

# Non-response in ACS Citizenship Question: Characteristics of Respondents

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## Overview

- Hypothesis
- Background
- Data
- Analysis
- Conclusions

## Hypothesis

Are there demographic differences between people that respond to the ACS citizenship question?

Are non-citizen non-respondents more likely to have lower income, larger family size, work in the service sector, and have lower education?

## Implications



Non-response attributed to vulnerable group of people residing in US who fear negative legal measures such as deportation



Policymakers can incorporate the findings into more effective social welfare programs for the immigrant population



Citizenship question on 2020 Census will decrease participation and result in underrepresentation of immigrant population

## Implications

# Census Bureau: 630,000 expected to not complete survey due to citizenship question



By [Gregory Wallace](#), CNN

Updated 1:56 PM ET, Tue February 19, 2019



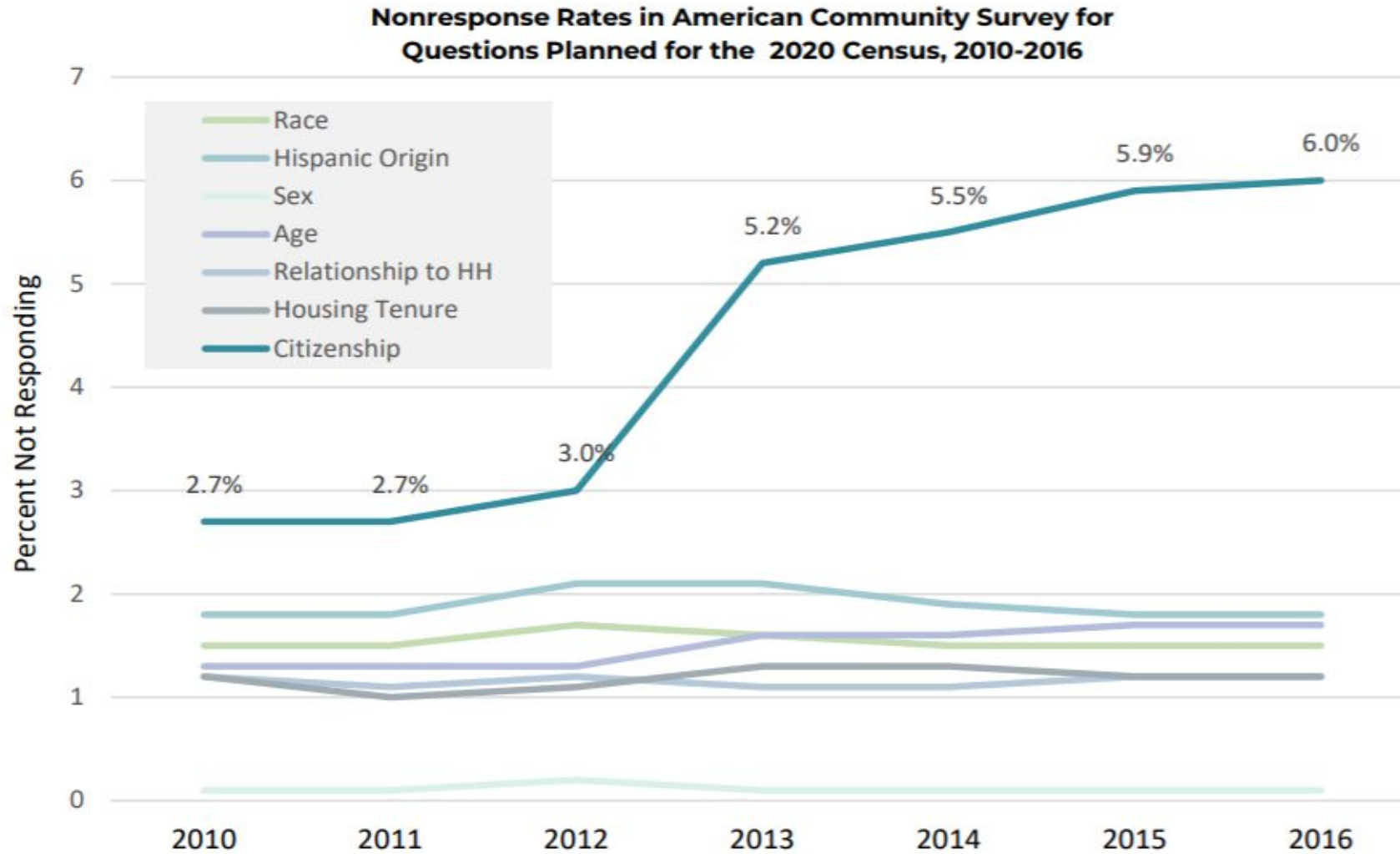
Supreme Court weighs a Trump census question that could undercut California's power

