on this important work, we applied a macro approach here to elucidate the extent to which the historical trends toward social role destabilization and destandardization are occurring at the aggregate among a set of social roles (i.e., union formation, education, residential independence, and employment) and across the whole of adulthood. Our findings, based on three U.S. national long-term studies of adults, indicate that aggregate destabilization and destandardization have occurred across the entirety of adulthood. Findings also highlight the importance of considering social role changes at the aggregate; after all, no single social role was characterized by destabilization across the entirety of adulthood. Only by looking at aggregate social role instability were we able to reveal the extent and breadth of social role destabilization. Across most segments of the adult life course, both aggregate destabilization and destandardization were driven by multiple social roles, underscoring that these historical trends are the products of a collection of social roles. Applying a historical-developmental approach, we also found that historical trends towards destabilization and destandardization vary by age and that the specific social roles driving both trends vary somewhat across the adult life course. Although findings were mostly robust across both gender and educational attainment, there was some evidence to suggest that, as expected, the destabilization and

destandardization of the life course has been more pronounced for some individuals (e.g., women) than it has for others.

### **Evidence for a Period by Age Interaction in Both Destabilization and Destandardization**

As expected, the findings were consistent with a period effect that was moderated by age – or a period-by-age interaction. We found evidence for social role destabilization and destandardization across the adult life course using the aggregate of the various social role transitions, but both trends were more pronounced at the tail ends of adulthood (i.e., younger and older adulthood) than at the middle (i.e., middle adulthood). This evidence for a period by age interaction represents an important contribution over-and-above the majority of existing work that more narrowly focused on specific periods of development and, consequently, was not positioned to disentangle period effects from cohort effects. The exception is Zimmerman (2020), who found evidence among a West German sample that destandardization in union formation and parenthood was more pronounced in middle adulthood (those aged 30–44) than in young adulthood (those aged 15–29). Our findings and those of Zimmerman (2020) underscore the importance of applying a developmental lens when examining historical trends.

The apparent period by age interactions for destabilization and destandardization are likely connected to historical reductions in the structure of education, work, and family that are now part and parcel to the individualized life course, as adults now face an increasing probability of: 1) prolonged and interrupted schooling with weak links between employers and educational institutions; 2) delayed career acquisition and frequent job shifts; and 3) delayed marriage and family formation (Mayer, 2004). Although these historical reductions in social structure are believed to generalize across a broad range of ages (Bruckner & Mayer, 2005; Van Winkle, 2017), the degree to which these reductions in social structure translate into destabilization and destandardization may vary by age for at least two reasons. First, the *impact* of reductions in social structure may vary by age. For example, reductions in social structure may lead to greater aggregate social role destabilization and destandardization among young adults compared to middle-aged or older adults because reductions in social structure impact a larger number of social roles for young adults. Consistent with such an explanation, the age 24–30 age group was the only age group that displayed destabilization and destandardization in each of the four social roles examined here. This pattern is also consistent with Arnett’s (2000; 2007) Theory of Emerging Adulthood as well as sociological research focused on young adulthood (Bynner 2005; Settersten & Ray, 2010; Shanahan, 2000) that posit that young adulthood, in particular, has become increasingly characterized by excessive social role instability and variability.

Second, the *magnitude* of reductions in social structure may vary by age. For example, the increased longevity enjoyed by current cohorts of adults has had unintended – and oft-unforeseen – consequences for social roles that appear to primarily emerge in older adulthood, not middle adulthood. Looking at union formation, increased life expectancy coupled with rising rates of later-life divorce mean that more older adults have a complex relationship history characterized by widowhoods, union dissolutions, cohabitations, and remarriages (Brown & Lin, 2012; Zissimopoulos et al., 2015). Moreover, increased life



expectancy has also influenced the magnitude of social structure surrounding employment in older adulthood, with many of today's older adults re-entering the workforce after exhausting their financial resources prematurely (Louria, 2005; Maestas, 2010). Recent estimates find that nearly one-quarter of older adults in Great Britain had transitioned back into the workforce after retiring, with half of these "retirement reversals" occurring in the first five years of retirement (Platts et al., 2019). These historical reductions in social structures for older adults help explain why we found stronger evidence of destabilization and destandardization later in life than in middle adulthood, as the aggregate indicator of instability was primarily driven by union formation and employment. Although beyond the scope of the present study, an important topic for future research is clarifying whether the pace of the destabilization and destandardization is non-linear or faster during some stretches of historical time than others. Doing so would not only more clearly define the scope and contours of these trends, it also would more clearly explicate for whom and when these trends are most pronounced.

