

ENERGY

# Sociodemographics & Sustainability Value Propositions in DSM Programs

## BECC 2015 Conference

**Alexander Novie**

Monday, October 19, 2015

Ungraded

# Outline

---

## Equity in mature EE/DSM programs

- Articulating sustainability value propositions to diverse audiences

## Sociodemographics

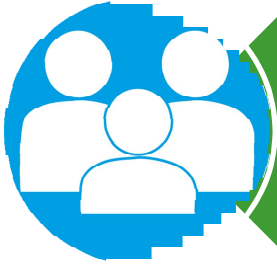
- Increasing diversity and identifying opportunities

## New policy levers in CPP/CEIP

- Using EE/DSM as a resource for “vulnerable” communities

# Theoretical frameworks & background

---



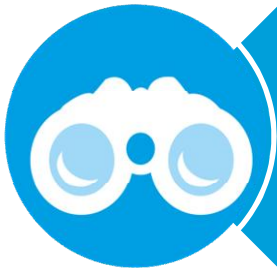
## **Social and behavioral aspects of energy use**

- “Where and who are the people in energy policies?” vs. PTEM
- Use and behavior patterns based on socioeconomic, lifestyle, race/ethnicity and gender



## **Analyzing demographics in EE/DSM**

- Participation equity
- Applying residential segmentation to commercial energy users



## **Looking at unique needs of vulnerable groups**

- Local market nuances used to define “hard-to-reach” populations
- Value propositions & EE as economic development tool

# DSM program participation: equity & engagement

---

## DSM programs are maturing

- Most of the low-hanging fruit has been eaten

## Utilities are shifting their focus

- “Meeting goal” → broader strategies of customer engagement and satisfaction
- Using EE/DSM as economic development tool

## A nuanced view of equity is key

- Sociodemographic overlays can provide additional insight to the traditional focus on customer load, size and market verticals

# Sociodemographics: what factors?

---



## **Culture, ethnicity and race**

- Different notions of trust with energy providers and installation contractors



## **Language matters**

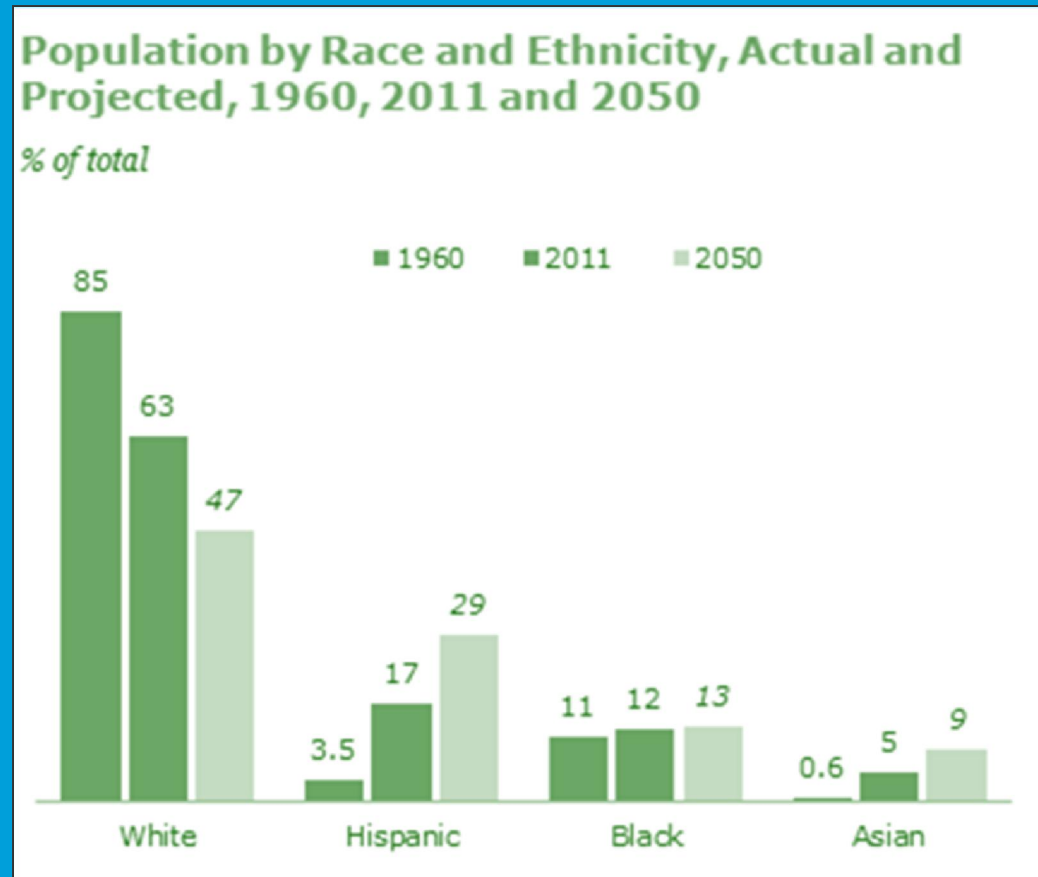
- Non-English speaking households are much less likely to be aware of potential energy-saving appliances (Murray & Mills 2011)



