

# Impacts of the Second Demographic Transition on Mid- and Later-Life Health Meeting

**National Institute on Aging  
Division of Behavioral and Social Research**

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## Table of Contents

<b>Executive Summary</b> .....	<b>1</b>
<b>Meeting Summary</b> .....	<b>3</b>
<b>Theoretical and Empirical Background</b> .....	<b>3</b>
Family Change and the Elderly of the Future .....	3
<b>Relationship Histories and Health</b> .....	<b>5</b>
Relationship Formation and Dissolution, Never Marriage .....	5
Gender and Sexual Minority Relationships Across the Life Course.....	6
<b>Fertility Histories and Health</b> .....	<b>9</b>
Changing Patterns of Fertility/Parenthood and Potential Implications for Later-Life Health.....	9
Aging Without Children .....	11
<b>Inter- and Intragenerational Relationships and Health</b> .....	<b>14</b>
Consequences of the Second Demographic Transition on Generational Ties and Health.....	14
<b>Recap of Day 1</b> .....	<b>16</b>
<b>Open Discussion</b> .....	<b>18</b>
<b>Data and Methods</b> .....	<b>19</b>
Linking the 1940 U.S. Census to Records from 5 Surveys of Older Americans .....	19
Data Sources for Family Studies with Sexual and Gender Minority Populations.....	20
<b>Putting It All Together: Mechanisms Linking Relationship and Fertility Histories, Inter- and Intragenerational Family Relationships to Later-Life Health and Wellbeing</b> .....	<b>22</b>
Financial Mechanisms Linking Family/Relationship Histories to Later-Life Health.....	22
Caregiving During the Second Demographic Transition and Beyond.....	23
<b>Closing Discussion</b> .....	<b>24</b>
<b>Appendix 1. Meeting Agenda</b> .....	<b>27</b>
<b>Appendix 2. List of Participants</b> .....	<b>29</b>

## Acronyms List

GR	gender revolution
GSM	gender and sexual minority
GSS	General Social Survey
HRS	Health and Retirement Survey
LAT	living apart together
LGB	lesbian, gay, or bisexual
LGBT	lesbian, gay, bisexual, or transgender
MPF	multiple partner fertility
NHATS	National Health and Aging Trends Study
NSHAP	National Social Life, Health, and Aging Project
NIA	National Institute on Aging
PSID	Panel Study of Income Dynamics
SDT	Second Demographic Transition
SES	socioeconomic status
WLS	Wisconsin Longitudinal Survey

## Executive Summary

The Second Demographic Transition (SDT) describes a set of changes in families in the United States and other industrialized countries, including lower rates of marriage and fertility, increased rates of divorce and cohabitation, the separation of marriage from child-raising, growth in one-person households, and perhaps a greater share of multigenerational families. These changes have generally resulted in increases in family heterogeneity, complexity, and inequality. The National Institute on Aging (NIA) Division of Behavioral and Social Research (BSR) convened an expert meeting on May 29–30, 2019, in Bethesda, Maryland, to explore the implications of these family changes for later life health. The meeting agenda and list of participants are included as Appendices 1 and 2, respectively.

The meeting opened with a presentation addressing the strengths and weaknesses in the SDT theory as a framework for describing family change as opposed to the gender revolution (GR) theory, which explains shifts in demographic patterns, such as the unbalancing of previously stable family relationships, in terms of changing social norms around gender roles. Subsequent speakers provided an overview of ongoing and emerging trends in relationship formation and dissolution, fertility and parenthood, families among gender and sexual minority (GSM) groups, and inter- and intragenerational relationships. Speakers explored the potential roles of economic resources, employment experiences, and caregiving as mechanisms linking family experiences to mid- and later-life health. They identified what is—and what is not—known about how these family changes impact health in later life. In addition, speakers addressed the use and availability of current data sources for studying contemporary families, including new strategies to better utilize those data sources, and the need for additional data to better describe American families.

### ***Frameworks for understanding trends in family structures and dynamics***

The GR theory provides an alternative framework for understanding the changes that have occurred in American family structure and dynamics in recent decades. The SDT theory attributes reduced rates of marriage and fertility to increased individualism, while the GR theory attributes these changes to unbalanced family roles resulting from women's increased participation in the labor market. The SDT theory predicts increasing family dissolution, while the GR theory predicts an eventual rebalancing and stabilization of the family as men increasingly engage in family life and child-raising.

### ***Family patterns of interest***

Emerging relationship patterns may mitigate or exacerbate health disparities according to race, ethnicity, socioeconomic status, geography, education, and/or GSM status. Populations and relationships of interest include the following:

- **Relationships among GSM populations.** Rates of GSM identification are increasing, particularly among younger cohorts, women, lower-income individuals, and certain racial or ethnic groups. Bisexual- and transgender-identifying populations are growing faster than other subsets of the GSM population, and they may be more vulnerable to health disparities, such as heightened risk for early mortality and morbidity. GSM individuals are

less likely than heterosexuals to marry or have children, and therefore may have less support in later life. GSM identity can be fluid across the life course, which may alter the impact of increased health risks. However, little work examines the dynamics of GSM identification across the life course. More accepting cultural attitudes and policies toward GSM individuals and families may also mitigate disparities.

- **Effects of education on family lives.** Individuals without college degrees are less likely to marry and more likely to cohabit and have children outside of marriage. Cohabiting relationships, especially among younger couples, tend to be unstable: most children born outside of marriage will experience multiple transitions in family structures before they reach their ninth birthday. Lower-educated families are more likely to experience unemployment and to live closer to extended family than higher-educated families. Geographic proximity can not only increase the likelihood of support among family members, but also exacerbate the impact of geography-based challenges, including natural disasters, depressed local economies, and lower levels of state support for children and families.
- **Step-kin.** Increased rates of divorce and remarriage among aging cohorts have increased the proportion of families with step-kin. Available research suggests that step-kin relationships are weaker than biological relationships: stepchildren may be less likely to provide support to older parents, and stepfathers in particular may lose contact with both stepchildren and biological children through the years. Current research methodologies may not adequately capture the complexities of step-relationships; step-kin and former step-kin may be overlooked in family rosters, and the impact of factors such as the length of the relationship or the timing of its initiation have not been adequately explored.
- **Living apart together (LAT).** Increasing numbers of older adults report being in LAT relationships, that is, living at separate addresses but having an intimate relationship. These relationships are increasing more rapidly among older women; adults in LAT relationships report receiving similar levels of support as those who are married or cohabiting. LAT relationships have not been adequately captured in research to date, and they may prove to be a growing trend among older Americans.

### ***Implications for future research***

GSM relationships, LAT relationships, and relationships among step-kin and former step-kin warrant increased attention. The role of siblings and friendship networks, particularly in the lives of childless individuals, is not well understood. Research strategies that capture relationships and identity across the life course may be particularly valuable in identifying previously undetected sources of support in later life, and for increasing understanding of the fluidity of identity and relationships. Small-scale, qualitative studies will be important in defining aspects of relationships, such as who is defined as “family” and senses of obligation for care provision, as well as gender and sexual orientation identity that may prove valuable to future research. Strategies for identifying and better utilizing existing data sources are also needed. Efforts to link datasets, such as the Minnesota Population Center’s work to connect U.S. Census data to existing aging studies, will be invaluable. Linkage efforts are expected to

increase and improve in quality as more records are digitized and technologies such as optical character recognition mature.

## Meeting Summary

### Theoretical and Empirical Background

*Emily Agree, Johns Hopkins University, Moderator*

#### Family Change and the Elderly of the Future

*Fran Goldscheider, University of Maryland*

The Second Demographic Transition (SDT) provides a framework for describing a set of changes to the family, including later family formation, decreased marriage and fertility, weaker couple bonds (demonstrated by increased divorce and cohabitation rates), and the decoupling of marriage from child-raising.<sup>1</sup> While the SDT theory attributes these changes to the growth of individualism, Goldscheider and colleagues have proposed an alternate explanation: namely, that the changes reflect the impact of the first stage of the gender revolution (GR), which consists of increased labor force participation among females and a concomitant unbalancing of family relationships. In contrast to the SDT theory's predictions, Goldscheider and colleagues hypothesize that the second stage of the GR will consist of increased male involvement in the family, which will rebalance family relationships.<sup>2</sup>

Although either theory could explain a weakening of the family as an initial effect, the SDT theory offers an ideational explanation for this effect, while the GR theory offers a structural explanation. According to the GR theory, the fundamental relationships between men and women were reshaped as women entered the workforce, undermining the construct of "separate spheres." The theories differ most profoundly in their predictions for the future of the family. The SDT theory predicts continuing entropy and family decline as individuals pursue their own interests. The GR theory considers family weakening to be a transitional response to the first stage of the GR; the family should strengthen as it rebalances during the second stage of the GR. Studies show that male involvement in the family is increasing, which benefits the wellbeing of children, women, and men and reduces union dissolution, increases marriage, and may even increase fertility. Such findings are consistent with the GR theory's prediction that increased male involvement will lead to family strengthening, thereby counterbalancing current trends.

