

# USING THE CENSUS TO UNDERSTAND DIFFERENCE: HISPANIC HOMEOWNERSHIP

Guest Lecture, CP101  
Rocio Sanchez-Moyano  
June 1, 2020

# GOALS FOR TODAY: RESEARCH DESIGN USING THE CENSUS

1. Questions we CAN and CAN'T answer
2. Census geographies
3. Published vs Micro data
4. Research example: Geography of Hispanic homeownership

# WHAT CAN WE DO WITH DECENNIAL CENSUS & ACS DATA?

## Answerable questions:

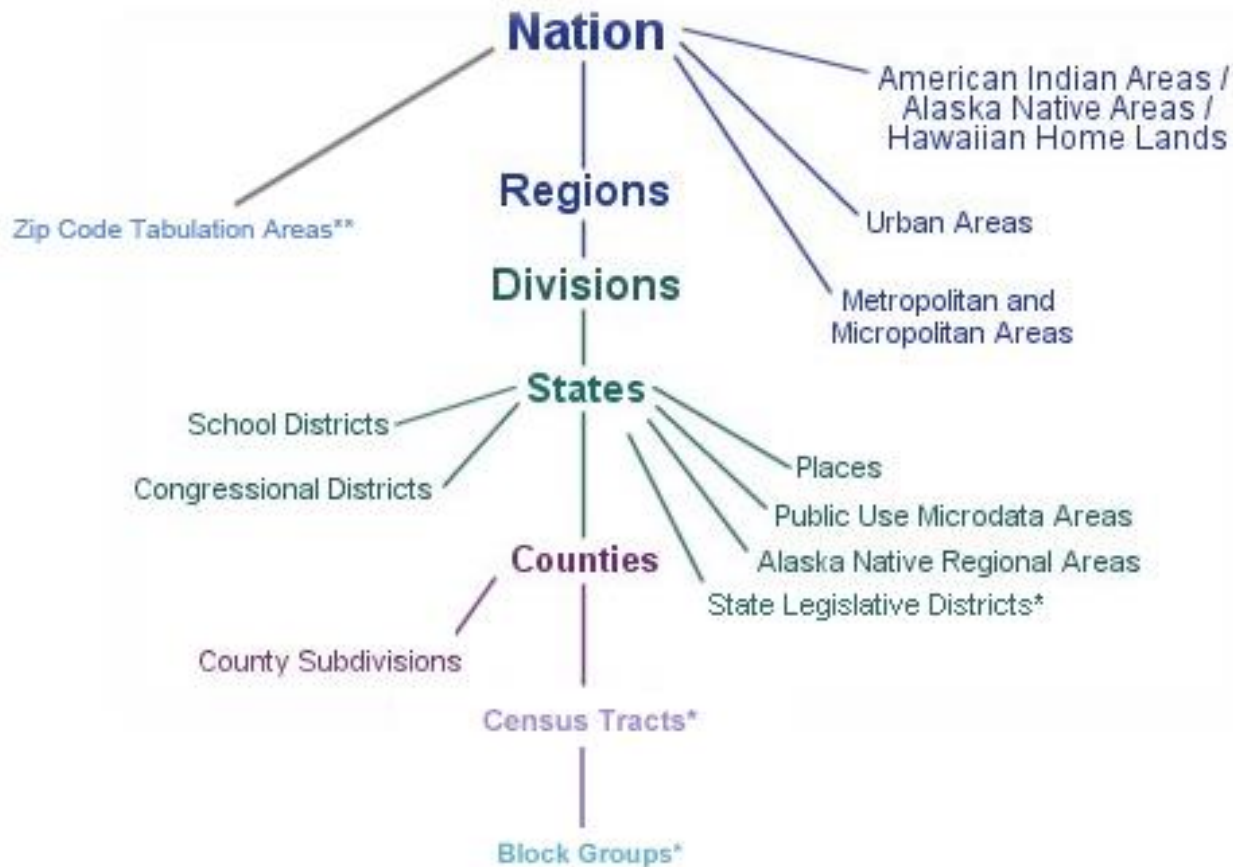
- How many:
  - People
  - Households
  - White/Black/Hispanic/Asian
  - College grads
- Averages and medians:
  - Income
  - Household size
  - Unit age
- Changes in characteristics of a specific geography (tract, city, state) over time

## Unanswerable questions:

- Tracking:
  - Where did someone move to/from?
  - Who did they live with before?
  - Do they earn more now that they graduated from college?
- Many “why?” questions:
  - Why did someone move?
  - Why do they commute via car rather than bus?