## **Urbanity matters**

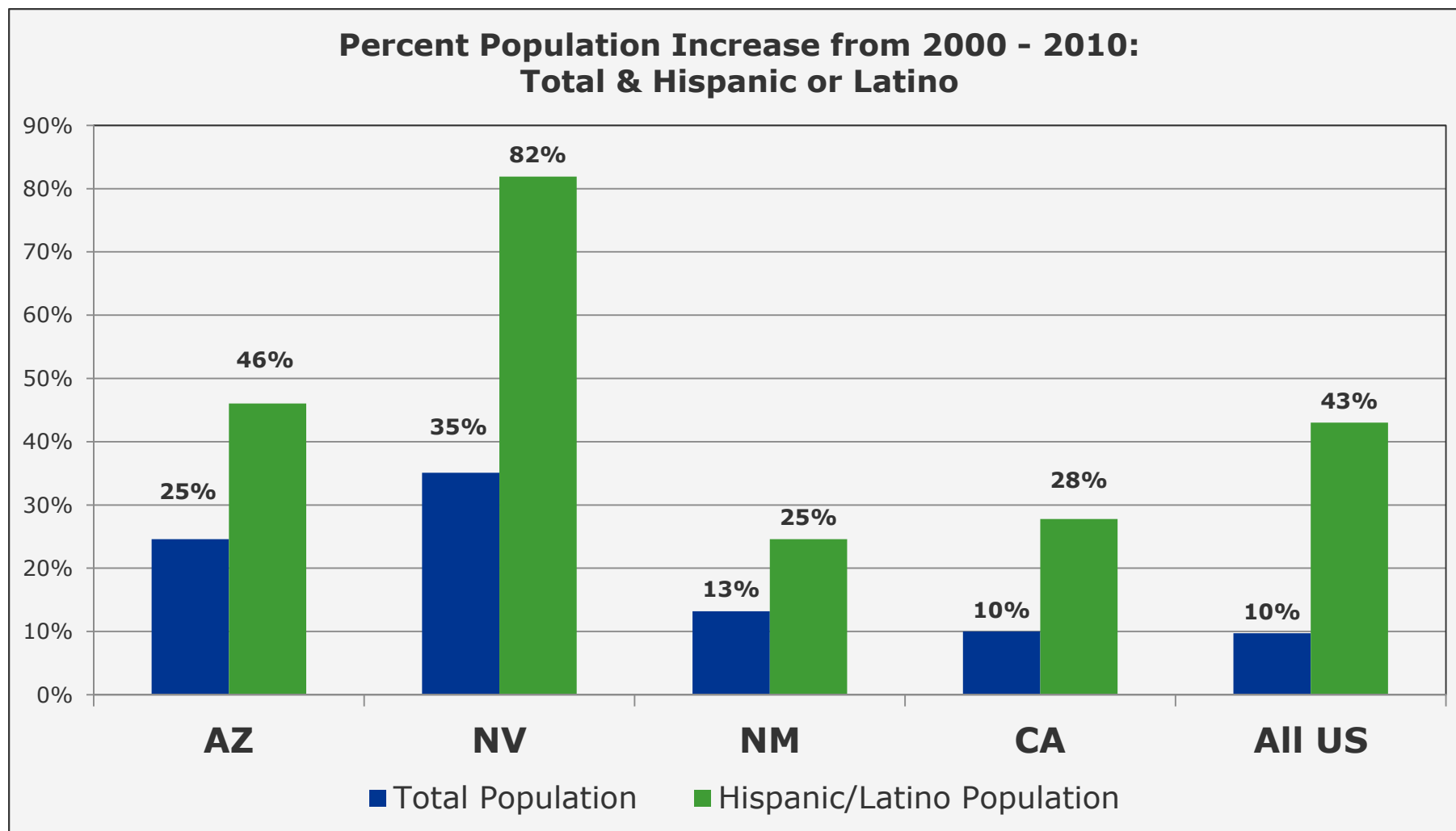
- Rural facilities often have different consumption profiles; reach of contractor network and campaigns