Researchers investigating these phenomena have focused primarily on young adulthood, when family changes such as delayed marriage and parenthood, cohabitation and divorce, and single parenting tend to occur. However, the full impact of these changes on the individuals who experience them may not become visible until older age. Nevertheless, the

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<sup>1</sup> R. Lesthaeghe, "The unfolding story of the second demographic transition," *Pop. Devel. Rev.* 36, 211-251 (2010).

<sup>2</sup> F. Goldscheider, E. Bernhardt, and T. Lappegård, "The gender revolution: A theoretical framework for understanding changing family and demographic behavior." *Pop. Devel. Rev.* 41(2), 207-239 (2015).

indirect effects of such family changes on the elderly parents of these young adults are often substantial and include greater financial and co-residential adult child dependency<sup>3</sup> as well as increasing rates of grandparents raising grandchildren.

Various investigators have studied these demographic changes, albeit with different emphases.<sup>4</sup> In 2007, Hughes and Waite documented a decrease in the overall number of women currently married, as well as increases in the numbers of married women who were remarried and unmarried women who were formerly married.<sup>5</sup> Goldscheider noted that existing evidence suggests that these patterns also hold true for men over the same time period. In 1990, Goldscheider published a study documenting increased divorce rates and the subsequent weakening of men's relationships with their children, as well as decreased remarriage rates, perhaps due to the rise in female labor force participation.

Comparing data across 1960, 1980, and 2015, Goldscheider showed that rates of marital dissolution have decreased overall for some older age groups, such as men aged 75 and older and women aged 65 to 84. During that same time period, overall proportions of married adults have risen among men aged 75 and older and among women aged 65 and older. These trends appear to be driven by decreases in rates of widow- and widowerhood outpacing increases in rates of divorce. Alongside these trends, remarriage rates are increasing, which may have negative implications for men's relationships with their children. Cross-sectional studies show that divorced men have more problematic relationships with their children compared with women. However, a cohort study in Wisconsin found that patterns of physical custody after divorce are changing: in 1989, shared custody—defined as each parent having between 25 and 75 percent physical custody of the child—was granted in only 12 percent of divorce cases, compared with 50 percent of cases in 2010. This may suggest (at least in Wisconsin) that fathers have closer and more involved relationships with their children after divorce now than in the past, potentially leading to better father-child relationships in adulthood.

Goldscheider concluded by acknowledging that the future elderly within the United States are likely to experience a difficult period if individuals who are currently in their 40s and 50s only experience the first stage of the GR and concomitant weakening, but not rebalancing, of the

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<sup>3</sup> J. Kahn, F. Goldscheider, and J. García-Manglano, "Growing parental economic power in parent-adult child households: Coresidence and financial dependency in the United States, 1960–2010," *Demography* 50(4), 1449-1475 (2013).

<sup>4</sup> J. Angel and R. Settersten, "[What changing American families mean for aging policies](#)," *Public Policy & Aging Rep.*, 25(5), 78-82 (2015); F. Goldscheider, "The aging of the gender revolution: What do we know and what do we need to know?" *Res. Aging* 12, 531-545 (1990); M. Hughes and L. Waite. 2007. "The aging of the Second Demographic Transition," Ch. 12 in *Social Structures: Demographic Changes and the Well-Being of Older Persons*, K. Warner Schaie and Peter Uhlenberg (eds.) (New York, Springer Publishing, 2007).

<sup>5</sup> M. E. Hughes and L.J. Waite, "The aging of the Second Demographic Transition," Ch. 12 in *Social Structures: The Impact of Demographic Changes on the Well-Being of Older Persons*, K. Warner Schaie and Peter Uhlenberg (eds.) (New York, Springer, 2007).

family. Nevertheless, Goldscheider asserted that most individuals continue to desire strong and lasting pair bonds and family relationships.

### **Discussion**

Demographers may tend to expect demographic changes to be linear, but cohorts may respond in dynamic ways to the challenges that they or their parents experience. In addition, while men are performing a greater share of care work, disparities persist, indicating that much remains to occur in terms of “rebalancing.”

Participants clarified that, although shared custody rates have risen substantially in Wisconsin, such shared arrangements still tend to skew toward greater maternal than paternal care. Moreover, because national divorce data do not easily disaggregate by year of divorce, investigators cannot easily determine whether similar trends in custody are occurring elsewhere. One participant suggested that available data indicate that divorced men with more education and wealth tend to acquire more custodial responsibility than men of lesser education and means. However, Goldscheider explained that data from the Family Map Project show that lower-educated men, although more likely to express essentialist views of fatherhood, perform more child-rearing than their higher-educated peers, who tend to express more egalitarian attitudes regarding gender roles. This imbalance could be caused by differences in employment patterns. For example, lower-educated men are more likely to perform shift work, while higher-educated men are more likely to work 60-hour weeks that undermine their ability to equitably share in home labor.

## **Relationship Histories and Health**

*Corinne Reczek, Ohio State University, Moderator*

### **Relationship Formation and Dissolution, Never Marriage**

*Linda Waite, University of Chicago*

Existing data demonstrate that early and stable marriage predicts better health later in life and that divorce or union dissolution damages health, wealth, and relationships with children. Step-relationships are on average not as strong as those between biological kin. Researchers report that individuals who came of age during the sexual revolution were sexually active at earlier ages, had more partners before and between marriages, and exhibited greater rates of cohabitation than previous generations. Data reveal some increases in cohabitation among older adults, and cohabitation is more stable among older than younger partners. Data also suggest increases in living-apart-together (LAT) relationships.

The SDT provides a view not only of changes in the *states* that people occupy (e.g., marital status, parenting roles, and household composition), but also of changes in the *effects* of these states on later wellbeing. Changes in such effects can be seen in the deinstitutionalization of marriage—and in the corresponding institutionalization of cohabitation—through the provision of benefits to unmarried couples. These changes in effects are accompanied by changes in (1) individual *selection* into the states that people occupy and (2) *social meanings* of these states. For example, regarding individual selection, as

fewer people fail to complete high school, those who do are more negatively selected; moreover, as more people complete college, college graduates are less positively selected. In addition, the social meanings of states such as cohabitation change as they become more common. The social consequences of never marrying, marrying, cohabitating, or having a partner with whom one does not live have changed, which in turn modulates their effects on health. The social meaning of widowhood, however, appears to have changed less than other states during the SDT.

Data from the National Social Life, Health, and Aging Project (NSHAP) show that the percentage of men who are married or cohabitating was higher for the Silent Generation (born between 1928 and 1947) than for the Greatest Generation (born between 1920 and 1927) in both 2005 and 2015. In 2015, marriage rates among Baby Boomers (born between 1948 and 1965) were lower than those among the Silent Generation, yet higher rates of cohabitation among the former resulted in a similar proportion living alone and unpartnered. Among females, the percentage who were unpartnered and living alone was much lower for Baby Boomers than for older cohorts. LAT relationships are increasing among women yet remaining steady for men across the cohorts. Future analyses should disentangle age, period, and cohort effects.

NSHAP also enables an examination of social support by living arrangement and gender. Men and women both report high support scores, with women in LAT relationships reporting the highest scores. Unmarried or unpartnered individuals of both genders report the lowest levels of support, whether or not they live with others. These data suggest that the increasing numbers of older men and women who are cohabitating or in LAT relationships receive similar levels of support as married men and women. These data also suggest that some of the negative consequences of the SDT may be more modest than predicted. Little is known about the changing effects of relationships on health, selection into relationships, or the social meaning of relationships. Additional research is needed in these areas.

### **Gender and Sexual Minority Relationships Across the Life Course**

*Corinne Reczek, Ohio State University*

The category of gender and sexual minority (GSM) includes all gender and sexual minorities and all three aspects of sexuality: identity, attraction, and behavior. Prevalence estimates of same-sex attraction range from approximately 2 to 11 percent (National Survey of Family Growth, 2006-2008), while prevalence estimates of same-sex behavior range from approximately 7 to 9 percent. However, prevalence estimates of lesbian, gay, or bisexual (LGB) identity are less than 4 percent.