NOTE: other surveys produced by the Census Bureau can answer some of these questions

# CENSUS GEOGRAPHIES



# PROBLEMS WITH CENSUS GEOGRAPHIES

1. Relationships between non-nested geographies
2. Changes over time

Both have same solution: Crosswalks

# CROSSWALKS

“Manual” for converting geographies

Useful source for them:  
Geocorr from MCDC

<http://mcdc.missouri.edu/applications/geocorr2014.html>

INPUT OPTIONS

Select the state(s) to process: ⓘ  

Missouri ^  
Alabama  
Alaska  
Arizona  
Arkansas  
California  
Colorado  
Connecticut v (ctl-click to select multiple)

Select one or more source geographies: ⓘ

Entire Universe [no code] ^  
State  
**2010 Geographies:**  
County  
County Subdivision/Town(ship)/MCD  
Place (City, Town, Village, CDP, etc.)  
Census Tract  
Census Block Group  
Census Block\*  
ZIP/ZCTA  
Core Based Statistical Area (CBSA)  
CBSA Type (Metro or Micro)  
Metropolitan Division  
Combined Statistical Area  
NECTA (New England only)  
NECTA Division (New England only)  
State Legislative District — Upper Chamber  
State Legislative District — Lower Chamber  
Unified School District  
Elementary School District  
Secondary School District  
Best School District  
Best School District Type  
County Size Category  
Place Size Category  
Within-a-place Code  
Census Place Code  
**2012 Geographies:**  
State Legislative District — Upper Chamber  
State Legislative District — Lower Chamber v

Select one or more target geographies: ⓘ

Entire Universe [no code] ^  
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# CROSSWALKS - OUTPUT

## Sample Place to County crosswalk

stfips	plfips10	stcofips	County Name	Place Name	Population	Allocation factor
01	00100	01017	Chambers AL	Abanda CDP, AL	79	1
01	00124	01067	Henry AL	Abbeville city, AL	1255	1
01	01228	01107	Pickens AL	Aliceville city, AL	1164	1
01	01396	01009	Blount AL	Allgood town, AL	220	1
01	01660	01009	Blount AL	Altoona town, AL	11	0.026
01	01660	01055	Etowah AL	Altoona town, AL	415	0.974
01	01708	01039	Covington AL	Andalusia city, AL	4356	1
01	01852	01015	Calhoun AL	Anniston city, AL	11599	1
01	02116	01043	Cullman AL	Arab city, AL	11	0.003
01	02116	01095	Marshall AL	Arab city, AL	3682	0.997

# GEOGRAPHY OVER TIME - STANDARDIZATION

- Census boundaries regularly redrawn
  - Tracts – updated every decennial census
  - MSAs – OMB updates every year or two
  - Places – change for political reasons (annexation, incorporation, etc) - <https://www.census.gov/geographies/reference-files/time-series/geo/bas/new-annex.html>
- Can use crosswalks, but there are some online resources that do it for you:
  - Social Explorer – for select variables
  - Longitudinal Tract Database – Brown University – tracts only
  - NHGIS – University of Minnesota – lots of geographies available



# CENSUS/ACS DATASET TYPES: PUBLISHED TABLES

- What most people think of when they picture “Census data”
- All geographic levels available
- <https://data.census.gov/cedsci/>

