Demography and Social Inequality

ANETTE E. FASANG

Abstract

Population processes, that is, fertility, migration, and mortality, are closely intertwined with social stratification and mobility from one generation to the next. There is some indication for an emerging trend toward a stronger integration of previously more separate research communities in demography and social stratification research. The author discusses three promising avenues for future research to generate new insights into the interplay between population processes and social inequality: (i) Demographic change and political processes, (ii) Long time horizons across the life course and multiple generations, and (iii) Implications of digitalization and technological change.

INTRODUCTION

Demography as an interdisciplinary field of study is concerned with population structure and its three core constitutive processes: fertility, mortality, and migration. Research on social stratification focuses on the distribution of valued resources within and between societies, the mechanisms that generate these distributions and transmit advantage and disadvantage across generations. Links between population structures and social stratification are multifarious. One has to be born and alive to participate in any other form of social inequality. Differential mortality might be considered the most extreme form of social inequality. Socioeconomic resources are strong predictors of fertility and family complexity, migration, as well as aging and mortality. Whether social differences related to demographic behavior are normatively considered just or unjust is another question. Being in constant flux, the mutual relationships between social inequality and population processes are bound to change over time and vary between cultural and institutional contexts.

Classic thinkers in demography and sociology were motivated by questions about the links between population processes and social stratification. Malthus (1798) painted a bleak picture of "vice and misery" that would necessarily limit population growth due to the merely arithmetic

Emerging Trends in the Social and Behavioral Sciences.

Robert A. Scott and Marlis Buchmann (General Editors) with Stephen Kosslyn (Consulting Editor).

^{© 2018} John Wiley & Sons, Inc. ISBN 978-1-118-90077-2.

growth of subsistence against the exponential growth of population. Resource scarcity would trigger epidemics and social conflict and thereby keep population growth within certain limits. Malthus arguably underestimated the power of technological change to increase subsistence exponentially, but climate change, violent conflicts, and epidemics as HIV-AIDS render his population pessimism as relevant today as 200 years ago. For Durkheim (2005 [1897]), social cohesion and solidarity were important predictors of suicide mortality, linking the fabric of the "social" to a demographic outcome. Engels (2015 [1884]) framed the rise of the monogamous nuclear family as an important precondition for patriarchal capitalism. Nuclear families secured the inheritance of property from fathers to sons and facilitated the exploitation of workers through the unpaid care work of mothers and wives. Robert Easterlin's (1976) theory of cyclical fertility linked the micro and macro levels to connect intergenerational social mobility and fertility levels. He assumed that aspirations for consumption are formed in the family of origin and that larger birth cohorts face more intense competition among each other than small cohorts.

Despite numerous overlaps in terms of disciplinary history, substance, theoretical background, and methods, demography and social stratification research form somewhat separate research communities. Yet, publication and conference activities suggest that the overlap between these two research communities has increased in recent years. Judging by citations, studies that examined to what extent demographic behavior is driving increasing income inequality (McLanahan & Percheski, 2008; Western, Bloome, & Percheski, 2008) and creating "diverging destinies" for children's future (McLanahan, 2004) have attracted broad attention. Similarly, Mare (2011) prominently promoted a multigenerational view on inequality that accounts for the "tandem nature of demographic and social reproduction," while Goldthorpe (2016) recently elaborated an understanding of "Sociology as a Population Science."

Conference themes of central research networks in both fields point to increasing interest in the interplay between population processes and social inequality. Two recent conferences of the International Sociological Association (ISA) Research Committee 28 on Social Stratification and Mobility (RC 28) for the first time included "population," "demography," or "demographic" in their conference theme (2015 and 2017).¹ The European Consortium for Sociological Research (ECSR) themed its 2016 annual meeting "Social Stratification and Population Processes in European Societies"² and launched a new series of thematic conferences with a meeting on

^{1.} https://sites.google.com/site/rc28hp/events/previous

^{2.} http://www.ecsrnet.eu/forthcoming-conferences

"Demography and Social Inequality".³ Similarly, the 2018 European Population Conference (EPC) is the first in the history of the EPC to explicitly include "inequality," "social mobility," or "stratification" in its conference theme.⁴ Several presidential addresses at the annual meeting of the Population Association of America (PAA) in the past 10 years had an explicit link to social inequality (2010, 2012, 2014, 2015).

There are many important avenues for future research, including biosociology and genetically sensitive analyses, the rapidly developing field of wealth inequality research, or time use studies to illuminate the micro-mechanisms that connect population processes and social inequality. The author will focus on three additional emerging trends in research on the interplay of population processes and inequality that seem particularly promising: (i) Demographic change and political processes; (ii) Long time horizons across individual life courses and multiple generations, and (iii) Implications of digitalization and technological change.