Data from Gallup reveal increased rates of U.S. adults identifying as lesbian, gay, bisexual, or transgender (LGBT), from approximately 3.4 percent in 2012 to approximately 4.5 percent in 2017. Women, lower-income groups, and more recent birth cohorts are more likely to identify as LGBT. These increases may be due to the growth in individualism associated with the SDT. Rosenfeld has argued that both the weakening role of families of origin and a diminished imperative for marriage and child-raising could be contributing to the rise of LGBT identity as

individuals become freer to explore their sexuality earlier in life. The GR, and the accompanying de-stigmatization of gender and sexual transgressions, along with corresponding legal and cultural changes, may also be contributing factors. It is unknown whether the increases in rates of LGBT identification will continue for future birth cohorts.

The proportion of individuals identifying as bisexual has increased sharply; the General Social Survey (GSS) reported a tripling of bisexual identification, from 1.1 percent in 2008 to 3.3 percent in 2018. The increase is primarily among women, younger cohorts, and Black respondents. The National Health Interview Survey (NHIS) reported that the percentage of Black women identifying as bisexual is increasing more rapidly by recency of birth cohort than other groups. The Centers for Disease Control and Prevention (CDC) found that bisexual men and women are less likely to report good or excellent health than their gay or lesbian peers and are also more likely to smoke and to be obese.

The 2015–16 California Health Interview Survey (CHIS) found that more than one-quarter of adolescents (ages 12–17) reported feeling gender nonconforming. Transgender populations are among the most health disadvantaged and are at risk for early mortality and morbidity. When considering later life aging, researchers must recognize that some GSM groups are more disadvantaged than others and that this disadvantage may intersect with race or ethnicity and class in ways that shape health across the life course. In addition, these health effects may vary in important ways across cohorts.

A full account of relationship and GSM history is critical to understanding the short- and long-term health effects of GSM status; current relationship status is insufficient for determining whether someone is or is not GSM. Most bisexuals in committed relationships have partners of the opposite sex. In addition, the age at which a person recognizes same-sex attraction and at which they tell others, is important to understanding how GSM status shapes health in later life. Younger cohorts tend to come out to a family member at a younger age than did older cohorts; rejection by one's family of origin may have large health impacts, not only for youth, but also across the life course. Complex relationship histories may also shape individuals' intention to marry and have children, which may in turn shape health outcomes in later life.

Among NHIS 2016–18 respondents aged 18 to 65, 12.8 percent of lesbian or gay respondents reported being married to a same-sex partner and 4.6 percent of lesbian or gay respondents reported being married to a different-sex partner. Lesbian and gay respondents report cohabiting at more than three times the rate of heterosexual respondents (18.5 percent versus 5.9 percent). LGB respondents and those who identified as “something else” (neither LGB nor straight) were more likely to be single than were straight respondents. A Pew study found lower rates of desire for marriage among LGB respondents (45–58 percent) than is typical among heterosexuals. Raising children is less common among LGB persons than among heterosexuals, although significant racial differences exist within the LGB community. Forty percent of Black same-sex couples are raising children, as are 28 percent of Latino/a same-sex couples and 16 percent of White same-sex couples. Marriage and child-raising can each exert significant influence on mid- and later-life health outcomes, though how these differ by GSM status is unknown.

**Discussion: Future Directions*****Differences in social support by types of relationship***

Studies have traditionally focused too narrowly on the nuclear family, thereby neglecting other ways that individuals obtain social support through relationships. The NSHAP social support score presupposes that multiple sources of support are preferable to a single strong support. Relationship length may be an important indicator of the type of support that can be expected. Single mothers form networks of support with one another. LAT couples may experience fewer strains around household roles: some data suggest that women choose LAT relationships to avoid expectations of household work. Additional data are needed to compare the average lengths of LAT relationships to live-in marriages and cohabitation arrangements. Current surveys do not adequately address whether unpartnered individuals receive more support from family or from life-long friends. A deeper understanding of the meaning attached to different relationships—including what kind of social network a marriage is embedded within, changing conceptions of what constitutes a marriage, and differences in tradeoffs between obtaining social support and spending social capital among different types of relationships—among younger and older cohorts may reveal differences in the way people receive instrumental and social support.

***The role of life histories in understanding relationships***

Life histories provide important data for all population groups. Greater understanding of previous marriages, especially those that resulted in children, could provide insight into availability of resources in later life. Existing research has paid little attention to LAT relationships and their histories; addressing this gap will become increasingly important as LAT relationships become more common. Data on GSM identification, which may shift as people age, could potentially help investigators to understand disparities between GSM and heterosexual individuals. Thomeer described an ongoing study of transgender individuals that found, among younger subjects, less relationship churn and a marked desire to secure a single, steady partner. Relationship stability across the life course of transgender individuals may increase as cohorts age.

***Shifts in GSM family structures in historical context***

In addition to individual events such as the age of coming out, historical events such as the Stonewall Riots, the HIV/AIDS epidemic, or the legalization of same-sex marriage, as well as other legal shifts, may serve as important markers shaping GSM cohorts. For example, child-raising has become easier for GSM individuals because same-sex adoption bans have been rescinded and surrogacy options have increased.

***Challenges in research on GSM populations***

Standard strategies for gathering representative longitudinal data on rare populations are problematic for GSM populations. GSM identity may not be truthfully reported in early screening and may change over time. Oversampling by location may garner data that are not generalizable. Multiple strategies will be needed to effectively study GSM populations; early waves of many of the largest longitudinal surveys did not ask about GSM status. Current sources of data on GSM individuals include the GSS, the NHIS, a supplement to the Panel

Study of Income Dynamics (PSID), and an ongoing study of the children of the subjects of the Nurses' Health Study.

### ***LAT relationships***

Financial policies may play a role in the selection into LAT relationships: eligibility for spousal pensions is sometimes lost at remarriage. The financial obligations and expectations within LAT relationships may differ from those of cohabitating or married couples and may also play a role in selection. Individuals with sufficient resources may not require support from partners or family members. Longitudinal studies suggest that LAT individuals provide caregiving support when it is needed, regardless of their stated willingness or avoidance of these obligations. Waite's work allows respondents to identify multiple sexual partners, but not multiple LAT partners. Differing definitions of cohabitation might result in the identification of multiple partnerships, which may not be recognized in ongoing studies.

## **Fertility Histories and Health**

*Juanita Chinn, NICHD, Moderator*

### **Changing Patterns of Fertility/Parenthood and Potential Implications for Later-Life Health**

*Marcy Carlson, University of Wisconsin-Madison*

Major changes in fertility and parenthood have occurred in recent decades. U.S. total fertility rates have decreased from a peak of 3.65 in 1960 to 1.73 in 2018. Some analysts believe this decrease may be due to tempo effects: people are waiting longer to have children. Others assert that fertility has actually decreased. The average age at first birth increased from 22 years in 1980 to 26 years in 2016. Data from 2016 show a bimodal distribution, which also differs from 1980, with peaks at approximately ages 20 and 28.<sup>6</sup> In addition, the age at first birth increases with educational attainment.

Nonmarital childbearing has increased in the United States. According to the NHIS, about 6 percent of births occurred outside of marriage in 1960, compared to 40 percent in 2016. Births to cohabitating women now constitute the largest share of nonmarital births: between 2009–2013, 43 percent of births were to unmarried mothers and 25 percent were to cohabitating women. However, the likelihood that cohabitating relationships will dissolve is higher in the United States than in other Western countries. In the United States, 73 percent of cohabitating relationships and 34 percent of marriages dissolve before the child reaches age 15.<sup>7</sup> The *Fragile Families and Child Wellbeing Study* found that most children born outside of marriage will experience multiple transitions in family structure before they reach age 9. Data from the National Vital Statistics Birth Data Files reveal that greater than 50 percent of all births to women without a high school diploma occurred outside marriage, compared to 9

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<sup>6</sup> Q. Bui and C.C. Miller, "The age that women have babies: how a gap divides America," *New York Times*, August 4, 2018.

<sup>7</sup> G. Andersson, E. Thomson, and A. Duntava, "Life-table representations of family dynamics in the 21st century," *Demogr. Res.* 37(Article 35), 1081-1230 (2017).

percent for college graduates. Socioeconomic status (SES) must also be factored into analyses of parenthood and fertility.

Multi-partner fertility (MPF) is the phenomenon in which an individual has children with more than one person. One in 10 U.S. adults has MPF, as do 20.6 percent of all parents with two or more children. MPF parents are more likely to be Black or Hispanic, to have a high school education or less, and to be unmarried.<sup>8</sup>

Fertility patterns have intergenerational impacts. At the individual level, declining fertility leads to fewer adult children to care for elderly parents and fewer siblings to share the responsibility. At the aggregate level, declining fertility leads to fewer workers contributing to the social security system. Later childbearing increases the likelihood that parents will be “sandwiched” between minor children and elderly parents and caring for both. Grandparents are older and may be in worse health when grandchildren are born, and the overlap in the lifetimes of grandparents and grandchildren may be shorter. In addition, older childbearing usually means that the parents have greater economic resources than those who have children earlier.