### **The opportunity and risk of social role destabilization and destandardization**

An important consideration is whether this aggregate destabilization and destandardization is beneficial or detrimental to individual outcomes as well as overall public health and well-being. Regarding destandardization, the discourse within the literature has generally been balanced, arguing that destandardization may be beneficial for those who have the economic, social, and personal resources to shape and design their own path, but detrimental or challenging for those without access to these resources (Bruckner & Mayer, 2005; EGRIS, 2001; Zimmermann & Konietzka, 2018). Regarding destabilization, however, the traditional framing of excessive and off-time social role instability as problematic in existing theories (e.g., Life-Course theory, Elder, 1998; Social Role Theory, Turner, 2001) casts historical increases in role instability as sub-optimal, disorienting, and a predicament from which individuals must "recover" or what we refer to as *role recovery*. Arguably lost in this focus on risk are the potential opportunities that excessive and off-time instability may afford. For example, instead of reflecting a disruption requiring role recovery, excessive social role instability during young adulthood may reflect an opportunity for social *role calibration* (i.e., optimizing social role fit) for some individuals. This framing is consistent with Arnett's (2000; 2007) argument that excessive social role instability during young adulthood may represent beneficial exploration of social role options, especially among youth who have the resources and opportunities to engage in this type of exploration (Bynner, 2005). Similarly, off-time social role instability during middle-adulthood and beyond may reflect an opportunity for *role recalibration* (replacing a previously held role that no longer fits for a better fitting role) for some individuals. Personal goals surrounding role obtainment, as well as changes in those goals, are clearly germane to both role recovery and role (re)calibration. As such, Heckhausen's Action-Phase Model of Developmental Regulation (ACTION; Heckhausen et al., 2010; Heckhausen & Wrosch 2016), which considers the age-graded process by which individuals select, act upon, and revise goals pertaining to social roles, provides a promising framework for examining and understanding role recovery vs. (re)calibration.

Although quantitative changes in the individualization of the lifecourse (i.e., the life course is more individualized than it used to be) have received considerable attention in the literature, the quality or character of the individualization of the lifecourse (i.e., whether chosen or involuntary) has also received attention (Arundel & Lennartz, 2017; Billari & Liefbroer, 2007; Bruckner & Mayer, 2005). This qualitative distinction helps differentiate both role calibration and recalibration, which presumably are more likely to be chosen, from role recovery, which presumably is more likely to be involuntary. Just as economic, social, and personal resources are believed to color whether destandardization is beneficial or detrimental, they also color whether one's individualized lifecourse is chosen or not (Biggart & Wahler, 2006; EGRIS, 2001) and, in turn, likely whether role transitions, considered individually or at the aggregate, are characterized as role (re)calibration or role recovery.

More research and data are needed, but we speculate that older adults may be more likely to respond to both these chosen and involuntary role transitions in a way that fosters resilience and facilitates entry into new roles (Charles & Carstensen, 2008; Neupert et al., 2007). Positive outcomes are especially more likely to be seen for those who become selective in how they allocate their increasingly limited resources to handle such role transitions (Baltes, 1987), a skill that becomes critical given theories suggesting that nonnormative life events (e.g., late-life divorce, un-retirement) occur with comparatively higher intensity in the second half of the life span (Baltes & Danish, 1980).

### **How Gender and Education Inform Destabilization and Destandardization**

Although we found that patterns of destabilization and destandardization were largely robust across both gender and college degree attainment, we also found that destabilization and, to a lesser degree destandardization, were more pronounced among women than men, which is consistent with existing research (EGRIS, 2001; Elzinga & Liefbroer, 2007; Furlong et al., 2002; Lesnard et al., 2016; Van Winkle, 2017; Van Winkle & Fasang, 2017; Zimmerman, 2020; Zimmermann & Konietzka, 2018). However, our findings regarding whether destabilization and destandardization varied by education were generally mixed and inconclusive, also consistent with existing research (Bruckner & Mayer, 2005; Goodwin & O'Connor, 2005; Ramos, 2018; Van Winkle, 2017). Given race/ethnicity's impact on social role instability (Mortimer, 2015), future research should examine moderation by race/ethnicity.

Potentially, distinguishing between quantitative and qualitative changes in the individualization of the lifecourse may help explain the contrasting findings for gender and education found here and in prior work. Scholars have argued that because life course options are less differentiated by gender than they used to be (i.e., gender differences in social structure and norms are less pronounced than they used to be), that the individualization of the life course has been stronger (i.e., quantitatively greater) for women than men (Bruckner & Mayer, 2005; Keyes et al, 2019; Lesnard et al., 2016). Thus, although the life course has become more individualized for both men and women, the magnitude of the increase has been larger for women, in turn leading to the extent of destabilization and destandardization being more pronounced for women. For education, however, the focus has not been on whether the individualization of the lifecourse has been more or less pronounced

depending upon level of education, but whether the quality of the individualization of the lifecourse varies depending upon level of education (i.e., whether chosen or involuntary; Biggart & Wahler, 2006; EGRIS, 2001). Whereas gender may inform *the extent to which* the life course has become more individualized, and in turn inform the extent of destabilization and destandardization, education may inform *how* the individualized life course, and in turn destabilization and destandardization, is experienced. Thus, future work should consider both quantitative and qualitative dimensions of role instability, when seeking to disentangle the effects of education on destabilization and destandardization, be it at the macro or granular level.