By [DAVID G. SAVAGE](#) FEB 14, 2019 | 8:15 AM | WASHINGTON



# Minorities may not respond to census due to 'political environment,' administration says

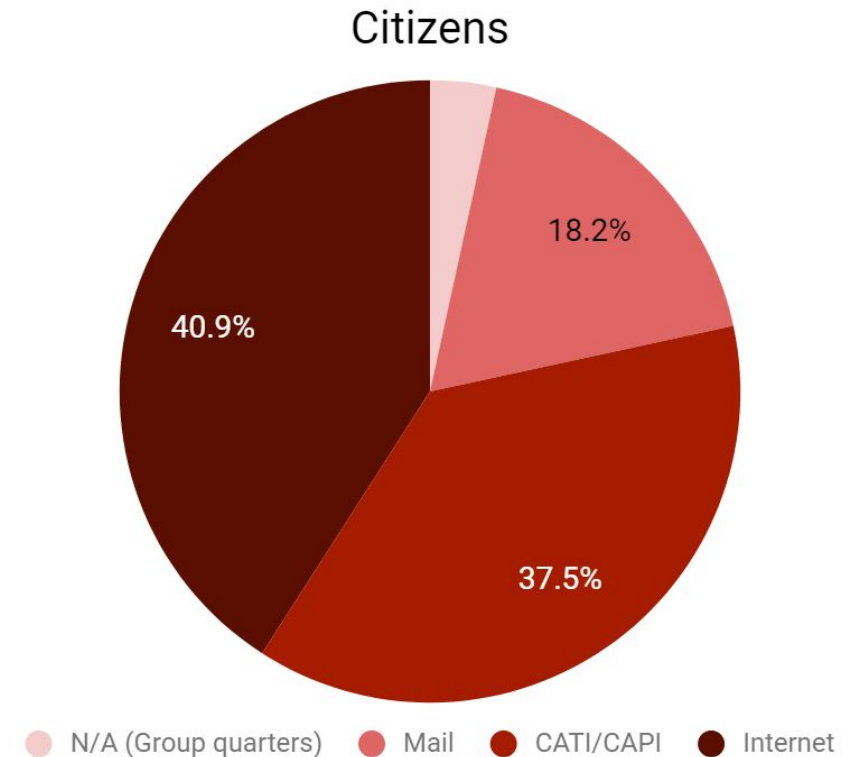
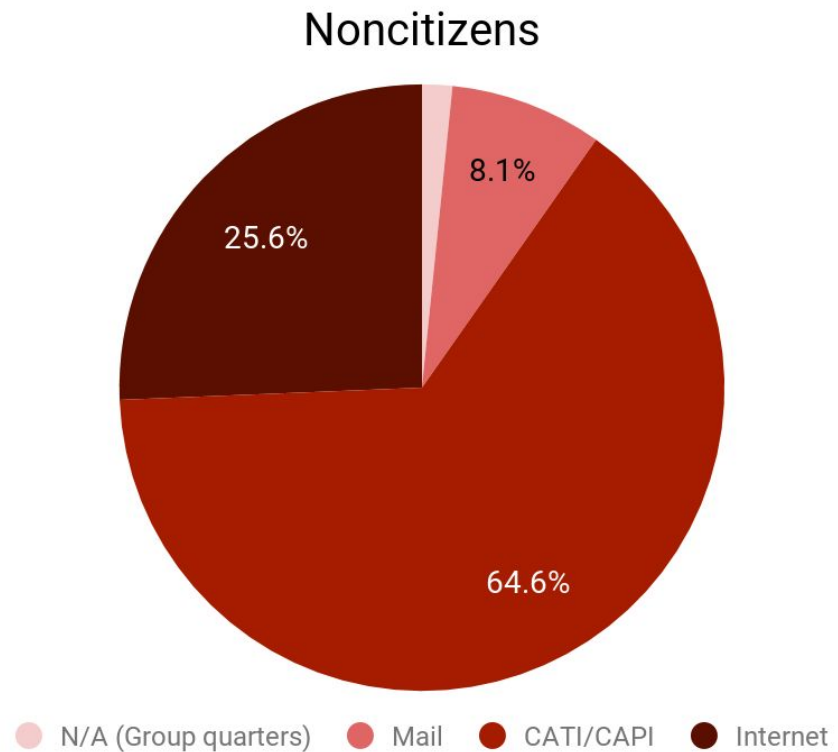
# Background



Source: American Community Survey Item Allocation Rates.