# Changing sociodemographics: increasing diversity

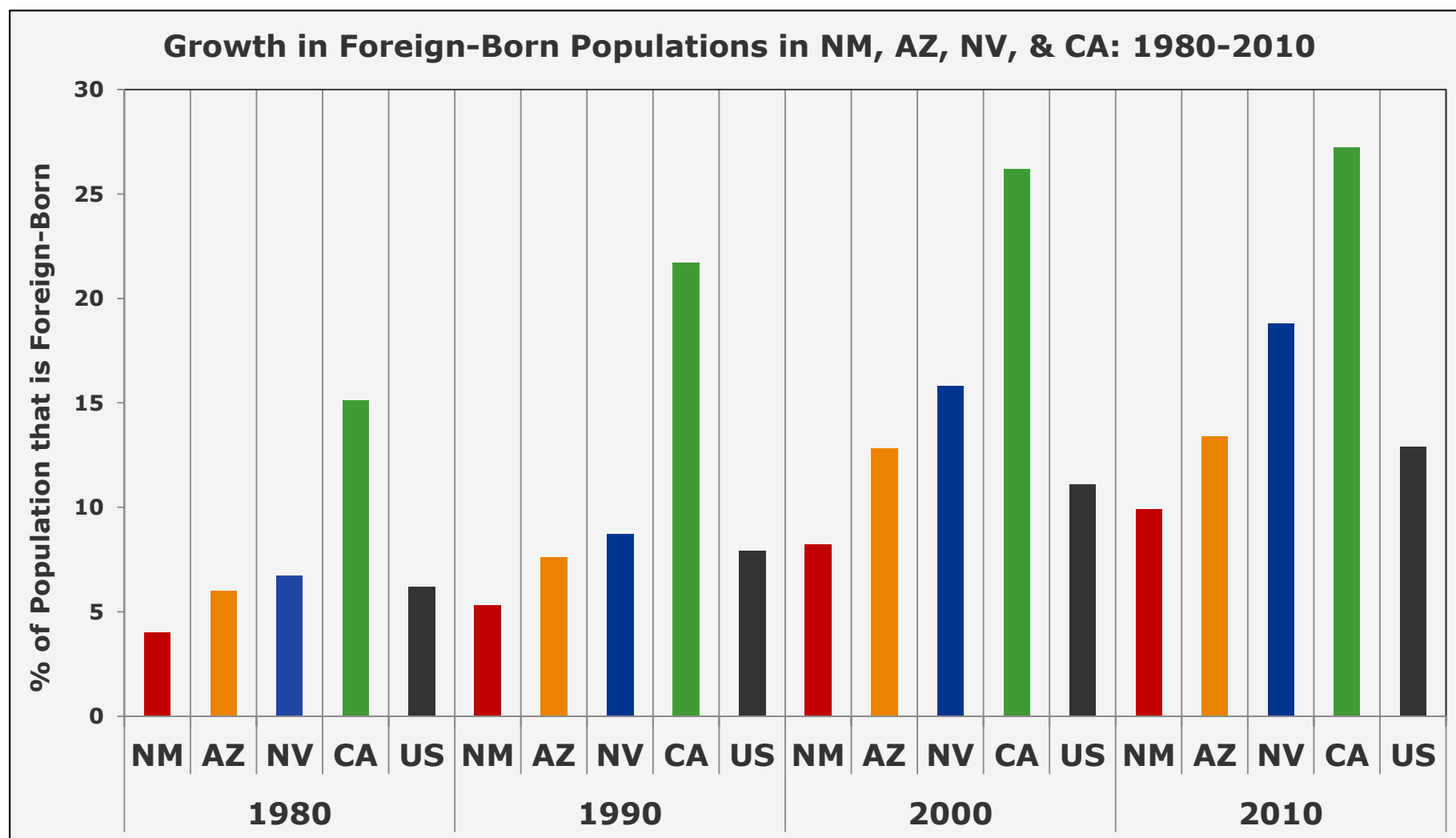


Source: Pew Research Center (2015)

