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MULTIGENERATIONAL ASPECTS OF SOCIAL STRATIFICATION: ISSUES FOR FURTHER RESEARCH

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Abstract

The articles in this special issue show the vitality and progress of research on multigenerational aspects of social mobility, stratification, and inequality. The effects of the characteristics and behavior of grandparents and other kin on the statuses, resources, and positions of their descendants are best viewed in a demographic context. Intergenerational effects work through both the intergenerational associations of socioeconomic characteristics and also differential fertility and mortality. A combined socioeconomic and demographic framework informs a research agenda which addresses the following issues: how generational effects combine with variation in age, period, and cohort within each generation; distinguishing causal relationships across generations from statistical associations; how multigenerational effects vary across socioeconomic hierarchies, including the possibility of stronger effects at the extreme top and bottom; distinguishing between endowments and investments in intergenerational effects; multigenerational effects on associated demographic behaviors and outcomes (especially fertility and mortality); optimal tradeoffs among diverse types of data on multigenerational processes; and the variability across time and place in how kin, education, and other institutions affect stratification.

Research on multigenerational processes in stratification has accelerated in recent years, as reflected in the strong set of articles collected in this special issue. The significance of this research lies on several fronts including: (1) a resurgence of public interest in social mobility, largely a result of a concern with the links between mobility and inequality; (2) a concern with if and how the massive inequalities that have emerged in wealthy nations in recent decades will be sustained across generations (and whether extreme advantages and disadvantages will persist within families across generations); (3) a recognition of the possibility that the configurations of kin that are assumed in traditional mobility studies (typically parent to offspring) may vary in their salience relative to other kin patterns across time and place; (4) marked increases in average length of life, creating longer spans of time that individuals are exposed to their grandparents and grandchildren; (5) large changes in the

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distribution of family structures, patterns of family behavior, and norms about family relationships; (6) the emergence and maturation of high quality data of varying types that permit empirical analyses of multigenerational effects; and (7) new thinking about models for social mobility that take account of related demographic processes (Mare 2011).

My own interest in this topic has been stimulated by all of these developments, but particularly by the last of these. The possible intergenerational and multigenerational effects of the socioeconomic positions of individuals arise through the mixture of the transmission of socioeconomic position and demographic processes of population renewal (for example, Mare 1997; Mare and Maralani 2006; Matras 1961; 1967; Preston 1974; Preston and Campbell 1993). Put more simply, intergenerational effects involve both the degree to which individuals advantage or disadvantage their offspring and also the degree to which they produce those offspring. Moreover, a full understanding of the effects of “family background” in mobility studies involves not only the effects of the characteristics of one family member on those of another family member, but also how these families in fact are created. When one considers effects further downstream, to grandchildren, great grandchildren, and other progeny, the role of demography becomes even plainer. One influences later generations both by the transmitting of one's economic, social, and cultural resources to one's progeny, and also by having the children and grandchildren who will benefit from those resources. But the birth and survival of these progeny are stratified through socioeconomic differentials in fertility, mortality, and marriage patterns. Multigenerational effects in social mobility, therefore, are inseparable from population renewal and change.

A MULTIGENERATIONAL DEMOGRAPHIC MODEL OF SOCIAL MOBILITY

One way of representing these ideas is through a model of intergenerational effects that combines differential net fertility (that is numbers of children who survive to adulthood born to families from different socioeconomic groups) with the effects of family socioeconomic characteristics on the life chances of succeeding generations. Mare and Maralani (2006) develop such a model for the two-generation case. Mare and Song (2012) extend this model to take account of grandparent effects. For a one-sex (female) population with a single (categorical) dimension of inequality (such as educational or occupational attainment or income strata), the model can be written as

$$S_{k|j} = F_j \cdot r_j \cdot p_{jk}$$

where $S_{k|j}$ denotes the number of women in the offspring generation who are in position k and whose mothers are in position j , F_j denotes the number of women in the maternal generation who are in position j , r_j denotes the expected number of daughters born to each woman in position j , and p_{jk} denotes the probability that a daughter born to a woman in position j will survive and enter position k . The net fertility (r_j), and positional mobility (p_{jk}) terms are the dependent variables in models of intergenerational influence. For the i^{th} woman,