DEMOGRAPHIC CHANGE AND POLITICAL PROCESSES

Political processes, including voting, partisanship, and interest group formation set the stage for the distribution and redistribution of resources within and across generations. Voting is a crucial mediating process through which demographic change can affect social stratification and mobility in the long-term. To date, social demographers have largely ignored outcomes related to political processes, whereas political scientists rarely go beyond including standard sociodemographic controls in their analyses. Against the backdrop of recent demographic and political developments, established approaches to explain voting behavior, government formation, and policy making, such as welfare regimes, varieties of capitalism, and class-based voting no longer seem sufficient to account for shifts in voter demands and current social and political challenges. Demographic change creates new lines of conflict that seem increasingly relevant to explain political attitudes, preference formation, and voting (Busemeyer, Goerres, & Weschle, 2009; García-Albacete, 2014; Pardos-Prado, Lancee, & Sagarzazu, 2014). The author will briefly discuss how three demographic trends might affect political processes: population aging, racial/ethnic diversity, and increasing family complexity.

^{3.} http://www.ecsrnet.eu/thematic-conferences

^{4.} https://www.eaps.nl/scientific-activities/european-population-conferences

POPULATION AGING

Population aging is tilting relative voting power to older age groups and older individuals tend to have higher voter turnout compared to their younger counterparts (Sanderson & Scherbov, 2007). At the same time, intergenerational cleavages were core lines of division in recent elections as demonstrated, for example, by the Brexit referendum (Kelly, 2016). In contrast to this aggregate intergenerational political polarization, previous research has shown that within families, parents and their children tend to have more similar political attitudes and party identification (Kroh & Selb, 2009). How does intergenerational political consensus and disagreement play out within families? Is there a trend toward weaker intergenerational transmission of political attitudes or is intergenerational political conflict only elevated for specific birth cohorts of parents and children due to their unique sociohistorical experiences? If it really exists, how will heightened intergenerational political conflict affect electoral outcomes as well as intergenerational transfers, solidarity, inheritance, and caring within families? A related question is, whether population aging will result in intergenerational conflicts and age-graded competition over scarce resources (Binstock 1974; Busemeyer et al., 2009). Public discourse tends to paint a bleak picture of looming intergenerational wars (Leonhardt, 2012), while research rather supports a remarkable flexibility and resilience of intergenerational solidarity within families to changing contextual conditions, even during large-scale social transformations exemplified by China in the past decades (Gruijters, 2017). The standard assumption that individuals strictly vote on issues pertinent to their own age group seems naïve in view of emotionally close intergenerational family ties. Grandparents might fully support childcare policies that enable their adult children to combine work and family, whereas young adults might readily favor generous old-age pensions if a substantial amount of these pensions ends up in their own bank accounts as birthday or holiday gifts (Leopold & Schneider, 2011).

MIGRATION AND RACIAL/ETHNIC DIVERSITY

Ethnic and racial identities seem to replace traditional class-based voting patterns in some affluent democracies. For instance, white racial identity overruled class-based voting patterns for many less-educated whites in the election of Donald Trump (Case & Deaton, 2015). White grievance politics are seen as a backlash of the achievements of the civil rights movement and a reaction to changing population composition with the imminent loss of majority status of non-Hispanic whites in the United States (Hochschild, 2016). The current success of anti-immigrant parties in Europe as the Alternative für Deutschland (AFD), the French Front National (FFN) or the

Austrian Freiheitliche Partei Österreichs (FPÖ) builds on the most recent influx of refugees. Recent research is increasingly turning to social cleavages between ethnic groups and their impact on partisanship and electoral outcomes (Frey, 2015; Ramakrishnan, 2005). How will voting behavior of naturalized, second-, and third-generation immigrants shape electoral majorities in the decades to come?

FAMILY COMPLEXITY

A nascent literature investigates how family complexity—in particular, the increase in parental separation-affects political preferences and political participation of the young (Dronkers, 2016; Voorpostel & Coffé, 2014). Family configurations and events, including widowhood, parenthood, marriage, and divorce are more or less stressful life events that draw time and energy away from political participation. Family events can function as turning-points in the life course that trigger a reorientation of political priorities. Pioneering research in this field points to substantial differences in voter turnout by family structure in the United States (Wolfinger and Wolfinger 2008). Married couples have the highest turnout, whereas divorced individuals are least likely to vote. Irrespective of relationship status parents are less likely to go to the polls than the childless. Childlessness has increased in many European countries, albeit the gendered socioeconomic selection into childlessness varies greatly across countries (Krevenfeld & Konietzka, 2017). Does the political behavior of the childless systematically vary from parents? How do these associations vary across countries? Is fertility among conservatives higher and do they transmit their political partisanship more effectively to the next generation than among liberals? How does differential fertility by political behavior shape future generations of voters and longer-term political landscapes?