## Background

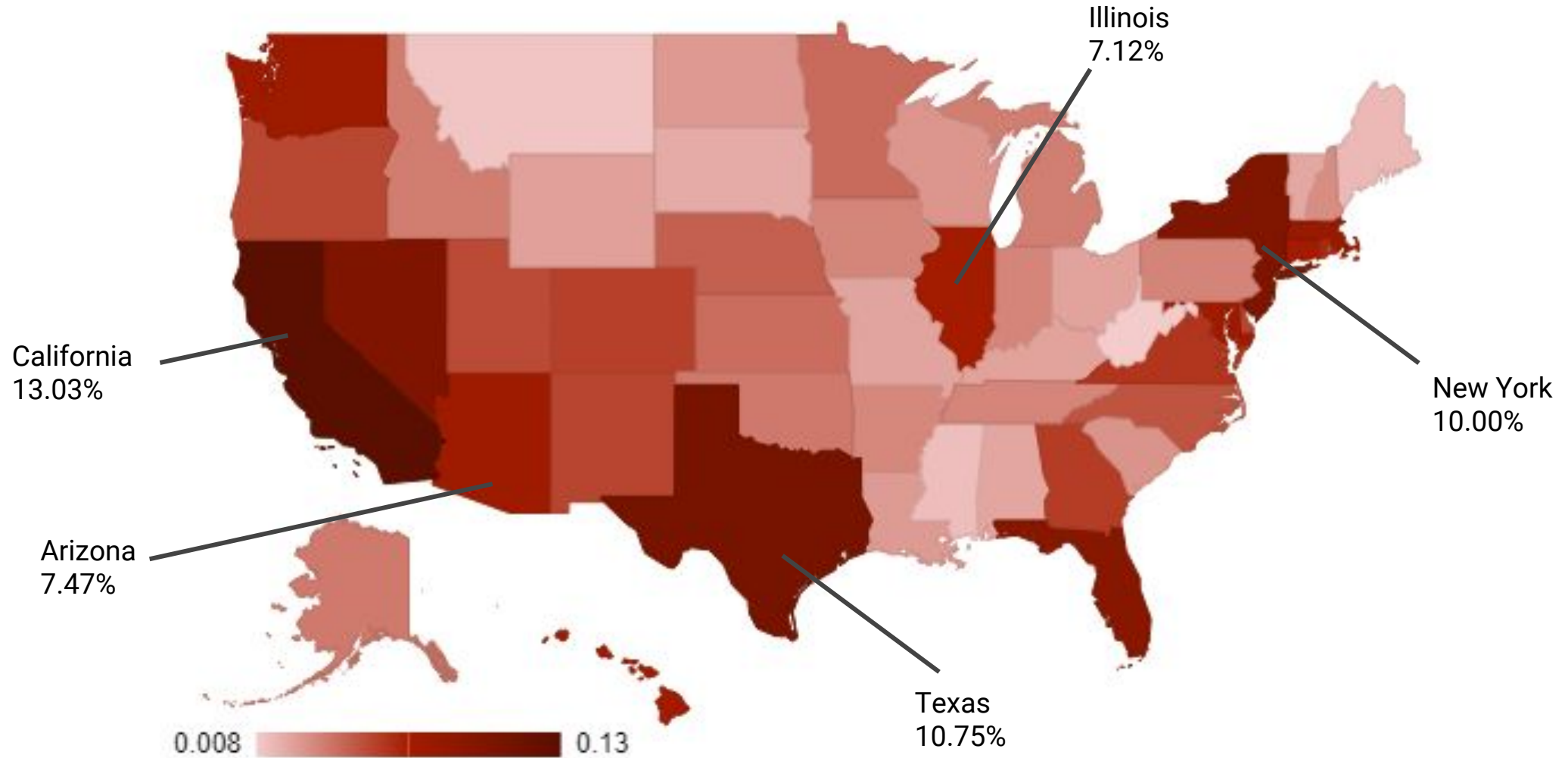
Primary response mode among non-citizens is most costly based on survey design



Source: 2017 American Community Survey, IPUMS

## Background

Non-citizen populations vary drastically across states from 0.79% of the population to 13.03% of the population.



