

Undercounting and Overcounting Population in Texas Counties

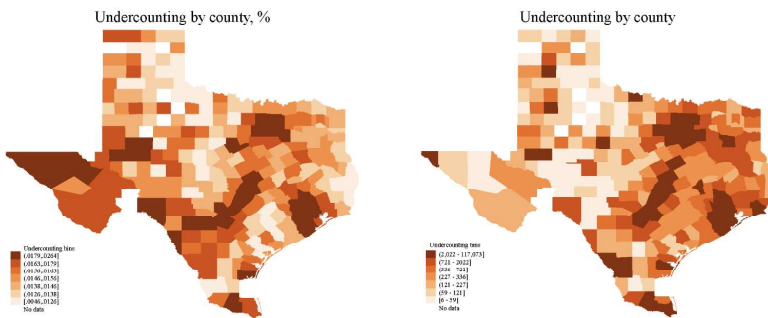
A Determinants-Side Approach and its Application to Texas

By: Francisco A Castellanos Sosa, The University of Texas at Austin

Research Overview

During the 2020 Decennial Census, the U.S. Census Bureau estimates they undercounted the population in six states and overcounted in eight but offers no data at the sub-state or county level. Texas is one of the states with an estimated undercount, calculated at 1.9%. To gain a localized understanding of where there was an undercount in Texas, the Texas Census Institute presents a methodology to estimate undercounting by studying what theoretical factors contributed to it. Our exploration of social capital, geography, and other factors offer potential explanations as to why certain counties experienced less participation in census activities.

Geographical dispersion of the undercounting share and undercounting in Texas.



Key Findings

- Undercounting is theoretically associated with personal, geographical, and census features dimensions.
- Undercounting is primarily present in Texas’ metropolitan areas and main counties along the U.S.-Mexico border.
- There is a positive correlation between undercounting and the share of the population in the main working-age groups of 15-19, 20-24, 25-34, and 35-44.
- There is a positive correlation between undercounting and the share of the population for Asian and Hispanic races, groups that are traditionally recognized with higher levels of immigration.
- Census self-response rate using the Internet is related to more undercounting.
- Census self-response rate using traditional methods such as phone and mail is related to less undercounting.

PROS

CONS

This theoretical methodology may not fully capture the whole set of factors faced by Texans today.	This theoretical approach may not fully capture the complexities facing Texans today.
The social capital and social exchange variables used in our methodology come from a recent academic publication, which may or may not be updated in upcoming years.	This theoretical approach may not fully capture the complexities facing Texans today.
Counties within Texas might differ in many aspects, and be located out of the 90% confidence interval of the state-level undercounting and overcounting estimates provided by the U.S. Census Bureau.	Our approach is a statistically conservative measure since it uses the state-level undercounting 90% confidence interval provided by the U.S. Census Bureau.

Authors Message

To the extent that counties might present undercounting and overcounting approximations, their estimates might be different due to unobservable reasons. However, even in these circumstances, our undercounting and overcounting approximations aim to be a sufficient guide for intervention. The general goal of our methodology is to provide a data-driven exploration of what Texans are counted or not and to pursue ideas for creating an equitable census.

Acknowledgements: The authors appreciate the insightful support provided by Dr. Lloyd B. Potter, Dr. Monica Cruz, Dr. Mary Campbell, and Dr. Shannon Cavanagh.