ACS DEMOGRAPHIC AND HOUSING ESTIMATES

Survey/Program: American Community Survey

TableID: DP05

Product: 2018: ACS 1-Year Estimates Data Profiles

CUSTOMIZE TABLE

	United States			
	Estimate	Margin of Error	Percent	Percent Margin of Error
▼ SEX AND AGE				
^ Total population	327,167,439	*****	327,167,439	(X)
▼ RACE				
▼ Total population	327,167,439	*****	327,167,439	(X)
One race	315,887,408	+/-103,258	96.6%	+/-0.1
Two or more races	11,280,031	+/-103,247	3.4%	+/-0.1
▼ One race	315,887,408	+/-103,258	96.6%	+/-0.1
White	236,173,020	+/-122,398	72.2%	+/-0.1
Black or African American	41,617,764	+/-69,606	12.7%	+/-0.1
^ American Indian and Alaska N...	2,801,587	+/-34,389	0.9%	+/-0.1
^ Asian	18,415,198	+/-42,115	5.6%	+/-0.1

# CENSUS/ACS DATASET TYPES: PUBLIC USE MICRODATA (PUMS)

- Data at the INDIVIDUAL and HOUSEHOLD levels
- Geography limited to PUMA (public use microdata area)
  - >100,000 people
  - Can aggregate data up to larger geographies, like states, but not down to smaller ones
- “Microdata are for those users who want to create do-it-yourself tabulations, to be able to further draw on the richness of detail recorded in the ACS”

	serial_str~g	puma	ownershpd	rentgrs	hhincome	lingisol
1	0000001	1500	With cash rent	667	23102	Not linguistically isolated
2	0000002	3005	With cash rent	1328	69621	Not linguistically isolated
3	0000003	100	Owned with mortgage or loan	0	100668	Not linguistically isolated
4	0000004	8508	Owned with mortgage or loan	0	109763	Not linguistically isolated
5	0000005	1600	Owned with mortgage or loan	0	26866	Not linguistically isolated
6	0000006	1800	Owned with mortgage or loan	0	62722	Not linguistically isolated
7	0000007	8105	With cash rent	1631	41396	Not linguistically isolated
8	0000008	308	Owned with mortgage or loan	0	51014	Not linguistically isolated
9	0000009	500	Owned free and clear	0	44010	Not linguistically isolated

# RESEARCH DESIGN: HISPANIC HOMEOWNERSHIP

## Published tables

- How has homeownership and suburbanization for Hispanics changed since 1990?
- Were suburbanizing Hispanics mainly homeowners?
- Used PLACE, COUNTY, and MSA geographies
- Suburbs defined by PLACE