## Limitations

It is important to note that despite the numerous strengths of this study, including the utilization of three U.S. national, multi-cohort longitudinal data sets, the effort to harmonize the datasets introduced certain limitations. First, to optimize comparability across the datasets, less precise assessments were utilized for cohabitation and marriage. Although trends in the destabilization and destandardization of cohabitation and marriage may diverge, these statuses were combined in the PSID and thus were examined in this manner across all three datasets. Disentangling trends in cohabitation and marriage represents an important next step, although the robustness of the aggregate indicator of instability suggests that patterns may be more similar than not. Second, the measures could not always be easily equated, as the timing of the assessment of employment in the MTF and the PSID varied in a potentially consequential manner. Third, due to measurement limitations as well as changes in measurement over time, we were not able to examine race/ethnicity as a potential moderator of destabilization and destandardization. Fourth, although our analytical approach fully addressed our research questions, because we did not conduct a formal age-period-cohort analysis, our analyses do not provide indications of statistical significance with respect to age, period, and cohort effects. Fifth, it is plausible that our examination may underestimate social role instability. Because assessments in all three data sources were spaced at least one year apart, our examination could not capture more temporary transitions (e.g., movements out of and then back into employment that all occur between assessments). Furthermore, although our examination captured transitions between roles (i.e., from employed to unemployed), it did not capture transitions within roles (e.g., when an individual leaves one job for another). Nevertheless, there is no reason to believe that the extent of underestimation of social role instability varies systematically across cohort, reducing the likelihood that our examination underestimated historical variation in either social role instability (i.e., destabilization) or its variability (i.e., destandardization).

## Conclusions

As compelling as the evidence presented here is, many questions remain unanswered about the implications and consequences of this destabilization and destandardization for individual outcomes and overall public health and well-being. Crucial to illuminating the implications and consequences is a clearer understanding of the *process* by which role instability is triggered and then unfolds and how this process is informed by both historical time and developmental time. A sizable amount of attention has been devoted to identifying

individual (e.g., agency, goals, competencies; Arnett, 2000; Heckhausen et al., 2010; Settersten & Ray, 2010) and socio-cultural factors (e.g., gender, education; Augustyn & Jackson, 2017; Mortimer, 2015; Staff & Mortimer, 2012) that inform individual differences in the extent of social role instability. However, comparatively less research has focused on the process by which role instability is triggered or not (i.e., pre-transition process), the process by which role instability is navigated, for better or worse, once it is triggered (i.e., the post-transition process), how these processes vary both historically and developmentally, and implications for health and well-being. Although comparatively limited and typically lacking developmental and historical considerations, existing research on the transition processes – specifically the decision process - surrounding college (Iloh, 2018), work (Niessen, Binneweis, & Rank, 2010), retirement (Feldman & Beehr, 2011), parenthood (Rijken & Knijn, 2009), marriage (Miller, 2021), and divorce (Canham et al., 2014) should serve as useful guides for future research focused on the pre- and post-transition process.

Additionally, future work focused on the pre-transition process could potentially draw upon Heckhausen's Action-Phase Model of Developmental Regulation (ACTION; Heckhausen et al., 2010). However, potential limitations of the ACTION model are that it does not consider the effects of historical time, and given its focus on goals, it does not speak to role transitions that occur in the absence of goal transitions nor does it speak to the post-transition process. Future work focused on the post-transition process could draw upon the Model of the Role Transition Process (TRANSITION; Allen & van der Vliert, 1982). Although the TRANSITION model does not consider the effects of developmental or historical time, it has been utilized within organizational studies to model transitions within organizations (Park, Kim, & Lim, 2012) and out of work (Niessen, Binneweis, & Rank, 2010). Thus, the ACTION and TRANSITION models lay the theoretical groundwork for linking individual changes/transitions to the broader cultural and historical changes we document here, which can inform future research concerning how transitions relate to health and wellbeing.

In conclusion, by taking a macro approach, which considers aggregate social role destabilization and destandardization among a set of social roles across the whole adult life course, as well as a historical-developmental approach, which further considers whether historical trends vary by age, we provide compelling evidence that both aggregate destabilization and destandardization have increased across the adult life course, albeit to varying degrees depending upon age. Our findings augment and build upon those from existing research, which tends to focus on specific social roles during specific periods of development. Indeed, rather than competing with one another, we believe that these two approaches – macro and granular – jointly provide a clearer and more complete account of historical trends in role destabilization and destandardization. Finally, although it is unclear how our findings may generalize to other industrialized countries that have also evidenced an individualization of the life course, given that a country's welfare state classification is believed to govern the extent of its individualization (Antonucci, 2018; Biggart & Walther, 2006), it stands to reason that our findings better generalize to other countries with a limited welfare state, such as that of the U.S.

## Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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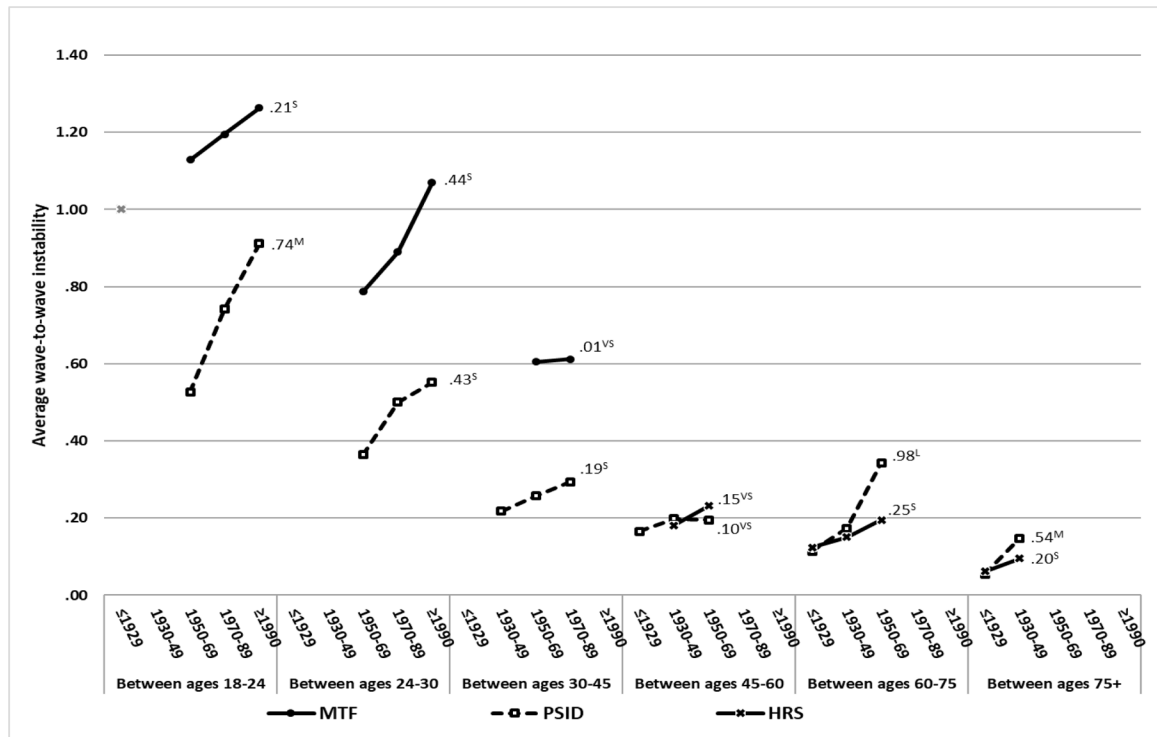


