COA ⟩ SHOWCASE

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Abstract (Poster): Effective management of housing research data is essential for advancing knowledge, guiding policy decisions, and addressing pressing social challenges. This project focuses on developing a comprehensive knowledge map to improve the organization, accessibility, and utilization of housing data sourced from the Texas Research Data Center (TXRDC). It is particularly relevant to interdisciplinary housing studies, where leveraging high-quality, detailed data can significantly influence research outcomes, community development, and policy formulation.

The knowledge map will systematically categorize and visualize diverse housing data from the TXRDC, offering a deeper understanding of key themes such as housing affordability, sustainability, homeownership and renting patterns, and housing quality. Additionally, the map will provide insights into demographic diversity, household composition, wealth, environmental health outcomes, and other socioeconomic factors that impact housing dynamics, particularly within the Hispanic population.

The project will create an interactive and user-friendly 3D-graph knowledge map, facilitating seamless navigation through complex datasets. This tool will allow researchers, planners, and policymakers to easily access and analyze granular data related to housing trends, environmental health, and economic well-being. While the detailed data will remain restricted, the workflows and methodologies developed through this project will be made available for replication and adaptation by other researchers via RDCs.

The primary goals of the knowledge map are to enhance the structure, accessibility, and transparency of housing data, support researchers and planners in identifying trends and gaps, and enable more informed, data-driven decision-making. The map's structured framework will streamline research processes, improve the ability to conduct fine-scale policy evaluations, and provide valuable insights for long-term community resilience and housing policy development.

Beyond research, the knowledge map will aid in policy development, community planning, and strategic interventions for vulnerable populations. This project demonstrates the transformative potential of innovative data management solutions, positioning knowledge maps as essential tools for optimizing research efficiency and fully utilizing federal statistical data resources.