# DGD ANNUAL MEETING 2024

## 20.03.2024 – 22.03.2024

## BOOK OF ABSTRACTS

### Stefanie Kley (Germany): Migration, Spatial Mobility and the Ecological Question

Climate change, species extinction, land degradation, and environmental pollution are major ecological challenges that are putting pressure on populations around the globe. With this keynote, I would like to give an overview of the breadth of the topic and highlight some areas that I find particularly interesting in the research field of migration and spatial mobility: Research designs and findings on climate change as a driver of out-migration; the relationship between new technologies and migration and spatial mobility; environmental amenities as attractors of migration.

### Rannveig Hart (Norway): Fertility and Policy in Germany and the Nordics

The Nordic model has been seen as recipe for combining high fertility and high maternal labor supply. Central European countries have in contrast been characterized by more limited support to families and lower fertility. In the recent decades, this apparent contrast is unravelling. In Central Europe, there has been large expansions in supports to families, and fertility has increased. At the same time, fertility has plummeted in the Nordic countries, despite continued extensive family support. As a result, TFR in Germany and the Nordics has converged. In this talk, I discuss how change and stability in family policies relate to fertility change, using the Nordic countries and Germany as contrasting cases. I discuss whether the increases in fertility in Germany is likely to be a temporary "honeymoon effect" due to improved policies. I anchor reflections on efficient fertility policies for future in lessons from the contrasting cases.

### Cosmo Strozza (Denmark): Challenges to the Implementation of Indexation of Retirement Age: Lessons Learned from Denmark

In aging societies, policies are crucial for pension system sustainability. Some high-income countries, including Denmark, index their statutory retirement age to life expectancy. However, concerns arise about potential harm to segments of their populations at higher risk of premature death when increasing retirement age based on overall survival. The focus of the presentation is on social inequalities in survival, notably among low-income men, revealing a widening gap over time in Denmark. The study highlights the double effect of the indexation policy. While effectively reducing the number of years lived in retirement, it predominantly impacts the most advantaged group. Simultaneously, the policy fails to diminish survival inequalities to retirement age, leaving the least advantaged group unable to close the gap. This highlights the importance of considering social inequalities in planning pension policies, emphasizing the need for comprehensive social and health policies to address these challenges effectively.

### Mika Gissler (Finland): How COVID-19 Pandemic Affected Mortality Rates in Nordic Countries and Germany?

Globally WHO has reported 774 million confirmed cases of COVID-19 infections and 7 million deaths with uneven distribution of disease burden between the WHO Regions. As for December 2023, the Nordic countries reported 9.4 million cases (34/100 inhabitants), which is less than in Germany (38.4 million, 46/100). According to WHO, there were 51 500 COVID-19 deaths in the Nordic countries (188/100 000) and 175 000 (210/100 000) in Germany in 2020-2023. The Nordic average, however, hides a five-fold difference between Iceland (51/100 000) and Sweden (249/100 000).

Measuring COVID-19 mortality is difficult, since countries have had different practices how to gather information on deaths related to COVID-19. Originally WHO recommended countries to report all deaths within 30 days of confirmed infections (deaths with COVID-19). Increasingly, countries report deaths directly or indirectly caused by COVID-19. International statistics is a mixture of these measurements, which hampers their comparability.

**Jonas Helgertz (Sweden): Using methods of machine learning to create databases for (historical) demographic research**

During the past decades, scholars have produced a vast amount of research using linked historical individual-level data, shaping, and changing our understanding of the past. This has been enabled by developments in record digitization, computational speed, and machine learning, allowing researchers to replace time-intensive human matching with large-scale automation. This talk reviews recent work within this field, focusing on a range of aspects concerning what is known about the performance of different linking methods. While these methods allow researchers to construct big data at minimal cost, emerging evidence shows that the choice of method may have important implications for the researchers' conclusions. The talk concludes with suggestions for best practices when generating, evaluating, and using linked samples, within historical demography and beyond.

**Martin Bujard (Germany): FReDA - examples of analyses on fertility intentions, use of Medically Assisted Reproduction and parental employment**
**(together with Carmen Friedrich, Leonie Kleinschrot, and Jasmin Passet-Wittig)**

The family demographic panel FReDA is an annual survey with about 30,000 respondents including partner interviews. Every three years, FReDA also includes GGS questions and therefore is comparable with 18 other countries of the new GGS-II survey. This keynote shows three examples of research using these data: First, we analyze cohort fertility rates, fertility intentions and the ideal number of children over life course of women and men for 8 European countries. Second, we analyze perceived infertility over life course and the use of Medically Assisted Reproduction (MAR). For analyzing MAR, we consider the prevalence of multiple stages of seeking medical help to get pregnant from first doctor appointment to IVF treatment and show that the social and demographic determinants of MAR use differ across treatment stages. In the third research example, we investigate a novel survey question, which inquires the concrete ideal working time for both mothers and fathers, differentiated by the age of the youngest child. We compare the actual and ideal working time of mothers and fathers for different ages of children and calculate the respective gap over the family life course.

# ABSTRACTS

# A new framework to identify individuals with a disability using linked individual-level register data.

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Balbo, Nicoletta (3);
Neri, Elena (3);
Remes, Hanna (2,4);
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Register data provide a reliable data source to conduct societally relevant research on minorities and hard-to-reach populations such as individuals with a disability. Current research, however, focuses mainly on single disabilities defined through the ICD-10 (International Statistical Classification of Diseases and Related Health Problems) classification, thereby lacking a comprehensive overview of populations with a disability. This study aims to extend this narrow and specific perspective on disability by conceptualising a framework to categorise three macro-types of physical, intellectual or sensory disabilities in linked individual-level register data. This novel approach will contribute to the literature by providing a methodological tool to comprehensively identify individuals with a disability from a young age. This study will use various register-based data sources from the Finnish population registers, i.e., medical care use, social security insurance utilisation and school curricula information, to first establish a new identification strategy for the three macro-types of physical, intellectual or sensory disabilities; second, assess identification similarities and divergences from the conventional ICD-10 classifications; and third, identify overlaps between these categories and other co-morbidities. The newly developed framework will enable population-based research on individuals with a disability, paving the way to providing insights into universal trends in this population across several life course domains. It will, therefore, make a substantial contribution to the field of disability studies and the broader disciplines of social epidemiology and demography.

*Disability, register data, identification*

# Adult outcomes by parental, school and postcode aggregated income in childhood – a descriptive analysis of the cohorts 1981-1989 in Finland

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Monitoring the ways in which childhood socioeconomic environment is associated with adult outcomes is critical for scientific understanding of social inequalities and for informing evidence-based policy debates. However, we know little about the cohort differences in the association of childhood income with adult outcomes in Finland, a country of low income-inequality and one of the most desegregated educational systems in the developed countries. We use longitudinal FOLK register data on complete population cohorts born in 1981-89 and divide these cohorts into tenths by their parental, school and postcode-level aggregated income at the age of 15. We focus on five demographic and socioeconomic adult outcomes at the age of 30. On average across the cohorts, compared to the highest income groups, the lowest tenth of parental, school and postcode income had, respectively, 1.7, 1.7 and 1.3-fold risk of death, 3, 1.3 and 0.8-fold risk of low education, 2.4, 1.9, and 1.3-fold risk of long-term unemployment. People with a lower childhood parental or school income were more likely to live with a partner and have children than people from higher income backgrounds. The differences by school and postcode income in the education outcome were small, suggesting limited school and area segregation in the country. However, there was some indication of increasing absolute and relative differences in the education and employment outcomes by parental and school aggregated income.

*Childhood, mortality, educational inequalities*

# An Assessment of Human Resources of Ukrainian Labour and Forced Migrants in Poland

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The Russian war in Ukraine which has escalated in February 2022 to the whole territory of Ukraine has brought an unprecedented flow of Ukrainian refugees to Poland. According to UNCHR there are more than 6.3 million Ukrainian refugees in the world. Since the re-escalation of Russian war in Ukraine there has been recorded 16 million border crossings through Ukrainian-Polish border by November 2023 and till then nearly 1.6 applied for various asylum and protection status. Before the war there was already more than 1 million labour migrants from Ukraine in Poland. It means that in the short time the inflow of Ukrainian migrants to Poland was massive, as never experienced before. It shows also that Ukrainian refugees have had plenty of migrant networks in Poland which facilitated their arrivals. The aim of this paper is twofold. Firstly we are going to assess skills, explore resilience and learn about perceived social support by Ukrainian migrants and refugees in Poland as indicators for their labour market integration and a development of human resources, also needed after a return to Ukraine. Secondly, our aim is also methodological. The data is collected via a unique interactive portal My Migration (www.mymigration.academy) which is available in Ukrainian, English and Polish and gives an instant feedback to respondents. It uses world validated scales relevant for each topic. In social sciences we usually take information from our respondents, giving very little in return. By developing this portal both technologically and methodologically we wanted to change it and reciprocate our respondents who are in need of knowledge about their resources. Therefore My Migration portal opens avenues for research impact via making this instrument also used by practitioners, e.g. job advisors, NGO experts etc.

*Ukrainian war migrants, assessments of human resources of migrants, human capital, psychological capital, social capital, social science research with feedback, new methodological approach*

# Associations between Covid-19 vaccination and fertility: interrupted time series analyses of birth rates for 22 countries

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Fertility trends underwent strong fluctuations during the COVID-19 pandemic. Upward and downward fertility shifts, although of varying size, occurred quite synchronously in many higher-income countries. This study focuses on the sharp downturn in monthly birth rates at the turn of the years 2021-2022, which has been rather puzzling given the relatively stable and positive fertility dynamics seen during most of 2021 in many countries. This decline in births is linked with conceptions in spring-summer 2021, when the COVID-19 vaccination effort was gathering momentum. The central aim of this study is to explore whether the rollout of COVID-19 vaccination and the fall in monthly fertility are associated. Using an interrupted time series design, the impact of two interventions – the start of the COVID-19 pandemic in March 2020 and the start of COVID-19 vaccination– on the trends in seasonally- and calendar-adjusted monthly TFRs has been evaluated. The findings suggest that at least in some countries, the COVID-19 vaccination seemingly influenced childbearing behaviour and thus contributed to the decline in birth rates observed about nine months following the start of the effort. More in-depth and context-sensitive research is needed to further explore causal mechanisms underlying changes in childbearing decisions in response to the COVID-19 vaccination.

*COVID-19 pandemic, COVID-19 vaccination, fertility, birth rates*

# Bayesian mortality modelling with pandemics: a vanishing jump approach

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This paper extends the Lee-Carter model to include vanishing jumps on mortality rates, where the impact is highest in the beginning and then gradually diminishes. Existing models either account for transitory jumps over one period or permanent shifts. However, there is no literature on estimating mortality time series with jumps that have a vanishing effect over a small number of periods, as is typically observed in pandemics. Using COVID-19 data, our proposed Bayesian model out performs transitory shock models in terms of in-sample fit, thus providing a more comprehensive representation of mortality rates during a pandemic.

*Stochastic mortality modelling, Pandemic shocks, jump effects, Bayesian inference*

# Birth Seasonality in East and West Germany, 1946-2017

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Seasonal trends in fertility are found in several contexts and are affected by societal and environmental factors. In particular, major social shifts could lead to changes in such trends. This paper documents how birth seasonality in East and West Germany changed across time and in particular after the reunification happened in 1989. We use birth counts by month from the Human Fertility Database divided by East and West Germany from 1946 to 2017. We normalize the number of births by the number of days in each month and construct a birth index. We then use descriptive statistics to show in which months births are concentrated across seven decades and which is the month with the highest and lowest number of births in the two regions over time. We observe similar birth seasonality in East and West Germany in the decades from 1946 to 1976 showing a peak in the first months of the year and a second peak in September. In the 70s West Germany starts to diverge showing the emergence of a single peak of births in late summer. Shortly after reunification, East Germany start to resemble the seasonal trends of fertility found in West Germany. The findings raise questions about the potential causes behind East Germany's rapid adaptation to West Germany's fertility patterns post-reunification, suggesting significant social and economic influences. This research underscores the impact of major societal changes on fertility trends, providing insight into the dynamic nature of birth seasonality within different sociopolitical contexts.

*Births, Seasonality, Germany, Social Change*

# Breaking the norm when breaking up: Intergenerational transmission of divorce among two ethnolinguistic groups in Finland

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Individuals who experience divorce in childhood are more likely to divorce themselves as adults. Notably, the magnitude of the intergenerational divorce transmission is stronger for groups among whom divorce is rare. This transmission may reflect differences in family behaviours passed on from parent to child, or stem from differences in social norms between sub-groups. Sociologists and demographers have struggled to disentangle socioeconomic factors and norms, because groups that are less wealthy tend to have higher divorce rates. Here we use data from Finland, where two native ethnolinguistic groups with comparable socioeconomic characteristics – but different divorce risks – live side by side; Swedish speakers and Finnish speakers (5% and 90% of the population, respectively). Using register data on the entire population from 1987 onwards, we examine separation risk as a function of parental divorce (couples n= 554,337, separations n= 309,676, total years at risk 4,890,095). Cox regressions demonstrate that risk of separation is higher for couples where both sets of parents had divorce than if only one set of parents had divorced, adjusted for a range of demographic and socioeconomic covariates. Moreover, the intergenerational transmission is greater among Swedish speakers, who have an overall lower separation rate. These group differences in separation risk persist even after controlling for socioeconomic factors and each partner's experience of parental divorce. Notably, Finnish-speaking couples who reside in Swedish-dominated areas have both somewhat lower separation risk, and higher intergenerational transmission than their peers in Finnish-dominated areas. These results point to a social transmission of separation, over and above socioeconomic causes. The role of geographic (im)mobility of the Swedish-speaking minority, social cohesion and partner markets are discussed.