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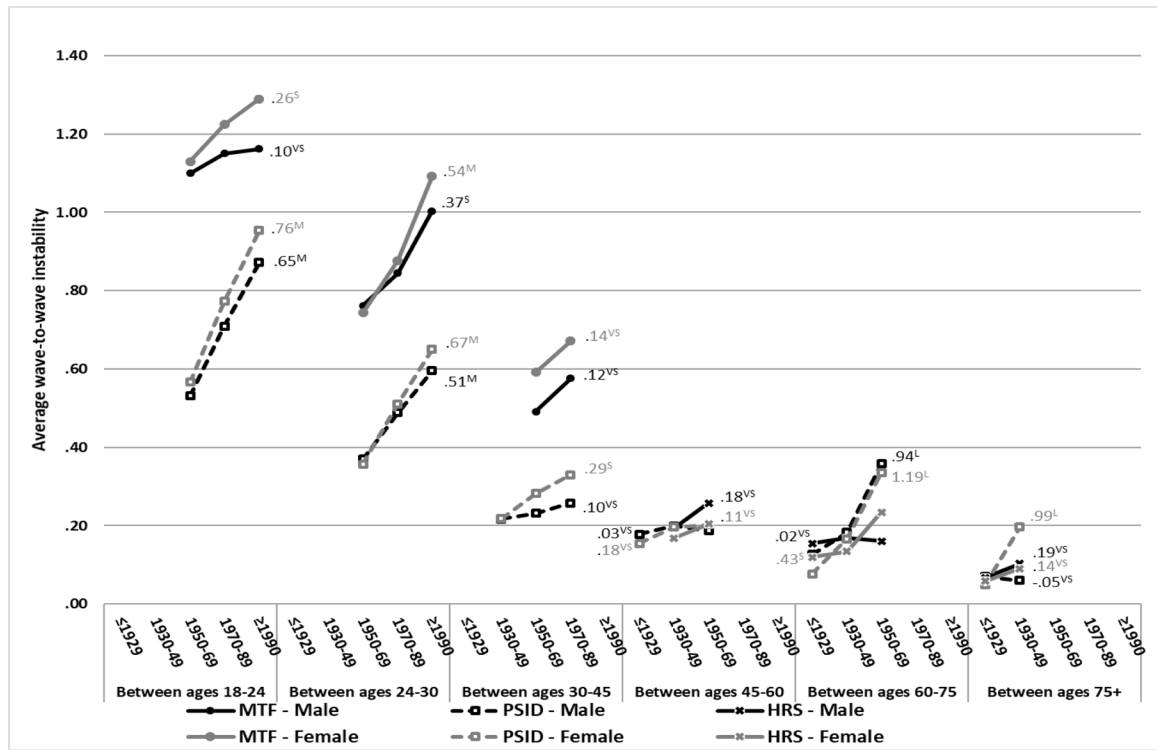
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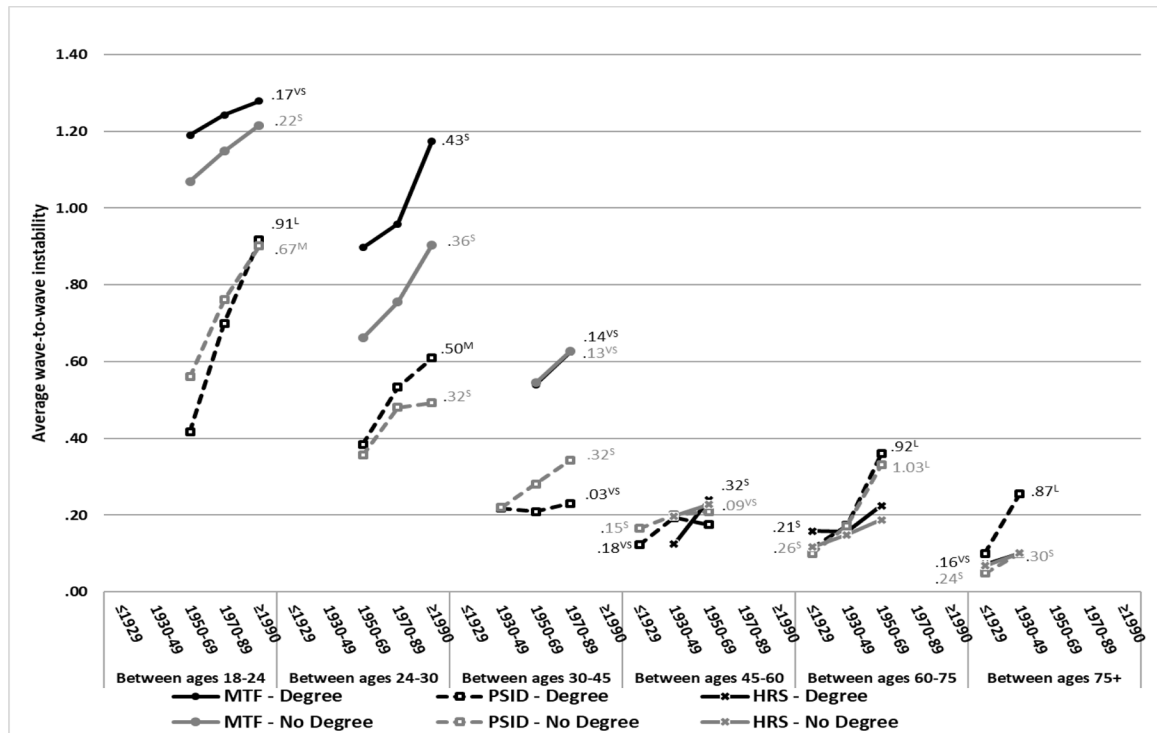
**Figure 1.**