$$r_{ij}=H(\text{woman's position, mother's position; generation; other controls})$$

$$p_{ijk}=G(\text{positions of mother, grandmother; generation; other controls})$$

where H and G are functions that take account of the effects of mother and grandmother characteristics on both fertility and the socioeconomic position of women in the offspring (third) generation. Under this model the *effect* of being a woman in the k^{th} position (relative to the j^{th} position) on the number of daughters that she raises who grow up and occupy the k^{th} position is $r_k p_{kk} - r_j p_{jk}$. This model can show the separate contributions of intergenerational mobility and differential net fertility to the socioeconomic reproduction and the intergenerational and multigenerational effects of social position on fertility. It allows us to quantify the relative effects of demography and mobility on intergenerational socioeconomic reproduction and to simulate the long run and equilibrium implications of model estimates for the relative reproductive success of high and low status individuals. Mare and Song (2012) present a more elaborate version of this model for male populations that incorporates differential rates of marriage and includes the effects of great-grandparents and more remote kin. Song and Mare (2013a) present a two-sex version of the model that incorporates the marriage market and the distinct effects of male and female parents and grandparents on the outcomes of children and grandchildren respectively.

This model formalizes some of the ideas discussed in the rest of this essay. Although we can learn much about multigenerational effects and their connection to demographic processes from the articles in this issue (and related work), we should also build upon these studies and address some of the gaps in our understanding that these studies raise. In the discussion below I suggest several potentially fruitful lines of work. This is not an exhaustive list by any means. For other ideas, see the suggestions made by Pfeffer (this issue) and Mare (2011).

DEMOGRAPHY AND TIME IN MULTIGENERATIONAL PROCESSES

The study of multigenerational effects opens up the possibility of complex and subtle influences of time and timing on socioeconomic outcomes. Even in two-generation models of social mobility, ages of parents and offspring and the time periods of observation raise important problems of interpretation, though these are often ignored. For example, the offspring generation is typically observed within a specified age range, for example ages 35–44, and parents' characteristics are measured at a common age of offspring, for example age 16. These specifications control the stage of the offspring's life at which their own and their parents' characteristics are measured. Yet these specifications leave uncontrolled the ages of *parents* when their offspring are at a particular age because human fertility occurs over a broad interval of parents' ages (Duncan 1966). Parents' age itself may influence offspring's achievement – for example, older parents may be more financially secure or more adept at childrearing (Mare and Tzeng 1989). Parents also come from a variety of birth cohorts and thus vary in the size of “generation gap” between them and their offspring.

Additionally, if one takes demographic processes into account in assessing intergenerational effects, the ability of a group to influence the next generation works through not only how many children that group has but whether they have their children earlier or later in their lives (Maralani and Mare 2005).

These types of timing effects become more complex and potentially more important when one considers multigenerational processes. Fomby, Krueger, and Wagner (this issue) examine possible effects of grandparents' ages at grandchildren's birth on cognitive outcomes for grandchildren. This type of investigation is a promising start on a broader set of timing studies that may be interesting in their own right as well as essential for the proper interpretation of multigenerational effects. If families vary in the age gap between parents and offspring, the degree of variation in the age gap between grandparents and grandchildren is much greater. Depending on ages at which grandparents and parents bear their offspring, a grandparent and grandchild may differ in age by as little as 30 years (assuming age at birth of 15 for both grandmother and mother) or as many as 90 years (assuming age at birth of 45 for both grandmother and mother). This variation has potentially strong implications for multigenerational analysis. *Ceteris Paribus*, young grandparents have many more potential years in which to enjoy their grandchildren and their grandchildren, conversely, have much more potential exposure to them, creating greater opportunities for grandparent influence in such families. Characteristics such as educational attainment that have a strong upward trend across birth cohorts will be more favorable in families with a shorter age gap between grandparents and grandchildren, even though older parents and older grandparents may benefit their grandchildren and children respectively in other ways. And, at the aggregate level, the combined effects of demographic reproduction and intergenerational transmission of socioeconomic advantage are accelerated for families that reproduce quickly and dampened for those that delay childbearing. This array of hypotheses has been largely unexplored. Some of these investigations will rest on the test of behavioral relationships such as those suggested by Fomby, Krueger, and Wagner. Others follow from the logic of formal demography, yet their quantitative impacts should be estimated in actual populations. Some of these issues may be fruitfully investigated using data on cousins (Haellsten, this issue) inasmuch fertility timing and generation gaps vary both between and within clusters of cousins.