*divorce, separation, intergenerational transmission, ethnolinguistic groups, population register data*

# Can time heal all wounds? Timing of family transitions and final school grades in Norway

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Evidence from several nations has demonstrated that children and adolescents with divorced or separated parents do on average less well in school compared to those who grow up with nondivorced parents. For children living in single-parent families, research has shown that only those children whose parents separated shortly before they received their grades were disadvantaged. This might indicate that children learn how to cope with the new family situation and that after a phase of adaptation, the negative consequences of parents' separation on school outcomes diminish. However, we know little about children's adaptation to other family forms, such as stepfamilies. Given that the number of children in stepfamilies increased over the last years, it is important to identify potential pattern of educational disadvantages in this group. Family roles and daily routines must be re-established when starting a stepfamily, and ambiguity might be induced by the stepparent as a new authority figure. Therefore, we argue that children adapt to their new family situation and that negative effects are strongest in the years shortly after a family transition. In our study, we make use of large register data and linked datasets from Norway (n=1,368,808). The data contain information about school performance in 10th grade, when children are normally 16 years old, and various demographic variables. School performance is measured in the Grade Point Average (GPA). We analyze differences in GPA between children who have experienced separation or stepfamily formation at different ages. Applying Entropy Balancing as a weighting approach, our preliminary results indicate that, contrary to our adaptation hypothesis, the difference between children living in different family structures is stable and appears to be independent of children's age at the family transition. An analysis of the heterogeneous effects based on children's gender and socio-economic background is pending.

*school grades, family transitions, adjustment, Norwegian register data*

# Challenges and opportunities: a register-based census for Germany

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The register-based census is a key future project of official statistics in Germany. It aims at converting data collection to predominantly register-based methods. Thereby, timeliness, periodicity and spatial resolution of data can be increased, while reducing the response burden on citizens. In addition, the implementation of the register-based census inspires the further development of register modernization in Germany and promotes a digital and modern administration. As a joint venture of the Federal and State Statistical Offices of Germany, the register-based census is conceived as an essential part of the steering project for register modernization of the Federal Ministry of the Interior and Community (Bundesministerium des Innern und für Heimat, BMI). Laying the necessary foundations for a register-based census data collection is one of the goals in the BMI's digital program by 2025.

This contribution outlines the requirements for a future register-based census in Germany. It describes the ongoing implementation and associated challenges. The project is divided into five modules according to the topics for which census data are to be provided – population, labour market, education, housing as well as families and households. In this context, a large-scale test of the planned new methods for producing population figures is to take place. Further essential components are then to be implemented by the 2031 census round. The register-based census does not only offer great opportunities in terms of data quality and availability, but the size and complexity of the project as well as the large number of stakeholders involved also bring with them challenges: New legal foundations on the European and national level must be created. New methods such as record linkage and the signs of life-approach must be tested and introduced step by step. Last but not least, the technical basis for processing large amounts of data must be established.

*register-based census, census, register modernization*

# Changing Germany's Statutory Pension Insurance: An Empirical Study of Popular Aversion to Reforms

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The demographic transition is putting the German statutory pension insurance system under enormous pressure to reform. A factorial survey experiment conducted as part of the German Economic Institute's 2023 IW Survey of Individuals related the level of pension contributions to the degree of security and the standard retirement age and simulated the adjustments reforms could achieve. However, even this explicit illustration of reform options failed to counteract popular aversion to changes. Hence, the status quo receives the greatest approval. In direct comparison, postponing the standard retirement age by one year is as unacceptable as a 3-percentage-point increase in the contribution rate or a reduction in pension benefits of about 4 per cent. The lowest acceptance of reforms is to be found among those whom they would least affect: the over-50s. Among under-50s, the rejection of all reform options is considerably weaker.

*pension reform, preferences, factorial survey*

# Contribution of Couple's Immigrant Status to Union Formation and Dissolution in Finland

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Recent work has demonstrated the impact of first union dynamics, both formations and dissolutions, on population composition in low fertility contexts. In light of the potential importance of first union dynamics in contexts where it is becoming more urgent to understand the underlying drivers of population change, we examine the nexus between union dynamics and immigration in Finland, a country with a relatively new immigration regime and low cohort fertility projected to continue declining.

Using a survival analysis framework and complete Finnish register data on all women aged 18-65 registered as residents in the country spanning 1987-2020, we compare the heterosexual union dynamic patterns among immigrants and their descendants, by identifying which characteristics, such as education and region of origin, moderate first union (cohabitations and marriages) formations and dissolutions. We distinguish between 1st generation immigrants, 2nd generation immigrants (those with two 1st generation parents), and the 2.5 generation (those with one Finnish and one 1st generation parent). Preliminary work suggests that women in the 2nd and 2.5 generation were overall less likely to enter a first union compared to native Finnish women, and that among the available couple immigrant pairing typologies, couples made of two 1st generation immigrants show the lowest rate of first union dissolution at 44.76%, while couples made up of two 2nd generation immigrants show the highest rate of first union dissolution at 71.40%. Studying these union dynamic patterns offers insights into how subsequent generations in Finland will form, continue in, and dissolve unions.

*union dynamics, first union, immigrant, intergenerational*

# Convergence and persistent contrasts in the determinants of working-age women in Sweden and Japan living alone since the 1990s

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One of the most distinct demographic trends in Western societies during the last 50 years is the increase in the proportion of one-person households (OPH). Nordic countries have been identified as frontrunners in this development. In Asia, equally developed countries like Japan retain elements of a strong-family system and an asymmetrical gender regime, simultaneously as they are experiencing rapid increases in OPHs. This article aims to uncover how the demographic and socioeconomic composition of OPHs have developed since the 1990s among working-age women in Sweden and Japan. In contrast to Japan, the level of OPHs remained stable over time in Sweden, and even declined among women with high incomes. This suggests that the negative association between family formation and women's economic activity is temporary and only prevails as long as society has not adapted to the convergence of men's and women's socioeconomic roles.

*One-person households, Single living, Gender, Family systems, Sweden, Japan*

# Crossing borders, bridging health: immigrant health in exogamous marriages, the role of income

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Family ties are a fundamental dimension of individuals' lives which might mitigate or exacerbate individual health disadvantage. In contrast to natives, who have a social and cultural advantage to navigate life-course adversities, immigrants need to make integrative efforts that are often entirely on their side, or on a limited family network. Family ties may mitigate these negative effects. Among the different types of family ties, a particular important role for health is played by spouses. Exogamous marriage, defined as marriage between people of different geographical origin, is often overlooked as a health determinant. Although the research on intermarriage is rich, not enough attention has been paid by scholars to the relationship between exogamous marriage and health of the spouses. Our aim is to fill this knowledge gap. We hypothesize that immigrants married to natives display better health outcomes compared to immigrants married to immigrant spouses; that the better health conditions are explained by the socioeconomic characteristics of the partner and that this relationship will hold after accounting for socioeconomic conditions prior to marriage. We use register-based longitudinal data on Finland to analyze the association between the place of birth of the spouse and inpatient and specialized outpatient care records. We focus on individuals aged 18-59 and their spouses (of any age), and we study men and women separately. Preliminary results for men show an increased risk of being hospitalized for psychopathological conditions for Finnish men married to immigrant women, which is fully explained by the sociodemographic controls included in the analyses, and a decreased risk for immigrant men married to immigrant women, that persists when considering the socio-demographic controls. Next steps include a detailed analysis by countries of birth, and a focus on the role of income.

*Immigrant health; intermarriage; exogamous marriage; Finland; register data*

# Disaggregation of National Level Population Projections to Municipal Level Using a Neural Network Approach

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Population projections for small geographical areas are challenging even when data availability is good. Despite the presence of register data in Norway the current municipality level population projections by Statistics Norway are not satisfactory and are in the process of being replaced from a cohort-component framework to microsimulation. We propose a simpler and generalizable approach for downscaling national level population projections into municipality level projections, leveraging Norwegian register data and other data sources using an innovative neural network-based machine learning model. An additional advantage of this downscaling approach is that additional dimensions can easily be added to sub-national projections. We show this by disaggregating the Wittgenstein Centre population projections. The machine learning model is also trained by categorizing municipalities by special economic activities that might affect the population structure in that area. Such activities are the presence of fish farming, oil production, universities, or a high concentration of agricultural production.

*Machine learning, subnational projections, education, spatial disaggregation, downscaling*

# Do genetic factors drive heterogeneity in mental health trajectories around family transitions?

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Lahtinen, Hannu (1,2,3);
Kühn, Mine (1,3,5);
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Inconsistent findings on mental health changes surrounding family transitions suggest subgroups drive effects. We examine if genetic susceptibility to depression explains this heterogeneity.

Using Finish data and random-effect models, we followed 30,192 individuals' antidepressant (AD) purchase probabilities during union formation, separation, first childbirth, and widowhood. A polygenic index (PGI) for depression categorized individuals into low, medium and high risk.

Post-union formation, low-PGI individuals had decreasing AD purchase probabilities, while high-risk individuals exhibited increases. High-risk individuals showed a pre-separation increase in AD purchase probabilities, followed by an adjustment to previous levels. Post-widowhood, AD-probability increased among high-risk individuals, while low-risk individuals recovered fastest to pre-widowhood levels. PGI-differences surrounding first childbirth were not significant.

Overall, mental health trajectories surrounding union formation, separation and widowhood differ by depression PGI. High-PGI individuals had worse mental health during these events, while union formation was particularly beneficial for low-PGI individuals, who recovered fastest from separation and widowhood.

*family transitions, sociogenomics, antidepressant purchases, Finland*

## Does a Civil Service Job Matter? The Effect of Civil Service Employment on the Transition to the First Child for Women and Men in Germany.

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This study compares the effect of civil service and private sector employment on the transition rate to the first child, considering possible effect heterogeneity of sex, contract status, partner's working status, and residence in West or East Germany. The civil service is often associated with a family friendly work environment offering the possibility to reverse the problem of low birth rate. An influence has been demonstrated in other European countries, but Germany lacks an individual-level analysis that takes into account possible heterogeneities. Using data from the German Family Panel (Pairfam) of 5985 employees who experienced 677 first birth events, we run discrete event history models in a piecewise-constant specification to calculate the transition to first child conditional on civil service or private sector employment. We do not find a substantial and significant effect on fertility behaviour for either women or men. Moreover, there is no evidence of effect heterogeneity by contract status, partner's employment, or region. The findings indicate that the current civil service does not have the assumed potential to positively influence family formation and address the problem of low fertility in the German welfare state.

*public sector, first child, economic situation*

# Does place matter? Regional variation in the SES-mortality gradient among retired German men

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There has been a long-standing debate concerning the relative importance of space and place vs. individual characteristics for mortality. In this paper, we analyze the association of lifetime SES-status/income and mortality at older ages among retired German men and its variation at the sub-national level. Does the income gradient in mortality differ across sub-national macro-regions and types of settlement? To answer this question, we employ a large administrative dataset of the German Pension Fund consisting of 17 Mio person-years of exposure and 585.9 thousand deaths that have occurred over the period 2012–2017 among men aged 65–84. We estimate relative mortality risk using a Cox proportional hazard model. To quantify the steepness of the gradients and be able to compare them between different places of Germany we estimate the Slope Index of Inequality and the Relative Index of Inequality. Our preliminary results suggest a linear income-mortality relationship across all macro-regions and types of settlement: the risk of dying decreases as income increases. However, the degree of inequalities between different settlements and the steepness of mortality gradients vary substantially within the country. In particular, regardless of the sub-national macro-region, big cities reveal the highest degree of disparities across income groups.

*Income gradient in mortality, sub-national differences, Germany, retired men*

# Drivers of international migration

Heins, Frank;
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This contribution offers an overview of the determinants of international migration – at the micro, meso and macro levels. Focusing on some of the drivers we place emphasis on the personal- and family-level processes that inform the migration decisions. The most common profile of people who intend to migrate is that of the young male (not exclusively!), more educated and with consolidated networks abroad. Regardless of the income level, the older individuals are, the less likely they are to express the desire to migrate. In contemporary societies of both the Global North and South where a growing but still small proportion of the population is longing to be elsewhere, this propensity to migrate becomes an important driver of social change and development as a key aspect of the process of migration decision-making. Although the migration aspirations have often been labelled as poor determinants of migration, without them and the desires for change the other drivers would not lead to migration. These latter drivers are inherent in international disparities regarding demographic, social and economic structures and dynamics. In parallel, the multiplicity of motivations and the complexity of contemporary migration dynamics have highlighted the limited explanatory capabilities of categorisations such as: forced, economic, seasonal, environmental,…migrant. In this context there is an urgent need to reformulate the study of the drivers of international migration by going beyond the primacy of economic rationality and the sole logic of the push-pull models of international migration. Drawing on the results of the EU-Horizon2020 FUME project, the contribution proposes an understanding of the patterns and drivers of international migration developed within the analytical framework of the aspiration/ability model. The key question of the project was: what contribution can the discussion on the drivers of international migration make to the formulation of narratives of future migration scenarios?

