A23 A Geospatial Database for Coroner Records: Developing a Collaborative Partnership to Facilitate Undergraduate Research

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Learning Overview: After attending this presentation, attendees will understand the scope of the project and the benefits and difficulties of implementing a similar project at their institution. The goal of this research project focuses on working with the Pickens County Coroner's Office to create a digital database of death investigation records in the county over the past several decades.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by outlining a collaborative research project undertaken at Clemson University. Currently, records are only available in paper files. A digital database allows for the examination of detailed trends related to deaths in the county from both temporal and spatial perspectives.

The Pickens County Office of the Coroner requested assistance in creating a digital database of death records to preserve and archive information, identify inconsistencies within the records, and examine temporal and spatial trends related to deaths in Pickens County over the past several decades. Over the past year, a relational database was developed using the GeoForm application in arcGIS®. Team members enter data from the paper files into the relational database with protocols in place to ensure accuracy and privacy during the data entry process. Following the data entry process or concurrent with the data entry, students will investigate trends in deaths in the county. This research project provides an important service to Pickens County, and it will provide the opportunity for students to work on real-world research projects.

This presentation will outline the structure of the project, including developing a collaborative relationship between the university and county government, recruiting student research assistants, clearing hurdles with the university legal office, and the benefits of using a geospatial database for preserving these types of records. The improved structure of the database in comparison with the previous electronic recordkeeping system will be discussed. The data that is collected as part of this project is associated with other available spatial databases from the county to the level of the consensus block, including factors related to patterns of deaths such as poverty rates, educational attainment, and percent of income spent on alcohol. This presentation will provide attendees with a model of a project that could be implemented on their campus. This type of research project has proven beneficial to the university, county government, and students as well as creating a database that can be used to address several questions of interest to forensic scientists. The availability of this type of data from a rural county in the southeastern United States is a unique data source and provides additional information compared to other datasets from mainly urban areas. Forensic anthropologists frequently serve in undergraduate programs and it may be difficult to incorporate these students into research projects. This research project has proven successful for allowing students to participate in the research process and develop marketable skills in database development and management.

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