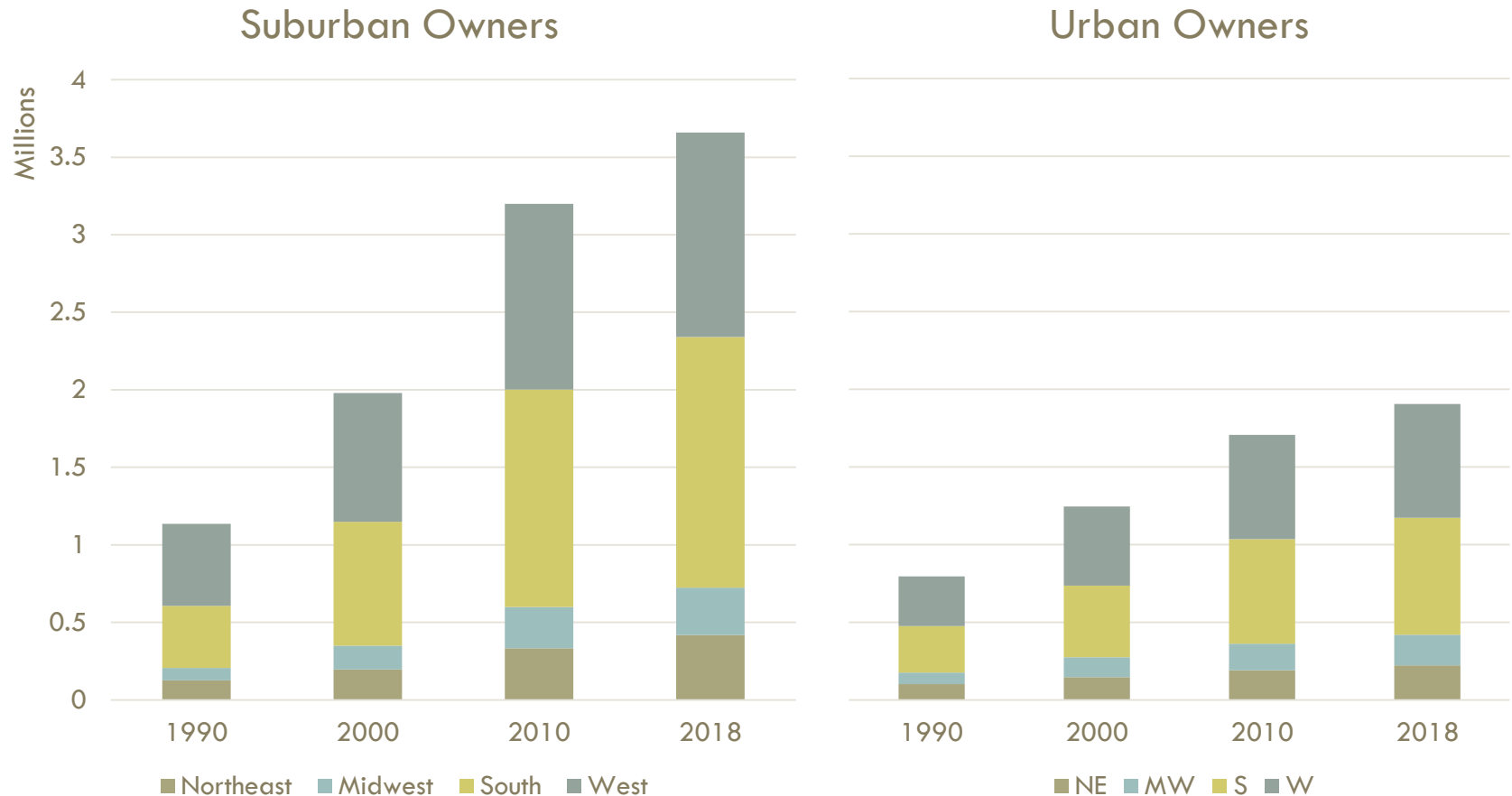
## PUMS microdata

- What are the drivers of a joint tenure-location choice?
- How do these drivers differ between Hispanics and non-Hispanic whites?
- Used PUMA geography
- Suburbs defined by PLACE-PUMA crosswalk; less precise