*International migration, drivers, micro meso and macro levels, migration decision-making, aspiration/ability model*

# Drivers of population change in Danish and Swedish municipalities.

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We explore what drives the differences in population growth among the municipalities in Denmark and Sweden and to what extent existing differences in age compositions across the municipalities are responsible for these differences. Using Danish and Swedish aggregated municipal data, we decompose population growth of the municipalities into three demographic components, birth, death, and migration, and include a component that measures the effect of age composition on individual municipalities in relation to population growth. We find that population growth and age structure are heavily linked to one another and largely determine migration patterns. More specifically, relatively older municipalities with negative contributions to growth from age structure also have a negative contribution from migration. On the other hand, younger municipalities with positive contributions of age structure component also tend to have a positive contribution from migration. Thus, rapidly ageing municipalities experience a double burden of both existing old-age structure and outmigration.

*Population Change, Population ageing, Decomposition.*

# Educational Differences in Fertility among Female Same-Sex Couples in Finland

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Same-sex couples increasingly often live in legally recognized unions and have children together. The accessibility of parenthood, however, depends on intersecting contextual and couple-level characteristics. Using Finnish register data on 1,945 female same-sex couples who registered their partnership in 2002–2016, during which important legal changes regarding same-sex parenthood took place, we explore how education and the existence of prior children predict childbearing within the same-sex partnership. Female couples' likelihood of childbearing within five years of registering a partnership increased from 20% to 45% over the observation period. The increase was not universal. For couples educated to tertiary level, the increase was from 24% to 55%. For primary and lower-secondary levels, the likelihood decreased from 27% to 9%. Educational differences in childbearing were only marginally explained by income level. Intensifying educational differences in fertility may reflect changes in couple-level characteristics as well as institutional barriers to childbearing that need more attention.

*same-sex couple, registered partnership, fertility, socioeconomic differences, family diversity*

# Empirical Prediction Intervals for Forecasts of Nordic Fertility

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The Nordic countries have experienced rapid and unexpected fertility declines in the last decade. Future paths of fertility are a key input when charting the sustainability of social security systems. Hence realistic views of possible future paths of fertility, including the uncertainty regarding these paths, is critically important for economic and social planning in the Nordic countries. An almost universal finding of probabilistic forecasting is that model-based prediction intervals are too narrow. The result is a misleadingly confident view of the future. We approach the problem of prediction uncertainty by generating empirical prediction intervals for our forecasts of Nordic period fertility up to 2050. We derive the empirical prediction intervals for our forecasts from an out-of-sample cross-validation, utilizing historic forecasting errors. These quantify how uncertain we should be about the forecasts given the demonstrated forecast performance of the past. We then validate the calibration of the empirical prediction intervals and compare them to the performance of model-based prediction intervals. We use the following forecast models applied to data from the Human Fertility Database: First, a na\"{i}ve approach fixing the last observed Total Fertility Rate (TFR). Second, a GARCH model of the TFR. Third, the Lee-Carter method for age-specific fertility rates. And fourth, a probabilistic, random-walk based forecast around the assumption that the ongoing fertility postponement would gradually slow down and come to an end by 2050. In addition to presenting forecasts of Nordic fertility up to 2050, we expect to find that the empirical prediction intervals provide a more realistic view of the forecast uncertainty, exhibiting wider prediction intervals in comparison to the model-based prediction intervals.

*Empirical prediction intervals, Fertility forecasting, Nordic fertility regime*

# Excess Mortality in Germany: Spatial, Cause-Specific and Seasonal Effects Associated with the COVID-19 Pandemic, 2020–2022

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Since the beginning of the COVID-19 pandemic, only few studies on excess mortality have considered both cause-specific and sub-national differences. Located at the intersection of the European north-south and east-west gradients of (excess) mortality, Germany represents a fascinating context for such detailed analysis, as the German example might provide implications for the overall European pattern. Our analyses rely on official cause-of-death statistics consisting of 7.74 million individual death records reported for the German population during 2015–2022. We conduct differential mortality analyses by age, sex, cause, month and district (N=400), using decomposition and standardisation methods, comparing each strata of the mortality level observed during 2020–2022 with its expected value. Our results show remarkable spatial differences to the disadvantage of the south of eastern Germany in both 2020 and 2021. Excess mortality in the most affected districts is driven widely by older ages and deaths reported during the second wave, particularly from COVID-19 but also from cardiovascular and mental diseases. In 2022, however, the spatial pattern completely changed with the northwest showing the highest levels of excess mortality, while the east widely experienced a rise again in life expectancy. The results for 2020 and 2021 suggest that increased psychosocial stress influenced the outcome of excess mortality in the most affected areas during the second wave of the pandemic. Cause-specific and seasonal data for 2022 will become available by March 2024, hopefully in time for DGD 2024, and will help us understand the fundamentally changed pattern of excess mortality.

*COVID-19, excess mortality, causes of death, regional differences, decomposition, life expectancy, Europe, Germany*

# Expected effective retirement age and exit age in the Nordic countries

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Our research examines the effective retirement age in the Nordic countries by using two complementary indicators: the expected effective retirement age and the labour market exit age. The analysis is done for the years 2007–2020. Our paper presents the estimated effective retirement age in each country for 30-year-olds and for 50-year-olds based on coherent data. Since the exit age and the expectancy are closely related, they tell us mainly the same story. In all the countries studied, policy measures have sought to delay retirement. Indicators show that this has also happened. Although there are still some clear differences between countries within these indicators, they have narrowed during the review period. Calculations show that the expected effective retirement age for 30-year-olds has increased most in Finland and Denmark during the research period from around 60 to 63 years. In Norway and Iceland, on the other hand, the expectancy has declined. In Sweden, it has remained on a high level. Changes in the expected effective retirement age for 50-year-olds during the review period seem to be smaller than those for 30-year-olds. The level of 50-year-olds is highest in Sweden, at 65 years. Denmark has reached nearly the same level as Sweden. The expectancy in Denmark and Finland have risen at an even pace in the 2010s; and reached the same level as Iceland (64). In Norway, the expectancy is at the lower level than it was before the pension reform in 2011. The exit age has risen steadily in the countries studied, except for in Iceland. Otherwise, the exit age has increased during the period under review for both men and women. In Iceland there appears to be no rise since 2010, but the exit age has been clearly higher than in other countries during the years under review.

*Effective retirement age, pension, retirement, pension reform, Nordic countries*

# Exploring the relationship between economic performance and life expectancy across Europe's regions between 2005 and 2018

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Understanding the relationship between life expectancy at birth (e0) and the gross domestic product per capita (GDPpc) is relevant for cohesion policies in the European Union (EU) because it might imply that economic convergence (or divergence) is accompanied by narrowing (or widening) health gaps. Previous studies have studied the association between GDPpc and e0 almost exclusively based on national data. It is certainly more appropriate, however, to study the relationship at the subnational level because levels and trends in both variables, e0 and GDPpc, vary substantially across Europe's regions. Accordingly, the aim of our study is examining, whether economic performance of regions predict their e0 level. We build Preston curves from regression models using regional data for 19 European countries, divided into 535 regions. Mortality data comes from statistical offices and GDPpc can be obtained from the Eurostat database. The period 2005 to 2018 is particularly interesting as it immediately follows the EU enlargement to central-eastern European countries in 2004. In our analysis, spatial units refer to NUTS-2 or NUTS-3 regions, depending on the size of the country. Our preliminary results suggest that there is indeed a positive association between GDPpc and e0. Similarly, to Preston's original analysis, we observe an upward shift in the curve, indicating that factors exogenous to a region's GDPpc level play an important role in explaining e0 gains as well. In the next step, we plan to employ panel data regression techniques to assess the impact of GDPpc on mortality for the period 2005 to 2018. We are confident that our comprehensive dataset and suggested robust regression techniques will enable us to further examine whether levels and trends in e0 can be linked to the economic development of European regions.

*Life expectancy, gross domestic product, Preston curve, regional disparities, spatial models, Europe*

# Family Policies, Fathers' Involvement and the Division of Care

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Despite considerable convergence, gender gaps in the labour market remain substantial across countries and can largely be attributed to the differential impact of parenthood on men and women. While family policies, such as childcare provision, have proven effective in enhancing maternal labour market outcomes in the short term, their impact on fathers' involvement in child-rearing remains less explored. Fathers' engagement is crucial for challenging traditional gender norms and narrowing long-term gender gaps. This study investigates how the availability of universal childcare affects fathers' early involvement in raising children and a more equal division of childcare responsibilities throughout early childhood. In particular, we are interested in the effect on fathers' parental leave-taking after birth and their subsequent involvement in parental childcare. For our analyses, we use data from the DJI Childcare Study (KiBS), providing annual individual-level information on childcare needs and arrangements throughout childhood, along with fathers' parental leave-taking and childcare rates from administrative data at the county level from the Federal Statistical Office of Germany. The introduction of a legal claim in Germany in 2013 for publicly funded childcare for children below the age of three years created a quasi-experimental variation in the regional availability of childcare, as the speed of childcare expansion varied substantially across municipalities. Using this exogenous variation in childcare availability, we estimate a two-way fixed effects specification. Preliminary results indicate that a higher childcare rate in the year preceding birth leads to earlier childcare entry (below 18 months). Additionally, a higher pre-birth childcare rate significantly increases fathers' uptake of parental leave. However, this increase in paternal leave-taking does not translate into higher involvement of fathers in parental childcare in the short term. Our analyses shed light on the interplay between various family policies and consider paternal behaviour within family dynamics.

*Public Childcare, Family Policies, Parental Leave, Paternal Involvement*

# Fertility and partnership dynamics among refugee women and men from Eritrea and Syria in Germany

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Our study investigates family dynamics among forced migrants from Eritrea and Syria to Germany. We analyse the partnership and childbearing patterns of women and men. We pursue the following research questions: 1) What are the union formation and fertility behaviours of refugees in the years before and after migration and during transit stays? 2) How are family events and forced migration trajectories interrelated? 3) Which demographic, socio-economic and migration-related factors are associated with diverse family dynamics of refugees? Our empirical analyses draw on data derived from the quantitative survey "Forced Migration and Transnational Family Arrangements - Eritrean and Syrian Refugees in Germany" (TransFAR) collected in 2020. This survey covers 1,450 respondents and is Germany-wide representative of recent refugees from two major countries of origin of forced migration to Germany. Our analytical strategy is threefold: First, we describe the patterns and prevalence of marriage and childbearing, taking a multisited perspective and accounting for several locations of the respondent: in the country of origin, in transit countries and in Germany at time of arrival as well as at time of the survey. Second, sequence analysis techniques are performed, accounting for marriage and fertility trajectories from 5 years before arrival to Germany to 5 years after arrival. Third, the associations between marriage-fertility trajectories and individual demographic, socio-economic and migration-specific factors as well as contextual characteristics are estimated. Preliminary results show that an important share of married individuals experiences a birth in the first years upon arrival in Germany, indicating that the partnership status at arrival is crucial for fertility outcomes at destination. Furthermore, we find considerable differences between genders.

*refugees, forced migration, fertility, partnership, sequence analysis*

# Fertility or pregnancy rates for understanding the declining fertility?

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Fertility rates have been below the sustainability level of 2.1 children per woman in most high-income countries for decades. Meanwhile, the use of artificial reproductive techniques (ART) has increased for conceiving a child. In this study, we combine nationwide information on abortions, ART and immigration to illustrate the difference in pregnancy rates and fertility rates. We used Danish registry data on ART treatments, induced abortions and country of origin to estimate pregnancy rates and compare them to fertility rates. To include birth cohorts with not completed fertility, ART and abortion rates, these were forecasted. Our results clearly show that pregnancy rates have declined more rapidly than fertility rates and that immigration has significantly contributed to the fertility rates seen in Denmark. The forecasted fertility and pregnancy rates suggest this pattern will continue.

We infer from our results that pregnancy rates may be more informative in understanding the fertility crisis on Earth and that biological factors could significantly contribute to the findings.

*Fertility decline, pregnancy rates, IVF, abortions, immigration*

# Fertility resilience varies by socioeconomic status: trends in male and female childlessness across 150 years in family lineages in Finland

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Fertility dynamics and especially failure to reproduce are key drivers of demographic change, yet we lack studies of how fertility resilience, how fertility of populations can resist and recover from changes and disturbances differs in different subgroups in a population. Fertility resilience is likely to vary by socioeconomic class, but it has been little investigated over longer time spans. Using a unique dataset of Finnish family lineages over 150 years, we explored male and female childlessness by socioeconomic status during the first stages of the demographic transition and in relation to recurring large-scale societal and economical disturbances. We defined lifetime childlessness as having survived to age 45 without any children. Lifetime childlessness fluctuated in response to crises, doubling during the study period from around 10% in the first birth cohort of 1800 to 20% in the last birth cohort born 1945-49. Importantly, we found that higher socioeconomic status indicated a higher lifetime likelihood to reproduce, while the effects of societal crises were mostly confined to lower socioeconomic groups. Based on these results, we suggest that fertility resilience was high among landowners and those with socially highly ranked professions, but low among the poorest socioeconomic group. Temporal patterns in marriage and family size were indicated to underlie patterns in childlessness. In sum, our findings suggest that the family formation of lower socioeconomic groups suffer by far the most during crises and do not necessarily recuperate over time. Considering fertility resilience, and the differential vulnerability among socioeconomic groups, is also relevant for the future of human reproduction in the contemporary era of escalating crises.