Average Wave-to-Wave Aggregate Instability by Birth-Year Group and Age Group

*Note.* Values listed are net effects sizes. Net effect sizes above .02 are noted as very small (VS), effect sizes near .20 are noted as small (S), effect sizes near .50 are noted as medium (M), and effects sizes near or above .80 are noted as large (L).



**Figure 2.** Average Wave-to-Wave Aggregate Instability by Birth-Year Group, Age Group, and Gender  
*Note.* Values listed are net effects sizes. Net effect sizes above .02 are noted as very small (VS), effect sizes near .20 are noted as small (S), effect sizes near .50 are noted as medium (M), and effects sizes near or above .80 are noted as large (L).

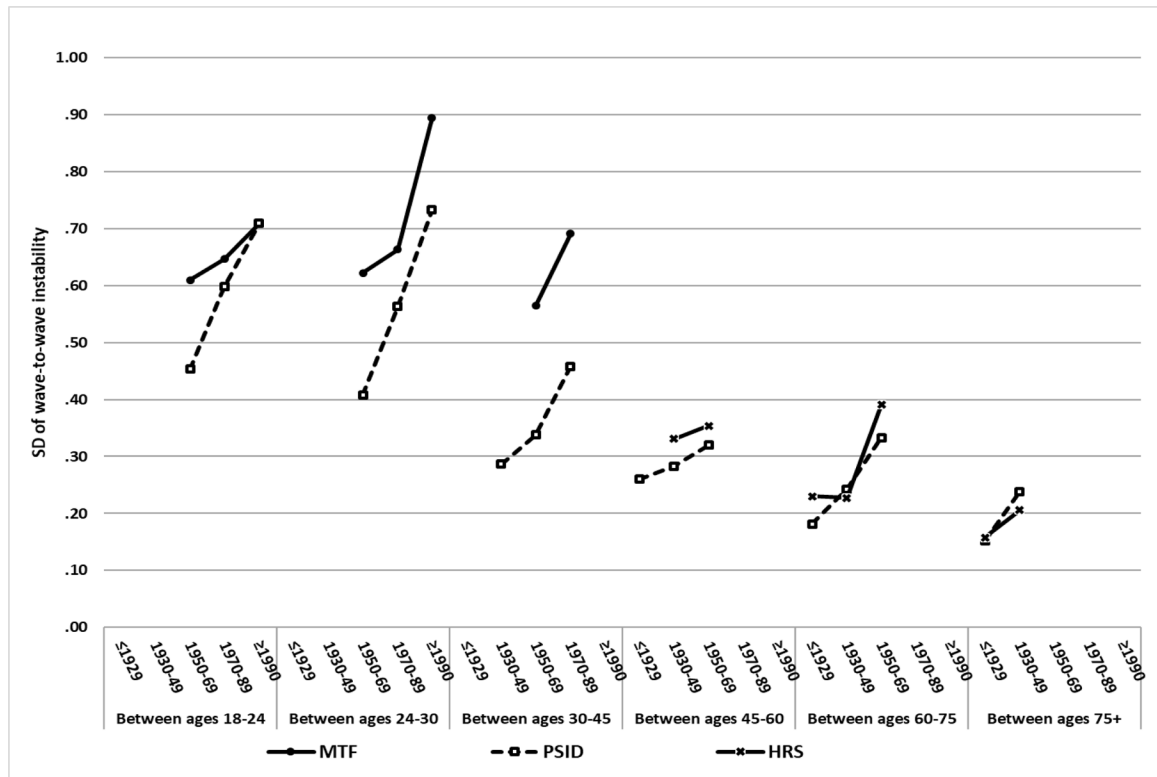


**Figure 3.**

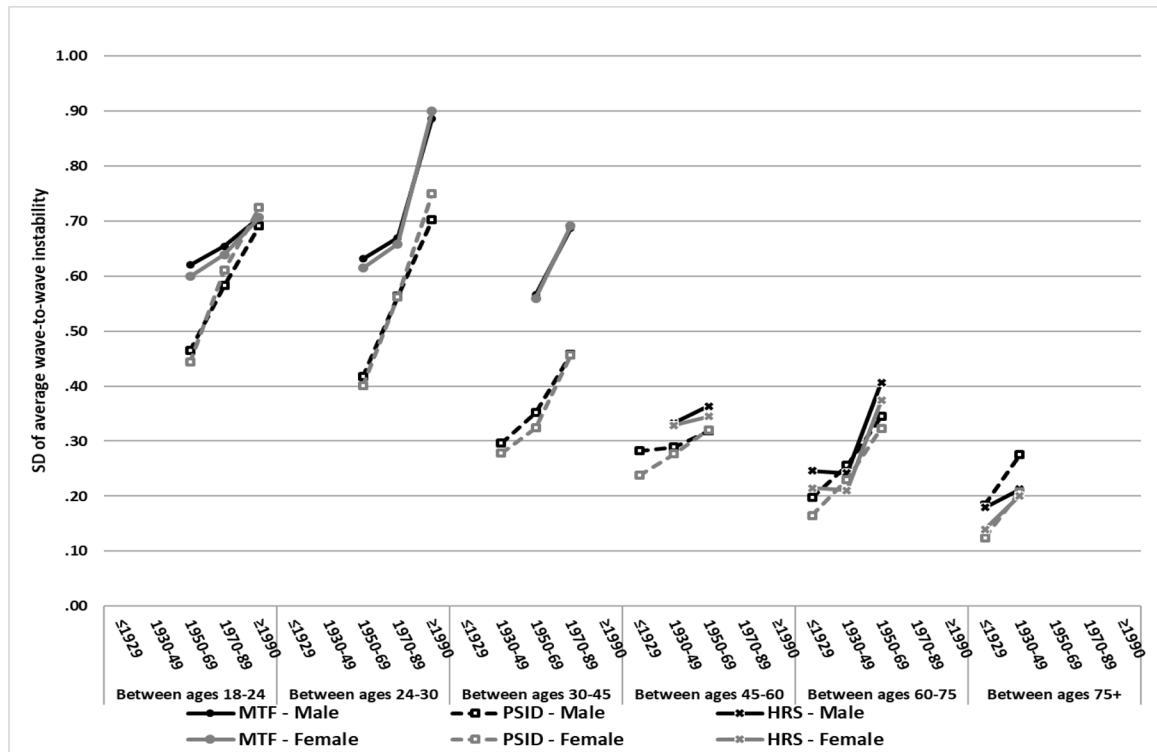
Average Wave-to-Wave Aggregate Instability by Birth-Year Group, Age Group, and Education

*Note.* Values listed are net effects sizes. Net effect sizes above .02 are noted as very small (VS), effect sizes near .20 are noted as small (S), effect sizes near .50 are noted as medium (M), and effects sizes near or above .80 are noted as large (L).