EDUCATION AND ISOLATION IN MULTIGENERATIONAL EFFECTS

Educational institutions, school attendance, and educational attainment play dominant roles in social stratification and mobility. Education both effectively transmits parent advantages to offspring and also introduces substantial additional variation (and thus social mobility) in socioeconomic outcomes (Hout and DiPrete 2006). A plausible – but as yet unsubstantiated – conjecture is that educational institutions and processes of educational stratification weaken the role of grandparents and other remote ancestors may play in securing economic advantages for their descendants. This may be particularly the case at the bottom of the socioeconomic distribution. Once a population has access to mainstream education, deeply rooted socioeconomic disadvantages can be substantially transcended. Conversely, populations that are excluded from education altogether (as were, for example, slaves in the 18th and 19th Century American South), or confined to markedly substandard educational

opportunities are likely to remain at the bottom of social hierarchies far beyond what standard two-generation stratification models lead one to expect. One might also surmise a parallel process at the extreme top of the socioeconomic hierarchy. Access to top managerial and professional positions may be heavily dependent on higher education and, further, the acquisition of higher education may free one from the influence of parental socioeconomic status (Hout 1988; Torche 2011). But in the competition for truly elite levels of economic, political, and cultural rewards, formal educational credentials may matter a good deal less than membership in a family that has enjoyed elite status over several generations. Just as the extremely poor may be isolated from mainstream educational mechanisms of social mobility, the elite may, in perversely parallel fashion, be protected from mainstream educational mechanisms of socioeconomic competition. Articles in this issue (Pfeffer; Hertel and Groh-Samberg) as well as other recent studies (e.g., Chan and Boliver 2013) provide direct or indirect evidence on this point, mostly through identifying relatively strong net grandparent-grandchild associations in three-way classifications of relatively broad socioeconomic categories. Wrightman and Danziger (this issue) also find grandparent effects among the poorest families. Whereas these studies are a good start on delineating the conditions under which multigenerational influence is likely to be strong, more work is needed. We should distinguish between the advantaged and disadvantaged groups that can be identified in the broad strata we typically use in analyzing general population surveys from smaller elite and extremely deprived groups who are more likely to be isolated from mainstream stratification processes. We need studies of more extremely advantaged and disadvantaged subpopulations, both contemporary and historical, to explore the role of isolation (at the bottom and the top) in preserving multigenerational effects and the historically increasing role of education in transmitting family advantages and disadvantages to subsequent generations.

ENDOWMENTS, INVESTMENTS, AND MULTIGENERATIONAL EFFECTS

Becker's (1991) remarkable contribution to the study of social mobility provides a unifying behavioral theory of parent investment, the success of offspring, and their interdependence with fertility, marriage, and other social processes. Although many sociologists harbor deep skepticism about the behavioral assumptions and empirical relevance of Becker's models, there is no denying that his approach provides both conceptual clarity about how to think about intergenerational effects and also guidance about what should go into empirical analyses of social mobility. Solon (this issue) very usefully extends Becker's model to the multigenerational context. A cornerstone of Becker's approach is the distinction between endowments and investments, which combine to account for intergenerational and (potentially) multigenerational associations of economic success. Endowments are stocks of human capital that are correlated across generations because of persistent genetic and other variations among families. Investments are the result of behavioral decisions by members of one generation to contribute to the human capital of the next. Solon lays out some of the additional behavioral complexity that arises when more than one generation has the option of investing in the human capital of subsequent generations. As basic as the distinction between endowments and investments seems to be, it is remarkable how little empirical work, whether in economics or in sociology, takes it into account. Most studies of

intergenerational mobility tend to be limited to what, from Becker's point of view, is a "reduced form." That is, they examine intergenerational associations without attempting to distinguish the endowment and investment components of the associations. There is, however, a substantial literature on "intergenerational transfers" which are sometimes interpreted as investments (e.g., Kornrich and Furstenberg 2013; Raley, Bianchi, and Wang 2012; Seltzer and Bianchi 2013). Yet these studies, which look explicitly at what one generation gives another, often do not take account of endowments, much less their implications for intergenerational mobility. As research on multigenerational aspects of socioeconomic mobility goes forward, a challenge for researchers is to look empirically at investments by grandparents, their interdependence with the endowments families hold for three or more generations, and their combined impact on stratification.