*childlessness, socioeconomic status, fertility resilience, temporal trends*

# Gender Differences in the Timing and Chances of Parenthood across Regions

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Many studies have addressed fertility variation at the sub-national regional level among women, but our knowledge on regional variation in men's fertility remains limited. The current study assesses gender differences in the timing and chances of entering first-time parenthood across regions. First births are an important focus in the contemporary setting, given increases in childlessness in many countries and first births' growing importance for cross-country variation in fertility levels. We hypothesize that, based on differences in gender roles and sex ratios between regions, (i) men are subject to weaker regional variation in their first birth timing than women, (ii) gender differences in the timing of first births are less pronounced in urban centers, and (iii) these timing differences translate into similar patterns in the eventual chances of entering parenthood. This study builds on descriptive analysis and data on cohorts born in 1963–1970 in Finland, France, the Netherlands, and Sweden.

*fertility, cohort fertility, region, Nordic countries, age at first birth, childlessness, gender*

# Generational Placement Trajectories in Norway: Combining Empirical and Simulated Data

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Much existing research in the demography of kinship focuses on the structural availability of kin (i.e., number and kind alive). Importantly, family structures vary across individual life courses and between individuals, resulting in a different availability of kin depending on the life stage and for specific subgroups of the population. Yet, we know less about such life-course family structures. 'Generational placement trajectories' depict a person's relative position within their intergenerational family and describe if, when, and for how long they are a child, parent, or grandparent. At the same time, they also define life-course intergenerational family structures because they highlight which family members are alive at a given time. In the current analysis, we combine empirical and synthetic micro-level data to project generational placement trajectories in Norway for the 1953 birth cohort. We use register data to characterize trajectories for the years in which it is available (1953-2019). For 'future' periods (2020-2051), we use demographic kinship microsimulation to cover the entire 0-100 age range. Preliminary results show that generational placement trajectories are an efficient tool for showing heterogeneity in intergenerational kin availability. Moreover, our use of microsimulation lets us overcome data limitations for their analysis (e.g., reporting bias or selective participation for survey-based analyses or lack of register data for many countries and periods, as well as right-censoring for both data sources), so that we can extend the characterization of life-course family structures to contexts, periods, and age ranges for which high-quality micro-level data is not available. Through this, we pave the path towards obtaining results on a global level and from projections into the future.

*intergenerational family, life course, microsimulation, parenthood, grandparenthood, parental death*

# Hospitalization among Long-Lived Individuals with and without Dementia. A Study based on German Claims Data for the Years 2004 to 2019

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Background: In Germany, the majority of long-lived individuals (LLI) aged 85+ suffer from dementia at the time of their death. Additional medical costs of people with dementia (PwD) are mainly caused by differences in hospital care. The aim of this study is how the risk of hospitalization of LLI changes with age and age at death. Methods: We drew a random sample of quarterly data from all AOK insured persons aged 50+ (N=250,000) in 2004 with follow-up to 2019 and followed the 1918 to 1923 birth cohort (n=4,067 males and 13,303 females), who reached age 85 years between 2004 and 2009, to the end of the study period or to death. We estimated a multivariate logistic regression model, clustering variances by person ID, to examine the simultaneous effects of age, age at death and last year of life on the risk of hospitalization, stratified by PwD and non-PwD. Results: Overall, 41.23% of men and 48.37% of women had received a dementia diagnosis, and more than half had been hospitalized (men: 56.41%, women 57.19%). PwD were more likely to be in hospital (men: 68%, women: 68%) than non-PwD (men: 46%, women: 53%). In the multivariate analysis (Table 1), the risk of hospitalization increased significantly with each year of age, by 7.6% for PwD and by 9.3% for non-PwD. With increasing age at death, the risk decreased significantly by 11% for both. These trends levelled off at the highest ages. In the last year of life, the risk of hospitalization increased more for non-PwD (OR=7.36) than for PwD (OR=4.79); women had a significantly lower risk. Conclusion: LLI have lower hospitalization risks the later they die, both in people with and without dementia.

*claims data; retrospective study; age; aging;end of life; dementia*

# Identification of Unregisterd Emigration in the Norwegian Population Register

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A precise estimate of the target population is inherently important in population statistics. However, factors such as increased immigration, and few incentives for deregistration after emigration mean that population registers may not always accurately reflect the target population. This study aims to identify unregistered emigration using "signs of life". That is, detecting historical inactivity of individuals who have emigrated, but are still listed as residents in the population register. Unregistered emigration contributes to over-coverage, as the number of actual emigrations exceeds the number of registered emigrants. This estimation error affects not only size and composition of the population, but also impacts demographic indicators, such as death and fertility rates. Statistics on households and families may also become skewed due to these discrepancies. There is still no consensus on how to identify or deal with unregistered emigration. Addressing this, we first provide a comparison of methods adapted from the literature for estimating the number of unregistered emigrations. The Zero-Income Approach provides a method with minimal computational and data quality requirements, which serves as a foundation for the estimation. The Household-Income Approach builds upon this by correcting for household income factors. Finally, the Register Trace Approach provides the most comprehensive and detailed picture of unregistered emigration. Our estimates suggest that unregistered emigrants account for approximately 0.44 percent of the adult population in Norway. Second, we analyse the demographic characteristics of the non-deregistration group. We find that the problem of unregistered emigration is not equally distributed across the population, indicating that some subgroups are more prone to discrepancies than the rest of the population. Among immigrants, the over-coverage due to unregistered emigration is substantially higher, accounting for 2.29 percent of the population.

*over-coverage, population register, Norway, emigration*

# Immigration Background and the Widowhood Effect on Healthcare Use

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Objectives: The present study investigates whether the relationship between widowhood and healthcare use differs between native- and foreign-born persons residing in Denmark. It also studies the variations of health effects of widowhood by the immigration backgrounds of spousal. Methods: Leveraging Danish population register data from 1995-2014, we investigate trajectories of doctor's visits 3 years before and 3 years after widowhood and the risk of post-widowhood hospitalization among immigrants and native-born Danes aged 50 and older. Results: We found that immigrant women had a smaller increase in doctor's visits before and after widowhood than Danish women. Immigrant men had a smaller increase in doctor's visits before widowhood, while the post-widowhood change in doctor's visits was similar among immigrant and native men. The change in the number of doctor's visits varied across marriage type among immigrants. Discussion: The results suggest that aging immigrants are more vulnerable to stress related to spousal loss.

*widowhood, immigration, health, healtcare use, hospitalization*

# Increasing Statutory Retirement Age and Labor Market Outcomes: The Effects of the 2017 Pension Reform in Finland

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In this article, we study the labor market effects of the 2017 pension reform in Finland. The statutory retirement age of the studied cohorts increased from 63 years for the 1954 cohort to 63 years and 6 months for the 1956 cohort. Using total register data recorded at a monthly level and a differences-in-differences approach, we estimate the effect of this reform on employment, unemployment, disability, sickness, and inactivity. We find an increase in the employment rate of 20 percentage points between the old and the new retirement age, but also a major increase in disability, unemployment, and inactivity. For the most part – but not entirely – this is explained by the persistence of the previous labor market state. The reform effects vary considerably in different socioeconomic groups. Overall, the findings imply that the benefits from increased employment are dampened by the increasing costs of other social support programs, not to mention the social cost of the prolonged stay in these programs.

*Retirement age, policy reform, labor supply, unemployment, disability*

# Inequalities in mortality going in and out of the pandemic: Investigating mortality differences by education in Sweden during 2015-2022

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Life expectancy in Sweden fell between 2019 and 2020 as a result of the Covid-19 pandemic. The loss in life expectancy was largely recovered the following year, and life expectancy for women was even higher in 2021 than before the pandemic. However, both the decline in life expectancy and its recovery in 2021 varied by educational level. People with a low level of education were at higher risk of dying from Covid-19, but were also at higher risk of indirect negative consequences of the pandemic, such as unemployment and reduced access to healthcare. In its final report, the Swedish Corona Commission pointed out that the impact of the pandemic on inequalities depends not only on the acute phase of the pandemic, but also on how well different groups recover over time. In order to draw conclusions, a detailed analysis of the trends and causes of mortality differences between educational groups during the different phases of the pandemic is needed. This project addresses this knowledge gap and examines the contribution of different age groups, causes of death and excess mortality to educational differences in life expectancy from 2015 to 2022. The analysis is based on the total population aged 30 years and older and uses information on educational attainment, underlying and contributing causes of death for the years 2015-2022, as well as data on laboratory-confirmed positive cases and vaccination uptake. Preliminary results show that for both men and women, those with upper secondary and tertiary education have higher life expectancy in 2021 than in 2019, while those with compulsory education have lower life expectancy in 2021 than before the pandemic. The modest recovery in life expectancy among the least educated can be seen as a warning that the pandemic may exacerbate social inequalities in health.

*education, mortality, excess, causes of death, life expectancy*

# Intensive parenting norms and childbearing plans in Sweden

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Although increased parental investments are likely to shift childbearing perspectives, how this shift in parenthood norms relates to childbearing plans is poorly understood. We investigate how subscribing to intensive parenting norms relates to childbearing plans in Sweden and how this relationship varies by gender, current social class and parents' social class. We use the second wave of the Swedish Generations and Gender Survey (SGGS), completed in 2021, which included a novel module to assess three dimensions of intensive parenting. This study is based on 3,733 women and men with and without children. Our analytical approach is multivariate ordinary least squares regression, stratified by gender and parity. Findings varied by the dimension and measure of intensive parenting being analyzed. Results reveal either a positive (intending to have a child in the next three years) or null relationship between individual measures of intensive parenting and men's fertility intentions. A more complex picture emerges for women, whereby fertility intentions were positively linked to norms related to educational opportunities for children and the child-centeredness dimension, but fertility intentions were negatively linked to agreement with parenting being very demanding and children's involvement in activities being important. Although a relatively straightforward positive relationship appears for men, how parenting attitudes are linked to women's fertility plans depends on the dimension of intensive parenting under consideration.

*fertility, intensive parenting, intentions, gender, Sweden*

# Life Expectancy Among Immigrants in Sweden pre and during COVID-19: A Consideration of Different Origins and Types of Residence Permits.

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Unlike other destination countries, the overall impact of migrants on life expectancy in Sweden has not historically been positive. However, this varies depending on the country of origin of the migrants. The trend started to change in 2019. Immigrants began to positively contribute to the increase in life expectancy in Sweden, and researchers predicted that this trend would continue, except in 2020 the COVID-19 pandemic appeared. Sweden adopted a distinctive approach to the pandemic, leading to an overall increase in mortality and a decrease in life expectancy for males and females. Prior research indicates that immigrants are more likely to die from COVID-19 in several countries, especially those from non-Western nations. Our first aim is to understand whether the recent emergence of a positive impact of immigrants on national life expectancy in Sweden can be attributed to refugees. Swede has a diverse immigrant population in terms of country of origin and reasons for migration. As previously mentioned, life expectancy among migrants varies significantly based on country of origin, but it could change due to the reason for migration. Refugee health is more at risk than that of other migrants since the entire migration process—including leaving the country, travelling, and requesting asylum in the destination country— is associated with stressful and risky circumstances. Our second aim is to understand how much the COVID-19 pandemic and its disproportionate impact upon international immigrants, interrupted the positive contribution that migrants started to make to life expectancy levels. We fulfil these two aims we will use Swedish register population data that allows very detailed information.

*Covid-19, Life expectancy, immigrants, refugees, Sweden*

# Linked lives in partnership transitions and mental health. Parental separation, repartnering, and reconciliation

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This study examines the dynamic interplay of parental partnership transitions and mental health outcomes among mothers and fathers, utilizing Finnish register data. Following both parents within a family over their firstborn child's childhood, we employ random effects linear probability models to analyze various transition scenarios following parental separation. The analysis spans from one year before to four years after each transition, offering a detailed exploration of maternal and paternal mental health trajectories. Moving beyond individual outcomes, we investigate the interconnected nature of family dynamics, specifically examining how parental partnership transitions influence the mental health outcomes of both mothers and fathers. Exploring whether transitions, such as mothers or fathers repartnering, affect the mental health of the other parent, even when their own partnership status remains unchanged, contributes to a deeper understanding of reciprocal effects within parent dyads. Preliminary results indicate that overall, mothers experience poorer mental health compared to fathers. Repartnering immediately after separation or following a period of singlehood leads to short-term improvements in mental health, but levels eventually adjust to previous states for both mothers and fathers. Notably, repartnering of both mothers and fathers positively influences the mental health of the other separated parent, even when their partnership status remains unchanged. Moreover, parental reconciliation improves the mental health of both mothers and fathers. These findings suggest that after a separation, parents remain closely connected, and partnership transitions of the ex-partner influence their own mental health. One explanation for this could be that, in the sense of the linked lives concept, separated parents remain highly dependent on each other, possibly through shared parenting responsibilities or the child's well-being. Furthermore, the preliminary findings not only advance the understanding of reciprocal effects within parent dyads but also the general understanding of the association of parental separation, repartnering, and reconciliation with mental health.