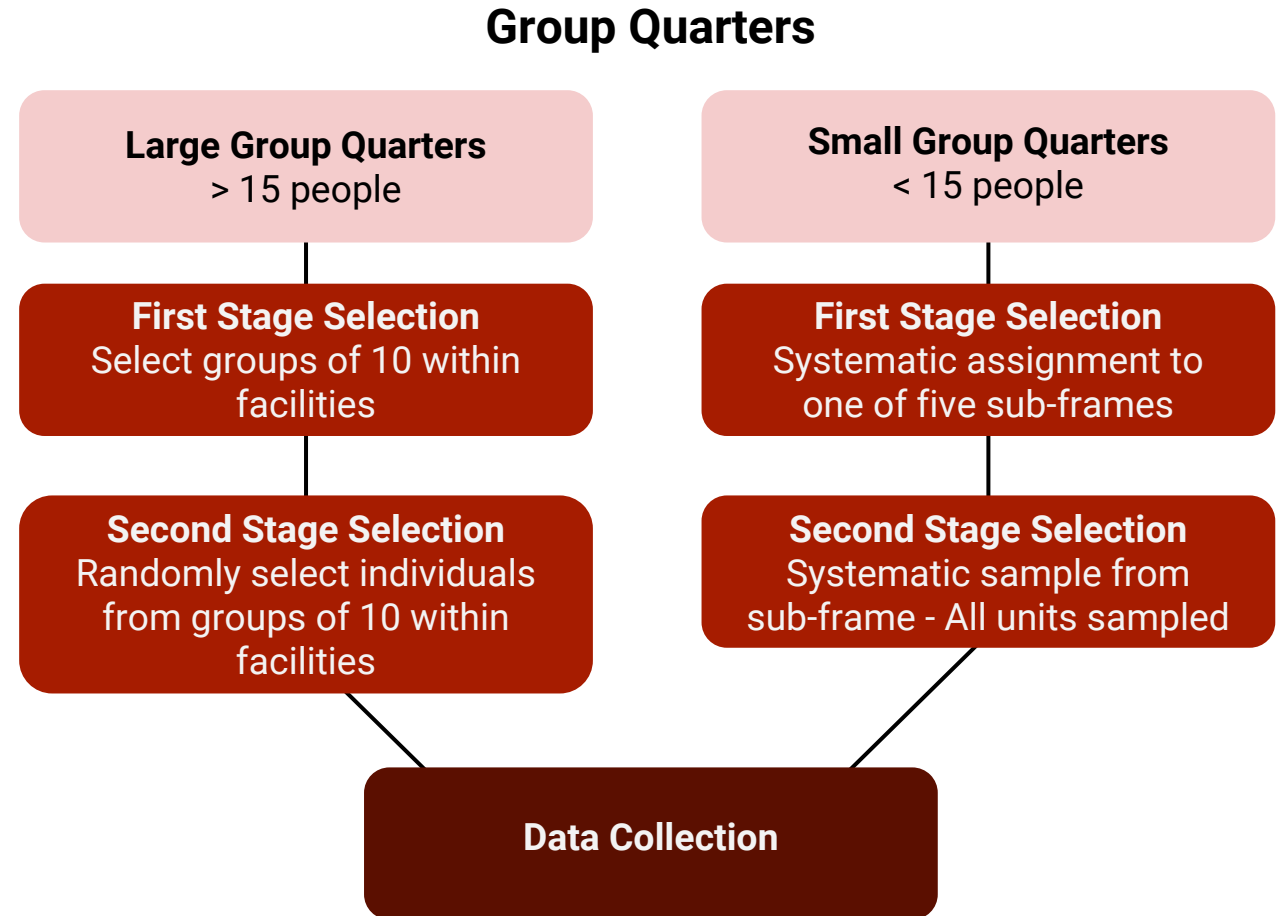
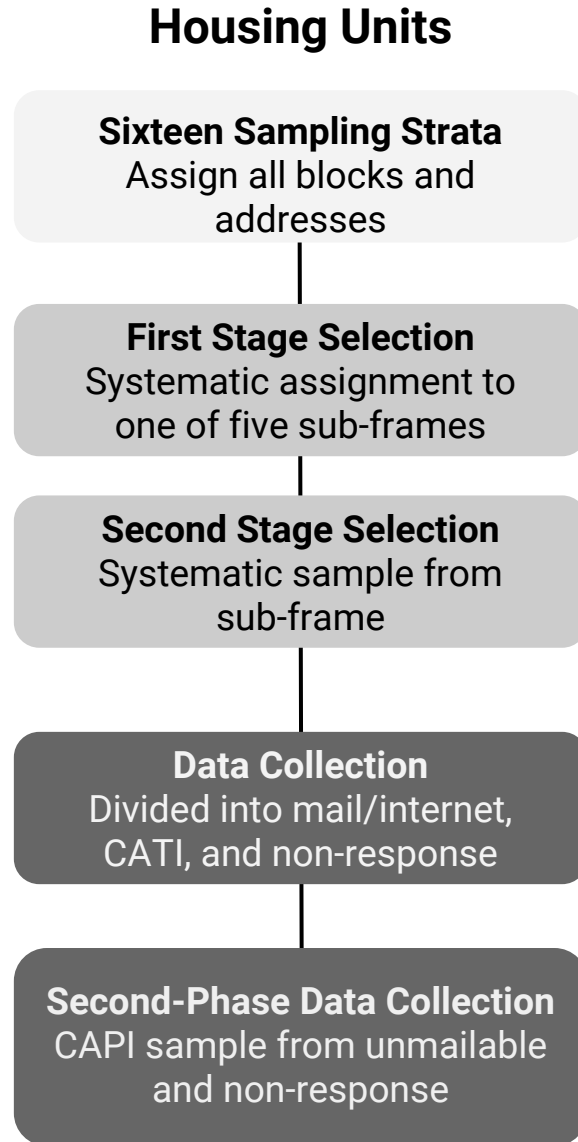
Source: 2013 - 2017, 1-year American Community Survey



### American Community Survey, 2013-2017, IPUMS

- ➡ All variables of interest available, including quality flags for non-response
- ➡ High coverage rates (> 98%) ensures representative selection of non-citizens into survey sample
- ➡ Mandatory nature of survey suggests an exceptional reason for non-response