LONG TIME HORIZONS ACROSS INDIVIDUAL LIFE COURSES AND MULTIPLE GENERATIONS

Life course research has focused on socioeconomic determinants and outcomes of single demographic transitions and vice versa for several decades (Mayer, 2009). The interdependency of multiple demographic and socioeconomic events and how they are sequentially linked over longer periods of time is receiving more attention recently. Taking a "long view in analytical scope" (Elder 1985) is promising to disentangle how population dynamics are intertwined with (i) cumulative advantage and disadvantage (CAD) across individual life courses, and (ii) the (re-) production of social inequality across multiple generations.

Temporal Dynamics Across the Life Course

Next to the increasing availability of data that cover long time spans of individual life courses and methodological innovations to analyze these data, recent research is pushing for more precise conceptual and theoretical arguments beginning with basic questions such as meaningful conceptualizations of outcomes. Abbott (2016) advocates for complementing widespread "point in time" or "trend" outcomes of social inequality, for example, Gini coefficients or parenthood penalties, with "process outcomes" defined as "[...] long run stabilities established by myriads of individual events" (p. 176). Process outcomes resonate with cohort measures in demography, where they are routinely used for example in the analysis of cohort fertility. Lifetime income is possibly the most widely used process outcome in the stratification literature, which typically relies on outcomes measured at specific points in time. For instance, the motherhood wage penalty (i.e., percentage difference in hourly wages between mothers and childless women) is a wide-spread period measure that summarizes average group differences in a given calendar year. Motherhood wage gaps are highly sensitive to short-term fluctuations of wages or the composition and size of the population of mothers, thus obscuring sub-group heterogeneity and not describing the actual experiences of specific birth cohorts. Recent research taking a processual perspective shows that motherhood penalties are not time constant, but tend to attenuate by midlife in the United States (Kahn et al., 2014) and that distinct welfare state contexts shape different gendered combinations of long-term work-family life courses from early adulthood until midlife (Aisenbrey & Fasang, 2017). To date, research taking a processual life course perspective has strongly focused on the "discovery stage" (Billari, 2015) of identifying typologies of life course trajectories using sequence analysis. These typologies provide in-depth thick descriptions of temporal dynamics over the life course, but they are not dynamic in themselves as they end and start at fixed time points, such as a given age. It is both theoretically and methodologically challenging to disentangle which mechanisms produce them and link them to determinants and outcomes of interest. Moving the field further toward an "explanation stage" requires (i) more conceptual and theoretical precision, and (ii) combining a processual perspective with research designs oriented at causal inference.

First theorizing process outcomes and determinants, which consist of a series of sequentially linked life course states, are more challenging than hypothesizing simple $x \rightarrow y$ relationships. Process determinants can be

thought of as complex joint treatment effects that follow a specific temporal structure. Even though CAD is a ubiquitous buzzword, we have made relatively little progress in disentangling the actual mechanisms of CAD since DiPrete and Eirich (2006) conceptual clarifications and formalizations of CAD-type processes that mainly focus on metric outcomes. But many, particularly demographic life course states, including family lives and different reasons for being out of the labor force, are categorical or ordinal in nature and do not fit within existing frameworks of strict CAD-type processes. Which family states can be considered advantageous or disadvantageous? Should we only think of them as trigger events that initiate CAD in metric inequality outcomes? Further, grand social theories on individualization or flexibilization are often too broad to fruitfully guide empirical research and require further theoretical specifications of the middle range (Merton, 1949). If life course experiences are largely unique to specific times and places, as many previous studies suggest, how useful is the search for overarching generalizable mechanisms that generate them? Should we not rather refocus on the conditions, that is the interplay of contextual and compositional factors, under which certain micro-mechanisms operate?

Second, moving the field deeper into an "explanation stage" will require both further methodological innovations and linking existing methodology more closely to theoretical reasoning. To date, we might be understating the potential of sophisticated descriptive evidence to inform theoretical arguments with an implication-based approach given that empirically identifying a full set of causal linkages is often not feasible in the social sciences (Bhrolcháin & Dyson, 2007). If strong descriptive evidence is simply not compatible with a precise theoretical mechanism, is this not informative about the empirical validity of this mechanism even without a formal causal model? In addition, future research should explore how process-oriented sequential perspectives can be fruitfully combined with causally oriented research designs, such as instrumental variable approaches, matching methods also in the context of dyads (Barban, De Luna, Lundholm, Svensson, & Billari, 2017; Raab, Fasang, Karhula, & Erola, 2014), synthetic cohort comparisons in quasi-experimental settings or by combining sequence analysis with event history methods (Studer, Struffolino, & Fasang, 2018).

