

Estimating Unauthorized Immigrant Population and its Geographic Distribution within Texas Counties

While previous works on the estimation of unauthorized immigrant population have often employed the residual method (Warren 2011; Passel 2010, 2011) this method produces some challenges when attempting to produce estimates at lower geographies. Specifically, data limitations and availability restrict estimates to the state level. In this study, we employ a methodology that combines census population data with new administrative data, allowing us to provide estimates of the total unauthorized population and its distribution at sub-state level geographies.

We rely on previous research (Hill et al. 2011) that has shown a high correlation between the Internal Revenue Service (IRS) Individual Taxpayer Identification Number (ITIN) filers and unauthorized immigrants estimates in U.S. states. Since immigrants without work authorization do not have valid social security numbers, many instead use ITINs when filing tax returns. Recent estimates indicate that approximately 80 percent of unauthorized immigrants report filing federal income taxes and about 75 percent of unauthorized report having payroll taxes withheld (Porter 2005; Hill et al. 2010). One advantage of using ITINs is that information is available for tax years 2000 to 2007 at county and zip code levels.

Despite the usefulness of ITINs data in approximating the unauthorized immigrant population, it is important account for the fact not all unauthorized immigrants file tax returns and not all ITIN filers are unauthorized (Hill et al. 2011). To address this issue, we incorporate sociodemographic characteristics related to the unauthorized immigrant status from the American Community Survey (ACS). We calibrate a model that allows us to estimate the proportion of past unauthorized population estimates to ITIN filers at state level. The model considers several

demographic and labor force characteristics of the immigrant population as well as characteristics from administrative tax return data. These estimates are then used to generate counts of the unauthorized population at the sub-state level. Given the availability of these data, we are able to produce estimates of the unauthorized population by county and zip code for the state of Texas. The analysis is replicated for several years, 2001, 2005 and 2008, in order to provide results with regards to changes in the geographic distribution of unauthorized immigrants in the state of Texas.

Preliminary Findings

Our model produced statewide estimates similar to those produced by Passel but lower than those produced by Warren. For instance, in 2008 Passel estimated a population of 1.40 million unauthorized immigrants in Texas, and Warren estimated an unauthorized population of 1.53 million. Our model produced a state-level estimate of 1.38 million.

Preliminary zip code level estimates appear to be in line with areas of high immigrant populations, including zip codes in the Dallas-Fort Worth-Arlington, Houston-Baytown-Sugarland, and Austin-Round Rock metropolitan areas.

References

- Hill, Laura E., and Hans P. Johnson. 2011. Unauthorized Immigrants in California Estimates for Counties. San Francisco: Public Policy Institute of California. http://www.ppic.org/content/pubs/report/R_711LHR.pdf.
- Hill, Laura E., Magnus Lofstrom, and Joseph M. Hayes. 2010. Immigrant Legalization: Assessing the Labor Market Effects. San Francisco: Public Policy Institute of California. Available at www.ppic.org/main/publication.asp?i=869.
- Passel, Jeffrey S., and D'Vera Cohn. 2011. "Unauthorized Immigrant Population: National and State Trends, 2010." Washington DC: Pew Hispanic Center.
- Passel, Jeffrey S., and D'Vera Cohn. 2010. "U.S. Unauthorized Immigration Flows Are Down Sharply since Mid-Decade." Washington DC: Pew Hispanic Center