# Data: Survey Design



## Groups of Interest

Noncitizen  
Response

Noncitizen  
Nonresponse

Citizen  
Response

Citizen  
Nonresponse

## Variables of Interest

Educational  
Attainment

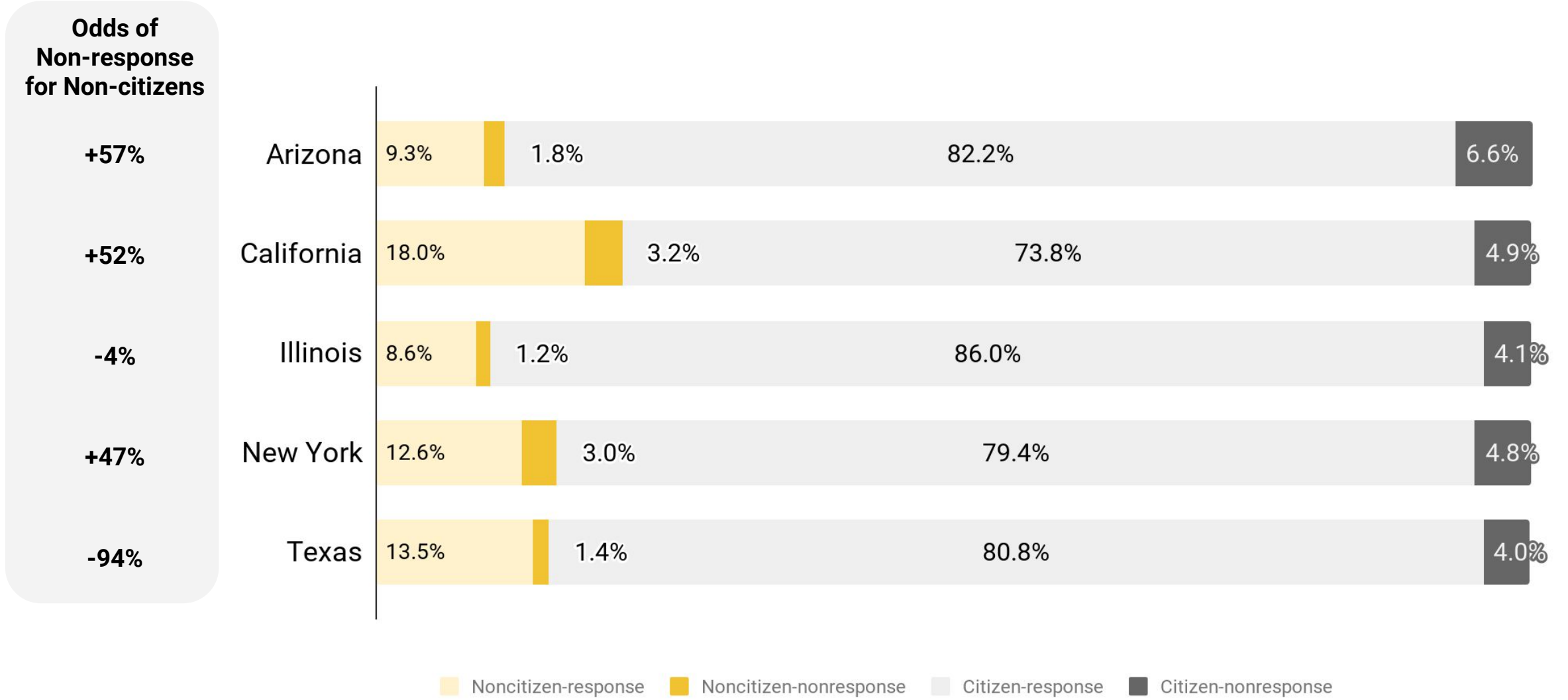
Personal  
Income

Industry of  
Employment

Family  
Size



# Analysis & Results



Source: 2013 - 2017, 1-year American Community Survey, IPUMS

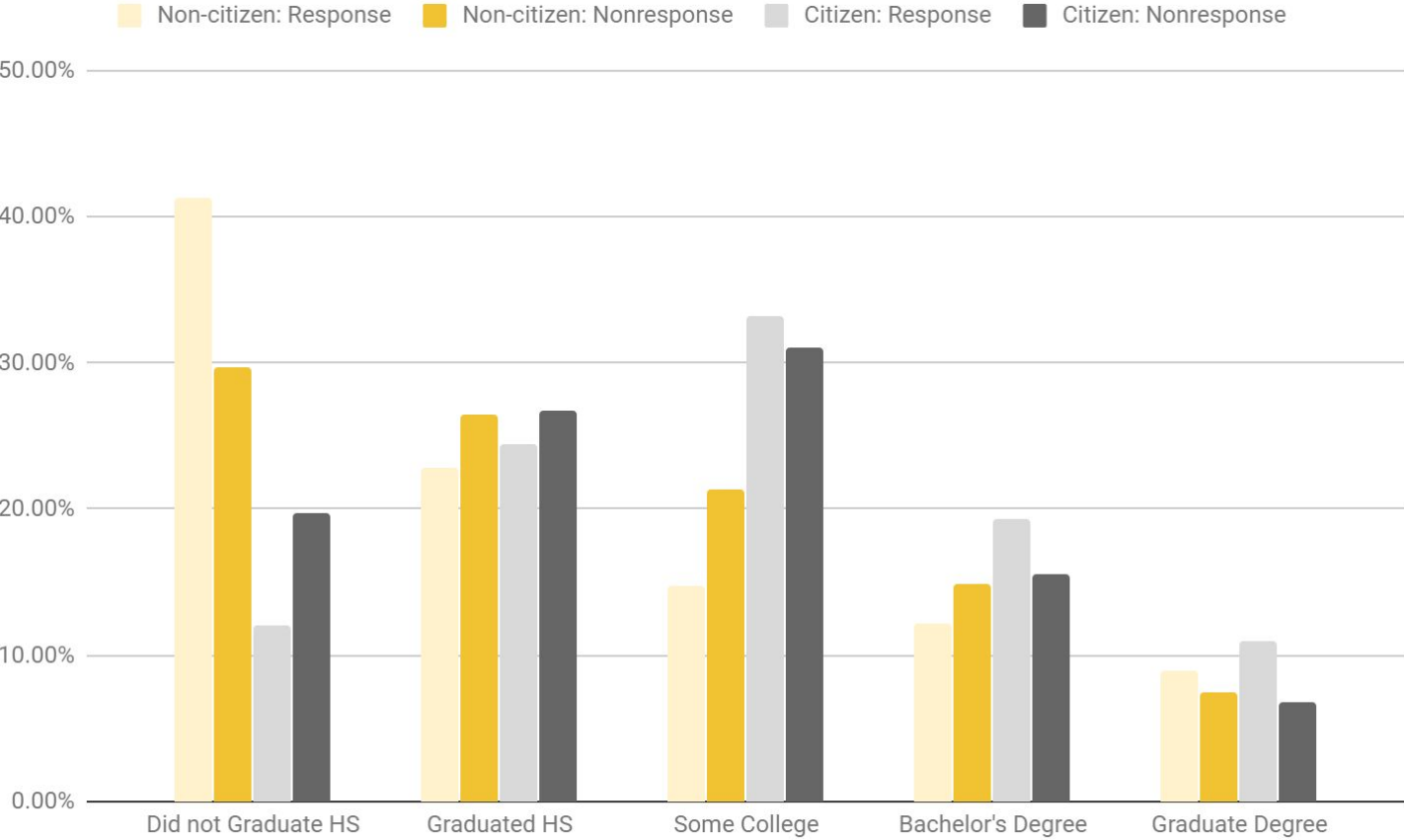
# Analysis & Results

Educational Attainment

Personal Income

Industry of Employment

Family Size



Non-citizen Response vs. Non-citizen Non-response

Degree attained	Odds-Ratio	t-statistic
Did not graduate high school	.70**	-35.18
High school Diploma	1.06**	5.38
Some College	1.54**	36.05
Bachelor's Degree	1.27**	16.91
Graduate Degree	.88**	-6.83