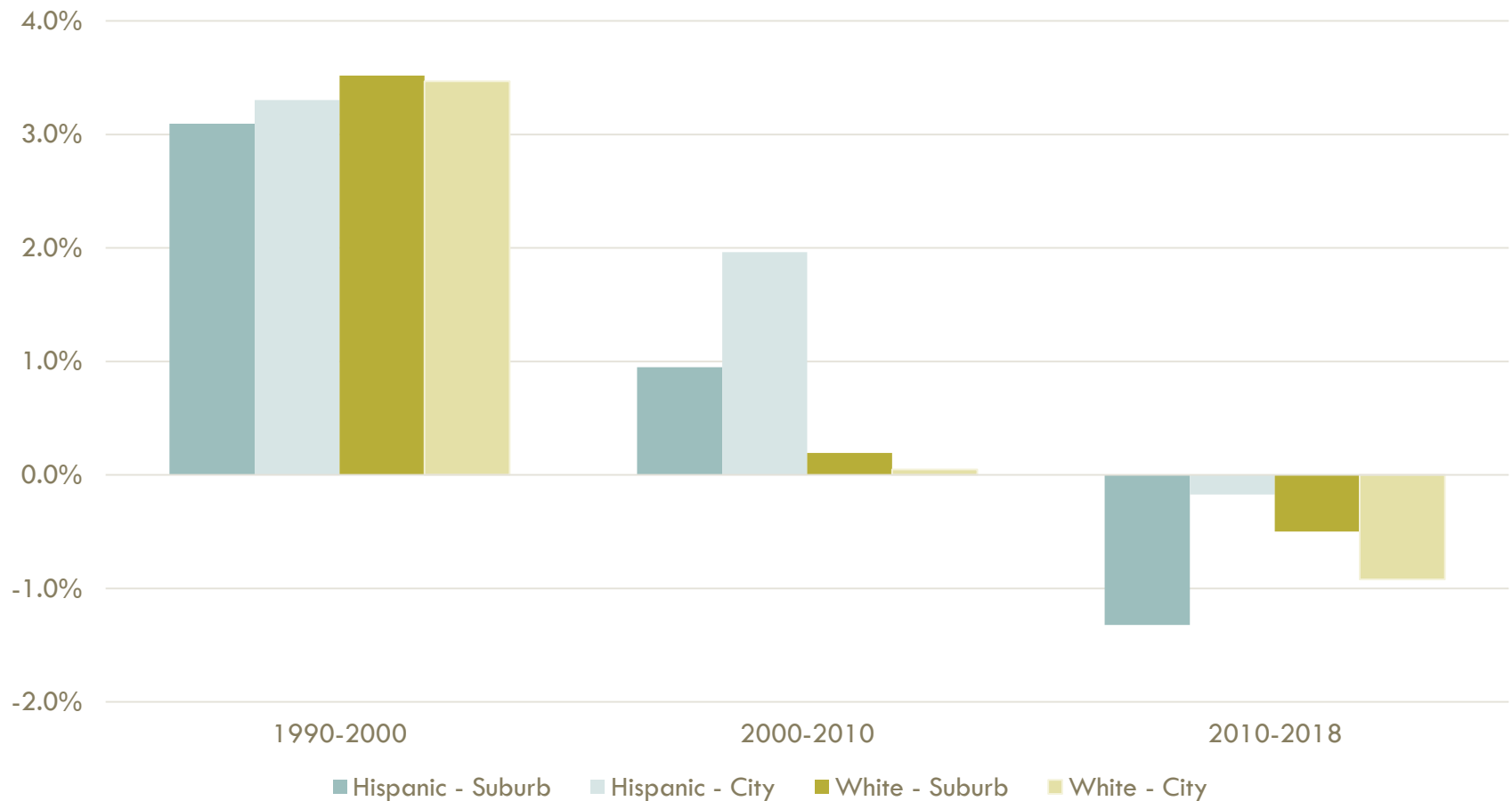
# PUBLISHED TABLES: HISPANIC HOUSEHOLD GROWTH, CITIES & SUBURBS