# Total population & Hispanic/Latino



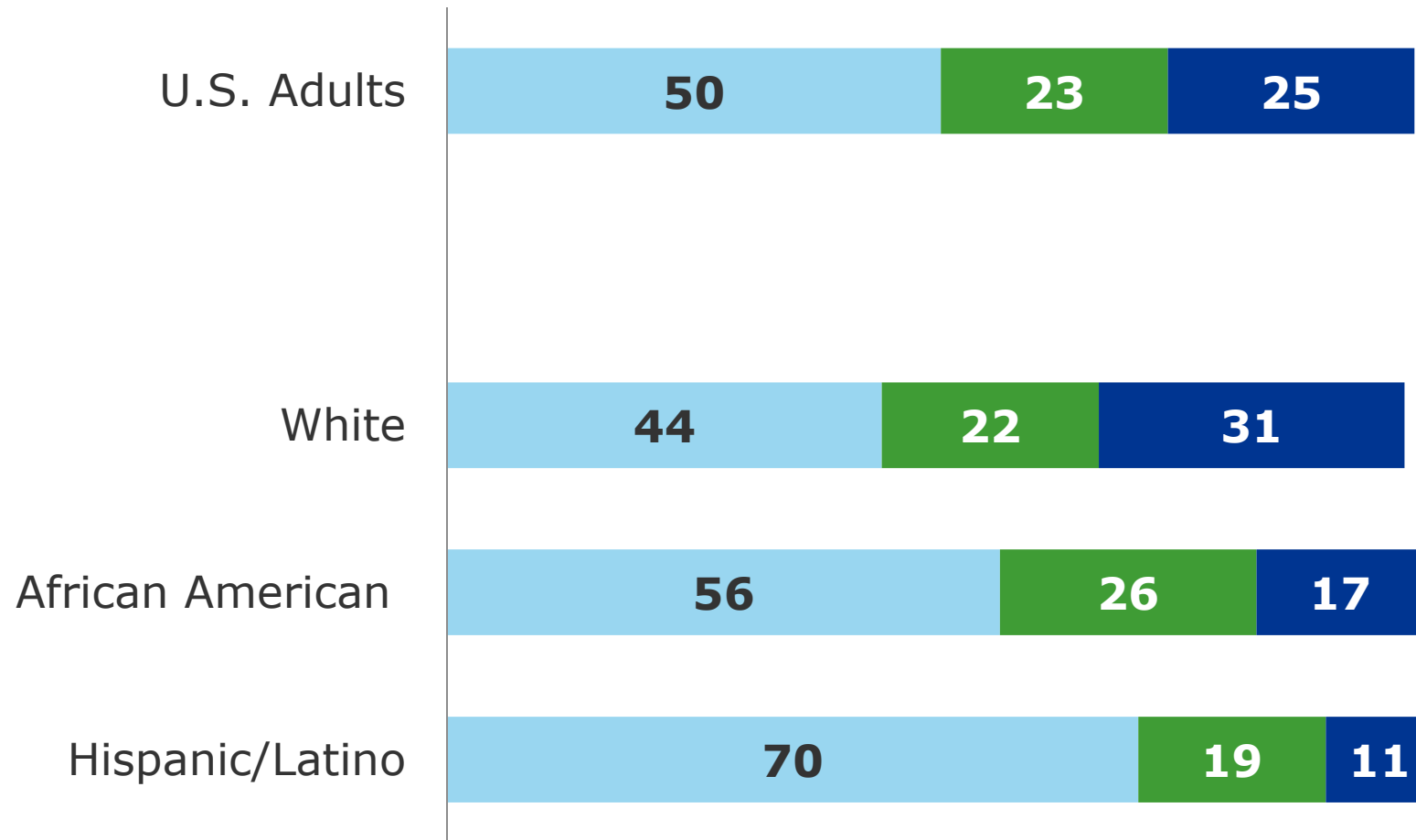
# Foreign-born persons since 1980





# Public opinion: views on the climate problem

