

Abstract

Throughout history, the United States has experienced waves of immigration from various nations, and the 170-year history of Mexican nationals migrating to the U.S. is well documented. Migration has had a major impact on the United States as immigrants and their decedents have contributed since the founding of the country, thus making the topic contentious. Further, understanding and measuring migration is complicated as it is not housed within one academic field. To help academics from various fields explore their questions about migration, this project developed a database allowing data exploration from the methods and tools of Geographic Information Science (GISci). Using GISci, this project created a geospatial database that can be and how they relate to sociodemographic data and other trends. The database could then reuse the data and update as the data becomes available. This was done through creating a non-relationship database diagram model. Relevant data was gathered from migration institutes and other sources into Excel spreadsheets before imported into ArcMap. Once the data was transferred into their appropriate attributes base on the diagram, thematic maps, and Structured Query Language (SQL) statements were tested to ensure that these features in ArcMap could be additions to the database. The GIS software ArcMap visualized the data spatially based on the research questions of the user. The database was tested and reviewed by five individuals who specialize in Mexican migration. Their feedback indicated that the database is worthy as an exploratory and collaborative tool and is appropriate in the fields of Anthropology, History, Geography, Mexican-American studies, and other academic fields.