

Demography of disaster and crisis contexts

Strand organisers: Rosanna Le Voir (LSE), Tiziana Leone (LSE) and Orsola Torrisi (McGill)

13:30 - 15:00 Monday 9 September: Disaster and crisis 1

Enforced disappearances, homicides, and life expectancy during the Colombian conflict

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In conflict settings, fatality counts are essential for humanitarian and public health interventions, as well as for processes of accountability and justice. However, the context of armed conflict challenges data collection and the data that is results is often incomplete or statistically biased. For example, data collection may be limited in areas experiencing high levels of violence and conflict may make some areas physically inaccessible. Additionally, the forms of violence used by armed groups, such as enforced disappearance, may obfuscate the true number of individuals who have died. Enforced disappearance is characterized by uncertainty: it is often impossible to know whether a victim is dead or alive and many cases are never resolved, meaning that death certificates are not issued. This poses a major challenge to vital statistics in contexts where enforced disappearances are frequently used. In these contexts, it is critical to also consider enforced disappearances when examining the impacts of violence on population health metrics. Failing to do so risks understating the true toll of violence.

The Colombian conflict is one context where enforced disappearance has been used frequently. This analysis leverages novel data on homicides and enforced disappearances compiled by the Colombian Truth Commission. It combines Bayesian multiple systems estimation (capture-recapture) methods with traditional demographic decomposition techniques to examine the impacts of the conflict on life expectancy from 1998–2016. The findings of this analysis have implications for public health policy and provide important context for understanding the impacts of ongoing violence in Colombia.

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Fertility and crisis in Indonesia: 30 years of climate disasters

Tiziana Leone - LSE, Maria Rita Testa - LUISS

Natural disasters, and being directly affected by it, bring large shocks to women's life-cycle outcomes. Among those, fertility could be affected both positively above all through mortality replacement effect mechanisms, as well as negatively due to exposure to stress, increased partner's mortality as well as increased risk of miscarriages and decline in fecundity due to disruptions in the food chain and consequently deficiencies in nutrition. The empirical evidence stemming from the research in the field has produced inconclusive or contradicting findings so far. In this paper, we aim to systematically analyse historical data at both national and local level comparing populations that were affected by disasters versus those that were not. Using eight rounds of the Indonesian Demographic and Health Surveys, DHS (1987-2017), we investigate the effect of high intensity climatic disasters (e.g.: floods, cyclones, typhoons, etc.) on completed fertility of women aged 40-49 years. The number of disasters, i.e., the events affecting over a million people, is computed by linking DHS data with EM-DAT, International Disaster Database, at province level for all the types of disaster events experienced by the women over their reproductive lives. We apply multilevel techniques which acknowledge the hierarchical structure of individuals clustered in provinces and examine the impact of contextual variables while controlling for micro-level socio-economic (i.e.: education, residence, wealth, and marital status). Results show a negative impact of disasters, whether just one or more than one, on fertility with variations across datasets years in terms of intensity and between-province variance. Socioeconomic characteristics generally show with lower levels fertility for more educated, urban women. This paper is situated within the wider research on exposure to crises and offers a historical report of the impact of disasters on childbearing outcomes.

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The uncertainty of forced displacement: how language and violence have shaped forced migrants' journeys during Russia's invasion of Ukraine

Brienna Perelli-Harris - University of Southampton, Orsola Torrisi - New York University Abu Dhabi (NYUAD)

Russia's invasion of Ukraine in February 2022 produced the largest population displacement in Europe since World War II, leading to around 14 million people to flee their homes. This study focuses on the individual, contextual, and conflict-specific factors which shaped trajectories of forced migration shortly after Russia's invasion. Using unique data from a large, rapidly-deployed online survey conducted in April-July 2022 (N=7,983), the study examines previously unexplored factors – language and exposure to violence. We further exploit the timing of the survey to study the (un)certainly of these migration movements and belief in returning home.

Our results show that exposure to conflict produced disparate trajectories of early forced migration. We found that directly witnessing a blast explosion was associated with shorter-distance moves within Ukraine. We also found differentials in trajectories by language. In Ukraine, two major languages – Ukrainian and Russian – have been important for reflecting political and ethnic identity. Indeed, Putin used the so-called “protection of Russophone citizens in Ukraine” as a pretext for invasion. We found that among both Ukrainian and Russian speakers, respondents who reported speaking Russian, both as their “native” and “home” language, had the highest probability of relocating to non-bordering countries, such as Germany and the UK. Independent of their origin and destination, however, Russian-speakers were also more likely to be in transit and less hopeful about a potential return. These results are deeply ironic given Putin's aim to “liberate” Russian speakers. Instead, Putin's actions created profound uncertainty for Russian-speaking Ukrainians and pushed them even further away.