MULTIGENERATIONAL DEMOGRAPHIC ASSOCIATIONS

Although the heart of our concern about multigenerational effects is their effect on the persistence of socioeconomic advantages and disadvantages, it is plausible to think also about multigenerational associations of such key demographic phenomena as fertility and mortality. As discussed above, the net fertility of different socioeconomic groups is itself a key component of intergenerational and multigenerational reproduction of socioeconomic position. That fertility and mortality may themselves also be subject to the influences of past generations is a natural thing to consider (Mare 2011). Beyond this, however, demographic behavior, vital rates, and their cumulative impacts may themselves be systematically associated across two or more generations. Such associations may be a consequence of inter- and multigenerational associations between socioeconomic factors that are correlated with fertility and mortality. But they may also reflect separate influences of persistent reproductive values (in the case of fertility) or genetic influences (for both mortality and fertility). Piraino *et al.* (this issue) use genealogy data from Cape Colony to examine the possibility of multigenerational associations in longevity. Such associations are very hard to study in human populations because of the long span of time needed to observe several generations of lifetimes and thus the genealogies are well suited to this purpose. It is to be hoped that we will have more studies of the interdependence of multigenerational socioeconomic and demographic effects. Fertility and mortality are key components of socioeconomic reproduction in the aggregate at least in part because, at the individual level, socioeconomic characteristics of individuals and possibly their parents and grandparents may affect fertility and survival. Intriguingly, some of these effects may not follow the usual progression across generations. In some instances the socioeconomic characteristics of members of one generation may affect the survival of members of a *preceding* generation. Friedman and Mare (in press), for example, provide evidence that parents' survival is affected by the educational attainment of their *offspring*. All of these considerations motivate additional work on the interdependence of socioeconomic and demographic processes across two or more generations.

CAUSAL INFERENCE AND GRANDPARENT EFFECTS

A key issue in the study of multigenerational processes is issue whether the associations detected in empirical studies represent causal relationships between grandparent

characteristics and outcomes for their grandchildren or only spurious associations that arise from failure to control properly for the effects of parents (Pfeffer, this issue). It is doubtful that meaningful randomized experimental studies of grandparent or other types of kin effects will ever be done on human populations. Given the many pathways through which parents may influence their children, one can almost always raise a concern about “omitted variables” in observational studies. Further, inferences about effects and non-effects of grandparents may be bedeviled by measurement error in measures of parent characteristics (e.g., Warren and Hauser 1997). Yet, for at least three reasons, this does not undercut the value of studies such as those reported in this issue. First, well-executed descriptive studies of multigenerational associations are of value in their own right. Indeed, many of the most important two-generation studies of socioeconomic mobility are avowedly descriptive, often based on careful analysis of two-way associations. The details of these associations and how they vary across time and place can be important social facts, of relevance to social science and social policy questions about stratification processes, the rigidity of inequalities, and inequality of opportunity. The estimation of multigenerational associations has a similar value.

Second, whereas it may be impossible to estimate a “pure” causal effect, it nonetheless may be possible to investigate some types of causal relationships between grandparent characteristics and behavior and outcomes for their grandchildren. *A priori* reasoning about where and when grandparent effects are most likely to occur, combined with empirical investigations of these hypotheses can support causal inferences. Zeng and Xie (in press), for example, investigate the possible effects of grandparents' characteristics on the educational attainment of grandchildren in contemporary rural China. Reasoning that grandparents are most likely to affect their grandchildren when they live together, Zeng and Xie demonstrate a strong statistical interaction effect of co-residence combined with grandparents characteristics (that is, co-resident grandparents' characteristics affect grandchildren's educational attainment but non-co-resident grandparents' characteristics do not). Even if the estimated effect of grandparents' characteristics is not by itself free from the confounding effects of unmeasured parent characteristics, the *contrast* in effects between co-resident and non-co-resident is evidence of a causal connection.

