USING THE CENSUS TO UNDERSTAND DIFFERENCE: HISPANIC HOMEOWNERSHIP

Guest Lecture, CP101
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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?
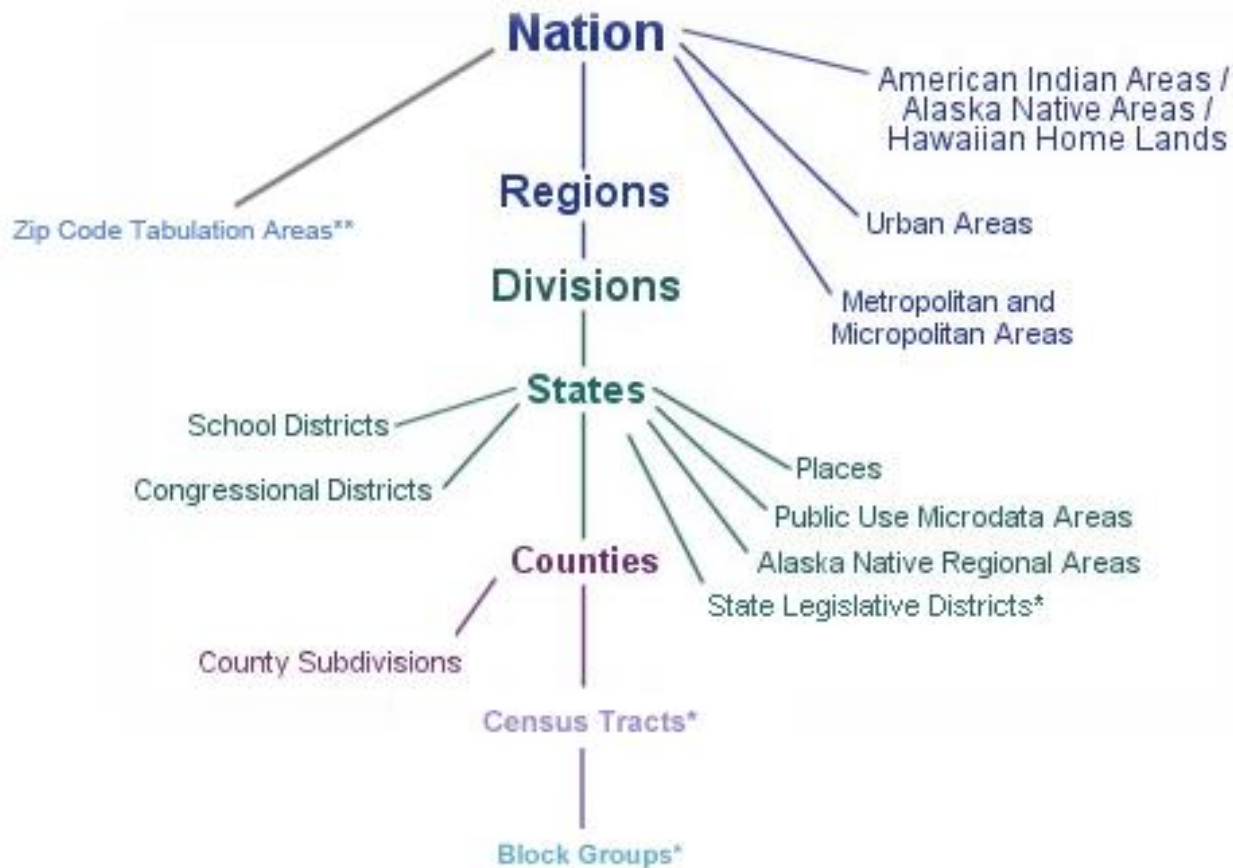
Answerable questions:

- 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

(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

Select one or more target geographies:

Entire Universe [no code]
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2010 Geographies:
  County
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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
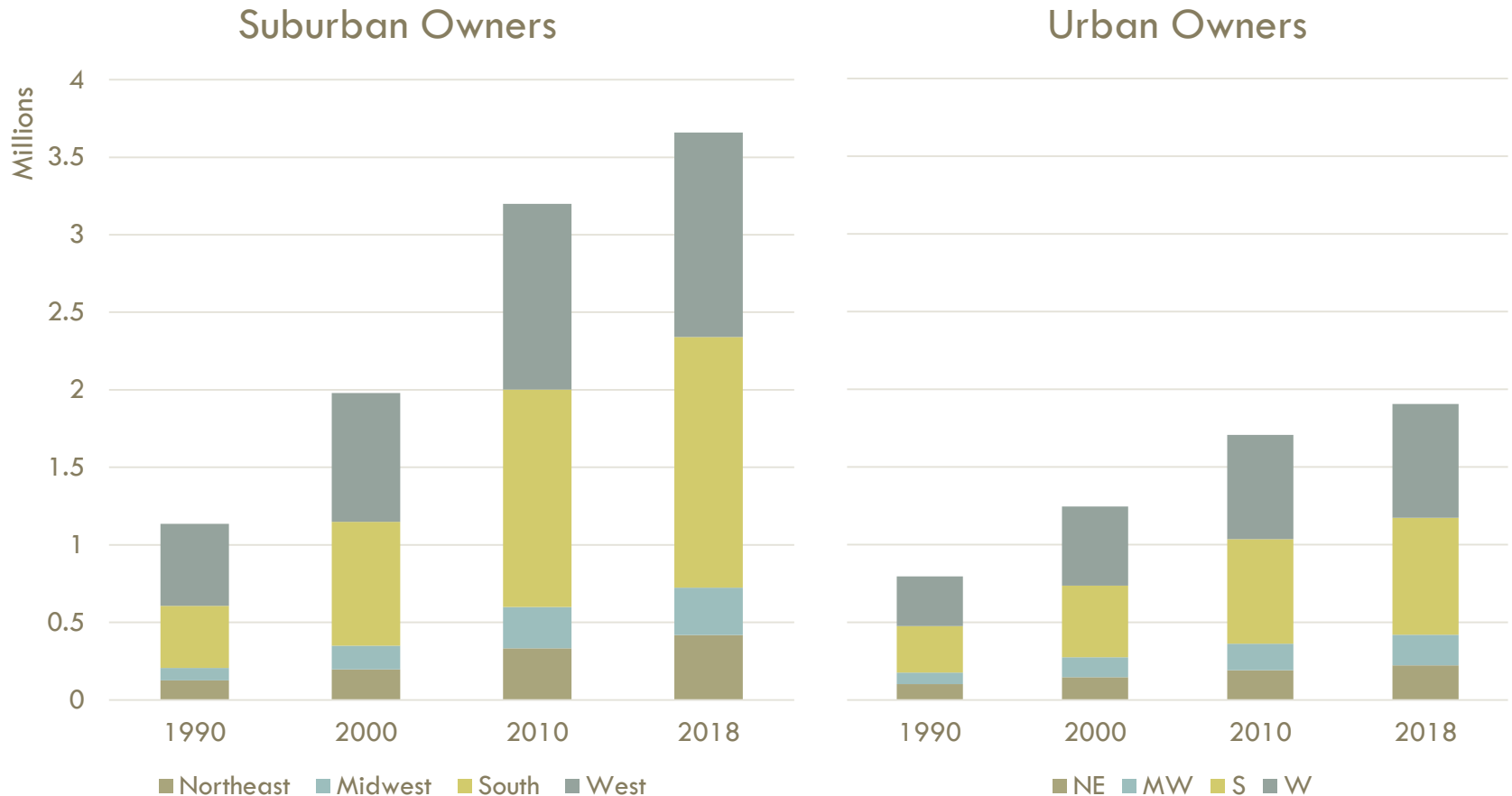
- Suburbs defined by PLACE