Multigenerational Perspectives on Inequality

In his 2010 PAA presidential address, Mare criticized the prevalent two-generational view on parents and their offspring in inequality and population research. Instead, he advocated a multigenerational view that includes grandparents, ancestors, and nonresident contemporary kin. Multigenerational influence operates through differential fertility and survival, migration, and marriage patterns, as well as the direct transmission of socioeconomic advantage across multiple generations. If multigenerational effects exist, the concept of CAD transfers to a multigenerational view, in which advantage and disadvantage accumulate within families across generations.

Intergenerational transmission of social (dis-) advantage depends on survival of (potential) parents, assortative mating between partners with specific social backgrounds and the birth of a next generation. Maralani (2013) showed that disadvantage among African Americans in the United States persists across generations among others because those who are educationally upwardly mobile tend to remain childless. Therefore they cannot transmit their educational advantage to a next generation. Similarly, college-educated women's lower fertility prevents them from transmitting educational advantage to a next generation relative to their college educated male peers (Lawrence & Breen, 2016). How does differential fertility affect the starting conditions for new generations and how powerful are these intergenerational dynamics compared to the institutional settings children are born into?

Another emerging line of research turns to the demography of grandparenthood assuming that grandparenthood-whether it occurs, when and for how long—is socially stratified due to differential mortality and fertility across generations (Leopold & Skopek, 2015; Margolis, 2016). This draws attention to the shared years of life between multiple generations as a precondition for grandparents and grandchildren to mutually affect one another through direct interaction. Research is just beginning to systematically unravel the socioeconomic gradients and correlates of multigenerational kinship systems over time. To date, the literature on multigenerational effects focuses on describing multigenerational regularities and identifying under which conditions extended kin beyond the nuclear family affect inequality outcomes. Genetic inheritance, gene-environment interactions and the mechanisms of wealth accumulation likely play a key role in these processes. Because of the long time horizons inherent in multigenerational views on population processes and inequality, they may seem fairly immune to short-term policy interventions. At a closer look, there are many potential policy implications. Examples include state-supported family leave not only for parents, incentives for multigenerational living arrangements, facilitating the combination of upwardly mobile careers with parenthood for disadvantaged groups, or an elevated inheritance tax that could be used to fund an "inheritance" for those whose parents have nothing to bequest.

IMPLICATIONS OF DIGITALIZATION AND TECHNOLOGICAL CHANGE

Digitalization and technological change are the focus of emerging research on demography and social inequality in at least two respects. First, technological developments, including assisted reproductive technologies, social media, skill-biased technological change, and life-prolonging measures can fundamentally change the interplay between population processes and social stratification. Second, the digital revolution is generating massive amounts of data that offer new possibilities for research. The author will argue that to date we have focused too little on the first, while possibly overstating the potential of the second.

TECHNOLOGICAL CHANGE AND THE INTERPLAY BETWEEN POPULATION PROCESSES AND INEQUALITY

New technologies are profoundly transforming population processes. Cheap air travel, the internet, social media, and communication technologies have completely reformed the logistics of global migration flows and the daily realities of transnational families. With modern contraception and assisted reproductive technologies (ART) (some), humans have more control over their reproduction than at any other time in history. Technological change is often equated with progress. Yet, even though concerns about the inequality implications of the "digital divide" were raised almost two decades ago (Norris, 2001), we have a limited understanding of the social stratification effects of technological developments related to population processes. Consider the example of ARTs. Many treatments are expensive and access is regulated between a mix of voluntary regulations, government legislation, and insurance coverage (Präg & Mills, 2017). As a result, ARTs are often confined to a minority of relatively wealthy individuals, who governments and insurance companies deem "worthy." In Germany, for example, many health insurances condition coverage of ART on marriage and potential parents being within a given age range. Legal regulations vary greatly across countries, which creates a largely unregulated global market that lacks systematic quality control and offers many loopholes for exploitative (reproductive) labor relations. The booming surrogacy industries in emerging economies including India are a case in point (Pande, 2014). The ambivalence of surrogate mothers between social stigma and an opportunity to generate income is well documented in recent qualitative work (Von Hagel & Mansbach, 2016). While ART services might reduce inequality between men and women in affluent democracies, global inequality between women could increase

as reproductive labor is outsourced by more privileged to less privileged women.

Global markets for medical services related to demographic processes escape national regulatory frameworks. This results in bizarre situations as the recent "Kinderwunsch Tage" in Berlin in 2017 [Child wish Days], a hugely successful trade fare for ARTs during which international providers market a range of services that are illegal in Germany.⁵ Similar global markets exist for services related to the manipulation of the end of life with either life-prolonging measures or assisted suicide and euthanasia. Assessing the inequality dynamics associated with new technologies therefore necessarily requires a global and transnational perspective. Who pays for and benefits from life-prolonging measures? Which existing inequalities are reduced or reinforced, and which new inequalities are generated with the proliferation of new technologies that govern population processes?