Third, it is commonly assumed that observational studies of the association between grandparents' and grandchildren's characteristics, net of parents' characteristics, tend to *overestimate* the causal impact of grandparents. Indeed, studies that employ a rich set of parent controls seem to find little or no evidence of grandparent effects (e.g., Warren and Hauser 1997). This casts some doubt on the value for causal inference of studies that employ more modest sets of parent controls. Yet recent developments in the interpretation and estimation of causal relationships suggest caution about making this type of routine assumption. Depending on the mechanisms through which grandparents influence their grandchildren, statistical controls for characteristics of the parent generation using conventional regression-type estimators may yield to *underestimates* of grandparent effects. It is beyond the scope of this article to review this issue in detail. Sharkey and Elwert (2011), however, provide a powerful illustration in the context of estimating

multigenerational neighborhood effects. Elwert and Winship (in press) provide a more general discussion of the issue.

VARIETIES OF MULTIGENERATIONAL DATA

The articles in this issue also illustrate the great value of taking an eclectic approach to data sources for the analysis of multigenerational processes. Over the long run, the core sources of data for analyses of multigenerational stratification processes may be ongoing, prospective longitudinal surveys, such as the U.S. Panel Study of Income Dynamics and the German Socioeconomic Panel. As illustrated by a number of articles in this issue (Pfeffer, this issue; Fomby, this issue; Hertel and Groh-Samberg, this issue; Wrightman and Danziger, this issue), these data are a rich set of measurements on individuals in the surveys, potentially including information on subjective phenomena and time use, as well as more standard demographic and economic variables. Because they are ongoing surveys, under the direction of independent researchers, they are uniquely adaptable to new scientific or social policy issues that may arise. New questions and subsamples may be added as needs arise. Because the data are prospective, they are relatively free from measurement errors resulting from faulty recall and offer the potential of correcting missing or faulty data through repeated interviews. On the other hand, these studies can do justice to intergenerational and multigenerational phenomena only in proportion to how long they have been conducted. Newer longitudinal studies, such as the Chinese Family Panel Studies (2010), will take time to “mature” to the point where prospective data are available for several generations.

A second type of data that has some potential for multigenerational studies of socioeconomic mobility is purely retrospective cross-section survey data that include individuals' reports of both parents' and grandparents' characteristics. A limited number of studies, notably the surveys conducted by Treiman and his associates (Szelenyi and Treiman 1994; Treiman, Moeno, and Schlemmer 1996; Treiman and Walder 1996) take this approach. These data are typically restricted to a limited number of measurements on prior generations, may suffer from very incomplete recall of grandparents' characteristics, and are heavily influenced by differential fertility patterns in both the grandparent and parent generations. Under special conditions, it may be possible to construct models that “repair” these data and use them in studies of multigenerational processes, including both social mobility and also associated demographic processes (Song and Mare 2013b). Perhaps more promising are surveys that combine high quality retrospective reports of respondents' parents' characteristics with prospective measures of the attainments of adult offspring of respondents. In contrast to the pure retrospective study in which survey respondents are the third generation, in these mixed studies, respondents are the second generation. A strong example of this approach is the Wisconsin Longitudinal Study, which was used to good effect in Warren and Hauser's pioneering study of parent and grandparent effects on socioeconomic attainment (Warren and Hauser 1997). The U.S. Panel Study of Income Dynamics and other longitudinal studies also obtain some retrospective family data in their early waves and thus they too may be used to combine both retrospective and prospective approaches.

Other articles in this issue illustrate the potential of an entirely different type of data, namely national population registers. Kolk (this issue) and Haellsten (this issue) show the power of the Swedish register data, which lies in its universal population coverage, prospective design, and capacity to identify a wide variety of kin. Notably, register data identify cousins, that is, individuals who share (typically) one common set of grandparents, enabling one to estimate global measures of family resemblance in socioeconomic position over three generations. Register data also record vital events, enabling one to explore differential fertility and mortality, either by themselves or in combination with intergenerational mobility. As illuminating as the Kolk and Haellsten studies in this issue are, it is possible to go much further with these types of data. Examples of desirable future studies include (1) estimation of full demographic-social mobility models such as the one described earlier in this article; (2) combining cousin associations with direct measures of net association between grandparents and grandchildren as a means of triangulating results from these different approaches; and (3) exploiting information on the “geography of kinship” to see whether the strength of estimated grandparents effects, whether assessed directly using the socioeconomic characteristics of grandparents, parents, and children or globally using cousin correlations, varies with physical proximity of residence between grandparents and grandchildren.