\*\*all values are significant with a p-value of 0.000

Source: 2013 - 2017, 1-year American Community Survey, IPUMS

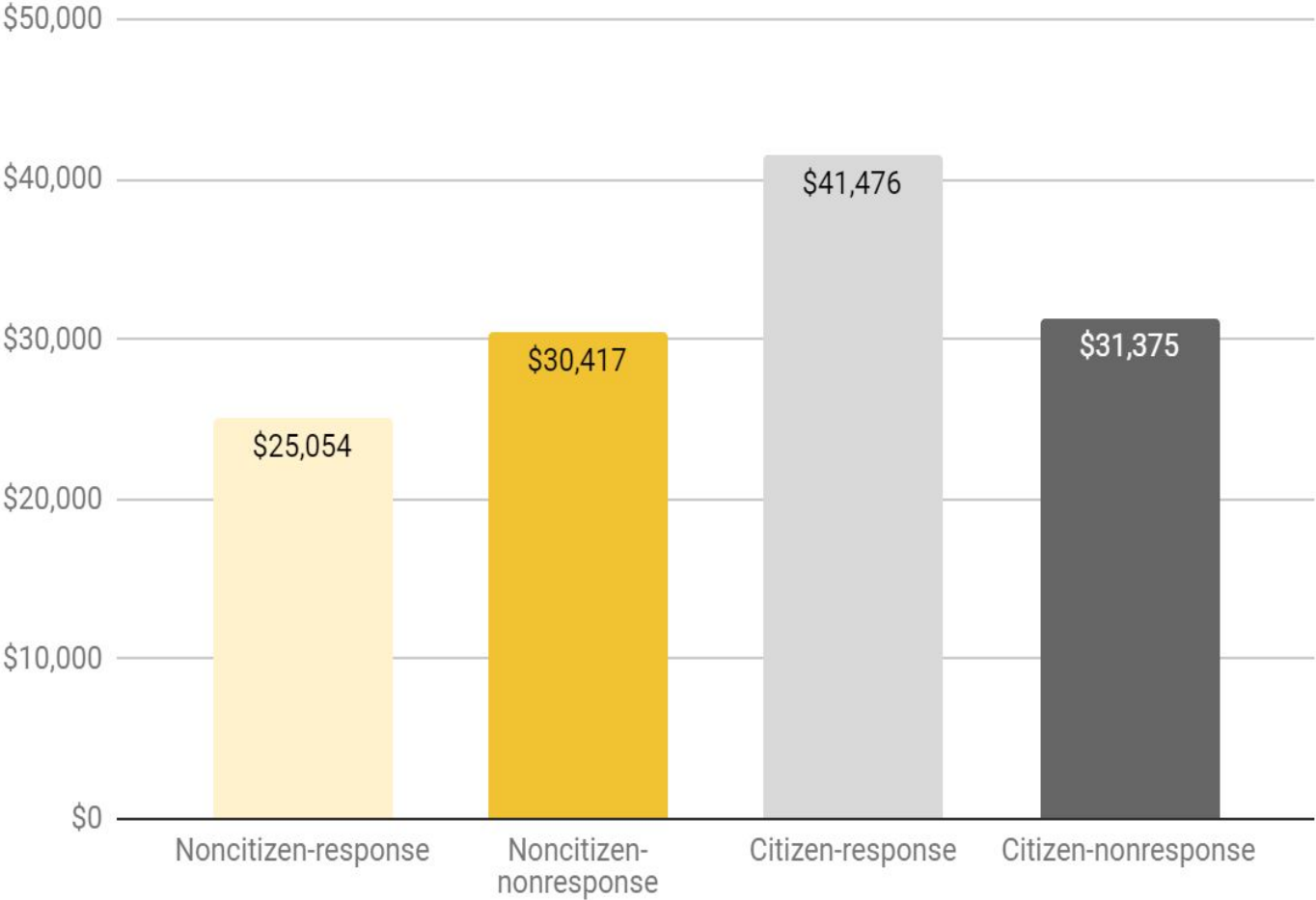
# Analysis & Results

Educational Attainment

Personal Income

Industry of Employment

Family Size



Non-citizen Response vs. Non-citizen Non-response

Difference in Means	Standard Error	t-statistic
\$5,363	228.50	23.47

Citizen Response vs. Citizen Non-response

