Hook: The Impact of University Growth on Housing Affordability: A Case Study of Charlottesville, Virginia

DS 4002 Case Study by Elizabeth Hunter

https://github.com/mwm6nq/DS4002-CS2/tree/main

Over the past decades, universities have played an increasingly influential role in shaping the economies and demographics of the towns that host them. Charlottesville, Virginia, is no exception. Once a smaller city, Charlottesville has grown significantly, becoming a more expensive place to live. A University of Virginia article reported that "the rich are getting richer while the poor are getting pushed out" (Mitchell & O'Hare, 2022). This mirrors a nationwide trend in college towns, where university-driven growth has spurred economic development, attracted retirees and remote workers, and boosted housing demand — but also widened income gaps and contributed to the displacement of lower-income residents.

Charlottesville's transformation highlights the trend of growth anchored by a higher education insulation. The University of Virginia positively stimulates local economies through rising enrollment and institutional expansion, which can also strain housing markets and amplify affordability challenges. This case study addresses a critical question: Is the rising cost of living in Charlottesville correlated with the growth of UVA's student population?

You are tasked with investigating the relationship between UVA enrollment and Charlottesville housing prices over time. You will use real-world data from Charlottesville Open Data and the UVA Institutional Research database to assess trends, identify key variables, and build predictive models to evaluate potential correlations between housing and enrollment.

Your final deliverable will be a concise, high-level analysis report summarizing your findings and outlining the implications of university-driven growth on housing affordability in Charlottesville. Through this case study, you will step into the role of a systems analyst, applying data-driven reasoning to a pressing local issue.

DePillis, L. (2023, March 13). *Colleges have been a small-town lifeline. What happens as they shrink?* The New York Times. https://www.nytimes.com/2023/03/13/business/economy/college-towns-economy.html

Mitchell, E., & O'Hare, E. (2022, October 7). *A decade of data tells a story of how Charlottesville's neighborhoods are changing*. UVA Data Science. https://datascience.virginia.edu/news/decade-data-tells-story-how-charlottesvilles-neighborhoods-are-changing