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

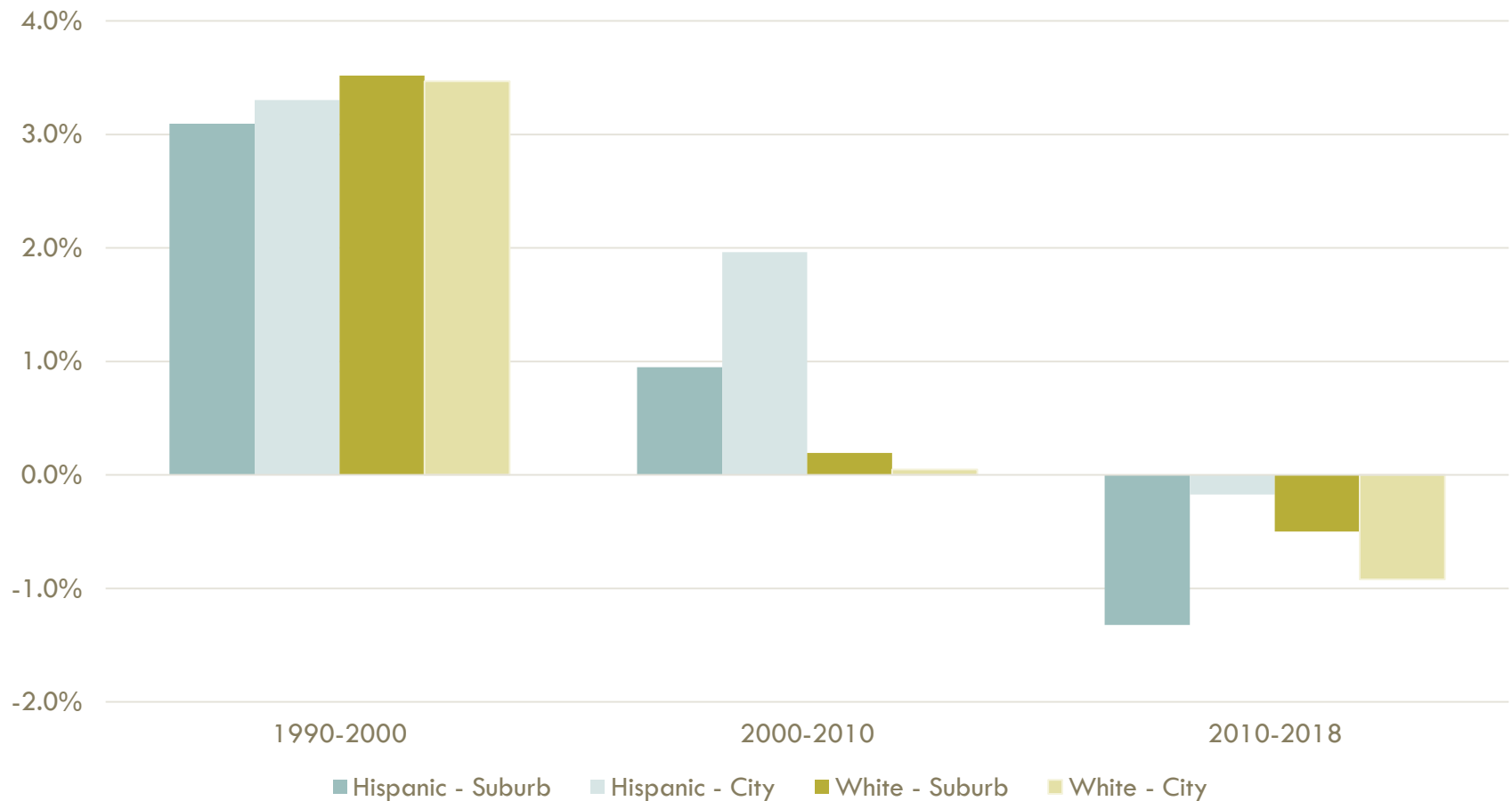- Suburbs defined by PLACE-PUMA crosswalk; less precise