Unmarried and complex fertility/parenthood can create unclear roles, responsibilities, and perceived obligations between parents and step/social grandparents. The elderly may receive fewer care resources, although there may be more potential caregivers in the family system. Ties and obligations to parents among half-siblings may vary considerably. Finally, when parents no longer live together, resources can be spread across multiple households, leading to lost economies of scale.

The differences in fertility and family structure by SES have broad implications for later-life health and wellbeing. Individuals of higher SES tend to reach older age with more economic resources and stronger familial ties to secure caregiving. Gender differences also shape the impact of fertility and family structure. Women are more likely to have custody of their children and to be more involved with them than men (although resident fathers are much more involved than nonresident fathers). Nonfamily ties may become more salient over time, as dependence on biological offspring for care decreases. In sum, changes in fertility and parenthood patterns can potentially influence health and wellbeing later in life in a variety of ways. However, empirical studies on these influences are scarce, in part because these cohorts have not yet entered later life. Future work should consider how increased heterogeneity in family forms across socioeconomic groups may result in differential need for formal social safety nets.

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<sup>8</sup> L. Monte, *Multiple Partner Fertility Research Brief*, Current Population Reports P70BR-146 (Washington, DC: U.S. Census Bureau, 2017).

## Aging Without Children

*Tanya Koropeckyj-Cox, University of Florida*

In the United States, childlessness in later life was highest among women born in the 1950s and lowest among women born in the mid-1930s.<sup>9</sup> A small recent increase in childlessness among women aged 40 to 44 may reflect the effects of the 2008 recession.<sup>10</sup> Childlessness data are typically defined in terms of women who are not biological mothers (i.e., stepchildren are usually not considered when calculating childlessness rates). Levels of childlessness among women range widely across countries considered part of the SDT. For example, among women born in 1968, approximately 12 percent of Norwegian women are childless, compared with approximately 13 percent of American women and approximately 23 percent of German women.

Childlessness is also patterned by demographic and other factors, although these relationships have changed over time. In 1994, childlessness was concentrated among women with high education levels. Since then, the correlation between education and childlessness has decreased.<sup>11</sup> Highly educated women have greater access to fertility treatments, and increasing workplace supports may make childbearing easier for educated women. Between 1992–1994 and 2012–2014 there was some convergence in childlessness by race and ethnicity. During this time period, the percentage of childless women aged 40 to 44 decreased slightly among White women (from 18 to 17 percent), increased among Black women (from 13 to 15 percent), remained stable among Asian women (at 13 percent), and decreased among Hispanic women (from 13 to 10 percent).<sup>12</sup> The relationship between marital history and childbearing has weakened over time; the population of childless women is no longer predominantly single or late-marrying. For men, lower education and lower income is associated with a greater likelihood of being never-married, divorced, or childless.

Determining whether childlessness is voluntary or involuntary is a complex question. A relatively small number of people articulate a choice to be childless early in adulthood and remain stable in that choice. For others, childlessness is the result of changes in intentions, expectations, and circumstances (economic, relationship context) over long time periods. Issues of infertility and reproductive health may be undiagnosed, or treatment may be inaccessible. People differ in the degree to which they can act upon their choices, which complicates the meaning of “voluntariness” in this context.

Most research on the relative wellbeing of parents versus non-parents has found few differences in mortality, physical health, mental health, or subjective wellbeing. Other factors,

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<sup>9</sup> See “U.S., All races combined,” at Human Fertility Database, <https://www.humanfertility.org/cgi-bin/main.php>  
<sup>10</sup> <https://www.pewsocialtrends.org/2015/05/07/childlessness/>.

<sup>11</sup> G. Livingston, “Childlessness,” The Pew Center, available at <https://www.pewsocialtrends.org/2015/05/07/childlessness/#educational-differences-in-childlessness>.

<sup>12</sup> Pew Research Center, available at <https://www.pewsocialtrends.org/2015/05/07/childlessness/#racial-and-ethnic-differences-in-childlessness> and <https://www.pewsocialtrends.org/2010/06/25/childlessness-up-among-all-women-down-among-women-with-advanced-degrees/>. Calculations based on two-year averages of Current Population Survey data.

such as health, economic resources, partner status, and social ties, appear to have greater impact. Among the childless, SES and education shape preferences and often define access to options such as fertility treatments; parental wellbeing is affected more strongly by the quality and availability of relationships with children than by their mere existence. Cross-cultural research suggests that the locations with the fewest social supports are those in which childlessness has the largest implications for wellbeing in later life. Childlessness in the United States intersects with and amplifies other resource issues. Adult children can play an important role in providing or coordinating care and acting as health care advocates for elderly parents, especially those who are cognitively impaired or particularly frail. Elderly individuals with the least economic and social resources—including lacking adult children to help with their care—may be especially vulnerable.

### **Discussion: Future Directions**

#### ***Public policy, fertility, and family structure***

Policy impacts fertility by controlling access to fertility treatment. Some states require insurance plans to cover such treatments, while others do not. Incurring debt to access fertility treatment may have different impacts on families' wellbeing, depending on treatment success. The success rates of fertility treatment vary by number of attempts; in this way, too, better resourced families have greater opportunity. Welfare and other supportive public policies appear to have little effect on certain aspects of family dynamics, such as paternal involvement, which is more closely associated with paternal education and employment, as well as other economic factors.

#### ***Financial and health implications of childbearing and childlessness***

Childless women are more likely to maintain uninterrupted work lives, influencing pension size. Women's increased participation in the workforce has decreased their dependence on spousal retirement benefits. Conversely, childbearing could reduce the value of a woman's pension. However, research on this topic is limited, as is research on the impact of the timing of first birth on later life resources.

John Mirowsky has found a curvilinear relationship between one's number of children and one's health. As parents age, more children may translate into a larger support network. Esther Friedman's research has found that people with highly accomplished children live longer. Infertility, however, may be due to other health issues, which may carry elevated mortality risk, thereby shaping the relationship between childlessness and mortality.<sup>13</sup>

#### ***Implications of MPF for fathers and paternal grandparents***

Low-resourced men are less likely to have children but are more likely to have MPF if they are fathers. Because serial relationships are common, children of low-resourced men may not live with their fathers. The PSID, when asking adults about their adult children, identified several missed eligible subjects, likely because they were not living with their biological fathers at the

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<sup>13</sup> E.M Friedman and R.D. Mare, "The schooling of offspring and the survival of parents," *Demography*, 51(4), 1271–1293 (2014).

time of their birth. Available research suggests that low levels of paternal involvement in child-raising also predicts low involvement by paternal grandparents. However, physical distance may counteract this tendency; that is, grandparents who live near their grandchildren are more likely to be involved, even if the father is not. The Health and Retirement Study (HRS) captures grandparent involvement with grandchildren but does not differentiate between paternal and maternal grandparents.

### ***Health considerations of older childbearing***

Older mothers may be at greater risk of morbidity or mortality from childbirth, which also affects family resources and wellbeing. Data regarding complications from childbirth, pregnancy, and pregnancy loss are not available. Little is known about the impact of mental health complications, such as maternal depression or post-traumatic stress disorder resulting from adverse childbirth experiences, on later life. Those who have children at older ages tend to have greater financial resources later in life, yet they also become elderly while their children are relatively young and, therefore, are less able to provide support. How to achieve an optimal balance among these tradeoffs remains unclear.

### ***Other relationships of interest***

Data about family relationships other than those between biological mother and children are incomplete. More researchers are now including stepchildren in their studies but still tend to neglect nieces and nephews who may, nevertheless, play important roles in the lives of some childless women. The role played by a sense of obligation in these relationships is unknown. Other knowledge gaps include the impact of delayed childbearing on grandparent-grandchild relationships. Older parents may have greater resources, but the time grandchildren have with their grandparents is shortened. Cross-national research may help to identify how these factors combine or counter one another and how policy can mitigate negative outcomes. Estranged children may form a latent matrix of support; the 1980's National Family Health Survey included questions about the quality of parent-child relationships, as does the Add Health study.

### ***Other demographic factors of interest***

Race and ethnicity could be important factors in family structures and relationships, yet researchers have not gathered significant data on extended kin relationships. The National Health and Aging Trends Study (NHATS) might potentially provide relevant data about extended kin support, because it asks about assistance with daily living activities and about the relationship between the subject and the individual providing the help. However, NHATS does not capture key characteristics of the helper, including race or ethnicity. In addition, NHATS data contain gaps related to family structure because, for example, NHATS does not pose questions about stepchildren who do not provide assistance. Nor does NHATS capture data on GSM status.