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Chemical Warfare is Psychological Warfare: Agent Orange Exposure and the Mental Health of Older Vietnamese Adults

Yvette Young - Max Planck Institute for Demographic Research, Zachary Zimmer - Mount Saint Vincent University, Kim Korinek - University of Utah

The majority of literature on toxic exposures, including exposures encountered in war, focuses on the physiological impacts of exposure. However, environmental disaster scholars have made inroads in investigating psychological responses to natural and manmade disasters, including ecological and meteorological events, industrial accidents, nuclear accidents, and events of terrorism and war. In the case of Agent Orange exposure among the Vietnamese populace during the American War in Vietnam, research predominantly centers on physical health consequences with a handful of studies documenting the social exclusion encountered by those who were physically disabled as a result of Agent Orange. Little research addresses the psychological effects of Agent Orange on the Vietnamese people. In this study, we use data from the Vietnam Health and Aging Study, fielded in northern and north-central Vietnam, to investigate the relationship between Agent Orange exposure and poor mental health in later life. We find that even after controlling for a wide variety of traumatic experiences, Agent Orange exposure is linked to poor mental health. We also find that having family members who were exposed to Agent Orange is damaging to mental health regardless of one's own exposure status. These findings indicate the need for mental health interventions among families with members exposed to Agent Orange during the American War.

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18:15 - 19:15 Tuesday 10 September: Disaster and crisis 2

Fertility Amidst Risk and Uncertainty: Economic Fluctuations during Covid-19 and Its Impact on Fertility Intentions in Türkiye

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From the 1960s, Türkiye has been experiencing declining fertility rates, and in 2017, the country experienced

a below-replacement fertility level for the very first time. Furthermore, the total fertility rate dropped to 1.76 in 2020. Following the COVID-19 pandemic, we thought this decline can be examined in the contexts of economic uncertainties and risk environment. In our paper, we examine how such worsening economic conditions of individuals influence their fertility decisions, a phenomenon largely uninvestigated in the Turkish context.

In this study, we use novel data from the Turkish Covid-19 Values Study (TCVS, 2022), focusing on married couples (N=259) who are in their childbearing ages (18-49). Following the risk aversion theory, we hypothesize a negative relationship between fertility intentions and perception of economic worsening. Nonetheless, our findings reveal that the relationship is not to be observed significantly in the Turkish case. Because we do not find worsening economic conditions to be a significant predictor of fertility intentions for couples who have only one child. Only when couples reach two children, perception of economic worsening becomes a significant predictor of lower fertility intentions.

Our findings suggest the prominence of the 'ideal family size' of two children in the Turkish context even during the times of Covid-19 with its socio-economic risks. Therefore, our findings persuade us to re-examine the risk aversion theory and indicate beyond economic factors to explain the predictors of fertility intention in times of crisis.

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Crisis perception and fertility intentions in five European countries **Ruth Overmann - University of the Bundeswehr Munich, Germany**

Considering the interconnectedness of crises as implied by the polycrisis framework (Lawrence et al. 2024), this study aims to investigate the relationship between fertility intentions and subjective perceptions of global uncertainties in five European countries.

Although the literature on reproductive decision-making in the context of uncertainty is growing, there is little research to date that assesses different causes of uncertainty simultaneously. This study advances previous research by explicitly considering perceived uncertainty clusters consisting of different, intertwined individual crises.

Using representative data from the first wave of the Generations and Gender Survey Round II, factor analysis and ordinal logistic regression are employed to (a) identify relevant uncertainty clusters, (b) examine the association between these clusters and fertility planning and (c) further disentangle the relationship between social trust, personality traits and crisis concerns with regard to reproductive decisions in Norway, Sweden, Finland, Estonia and the United Kingdom.

The analysis is limited to male and female respondents aged 18 to 45, deliberately including different parities and partnership statuses in order to comprehensively investigate the role of crisis concerns. In addition, respondents who or whose partners are unable to conceive are excluded.

Fertility intentions are measured using four categories and reflect inherent nuances. Factor analysis reveals two uncertainty clusters. Preliminary regression results suggest a low relevance of these clusters for fertility intentions, but emphasize the importance of incorporating risk aversion in studies on fertility in contexts of uncertainty.

Disentangling the link between fertility and crisis perception enables adequate political interventions and support measures.

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