## Shocks and Flows - Employing a Difference-In-Difference Setup to Assess How Conflicts and Other Grievances Affect the Gender and Age Composition of Refugee Flows towards Europe

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Abstract: In this paper, the authors assess the impact of different political and environmental shocks on the size and on the age and gender composition of asylum-related migration flows to Europe. With this paper, the authors contribute to the literature by looking at the impact of different political and environmental shocks on the gender and age composition of migration flows in addition to the size of these flows. Conflicting theories predict different outcomes concerning the relationship between political and environmental shocks and the migration flows composition. Analyzing the relationship between the causes of migration and the composition of migration flows could yield more insights into the mechanisms behind migration decisions. In addition, this research may contribute to better informing national authorities in charge of receiving these migrant, as women and children/the elderly require different assistance than young men. To be prepared to offer the correct services, the relevant institutions have to be aware of changes in composition based on the shock in question. The authors analyze the effect of different types of shocks on the number, the gender and age composition of first time asylum seekers originating from 154 sending countries. Among the political shocks, the authors consider: violence between combatants, violence against civilians, infringement of political rights and civil liberties, and state terror. Concerning environmental shocks, natural disasters (such as droughts, floods, epidemics, etc.) have been included. The data on asylum seekers applying to any of the 32 Schengen Area countries between 2008 and 2015 is on a monthly basis. Data on asylum applications come from Eurostat, data on shocks are retrieved from various sources: georeferenced conflict data come from the Uppsala Conflict Data Program (UCDP), data on natural disasters from the Centre for Research on the Epidemiology of Disasters (CRED), data on civil liberties and political rights from Freedom House, data on state terror from the Political Terror Scale (PTS), GDP and population data from the World Bank, and georeferenced population data from the Socioeconomic Data and Applications Center (SEDAC). The authors adopt a Difference-in-Differences identification strategy, exploiting the different timing of several kinds of shocks across countries. The highly skewed distribution of the dependent variable is taken into account by using count data models. In particular, a Zero Inflated Negative Binomial model is adopted. Preliminary results show that different shocks - such as armed conflict and epidemics - exert weak immediate effects on asylum-related migration flows and almost non-existent effects on the gender and age composition. However, this result is certainly affected by the fact that no time lags have been introduced so far. Finding the correct time lags depends on a great many variables not limited to distance alone. Therefore, finding the appropriate time lags is still a work in progress. Considering the ongoing refugee crisis, this topic is more important than ever. The authors hope that this research contributes to a less emotionally led debate.

Keywords: age, asylum, Europe, forced migration, gender

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