As the social climate becomes more hospitable to GSM individuals, adoptions by same-sex couples or custody of children from previous heterosexual relationships may become more common. It will become increasingly important to capture the life history of relationships with children. In addition, immigration status and history may inform understanding of differences

in family structures. Family reunification allows foreign-born children to move to the United States to be raised by grandparents; similarly, older adults may move to the United States to care for their grandchildren. NHATS captures immigration data only for older samples.

## **Inter- and Intragenerational Relationships and Health**

*John Phillips, NIA, Moderator*

### **Consequences of the Second Demographic Transition on Generational Ties and Health**

*Emily Wiemers, University of Massachusetts-Boston*

Increases in life expectancy have reshaped American families. For example, adults are more likely to have living parents. Because the probability of having a child has decreased only slightly, approximately two-thirds of women in late middle age (ages 45–64) have at least one living parent or parent-in-law, and at least one child. Most White and Black U.S. households, even those headed by individuals aged 55 and older, are connected to three or more living generations (grandparents, parents, children). Racial differences are small, with Black households being more likely to have four or five living generations.

With changes in fertility and marriage patterns, step-kin relationships have become more common. Approximately 20 percent of U.S. households are connected to at least one stepparent, while approximately 10 percent are connected to at least one adult stepchild. Younger households are more likely than older households to be connected to step-kin; as these younger household occupants age, these step-relationships will become increasingly common. Step-kin increase family size, adding an average of approximately 66 percent more children and 20 percent more parents than households without step-kin connections (2013 PSID). Data from the PSID indicate that the increase in the *number* of family ties through step-ties does not mitigate the tendency for step-kin ties to be weaker (i.e., step-relationships between adult children and parents are less likely to involve transfers of time and money).<sup>14</sup>

However, time transfers are in general crucial to older adult health. In the United States, approximately 8 million adult children care for an older parent with health or functional limitations. Less-educated adults are less likely than their peers with a college degree to have parents who are in good health. In addition, Case and Deaton have shown that midlife mortality among White non-Hispanics without a college degree is increasing, thereby disproportionately eliminating potential family caregivers from the support networks of the most vulnerable elderly parents. This excess mortality in midlife also implies that the need for care is likely greater at an earlier age for less-educated adults. Among young adults without a college degree (ages 25–34), nearly one-quarter report having a mother in poor health, compared to approximately 15 percent of young adults with a college degree. Grandparents in poor health are less able to care for their grandchildren, increasing the strain on the “sandwiched” generation of parents.

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<sup>14</sup> E. Wiemers, J. Seltzer, R.F. Schoeni, V.J. Hotz, and S.M. Bianchi, “Stepfamily structure and transfers between generations in U.S. families,” *Demography*, 56(1), 229-260 (2019).

As researchers design future studies, they should consider the ways that family relationships affect the health of households. Direct support may be provided through transfers of time or resources or both. The strength or weakness of family ties, and the impact of shared experiences, also affect family health. To better understand differences by race, ethnicity, and SES, researchers should examine a range of adult ages. Some of the processes predicted in late middle age, such as the death of a parent or caregiving to a parent, occur in young adulthood for some families. If caregiving questions are only asked of women aged 45 years and older, researchers will have ignored the burden of caregiving carried by many younger households and parents.

### **Discussion: Future Directions**

#### ***The influence of geography and education***

Geography and education both play a role in SES and likely influence each other. The influence of geography may be multilevel: for example, what is considered a minimal distance in rural areas may be considered a burdensome distance in congested urban settings, especially if public transportation is limited or unavailable. It is unclear how rural and urban settings differentially influence intergenerational transfers among households and families. Demographic characteristics can also influence geographic distances between family members. For example, GSM individuals are more likely than non-GSM individuals to live farther away from their parents.

#### ***Step-kin complexities***

Studies that focus on the biological children of a married couple might include information about current stepchildren but not former stepchildren. Transfers are more likely in step-relationships if the biological relation (e.g., a biological mother and stepfather, biological children or stepchildren) is also present.

#### ***Patterns and meaning of co-residence***

Co-residence can serve as a means of transferring support among low-income and low-resource families. Several participants noted an increase in intergenerational co-residence among young adults and their parents but could not explain how this pattern is influenced by educational attainment. They noted that less-educated young adults may move back and forth between independent households and their parents, while recent college graduates may “boomerang” back to their parents’ households. The most affluent parents might provide financial support for their adult children’s independent households.

#### ***Racial and cultural disparities***

Racial disparities may exist regarding parent mortality. Relevant data for exploring this possibility may be available through the Survey of Income and Program Participation (SIPP). When data on a parent’s name and state of residence are available, death certificates might be located and used to determine a date of death. Other data sets that capture whether one’s parents are alive or dead could provide valuable linkages for this research.

Another racial difference relates to the intergenerational correlation of employment. An unemployed Black person is more likely to have unemployed family members than is an unemployed White person.

Because of compounded disparities in family structure and mortality patterns, Black women who delay marriage and childbearing may reach their 30s with no parents, partners, or children, resulting in a severe, and potentially long-term, lack of social support.

### ***Mapping new family structures***

Survey definitions of relationships may not reflect family attitudes and experiences—a former stepchild may no longer be included in a survey but may play a role within the family. Asked to provide a full family roster, respondents may not include all family members; respondent burden and estrangement might shape the response. Potential strategies for gaining better understanding of family structures and relationships include the following:

- Develop a pre-populated roster of known individuals within the family, which respondents can complete with additional information. HRS follows this approach in requesting pension data; most respondents are willing to complete a pre-populated grid.
- Similar to Agree and colleagues' existing approach, capture a family roster and ask questions about an individual's social network, because these data might be linked. Waite and colleagues begin with the social network and then capture the family members who are components of that network.
- Conduct a project (similar to that conducted by Rossi and Rossi in 1990) mapping the people to whom respondents feel obligated. This exercise may help to characterize the most salient relationships within families generally. A small project of this kind could inform the questions used in larger, ongoing surveys.

### ***Other potential sources of information***

Kathleen McGarry's research has shown that transfers from parents to children are uneven; the children with the most need consistently receive the most support from parents. Deborah Umberson's work points to important racial differences in the likelihood of experiencing the death of family members, and in the average age of onset for chronic conditions. The PSID may be an important source for these data, because it oversamples racial minorities. Rossi and Rossi's 1990 report on the relationships to which people felt obligated could be repeated with greater attention paid to cultural differences.

## **Recap of Day 1**

*Andrew Cherlin, Johns Hopkins University*

The power of the SDT theory may be waning, as evidenced by trends such as the U.S. college-educated population and the GSM population pursuing marriage in ways that the SDT does not predict or explain. Similarly, the GR theory may be useful for the college-educated population in the United States, but non-college-educated U.S. households are not achieving the new family balance that the GR predicts.

While differences by gender, race, ethnicity, and immigration status remain important factors to track and follow, the emerging demographic division by education is perhaps the most significant. Demographers may need to start conceptualizing U.S. families as belonging to two distinct subgroups: college-educated and non-college-educated. College-educated Americans marry later in life, have children within marriage, and divorce at decreasing rates. Non-college-educated Americans marry less frequently and have more children outside of marriage. Most of the increase in non-married fertility has occurred among couples in cohabitating unions, which dissolve at much higher rates in the United States than in Europe. Cohabitating unions in the United States last longer than before: roughly one-half last for approximately 5 years. However, cohabitating parents still tend to provide less stability for children than do married parents. GSM populations appear to be choosing marriage, although this pattern may change over time. The United States continues to experience greater relationship churn, including divorce, than other Western countries, which constitutes an important subject for further study.

Other trends may also contradict the predictions of the SDT and GR theories. For example, intergenerational exchanges and care appear to have remained steady despite SDT- and GR-based predictions. Indeed, decreased rates of adult mortality appear to have offset other trends that researchers predicted would lower overall rates of such intergenerational transfers. Men are more involved than previously with childcare, which could be leading to more stable and egalitarian relationships. LAT appears to be emerging as a relationship choice among older people, and individuals in LAT relationships appear to receive as much support as those who live with partners or spouses. LAT is one example of a novel familial structure that research suggests may emerge in later life to compensate for some of the challenges predicted by SDT and GR theory. These unexpected findings should caution investigators against believing that they can predict what demographic shifts will occur during the coming decades.

Although aging cohorts may not face circumstances as dire as those predicted by the SDT, certain populations could experience some short-term challenges. For example, individuals who will turn 65 during the next few years will be the first 65-year-olds to have been directly affected (as young adults) by the economic downturn of the 1970s. They will therefore enter old age with fewer resources than previous generations. The levels of family support they will receive may depend on emerging patterns in cohabitation. While cohabitating relationships typically lead to marriage among college-educated couples, they typically dissolve among non-college-educated couples. However, LAT relationships and new patterns of support among GSM populations may emerge as sources of enduring stability for such couples.