- Because of human activity
- Because of natural patterns
- There is no solid evidence

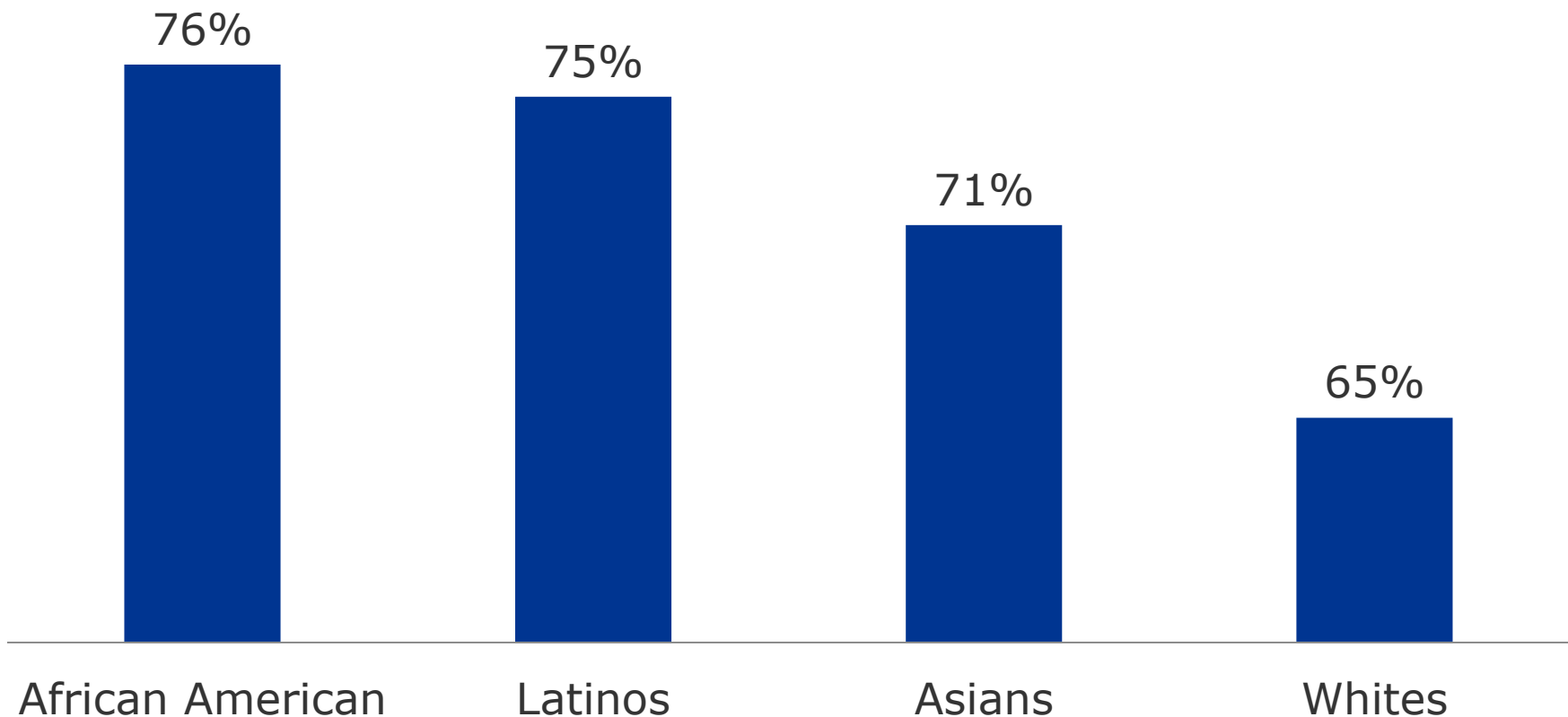


Source: Pew Research Center (2015)