Finally, fertility and mortality are processes at the margins of life. Technologies and regulations that control them entail a host of normative and ethical challenges that have no empirical answers. Demographers and social stratification researchers tend to be firm believers in Weberian value freedom. Decisions on the regulation of technologies that affect population processes clearly also require normative foundations. Future research should more seriously engage with the normative and ethical questions surrounding implications of technological change for the social stratification of population processes. Possibly the sociological tradition of normative theories of social justice could be useful in this context. Certainly, closer interdisciplinary collaboration including medical doctors and philosophers could be fruitful to tackle the ethical and normative challenges ahead.

Digital Demography and the "Big Data Revolution"

Currently big data, that is online traces from facebook, twitter, online dating sites, and many other sources, are heralded as a third major data revolution to "digital demography," following the paradigms of "census and administrative records," and "theory-driven micro-level data" (Billari & Zagheni, 2017). Recent research using digital footprints is generating important insights on global inequality, for example, by using facebook data to document persistent gender gaps in internet access in the global South (Fatehkia, Kashyap, & Weber, 2018). Digital trace data will be particularly useful to address research questions for which other data does not exist or is difficult to collect and in combination with "traditional" data sources from surveys and registers (Billari & Zagheni, 2017). To date, fertility research

^{5.} https://www.kinderwunsch-tage.de

based on big data has primarily used web searches to show that searches of terms like "abortion," "pregnancy," or "birth" predict future behavior at least on the level of aggregated averages (Ojala *et al.*, 2017). Mortality researchers are extracting information on age of death and family trees from online sources. Possibly the greatest variety of big data is being used to analyze international migration flows, including location tracking of IP addresses when individuals log into their email accounts, facebook advertisement target populations, geo-located twitter data and Google + data (Zagheni & Weber, 2012). Despite the excitement surrounding digital demography two issues remain challenging: (i) Selectivity and nonrepresentativeness, and (ii) ethical questions regarding the collection, access, and analysis of digital data.

Selectivity and Nonrepresentativeness

Most digital footprints completely cover a selective sample of users of a particular online service. They were not collected primarily for research purposes and are usually not representative of any meaningful population for social science research questions. This creates challenges akin to biases in other type of data, such as selective nonresponse in surveys for which more or less effective methodological remedies have been developed. Similarly, selectivity and nonrepresentativeness of digital data might reasonably be quantified and modeled with appropriate statistical procedures. Billari and Zagheni (2017, p. 9) consider social media and the Internet as "laboratories" that produce systematically biased estimates of quantities, meaning that "there are hidden, potentially stochastic rules that determine the relationship between the online data and the offline quantities of interest." Bias can be modeled against ground truth data or various hypothetical scenarios can be assessed to get plausible upper and lower bounds of estimates and quantities if ground truth data does not exist. Overall selectivity and nonrepresentativeness seem to be manageable for many substantive applications, particularly when coupled with data from other sources. However, compared to other data sources, the large-scale involvement of commercial companies is unique to digital data. A key challenge for this type of data could well be in convincing companies who collect the data to release the information necessary for thorough quality control, reasonable assessment of bias, and replication.

RESEARCH ETHICS

A potentially more severe issue concerns ethical challenges in repurposing big data for social science research. In contrast to survey and census data,

users of online services have often not given explicit consent for their data to be used for research purposes or at least are not aware that they have given consent. Research findings from big data can be highly sensitive, for instance when digital traces serve to quantify local populations of vulnerable groups. It was only decades after the introduction of census and survey data that their potential for human rights abuses, including genocides and forced migration became fully apparent (Seltzer & Anderson, 2001). For example, Dutch Jews had the highest death rates (above 73 percent) of any continental European country during World War II. They were easy to locate because the Dutch registers meticulously documented their numbers and residences (Seltzer & Anderson, 2001). In contrast, Jewish refugees from other European countries who were not included in the Dutch population registers had a substantially higher probability of survival in the Netherlands. There are many devastating historical cases of population data misuse, they are well documented, and have triggered an intense discussion of potential safeguards. Against this background, it is rather surprising that research ethics have not received more attention in the emerging field of digital demography, particularly given the massive involvement of private companies. Recent scandals surrounding facebook are increasing awareness for ethical issues in the use of big data, which are already the focus of emerging research (Cesare, Lee, McCormick, Sprio, & Zagheni, 2016; Salganik, 2017).