### ***Implications for future research***

The SDT framework, although useful, is inconsistent with the appearance of new kinship patterns. Investigators must determine what kinds of new relationship patterns are emerging (e.g., increases in step-kin relationships) and their implications, including the effects these patterns might have on children. Further questions for future research include the following: How strong are various kinds of nonbiological relationships? How strong are kinship relationships formed outside of marriage? Are fathers becoming increasingly involved in child-

raising? Which unconventional family structures provide robust systems of support? Do levels of paternal involvement differ among groups? Does shared custody improve father-child relationships? How do answers to these questions vary as a function of demographic characteristics such as education level or occupation?

Investigators will require a variety of study types to address such questions and related concerns. In addition to large longitudinal studies, smaller studies will be valuable for exploring the support structures provided by individuals in LAT relationships and those who never marry. Investigators might also use network-based studies to gather data on sibling relationships, similar to how Nicholas Christakis once used data from the Framingham study to map social networks that captured the spread of smoking and obesity. In addition, novel approaches may be needed to study the GSM population and the marked rise in bisexual identification.

## **Open Discussion**

### ***Education***

The SDT framework may not be applicable to non-college-educated individuals. Rather than being driven by individualism, their relationships appear to have been shaped by economic challenges. As college education continues to become more common, the disadvantages of not attaining a bachelor's degree will become exacerbated. Such disadvantages may affect families in surprising ways as women's rates of college education rise more rapidly than men's.

### ***Homeownership***

Homeownership has large implications for wealth. Homeownership rates reflect racial and ethnic disparities created by red-lining policies and other discriminatory practices. The impacts of disparate access to homeownership—along with other forms of economic inequality—also varies geographically. In some areas, homeownership is out of the reach of most people, whereas in other areas with failing economies, families can become “stuck” with a home purchase.

### ***Step-relationships***

More data are needed to better understand step-relationships and their implications for caregiving. The timing of the formation of a step-relationship may affect its strength; delayed adulthood increases the time that stepchildren and stepparents have available to develop their relationship. Necessity might also alter predicted dynamics of intergenerational caregiving: stepchildren may provide support when there are no alternatives.

### ***Public policy and family structures***

Public policies impact family structures and may explain some of the differences between Europe and the United States. Health insurance and taxes are related to marriage status in the United States more than they are in Europe. The United States privileges biological kinship over other types of kinship, and divorce laws provide protections to married individuals and their children, which are not provided to cohabitating families. Welfare supports, such as the Earned Income Tax Credit, are not linked to work in Europe, as they are in the United States.

Certain policy changes in the United States may help to stabilize cohabitating relationships, support children's wellbeing, and better institutionalize step-relationships.

## Data and Methods

*Linda Waite, University of Chicago, Moderator*

### **Linking the 1940 U.S. Census to Records from 5 Surveys of Older Americans**

*John Robert Warren, University of Minnesota*

With support from the National Institute on Aging (1R01AG050300-01A1), Warren and his colleagues at the Minnesota Population Center have linked data from the 1940 U.S. Census to data from five modern aging studies: the HRS, the PSID, NSHAP, NHATS, and the Wisconsin Longitudinal Survey (WLS). These linked records provide supplemental information about the early lives of the current elderly. Complete count 1940 Census data are entirely public, including proper names and exact addresses; survey respondents are typically located living with their parents and other family members. Individual and family measures can be aggregated at the enumeration district, city, county, or state levels. John Logan at Brown University has coded the spatial coordinates of urban households in most cities in 1940, which allows for aggregation by neighborhood (and provides flexibility in defining neighborhoods). Linked survey-census data can also be merged with external data regarding, for example, city water quality, state laws and policies, or disease outbreaks. Thus it is possible to examine the impact of childhood contextual, socioeconomic, familial, policy, and other context on later-life outcomes as observed in modern surveys. Currently ongoing substantive studies include an analysis of the relationship between municipal water lead levels in childhood and later-life cognition and health outcomes; analyses of the impact of participation in New Deal Work Progress Administration (WPA) projects on children's life outcomes; and analyses of the effects of infectious disease exposure on old-age mortality. However, these ongoing studies are just examples of the kinds of innovative analyses that can be conducted using these linked records. It is conceptually possible to link records from these and other modern surveys to records from the 1930, 1920, and earlier censuses.

The complete-count 1850 through 1940 censuses have been digitized; data other than names are freely available on the [Integrated Public Use Microdata Series website](#). Versions of the complete count data that include proper names can now be accessed through most universities; researchers at universities without current access can [apply for access](#).

Linked 1940-WLS data are available via a restricted-use data agreement at the [Wisconsin Longitudinal Study website](#). Data from the 1940 Census linked to the HRS, PSID, and NHATS surveys will be available through the Michigan Center on the Demography of Aging. Linked 1940-NSHAP data will be available through NORC at the University of Chicago.

## Discussion

The data available through these linkages vary by census wave and by the data elements collected in the modern surveys. Fertility information, for example, was captured in the 1920 census, but not in the 1940 census. Attempts to link NSHAP were least successful in capturing

early-life name. The PSID only links male respondents because it does not capture women's names at birth. Linking census waves and adding link-supportive questions to future iterations of the aging surveys will enable additional linkages. As optical character recognition improves, more records will be available for these types of linkages, possibly including military records, birth and death certificates, and marriage records.

Further analysis of linkages and linkage failures may enable researchers to identify individuals who were not captured in the sample. Non-respondents might be considered to have selected out of linkage. Data on African Americans have proven more difficult to link, because of confusion about names and dates of birth. Individuals who move frequently may be more likely to fall out of the sample.

### **Data Sources for Family Studies with Sexual and Gender Minority Populations**

*Bridget Gorman, Rice University*

The GSM population comprises a relatively small segment of the total population, although self-identification as GSM is increasing over time. Younger people are more likely than older people to identify as bisexual, and to see this as a stable identity. Most available research on GSM individuals is based on self-identification alone and does not address attraction or behavior. Self-identification varies by culture and almost certainly underestimates the GSM population. The willingness of individuals to identify as GSM may shape socio-demographics related to other factors, such as health. More than 2.4 million LGBT adults aged 50 and older live in the United States. By 2030, this population is expected to grow to more than 5 million. Health risks among sexual minority older adults include elevated participation in unhealthy behaviors, such as smoking, elevated stress, and lower levels of social support. Bisexual individuals may be at greatest risk.

A 2011 report by the Institute of Medicine titled *The Health of Lesbian, Gay, Bisexual and Transgender People* concluded that GSM health research is sparse and clustered around a few key health conditions (e.g., HIV among gay men, breast cancer among lesbians). This research is often based on non-probability samples and typically cannot differentiate across types of sexual minority populations. Sexual minority health research may not include comparisons to heterosexuals and usually does not evaluate how GSM identity interacts with other characteristics known to influence health and medical care use (e.g., race).

NHIS began asking about sexual orientation in 2013. From a total sample of nearly 34,000, fewer than 1,000 gay, lesbian, and bisexual individuals were identified. Multivariate analyses of detailed identity groups based on samples of this size require stacking years of repeated cross-sectional waves. Over time, these data will improve—but they remain limited by their focus on identity and neglect of behavior or attraction. Since 1997, NHIS has included an “unmarried partner” category in its household roster. These data provide a potential way to identify same-sex cohabitating partners. Aggregated data for 1997 through 2008 identified 460,459 adults living in partnered relationships, including 3,219 same-sex couples.

Through the Behavioral Risk Factor Surveillance System (BRFSS), 40 states have asked about sexual orientation at least once between 2011 and 2017; these data constitute a sample of

approximately 40,000 gay or lesbian individuals and approximately 18,000 bisexual respondents. The BRFSS offers a geographically diverse and probability-drawn sample, and provides robust information on demographic characteristics, SES, health behaviors, and various aspects of physical health. However, the BRFSS contains limited psychosocial information and no information on minority stress, discriminatory experiences, internalized homophobia, LGB-specific support, the dynamics of family formation, or transitions with aging.

The American Association for Retired Persons conducted a survey of LGBT adults aged 45 and older in 2017. Patterson and colleagues (2017) identified 43 national, regional, and international sources of data on GSM populations; 34 of these are probability based. Most are U.S. based, although the United Kingdom and Australia also conduct surveys that address GSM. California leads in GSM data collection at the state level, with multiple surveys addressing GSM identity; many such California surveys are youth based. The BRFSS and NHIS are the leading nationally representative surveys.

Significant gaps in knowledge remain about the growing bisexual and transgender populations. Although data are available about bisexual identity and marriage, qualitative studies do not ask whether the spouse is also bisexual, or whether the respondent identified as bisexual before or during the marriage. Understanding these dynamics could potentially reveal important stressors affecting certain subsets of the bisexual population. Meerwijk and Sevelius (2017) identified five population-level datasets reporting transgender identity between 2006 and 2016. One of these, the National College Health Assessment, reports a four-fold increase in rates of transgender self-identification during this period. These results suggest that some of the socio-demographics influencing self-identification may be in flux and are not well understood.