Yet another source of multigenerational information is genealogical data assembled from a variety of archival sources, including but not restricted to population registers. Piriano et al. (this issue) illustrate the use of this type of data. In many instances, genealogies allow one to examine many more generations than in other data sources, revealing the effects of not just associations between the characteristics of particular kin (e.g., grandfathers and grandsons) but also associations between remote family circumstances or events (such as migration, noble ancestry, enslavement) and the life chances of subsequent generations. In unpublished work, Song and I have carried out these kinds of analyses of genealogical data spanning several centuries for some subpopulations of China (Mare and Song 2012).

Two-generation mobility studies have tended to rely on relatively standardized types of data collection strategies (typically retrospective cross-section studies), with the attendant benefit of relatively rigorous cross-national and historical comparisons of social mobility. In the case of multigenerational studies, however, it is likely that, even if prospective longitudinal surveys tend to predominate, research is likely to rely on a much wider array of types of data. The difficulties of accumulating reliable multigenerational data combined with the complexities of multigenerational processes will require the researchers continue to be resourceful and flexible in finding suitable data.

CONCLUSION

The study of multigenerational aspects of social stratification and mobility is moving forward with a number of exciting developments, a number of which are illustrated in this special issue. Yet this study is still in its infancy. Many things need to be worked on including, but not limited to (1) combining multigenerational influences with those of other time clocks – age, period, and cohort – in several generations; (2) causal inference and interpretation; (3) the complex interdependence of socioeconomic and demographic

processes, at both the individual and population level; (4) combining our traditional emphasis on intergenerational associations of statuses, resources, and positions with observations on some of the actual behaviors that bring these associations about; and (5) making optimal use of the varied types of data that potentially support multigenerational analyses. Yet even as we seek closure on these issues, it is important not to lose sight of the broader potentials of the multigenerational approach. A multigenerational perspective enables us to place standard late 20th century approaches to stratification research, which assume a relatively fixed set of kinship, educational, workplace, legal, and political institutions, in a broader context. The kin arrangements that are relevant to social mobility and inequality, the centrality of education in transmitting advantage and disadvantage across generations, the legal guarantees that preserve family wealth across generations, and other institutions are historically variable and potentially dependent on big events such as wars, mass migrations, and technological innovations. Future multigenerational research should be open to incorporating this variability into our models of stratification and mobility.

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REFERENCES

- Becker, Gary. A Treatise on the Family. 2nd ed.. Harvard; Cambridge: 1991.
- Chan, Tak Wing; Boliver, Vikki. The Grandparents' Effect in Social Mobility: Evidence from British Birth Cohort Studies. *American Sociological Review*. 2013; 78:662–678.
- Chinese Family Panel Studies (CFPS). Chinese Family Panel Studies: A PSC Research Project. 2010. <http://www.psc.isr.umich.edu/research/project-detail/34795>
- Duncan, Otis Dudley. Methodological Issues in the Analysis of Social Mobility. In: Smelser, NJ.; Lipset, SM., editors. *Social Structure and Mobility in Economic Development*. Aldine; Chicago: 1966. p. 51-97.
- Elwert, Felix; Winship, Christopher. Annual Review of Sociology. Endogenous Selection Bias. in press
- Friedman, Esther M.; Mare, Robert D. The Schooling of Offspring and the Survival of Parents. *Demography*. in press.
- Hout, Michael. *American Journal of Sociology*. 1988; 93:1358–1400.
- Hout, Michael; DiPrete, Thomas A. What We Have Learned: RC28's Contributions to Knowledge about Social Stratification. *Research in Social Stratification and Mobility*. 2006; 24:1–20.
- Kornrich, Sabino; Furstenberg, Frank. Investing in Children: Changes in Parental Spending on Children, 1972–2007. *Demography*. 2013; 50:1–23. [PubMed: 22987208]
- Maralani, Vida; Mare, Robert D. Working paper PWP-CCPR-2005-019. California Center for Population Research; UCLA: 2005. Demographic Pathways of Intergenerational Effects: Fertility, Mortality, Marriage and Women's Schooling in Indonesia.
- Mare, Robert D. Differential Reproduction, Intergenerational Educational Mobility, and Racial Inequality. *Social Science Research*. 1997; 26:263–291.
- Mare, Robert D. A Multigenerational View of Inequality. *Demography*. 2011; 48:1–23. [PubMed: 21271318]
- Mare, Robert D.; Tzeng, Meei-Shenn. Fathers' Ages and the Social Stratification of Sons. *American Journal of Sociology*. 1989; 94:108–131.