To what extent the current big data hype is a veritable revolution remains to be seen. The qualitative content of big data, that has received much more attention in political science than in social demography, could prove particularly valuable to inform theory development, for which selectivity and nonrepresentativeness are less problematic. The systematic study of potential misuse of digital traces, and developing effective safeguards and ethical guidelines for researchers will remain important.

CONCLUDING REMARKS

Population processes and social stratification and mobility are intertwined processes on the macro and micro levels. This contribution highlighted a range of pressing research areas that call for further integrating demography and stratification research, as well as broader interdisciplinary and global perspectives.

ACKNOWLEDGMENT

The author would like to thank Heike Klüver, Marcel Raab, Emanuela Struffolino, and the editors of emerging trends for helpful comments on early versions of the manuscript.

REFERENCES

Abbott, A. (2016). Processual sociology. Chicago, IL: University of Chicago Press.

- Aisenbrey, S., & Fasang, A. (2017). The interplay of work and family trajectories over the life course: Germany and the United States in comparison. *American Journal of Sociology*, 122(5), 1448–1484.
- Barban, N., De Luna, X., Lundholm, E., Svensson, I., & Billari, F. C. (2017). Causal effects of the timing of life-course events: Age at retirement and subsequent health. *Sociological Methods & Research*. doi:10.1177/0049124117729697.
- Bhrolcháin, M. N., & Dyson, T. (2007). On causation in demography: Issues and illustrations. *Population and Development Review*, 33(1), 1–36.
- Billari, F. C. (2015). Integrating macro-and micro-level approaches in the explanation of population change. *Population Studies*, 69(sup1), S11–S20.
- Billari, F. C., & Zagheni, E. (2017). Big data and population processes: A revolution? In A. Petrucci & R. Verde (Eds.), *Statistics and data science: New challenges, new generations* (pp. 167–178). Proceedings of the Conference of the Italian Statistical Society, Firenze: Firenze University Press.
- Binstock, R. H. (1974). Aging and the future of American politics. *The annals of the american academy of political and social science*, 415(1), 199–212.
- Busemeyer, M. R., Goerres, A., & Weschle, S. (2009). Attitudes towards redistributive spending in an era of demographic aging. The rival pressures from age and income in 14 OECD Countries. *Journal of European Social Policy*, *19*(3), 195–212.
- Case, A. and A. Deaton. 2015. "Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century." *Proceedings of the National Academy of Sciences of the United States of America* 112(49): 15078–15083.
- Cesare, N., Lee, H., McCormick, T., Sprio, E., & Zagheni, E. (2016). *Promises* and pitfalls of using digital traces for population research (Available at SSRN: https://ssrn.com/abstract=2839585).
- DiPrete, T. A. & Eirich, G. M. (2006). Cumulative advantage as a mechanism for inequality: A review of theoretical and empirical developments. *Annu. Rev. Sociol.*, 32, 271–297.
- Dronkers, J. (2016). Parent's living arrangement and children's the societal political and civic attitudes: A cross-national comparison of 13- and 14-year-old children living in different family forms. *Zeitschrift für Familienforschung*, *28*(3), 381–397.
- Durkheim, E. (2005 [1897]). Suicide: A study in sociology. Abingdon, UK: Routledge.
- Easterlin, R. A. (1976). The conflict between aspirations and resources. *Population and development review*, 417–425.
- Elder, G. H. (1985. Perspectives on the life course. In G. H. Elder, (Ed.), *Life course dynamics trajectories and transitions*, 1968–1980 (pp. 23–49). Ithaca, NY: Cornell University Press.
- Engels, F. (2015 [1884]): Der Ursprung der Familie, des Privateigentums und des Staats. [The origin of the family, private property, and the state.] Berlin, Germany: Europäischer Literaturverlag.
- Fatehkia, M., Kashyap, R., & Weber, I. (2018). Using Facebook ad data to track the global digital gender gap. *World Development*, 107, 189–209.