### **Discussion: Future Directions**

Bisexual identity does not imply multiple partners, but the assumption that it does may contribute to the stigma attached to the label. Shifting identities and terminology pose challenges for researchers: as meanings shift, responses may change in reaction to the language. Terminology and meaning are also likely to differ by culture.

The potentially fluid nature of GSM identity poses another set of challenges. A respondent may report how they identify in any given survey, which does not indicate whether they have identified or will identify differently at another time. Questions of relationship history or identity history may be the only way to track and understand this fluidity. Such questions may also help investigators understand to what extent trends such as low marriage rates among GSM individuals are due to public policy (e.g., bans on gay marriage) versus personal choice (e.g., rejection of marriage as a stereotypically heteronormative institution). One study by Reczek and colleagues addressed current, previous year, and lifetime relationship behavior. Respondents who currently identify as heterosexual but who have previously had same-sex partners scored highest on health and happiness risk measures.

Several researchers have sought to identify questions characterizing GSM status that could be effectively implemented across multiple surveys and agencies. It is important to weigh the trade-offs between (1) gathering descriptive data from large samples using a small set of questions on longitudinal surveys and (2) gaining a deeper understanding of the issues facing the GSM population through qualitative studies that use smaller samples.

The American Community Survey has identified 16,000 same-sex couples since 2013. These data could potentially be linked to Medicare and Medicaid records through the Research Data Centers.

## **Putting It All Together: Mechanisms Linking Relationship and Fertility Histories, Inter- and Intragenerational Family Relationships to Later-Life Health and Wellbeing**

*Emily Agree, Johns Hopkins University, Moderator*

### **Financial Mechanisms Linking Family/Relationship Histories to Later-Life Health**

*Christopher R. Tamborini, Social Security Administration*

Financial outcomes are influenced by family structure in ways that can be protective or detrimental to health in later life. Work histories, earnings, household income, and wealth are associated with an array of health outcomes in later life including access to health insurance and services. Financial resources are also associated with behavioral risk factors, housing, stress, and coping. In the context of increasingly complex relationship trajectories, research that aims to understand how family and relationships over the life course affect long-term economic outcomes important to health becomes more valuable. The different patterns of relationship formation by SES remain an area of concern.

Marriage is associated with lower poverty, higher retirement savings, and less financial risk. As an example, the poverty rate is substantially lower (approximately 3 to 4 percent) among married elderly than among divorced elderly (approximately 16 to 18 percent). Continuous marriage over the life course is associated with greater economic advantages. The financial advantages of continuous marriage may be intergenerational: recent research shows that individuals who lived continuously with both parents as a child benefit from positive wealth effects. Divorce is related to poorer health over the life course, on average. Research tells us that divorce is also associated with negative financial outcomes, especially for women. Women fare worse than men financially after divorce, with a relative income drop estimated at 30–40 percent. Women are at a higher risk of poverty and of losing health insurance than are men after divorce. Moreover, a higher number of relationship dissolutions is negatively associated with wealth, particularly in mid to later life. These patterns, in turn, have potentially negative implications for the health of individuals who experience marital dissolution. Yet, divorce can also raise paid work and earnings for women.

Tamborini and colleagues have identified an offsetting pattern: divorce appears to precipitate increases in women's earnings. Even as much as 12 years' post-divorce, divorced women earn more than continuously married women. However, this effect appears to be weakening in

more recent cohorts. Given the increasing family complexity associated with the SDT, understanding the financial consequences of cohabitation is increasingly important. Generally speaking, cohabitation is associated with lower income and wealth gains than marriage, although cohabitation can lead to long-term wealth accumulation for persons who marry their only cohabitating partner. Cohabitation dissolution may be an increasingly important life event for a person's financial trajectory and, thus, later life health. Recent research shows that cohabitation dissolution in more recent cohorts is associated with substantive economic losses, compared to previous cohorts. How such financial consequences may impact later-life health is an area of interest for future work.

### **Caregiving During the Second Demographic Transition and Beyond**

*Mieke Thomeer, University of Alabama at Birmingham*

Approximately 22 percent of U.S. adults report providing care to a friend or family members in the past 30 days. Most adults provide care for at least one ill or disabled adult at some point in their lives, and many do so multiple times over their life course. Informal family caregiving has been estimated to be worth \$470 billion, which exceeds total Medicaid spending. Family caregiving is a critical part of the national health care system. Nursing home populations, as a percentage of the older adult population, peaked in the 1990s and have since declined. Family caregivers are completing more medical tasks than they were previously.

The median age in the United States is higher than ever before, at 38. By 2035, adults aged 65 and older are projected to outnumber children (under 18). The "potential support ratio" (i.e., the number of people aged 20 to 64, relative to those aged 65 and older) fell from 10:1 in 1910 to 4.6:1 in 2014. While lifespans have increased, evidence for the "compression of morbidity" (i.e., the hypothesis that time spent ill across the life course can be reduced by delaying onset of first chronic illness) is mixed. The duration of caregiving has increased: approximately 45 percent of caregiving arrangements reported during 1999 lasted 4 or more years, compared with nearly 61 percent of caregiving arrangements reported during 2015. Mid-life adults are providing less care to their parents than in the past, but they are providing this care later in life and for longer periods than previously.

The SDT has potential implications for family caregiving. Families having fewer children and experiencing more divorce may result in fewer available family caregivers. Research has shown that parents with more children receive more care than parents with fewer children. The ratio of potential caregivers to persons aged 80 and older was 7:1 in 2010; this ratio is projected to drop to 4:1 by 2030, and to 3:1 by 2050. The share of older adults living alone increased from approximately 6 percent in 1900 to approximately 29 percent in 1990. Living alone at older ages is related to a greater risk of poverty and isolation.

As the availability of traditional caregivers has decreased, there has been an increase in nontraditional caregivers, through cohabitation, blended families, LAT relationships, and families of choice. The commitment to care among these families is not yet clear. While "care unto death" is understood as an obligation of marriage, cohabitating partners are less likely to receive care from partners. LAT relationships may be chosen to avoid the obligation to provide

care. Stepchildren tend to live geographically farther from stepparents and are less likely to provide care to stepparents than biological children. Previous studies have found that biological children are less likely to provide care to parents if stepchildren are present.

Those who do function as caregivers have less time available for caregiving than those in the past. More than one-half of today's caregivers are employed, and 61 percent request some form of workplace accommodation for caregiving. Caregiving is associated with a reduction in wages. As adult children require more care, women in mid-life may find themselves "sandwiched" for longer periods by the simultaneous burdens of caring for parents and children. As the onset of caregiving is delayed due to longer life expectancies, the likelihood that caregivers will themselves develop adverse health conditions increases.

Increasing caregiving by men may mitigate a caregiving crisis. The gender gaps in care by both spouses and children are decreasing. Research has found that care is provided when needed, despite challenges and ambivalence. Partners in LAT and cohabitating relationships provide care, as do GSM children who have strained relationships with parents. Friends also provide care to one another, particularly in GSM contexts. The burden of caregiving may be decreasing; spousal caregivers provided fewer hours of care and were less likely to report substantial emotional, physical, and financial difficulty in 2015 than in 1999. The use of respite care nearly doubled during the same period. Some evidence suggests that being employed while caregiving may be beneficial to health, perhaps because it reduces role engulfment (i.e., the tendency for a single role played by an individual—such as "caregiver"—to become that individual's dominant identity).

Research priorities in the area of caregiving include better understanding of who fulfills caregiving roles as families become less traditional, and how caregiving roles might shift across the life course. More information is also needed regarding how the distribution of caregiving across families reflects, reduces, or exacerbates health disparities based on gender, SES, race/ethnicity, and sexual orientation. It is also important to identify which individuals are most vulnerable and without care: LGBT older adults and older men who live alone are among those least likely to be able to identify potential caregivers. Future research should also investigate how to provide effective support for caregivers, how gender shapes caregiving, and what patterns of caregiving emerge among GSM couples.

## **Closing Discussion**

*Amelia Karraker, NIA, Moderator*

### ***Demographic fluidity and future research***

Family structures and the roles of individuals within them have changed profoundly in the past several decades, and demographers do not yet fully understand the implications of these changes for later-life health. Previously distinct categorizations, such as gender and race, are changing over time. These shifts challenge demographers to determine how and when to begin to capture data to describe them. Researchers must determine what data can be collected now to capture how these changes will impact younger cohorts as they age.

