

Brief Progress Report

Project Title: *Improving the Distribution of Disaster Emergency Assistance Programs in the USA Based on Major Disasters Data Mapping 2008-2017*

Research Team:

Migration Research/International Relations **Szymon Parzniewski**
sxp459@bham.ac.uk (PhD candidate, University of Birmingham)

Migration Research/Social Policy **Andrew Jolly**
axj502@bham.ac.uk (PhD candidate, University of Birmingham)

Economics/International Relations **Anh Nguyen**
anguyen3@brynmawr.edu (Bryn Mawr College)

Computer Science **Ashim Paudel**
ashim.paudel@bison.howard.edu (Howard University)

Reporting period: September 2018 – March 2019

Project period: May 2018 – till now

Section One: *Summary*

General project aims: Addressing diversity and inequality(ies) in disaster relief provision: building upon the previous research and initial data exploration for the project we intend to pursue two directions:

1. Discrepancies in disaster assistance provision: the initial data exploration showed some clear indications that the distribution of assistance provision can be a reason for concern. Our goal is to find indicators within the available data that would enable us to address the role of diversity and inequality;
2. Minimizing the inequality in emergency assistance provision: based on the distribution of disaster relief assistance in relation to mapping the household income in the city districts that were most affected by the disaster.

Section Two: *Activities and Progress*

- Completed the main body of the paper (literature review, context setting, theory introduction);
- Mapped emergency assistance application frequency based on the zip code between 2008 - 2017 + emergency assistance and median income by zip code mapping for the most recent disasters;
- Identified, submitted and received application acceptance to selected international conferences focusing on social science, disaster, resilience and emergency prevention. Proposed conference applications: (CfP UCGIS 2019 Symposium - Geospatial Humanities; 3rd European Symposium on Societal Challenges in Computational Social Science; Summer School 'Visual Intersections 4', 8th-10th July 2019, Durham University, United Kingdom)

Section Three: *Budget*

To date we have not claimed any expenses from the budget initially proposed, as we have not yet attended the conference. However, we anticipate that the costs will remain within the proposed budget.

Item	Cost	Notes
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Travel Option 1*	\$4,000	4 x overseas flights (2x flights from the US; 2x flights from the UK)
Travel Option 2	\$2,800 \$300 \$900	2 x flights from US to UK 4 x off peak return train tickets from London to Birmingham 4 x budget return plane tickets within Europe
Conference costs (registration and lodging)	\$2,000	4 x conference registration fee + lodging <i>(four graduate students will co-present results of the research at this conference)</i>
Total:	\$6,000	

*Preliminary budget including either Travel Option 1 or 2 dependent of conference paper acceptance

Section Four: Risks, Issues and Challenges

A strength is that we have been very careful so far about the budget, which gives us more space to maneuver, and freedom to apply to the most appropriate conference for our paper. However, it has been proved to be time consuming to find a conference which we are able to attend, which fits with our respective work commitments, and which is appropriate for the theme of our project. A potential challenge is that dependent on the conference preparation period we are likely to have a limited timeframe to edit the paper and prepare for a journal submission. However, we hope to mitigate this risk by discussing in our team skype meetings and delegating tasks and responsibilities within the team to meet necessary deadlines.

Section Five: Evaluation

Overall, work on the project is progressing well. The slight conference planning issue (at the end of 2018) resulted in a small delay of our final draft of the paper. Once the conference planning is fixed we will keep the regular Skype meetings to ensure the project is managed appropriately and deadlines are met. Scheduling meetings across three different time zones and taking into account work commitments has sometimes proved to be a challenge, which we will mitigate by regular contact through messenger between skype meetings.

Section Six: Collaboration, next steps and science communication

So far, the during the intensive week at Purdue and throughout the process this research has spurred a range of new ideas and methods that proved beneficial to the work of all members of the team. Although we have differing disciplinary backgrounds the project has utilized our different skills and expertise.

Once our research findings are completed we need to make sure that we disseminate the work in a way that has the highest impact, and which reaches the widest audience, recognizing the interdisciplinary nature of the work. We will therefore use skype to discuss potential ways to maximise dissemination and impact. This could include (in addition to a conference presentation and peer reviewed paper), a blog post at one or more of our member institutions and departmental seminars.

PI, Name: Szymon Parzniewski

Signature and date: 1/3/19

Appendix: Abstract

Debates about the emergency and disaster relief provision proliferated in the last decade where most of the discussions focus on the role of resource allocation influencing efficient and just service provision. The role of diversity and social vulnerability in emergency response services remains empirically underexplored. This paper enhances the understanding of differences in post-disaster emergency response between urban neighborhoods hit by disaster with different levels of diversity. The geographical mapping is based on the FEMA Individual Disaster Assistance Data and the US Small Business Administration Disaster Assistance Loans data. This research tests three hypotheses informed by urban theory on social inequality and disasters: (1) that socioeconomic status will have an impact on the overall number of disaster assistance applications, (2) that an area with high socioeconomic status will have a higher rate of approved disaster assistance applications for a second home, and (3) that zip codes with a higher percentage of Black and Hispanic populations will have a lower level of approved disaster assistance applications. The authors explore all three hypotheses analyzing the geographical mapping based on the FEMA Individual Disaster Assistance Data and the US Small Business Administration Disaster Assistance Loans data. Results indicate that there is a close relationship between the level of diversity and the level of financial post-disaster emergency assistance in each area of a city.