# Public opinion: support for climate initiatives

---

## Support for GHG reduction in California (SB-32)



*Source: PPIC (2015)*

# Other “hard-to-reach” in SW

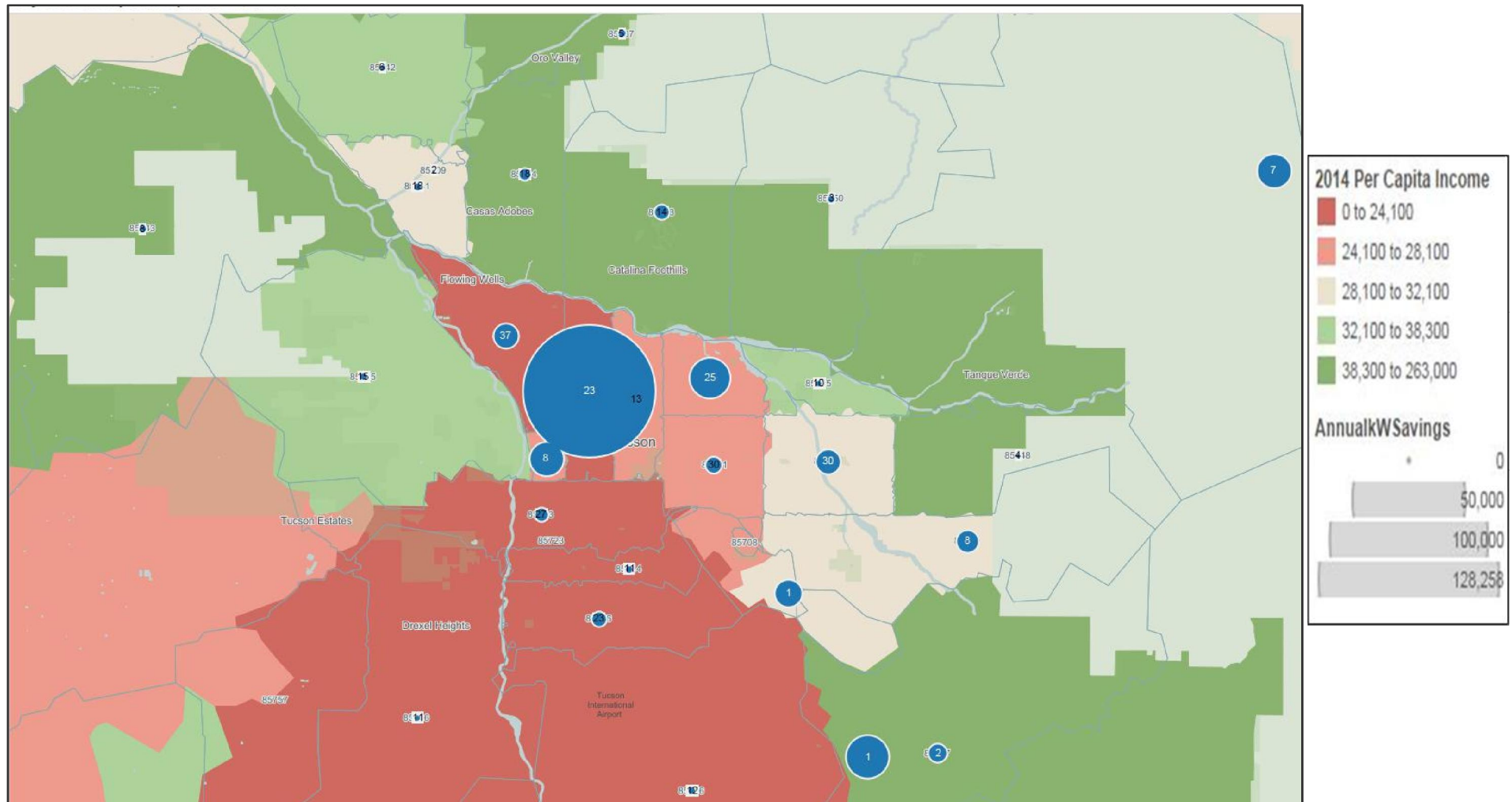


Low-  
income

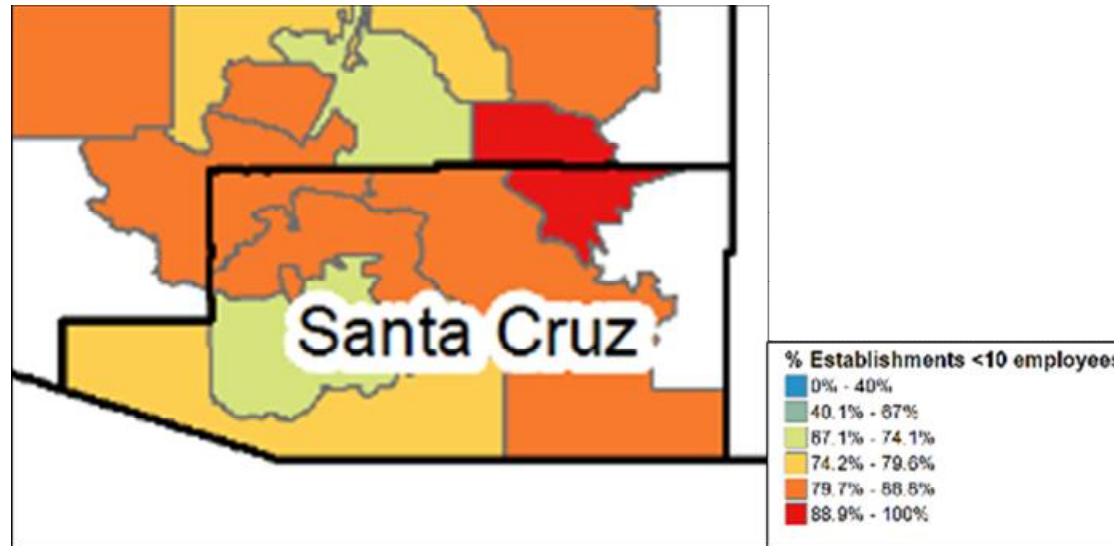
Minority-  
owned  
firms

Older  
adults

# Tucson area: kWh savings & per-capita income



# Identifying opportunity: small businesses in Southern Arizona



## Small Businesses & Program Potential in Santa Cruz County, Arizona

Zip Code	Total C&I Businesses	Businesses with 1 to 4 Employees	Businesses with 5 to 9 Employees	Ratio of Businesses <10 Employees	Projects Completed ITD	Potential Market Remaining
<b>85621</b>	725	381	166	75%	73	<b>86%</b>
<b>85646</b>	74	51	12	85%	5	<b>92%</b>
<b>85648</b>	197	104	34	70%	16	<b>88%</b>
<b>Santa Cruz Summary</b>	996	536	212	77%	134	<b>87%</b>

# Takeaways for DSM programs

---

## Understanding the communities within the marketplaces

- Defining “hard-to-reach” groups to focus on equity & engagement

## Analyzing data-driven marketing and outreach

- Digging deeper into data analytics and looking at the “who” and “why” behind the models

**Question and refine how sustainability value propositions are communicated**

# Broader implications: CPP & CEIP

---

## Clean Power Plan (CPP) framed in environmental justice language

- Resources for “vulnerable” and “overburdened” communities

## Clean Energy Investment Program (CEIP)

- 2-1 ERCs for EE projects in low-income and communities of color

***2-1 in 2020***

# Areas of future research

---

**How do we define low-income and communities of color for program design?**

**Rethinking program eligibility?**

- Low-income individuals are already overburdened by paperwork!



# Remember the people behind the data



**Thank you!**

**[alexander.novie@dnvgl.com](mailto:alexander.novie@dnvgl.com)**

**[www.dnvgl.com](http://www.dnvgl.com)**

**SAFER, SMARTER, GREENER**