A study updating Rossi and Rossi's 1990 exploration of the obligations that people feel may help investigators to better understand new family structures, including who "counts" as family, is also needed. Smaller-scale interviews of individuals in LAT relationships may provide insight into emerging profiles of relationship expectations. Relationship and economic histories may be valuable in describing selection and causality through the life course. Retrospective reports of where respondents have lived geographically can provide data for linkages to other kinds of data sources, such as census and municipal records. Moreover, various longitudinal surveys capture relevant life history data (e.g., the HRS and, to a lesser extent, the PSID ). Ongoing surveys, such as NSHAP, can trace transfers. Racial and ethnic differences, as well as differences by SES, should be considered in all ongoing efforts.

### ***Employment***

Much remains unknown about the relationship between employment type and caregiving, whether for children or for elderly parents. Jobs with the greatest flexibility in hours are also those with the largest wage gaps between mothers and non-mothers; it is likely that these same occupations also levy the greatest caregiving wage penalty. U.S. policies differ in important ways from European policies. U.S. employers are less likely to provide pay during absences for caregiving, and family leave policies generally require advance notice. Evidence from Sweden shows that increased flexibility in taking family leave increases utilization of that leave, including by men.

### ***Changing family roles and relationships***

As family structures shift over time, investigators might spend more attention on family roles that have in the past received relatively little. Dynamics among siblings' caregiving for parents have not been well studied. In some cases, one child provides care, while others provide financial support. Evidence suggests that direct financial transfers between siblings is uncommon; the child who suffers a wage penalty for caregiving is unlikely to be compensated by siblings. Information derived from the HRS might enable researchers to better understand these dynamics. The PSID may be useful in researching grandparents' changing roles in their grandchildren's lives. For example, researchers could use the PSID to explore the effects of involuntary family change, such as when grandparents lose contact with grandchildren because of either parental divorce or cohabitation dissolution. The role of former spouses in seeking or offering caregiving is also of interest yet is difficult to assess using current studies.

### ***Caregivers***

The National Survey of Caregiving (NSOC) may provide valuable information about caregivers and their relationships with care recipients. NHATS includes questions about help received in activities of daily living; NSOC collects data from individuals identified in NHATS as providing this care. A range of caregivers has been identified, from those providing intense support and medical care to those providing minimal assistance. Cross-referencing NHATS family rosters allows researchers to identify familial relationships between caregivers and care recipients. Three waves of the caregivers' survey have been conducted; the most recent two waves are longitudinal.

***Life Course Perspectives on Disease and Caregiving***

If researchers adopt a life course perspective toward disease and caregiving studies, they may be able to address several existing knowledge gaps in the field. For example, most caregiving studies enroll individuals aged 65 years or older, because most caregiving occurs during older age. However, this approach prevents researchers from gathering detailed information on the earlier-life caregiving experiences of enrollees. In addition, some individuals, such as those with developmental disabilities, injuries, or progressive neurological conditions, may require family caregiving earlier in life and for many years. Researchers should investigate such families in more depth, for example by studying how long-term caregiving affects parents as they age. Other knowledge gaps that a life course perspective could fill include whether—and how—those individuals with developmental disabilities, injuries, or progressive neurological conditions can care for aging relatives.

***Additional areas of interest***

Debt may play a role in family relationships, particularly student loan debt. Researchers are exploring the effect of debt on the likelihood of marriage and delayed fertility. They might also explore the impact of debt upon health, through stress or reduced consumption of health services.

Suicide rates among midlife adults are increasing. This pattern may intersect with the SDT, if individuals who lack family or financial supports for aging regard suicide as their only option.

## Appendix 1. Meeting Agenda

### DAY 1: WEDNESDAY, MAY 29, 2019

<b>9:15 a.m.</b>	<b>Welcome, Introductions, and Workshop Goals</b>	Amelia Karraker John Haaga
<b>9:30</b>	<b>Session 1: Theoretical and Empirical Background</b>	Emily Agree Moderator
	<i>This session will introduce the concept of the Second Demographic Transition with a focus on what it means for aging and health. Key broader issues might include increasing heterogeneity and inequality across families, intrafamily and intergenerational dynamics, as well as the gender revolution and changing gender roles.</i>	
9:30	Second Demographic Transition Overview	Fran Goldscheider
9:50	Q&A and Discussion	
<b>10:10</b>	<b>Session 2: Relationship Histories and Health</b>	Corinne Reczek Moderator
	<i>This session will examine how aspects of the Second Demographic Transition that relate to marital status and relationship histories such as increases in cohabitation, relationship churning, and never-marriage may affect later life health.</i>	
10:10	Relationship Formation and Dissolution, Never Marriage	Linda Waite
10:30	Gender and Sexual Minority Relationships across the Life Course	Corinne Reczek
10:50	Discussion: Future Directions	
<b>11:35</b>	<b>LUNCH</b>	On your own
<b>1:00 p.m.</b>	<b>Session 3: Fertility Histories and Health</b>	Juanita Chinn, NICHD Moderator
	<i>This session will focus on how changing relationship contexts in which individuals' fertility histories unfold (non-marital, non-partnered, multi-partnered) as well as changes in the timing and parity of birth—and whether one becomes a parent at all—may influence later life health.</i>	
1:00	Parenthood	Marcy Carlson
1:20	Childlessness	Tanya Koropecjy-Cox
1:40	Discussion: Future Directions	
<b>2:25</b>	<b>BREAK</b>	

<b>2:45</b>	<b>Session 4: Inter- and Intragenerational Relationships and Health</b>	John Phillips Moderator
	<i>This session will survey how relationships between and across generations within families have changed as the Second Demographic Transition has unfolded and what this means for health and how changes in these family ties link the fates of generations together given present social conditions.</i>	
2:45	Multigenerational/Stepfamilies	Emily Wiemers
3:05	Discussion: Future Directions	
<b>3:50</b>	<b>BREAK</b>	
<b>4:00</b>	<b>Day 1 Summary</b>	Andrew Cherlin
	<i>Day 1 cross-cutting themes recap and highlights of areas that have not been adequately addressed.</i>	
<b>4:30</b>	<b>OPEN DISCUSSION</b>	
<b>5:00 p.m.</b>	<b>ADJOURN</b>	

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**DAY 2: THURSDAY, MAY 30, 2019**


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<b>9:00 a.m.</b>	<b>Welcome</b>	Amelia Karraker
<b>9:05</b>	<b>Session 5: Data and Methods</b>	Linda Waite Moderator
	<i>This session will highlight unique data sources (contextual, administrative, biological) that facilitate understanding the complex relationships between families and health across time and space as well as capture the experiences of diverse populations.</i>	
9:05	1940 Census Linkages	Rob Warren
9:25	Data Sources for Family Studies with Sexual and Gender Minority Populations	Bridget Gorman
9:45	Discussion: Future Directions	
<b>10:30</b>	<b>Session 6: Putting It All Together: Mechanisms Linking Relationship and Fertility Histories, Inter- and Intragenerational Family Relationships to Later-Life Health and Wellbeing</b>	Emily Agree Moderator
	<i>The concluding session will consider how relationship and fertility histories and inter- and intragenerational ties impact later life health with a focus on specific mechanisms.</i>	
10:30	Financial Well-Being and Employment	Chris Tamborini
10:50	Caregiving	Mieke Thomeer McBride
11:10	Closing Discussion	Amelia Karraker Moderator
<b>12:00 p.m.</b>	<b>ADJOURN</b>	

## Appendix 2. List of Participants

### Meeting Organizers

Emily Agree, Johns Hopkins University  
Amelia Karraker, National Institute on Aging (NIA)  
Sara McLanahan, Princeton University  
Corinne Reczek, Ohio State University  
Linda Waite, University of Chicago

### Invited Speakers

Marcy Carlson, University of Wisconsin-Madison  
Andrew Cherlin, Johns Hopkins University  
Frances Goldscheider, University of Maryland  
Bridget Gorman, Rice University  
Tanya Koropecjy-Cox, University of Florida  
Christopher Tamborini, Social Security Administration  
Mieke Thomeer, University of Alabama-Birmingham  
Rob Warren, University of Minnesota  
Emily Wiemers, University of Massachusetts, Boston

### Participants

Regina Bures, *Eunice Kennedy Shriver* National Institute of Child Health & Human Development (NICHD)  
Juanita Chinn, NICHD  
Rebecca Clark, NICHD  
Prisca Fall, NIA  
Elena Fazio, NIA  
John Haaga, NIA  
Joan Kahn, University of Maryland  
Jonathan W. King, NIA  
Laura Major, NIA  
Lisbeth Nielsen, NIA  
John W. R. Phillips, NIA

### Contractor Staff (Rose Li and Associates, Inc.)

Melissa Capers, Science Writer  
Rose Maria Li, Project Director  
Greg Richards, Meeting Assistant