- Mare, Robert D.; Maralani, Vida. The Intergenerational Effects of Changes in Women's Educational Attainments. *American Sociological Review*. 2006; 71:542–564.
- Mare, Robert D.; Song, Xi. Social Mobility in Multiple Generations. Paper presented to the meetings of the Population Association of America; San Francisco, CA. 2012.
- Matras, Judah. Differential Fertility, Intergenerational Occupational Mobility, and Change in Occupational Distribution: Some Elementary Interrelationships. *Population Studies*. 1961; 15:187–197.
- Matras, Judah. Social Mobility and Social Structure: Some Insights from the Linear Model. *American Sociological Review*. 1967; 32:608–614. [PubMed: 6077372]
- Preston, Samuel H. Differential Fertility, Unwanted Fertility, and Racial Trends in Occupational Achievement. *American Sociological Review*. 1974; 39:492–506. [PubMed: 4845313]
- Preston, Samuel H.; Campbell, Cameron. Differential Fertility and the Distribution of Traits: The Case of IQ. *American Journal of Sociology*. 1993; 98:997–1019.
- Raley, Sara; Bianchi, Suzanne M.; Wang, Wendy. When Do Fathers Care? Mothers' Economic Contribution and Fathers' Involvement in Child Care. *American Journal of Sociology*. 2012; 117:1422–1459.
- Seltzer, Judith A.; Bianchi, Suzanne M. Demographic Change and Parent-Child Relationships in Adulthood. *Annual Review of Sociology*. 2013; 39:275–290.
- Sharkey, Patrick; Elwert, Felix. The Legacy of Disadvantage: Multigenerational Neighborhood Effects on Cognitive Ability. *American Journal of Sociology*. 2011; 116:1934–81.
- Song, Xi; Mare, Robert D. Educational Mobility in Multiple Generations: A Two-Sex Approach. Paper presented to the American Sociological Association; New York. 2013a.
- Song, Xi; Mare, Robert D. Prospective Versus Retrospective Approaches to the Study of Intergenerational Social Mobility. Department of Sociology and California Center for Population Research, University of California; Los Angeles: 2013b. Unpublished Paper
- Szelenyi, Ivan; Treiman, Donald J. Social Stratification in Eastern Europe after 1989: General Population Survey—Provisional codebook. Department of Sociology, University of California; Los Angeles: 1994. Unpublished manuscript
- Torche, Florencia. Is a College Degree Still the Great Equalizer? Intergenerational Mobility Across Schooling in the U.S. *American Journal of Sociology*. 2011; 117:763–807.
- Treiman, Donald. J.; Walder, Andrew. G. Life Histories and Social Change in Contemporary China. Distributed by the UCLA Social Science Data Archive. 1996. <http://www.sscnet.ucla.edu/issr/da/>
- Treiman, Donald. J.; Moeno, Sylvia; Schlemmer, Lawrence. Survey of Socioeconomic Opportunity and Achievement in South Africa—Codebook. Department of Sociology, University of California—Los Angeles; 1996. Unpublished manuscript
- Warren, John Robert; Hauser, Robert M. Social Stratification across Three Generations: New Evidence from the Wisconsin Longitudinal Study. *American Sociological Review*. 1997; 62:561–72.
- Zeng, Zhen; Xie, Yu. The Effects of Grandparents on Children's Schooling: Evidence from Rural China. *Demography*. in press.