# PUBLISHED TABLES: GROWTH IN HISPANIC OWNERS



# PUBLISHED TABLES: CHANGE IN HOMEOWNERSHIP RATE

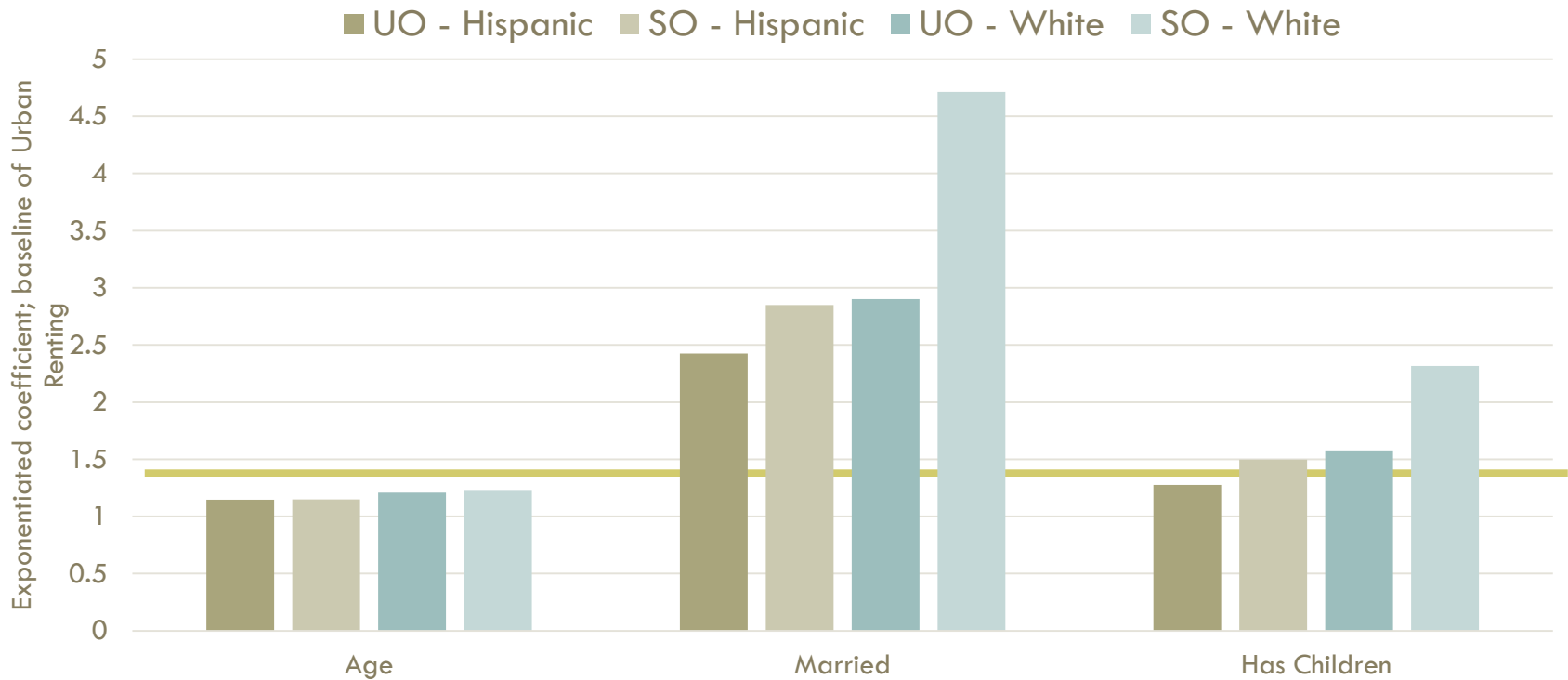


# PUMS: REGRESSIONS AT HOUSEHOLD LEVEL

Table 5: Multinomial logit results of tenure and location choice

	White (baseline: Urban Renter)			Hispanic (baseline: Urban Renter)		
	Urban Owner	Suburban Renter	Suburban Owner	Urban Owner	Suburban Renter	Suburban Owner
Female	1.033*** (0.00728)	1.065*** (0.00693)	1.072*** (0.00659)	1.002 (0.0113)	<b>0.986</b> (0.00935)	<b>1.001</b> (0.0100)
Age	1.217*** (0.00306)	1.037*** (0.00214)	1.246*** (0.00263)	<b>1.145***</b> (0.00467)	<b>1.018***</b> (0.00307)	<b>1.148***</b> (0.00408)
Age squared	0.999*** (0.0000288)	1.000*** (0.0000247)	0.998*** (0.0000245)	<b>0.999***</b> (0.0000466)	1.000*** (0.0000364)	<b>0.999***</b> (0.0000410)
Married	2.849*** (0.0239)	1.288*** (0.0103)	4.676*** (0.0345)	<b>2.411***</b> (0.0310)	1.264*** (0.0133)	<b>2.827***</b> (0.0321)
Has Children	1.614*** (0.0148)	1.982*** (0.0170)	2.334*** (0.0188)	<b>1.240***</b> (0.0158)	<b>1.293***</b> (0.0137)	<b>1.475***</b> (0.0166)
Log household income	1.262*** (0.00362)	1.018*** (0.00163)	1.291*** (0.00280)	<b>1.402***</b> (0.00854)	<b>1.042***</b> (0.00267)	<b>1.544***</b> (0.00852)
Log investment income	1.102*** (0.00137)	0.965*** (0.00136)	1.073*** (0.00125)	<b>1.180***</b> (0.00390)	<b>1.002</b> (0.00383)	<b>1.155***</b> (0.00366)
Less than high school	0.629*** (0.0126)	0.791*** (0.0125)	0.487*** (0.00786)	<b>0.849***</b> (0.0135)	<b>0.845***</b> (0.0105)	<b>0.770***</b> (0.0107)