Difference in Means	Standard Error	t-statistic
\$10,101	165.27	61.12

all values are significant with p-value of 0.000

Source: 2013 - 2017, 1-year American Community Survey, IPUMS

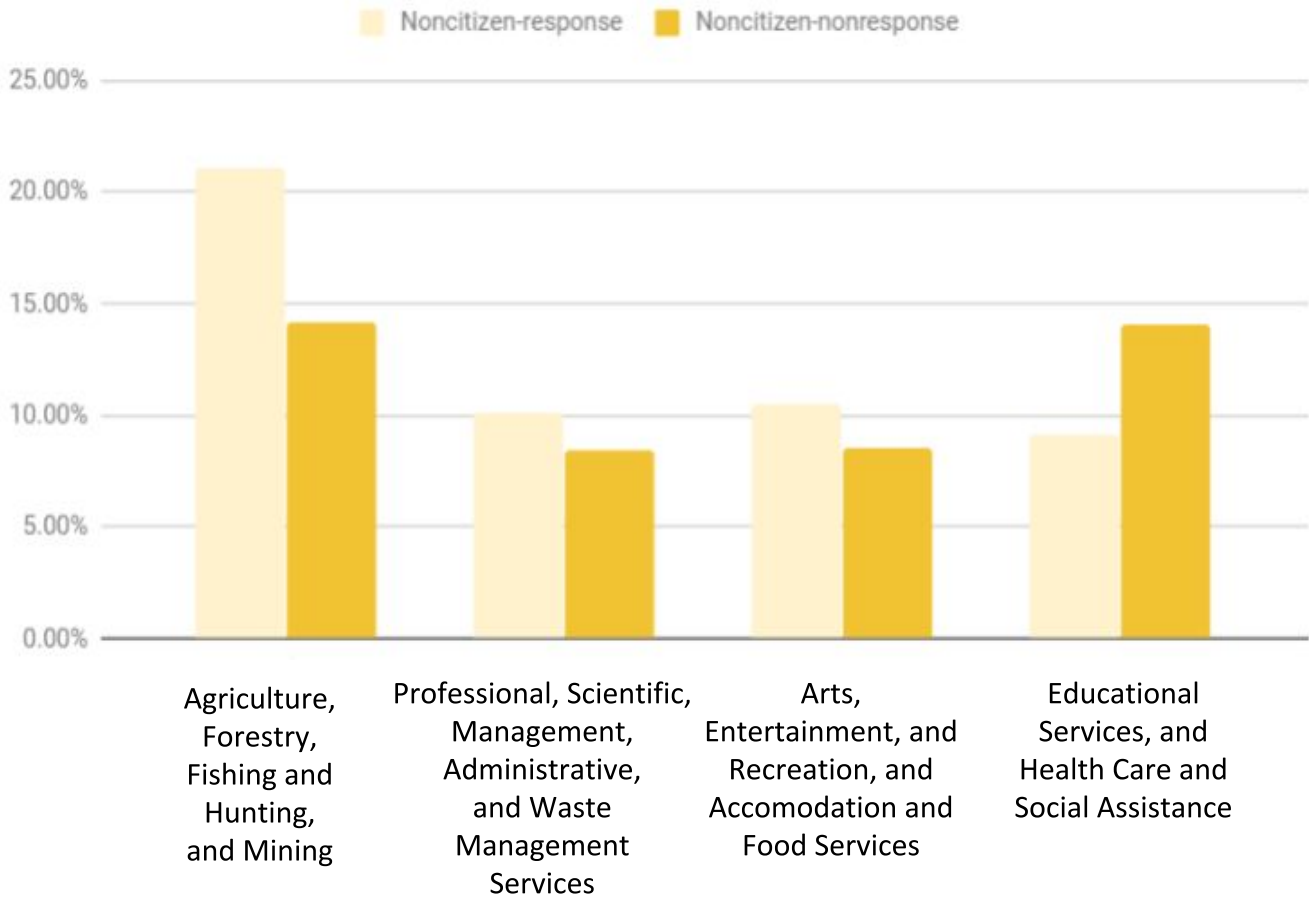
# Analysis & Results

Educational  
Attainment

Personal Income

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Non-citizen Response vs. Non-citizen Non-response