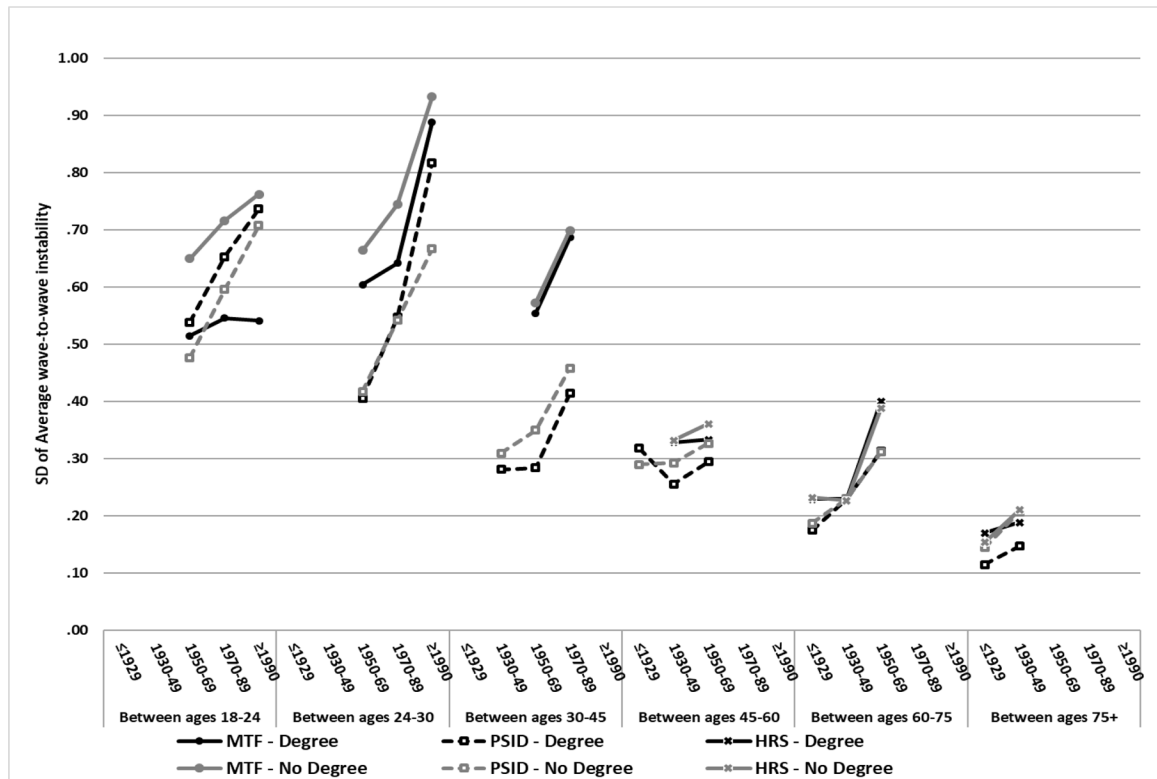




**Figure 4.**  
SD of Average Wave-to-Wave Aggregate Instability by Birth-Year Group and Age Group



**Figure 5.** SD of Average Wave-to-Wave Aggregate Instability by Birth-Year Group, Age Group, and Gender



**Figure 6.** SD of Average Wave-to-Wave Aggregate Instability by Birth-Year Group, Age Group, and Education

**Table 1**

Unweighted Sample Size by Data Source, Birth-year Group, and Age Group

	Monitoring the Future (MTF)			Panel Study of Income Dynamics (PSID)				Health and Retirement Survey (HRS)						
	1950-69	1970-89	1990	Row Total	1929	1930-49	1950-69	1970-89	1990	Row Total	1929	1930-49	1950-69	Row Total
Between ages 18-24	24,519	33,508	9,292	67,319			9,839	8,109	2,554	20,502				
Between ages 24-30	20,419	24,724	1,857	47,000			10,633	7,708	759	19,100				
Between ages 30-45	16,854	12,568		29,422		5,115	11,938	6,465		23,518				
Between ages 45-60					3,218	5,478	6,449			15,145	10,291	6,487		16,778
Between ages 60-75					4,322	2,907	1,639			8,868	5,196	1,970		19,975
Between Ages 75+					2,817	698				3,515	8,893	4,101		12,994
Column Total	25,201	34,864	9,399	69,464	5,873	7,222	17,449	11,725	2,732	45,001	9,907	14,154	6,852	30,913

*Note.* Because all three data sources are longitudinal in design, within a given column the same respondent can be included in multiple age groups. As a result, the sample sizes for a given column total is less than the sum of that column's age group sample sizes.

**Table 2**

Mean and SDs of Aggregate Social Role Instability by Data Source, Birth-year Group, and Age Group

	Monitoring the Future (MTF)				Panel Study of Income Dynamics (PSID)				Health and Retirement Survey (HRS)					
	1950-69	1970-89	1990	Net D NET SD %	1929	1930-49	1950-69	1970-89	1990	Net D NET SD %	1929	1930-49	1950-69	Net D NET SD %
Between ages 18-24	1.13 (.61)	1.20 (.65)	1.26 (.71)	.21 .10/16%		.53 (.45)	.74 (.60)	.91 (.71)	.74 .26/58%					
Between ages 24-30	.79 (.62)	.89 (.66)	1.07 (.89)	.44 .28/44%		.36 (.41)	.50 (.56)	.55 (.73)	.43 .32/78%					
Between ages 30-45	.61 (.57)	.62 (.69)		.01 .12/21%		.26 (.34)	.39 (.46)		.19 .17/59%					
Between ages 45-60					.17 (.26)	.20 (.28)	.20 (.32)		.10 .06/23%		.18 (.33)	.23 (.36)	.15 .03/9%	
Between ages 60-75					.11 (.18)	.17 (.24)	.34 (.33)		.98 .15/83%	.12 (.23)	.15 (.23)	.20 (.39)	.25 .16/70%	
Between Ages 75+					.06 (.15)	.15 (.24)			.54 .09/60%	.06 (.16)	.10 (.21)		.20 .05/31%	

Note. SDs are in parentheses. Net D, Net SD, and Net % in SD compare youngest available cohort to oldest available cohort.