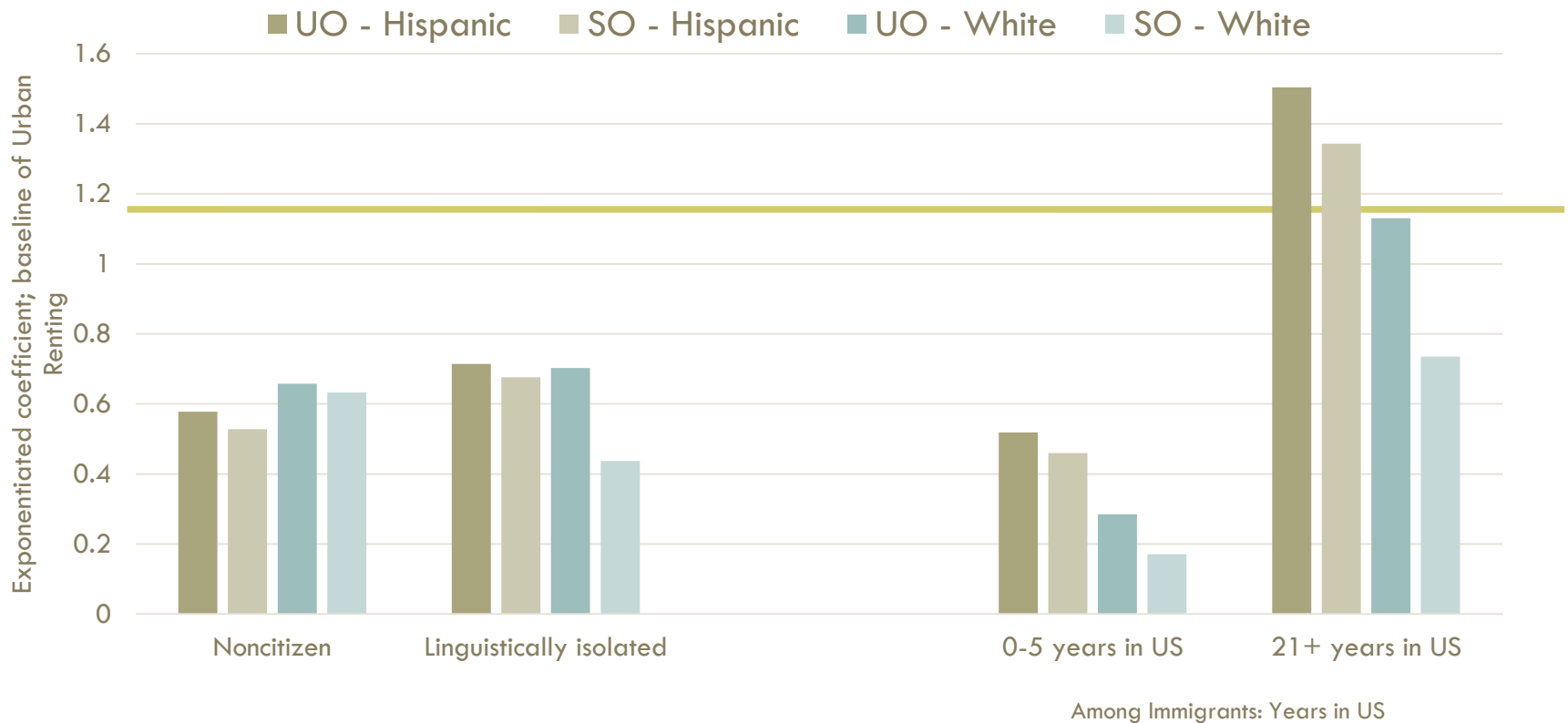
# PUMS: AGE, MARRIAGE, AND KIDS PREDICT OWNING & SUBURBS



All significant at  $p < 0.001$



# PUMS: IMMIGRATION HISTORIES MATTER, ESPECIALLY FOR HISPANICS



All significant at  $p < 0.001$