- Frey, W. H. (2015). *Diversity explosion. How new racial demographics are remaking america.* Washington, DC: Brookings Institute Press.
- García-Albacete, G. (2014). Young people's political participation in Western Europe: Continuity or generational change? Basingstoke, UK: Palgrave Macmillan.
- Goldthorpe, J. H. (2016). *Sociology as a population science*. Cambridge, UK: Cambridge University Press.
- Gruijters, R. (2017, January). Beyond filial piety: Intergenerational relations and old age security in contemporary China (Doctoral dissertation). Berlin, Germany: Humboldt Universität zu Berlin. Retrieved from https://edoc.hu-berlin.de/handle/ 18452/18812
- Hochschild, A. R. (2016). The ecstatic edge of politics: Sociology and Donald Trump. *Contemporary Sociology*, 45(6), 683–689.
- Kahn, J. R., García-Manglano, J., & Bianchi, S. M. (2014). The motherhood penalty at midlife: Long-term effects of children on women's careers. *Journal of Marriage and Family*, *76*(1), 56–72.
- Kelly, J. (2016). Brexit: How much of a generational gap is there? *BBC Magazine*. Retrieved from http://www.bbc.com/news/magazine-36619342 (accessed online on May 5, 2018).
- Kreyenfeld, M., & Konietzka, D. (Eds.) (2017). *Childlessness in Europe: Contexts, causes, and consequences*. Dordrecht, The Netherlands: Springer.
- Kroh, M., and Selb P. (2009). Inheritance and the dynamics of party identification. *Political Behavior* 31(4), 559.
- Lawrence, M., & Breen, R. (2016). And their children after them? The effect of college on educational reproduction. *American Journal of Sociology*, 122(2), 532–572.
- Leonhardt, D. (2012). Old vs. young. *New York Times*. Retrieved from https://www. nytimes.com/2012/06/24/opinion/sunday/the-generation-gap-is-back.html (accessed online on May 7, 2018).
- Leopold, T., & Schneider, T. (2011). Family events and the timing of intergenerational transfers. *Social Forces*, *90*(2), 595–616.
- Leopold, T., & Skopek, J. (2015). The demography of grandparenthood: An international profile. *Social Forces*, *94*(2), 801–832.
- Malthus, T. R. (1798). An Essay on the Principle of Population as it Affects the Future Improvement of Society with Remarks on the Speculations of Mr. Goodwin, M. Condorcet and Other Writers (1st ed.). London: J. Johnson in St Paul's Church-yard.
- Maralani, V. (2013). The demography of social mobility: Black-white differences in the process of educational reproduction. *American Journal of Sociology*, *118*(6), 1509–1558.
- Mare, R. D. (2011). A multigenerational view of inequality. *Demography*, 48(1), 1–23.
- Margolis, R. (2016). The changing demography of grandparenthood. *Journal of Marriage and Family*, 78(3), 610–622.
- Mayer, K. U. (2009). New directions in life course research. *Annual Review of Sociology*, 35, 413–433.
- McLanahan, S. (2004). Diverging destinies: How children are faring under the second demographic transition. *Demography*, 41(4), 607–627.

- McLanahan, S., & Percheski, C. (2008). Family structure and the reproduction of inequalities. *Annual Review of Sociology*, 34, 257–276.
- Norris, P. (2001). *Digital divide: Civic engagement, information poverty, and the Internet worldwide*. Cambridge, UK: Cambridge University Press.
- Pande, A. (2014). *Wombs in labor: Transnational commercial surrogacy in India*. New York City, NY: Columbia University Press.
- Ojala, J., Zagheni, E., Billari, F. C., & Weber, I. (2017) *Fertility and its meaning: Evidence from search behavior. Proceedings of the International Conference on Web and Social Media (ICWSM)* 2017.
- Pardos-Prado, S., Lancee, B., & Sagarzazu, I. (2014). Immigration and electoral change in mainstream political space. *Political Behavior*, *36*(4), 847–875.
- Präg, P., & Mills, M. C. (2017). Assisted reproductive technology in Europe: usage and regulation in the context of cross-border reproductive care. In *Childlessness in Europe: Contexts, Causes, and Consequences* (pp. 289–309). Cham, Switzerland: Springer.
- Raab, M., Fasang, A. E., Karhula, A., & Erola, J. (2014). Sibling similarity in family formation. *Demography*, *51*(6), 2127–2154.
- Ramakrishnan, S. K. (2005). *Democracy in immigrant America: Changing demographics and political participation*. Palo Alto, CA: Stanford University Press.
- Robert K., Merton (1949). On SociologicalTheories of the Middle Range. In Robert K., Merton (ed.), *Social Theory and Social Structure*, pp. 39–53). New York: Simon & Schuster, The FreePress.
- Salganik, M. J. (2017). *Bit by bit: social research in the digital age*. Princeton, NJ: Princeton University Press.
- Sanderson, W. C., & Scherbov, S. (2007). A near electoral majority of pensioners: Prospects and policies. *Population and Development Review*, 33(3), 543–554.
- Seltzer, W., & Anderson, M. (2001). The dark side of numbers: The role of population data systems in human rights abuses. *Social Research*, 481–513.
- Studer, M., Struffolino, E., & Fasang, A. E. (2018). Estimating the relationship between time-varying covariates and trajectories: The sequence analysis multistate model procedure. *Sociological Methodology*. doi:10.1177/0081175017747122.
- Von Hagel, A., & Mansbach, D. (2016). The Regulation of Exploitation. *International Feminist Journal of Politics*, 18(2), 190–209. DOI: 10.1080/14616742.2014.984479
- Voorpostel, M., & Coffé, H. (2014). The effect of parental separation on young adults' political and civic participation. *Social Indicators Research*, 124(1), 295–316.
- Wolfinger, N. H., & Wolfinger, R. E. (2008). Family structure and voter turnout. *Social forces*, *86*(4), 1513–1528.
- Western, B., Bloome, D., & Percheski, C. (2008). Inequality among American families with children, 1975 to 2005. *American Sociological Review*, 73(6), 903–920.
- Zagheni, E., & Weber, I. (2012, June). You are where you e-mail: using e-mail data to estimate international migration rates. In *Proceedings of the 4th Annual ACM Web Science Conference* (pp. 348–351). New York, NY: ACM.

