Migratory Flows & the Partition of British India

Introduction
Experiences of forced migration influence political and social contexts all over the world today. The Partition of India in 1947 precipitated one of the largest mass migrations in human history as millions of people crossed lines of division between the newly created states of Pakistan, East Pakistan (now Bangladesh), and India. One 2008 study of migratory inflows estimates an outflow of approximately 17.5 million people during this period of displacement in the partition. Beyond this research, there is limited data available providing spatial or demographic analyses of migration after 1947. It is potentially because of the chaos following 1947, particularly in Punjab and Bengal, there is limited archival data detailing routes and means of migrations. In order to answer some of the questions raised by archival silences, the Lakshmi Mittal and Family South Asia Institute collected approximately 2000 oral histories from Pakistan, Bangladesh, and India describing experiences of navigating the period of migration after Partition. The goal of this project was to illuminate information about migratory flows as described in the data sample collected by the LMFSAI.

Methods
The biggest challenge in this project was actually working with the dataset and making the content legible to ArcMap. In order to find points of departure and arrival, I input latitude and longitude for each site in a datalayer for each interview. These points were then exported to Excel. Then in spatially exported to the district level in India, Pakistan, and Bangladesh (East Pakistan in 1947). Refugee camp site data was similarly geocoded into a point layer vector layer. In order to create the migration infographic specifically for Delhi, the GIS to Line tool was used. The Kernel Density tool was then used to visualize the concentration of refugee camps as it related to refugees who would likely be in need of rehabilitation facilities or resources. To identify which refugees would be in need, an algorithm was conducted to align refugees' socioeconomic status after Partition to their points of departure and destination. Socioeconomic data as described in the sample was given a numeric value to assess vulnerability using the Field Calculator. Global & Local Moran’s I analyses were also conducted in ArcMap in order to assess whether there was a spatial correlation between refugee migration destination and socioeconomic status after Partition.

Limitations
It is critical to situate that this study strictly analyses data collected by the LMFSAI, and the demographic evidence actually suggests that the sample does not accurately reflect the composition of the population affected by the Partition of British India (e.g., only 1.9% of the sample was identified as “Poor” before Partition). Migratory inflows and outflows were calculated at the district level in India, Pakistan, and Bangladesh, but these districts were based on present-day regional borders. These vector polygons do not entirely align to the lines of divisions between countries and districts in 1947. Similarly, census population data between 1941 and 1951 (the main period of migration) at the district level was not readily available for all three countries. Thus, spatial analyses could not be normalized over the district population. Additionally, all spatial analyses were conducted from geocoded data, which may have been incorrectly located by ArcMap.

Discussion & Conclusion
While there are many studies researching the political, social, and cultural implications of mass migration in the period following Partition, there are few spatial and demographic analyses. Filling this gap is particularly difficult given the archival data that accompanied the chaos of approximately 17.5 million people leaving their homes. The primary goal of this study was to analyze a specific dataset collected from interviews with Partition survivors, tracing migration means, routes, and demographic information. Spatial analysis of migration inflows and outflows identified regional concentrations in the regions of Punjab (especially the districts of Lahore and Amritsar) and in the district of Delhi. The migration inflows also demonstrate a tendency towards urban centers like Lahore and Delhi. However, without district-level population data from 1947 to 1951, such assertions are difficult to evidence. Two maps were created after identifying the regional concentration between Lahore and Delhi. The first traced the sample’s migratory inflows directly to Delhi; further demonstrating a concentration of migration in Punjab. The second map, built from an understanding that migrants of lower socioeconomic status after migration likely required more rehabilitation resources and facilities from refugee camps. Thus, the distribution of refugees of lower socioeconomic status was mapped alongside the concentration of refugee camp sites in order to visualize potential spatial correlation. The results of a Global Moran’s I analysis, however, demonstrated that there is little correlation between socioeconomic status and migration destination. A High-Low Clustering analysis furthered this notion by demonstrating limited clustering between neighbors of high socioeconomic status and low socioeconomic status after Partition. Again, however, these spatial analyses were not normalized with district-level population data, which could have definitively affected the results. This study also sought to analyze the demographics of the sample in question. Specifically, the variables of socioeconomic status, gender, whether or not interviewees migrated, and educational attainment were measured. Notably, the sample includes substantially more migrants of Middle Class to Wealthy status than Poor to Lower Middle Class status. Ultimately, this view affects the utility of this data sample in conceptualizing the broader implications of mass displacement after Partition. Future directions potentially include accessing census data in order to execute more accurate spatial analyses by normalizing the data.