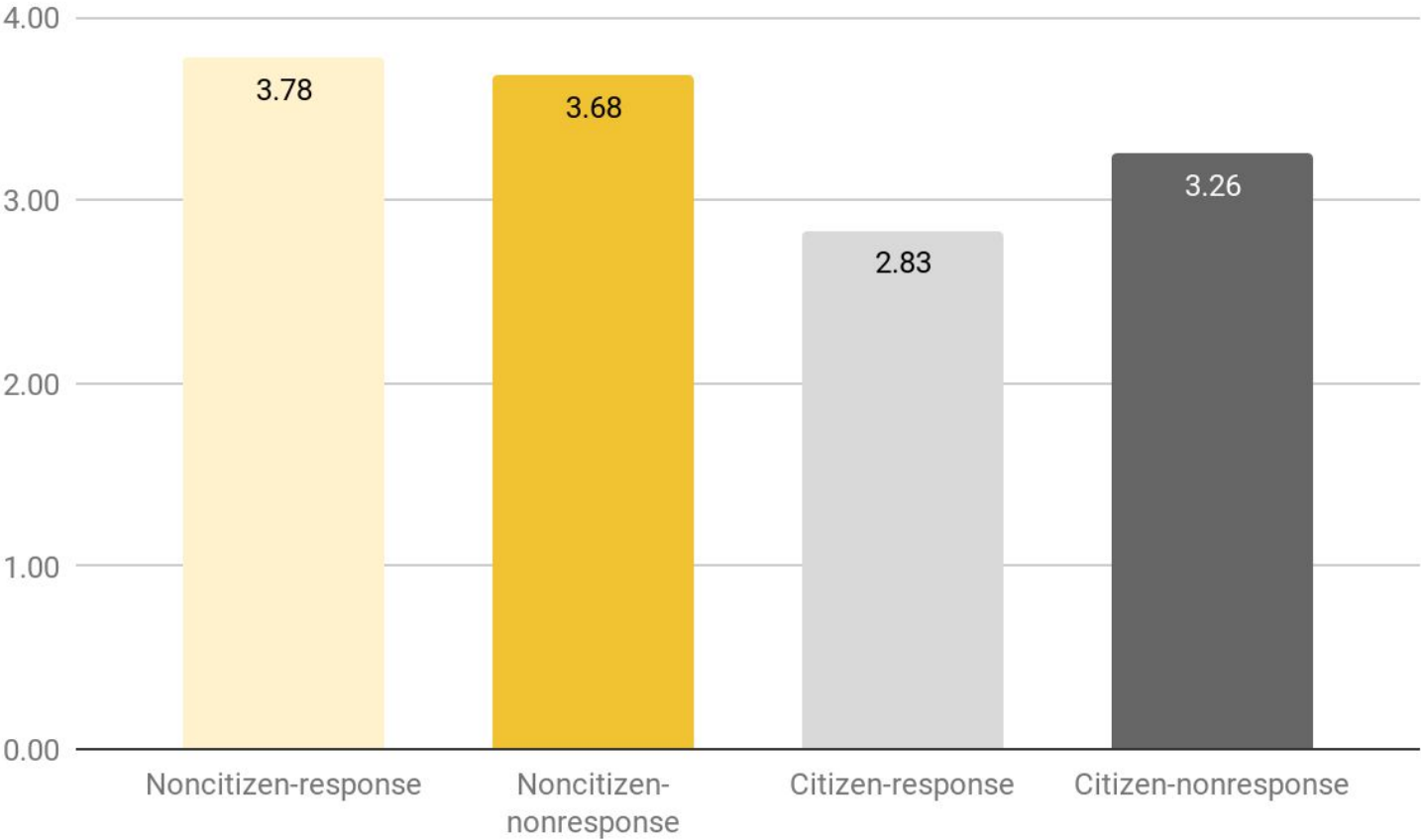
Industry	Odds-Ratio	t-statistic
Agriculture, Forestry, Fishing and Hunting, and Mining	0.62**	-35.85
Professional, Scientific, and Management, and Administrative, and Waste Management Services	0.82**	-11.29
Arts, Entertainment, and and Food Services	0.79**	-13.22
Educational Services, and Health Care and Social Assistance	1.62**	34.66

all values are significant with p-value of 0.000

Source: 2013 - 2017, 1-year American Community Survey, IPUMS

# Analysis & Results

- Educational Attainment
- Personal Income
- Industry of Employment
- Family Size



Non-citizen Response vs. Non-citizen Non-response

Difference in Means	Standard Error	t-statistic
-.0998075	0.017	-5.87

Citizen Response vs. Citizen Non-response

Difference in Means	Standard Error	t-statistic
.4221629	0.017	24.41

all values are significant with p-value of 0.000

Source: 2013 - 2017, 1-year American Community Survey, IPUMS



## Limitations

- ➡ Possible bias in estimates due to re-coding non-citizen non-response ourselves
- ➡ Results limited to short run (5 years) due to change in survey methods by ACS
- ➡ Homogeneous treatment of variables across states (no spatial differences)
- ➡ Limit in nuanced conclusions due to aggregation of variables - industry, education

## Conclusions

Are non-citizen non-respondents more likely to have low income, larger family size, work in the service sector, and have lower education?



Non-citizen responders are a closer match to the profile that we describe in our hypothesis



Socioeconomic disparity greater between citizen response and citizen non-response group



Possible discrepancy may be attributed to higher opportunity costs facing non-citizens with higher income and education levels

## Future Research



Conduct state-level analysis to avoid homogeneity across states  
(Requires greater statistical power)



Consider the implications of differing state policies on immigration



Explore more granular industry categories



Investigate differences in demographics and socioeconomic characteristics between citizen response and non-response groups

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