*linked lives, family transitions, family complexity, antidepressant purchases, Finland*

## Long-Term Changes in the Socioeconomic Characteristics of One-Person Households in Sweden 1960-2018

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Today, more people than ever live in one-person households (OPHs). Sweden's OPH population started to grow in the 1960s, and today the country exhibits one of the highest proportions in the world, reaching almost 40% of all households. Despite describing Sweden and the Scandinavian countries as frontrunners, surprisingly, little is known about the long-term changes in the composition of the Swedish OPH population. Using large-scale register data covering the entire Swedish population at 5-year intervals, we analyze the development of the demographic and socioeconomic (SES) characteristics of OPHs from 1960 to 2018. In the analyses, we focus on how the composition of OPHs has changed regarding age, gender, civil status, parental status, education, income, and urban/rural context. The prime focus is on the socioeconomic determinants. Our findings show that there have been substantial changes over time, especially in the association between civil status and SES and the probability of living alone. The sharp growth of divorce in the 1970s was an important driver of increased OPHs. This was especially evident among men aged 30-45 that rarely attained custody of children before the 1990s. For SES, we find a shift from a positive to a negative gradient among women and an increasingly negative gradient among men. Today low-SES men and women in Sweden are increasingly selected into OPHs, and the SES patterns across sexes have converged.

*Sweden, One person households, Scocio-economic status*

# New approaches to study the over-coverage in Population Registers

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The growing necessity for evidence-based policy built on rigorous research has never been greater. However, the ability of researchers to provide such evidence is invariably tied to the availability of high-quality data. Bias stemming from over-coverage in official population registers, i.e. resident individuals whose death or emigration is not registered, can lead to serious implications for policymaking and research. Using Swedish Population registers and the statistical framework of multiple systems estimation, we estimate the extent of over-coverage among foreign-born individuals' resident in Sweden for the period 2003–2016. Our study reveals that, although over-coverage is low during this period in Sweden, we observed a distinct heterogeneity in over-coverage across various sub-populations, suggesting significant variations among them. We also evaluated the implications of omitting each of the considered registers on real data and simulated data, and highlight the potential bias introduced when the omitted register interacts with the included registers. Our paper underscores the broad applicability of multiple systems estimation in addressing and mitigating bias from over-coverage in scenarios involving incomplete but overlapping population registers.

*Over-coverage · Sweden · Multiple-systems estimation · Population registers ·*

## New developments in register-based demographic research in Sweden

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This presentation provides an update of recent developments in Swedish and Nordic register-based demographic research, including with an overview of research possibilities that draw on data on intergenerational linkages, geographical coordinates on dwellings, schools and workplaces, linkages of dwellings and households, and new data with longitudinal information on socio-economic information. The presentation draws on materials from a Swedish research school for register-based research, SINGS.

*register data, Sweden*

# No Excess Deaths Among Children in Europe 2021- 2022

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There are claims of significant excess mortality among children (ages 0 to 14) in Europe during 2021 and 2022. Evaluation of raw data and excess mortality analysis show that children deaths in 2021-2022 are completely in-line with deaths from previous years in most European countries, and in many cases even lower. Across 35 European countries, among children ages 0 to 14 up to July 31st 2022 there are 330 less deaths than expected, with a confidence interval of [-770, 104].

*covid, child, mortality, vaccines*

# Nonfinancial Defined Return (NDR) pension framework and a new perspective on pension system sustainability

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We propose a novel abstract framework for pension systems, Nonfinancial Defined Return (NDR). It is a generalization of the Nonfinancial Defined Contribution (NDC) scheme, which is, for example, implemented in Sweden, and shares many design features with the German pension system. The NDR framework puts a strong emphasis on the contribution-benefit link: Every unit of contribution leads to one expected unit of benefit. Participants contribute to the system under contribution rules to earn index points. These index points are recorded on individual accounts, and their values changeby an indexation method. Using an insurance mechanism, participants can convert index points into annual pensions. The revenue from contributions is used to pay for the pensions of other participants. Balancing rules define how to handle the difference between revenues from contributions and the expenses to pay for pensions. We consider NDR-GDP as the special case where the indexation method is induced by GDP. By default, it is balanced via government debt. Additionally, we introduce the concept of system-sustainability. The basic idea is to separate the notions of status and system when defining the sustainability of pension systems. A pension system is called if the sum of unfunded liabilities relative to an economic indicator (e.g. GDP) does not increase over time. Furthermore, if the system receives transfers from the government of some value x, the sum of unfunded liabilities has to decrease by x. Using an appropriate insurance mechanism, NDR-GDP is system-sustainable relative to GDP, justifying the balancing via government debt. The NDR framework and the concept of system-sustainability yield new perspectives on the sustainability of pension systems. Furthermore, the NDR-GDP variant provides the foundation of a pension reform option, offering a novel strategy to address demographic challenges in pension systems.

*pension system design, pension system sustainability, pension reform*

# One status for life? The administrative trajectories of documented immigrants in Sweden

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In contemporary nation-states, the regulation of immigration involves the sorting of newcomers along the legal lines drawn by categories of admission, such as labour immigrant, family immigrant, refugee or international student. In research, categories of admission are used to define groups, following the assumption that immigrants with the same category have features in common that they do not share with others. However, what is often overlooked is the possibility that immigrants' category of admission might change. More generally, categories at one point in time are part of broader administrative trajectories that may involve different successive statuses and lead (or not) to naturalisation or outmigration. These trajectories, that illustrate immigrants' legal and administrative integration, have not been investigated yet. This paper contributes to the literature by analysing the patterns, incidence and determinants of administrative status transitions and how they shape administrative trajectories among documented immigrants in Sweden. Using detailed longitudinal data from the "REFU-GEN" collection of the Swedish registry and event history analysis, I follow the administrative status of all non-EU documented immigrants resident in Sweden between 1997 and 2020 (N = 2,318,472 individuals) from admission to the end of the period or outmigration. Results show that most documented immigrants in Sweden keep their initial category of admission until they naturalise or leave the country, while about 10 percent change at least once. However, the hazard is higher for those with a temporary residence permits. Interestingly, they tend to transition to other temporary categories, while the boundary with refugee categories remains almost hermetic. Selection per gender and country of origin is reinforced by category transitions, and period effects reflect the strong influence of changing immigration policy on the administrative paths taken by immigrants. Finally, category transitions delay naturalisation, but those who change status are at lower risk of outmigration.

*migration, life-course, category of admission, naturalisation, outmigration*

# Parental socioeconomic status and timing of puberty: a population-based cohort study within the Danish National Birth Cohort

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Background: Social inequality is demonstrated in most health outcomes, yet the influence of socioeconomic status on reproductive health, such as timing of puberty, is debated. Early puberty is a risk indicator for adult diseases, emphasizing the need to determine potential causes of earlier puberty timing. The aim of this study was to investigate how parental socioeconomic position were associated with timing of puberty in girls and boys. Methods: We studied 7890 girls and 7489 boys from a population-based Puberty Cohort nested within the Danish National Birth Cohort (DNBC). Highest completed educational level among parents was used as the indicator of socioeconomic status. Information on pubertal development was obtained every six months throughout puberty. We estimated mean monthly differences for the average age at attaining multiple pubertal milestones using multivariable interval-censored regression model. Pre-liminary results: When analyzing all pubertal milestones simultaneously, the pubertal milestones were on average attained earlier in girls of low-grade professional parents (-0.7 months [95% confidence interval (CI): −1.6; 0.2]), skilled parents (-1,4 (95% CI: −2.3; −0.4) and unskilled parents (-2,7 (95% CI: −3.8; −1.6) compared with girls of high-grade professional parents. Boys of unskilled parents attained the pubertal milestones earlier (-1,2 (95% CI: −2.3; −0.1) compared to boys of high-skilled professionals, but no clear association was observed for boys of low-grade professional or skilled parents. Conclusion: The results of our analysis indicate that lower parental socioeconomic status is associated with earlier timing of puberty in both girls and boys.

*Puberty, epidemiology, social inequalities, socioeconomic status*

# Parity-specific fertility and post-reproductive premature mortality: A comparison of the German Democratic Republic and Sweden

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Most population-level evidence on the link between the reproductive history of women and their post-reproductive mortality is based on high-income countries with population registers. Here we enhance the existing population-level evidence by analysing data that was collected as part of the population register of the Communist German Democratic Republic (GDR). We use a 100% individual-level sample of the GDR census of 1981, and the complete mortality register data for the years 1982-1990. A comparison with Sweden, where fertility trends were very similar at the time, will allow us to explore whether the link between fertility outcomes and post-reproductive mortality differs dependent on the political and economic context. Based on Cox proportional hazard models, using women with two children as the reference group, first findings for the East German GDR show that mortality differences by number of children born are more attenuated than in other countries. This seems to be mostly driven by deaths due to neoplasm and external causes. For cardiovascular diseases, other causes and all-cause mortality, however, we identify a typical u-shaped pattern where women with two children are displaying the lowest mortality. Over the next months, we will specify a similar model for Sweden, allowing us to present at the DGD a direct comparison between East Germany and Sweden. In addition, we will extend our analysis of the GDR data, by, for example, taking socio-economic characteristics and type of occupation into account.

*GDR, mortality, parity, register data*

# Party Penalty or Party Premium? 'Party-Swedes' in Norway and their income before, during and after migration

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Young adults moving between wealthy countries for work and adventure are an under-studied group of international migrants. We use a unique combination of full population-register data from Sweden and Norway to explore what are known as 'Party-Swedes' – young people who emigrated from Sweden in 2010-2012 to work in Norway. We follow them and their median income before leaving Sweden, during their stay in Norway and after return to Sweden. Moreover, we model selection into migration and return, as well as individual income levels after return. Our results suggest that in economic terms, the 'party penalty' seems clearly larger than the 'party premium'. Even if the young Swedes earned well in Norway, this did not translate into higher income than among their non-migrating peers after returning to Sweden. These results add to the literature on migrations' income premiums after return, with evidence from a typical liquid youth lifestyle migration.

*Youth migration, liquid migration, migration premium, migration penalty, institutional moratorium*

# Pension Reforms in the Nordic Countries and Germany

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This paper encompasses all the five Nordic countries: Denmark, Finland, Germany, Norway and Sweden since these countries have pursued quite different reform paths in the past 25 years. The focus is on country reform goals and reforms from the latter 1990s and known outcomes for recent years - acknowleding the different country profiles and discussing future prospects based on the United Nations demographic projections, OECD/EU labor market data and other.

*Pension Reform*

# Population Age Structure Dependency of the Excess Mortality P-score

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The P-score is a common measure of excess mortality, indicating the percentage by which actual measured deaths deviate from expected deaths, that result from a counterfactual scenario. It is often used to compare pandemic mortality burdens between countries, but such comparisons can be biased due to differences in population age structures. Here, we show that the P-score depends on the expected distribution of deaths over age in a population, and propose a Kitagawa-type decomposition that decomposes P-score differences into an excess mortality difference and an age distribution of death difference. As an example, we calculated P-scores for women in European countries for the year 2020, with expected deaths assuming pre-pandemic conditions. Applying Kitagawa's decomposition, it can be shown that differences in the age structure of expected deaths have only a small influence on the comparison of P-scores between European countries.

*Excess Mortality, P-score, Decomposition*

# Probabilistic population and household forecasts in Europe - Twenty years on

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After preliminary attempts at the end of the 20th century to compute probabilistic population forecasts (by Cohen, Keyfitz, Lee & Tuljapurkar, Alho, and others), the field became fully developed in the past two decades. I give a brief overview of the various applications of probabilistic demographic forecasts, spanning from national, subnational, and multi-country populations to the labour market, households, immigrants, and long-term care. I sketch the development from a frequentist to a Bayesian approach. Finally, I evaluate ex-post facto the predictive quality of selected population and household forecasts for Norway, the Netherlands, and France.

*stochastic population forecast, simulation, predictive distribution*

# Projecting Work-Life Trajectories and Retirement Expectations at Age 50: Estimates for Germany

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Governments are grappling with demographic shifts, such as an aging population and rising old-age dependency, prompting discussions on delaying retirement age. To safeguard vulnerable groups from prolonged unemployment, policies promoting longer careers need careful planning. Existing research has centred on predicting work-life expectancy, serving as a foundation for policy development. This study extends this work, adopting a life course perspective, by recognizing that retirement is a gradual process characterized by complex and multiple transitions. Using comprehensive data from the German Pension Insurance, we employ advanced machine learning techniques like sequence-to-sequence Transformers and LSTM models, along with sequence analysis, to predict and analyse work-life trajectories from ages 50 to 65. These analyses provide valuable insights for understanding complex retirement transitions and show accurate predictions at the aggregate level.

*retirement age, population aging, prolonged unemployment, work-life trajectories, machine learning*

# Prospective population ageing on local and regional level in Denmark: Spatial differences, future trends and the potential of replacement migration

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Population ageing poses various challenges for health and social systems. One possible policy response to population ageing is higher immigration which is controversially discussed in many countries. Studies on replacement migration however have shown that immigration can barely be seen as the sole solution to population ageing in developed countries. In Denmark, municipalities are fully responsible for the provision, delivery, and financing of elderly care within the country. Hence, challenges due to an increasing share of older persons are not only pertinent to national-level policies but are especially relevant at the regional and local levels. Combining data from Statistics Denmark with Eurostat's EUROPOP2019 projections, we show spatial differences in population ageing for 11 Danish NUTS-3-regions and 98 municipalities. To assess the potential of migration to counteract population ageing, we estimate the theoretical amount of migration needed to maintain the age structure (2023-2050) and compare it to recent migration rates. To take varying life expectancy into account, we adopt the prospective age approach. This concept is based on the idea that characteristics (such as health) depend more on the average remaining life expectancy than on chronological age. Our results reveal notable differences in the level of population ageing across Danish regions. The prospective old-age dependency ratio (ratio between prospective old-age population and prospective working-age population) is lowest in urban and highest in rural regions. Moreover, even within regions, we find considerable spatial variation between municipalities. These differences in age structure are also reflected in the magnitude of net migration potentially needed to offset population ageing in the next decades. Given recent migration rates, offsetting population ageing through higher immigration seems to be an unrealistic scenario in most regions. Our analyses underline the importance of regional policy and planning to deal with the specific challenges of population ageing in Danish regions.