PUBLISHED TABLES: HISPANIC HOUSEHOLD GROWTH, CITIES & SUBURBS

Millions

Year	Suburb	City
1990		
2000		
2010		
2018		

■ Suburb ■ City

PUBLISHED TABLES: GROWTH IN HISPANIC OWNERS

Suburban Owners

Urban Owners

Northeast Midwest South West

NE MW S W

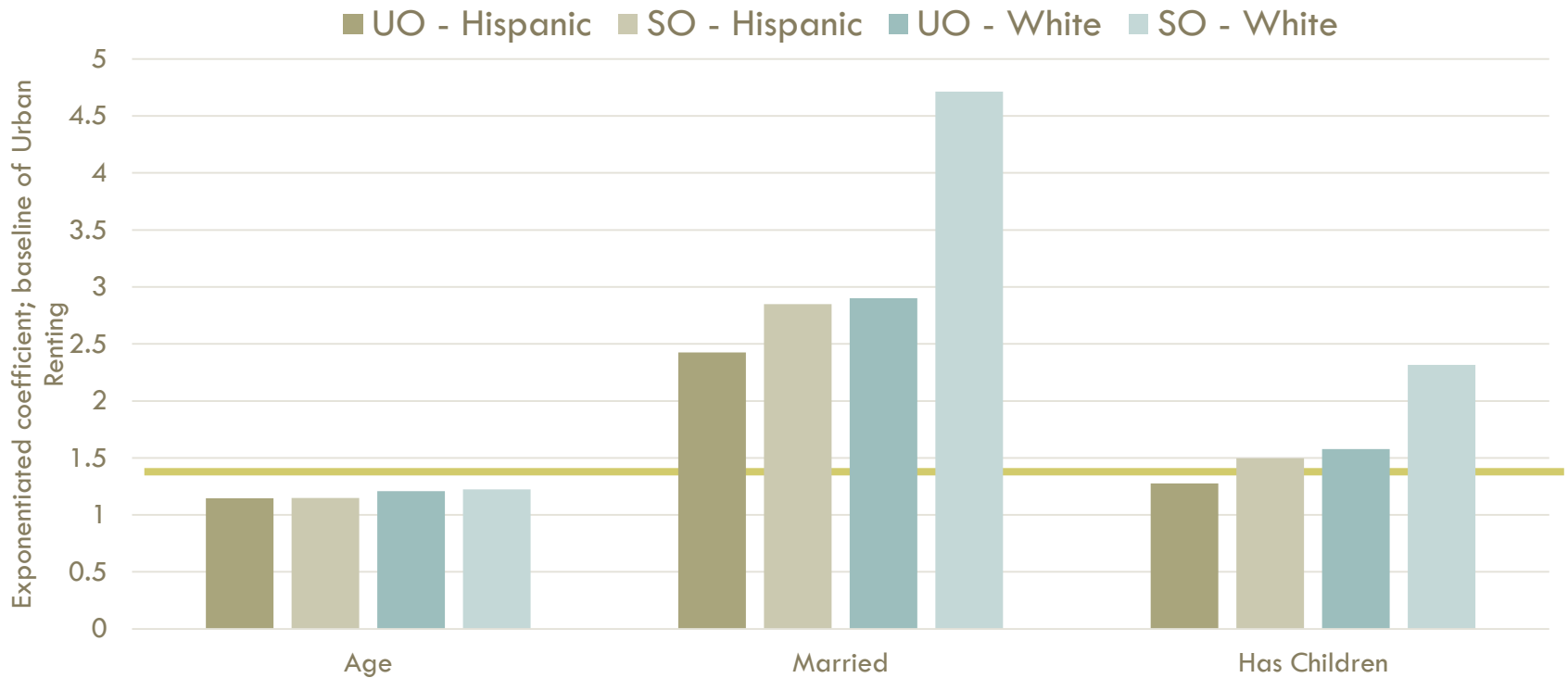# PUBLISHED TABLES: CHANGE IN HOMEOWNERSHIP RATE