Anette E. Fasang is a professor of microsociology at Humboldt University of Berlin and head of the demography and inequality research group at the

WZB Berlin Social Science Center. She obtained her doctorate from Jacobs University Bremen and completed postdoctoral research at Yale University and Columbia University. Her research interests include social demography, stratification, life-course sociology, family demography, and methods for lon-gitudinal data analysis. Recent publications include: "The interplay of work and family trajectories over the life course: Germany and the United States in comparison." Published in the *American Journal of Sociology*, 2017, 122(5), 1448–1484 with Silke Aisenbrey.

RELATED ESSAYS

Family Relationships and Development (Psychology), Joan E. Grusec

Economics of Early Education (Economics), W. Steven Barnett

Neighborhoods and Cognitive Development (*Psychology*), Jondou Chen and Jeanne Brooks-Gunn

Social Class and Parental Investment in Children (Sociology), Anne H. Gauthier

Below-Replacement Fertility (Sociology), S. Philip Morgan

Limits to Human Longevity (Sociology), Samuel H. Preston and Hiram Beltrán-Sánchez

Demography and Cultural Evolution (Sociology), Stephen Shennan

Recent Demographic Trends and the Family (*Sociology*), Lawrence L. Wu Elites (*Sociology*), Johan S. G. Chu and Mark S. Mizruchi

Enduring Effects of Education (*Sociology*), Matthew Curry and Jennie E. Brand

Intergenerational Mobility (*Economics*), Steve N. Durlauf and Irina Shaorshadze

Stratification in Hard Times (Sociology), Markus Gangl

Social Class and Parental Investment in Children (Sociology), Anne H. Gauthier

The Emerging Psychology of Social Class (*Psychology*), Michael W. Kraus Political Inequality (*Sociology*), Jeff Manza

Stratification and the Welfare State (*Sociology*), Stephanie Moller and Joya Misra

Emerging Trends: Social Classification (*Sociology*), Elizabeth G. Pontikes Class, Cognition, and Face-to-Face Interaction (*Sociology*), Lauren A. Rivera

The Future of Class Analyses in American Politics (*Political Science*), Jeffrey M. Stonecash

Family Formation in Times of Labor Market Insecurities (*Sociology*), Johannes Huinink

Gender and Work (*Sociology*), Christine L. Williams and Megan Tobias Neely Global Income Inequality (*Sociology*), Glenn Firebaugh

A Social Psychological Approach to Racializing Wealth Inequality (*Sociology*), Joey Brown

The Future of Employment, Wages, and Technological Change (*Economics*), Michael J. Handel

Political Inequality (Sociology), Jeff Manza

Health and Social Inequality (Sociology), Bernice A. Pescosolido

Impact of Limited Education on Employment Prospects in Advanced Economies (*Sociology*), Heike Solga

Public Opinion, the 1%, and Income Redistribution (*Sociology*), David L. Weakliem

Modeling Life Course Structure: The Triple Helix (*Sociology*), Tom Schuller Telomeres (*Psychology*), Nancy Adler and Aoife O'Donovan

The Intergenerational Transmission of Fertility (*Sociology*), Laura Bernardi Mulligan: The Emerging Field of Social Behavioral Epigenetics (*Anthropology*), Connie J. Mulligan

The Role of Social Mechanisms in the Formation of Social Inequalities (*Sociology*), Martin Diewald

The Gendered Transition to Parenthood: Lasting Inequalities in the Home and in the Labor Market (*Sociology*), Marie Evertsson and Katarina Boye

Social Inequality across the Life Course: Societal Unfolding and Individual Agency (*Psychology*), Jutta Heckhausen

Social Network Analysis in the Study of Ethnic Inequalities (*Psychology*), Frank Kalter

Changing Work–Family Equilibria and Social Inequality (Sociology), Stefani Scherer

The Transnationalized Social Question: Migration and Social Inequalities (*Sociology*), Thomas Faist