*Population ageing, prospective age, migration*

# Quality of causes-of-death statistics – ill-defined deaths in Germany from 2012 to 2021

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The German cause-of-death statistics are often used to draw conclusions about the health status of the population and the significance of certain diseases. Unfortunately, cause-of-death statistics - not only in Germany - often show a relatively high proportion of ill-defined deaths. Ill-defined deaths have an invalid or unspecific ICD code as underlying cause of death. This may be the case when the indicated ICD code is intermediate (e.g. heart failure) or non-specific (e.g. unspecified cancer). These ICD codes are not informative for public health planning and for example in the context of burden of disease calculations. They do not adequately reflect the underlying cause of death. The Global Burden of Disease Study (GBD) of the Institute for Health Metrics and Evaluation (IHME) has a specific list of ICD codes that shall be considered invalid resulting in an ill-defined death. In 2015 the proportion of invalid codes in Germany was 26,6%, in 2017 it was 26.0%.; with quite substantial regional variation (Wengler et al. 2019). Following the GBD classification we want to up-date this analysis, looking at the time from 2012 to 2021 and the share of ill-defined deaths in the German federal states. In general, a further decrease in the share of ill-defined deaths is expected. Especially since more federal states use automatic (re-)coding offered in the Iris/MUSE-system, which incorporates the WHO rules for coding of causes of death. Having less ill-defined deaths and hence better quality of causes of death data is of high importance for public health planning and efficient measurements.

*causes of death, mortality, ICD 10, ill-defined deaths, regional variation*

# Recent trends in childrearing within Swedish same-sex unions: Emerging gender and socioeconomic differences

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Despite improvements, European LGBQ populations (sexual minorities) continue to face structural obstacles, interpersonal discrimination, and social norms opposing family formation. During the more than 25 years that same-sex partnerships have been legal in Sweden, policy protections for parenting in same-sex couples have slowly strengthened. For example, adoption protections have been strengthened for nonbiological same-sex parents, and female same-sex couples have gained access to in vitro fertilization. How has the sociodemographic composition of people in parenting same-sex couples changed during this time? We use administrative data from Swedish population registers covering the period 1996-2021. Analyses document historical changes in the sociodemographic characteristics of Swedes aged 20-60 who are in same-sex unions and living with at least one child, compared to those in childless same-sex unions and to those in different-sex unions who are and are not parenting. Our preliminary analyses have found that gender differences in parenthood within same-sex couples are increasingly stratifying same-sex marriage by gender, parental status, and socioeconomic status. As of 2021 a majority of female same-sex unions now involve parenting at least one child, in stark contrast to male same-sex couples. In recent years, people in parenting same-sex couples no longer tend to have had a previous marriage. For both women and men and increasingly over time, those in same-sex unions who are parenting have higher socioeconomic status than those in childless same-sex unions. Emerging trends over time, in tandem with substantial policy changes for same-sex families, point to new patterns in childbearing and parenting among female and male same-sex couples in Sweden.

*Same-sex unions, parenting, historical trends, registers, Sweden*

# Social and Family Inequality in Survival, Sweden, 1900-2015

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The social gradient in mortality was much more modest in historical Sweden than it is contemporarily, and for men was reversed with higher mortality for white-collar workers than for blue-collar workers before the second world war. In this paper, we present evidence that even in the absence of a modern social gradient in mortality, family members share a survival advantage at adult ages across generations. Social, behavioral and biological factors that promote good health accumulate in families, even if the mechanisms that promote long lives change across time. We use a unique dataset consisting of digitized and linked historical records for a region in Southern Sweden, reconstructing lives and families of individuals living in five rural parishes and a town 1900-1967 with nationwide follow-up in the Swedish national registers of these individuals and their descendants 1968-2015. We show evidence that individuals (age 30-90) from well-performing families have a mortality advantage across time, even in the absence of a modern social gradient in mortality. Analyses of cause-specific mortality shows that both preventable and non-preventable disease mortality is reduced in descendants of long-lived families, providing evidence that both behavioral and non-behavioral factors are involved.

*Social inequality, kin inequality, relatives and mortality, long-term change in mortality*

# Socioeconomic Differences in Pathways to Death in Sweden

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Research on socioeconomic inequalities in health often focuses on why some groups show greater improvements than others. The fact that we all face death and often a period of severe health decline at the end of life is overlooked. As a result, little is known about socioeconomic differences in end-of-life trajectories. Based on Swedish register data, we will fill this knowledge gap and analyze socioeconomic differences in pathways to death for all deaths at ages 60+ (approximately 90% of all deaths in Sweden each year) in the years 2018 to 2022. We will apply structural equation models to identify the latent types of end-of-life trajectories based on monthly information on health status, prescribed medications, monthly hours of elderly care, and other indicators that cover the last five years of life. In a second step, we will assess the socioeconomic differences within and across the end-of-life trajectory types. We will use disposable household-adjusted income as a measure for socioeconomic status. Preliminary results based only on the last year of life suggest a similar distribution of trajectory types across income quintiles but marked differences in their timing over age. By extending the observation period to the last five years of life, we however observe that people in the highest income quintile die in worse health than those in lower income quintiles. The preliminary results invite the hypothesis that socioeconomic differences in mortality at older ages are partly due to a slower dying process in the higher socioeconomic groups compared to the lower socioeconomic groups.

*morbidity, elder care, death, health*

# Splitting the penalty by taking turns? Earnings losses among same-sex mothers in Norway

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This article examines the fertility patterns of a growing group of parents – female same-sex couples (FSSC) with children – and through comparisons with mothers in different-sex couples (DSC) simultaneously examines mechanisms behind the earnings impact of motherhood. Using Norwegian population wide administrative records from 2002, when same-sex parenthood was legally recognized, until 2017, we find that FSSC's propensity to have children is heavily skewed toward the end of the period, that they more seldom have a second child, and that those who do switch birth parent for the second child in about 50% of cases. These patterns may partially be explained by barriers for FSSC to have (multiple) children, such as access to reproductive technologies being expensive, legally restricted, and geographically far in-between. Comparing the earnings losses of partners in FSSC where both partners gave birth, or where only one partner carried children, we conclude that the choice of birth mother of the first and second child have short term, but no long term, impacts on mothers' earnings. Likewise, comparing non-birth mothers whose partner carried one versus two children, shows that an additional child to care for in the family did not affect earnings of the non-birth parent. However, when comparing mothers in FSSC to mothers in DSC that gave birth the same number of times, with the same number of children in the family, we find that having a male rather than a female partner is the mechanism that can explain most of women's earnings losses after parenthood. Thus, our results indicate that gender norms of mothers as caregivers and fathers as breadwinners, indicated by the presence of a male partner, has a greater influence on long-term earnings losses compared to number of pregnancies and number of children, respectively.

*Fertility trajectories, same-sex parenthood, child penalty, motherhood penalty*

# Stillbirth Rates across Europe. The Importance of Maternal Age and Multiple Pregnancies

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We investigate whether the prevalence of higher-risk pregnancies explains the trends and differences in stillbirth rates observed in European countries. We use data on stillbirths and live births, including maternal age and multiple pregnancies, from 2010 to 2021 in countries which are part of the Euro-Peristat project. Poisson regression was used to model trends. Kitagawa decomposition was used to decompose the stillbirth rate differences into structural and mortality effects. Trends and levels of stillbirths vary between countries. Overall, maternal age is increasing, with fewer mothers aged under 25 and more aged 35 and older. There is also variation between countries in the prevalence of multiple births. Maternal age explains part of the within-country difference as well as the between-country difference. Due to low prevalence overall, multiple pregnancies fail to explain those differences. However, the majority of both differences in stillbirth rates are due to variations in fetal mortality.

*Europe, Stillbirths, Mortality, Age-structure, Multiples*

## Surveying Im-/mobility Aspirations of rejected Asylum Applicants - Methodological Reflections on an app-based Respondent-Driven Sampling

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Hidden, elusive, and marginalized populations like drug dealers, old and immobile people, sex workers, sexual minorities or migrants are usually hard-to-reach for (survey) research. Yet, these groups are often the most disadvantaged or excluded. In-depth knowledge about their living situation is therefore of particular interest for scholars, civil society and policy makers. Respondent-driven sampling (RDS) is increasingly applied in the social sciences to survey specific target groups, such as migrants. One of the most recent developments is to use this method in a digitalized format, although completely digitalized RDSs hardly exist and there is little experience with its application and prospects. At the BAMF Research Centre, we conducted a fully app-based RDS with rejected asylum applicants from anglophone West Africa (Nigeria, Ghana, Gambia, Sierra Leone) from June to December 2023 to survey im-/mobility aspirations. The app contained all elements necessary for running an RDS, included a factorial survey, and did not require any personal data from the participants. The survey was preceded by an extensive 10-month formative assessment, which included ethnographic visits and qualitative interviews with "seeds" who later spread the RDS as initial respondents into the target group. In addition, randomly selected people from our target group were drawn from the Central Register of Foreigners and invited to take part in the app. In this contribution, we reflect on our methodological approach after completing the survey. We question whether an app based RDS and a factorial survey were the appropriate methods to survey this target group. Furthermore, by comparing three forms of contact, we evaluate if the extensive investment in the formative assessment was worthwhile. Lastly, we provide insights into the response behaviour of our respondents with our paradata. In doing so, we share our experiences and contribute to the success of future digital research with hard-to-reach populations.

*irregular migrants, app, respondent driven sampling, factorial survey, immobility aspirations*

# The Causal Impact of Men or Women's Job Loss on Fertility: A Couple-Level Analysis through Norwegian Register Data.

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This study investigates the differential impact of men's or women's job loss on fertility across different couple types: income-egalitarian vs. male-breadwinner vs. female-breadwinner and high-income vs. medium-income vs. low-income couples. We applied event history analysis with linear probability models to the Norwegian population and employment Registers for the period 2005-2017. Prior studies on the unemployment-fertility relationship did not use exogenous employment shocks and partner characteristics. We used the exogenous shock for job loss, i.e. plant (workplace) closures, to infer a causal effect of men's or women's job loss on fertility within couples. Our results show that plant closure slightly negatively affects the probability of first birth within three years of plant closure for both males and females. However, we do not observe any significant gender differences in the probability of first birth. We also do not observe variations in the effects of plant closure across different couple types, including income-egalitarian, male-breadwinner, and female-breadwinner couples, as well as high-, medium-, and low-income couples. These results differ from studies in the UK and Germany conducted by Di Nallo & Lipps, 2023. We argue that the Nordic countries' favourable employment conditions, gender-egalitarian attitudes, and robust welfare state provisions may explain the absence of fertility response and gender differences in fertility response to plant closures. In general, experiencing plant closure does not decrease the probability of first birth in any subgroup of couples. However, a couple is less likely to have first birth if they are not a high-income or income-egalitarian couple.

*Fertility, Norway, employment uncertainty, dyadic perspective, gender*

# The changing social gradient in age at menarche across cohorts and generations in Norway

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Menarche (the first occurrence of menstruation) is an event with critical importance in women's fertility and fecundity. Growing evidence suggests a shift in the social gradient in age at menarche (AAM): While advantaged children used to experience menarche relatively early, this pattern now appears to have reversed in some Western societies. This observation raises an intriguing possibility that AAM could be one axis by which social inequalities reproduce, as early menarche may increase the risks of certain diseases and reduce opportunities for attaining higher education. As yet, it is unclear whether the social gradient in AAM has indeed changed in recent cohorts, and if so, whether socioeconomic differences actually underlie the change in AAM across generations. The present study uses a unique compilation of cohort data linked to Norwegian register data and censuses: 85,000 female respondents from the Cohort of Norway, and 100,000 mothers and their daughters from the Norwegian Mother, Father and Child Cohort Study. We document a secular trend of declining AAM throughout the 20th century, but unlike previous studies from the US and UK, we do not find a positive social gradient in AAM by income for earlier cohorts. In recent birth cohorts born 2002-2007, AAM further declined and the social gradient therein increased. Using first differencing regressions, we find stronger decline in AAM in daughters compared to their mothers if the mother grew up in household with lower socioeconomic position (0.19 years difference between the top and bottom percentile; CI 0.07-0.30), and also if the daughter's socioeconomic position is worsened compared to that of the mother during her own childhood (0.15 years if the position drops from the top to the bottom percentile; CI 0.06-0.26). These findings will be expanded by incorporating information on parental education, and additional cohort data for recent birth cohorts.