PUMS:
REGRESSIONS AT HOUSEHOLD LEVEL

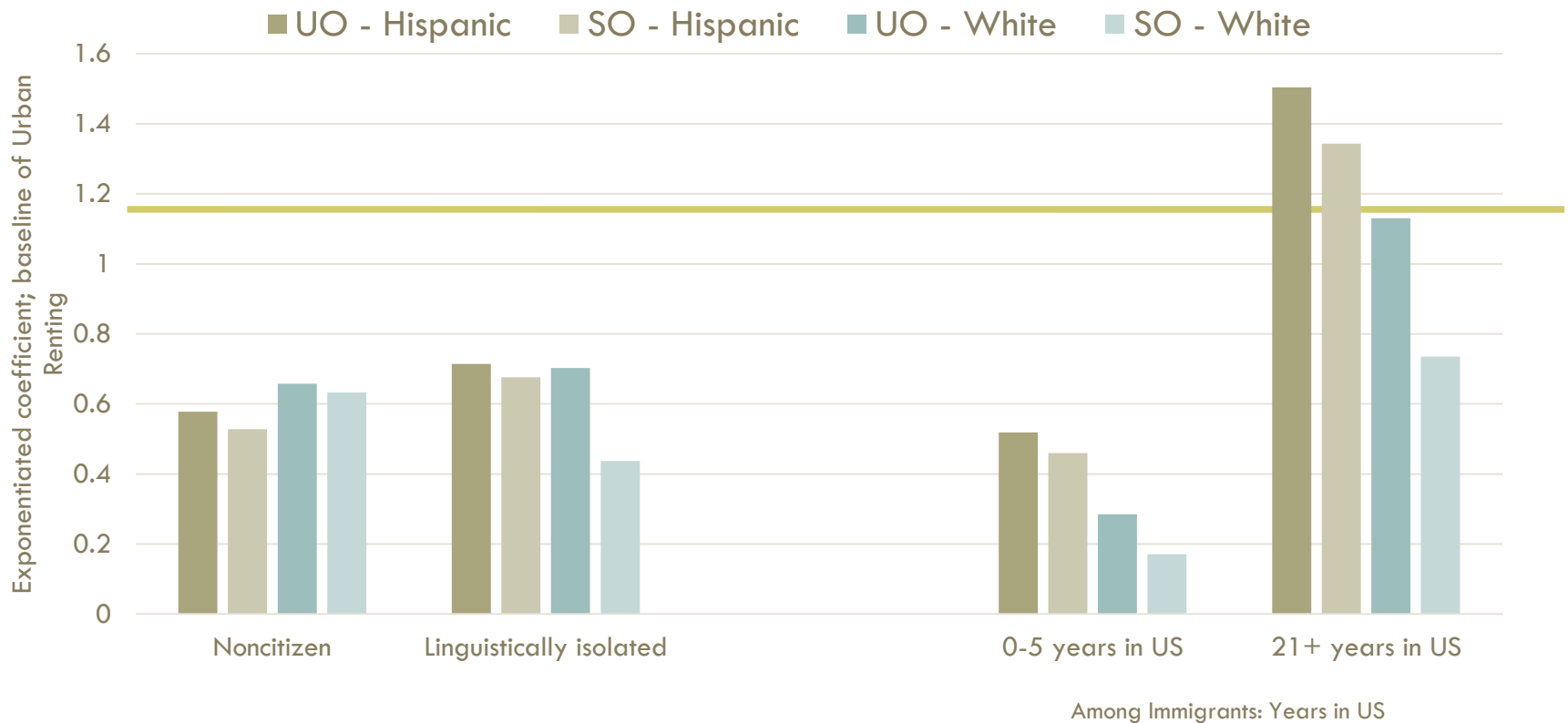Table 5: Multinomial logit results of tenure and location choice

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