**Table 3**  
 Mean and SDs of Aggregate Social Role Instability by Data Source, Birth-year Group, Age Group, and Sociodemographic Moderators

	Monitoring the Future (MTF)					Panel Study of Income Dynamics (PSID)					Health and Retirement Survey (HRS)						
	1950-69	1970-89	1990	Net D	NET SD %	1929	1930-49	1950-69	1970-89	1990	Net D	NET SD %	1929	1930-49	1950-69	Net D	NET SD %
<b>Men</b>																	
Between ages 18-24	1.10 (.62)	1.15 (.65)	1.16 (.70)	.10	.08/13%	.18 (.29)	.20 (.29)	.19 (.32)	.71 (.58)	.87 (.69)	.65	.23/50%	.19 (.33)	.26 (.36)	.18	.03/9%	
Between ages 24-30	.76 (.63)	.85 (.67)	1.00 (.89)	.37	.26/41%	.13 (.20)	.18 (.26)	.36 (.34)	.49 (.56)	.60 (.70)	.51	.28/67%	.17 (.24)	.16 (.41)	.02	.16/64%	
Between ages 30-45	.49 (.57)	.58 (.69)	.14	.14	.12/21%	.07 (.18)	.06 (.28)	.28 (.32)	.26 (.46)	.10	.16/53%	.07 (.18)	.10 (.21)	.19	.03/17%		
Between ages 45-60																	
Between ages 60-75																	
Between ages 75+																	
<b>Women</b>																	
Between ages 18-24	1.13 (.60)	1.22 (.64)	1.29 (.71)	.26	.11/18%	.15 (.24)	.20 (.28)	.57 (.44)	.77 (.61)	.95 (.73)	.76	.29/66%	.17 (.33)	.21 (.35)	.11	.02/6%	
Between ages 24-30	.74 (.61)	.88 (.66)	1.09 (.90)	.54	.29/48%	.08 (.17)	.17 (.26)	.36 (.40)	.51 (.56)	.65 (.75)	.67	.35/88%	.12 (.21)	.24 (.37)	.43	.16/76%	
Between ages 30-45	.59 (.56)	.67 (.69)	.12	.12	.13/23%	.05 (.12)	.19 (.21)	.28 (.32)	.33 (.46)	.29	.18/64%	.06 (.14)	.09 (.20)	.20	.06/43%		
Between ages 45-60																	
Between ages 60-75																	
Between ages 75+																	
<b>Bachelor's degree</b>																	
Between ages 18-24	1.19 (.51)	1.24 (.55)	1.28 (.54)	.17	.03/6%	.15 (.24)	.20 (.28)	.42 (.51)	.70 (.65)	.92 (.70)	.91	.19/37%	.13 (.21)	.24 (.37)	.43	.16/76%	
Between ages 24-30	.90 (.60)	.96 (.64)	1.18 (.89)	.43	.29/48%	.05 (.12)	.19 (.21)	.38 (.40)	.53 (.57)	.61 (.82)	.50	.42/105%	.06 (.14)	.20	.06/43%		



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	Monitoring the Future (MTF)				Panel Study of Income Dynamics (PSID)						Health and Retirement Survey (HRS)						
	1950-69	1970-89	1990	Net D	NET SD %	1929	1930-49	1950-69	1970-89	1990	Net D	NET SD %	1929	1930-49	1950-69	Net D	NET SD %
Between ages 30-45	.54 (.55)	.63 (.69)		.14	.14/25%		.22 (.27)	.21 (.28)	.23 (.44)		.03	.17/63%		.12 (.33)	.24 (.33)		.00/0%
Between ages 45-60						.12 (.26)	.19 (.27)	.18 (.29)			.18	.03/12%		.16 (.23)	.23 (.40)		.17/74%
Between ages 60-75						.11 (.17)	.17 (.24)	.36 (.31)			.92	.14/82%		.16 (.23)			
Between ages 75+						.10 (.15)	.26 (.22)				.87	.07/47%		.10 (.19)		.16	.02/12%
No Bachelor's degree																	
Between ages 18-24	1.07 (.65)	1.15 (.72)	1.22 (.76)	.22	.11/17%			.56 (.44)	.76 (.59)	.90 (.71)	.67	.27/61%					
Between ages 24-30	.66 (.60)	.76 (.64)	.90 (.93)	.36	.33/55%			.36 (.41)	.48 (.56)	.49 (.67)	.32	.26/63%					
Between ages 30-45	.55 (.57)	.63 (.70)		.13	.13/23%		.22 (.28)	.28 (.35)	.34 (.47)		.32	.19/68%					
Between ages 45-60						.17 (.24)	.20 (.29)	.21 (.33)			.15	.09/38%		.20 (.33)	.23 (.36)		.03/9%
Between ages 60-75						.10 (.18)	.17 (.24)	.33 (.34)			1.03	.16/89%		.15 (.23)	.19 (.39)		.16/70%
Between ages 75+						.05 (.15)	.10 (.22)				.30	.07/47%		.11 (.21)		.24	.06/40%

Notes. SDs are in parentheses. Net D, Net SD, and Net % in SD compare youngest available cohort to oldest available cohort.