*Menarche; Fecundity; Socioeconomic gradient; Inter-generational change*

# The Demography of Sweden's Transgender Population – Patterns, Changes, and Sociodemographics

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Burn, Ian (3)
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Our study examines the prevalence of gender transitions in Sweden over time and documents the sociodemographic characteristics of people transitioning in different periods. We use national administrative data covering the transgender population from 1973 to 2020 and analyze two common events in a gender transition: the earliest diagnosis of gender incongruence and the change of legal gender. We have three main findings. First, the measured prevalence of both types of events is relatively low in all periods, although it has increased substantially since the early 2010s. Second, the recent increase in transition prevalence is most pronounced among people in early adulthood; in particular, young transgender men drive an increase in overall transition rates through 2018, followed by moderate declines in 2019 and 2020. Third, transgender men and women have substantially lower socioeconomic outcomes than cisgender men and women, regardless of the age at which they transition or the historical period.

*transgender, demography, socioeconomic status, LGBT*

# The Effect of Smoking Duration and Intensity on Mortality

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Smoking significantly impacts mortality, with both low and high levels of consumption having detrimental effects. The duration of smoking, in addition to the intensity of consumption, plays an important role in determining the extent of these effects. We analyzed data from the National Health Interview Survey between 1997 and 2014. By using Cox proportional hazards models to control for factors such as socioeconomic status, pre-existing conditions, and individual lifestyle factors, we were able to observe both gender-specific and health-related effects. Our analysis showed that all smokers, regardless of their health status, have a higher relative mortality risk compared with non-smokers. The longer the period of heavy smoking, the higher the relative risk of death compared with non-smokers, especially for smokers under 70 years. Male smokers have a higher relative mortality risk than female smokers, while tobacco consumption has a significantly more negative effect on female smokers than on non-smokers.

*Mortality, Smoking, Duration, Intensity*

# The Loneliness of the Afro-diasporic Community in Germany

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This paper aims to examine the extend of loneliness of the Afro-diasporic community in Germany. We focus on Afro-diasporic migrants aged 18-50 (N=213) and compare them with native Germans (N=14,269) from the German Family Demography Panel Study (FReDA 2021). First, we present findings on the prevalence of emotional loneliness (Afro-diaspora: 21.1 %, natives: 13.1 %) and cognitive loneliness (Afro-diaspora: 19.4 %, natives: 13.4 %). Especially social rejection is reported more frequently by Afro-diasporic migrants (21.30 %, natives: 16.32 %). In a second step, we estimate the outcome variables (emotional and cognitive loneliness) of cross-sectional regressions. The models focus on compositional differences between migrants and natives (e.g. education) as well as on cultural factors influencing loneliness (e.g. religion). Preliminary results indicate that loneliness is significantly higher in the Afrodiasporic community compared to the native German population.Intersectional risks such as low socioeconomic status or being female increase the likelihood of higher loneliness.

*Migration, Afro-diaspora, People of Colour, Wellbeing, Loneliness, Discrimination, Othering, Mental Health*

## The prospective power of personality factors for family formation and dissolution processes among males. Evidence from Swedish register data.

Peters, Steffen (1,2)
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2: Stockholm University

Personality plays an essential role with respect to important life outcomes such as education or career success. Although these outcomes are linked with family formation processes, the association between personality and family formation (dissolution) has been underexplored in demographic research. My study contributes to existing research by examining the prospective association between two personality facets (social maturity (SM), and emotional stability (ES)) and family formation and dissolution processes, i.e. 1) marital status, 2) fertility, and 3) partnership dissolution as both a) divorce and b) cohabitation dissolution, based on large Swedish register data. Poisson regression, Linear Probability, and Cox proportional hazard models were applied for different outcomes. My findings suggest that males with high scores on SM and ES measured at age of assignment to military service (17-20 years) are more likely to get married by age 39 and higher. Regarding fertility, SM and ES reveal positive associations with offspring counts and negative associations with the probability of remaining childless by age 39 and higher. Relationship dissolution is negatively linked with SM and ES, in particular among the lowest personality scores. Further analyses using sibling comparisons support these findings.

*Family Formation, Male Fertility, Marital Behavior, Personality*

# The Ukrainian Refugee Situation: Lessons for EU Asylum Policy

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Russia's invasion of Ukraine in February 2022 triggered the largest and most dynamic refugee situation in Europe in decades. The EU reacted quickly and in an overall compassionate spirit to the emerging crisis. By activating the Temporary Protection Directive, it provided refugees from Ukraine with quick access to temporary residence permits and basic rights as regards welfare, health care, work and education.

As scholars have observed, the EU's response to people fleeing from Ukraine has been significantly different from how it has behaved towards other refugee situations in the recent past and until today. The arrival of asylum seekers has for many years raised concerns, and policymaking has been characterized by attempts to control and limit their number. This is especially true since what is widely known as the refugee 'crisis' of 2015, which first prompted welcoming attitudes across several EU countries and then an upsurge of new deterrence strategies and political controversy.

This paper seeks to explore and explain the main differences between the EU's management of the Ukrainian refugee emergency and other major refugee arrivals in the recent past. It then considers possible lessons that the handling of the Ukrainian refugee situation might hold for EU migration and asylum policies at large. The analysis shows that the Temporary Protection Directive is a useful tool in emergencies; that the EU visa regime plays a major role for facilitating – or obstructing – safe and legal access to EU territory; that secondary movements of people seeking protection can be a good thing rather than a problem; and that flexible models of responsibility-sharing between the EU Member States can work better than static models of solidarity.

*EU, migration policy, asylum policy, temporary protection, Ukrainian refugees*

# Tracing Suburbanization in Germany Using Gridded Population Data, 2011-2021

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Urban and spatial demography have long focused on trends in urbanization and suburbanization and their demographic determinants. Population shifts across the urban-rural continuum can alter local demographics, affecting housing and social infrastructure accessibility for various demographic subgroups. In the context of suburban areas in Europe, especially Germany, there is consensus that most countries are undergoing suburbanization. Yet, detailed understanding of its effects at finer spatial scales, which could distinguish suburban from rural population changes, remains scarce. While remotely-sensed data has proven valuable for urbanization analysis based on urban forms, these approaches often lack direct ties to population data. This paper seeks to bridge this gap by combining a novel urban-rural gradient classification with gridded census and register-based population data to analyze urbanization and suburbanization trends in Germany between 2011 and 2021. Results point to a general trend of metropolitan growth, with an increase in urban and suburban populations, at a ratio of approximately 2:1. Population increased to a lesser extent in rural areas and towns not part of the 80 largest cities' agglomerations. Statistic tests show that differences in growth rates among the settlement types are significant. These results may help to contextualize suburbanization trends observed from internal migration data.

*urbanization, suburbanization, population grids, spatial demography*

## Unveiling Subnational Disparities: Longitudinal Male and Female Fertility Differences Across Australia, Finland, Germany, France, Mexico and the United States

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2: University of Oxford, Nuffield College, United Kingdom;
3: Federal Institute for Population Research, Wiesbaden, Germany

Fertility indicators traditionally focus on female reproductive behavior, neglecting the nuanced contributions of males. This study addresses this gap by conducting a subnational analysis of male and female fertility differences, utilizing high-quality register data from Australia, Finland, Germany, France, and the United States. Examining fertility timing and quantum over time and across countries, our research employs decomposition techniques and regression models to unravel the intricacies of male and female fertility disparities. The findings reveal substantial subnational disparities exceeding national-level results, emphasizing the influence of contextual factors. Population imbalances, sex-selective migration, mortality differences, and age-related fertility patterns emerge as potential explanations for observed variations. Importantly, our results underscore the limitations of relying solely on one-sex fertility indicators, emphasizing the need for nuanced approaches in fertility research.The subnational analysis brings forth previously unknown heterogeneity, surpassing insights derived from national-level studies. Assessing the impact of geographic regions, human development, and welfare states through a cross-country subnational design provides a comprehensive understanding of contextual influences on fertility. In conclusion, our research advances the understanding of male and female fertility differences, urging a reconsideration of one-sex fertility indicators. By uncovering subnational nuances, we offer a nuanced perspective that informs demographic research, policy, and societal planning.

*Subnational analysis, fertility, sex differences, population imbalances*

# Using pension payments to understand post-retirement return migration and mortality patterns in migrants: The case of Finnish migrants in Sweden

Cederström, Agneta (1);
Korhonen, Kaarina (2);
Martikainen, Pekka (2,3);
Östergren, Olof (1,4)
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*2: University of Helsinki, Finland;*
*3: Max Planck Institute for Demographic Research, Germany;*
*4: Karolinska Institutet, Sweden*

Registers are valuable for demographic analyses. Still, understanding demographic processes among international migrants remains difficult since this group enters and leaves national registers. We exploit information on pension payments abroad to examine mortality rates after return migration and international migration patterns among Finnish migrants in Sweden. The population comprises all persons born in Finland and Sweden between 1938 and 1955, alive in 2003, and living in Sweden at the age of 64, the legal age of retirement, followed for mortality until 2021. Information on monthly pension payments to Sweden and abroad allows us to determine the vital status and country of residence after migration. We link information on demographic characteristics, socioeconomic position and health from other registers. First, we estimate the potential bias in mortality rates introduced by censoring at emigration and second, we use sequence analysis to identify post-retirement migration patterns in the Finnish-born group. Censoring at emigration did not bias estimates of mortality differentials between natives and migrants. When we adjust for socioeconomic conditions we find that migrants that left Sweden had lower mortality than migrants who remained (RR=0.93), suggesting a healthy migrant effect. We find four distinct clusters of migration behaviour: (1) remaining in Sweden, (2) flexible migration between Finland, Sweden and a third country, (3) immediate return migration to Finland and (4) eventual return migration to Finland. Male sex, having no family in Sweden and good health predicted post-retirement re-migration. Relative to the remainers, migrants who migrated between Finland, Sweden and a third country had higher mortality (RR=1.28), while mortality was lower among the immediate (RR=0.47) and eventual returnees (RR=0.45). Pension payments abroad is a promising tool for studying demographic processes in international migrants, especially in combination with other administrative data. We found diverging mortality patterns according to post-retirement migration behaviour among Finnish migrants in Sweden.

*migration, mortality, penson payments, return migration, administrative data*

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| Martikainen, Pekka | Crossing borders, bridging health: immigrant health in exogamous marriages, the role of income | Paper | Session 3A | Social Inequalities in Health and Reproduction (BIOSFER/MaxHel) |
| Martikainen, Pekka | Contribution of Couple's Immigrant Status to Union Formation and Dissolution in Finland | Paper | Session 1B | Union Formation and Dissolution in Central and Northern Europe |
| Matechou, Eleni | New approaches to study the over-coverage in Population Registers | Paper | Session 5C | New Challenges and Opportunities in Register Data Research |
| Meyer, Anna C. | Socioeconomic Differences in Pathways to Death in Sweden | Paper | Session 2C | Social Inequalities in Morbidity and Mortality in a Comparative Perspective |
| Mikko, Myrskylä | Linked lives in partnership transitions and mental health. Parental separation, repartnering, and reconciliation | Paper | Session 1B | Union Formation and Dissolution in Central and Northern Europe |
| Milewski, Nadja | Fertility and partnership dynamics among refugee women and men from Eritrea and Syria in Germany | Paper | Session 4A | European Perspectives on Migration |
| Moberg, Ylva | Splitting the penalty by taking turns? Earnings losses among same-sex mothers in Norway | Paper | Session 2B | Family Diversity in Central and Northern Europe |
| Moberg, Ylva | The Demography of Sweden's Transgender Population – Patterns, Changes, and Sociodemographics | Paper | Session 2B | Family Diversity in Central and Northern Europe |

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| Modig, Karin | Inequalities in mortality going in and out of the pandemic: Investigating mortality differences by education in Sweden during 2015-2022 | Paper | Session 1C | How Covid Pandemic Affected Mortality Rates in Nordic Countries and Germany? |
| Modig, Karin | Socioeconomic Differences in Pathways to Death in Sweden | Paper | Session 2C | Social Inequalities in Morbidity and Mortality in a Comparative Perspective |
| Mollborn, Stefanie | Recent trends in childrearing within Swedish same-sex unions: Emerging gender and socioeconomic differences | Paper | Session 2B | Family Diversity in Central and Northern Europe |
| Mollborn, Stefanie | Intensive parenting norms and childbearing plans in Sweden | Paper | Session 5B | Fertility in Nordic Countries and Germany II |
| Monti, Andrea | Party Penalty or Party Premium? 'Party-Swedes' in Norway and their income before, during and after migration | Paper | Session 5A | New Perspectives and Methodological Innovations in Migration and Integration Studies |
| Moustgaard, Heta | Contribution of Couple's Immigrant Status to Union Formation and Dissolution in Finland | Paper | Session 1B | Union Formation and Dissolution in Central and Northern Europe |
| Mühlichen, Michael | Excess Mortality in Germany: Spatial, Cause-Specific and Seasonal Effects Associated with the COVID-19 Pandemic, 2020–2022 | Paper | Session 1C | How Covid Pandemic Affected Mortality Rates in Nordic Countries and Germany? |
| Mühlichen, Michael | Exploring the relationship between economic performance and life expectancy across Europe's regions between 2005 and 2018 | Paper | Session 2C | Social Inequalities in Morbidity and Mortality in a Comparative Perspective |
| Mundil-Schwarz, Rabea | Challenges and opportunities: a register-based census for Germany | Paper | Session 5C | New Challenges and Opportunities in Register Data Research |
| Mussino, Eleonora | Life Expectancy Among Immigrants in Sweden pre and during COVID-19: A Consideration of Different Origins and Types of Residence Permits. | Paper | Session 1C | How Covid Pandemic Affected Mortality Rates in Nordic Countries and Germany? |
| Mussino, Eleonora | New approaches to study the over-coverage in Population Registers | Paper | Session 5C | New Challenges and Opportunities in Register Data Research |
| Myrskylä, Mikko | Associations between Covid-19 vaccination and fertility: interrupted time series analyses of birth rates for 22 countries | Paper | Session 4B | Fertility in Nordic Countries and Germany I |
| Myrskylä, Mikko | Educational Differences in Fertility among Female Same-Sex Couples in Finland | Poster | Poster Flash Session | |
| Myrskylä, Mikko | Immigration Background and the Widowhood Effect on Healthcare Use | Poster | Poster Flash Session | |
| Myrskylä, Mikko | Do genetic factors drive heterogeneity in mental health trajectories around family transitions? | Poster | Poster Flash Session | |
| Myrskylä, Mikko | Parental socioeconomic status and timing of puberty: a population-based cohort study within the Danish National Birth Cohort | Paper | Session 3A | Social Inequalities in Health and Reproduction (BIOSFER/MaxHel) |
| Myrskylä, Mikko | Contribution of Couple's Immigrant Status to Union Formation and Dissolution in Finland | Paper | Session 1B | Union Formation and Dissolution in Central and Northern Europe |
| Nergård, Stian | Identification of Unregisterd Emigration in the Norwegian Population Register | Paper | Session 3C | Demographic Data and Methods for Western and Northern Europe I |
| Neri, Elena | A new framework to identify individuals with a disability using linked individual-level register data. | Paper | Session 3A | Social Inequalities in Health and Reproduction (BIOSFER/MaxHel) |
| Neyer, Gerda | Intensive parenting norms and childbearing plans in Sweden | Paper | Session 5B | Fertility in Nordic Countries and Germany II |
| Nisén, Jessica | Gender Differences in the Timing and Chances of Parenthood across Regions | Paper | Session 2A | Population Change in the Nordic Countries and Germany - A Comparative Perspective on Fertility |
| Nivalainen, Satu | Increasing Statutory Retirement Age and Labor Market Outcomes: The Effects of the 2017 Pension Reform in Finland | Paper | Session 3B | Pension Reforms in the Nordic Countries and Germany |
| Noguchi, Haruko | Convergence and persistent contrasts in the determinants of working-age women in Sweden and Japan living alone since the 1990s | Poster | Poster Flash Session | |
| Oksuzyan, Anna | Immigration Background and the Widowhood Effect on Healthcare Use | Poster | Poster Flash Session | |
| Olaya Bucaro, Orlando | Disaggregation of National Level Population Projections to Municipal Level Using a Neural Network Approach | Paper | Session 4C | Demographic Data and Methods for Western and Northern Europe II |
| Östergren, Olof | Inequalities in mortality going in and out of the pandemic: Investigating mortality differences by education in Sweden during 2015-2022 | Paper | Session 1C | How Covid Pandemic Affected Mortality Rates in Nordic Countries and Germany? |
| Östergren, Olof | Using pension payments to understand post-retirement return migration and mortality patterns in migrants: The case of Finnish migrants in Sweden | Paper | Session 5A | New Perspectives and Methodological Innovations in Migration and Integration Studies |

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| Padyab, Mojgan | Convergence and persistent contrasts in the determinants of working-age women in Sweden and Japan living alone since the 1990s | Poster | Poster Flash Session | |
| Palmer, Edward | Pension Reforms in the Nordic Countries and Germany | Paper | Session 3B | Pension Reforms in the Nordic Countries and Germany |
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| Peters, Steffen | The prospective power of personality factors for family formation and dissolution processes among males. Evidence from Swedish register data. | Paper | Session 1B | Union Formation and Dissolution in Central and Northern Europe |
| Pietiläinen, Marjut | Educational Differences in Fertility among Female Same-Sex Couples in Finland | Poster | Poster Flash Session | |
| Pitkänen, Joonas | Crossing borders, bridging health: immigrant health in exogamous marriages, the role of income | Paper | Session 3A | Social Inequalities in Health and Reproduction (BIOSFER/MaxHel) |
| Pitkänen, Joonas | Contribution of Couple's Immigrant Status to Union Formation and Dissolution in Finland | Paper | Session 1B | Union Formation and Dissolution in Central and Northern Europe |
| Ponkilainen, Maria | Educational Differences in Fertility among Female Same-Sex Couples in Finland | Poster | Poster Flash Session | |
| Ramlau-Hansen, Cecilia Høst | Parental socioeconomic status and timing of puberty: a population-based cohort study within the Danish National Birth Cohort | Paper | Session 3A | Social Inequalities in Health and Reproduction (BIOSFER/MaxHel) |
| Rau, Roland | The Effect of Smoking Duration and Intensity on Mortality | Poster | Poster Flash Session | |
| Rau, Roland | Does place matter? Regional variation in the SES-mortality gradient among retired German men | Paper | Session 2C | Social Inequalities in Morbidity and Mortality in a Comparative Perspective |
| Remes, Hanna | A new framework to identify individuals with a disability using linked individual-level register data. | Paper | Session 3A | Social Inequalities in Health and Reproduction (BIOSFER/MaxHel) |
| Ristikari, Tiina | Adult outcomes by parental, school and postcode aggregated income in childhood – a descriptive analysis of the cohorts 1981-1989 in Finland | Paper | Session 5C | New Challenges and Opportunities in Register Data Research |
| Rizzi, Silvia | Fertility or pregnancy rates for understanding the declining fertility? | Paper | Session 4B | Fertility in Nordic Countries and Germany I |
| Rotkirch, Anna | Fertility resilience varies by socioeconomic status: trends in male and female childlessness across 150 years in family lineages in Finland | Paper | Session 5B | Fertility in Nordic Countries and Germany II |
| Saarela, Jan | Breaking the norm when breaking up: Intergenerational transmission of divorce among two ethnolinguistic groups in Finland | Paper | Session 1B | Union Formation and Dissolution in Central and Northern Europe |
| Salonen, Milla | Fertility resilience varies by socioeconomic status: trends in male and female childlessness across 150 years in family lineages in Finland | Paper | Session 5B | Fertility in Nordic Countries and Germany II |
| Sander, Nikola | Tracing Suburbanization in Germany Using Gridded Population Data, 2011-2021 | Paper | Session 1A | Population Change in the Nordic Countries and Germany - Population & Place |
| Sandström, Glenn | Long-Term Changes in the Socioeconomic Characteristics of One-Person Households in Sweden 1960-2018 | Paper | Session 2A | Population Change in the Nordic Countries and Germany - A Comparative Perspective on Fertility |
| Sandström, Glenn | Convergence and persistent contrasts in the determinants of working-age women in Sweden and Japan living alone since the 1990s | Poster | Poster Flash Session | |
| Santos, Bruno | New approaches to study the over-coverage in Population Registers | Paper | Session 5C | New Challenges and Opportunities in Register Data Research |
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| Schmitz, Sophia | Family Policies, Fathers' Involvement and the Division of Care | Paper | Session 2B | Family Diversity in Central and Northern Europe |
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| Schöley, Jonas | Stillbirth Rates across Europe. The Importance of Maternal Age and Multiple Pregnancies | Poster | Poster Flash Session | |
| Schöley, Jonas | Population Age Structure Dependency of the Excess Mortality P-score | Poster | Poster Flash Session | |

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| Schubert, Henrik-Alexander | Unveiling Subnational Disparities: Longitudinal Male and Female Fertility Differences Across Australia, Finland, Germany, France, Mexico and the United States | Paper | Session 2A | Population Change in the Nordic Countries and Germany - A Comparative Perspective on Fertility |
| Schüler, Ruth Maria | Changing Germany's Statutory Pension Insurance: An Empirical Study of Popular Aversion to Reforms | Poster | Poster Flash Session | |
| Shkolnikov, Vladimir M. | Does place matter? Regional variation in the SES-mortality gradient among retired German men | Paper | Session 2C | Social Inequalities in Morbidity and Mortality in a Comparative Perspective |
| Skakkebæk, Niels Erik | Fertility or pregnancy rates for understanding the declining fertility? | Paper | Session 4B | Fertility in Nordic Countries and Germany I |
| Slabá, Jitka | Gender Differences in the Timing and Chances of Parenthood across Regions | Paper | Session 2A | Population Change in the Nordic Countries and Germany - A Comparative Perspective on Fertility |
| Söllner, René | Challenges and opportunities: a register-based census for Germany | Paper | Session 5C | New Challenges and Opportunities in Register Data Research |
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| Taubenböck, Hannes | Tracing Suburbanization in Germany Using Gridded Population Data, 2011-2021 | Paper | Session 1A | Population Change in the Nordic Countries and Germany - Population & Place |
| Thomsen, Anne Hjorth | Parental socioeconomic status and timing of puberty: a population-based cohort study within the Danish National Birth Cohort | Paper | Session 3A | Social Inequalities in Health and Reproduction (BIOSFER/MaxHel) |
| Tilley, Lucas | The Demography of Sweden's Transgender Population – Patterns, Changes, and Sociodemographics | Paper | Session 2B | Family Diversity in Central and Northern Europe |
| Tønnessen, Marianne | Party Penalty or Party Premium? 'Party-Swedes' in Norway and their income before, during and after migration | Paper | Session 5A | New Perspectives and Methodological Innovations in Migration and Integration Studies |
| Trigos-Raczkowski, Citlali | Contribution of Couple's Immigrant Status to Union Formation and Dissolution in Finland | Paper | Session 1B | Union Formation and Dissolution in Central and Northern Europe |
| Trimarchi, Alessandra | Gender Differences in the Timing and Chances of Parenthood across Regions | Paper | Session 2A | Population Change in the Nordic Countries and Germany - A Comparative Perspective on Fertility |
| Tyagi, Rishabh | The Causal Impact of Men or Women's Job Loss on Fertility: A Couple-Level Analysis through Norwegian Register Data. | Paper | Session 4B | Fertility in Nordic Countries and Germany I |
| Uggla, Caroline | Breaking the norm when breaking up: Intergenerational transmission of divorce among two ethnolinguistic groups in Finland | Paper | Session 1B | Union Formation and Dissolution in Central and Northern Europe |
| Ullrich, Niklas | Population Age Structure Dependency of the Excess Mortality P-score | Poster | Poster Flash Session | |
| van den Berg, Niels | Social and Family Inequality in Survival, Sweden, 1900-2015 | Paper | Session 2C | Social Inequalities in Morbidity and Mortality in a Comparative Perspective |
| Van Der Vleuten, Maaike | Splitting the penalty by taking turns? Earnings losses among same-sex mothers in Norway | Paper | Session 2B | Family Diversity in Central and Northern Europe |
| van Dijk, Ingrid Kirsten | Social and Family Inequality in Survival, Sweden, 1900-2015 | Paper | Session 2C | Social Inequalities in Morbidity and Mortality in a Comparative Perspective |
| Vecchietti, Luiz Felippe | Projecting Work-Life Trajectories and Retirement Expectations at Age 50: Estimates for Germany | Paper | Session 3C | Demographic Data and Methods for Western and Northern Europe I |
| Vecgaile, Linda | Projecting Work-Life Trajectories and Retirement Expectations at Age 50: Estimates for Germany | Paper | Session 3C | Demographic Data and Methods for Western and Northern Europe I |
| Vidlund, Mika, Antero | Expected effective retirement age and exit age in the Nordic countries | Paper | Session 3B | Pension Reforms in the Nordic Countries and Germany |

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| Vignoli, Daniele | The Causal Impact of Men or Women's Job Loss on Fertility: A Couple-Level Analysis through Norwegian Register Data. | Paper | Session 4B | Fertility in Nordic Countries and Germany I |
| von Essen, Emma | The Demography of Sweden's Transgender Population – Patterns, Changes, and Sociodemographics | Paper | Session 2B | Family Diversity in Central and Northern Europe |
| Wallace, Matthew | Life Expectancy Among Immigrants in Sweden pre and during COVID-19: A Consideration of Different Origins and Types of Residence Permits. | Paper | Session 1C | How Covid Pandemic Affected Mortality Rates in Nordic Countries and Germany? |
| Wenau, Georg | Does place matter? Regional variation in the SES-mortality gradient among retired German men | Paper | Session 2C | Social Inequalities in Morbidity and Mortality in a Comparative Perspective |
| Wengler, Annelene | Quality of causes-of-death statistics – ill-defined deaths in Germany from 2012 to 2021 | Paper | Session 3C | Demographic Data and Methods for Western and Northern Europe I |
| Wörn, Jonathan | Can time heal all wounds? Timing of family transitions and final school grades in Norway | Paper | Session 5B | Fertility in Nordic Countries and Germany II |
| Wright, Kelsey | Contribution of Couple's Immigrant Status to Union Formation and Dissolution in Finland | Paper | Session 1B | Union Formation and Dissolution in Central and Northern Europe |
| Yang, Isa | Crossing borders, bridging health: immigrant health in exogamous marriages, the role of income | Paper | Session 3A | Social Inequalities in Health and Reproduction (BIOSFER/MaxHel) |
| Zagheni, Emilio | Projecting Work-Life Trajectories and Retirement Expectations at Age 50: Estimates for Germany | Paper | Session 3C | Demographic Data and Methods for Western and Northern Europe I |

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